



Hutchinson

Environmental Sciences Ltd.

Lake of Bays Water Quality Report 2019

Prepared for: Lake of Bays Association
Job #: J100013

February 2020

Final Report



February 27, 2020

HESL Job #: J100013

Ms. Deb Cumming
Environment Committee
Lake of Bays Association
PO Box 8
Baysville, ON P0B 1A0

Dear Ms. Cumming:

Re: Lake of Bays Water Quality Report 2019

I am pleased to submit this final report for the Lake of Bays Water Quality Monitoring Program presenting the results of total phosphorus and bacteria sampling from the summer of 2019.

As in previous years, total phosphorus and bacteria levels were well below applicable Provincial guidelines indicating excellent water quality in 2019. Statistically significant trends in total phosphorus were recorded at the Deep Water stations since 2002, however our analysis suggest that these patterns are strongly correlated with natural regional precipitation patterns and in 2019 we have noted an overall decrease in TP concentrations compared to historical averages.

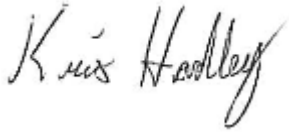
I thank you and the Lake of Bays Association for the continued opportunity to assist with this project.

Sincerely,
per: Hutchinson Environmental Sciences Ltd.

Kristopher Hadley, Ph.D.
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Signatures

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Signatures

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- Appendix A. Monitoring Protocols for the LOBA Water Quality Monitoring Program
- Appendix B. LOBA Total Phosphorus and Bacteria Data



1. Introduction

Since 2001, the Lake of Bays Association (LOBA) has championed a volunteer-based water quality monitoring program in Lake of Bays. The aim of the program is to characterize phosphorus and bacteria levels as an indication of general lake and watershed health and to compare different sites across the lake, while fostering community involvement and education.

Although LOBA had been monitoring spring turnover phosphorus levels as part of the Ministry of Environment, Conservation and Parks Lake Partnership Program, LOBA's independent monitoring program began with a pilot study in 2000 to monitor bacteria levels in the lake during the summer. This project was successful, deemed valuable and LOBA expanded the area of study in the summer of 2001 to include near-shore sites adjacent to developed and undeveloped properties, and areas influenced by wetlands and rivers. In 2002, the program was again expanded to include monitoring of total phosphorus concentrations in near-shore areas and in the Hollow and Oxtongue rivers and river deltas (deep water sites were already being monitored). Site selection has changed as our understanding of water quality conditions in Lake of Bays has increased and, since 2009, sampling has focused on deep water sites, nearshore disturbed and undisturbed locations, and inflowing rivers.

The LOBA monitoring program continues to focus on total phosphorus concentrations. For recreational lakes on the Precambrian Shield like Lake of Bays, water quality concerns are most often associated with nutrient enrichment due to increased human phosphorus sources. Phosphorus is a natural element in the environment and enters lakes from the atmosphere through precipitation, from streams and overland flow, and to a lesser degree through groundwater. Human sources to recreational lakes include storm water runoff and erosion from altered land uses, fertilizers on manicured lawns and faulty septic systems. Increases in phosphorus loads to lakes from human sources can result in increased growth of aquatic plants and algae, which in turn can lead to a deterioration of water clarity and coldwater fish habitat through a decrease in deep-water oxygen concentrations.

Sampling frequency for bacteria (total coliform and *Escherichia coli*) was reduced to every other year from 2009 to 2013 because earlier monitoring results were very consistent between sites and years, and similar to background levels. Previous monitoring reports have suggested that a reduction in bacteria sampling was warranted; beginning in 2016, it was recommended that bacteria sampling be conducted only in the mid-summer each year at the nearshore sites. Every five years the collection of bacteria samples on all sampling dates was recommended. The reduced sampling frequency will continue to allow assessment of long-term trends, while increasing resources the number of parameters of interest to the Association and maintaining familiarity with bacteria sampling techniques.

The program continues to demonstrate that Lake of Bays is a clear water lake with low phosphorus and bacteria levels with no obvious impact of development on water quality. In this report we present the results of the summer phosphorus monitoring completed by the LOBA in 2019 and discuss them in the context of long-term water quality data collected by the LOBA and local precipitation records.



2. Methods

Volunteers, coordinated by the LOBA Environment Committee, collected samples for analysis of total phosphorus on three occasions during the summer of 2019 (July 1, August 5 and 30) and on August 5 for bacteria (*E. coli* and total coliforms). The sampling and analytical methods in 2019 were consistent with those used in previous monitoring years and are summarized below. Detailed sampling instructions that are provided to the volunteers are presented in Appendix A.

2.1 Sample Collection

Water samples for bacteria and total phosphorus were collected at 21 sites in Lake of Bays to include deep, open water locations ('Deep Water' sites, n=9), nearshore sites adjacent to developed ('Disturbed' sites, n=3) and undeveloped shorelines ('Nearshore Undisturbed' sites, n=6), and river (Oxtongue and Hollow rivers) and river-influenced (Oxtongue Delta) sites ('River' sites, n=3) (Table 1, Figure 1). A single, new nearshore undisturbed site was included in the 2019 sampling program at the Portage Bay Docks (N31) but is not expected to become a regular part of the program.

At each Deep Water site, a composite water sample was collected from the euphotic zone, at approximately two times the Secchi depth. At all other sites, the water sample was collected at a depth of ~30 cm. Six field duplicate samples for bacteria and 15 additional duplicates for laboratory analysis were collected. In addition, seven field duplicate samples for total phosphorus were collected to assess the variability of results related to sampling and analytical procedures (Table 1).

Phosphorus samples were coarse-filtered using a filtered syringe in order to remove zooplankton (microscopic animals living in the water, such as water fleas) or other large debris that can contaminate the sample and result in non-representative, high phosphorus values (Clark et al., 2010). Samples were then directly poured into sampling containers with acid preservative, stored in a cool place and submitted for analysis to ALS Environmental Laboratory.



Table 1. 2019 Sampling Sites and Dates

Site Name	Total Phosphorus Sampling			Bacteria Sampling
	01-Jul	05-Aug	03-Aug	05-Aug
Deep Water Sites				
Bigwin East	1	1	1	1
Dwight Bay	2	1	1	1
Fairview	2	1	2	1
Gull Rock	1	2	1	2
Haystack Bay	1	1	1	1
Portage Bay	1	1	1	1
Price Point	1	1	2	1
Ten Mile Bay	1	1	1	1
Trading Bay	1	1	2	1
Disturbed Sites				
Bigwin Bay	1	1	2	1
Bigwin North	1	1	1	1
Britannia	1	1	1	1
Nearshore Undisturbed				
Langmaid Island	1	2	1	1
Boothby's	1	1	1	2
Narrows West	1	1	2	1
Menominee Bay	1	1	2	1
Moffat's	1	-	1	2
Portage Bay Docks	-	1	2	1
River Sites				
Hollow River mouth*	1	-	-	-
Oxtongue Delta	2	1	2	1
Oxtongue River mouth*	1	1	1	1

Notes: 1 = single sample collected, 2 = field duplicate samples collected, 2 = Coliform Lab Duplicate; - = no sample collected;

*Sampled in the mouth of the rivers just upstream of their discharge to the lake.



Figure 1. Map of Lake of Bays and LOBA monitoring sites.



2.2 Quality Control

2.2.1 Bacteria

Field duplicate bacteria concentrations were compared to assess variability in the results due to sampling and analysis by the Coliplate method.

2.2.2 Total Phosphorus

2.2.2.1 Field Duplicates

Duplicate samples were collected for 14 of the 53 samples. Bad splits in the LOBA dataset were identified for duplicate samples that were >35% different or had an absolute difference of >5 µg/L (Hyatt et al., 2012). If a bad split was identified, the higher of the two values was discarded.

2.2.2.2 Outliers

In relatively small datasets like the LOBA dataset, the calculation of average total phosphorus concentration is sensitive to outliers, that is, extreme values that are not representative of the site condition. Rosner's ESD Many-Outlier Procedure (Rosner's Test; Rosner, 1983) was performed in the R statistical Software Environment V. 3.3.3, using the "rosnerTest" function of the "EnvStats" package (Millard, 2013), to identify outliers in total phosphorus concentrations collected since 2002 for each LOBA monitoring site. This procedure detects high and low extreme values and is not limited for multiple outliers.

Statistically significant outliers (at $p < 0.05$) were removed from the dataset for further analyses (as detailed in Section 3.1.3) but will be re-evaluated each year as additional data are collected, as outliers may, over time, indicate a change to average conditions.

2.2.2.3 Detection Limits

Laboratory detection limits changed in 2018 (0.1 to 3 µg/L) as the result of an unavoidable laboratory change from Trent University at the Dorset Environmental Science Centre to ALS Environmental. Values below detection were substituted with the full detection limit to make the most conservative estimate of total phosphorus concentrations in the samples collected. In 2019, 28 of the 75 (37%) samples collected were below the detection limit.

2.3 Data Analysis

2.3.1 Bacteria

Bacteria (*E. coli* and total coliform) levels were compared to the Provincial Water Quality Objectives (PWQO) for recreational water use (MOEE, 1994). The former benchmark for total coliform was 1,000 colony forming units (cfu) per 100 mL, based on a geometric mean for a series of water samples and is intended as a general guideline. Bacterial assessment of water quality should be based on more specific fecal bacteria indicators such as *E. coli*. The PWQO for *E. coli* is 100 cfu per 100 mL, based on a geometric mean of at least five samples taken from one site within one month. Where testing indicates sewage or



fecal contamination, a site-specific judgment must be made as to the severity of the problem and the appropriate course of action.

2.3.2 Total Phosphorus

Mean total phosphorus concentrations were calculated for each site and site type for the 2019 monitoring period following the assessment of bad splits between duplicate samples and outliers.

Total phosphorus (TP) results were evaluated against the interim PWQO for phosphorus, which suggests average ice-free period TP concentrations should not exceed 20 µg/L in order to avoid nuisance algal growth and that maintaining TP concentrations at or below 10 µg/L provides protection against aesthetic deterioration (MOE 1994). Furthermore, excessive macrophyte growth in rivers and streams should be reduced below 30 µg/L of TP (MOEE, 1994).

Mann Kendall Trend analysis was performed using the “mk.test” and “sens.slope” functions of the “Trend” package in R (Pohler, 2017) to assess any long-term changes in total phosphorus concentrations over time (2002-2018) for each site.

3. 2019 Monitoring Results

3.1 Quality Control

3.1.1 Bacteria

The duplicate analysis of the Coliplate samples in 2019 provided a high degree of confidence in the sampling protocols and analyses for bacteria (Figure 2). The maximum differences between bacteria duplicates using the Coliplate method was 1 cfu/100 mL for *E. coli* and 30 cfu/100 mL for total coliforms. Pairwise testing of the Coliplate duplicate samples showed no significant difference ($p < 0.05$).

Figure 2. Comparison of field duplicate results for total coliform and *E. coli*, 2019

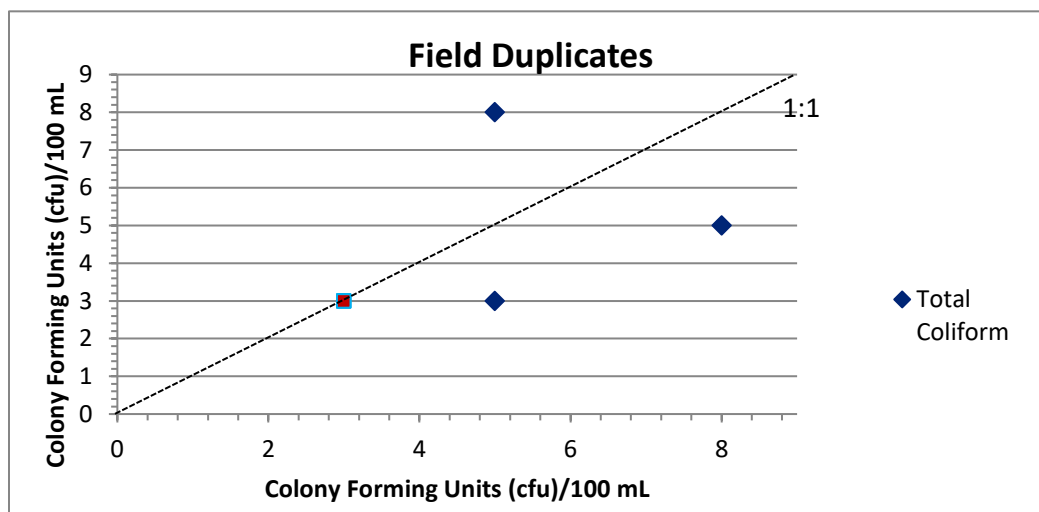


Table 2. Summary of E. coli and Total Coliform QA/QC samples 2019

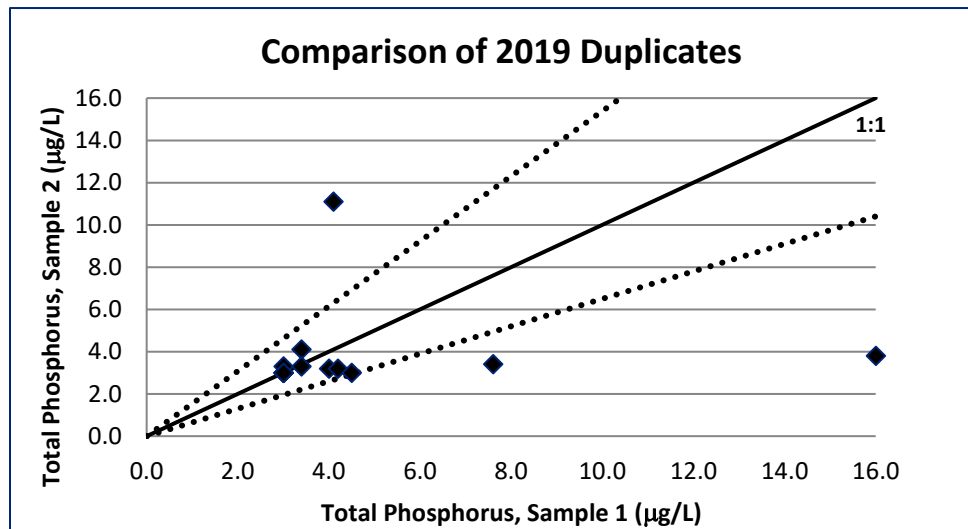
Site	E. coli Coliplate 1	E. coli Coliplate 2	Total Coliform Coliplate 1	Total Coliform Coliplate 2
	cfu/100 mL	cfu/100 mL	cfu/100 mL	cfu/100 mL
Boothby's	3	3	8	5
Gull Rock	3	3	5	8
Moffat's	3	3	3	5

3.1.2 Total Phosphorus

3.1.2.1 Field Duplicates

In 2019, three of the field duplicates collected (n=14) were bad splits (i.e., 5 µg/L or >35% difference between sample pairs), up from 0 in 2018 (Figure 3; Table 3). By contrast, the average annual proportion of bad splits in samples since 2005, when duplicate sampling began, is 18%. The increased occurrence of bad splits in 2019 was likely a result of a decrease in the overall number of duplicates sampled (14 sites in 2018 vs 22 in pre-2017 sampling years). One of the three bad splits was also near the detection limit (3 µg/L) where measurement error at the lab would be expected to increase. Continued diligent compliance to and review of sampling protocols are necessary to ensure the integrity of the data.

Figure 3. Total phosphorus field duplicates in Lake of Bays, 2019.



Note: Dotted lines enclose 35% difference from the 1:1 line.

The mean difference between field duplicates after removing the bad splits was 0.45 µg/L in 2019, up from 0.2 µg/L in 2018 but down from 0.67 µg/L in all previous years (2005-2017).



Table 3. Summary of Bad Splits between Total Phosphorus Field Duplicates in Lake of Bays, 2005-2019

Site	Date	TP1 (µg/L)	TP2 (µg/L)
Langmaid Island	1-Sep-06	7.7	4.1
	1-Sep-17	11.2	4.6
Bigwin East	20-Jul-14	6	9.5
Bigwin North	2-Sep-11	5.9	3.7
	4-Sep-15	4.5	8.7
	4-Aug-15	19.3	4
	14-Aug-16	5.9	3.5
Boothby's	20-Jul-15	4.1	7.4
	1-Jul-16	8.7	3.3
Britannia	1-Aug-16	3.9	5.9
Dwight Bay	1-Sep-06	9.2	31.9
	4-Sep-15	7	4.4
	20-Jul-15	4.3	8.3
	14-Aug-16	11.2	7.3
Fairview	7-Aug-06	4.3	7.5
	14-Aug-16	3.7	10.2
Gull Rock	29-Jun-14	5.5	9
	5-Aug-19	4.1	11.1
Menominee Bay	1-Sep-06	15.9	8.1
	1-Jul-16	4.8	3.1
Moffat's	4-Jul-05	5.7	4
	7-Sep-10	5.1	3.3
	18-Aug-13	4.1	6.1
	28-Aug-14	4.4	6.9
	5-Aug-19	7.6	3.4
Narrows West	23-Jul-07	8.2	4.1
	18-Jul-16	12.3	5.9
	3-Jul-17	12.7	6.2
	21-Aug-17	29.5	6.1
	30-Aug-19	4.5	3
Portage Bay Docks	30-Aug-19	20.7	3
Price Point	1-Aug-16	6.2	3.9
	23-Jul-17	8.5	5.4
Ten Mile Bay	14-Jul-08	4.7	6.9
	7-Sep-10	6.1	12.9
Trading Bay	17-Jul-06	7.3	4.5
	21-Aug-17	11.1	6.1

Note: Values in grey shaded cells were considered to be contaminated and were excluded from further analyses.



3.1.3 Outliers

A total of 51 samples were identified as outliers in the LOBA dataset (excluding River sites) using the Rosner's Test, three of which occurred in the 2019 monitoring year (Table 4). Outliers and bad splits (Section 3.1.2) in 2019 suggests a reasonable rate of sampling contamination, and that the field sampling at LOBA is being performed carefully and is yielding high quality data.

Table 4. Outliers in the LOBA Dataset (2002-2019), Rosner's Test ($p < 0.01$)

Lake	Date	Total Phosphorus ($\mu\text{g/L}$)
Langmaid Island	18-Jul-11	15.1
	31-Aug-12	7.9
	18-Aug-13	9.9
	18-Jul-16	8.9
Bigwin Bay	15-Jul-02	9.6
	20-Jul-14	10.1
	4-Aug-15	12.0
Bigwin East	28-Jun-15	18.1
	1-Jul-19	47.8
Bigwin North	23-Aug-04	27.7
	6-Aug-07	97.7
Britannia	1-Sep-03	12.6
	1-Sep-05	9.4
	18-Aug-13	21.6
	28-Aug-13	13.3
Dwight Bay	23-Jul-17	14.3
	1-Sep-17	15.4
Fairview	31-Aug-07	12.5
	17-Jul-09	12.3
	23-Jul-17	10.4
Gull Rock	14-Jul-03	16.9
Haystack Bay	6-Sep-04	74.0
	7-Aug-06	40.3
	1-Sep-06	14.1
	17-Jul-09	57.7
	31-Aug-12	22.4
	28-Jun-15	14.6
	4-Sep-15	18.1
Menominee Bay	4-Jul-05	11.0



	1-Sep-16	12.0
Moffat's	5-Aug-02	36.7
	6-Aug-07	15.1
	5-Aug-13	11.4
	18-Jul-16	17.2
Narrows West	4-Jul-11	11.4
	1-Aug-11	8.5
	4-Sep-15	8.9
	7-Aug-17	8.6
Portage Bay	20-Aug-12	61.3
Price Point	2-Aug-10	12.7
	18-Jul-11	12.8
	2-Jul-18	102.0
	6-Aug-18	12.3
	1-Jul-19	12.1
Ten Mile Bay	21-Aug-06	10.2
	29-Jun-14	10.3
	18-Jul-16	15.0
Trading Bay	19-Aug-02	17.7
	19-Jul-04	12.3
	1-Sep-16	15.8
	5-Aug-19	19.5

With the addition of the 2019 data, no previously identified outliers were added back to the data set for statistical analyses. Outliers were removed from all analyses in this report but will be reassessed each year as additional data are added to the dataset.

3.2 Bacteria

Bacteria levels in Lake of Bays on August 5 were low at all Deep Water sites, with the exception of Portage Bay (3 - 5 cfu/100mL). *E. coli* concentrations were elevated at Portage Bay relative to other Deep Water sites (33 cfu/100 mL), but still well below the provincial guideline. Higher bacteria counts observed in the river-influenced (11 - 13 cfu/100mL) and nearshore sites (3 - 16 cfu/100mL) are to be expected given increased exposure to bacteria sources from wildlife and human activity, lower dilution and less time for assimilation or attenuation in comparison to the offshore Deep Water sites. Absolute bacteria counts were below the PWQO of 100 cfu/100 mL for *E. coli* and benchmark value of 1,000 cfu/100 mL for total coliform at all sampling sites (Table 5).



Table 5. Summer *E. coli* and Total Coliform Concentration in Surface Water Collected by Coliplate Technique, 2019

Site	<i>E. coli</i> (cfu/100 mL)	Total Coliform (cfu/100 mL)
Deep water		
Bigwin East	3	5
Dwight Bay	3	3
Fairview	5	11
Gull Rock	3	7
Haystack Bay	5	8
Price Point	3	3
Ten Mile Bay	3	28
Trading Bay	3	5
Portage Bay	33	36
Disturbed		
Bigwin Bay	11	16
Bigwin North	8	16
Narrows West	8	19
Nearshore Undisturbed		
Langmaid Island	3	5
Boothby's	3	7
Britannia	8	11
Menominee Bay	3	3
Moffat's	3	4
Portage Bay Docks	16	25
River		
Oxtongue Delta	-	-
Hollow River	11	22
Oxtongue River	13	49

3.3 2019 Total Phosphorus Concentrations

Samples collected during the 2019 monitoring campaign were characterized by low phosphorus concentrations typical in oligotrophic, clear-water lakes on the Precambrian Shield. The summer total phosphorus concentrations of the Deep Water, Disturbed, and Nearshore Undisturbed sites ranged from 3.0 to 10.3 µg/L, with an overall mean concentration of 3.7 µg/L (Table 6). These values are similar to mean spring overturn concentrations of 3.9-6.9 µg/L measured in seven locations in Lake of Bays by the District of Muskoka's Program, which targets only deep-water sites, however DMM data are only posted for 2017. (<http://www.muskokawaterweb.ca/lake-data/muskoka-data/lake-data-sheets/lake-of-bays>).

River sampling sites were more phosphorus-enriched (mean TP = 4.6 µg/L), as would be expected given the higher concentrations of particulate matter and dissolved organic carbon typical in rivers. Mean summer



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total phosphorus concentration was less than the interim PWQO for phosphorus of 10 µg/L for the lake sites and of 30 µg/L for the river sites, suggesting a low risk of aesthetic deterioration due to nuisance aquatic plant growth (MOEE, 1994).

Total phosphorus concentrations remained relatively consistent at the Deep Water, and Nearshore Undisturbed sites throughout the summer (Figure 4, Figure 5, Figure 8). We found no consistent pattern in total phosphorus concentrations for Disturbed or River sites, however data were more limited in 2019 due to missed sampling events, bad splits and outliers (Figure 6, Figure 7, Figure 8). It is likely that variability between sampling events is driven by local factors, e.g., storm events, as has been observed in previous monitoring years (HESL, 2016a). There was no significant difference (Mann-Whitney test; $p > 0.05$) in phosphorus concentration between the Nearshore Undisturbed (mean TP = 3.3 µg/L) and Disturbed (mean TP = 3.4 µg/L) sites suggesting that shoreline disturbance has had little impact on summer phosphorus concentrations.

Table 6. Total Phosphorus Concentrations (µg/L) in Lake of Bays, 2019

Site ID	Site Name	1-Jul	5-Aug	30-Aug	AVG	SD
Deep water (mean)		5.1	3.8	3.2	4.0	1.1
B1	Bigwin East		3.1	3.0	3.1	0.1
N1	Dwight Bay	3.7	3.4	3.0	3.4	0.4
B2	Fairview	3.8	3.0	3.0	3.3	0.4
N10	Gull Rock	4.1	4.1	3.0	3.7	0.6
E13	Haystack Bay	4.3	4.7	4.3	4.4	0.2
N26	Portage Bay	4.7	3.8	3.3	3.9	0.7
S3	Price Point		5.2	3.2	4.2	
E30	Ten Mile Bay	4.5	3.0	3.0	3.5	0.9
E1	Trading Bay	10.3		3.0	6.7	5.2
Disturbed (mean)		3.6	3.7	3.0	3.4	0.6
B3	Bigwin Bay	3.6	5.0	3.0	3.9	1.0
B4	Bigwin North	4.1	3.0	3.0	3.4	0.6
N11	Britannia	3.2	3.0	3.0	3.1	0.1
Nearshore Undisturbed (mean)		3.2	3.5	3.1	3.3	0.4
S1	Langmaid Island	3.0	3.0	3.0	3.0	0.0
N24	Boothby's	3.3	3.6	3.0	3.3	0.3
S2	Menominee Bay	3.1	4.3	3.0	3.5	0.7
N13	Moffat's	3.0	3.4	3.0	3.1	0.2
E26	Narrows West	3.8	3.0	3.8	3.5	0.4
N31	Portage Bay docks		3.6	3.0	3.3	0.4
River (mean)		4.5	5.2	3.8	4.5	1.0
E18	Hollow River	5.8			5.8	
N2	Oxtongue River	3.4	3.4	3.8	3.5	0.2



N30	Oxtongue Delta	4.4	7.0		5.7	1.8
All sites					3.9	0.8
All sites excluding River sites					3.7	0.7

An additional site at Portage Bay (i.e. N26 – Portage Bay), initially sampled in 2012 to address concerns over potential water quality degradation following construction activities, has been maintained as a part of the LOBA sampling program. Mean total phosphorus concentration in Portage Bay ranged from 8.1 µg/L to 3.9 µg/L from 2013 to 2019, representing a decline from elevated concentrations observed in 2012 (mean TP = 9.6 µg/L) that were coincident with construction activities. The average value of 8.1 µg/l recorded at Portage Bay in 2017, was attributed to higher than average summer precipitation (442 mm) not long-term construction impacts which is supported by the lower summer precipitation (250 mm; 200 mm) and TP concentration (7.3 µg/L; 3.9 µg/L) measured in 2018 and 2019 respectively.

Figure 4. Total phosphorus concentrations in Lake of Bays 2019, Deep Water sites.

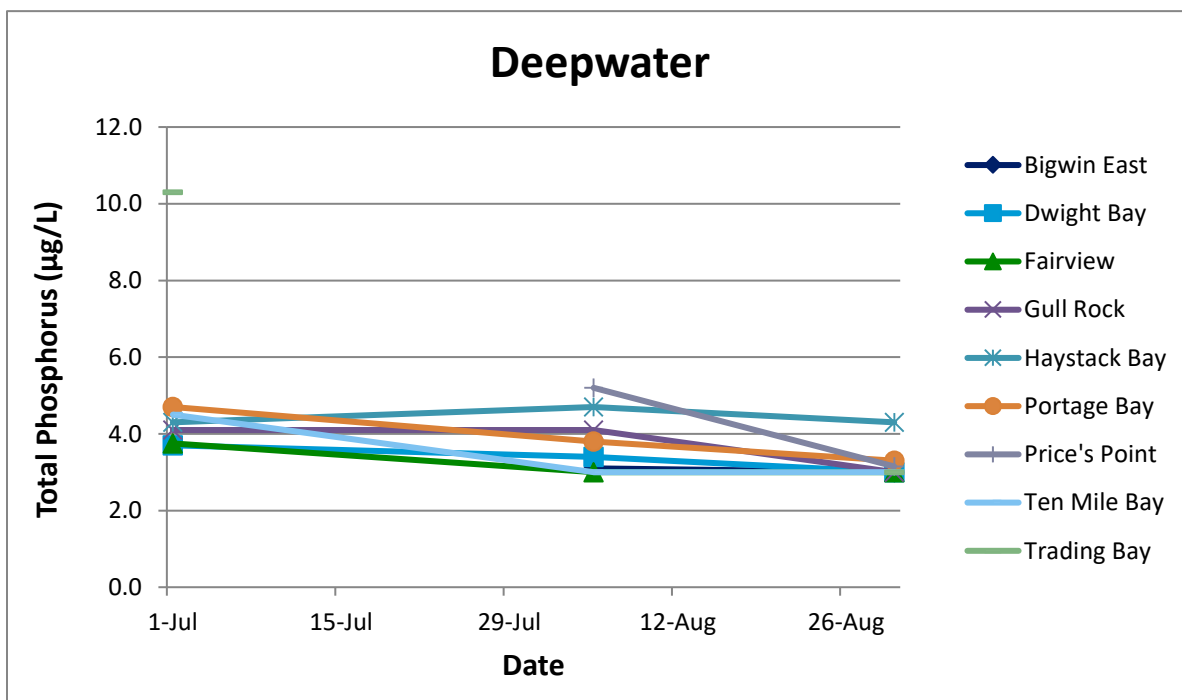


Figure 5. Total phosphorus concentrations in Lake of Bays 2019, Nearshore Undisturbed sites.

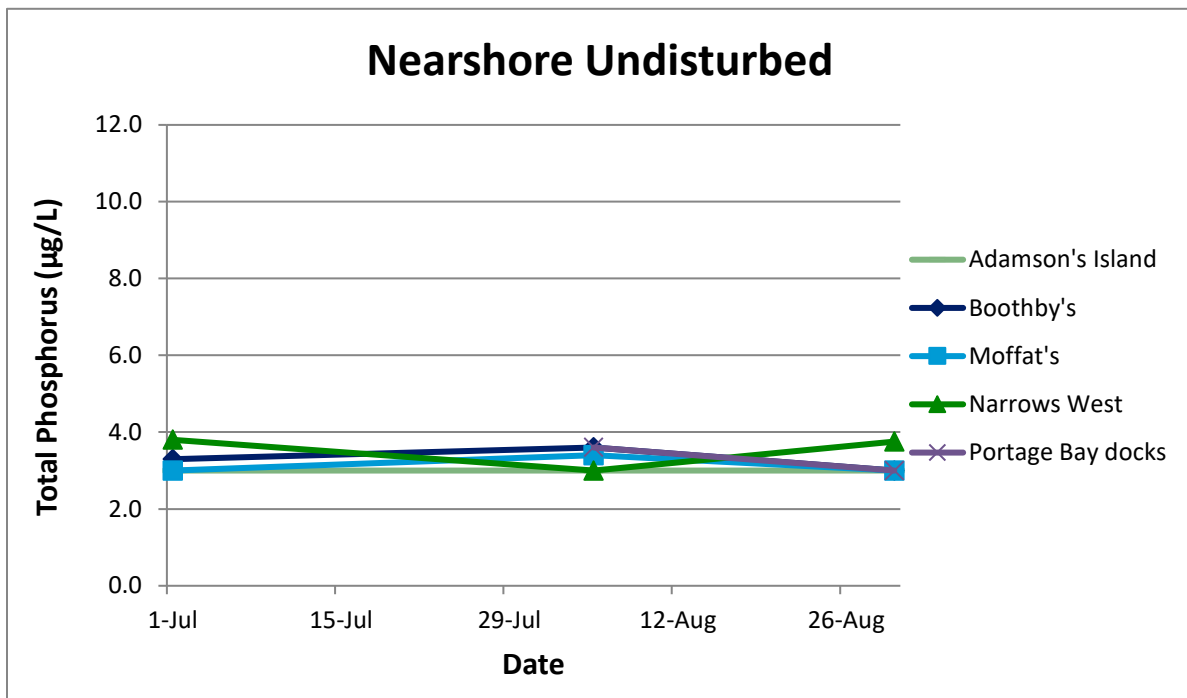


Figure 6. Total phosphorus concentrations in Lake of Bays 2019, Disturbed sites.

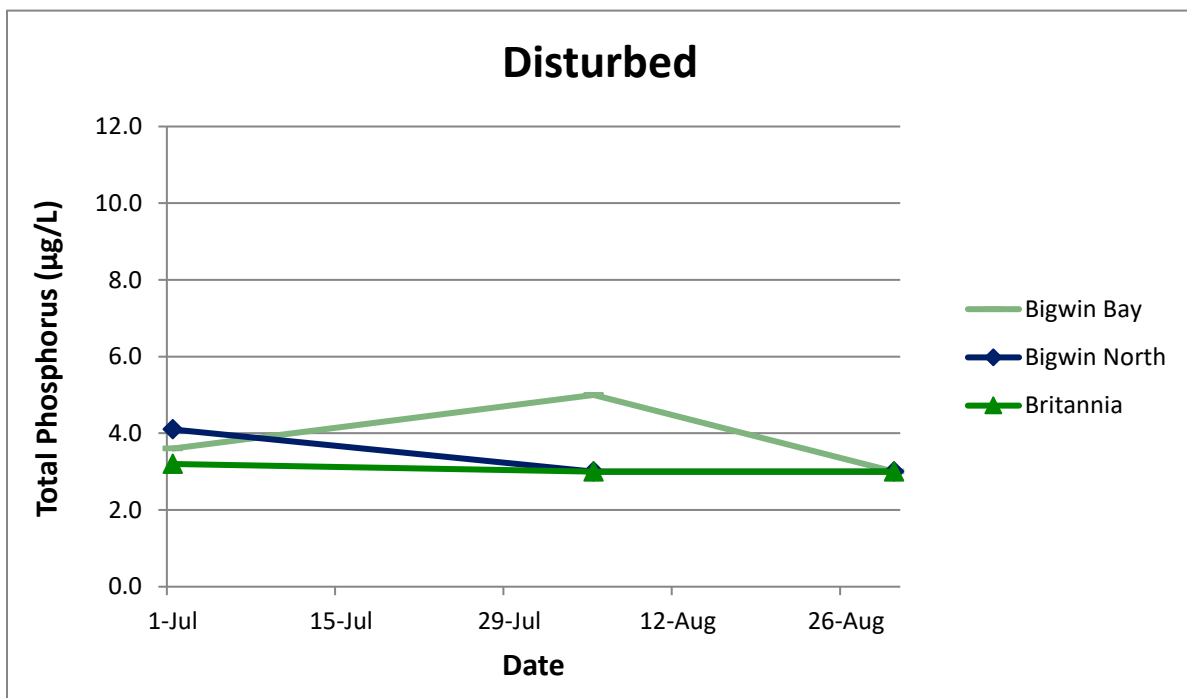


Figure 7. Total phosphorus concentrations in Lake of Bays 2019, River sites.

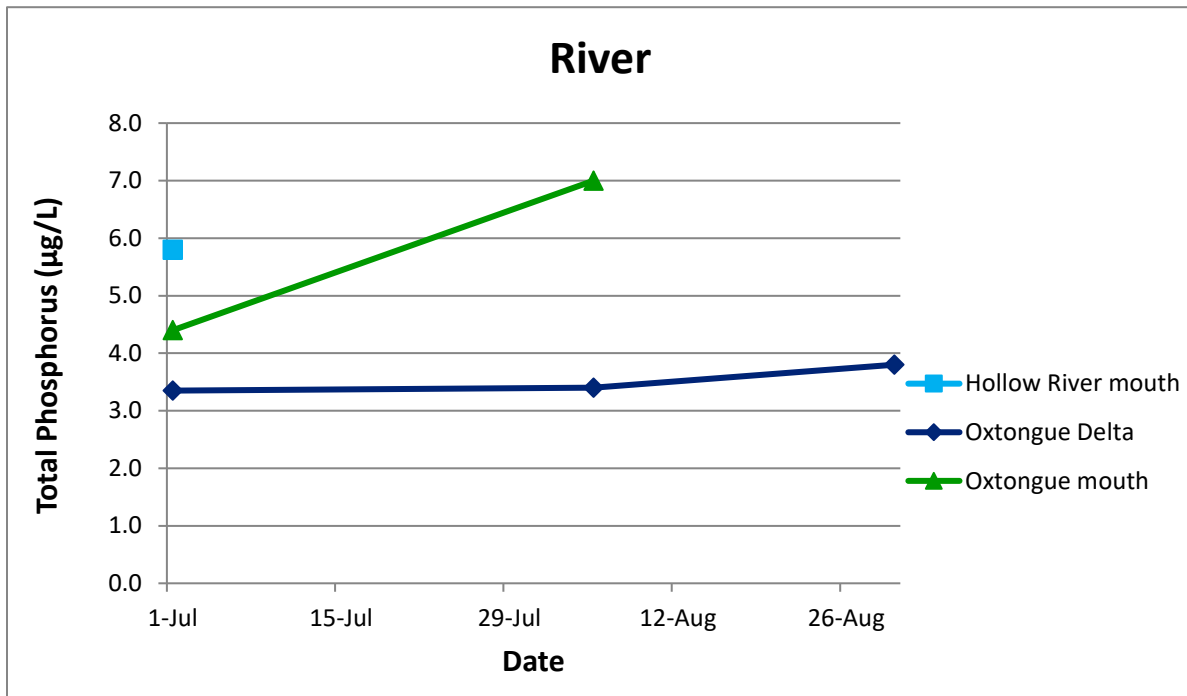
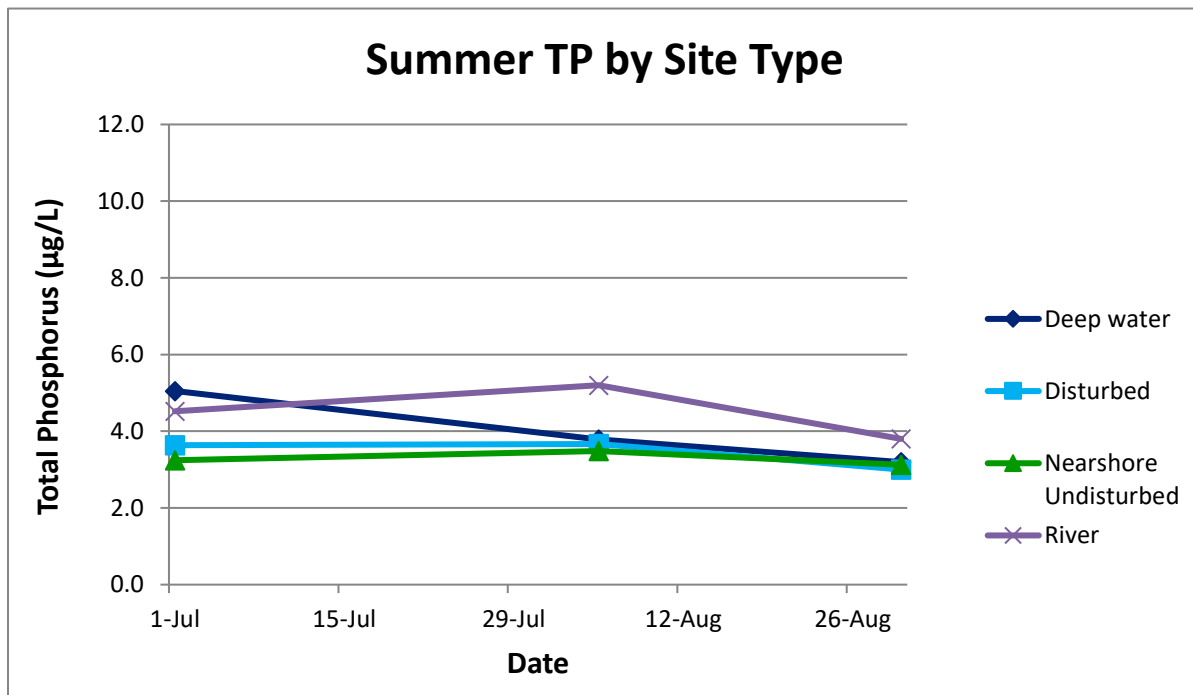


Figure 8. Average total phosphorus concentrations in Lake of Bays 2019 by Site Type.



Note: Data points for each date represent mean values of all sites of one type.



4. Long-term Phosphorus Patterns

The Lake of Bays Water Quality Monitoring Program has collected data over the summer season for 18 years at 12-21 locations throughout the lake. The yearly number of samples collected including QA/QC samples ranged from 50 in 2002 to 123 in 2012, with a total of 1,689 samples collected by the end of the 2019 program (Table 7). The large number of sites monitored, and samples collected under the program since 2002 provide for a robust data set for assessing long-term trends and inter-annual variability in total phosphorus concentration in Lake of Bays. The complete LOBA monitoring program data set since 2002 is provided in Appendix B.

Mean summer total phosphorus concentrations increased slightly in 2019 in the Deep Water (mean TP = 4.8 µg/L), but decreased in the Disturbed (mean TP = 3.4 µg/L) and Nearshore Undisturbed (mean TP = 3.3 µg/L) sites (Table 8, Figure 9) relative to 2018 values. In the past, River sites have been more variable with generally higher concentrations than lake stations, however in 2019 total phosphorus concentrations ranged from 3.0 to 7.0 µg/L, and mean TP (4.5 µg/L) was lower than the mean TP at Deep Water sites (4.8 µg/L). Water quality monitoring of rivers in 2019 was confounded by missed sampling events and an extreme outlier at Oxtongue mouth (646 µg/L) which reduced the sample size and played a role in reducing the range in values. Elevated TP at the River stations is not uncommon in the dataset and therefore we recommend the addition of total suspended solids sampling at river stations to the program to determine if river total phosphorus is associated with high sediment loads in the river or if it is the result of sample contamination. The addition of suspended solids sampling to the 2020 program will be discussed with the program administrator and Environment Committee.

The statistically significant increasing trend in mean summer total phosphorus concentration of the Deep Water sites identified in previous reports was no longer significant with the addition of data collected in 2019 (Figure 10; Mann Kendall Trend Test: $p > 0.05$, Sen's Slope = 0.05), nor were previously identified significant increasing trends at one of the two individual Deep Water sites (i.e., Fairview and Trading Bay; Figure 11). Significant increasing trends in TP at Trading Bay, however, were still detected after the addition of the 2019 data, however average yearly change was low (0.019 µg/L/yr;

Figure 12). No other significant increases in total phosphorus concentrations were detected in any LOBA monitoring station. The average increase in total phosphorus concentration for Deep Water sites (2002 – 2019) was 0.05 µg/yr, representing a total increase of 19% or 0.9 µg/L over 18 years (based on the Sen's Slope of 0.05). This degree of change no longer exceeds what would be expected due to natural year to year variability for low productivity lakes on the Precambrian Shield, which have been found to vary naturally by an average of 21-23% between years (Clark et al., 2010).



Table 7. Number of Total Phosphorus Samples Collected by the Lake of Bays Monitoring Program (2002-2019)

Year	Deep Water	Disturbed	Nearshore Undisturbed	River	Total # of Samples
2002	30	15	5		50
2003	39	22	7	16	84
2004	28	13	5	7	53
2005	29	8	14	8	59
2006	53		21		74
2007	54	10	36	10	110
2008	48	13	32	15	108
2009	47	15	21	10	93
2010	46	15	29	16	106
2011	44	28	28	13	113
2012	51	26	31	15	123
2013	57	19	25	15	116
2014	53	16	32	18	119
2015	52	19	32	19	122
2016	52	14	30	16	112
2017	54	11	29	19	113
2018	29	7	15	8	59
2019	33	10	22	10	75
Total # of Samples	799	261	414	214	1689



Table 8. Mean Summer Total Phosphorus Concentrations in Lake of Bays (2002-2019)

Site	Total Phosphorus (µg/L)																		
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	AVG.
Deep Water	4.0	4.0	4.7	4.4	6.1	4.9	5.6	4.9	5.5	5.4	5.7	5.2	5.5	4.9	5.9	6.7	4.2	4.8	5.1
Bigwin East	4.2	4.2	4.2	4.0	5.5	4.5	6.4	4.1	5.7	4.9	5.0	4.9	6.2	4.5	4.4	6.6	4.1	3.1	4.9
Dwight Bay	4.6	3.6	6.1	4.7	6.4	5.9	6.1	4.9	6.2	5.3	6.5	5.3	6.1	5.0	8.9	6.7	3.7	3.4	5.7
Fairview	2.8	3.6	4.0	4.7	5.3	3.9	6.1	4.6	5.2	4.9	4.7	4.5	4.8	4.4	4.1	6.7	3.6	3.3	4.6
Gull Rock	4.0	4.2	5.1	4.4	5.6	4.7	5.0	4.4	5.5	5.8	5.1	3.9	5.0	4.1	5.2	5.7	3.9	3.7	4.8
Haystack Bay	4.2	4.4	4.6		8.6	5.5	5.3	6.4	5.9	6.2	4.7	7.3	6.2	4.1	5.7	8.2	3.5	4.4	5.7
Portage Bay											9.6	5.7	6.3	4.7	5.3	8.1	7.3	3.9	6.7
Price Point				3.4	6.0	4.5	4.7	5.7	5.2	5.5	4.5	5.8	4.5	4.0	5.7	5.3	3.9	6.8	4.9
Ten Mile Bay					6.1	5.0	5.5	4.8	5.2	5.1	6.8	5.7	6.5	5.1	7.3	6.4	3.8	3.5	5.6
Trading Bay	4.1	4.0	4.9	5.1	6.0	4.7	5.4	4.9	5.2	5.8	5.1	2.5	4.2	7.6	6.9	6.3	4.9	10.9	5.1
Disturbed	4.0	4.3	4.7	5.0		5.4	5.7	4.5	3.9	4.4	4.7	4.5	4.6	4.9	4.6	5.6	4.0	3.4	4.7
Bigwin Bay	3.6	4.7	4.9				5.5	4.2	3.6	4.5	4.5	4.5	4.3	4.8	4.3	5.4	3.4	3.9	4.4
Bigwin North	5.0	3.9	5.3	5.2		6.3	6.1	5.6	4.5	4.6	4.8	4.8	4.6	5.1	5.1	6.0	3.7	3.4	5.0
Britannia	3.3	4.4	4.0	4.6		4.7	5.5	3.6	3.8	4.2	4.8	4.1	4.8	4.9	4.5	5.5	4.7	3.1	4.5
Nearshore Undisturbed	4.1	3.5	4.2	4.6	5.1	4.3	5.2	3.8	3.6	4.6	4.1	4.2	4.9	3.8	4.9	5.6	3.7	3.3	4.4
Langmaid Island				4.8	4.7	3.3	4.5	2.9	2.8	4.2	3.9	4.0	4.2	3.5	4.3	4.8	3.7	3.0	4.0

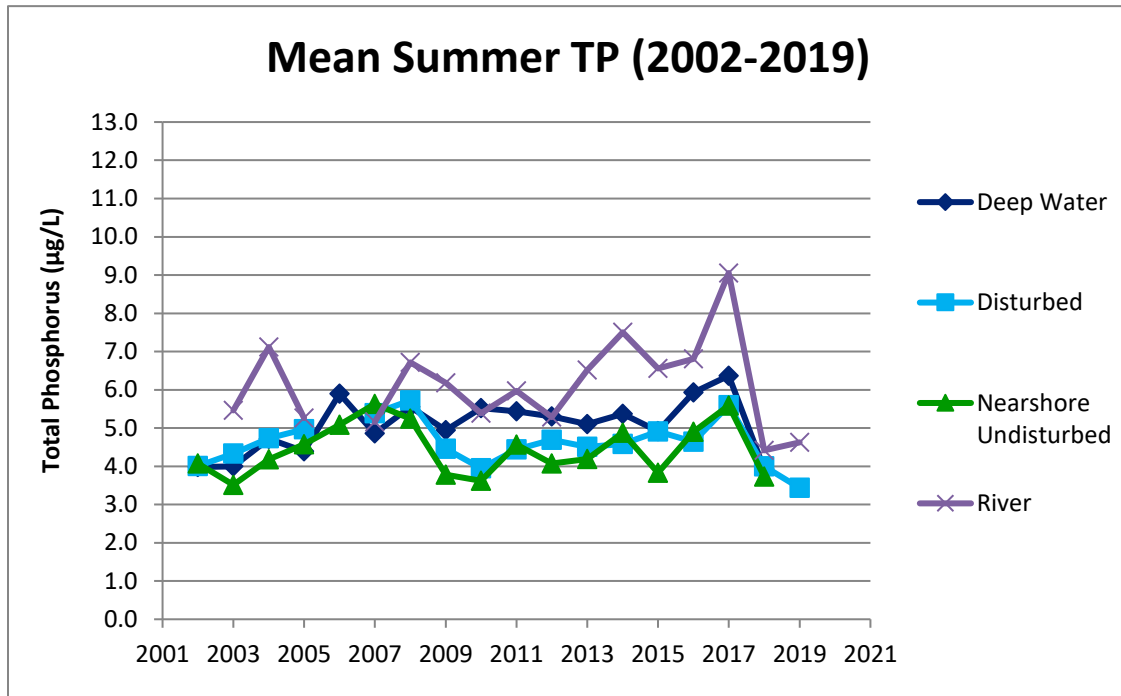


Site	Total Phosphorus (µg/L)																		
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	AVG.
Boothby's				8.3	5.8	5.2	5.4	4.3	4.6	4.8	3.9	4.3	5.0	3.7	5.3	6.0	4.0	3.3	5.0
Menominee Bay				3.1	5.0	3.9	6.0	3.1	2.9	4.9	3.7	4.3	4.8	3.7	5.7	5.7	3.7	3.5	4.3
Moffat's	4.1	3.5	4.2	3.7	4.9	3.8	5.2	4.8	3.6	4.6	4.5	3.9	5.5	4.1	3.8	5.5	3.6	3.1	4.3
Narrows West						5.1	4.7		4.3	4.0	4.5	4.5	4.9	4.4	5.4	6.0	3.6	3.5	4.6
River		5.5	7.1	5.3		5.2	6.7	6.2	5.4	6.0	5.3	6.5	7.5	6.6	6.8	9.1	4.4	4.4	6.1
Hollow River mouth		5.5	6.6	4.4		5.2	5.7		4.5	5.3	5.1	4.1	5.5	7.3	7.3	9.4	4.7	5.8	5.7
Oxtongue Delta							6.9	4.8	4.0	4.9	4.4	6.3	8.5	6.0	6.2	8.8	3.0	3.5	5.8
Oxtongue mouth			7.4	5.9			7.3	7.6	8.3	7.8	6.4	8.1	8.7	6.6	7.2	8.9	8.9	5.7	7.3

Note: Includes only those sites with at least three years of data collected within the last five years

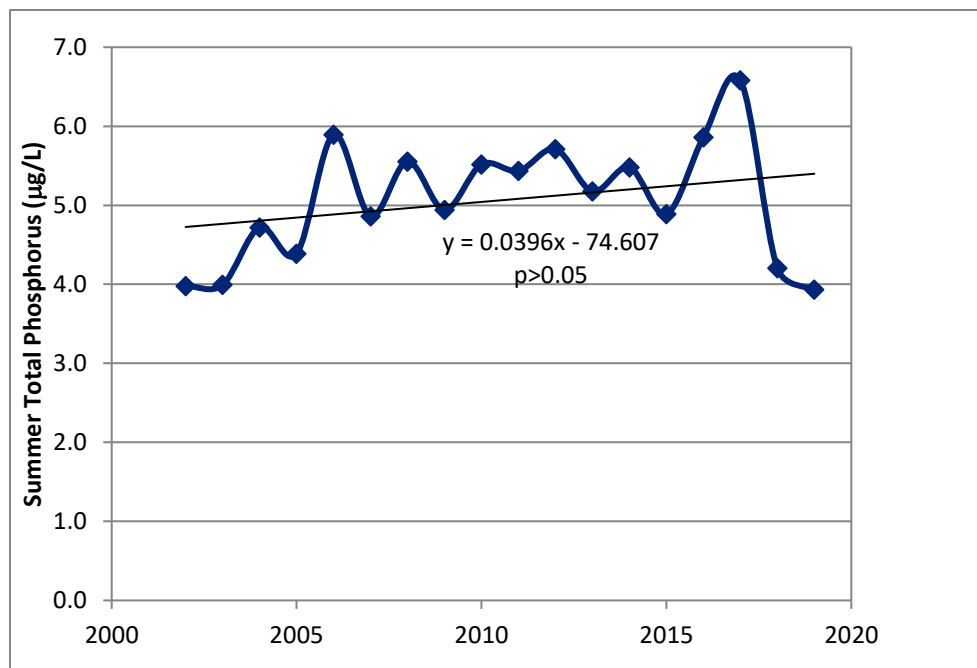


Figure 9. Long-term (2002-2019) Mean Summer Euphotic Zone Total Phosphorus (TP) by Site Type.



Note: Only includes sites with at least five years of data.

Figure 10. Long-term Mean Summer Total Phosphorus in Deep Water areas of Lake of Bays.



Note: LOBA sites exclude Little Trading Bay (2005-2008) and Portage Bay (Special Study).

Figure 11. Long-term Total Phosphorus Concentrations at the Fairview Station

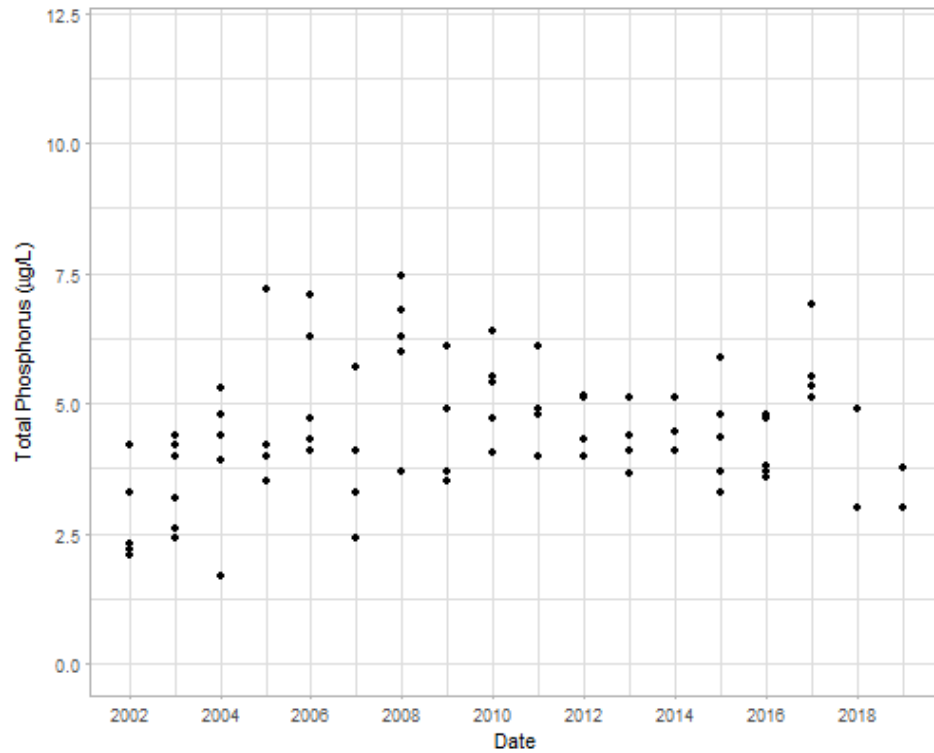
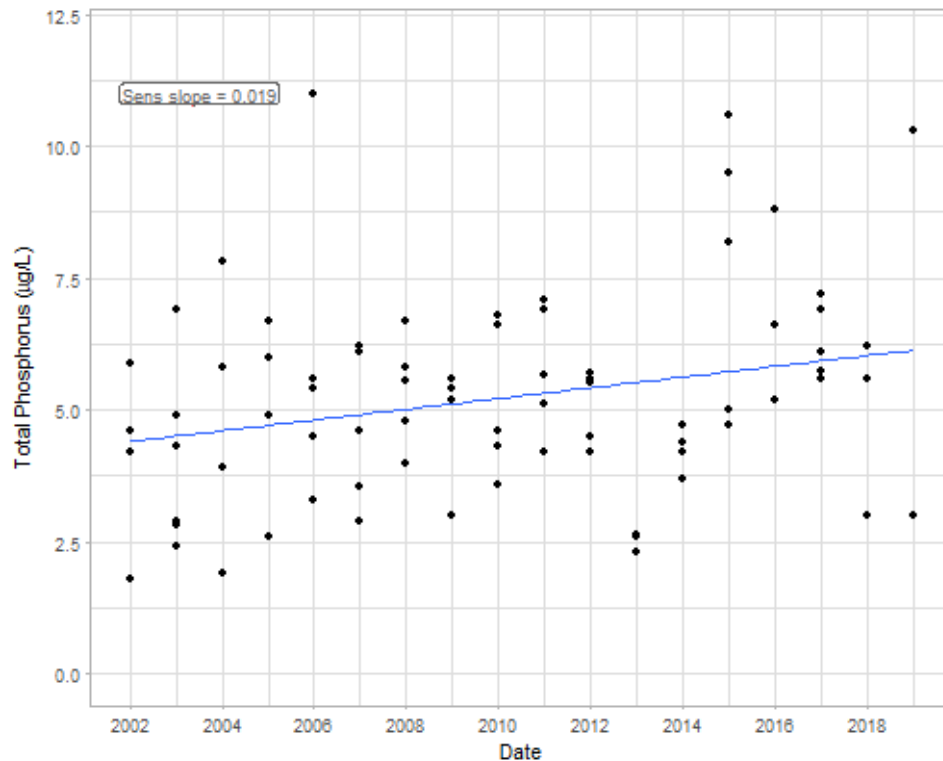


Figure 12. Long-term Total Phosphorus Concentrations at the Trading Bay Station



Long-term monitoring has shown increasing trends in total phosphorus have occurred in some Muskoka lakes monitored by the Dorset Environmental Science Centre (DESC), while other lakes exhibited decreasing or no trends (Andrew Paterson, MOECC lake scientist, pers. comm.). These lakes had little to no development in their watersheds and so regional (e.g., climate change, long range atmospheric deposition) and local factors other than development may be influencing lakes in the Muskoka area, including Lake of Bays. The District of Muskoka (DMM) has monitored spring total phosphorus at deep water sites in Lake of Bays since 2001 and has observed no increase, suggesting that the patterns seen in the LOBA data set may be related to sampling later in the summer (HESL 2016b).

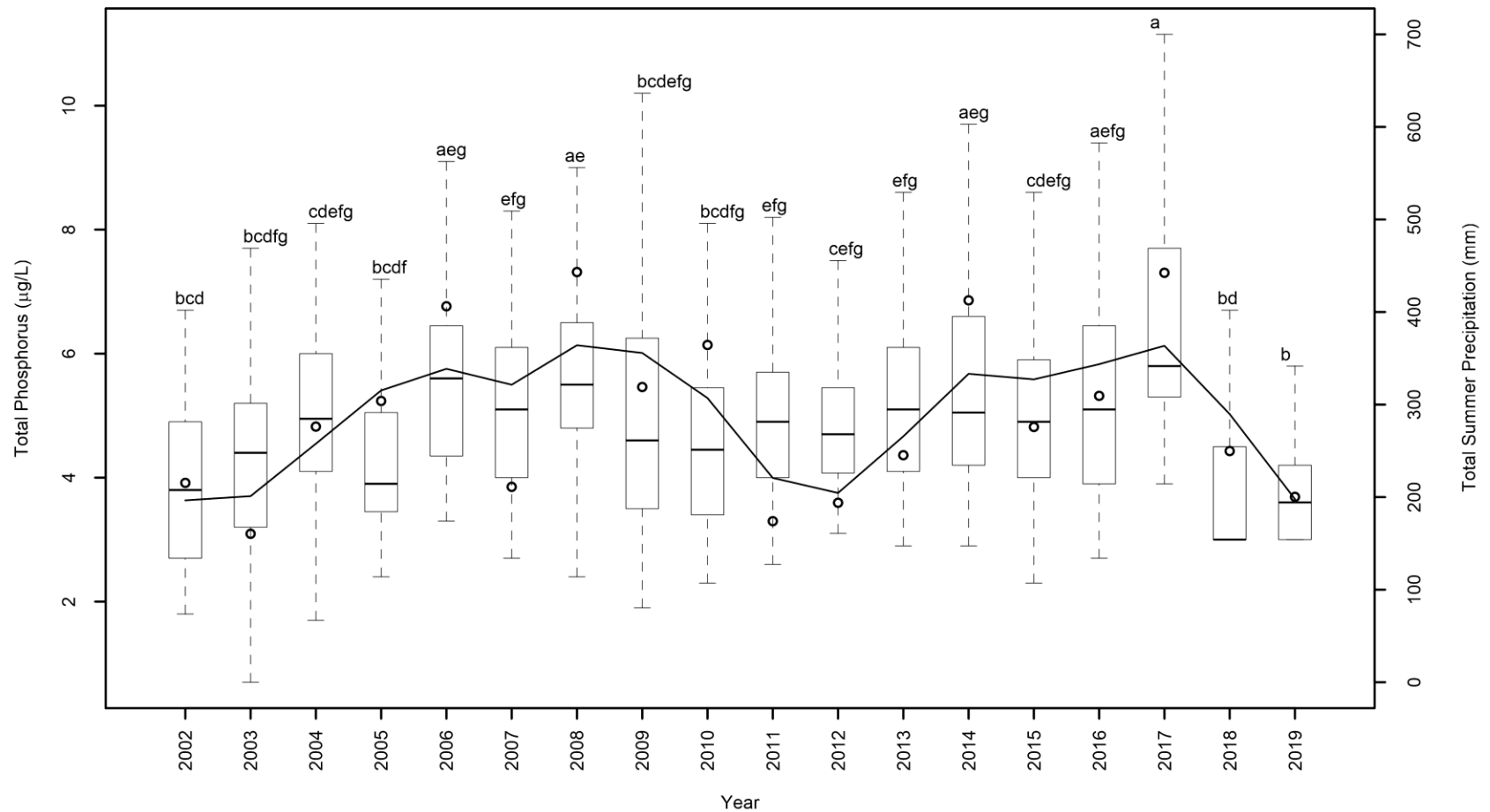
Changes in annual precipitation patterns (amount of precipitation, frequency and duration of storm events) can strongly influence phosphorus loads from atmospheric deposition and also the mobilization and transport of phosphorus from the watershed. Long-term data collected in Lake of Bays, coupled with climate data from Beatrice Climate Station, suggests that inter-annual variability in precipitation may exert a significant influence on the total phosphorus concentration in the lake (Figure 13). In general, total phosphorus concentrations tended to decrease in drier years over the period of record. Lower total phosphorus concentrations in 2019 were statistically similar to those recorded in 2002, 2003, 2005, 2009, 2010, 2018 and significantly lower than all the other years on record (Figure 13, similarity indicated by the letter “b”).

The relationship identified by HESL in 2016 between mean annual summer phosphorus concentrations and total summer precipitation at Haystack Bay continues to be apparent when including 2019 data and is significant when assessing the Deep Water average as well (Haystack: Pearson rho = 0.51, $n = 17$, $p < 0.05$; Deep Water sites: 0.61, $n=18$, $p<0.05$; Figure 14). We first tested the impact of precipitation of total phosphorus values in Lake of Bays in Haystack Bay because it is an isolated bay which has a large surface area (4.94 km²) relative to the area of its watershed (8.13 km²) and does not receive any significant river or stream discharge and thus direct phosphorus loads from local runoff and direct precipitation likely contribute to a large portion of the natural phosphorus load making it especially sensitive to changes in precipitation volume and storm severity. Phosphorus loading estimates by the DMM indicated that the total load from precipitation constitutes 49% of the natural load to Haystack Bay in comparison to 28% for the main basin of the lake (GLL, 2005). The evidence of a significant influence of regional precipitation on TP concentrations in Lake of Bays is now more broadly apparent across Nearshore and Deep Water stations.

In summary, summer total phosphorus concentration in Lake of Bays exhibits significant inter-annual variability, which based on long-term TP and precipitation data appears to be driven by natural processes related to precipitation. The Lake of Bays Association water quality monitoring program continues to provide a robust long-term data set to evaluate changes over time.

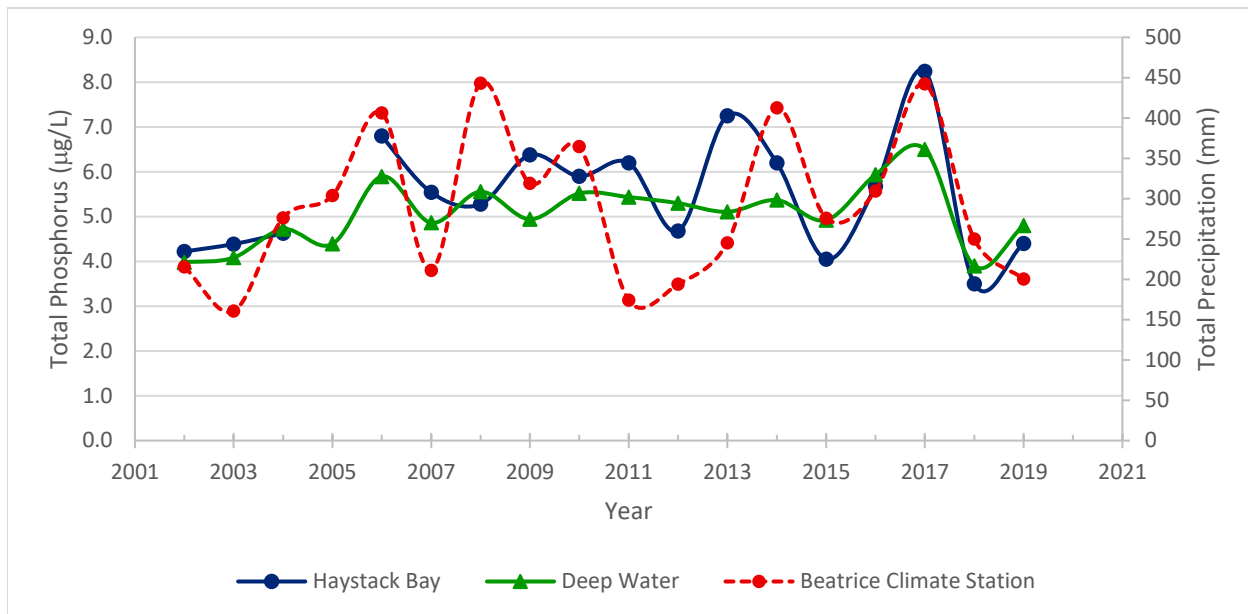


Figure 13. Annual Summary of Summer Total Phosphorus Concentrations at All Nearshore Disturbed, Undisturbed and Deep Water Sites and Precipitation (Beatrice Climate Station; 6110607) in Lake of Bays



Open Circles = Sum of Total Summer Precipitation; Line = Spline Smoothed Precipitation; Boxplots = Total Phosphorus Concentrations. Letters indicate years which are statistically similar

Figure 14. Mean Summer Euphotic Zone Total Phosphorus at Haystack Bay and Deep Water Sites of Lake of Bays and Total Summer precipitation at Beatrice (2002-2019) Climate Station.



Note: Deep Water sites exclude Little Trading Bay and Portage Bay

5. Summary

The total phosphorus and bacteria data collected by the LOBA in 2019 indicated low nutrients and bacteria concentrations at all sampling sites in the Lake of Bays. The main results of data analyses from 2019 are as follows:

1. The LOBA monitoring program continued to provide high quality phosphorus data, although this year saw a small increase in the occurrence of bad splits and outliers relative to 2018.
2. Deep Water sites no longer exhibited the significant increasing trend in total phosphorus concentration that has been identified in past reports.
3. Significant long-term trends in total phosphorus were detected in the lake at Trading Bay, however the previously identified positive trend at the Fairview Station no longer exhibited a positive trend with the addition of 2019 data.
4. Bacteria levels collected by the Coliplate technique were below the PWQO for recreational use at all sites.
5. Total phosphorus concentrations (mean TP = 3.9 µg/L excluding the River sites) continue to be characteristic of lakes with low primary productivity and meet the highest Provincial standards for protection of nuisance aquatic plant growth due to phosphorus of <10 µg/L at all sites, except for a single value of 10.3 µg/L measured at Trading Bay on July 1, 2019.
6. Mean summer total phosphorus concentration in Portage Bay has been consistently low since 2013, representing a decline from elevated concentrations observed in 2012 that coincided with construction activities. Low TP at Portage Bay in 2019 coinciding with low precipitation supports the conclusions of the 2017 and 2018 monitoring report that increased TP was a consequence of higher than average precipitation in 2017 and not long-term construction impacts.

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7. As in previous monitoring, no significant difference in phosphorus concentration between the Deep Water, Disturbed and Nearshore Undisturbed sites were found, suggesting that shoreline disturbance is having little impact on summer phosphorus concentrations.
8. Our analysis suggests that changes in total phosphorus concentrations in the lake are the result of regional precipitation and not likely a result of development pressure.
9. We recommend the addition of total suspended solids sampling at River stations to help us better understand the influence of total suspended solids on total phosphorus concentrations.



6. References

- AECOM, 2009:
Lake of Bays Water Quality Report 2007-2008. Prepared for the Lake of Bays Association.
September 2009.
- Clark, B.J., A.M. Paterson, A. Jeziorski and S. Kelsey. 2010.
Assessing variability in total phosphorus measurements in Ontario lakes. Lake and Reservoir
Management 26: 63-72.
- Grubbs, F. 1969:
Procedures for Detecting Outlying Observations in Samples. Technometrics 11, 1-21.
- Gartner Lee Limited (GLL), 2005:
Recreational Water Quality Management in Muskoka. Prepared for District Municipality of
Muskoka.
- Gartner Lee Limited (GLL), 2008:
Review of Long-Term Water Quality Data for the Lake System Health Program. Technical Report
for the District Municipality of Muskoka, September 18, 2008.
- Hutchinson Environmental Sciences Limited (HESL), 2011:
Lake of Bays Water Quality Report 2010. Prepared for the Lake of Bays Association, November,
2011.
- Hutchinson Environmental Sciences Limited (HESL), 2016a:
Lake of Bays Water Quality Report 2016. Prepared for the Lake of Bays Association, November,
2011.
- Hutchinson Environmental Sciences Limited (HESL), 2016b:
Revised Water Quality Model and Lake System Health Program – Final Report. Prepared for
District Municipality of Muskoka. April, 2016. 217 pp.
- Hyatt, C.V., A.M. Paterson and E. Stainsby, 2012:
Lakeshore Capacity Model Users' Manual. Version 4.2. Prepared for the Province of Ontario,
Fall 2012.
- Millard, S.P. 2013.
EnvStats: Package for Environmental Statistics, Including US EPA Guidance.
- Ontario Ministry of Environment and Energy (MOEE), 1994:
Water Management Policies Guidelines. Provincial Water Quality Objectives of the Ministry of
Environment and Energy. July 1994.

Pohlert, T. 2017.

Trend: Non-Parametric Trend Tests and Change-Point Detection

Province of Ontario, 2010:

Lakeshore Capacity Assessment Handbook – Protecting Water Quality in Inland Lakes on Ontario's Precambrian Shield. Queen's Printer for Ontario. May 2010.

R Core Team, 2013:

R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. ISBN 3-900051-07-0, URL <http://www.R-project.org/>.

Robertson, W.D., S.L. Schiff and C.J. Ptacek. 1998.

Review of phosphate mobility and persistence in 10 septic system plumes. Ground Water 36: 1000-1010.

Rosner, B. 1983.

Percentage Points for a Generalized ESD Many-Outlier Procedure. *Technometrics* **25**, 165–172.

Appendix A. Monitoring Protocols for the LOBA Water Quality Monitoring Program



WATER QUALITY SAMPLING PROCEDURES

General:

1. Check for equipment, including:
 - metre depth pole (if required)
 - thermometer
 - cooler and ice packs
 - sterilized jars, phosphorus tubes, duplicates
 - secchi depth disc and jar (if required)
 - data sheets and pen
2. verify that you have the appropriate boating safety equipment on board and that the weather is safe for sampling
3. record air temperature on data sheet as you leave the dock. Then attach thermometer to a rope in preparation for taking water temperature at sampling sites.
4. at each site, complete the data sheet, recording any factors or conditions that may make the sampling trip unusual or that may have an influence on sample results (eg. cloudy water, unusual activity in the area, presence of waterfowl)

Coliform and E coli testing

*Near shore sample collected 22 – 30 cm. below the surface in water that is 1 m. in depth
Deep water samples also collected 22 – 30 cm. below the surface of the water.*

1. Carefully and correctly assemble the jars required for the specific site (all should be named and number coded)
2. Remove the cap/lid from the jar/bottle **without touching the inside of the lid or jar**, and place carefully, upside down on a flat stable surface
3. Grip the bottle at the base and plunge it into the water in a downward motion to the a depth of 22 – 30 cm. (9 – 15 in). The bottle goes in **upside down** (open end to lake bottom) and the appropriate depth is roughly around your elbow.
4. Adjust the bottle position in your hand so that the bottle is now parallel to lake surface and lake bottom, facing forward and **collect sample by sweeping the bottle forward** (forward, not up). This directional motion is important so that the water being collected in the bottle/jar does not pass over your hand. Collect water from that 22 – 30 cm. depth and then bring bottle to surface.
5. Empty it slightly (if it is full to the brim) and then recap bottle.
6. Store in the cooler chest.
7. **re quality control sample (lab and field duplicates).** Quality assurance is necessary to validate that the sampling and processing protocols have been followed appropriately. It is very important that these procedures are followed in order to ensure high quality results ...

If we are running duplicates (field and lab) on your site, there will be a large sampling jar, clearly marked, as well as a smaller one. Using the large jar, take your sample as per the steps outlined above. As soon as the sample is obtained, recap the jar (without touching interior of lid or jar) and shake it two or three times to ensure a uniform distribution of the discreet bacteria in the water sample. Immediately transfer some of the sample to the smaller jar. Cap both jars and store both jars. The contents of the

small jar are the sample, part of the remaining content of the large jar becomes the field duplicate and the balance of water in the large jar is sent for a quality control test at the Central Ontario Analytical Laboratory in Orillia.

The last part of quality assurance is distilled water. After the site sample and field duplicate have been collected, open the distilled water jug and fill the collection jar marked Distilled Water. Cap the glass bottle and place it in the cooler with the ice pack. Distilled water is, or should be, free of coliforms and e coli, and running a distilled water sample through our process (sterilized jars, sampling volunteers, Deb working the coliplates) is an excellent test of the scientific rigour of our program.

Near shore Phosphorus testing:

sample collected 22 – 30 cm. below the surface in water that is 1 m. in depth

There are always a test tube **and** a PET jar associated with each phosphorus site (and sometimes extra test tubes for quality assurance purposes). The PET jar is used to actually collect the sample, which is then transferred to the test tube(s).

1. Carefully and correctly assemble the jars required for the specific site (all should be named and number coded)
2. Remove the top from the PET jar without touching the inside of top or jar and place in a flat, stable place.
3. **Rinse the jar in surface water at site.**
4. Rinse the filter (plastic funnel and filter cloth) in surface site water (filter stored in freezer bag.)
5. Grip the bottle at the base and plunge it into the water in a downward motion to the a depth of 22 – 30 cm. (9 – 15 in). The bottle goes in **upside down** (open end to lake bottom) and the appropriate depth is roughly around your elbow.
6. Adjust the bottle position in your hand so that the bottle is now parallel to lake surface and lake bottom, facing forward and **collect sample by sweeping the bottle forward** (forward, not up). This directional motion is important so that the water being collected in the bottle/jar does not pass over your hand. Collect water from that 22 – 30 cm. depth and then bring bottle to surface.
7. Take the top off the test tube, being careful not to touch the inside of the top or the test tube interior.
8. Gently swirl the water in the PET jar (don't spill it!) and then filter the water from the PET jar into the test tube using the filter (funnel plus filter cloth) provided. Fill the test tube to the line marked near the top of the test tube (want a tiny bit of air space in the tube for the lab to add some material.) Be prepared ... the filter cloth is a pain in the neck but it is important to filter out zooplankton which can distort phosphorus readings.
9. Cap tightly – both test tube and PET jar – and put both in the cooler.

Note: be careful with the filters ... they are light and blow away easily and it is also easy to lose/damage the filter cloths. **There is one filter per sampler for the entire summer!**

Deep Water Phosphorus Testing

sample is collected 10 – 15 m.(metres, not centimeters) below the surface in deep water

While the process of collecting and filtering the sample is the same as that for near shore phosphorus, the sample is collected from further down in the water column. The process is as follows:

1. Attach the rope to the Secchi disc and measure the secchi depth by lowering the disc over the side of the boat until it disappears from view. It may take a bit of playing with it to verify when it actually disappears. Haul it up until you see it again and then slowly lower it. (Know that in 8 years of doing this, I have NEVER had a secchi reading anywhere on Lake of Bays of less than 4.5 metres, and have occasionally had them up to 8 metres.) As you pull the disc back to the surface, count the number of metres (the rope is calibrated in 1 metre intervals.) Record this number. Redo to double check.
2. Record the colour of the water (orangey brown, bluey-green, etc.)
3. Attach the calibrated rope to the container for the secchi collection jar.
4. Rinse the collection jar in surface site water.
5. Lower the bottle (now in the weighted container to a distance that is **2 X** the secchi depth you observed and recorded above (the sample is being collected at a level to which light penetrates and given the refraction of light, that distance is 2 X the depth at which you could last see the disc.) The bottle should be lowered in a quick, smooth, but controlled motion (Don't let it free fall.)
6. Pull the container and collection jar back to the surface at a steady pace.
7. Use this water to rinse and fill the PET jar.
8. Swirl the water in the PET jar and then pour into the test tube **through the filter**. Fill test tube to the indicated line (just shy of full.)
9. Cap and place test tube and PET jar in cooler.

Re quality assurance for phosphorus ... near shore and deep water:

Quality assurance is necessary to validate that the sampling and processing protocols have been followed appropriately. It is very important that these procedures are followed in order to ensure high quality results ...

1. If we are running phosphorus duplicates on your site, there will be an extra test tube, clearly marked as the field duplicate. Simply fill that second test tube in the same manner as the first, taking the time to gently swirl the contents of the PET jar before pouring water into the second test tube through the funnel and filter cloth Cap test tubes and PET jar and store in cooler.
2. The last part of quality assurance is distilled water. After the site sample and field duplicate have been collected, open the distilled water jug and fill the clearly marked test tube to the line (7/8th full). Cap and store with rest of samples from that particular site.

Appendix B. LOBA Total Phosphorus and Bacteria Data



Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2005	4-Jul-05		6.5		3		8			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2005	18-Jul-05		4.3		1		5			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2005	1-Aug-05				1		11			
S1 P/B FD	S1	Adamson's Island	Nearshore Undisturbed	2005	1-Aug-05				1		8			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2005	14-Aug-05				1		5			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2005	1-Sep-05		3.7		1		3			
S1 P/B FD	S1	Adamson's Island	Nearshore Undisturbed	2005	1-Sep-05				1		8			
S1 P/B LD	S1	Adamson's Island	Nearshore Undisturbed	2005	1-Sep-05				1		4			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2006	3-Jul-06		3.7		1		43			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2006	17-Jul-06		5.1		1		3			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2006	7-Aug-06		5.6		1		5			
S1 P/B FD	S1	Adamson's Island	Nearshore Undisturbed	2006	7-Aug-06				1		25			
S1 P/B LD	S1	Adamson's Island	Nearshore Undisturbed	2006	7-Aug-06				1		17			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2006	21-Aug-06		5.2		3		5			
S1 P/B FD	S1	Adamson's Island	Nearshore Undisturbed	2006	1-Sep-06		4.1							
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2006	1-Sep-06		7.7		5		16		bs	
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2007	2-Jul-07		2.5		1		5			
S1 P/B FD	S1	Adamson's Island	Nearshore Undisturbed	2007	2-Jul-07				1		1			
S1 P/B LD	S1	Adamson's Island	Nearshore Undisturbed	2007	2-Jul-07				1		1			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2007	23-Jul-07		4.2		1		1			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2007	6-Aug-07		4.1		1		13			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2007	20-Aug-07		2.0		1		3			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2007	31-Aug-07		3.7		1		1			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2008	30-Jun-08		4.6		1		1			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2008	14-Jul-08		4.3		8		65			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2008	4-Aug-08		6.2		1		3			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2008	18-Aug-08		3.0		1		13			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2008	29-Aug-08		4.4		1		3			
S1 P/B FD	S1	Adamson's Island	Nearshore Undisturbed	2008	29-Aug-08				1		1			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2009	3-Jul-09		3.4		1		8			
S1 P/B FD	S1	Adamson's Island	Nearshore Undisturbed	2009	3-Jul-09		3.4							
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2009	17-Jul-09		4.4		3		13			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2009	1-Aug-09		1.9		3		3			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2009	17-Aug-09		2.8		1		13			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2009	4-Sep-09		2.2		3		5			
S1 P/B FD	S1	Adamson's Island	Nearshore Undisturbed	2009	4-Sep-09				3		8			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2010	5-Jul-10		2.8							
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2010	19-Jul-10		3.1							
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2010	2-Aug-10		2.5							
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2010	16-Aug-10		2.7							
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2010	7-Sep-10		2.9							
S1 P/B FD	S1	Adamson's Island	Nearshore Undisturbed	2010	7-Sep-10		3.0							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2011	4-Jul-11		4.9		3		5			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2011	18-Jul-11		15.1		1		8			x
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2011	1-Aug-11		4.9		3		3			
S1 P/B FD b & p	S1	Adamson's Island	Nearshore Undisturbed	2011	15-Aug-11		2.9		3		3			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2011	15-Aug-11		3.5		3		5			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2011	2-Sep-11		3.6		1		1			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2012	1-Jul-12		4.0							
S1 P/B FD	S1	Adamson's Island	Nearshore Undisturbed	2012	1-Jul-12		4.2							
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2012	23-Jul-12		3.7							
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2012	4-Aug-12		3.7							
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2012	20-Aug-12		4.1							
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2012	31-Aug-12		7.9							x
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2013	1-Jul-13		3.1		3		8			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2013	21-Jul-13		5.1		11		16			
S1 P/B lab	S1	Adamson's Island	Nearshore Undisturbed	2013	21-Jul-13				15		44			
S1 P/B FD	S1	Adamson's Island	Nearshore Undisturbed	2013	21-Jul-13				11		28			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2013	5-Aug-13		5.4		5		11			
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2013	18-Aug-13		9.9		3		5			x
S1 P/B	S1	Adamson's Island	Nearshore Undisturbed	2013	28-Aug-13		2.4		1		1			
S1 P/B FD	S1	Adamson's Island	Nearshore Undisturbed	2013	28-Aug-13				1		5			
S1 P/B lab	S1	Adamson's Island	Nearshore Undisturbed	2013	28-Aug-13				1		8			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
S1	S1	Adamson's Island	Nearshore Undisturbed	2014	29-Jun-14		5.2							
S1	S1	Adamson's Island	Nearshore Undisturbed	2014	20-Jul-14		5.2							
S1	S1	Adamson's Island	Nearshore Undisturbed	2014	3-Aug-14		2.8							
S1 FD	S1	Adamson's Island	Nearshore Undisturbed	2014	3-Aug-14		3.0							
S1	S1	Adamson's Island	Nearshore Undisturbed	2014	17-Aug-14		3.7							
S1	S1	Adamson's Island	Nearshore Undisturbed	2014	28-Aug-14		4.2							
S1	S1	Adamson's Island	Nearshore Undisturbed	2015	28-Jun-15		4.1							
S1 FD	S1	Adamson's Island	Nearshore Undisturbed	2015	28-Jun-15		4.6							
S1	S1	Adamson's Island	Nearshore Undisturbed	2015	20-Jul-15		4.5							
S1	S1	Adamson's Island	Nearshore Undisturbed	2015	4-Aug-15		3.9							
S1	S1	Adamson's Island	Nearshore Undisturbed	2015	23-Aug-15		2.6							
S1	S1	Adamson's Island	Nearshore Undisturbed	2015	4-Sep-15		2.1							
S1 FD	S1	Adamson's Island	Nearshore Undisturbed	2015	4-Sep-15		2.5							
S1	S1	Adamson's Island	Nearshore Undisturbed	2016	1-Jul-16		4.9							
S1 FD	S1	Adamson's Island	Nearshore Undisturbed	2016	18-Jul-16		8.9							x
S1	S1	Adamson's Island	Nearshore Undisturbed	2016	1-Aug-16		4.5		3		8			
S1	S1	Adamson's Island	Nearshore Undisturbed	2016	14-Aug-16		4.0							
S1	S1	Adamson's Island	Nearshore Undisturbed	2016	1-Sep-16		3.7							
S1 FD	S1	Adamson's Island	Nearshore Undisturbed	2016	1-Sep-16		3.8							
S1	S1	Adamson's Island	Nearshore Undisturbed	2017	3-Jul-17		4.2							
S1	S1	Adamson's Island	Nearshore Undisturbed	2017	23-Jul-17		4.7							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
S1	S1	Adamson's Island	Nearshore Undisturbed	2017	7-Aug-17		5.5		5		17			
S1	S1	Adamson's Island	Nearshore Undisturbed	2017	21-Aug-17		5.9							
S1 F/D	S1	Adamson's Island	Nearshore Undisturbed	2017	21-Aug-17		4.3							
S1	S1	Adamson's Island	Nearshore Undisturbed	2017	1-Sep-17		11.2						bs	
S1 F/D	S1	Adamson's Island	Nearshore Undisturbed	2017	1-Sep-17		4.6							
S1	S1	Adamson's Island	Nearshore Undisturbed	2018	2-Jul-18	Y	3.0		5		19			
S1	S1	Adamson's Island	Nearshore Undisturbed	2018	6-Aug-18		5.5		3		22			
S1 F/D	S1	Adamson's Island	Nearshore Undisturbed	2018	6-Aug-18		4.4		3		52			
S1	S1	Adamson's Island	Nearshore Undisturbed	2018	31-Aug-18	Y	3.0	Y	3		55			
S1 L/D	S1	Adamson's Island	Nearshore Undisturbed	2018	31-Aug-18				0	A	201	78		
S1	S1	Adamson's Island	Nearshore Undisturbed	2019	1-Jul-19	y	3.0							
S1	S1	Adamson's Island	Nearshore Undisturbed	2019	5-Aug-19	y	3.0		3		5			
S1	S1	Adamson's Island	Nearshore Undisturbed	2019	30-Aug-19	y	3.0							
B4 P/B	B4	Bigwin Bay	Disturbed	2002	1-Jul-02		3.1							
B4 P/B	B4	Bigwin Bay	Disturbed	2002	15-Jul-02		9.6							x
B4 P/B	B4	Bigwin Bay	Disturbed	2002	5-Aug-02		5.4							
B4 P/B	B4	Bigwin Bay	Disturbed	2002	19-Aug-02		3.1							
B4 P/B	B4	Bigwin Bay	Disturbed	2002	2-Sep-02		2.9							
B4 P/B	B4	Bigwin Bay	Disturbed	2003	8-Jun-03		4.9							
B4 P/B	B4	Bigwin Bay	Disturbed	2003	30-Jun-03		3.5							
B4 P/B	B4	Bigwin Bay	Disturbed	2003	14-Jul-03		5.1							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B4 P/B	B4	Bigwin Bay	Disturbed	2003	4-Aug-03		4.8							
B4 P/B	B4	Bigwin Bay	Disturbed	2003	18-Aug-03		7.3							
B4 P/B	B4	Bigwin Bay	Disturbed	2003	1-Sep-03		2.1							
B4 P/B	B4	Bigwin Bay	Disturbed	2003	28-Sep-03		5.4							
B4 P/B	B4	Bigwin Bay	Disturbed	2004	5-Jul-04		3.6							
B4 P/B	B4	Bigwin Bay	Disturbed	2004	19-Jul-04		6.6							
B4 P/B	B4	Bigwin Bay	Disturbed	2004	2-Aug-04		4.9							
B4 P/B	B4	Bigwin Bay	Disturbed	2004	23-Aug-04									
B4 P/B	B4	Bigwin Bay	Disturbed	2004	6-Sep-04		4.3							
B4 P/B	B4	Bigwin Bay	Disturbed	2008	4-Aug-08		6.4		11		87			
B4 P/B	B4	Bigwin Bay	Disturbed	2008	18-Aug-08		5.2		1		1			
B4 P/B	B4	Bigwin Bay	Disturbed	2008	29-Aug-08		4.9		3		13			
B4 P/B	B4	Bigwin Bay	Disturbed	2009	3-Jul-09		4.6		3		11			
B4 P/B	B4	Bigwin Bay	Disturbed	2009	17-Jul-09		6.8		3		16			
B4 P/B	B4	Bigwin Bay	Disturbed	2009	1-Aug-09		3.9		1		11			
B4 P/B	B4	Bigwin Bay	Disturbed	2009	17-Aug-09		3.4		8		11			
B4 P/B	B4	Bigwin Bay	Disturbed	2009	4-Sep-09		2.1		5		13			
B4 P/B	B4	Bigwin Bay	Disturbed	2010	5-Jul-10		3.0							
B4 P/B	B4	Bigwin Bay	Disturbed	2010	19-Jul-10		6.0							
B4 P/B	B4	Bigwin Bay	Disturbed	2010	2-Aug-10		3.2							
B4 P/B	B4	Bigwin Bay	Disturbed	2010	16-Aug-10		3.0							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B4 P/B	B4	Bigwin Bay	Disturbed	2010	7-Sep-10		2.7							
B4 P/B	B4	Bigwin Bay	Disturbed	2011	4-Jul-11		3.9		5		16			
B4 P/B	B4	Bigwin Bay	Disturbed	2011	18-Jul-11		3.7		8		19			
B4 P/B	B4	Bigwin Bay	Disturbed	2011	1-Aug-11		5.0		5		13			
B4 P/B	B4	Bigwin Bay	Disturbed	2011	15-Aug-11		6.2		13		43			
B4 P/B COAL lab	B4	Bigwin Bay	Disturbed	2011	15-Aug-11				20		55			
B4 P/B	B4	Bigwin Bay	Disturbed	2011	2-Sep-11		3.9		13		62			
B4 P/B COAL lab	B4	Bigwin Bay	Disturbed	2011	2-Sep-11				16		80+			
B4 P/B	B4	Bigwin Bay	Disturbed	2012	1-Jul-12		3.4							
B4 P/B	B4	Bigwin Bay	Disturbed	2012	23-Jul-12		3.3							
B4 P/B	B4	Bigwin Bay	Disturbed	2012	4-Aug-12									
B4 P/B	B4	Bigwin Bay	Disturbed	2012	20-Aug-12		4.1							
B4 P/B	B4	Bigwin Bay	Disturbed	2012	31-Aug-12		7.0							
B4 P/B	B4	Bigwin Bay	Disturbed	2013	1-Jul-13		4.3		5		8			
B4 P/B	B4	Bigwin Bay	Disturbed	2013	21-Jul-13		5.0		3		8			
B4 P/B	B4	Bigwin Bay	Disturbed	2013	5-Aug-13		4.2		1		1			
B4 P/B	B4	Bigwin Bay	Disturbed	2013	18-Aug-13		5.1		1		5			
B4 P/B	B4	Bigwin Bay	Disturbed	2013	28-Aug-13		3.7		3		28			
B4	B4	Bigwin Bay	Disturbed	2014	29-Jun-14		5.4							
B4	B4	Bigwin Bay	Disturbed	2014	20-Jul-14		10.1							x
B4	B4	Bigwin Bay	Disturbed	2014	3-Aug-14		3.3							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B4	B4	Bigwin Bay	Disturbed	2014	17-Aug-14		4.7							
B4	B4	Bigwin Bay	Disturbed	2014	28-Aug-14		3.9							
B5	B4	Bigwin Bay	Disturbed	2015	28-Jun-15		5.5							
B5	B4	Bigwin Bay	Disturbed	2015	20-Jul-15		6.7							
B5	B4	Bigwin Bay	Disturbed	2015	4-Aug-15		12.0							x
B5 FD	B4	Bigwin Bay	Disturbed	2015	23-Aug-15		2.1							
B5	B4	Bigwin Bay	Disturbed	2015	23-Aug-15		2.7							
B5	B4	Bigwin Bay	Disturbed	2015	4-Sep-15		4.6							
B5	B5	Bigwin Bay	Disturbed	2016	1-Jul-16		3.7							
B5	B5	Bigwin Bay	Disturbed	2016	18-Jul-16		3.5							
B5	B5	Bigwin Bay	Disturbed	2016	1-Aug-16		5.1		5		16			
B5	B5	Bigwin Bay	Disturbed	2016	14-Aug-16		4.2							
B5	B5	Bigwin Bay	Disturbed	2016	1-Sep-16		4.9							
B5	B5	Bigwin Bay	Disturbed	2017	3-Jul-17		5.3							
B5	B5	Bigwin Bay	Disturbed	2017	23-Jul-17		5.6							
B5	B5	Bigwin Bay	Disturbed	2017	7-Aug-17		5.8		5		43			
B5	B5	Bigwin Bay	Disturbed	2017	21-Aug-17		5.4							
B5	B5	Bigwin Bay	Disturbed	2017	1-Sep-17		4.9							
B5	B5	Bigwin Bay	Disturbed	2018	2-Jul-18				3		16			
B5	B5	Bigwin Bay	Disturbed	2018	6-Aug-18		3.7		3		25			
B5 L/D	B5	Bigwin Bay	Disturbed	2018	6-Aug-18				4	A	201	45		

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B5	B5	Bigwin Bay	Disturbed	2018	31-Aug-18	Y	3.0		5		52			
B5 F/D	B5	Bigwin Bay	Disturbed	2018	31-Aug-18	Y	3.0		4		65			
B5 L/D	B5	Bigwin Bay	Disturbed	2018	31-Aug-18				12	A	201	45		
B5	B5	Bigwin Bay	Disturbed	2019	1-Jul-19		3.6							
B5	B5	Bigwin Bay	Disturbed	2019	5-Aug-19		5.0		11		16			
B5	B5	Bigwin Bay	Disturbed	2019	30-Aug-19	y	3.0							
B5	B5	Bigwin Bay	Disturbed	2019	30-Aug-19	y	3.0							
B1P	B1	Bigwin East	Deep Water	2002	1-Jul-02		4.4							
B1P	B1	Bigwin East	Deep Water	2002	15-Jul-02		5.8							
B1P	B1	Bigwin East	Deep Water	2002	5-Aug-02		4.3							
B1P	B1	Bigwin East	Deep Water	2002	19-Aug-02		3.7							
B1P	B1	Bigwin East	Deep Water	2002	2-Sep-02		2.7							
B1P	B1	Bigwin East	Deep Water	2003	8-Jun-03									
B1P	B1	Bigwin East	Deep Water	2003	30-Jun-03		4.6							
B1P	B1	Bigwin East	Deep Water	2003	14-Jul-03		5.5							
B1P	B1	Bigwin East	Deep Water	2003	4-Aug-03		4.1							
B1P	B1	Bigwin East	Deep Water	2003	18-Aug-03		5.2							
B1P	B1	Bigwin East	Deep Water	2003	1-Sep-03		2.9							
B1P	B1	Bigwin East	Deep Water	2003	28-Sep-03		2.7							
B1P	B1	Bigwin East	Deep Water	2004	5-Jul-04		2.7							
B1P	B1	Bigwin East	Deep Water	2004	19-Jul-04		5.3							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B1P	B1	Bigwin East	Deep Water	2004	2-Aug-04		4.2							
B1P	B1	Bigwin East	Deep Water	2004	23-Aug-04		5.1							
B1P	B1	Bigwin East	Deep Water	2004	6-Sep-04		3.6							
B1P	B1	Bigwin East	Deep Water	2005	4-Jul-05		2.8							
B1P	B1	Bigwin East	Deep Water	2005	18-Jul-05		4.8							
B1P	B1	Bigwin East	Deep Water	2005	1-Aug-05		3.7							
B1P	B1	Bigwin East	Deep Water	2005	14-Aug-05		4.8							
B1P	B1	Bigwin East	Deep Water	2005	1-Sep-05		3.8							
B1P	B1	Bigwin East	Deep Water	2006	3-Jul-06		6.1		1		1			
B1P	B1	Bigwin East	Deep Water	2006	17-Jul-06		6.3		3		5			
B1P FD	B1	Bigwin East	Deep Water	2006	17-Jul-06				5		13			
B1P LD	B1	Bigwin East	Deep Water	2006	17-Jul-06				4		4			
B1P	B1	Bigwin East	Deep Water	2006	7-Aug-06		3.3		1		8			
B1P FD	B1	Bigwin East	Deep Water	2006	7-Aug-06		4.3							
B1P	B1	Bigwin East	Deep Water	2006	21-Aug-06		6.1		3		15			
B1P FD	B1	Bigwin East	Deep Water	2006	21-Aug-06		7.4							
B1P	B1	Bigwin East	Deep Water	2006	1-Sep-06		4.1		3		8			
B1P FD	B1	Bigwin East	Deep Water	2006	1-Sep-06		5.4		1		3			
B1 P/B	B1	Bigwin East	Deep Water	2007	2-Jul-07		3.7		1		1			
B1 P/B	B1	Bigwin East	Deep Water	2007	23-Jul-07		4.8		1		1			
B1P FD	B1	Bigwin East	Deep Water	2007	23-Jul-07				1		3			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B1P LD	B1	Bigwin East	Deep Water	2007	23-Jul-07				4		56			
B1 P/B	B1	Bigwin East	Deep Water	2007	6-Aug-07		5.1		1		5			
B1 P/B	B1	Bigwin East	Deep Water	2007	20-Aug-07		2.9		1		1			
B1 P/B	B1	Bigwin East	Deep Water	2007	31-Aug-07		6.1		1		3			
B1 P/B	B1	Bigwin East	Deep Water	2008	30-Jun-08		4.4		1		1			
B1 P/B	B1	Bigwin East	Deep Water	2008	14-Jul-08		9.0		5		8			
B1P FD	B1	Bigwin East	Deep Water	2008	14-Jul-08				3		8			
B1P LD	B1	Bigwin East	Deep Water	2008	14-Jul-08				1		1			
B1 P/B	B1	Bigwin East	Deep Water	2008	4-Aug-08		7.4		1		16			
B1 P/B	B1	Bigwin East	Deep Water	2008	18-Aug-08		6.0		1		1			
B1P FD	B1	Bigwin East	Deep Water	2008	29-Aug-08		5.0							
B1 P/B	B1	Bigwin East	Deep Water	2008	29-Aug-08		5.4		1		3			
B1P	B1	Bigwin East	Deep Water	2009	3-Jul-09		4.2		1		3			
B1P FD	B1	Bigwin East	Deep Water	2009	3-Jul-09		4.3							
B1P	B1	Bigwin East	Deep Water	2009	17-Jul-09		5.8		3		8			
B1P	B1	Bigwin East	Deep Water	2009	1-Aug-09		2.9		1		16			
B1P FD	B1	Bigwin East	Deep Water	2009	1-Aug-09				1		11			
B1P	B1	Bigwin East	Deep Water	2009	17-Aug-09		4.5		3		3			
B1P FD	B1	Bigwin East	Deep Water	2009	17-Aug-09				1		5			
B1P	B1	Bigwin East	Deep Water	2009	4-Sep-09		3.2		1		1			
B1P FD	B1	Bigwin East	Deep Water	2010	5-Jul-10		4.8							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B1P	B1	Bigwin East	Deep Water	2010	5-Jul-10		5.6							
B1P	B1	Bigwin East	Deep Water	2010	19-Jul-10		4.8							
B1P FD	B1	Bigwin East	Deep Water	2010	19-Jul-10		4.8							
B1P	B1	Bigwin East	Deep Water	2010	2-Aug-10		4.6							
B1P	B1	Bigwin East	Deep Water	2010	16-Aug-10		7.6							
B1P	B1	Bigwin East	Deep Water	2010	7-Sep-10		6.4							
B1P	B1	Bigwin East	Deep Water	2011	4-Jul-11		5.1		1		5			
B1P FD phos	B1	Bigwin East	Deep Water	2011	4-Jul-11		5.3							
B1P	B1	Bigwin East	Deep Water	2011	18-Jul-11		3.1		1		3			
B1P COAL lab	B1	Bigwin East	Deep Water	2011	18-Jul-11				0		3			
B1P FD bacti	B1	Bigwin East	Deep Water	2011	18-Jul-11				1		5			
B1P	B1	Bigwin East	Deep Water	2011	1-Aug-11		6.7		1		3			
B1P	B1	Bigwin East	Deep Water	2011	14-Aug-11		4.8		1		5			
B1P	B1	Bigwin East	Deep Water	2011	2-Sep-11		4.7		1		3			
B1P COAL lab	B1	Bigwin East	Deep Water	2011	2-Sep-11				0		6			
B1P	B1	Bigwin East	Deep Water	2012	1-Jul-12		5.8							
B1P	B1	Bigwin East	Deep Water	2012	23-Jul-12		5.1							
B1P	B1	Bigwin East	Deep Water	2012	4-Aug-12		4.2							
B1P	B1	Bigwin East	Deep Water	2012	20-Aug-12		4.7							
B1P	B1	Bigwin East	Deep Water	2012	31-Aug-12		4.8							
B1P FD phos	B1	Bigwin East	Deep Water	2012	31-Aug-12		6.0							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
	B1	Bigwin East	Deep Water	2013	1-Jul-13		4.3		1		1			
B1P/B FD	B1	Bigwin East	Deep Water	2013	21-Jul-13		5.1		8		11			
B1P	B1	Bigwin East	Deep Water	2013	21-Jul-13		5.6		3		8			
B1P lab	B1	Bigwin East	Deep Water	2013	5-Aug-13		4.2		10		19			
B1 P/B FD	B1	Bigwin East	Deep Water	2013	18-Aug-13		5.9		1		1			
B1P	B1	Bigwin East	Deep Water	2013	18-Aug-13		7.7		1		5			
B1jP/B lab	B1	Bigwin East	Deep Water	2013	18-Aug-13				0		3			
B1P	B1	Bigwin East	Deep Water	2013	28-Aug-13		3.9		1		1			
B1	B1	Bigwin East	Deep Water	2014	29-Jun-14		5.3							
B1 FD	B1	Bigwin East	Deep Water	2014	29-Jun-14		7.2							
B1	B1	Bigwin East	Deep Water	2014	20-Jul-14		6.0							
B1 FD	B1	Bigwin East	Deep Water	2014	20-Jul-14		9.5						bs	
B1 FD	B1	Bigwin East	Deep Water	2014	3-Aug-14		4.0							
B1	B1	Bigwin East	Deep Water	2014	3-Aug-14		4.5							
B1	B1	Bigwin East	Deep Water	2014	17-Aug-14		8.6							
B1	B1	Bigwin East	Deep Water	2014	28-Aug-14		5.7							
B1	B1	Bigwin East	Deep Water	2015	28-Jun-15		18.1							x
B1	B1	Bigwin East	Deep Water	2015	20-Jul-15		4.6							
B1	B1	Bigwin East	Deep Water	2015	4-Aug-15		3.9							
B1	B1	Bigwin East	Deep Water	2015	23-Aug-15		4.1							
B1	B1	Bigwin East	Deep Water	2015	4-Sep-15		5.5							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B1	B1	Bigwin East	Deep water	2016	1-Jul-16		5.1							
B1	B1	Bigwin East	Deep water	2016	18-Jul-16		2.9							
B1	B1	Bigwin East	Deep water	2016	1-Aug-16		4.5		3		5			
B1	B1	Bigwin East	Deep water	2016	14-Aug-16		5.0							
B1	B1	Bigwin East	Deep water	2016	1-Sep-16		4.0							
B1 FD	B1	Bigwin East	Deep water	2016	1-Sep-16		5.3							
B1	B1	Bigwin East	Deep water	2017	3-Jul-17									
B1	B1	Bigwin East	Deep water	2017	23-Jul-17		8.3							
B1	B1	Bigwin East	Deep water	2017	7-Aug-17		7.7		1		8			
B1 FD	B1	Bigwin East	Deep water	2017	7-Aug-17				1		11			
B1	B1	Bigwin East	Deep water	2017	21-Aug-17		5.9							
B1 FD	B1	Bigwin East	Deep water	2017	21-Aug-17		5.3							
B1	B1	Bigwin East	Deep water	2017	1-Sep-17		4.8							
B1	B1	Bigwin East	Deep water	2018	2-Jul-18	Y	3.0		3		13			
B1	B1	Bigwin East	Deep water	2018	6-Aug-18		6.2	Y	3		13			
B1	B1	Bigwin East	Deep water	2018	31-Aug-18	Y	3.0	Y	3		43			
B1 L/D	B1	Bigwin East	Deep water	2018	31-Aug-18				2		83	92		
B1	B1	Bigwin East	Deep water	2019	1-Jul-19		47.8							x
B1	B1	Bigwin East	Deep water	2019	5-Aug-19		3.1		3		5			
B1	B1	Bigwin East	Deep water	2019	30-Aug-19	Y	3.0							
B3 P/B	B3	Bigwin North	Disturbed	2002	26-May-02				0.5		3			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B3 P/B	B3	Bigwin North	Disturbed	2002	1-Jul-02		8.8		52		94			
B3 P/B	B3	Bigwin North	Disturbed	2002	15-Jul-02		5.1		0.5		8			
B3 P/B	B3	Bigwin North	Disturbed	2002	5-Aug-02		6.2		11		213			
B3 P/B	B3	Bigwin North	Disturbed	2002	19-Aug-02		2.7		0.5		43			
B3 P/B	B3	Bigwin North	Disturbed	2002	2-Sep-02		2.3		0.5		33			
B3 P/B	B3	Bigwin North	Disturbed	2002	29-Sep-02				0.5		39			
B3 P/B	B3	Bigwin North	Disturbed	2003	8-Jun-03		4.5							
B3 P/B	B3	Bigwin North	Disturbed	2003	30-Jun-03		4.0		1		8			
B3 P/B	B3	Bigwin North	Disturbed	2003	14-Jul-03		5.3		1		33			
B3 P/B	B3	Bigwin North	Disturbed	2003	4-Aug-03		4.4		1		19			
B3 P/B	B3	Bigwin North	Disturbed	2003	4-Aug-03		4.5		1		19			
B3 P/B	B3	Bigwin North	Disturbed	2003	14-Aug-03		2.7		1		43			
B3 P/B	B3	Bigwin North	Disturbed	2003	1-Sep-03		3.3		3		87			
B3 P/B	B3	Bigwin North	Disturbed	2003	28-Sep-03		2.7		1		11			
B3 P/B	B3	Bigwin North	Disturbed	2004	5-Jul-04		3.4		8		141			
B3 P/B	B3	Bigwin North	Disturbed	2004	19-Jul-04		7.7		5		280			
B3 P/B	B3	Bigwin North	Disturbed	2004	2-Aug-04		5.1		16		72			
B3 P/B	B3	Bigwin North	Disturbed	2004	23-Aug-04		27.7		1		65			x
B3 P/B	B3	Bigwin North	Disturbed	2004	6-Sep-04		5.1		3		83			
B3 P/B FD	B3	Bigwin North	Disturbed	2004	6-Sep-04				3		76			
B3 P/B LD	B3	Bigwin North	Disturbed	2004	6-Sep-04				1		80			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B3 P/B	B3	Bigwin North	Disturbed	2005	4-Jul-05		3.9		5		33			
B3 P/B	B3	Bigwin North	Disturbed	2005	18-Jul-05		9.3		8		25			
B3 P/B	B3	Bigwin North	Disturbed	2005	1-Aug-05		3.5		3		49			
B3 P/B	B3	Bigwin North	Disturbed	2005	14-Aug-05				5		46			
B3 P/B	B3	Bigwin North	Disturbed	2005	1-Sep-05		3.9		8		28			
B3 P/B	B3	Bigwin North	Disturbed	2007	2-Jul-07		5.4		1		5			
B3 P/B	B3	Bigwin North	Disturbed	2007	23-Jul-07		5.7		1		1			
B3 P/B	B3	Bigwin North	Disturbed	2007	6-Aug-07		97.7		1		3			x
B3 P/B	B3	Bigwin North	Disturbed	2007	20-Aug-07		8.3		1		8			
B3 P/B	B3	Bigwin North	Disturbed	2007	31-Aug-07		5.6		3		28			
B3 P/B	B3	Bigwin North	Disturbed	2008	30-Jun-08		3.9		1		28			
B3 P/B	B3	Bigwin North	Disturbed	2008	14-Jul-08		8.0		8		30			
B3 P/B	B3	Bigwin North	Disturbed	2008	4-Aug-08		5.6		5		19			
B3 P/B	B3	Bigwin North	Disturbed	2008	18-Aug-08		7.1		1		1			
B3 P/B	B3	Bigwin North	Disturbed	2008	29-Aug-08		6.0		3		5			
B3 P/B	B3	Bigwin North	Disturbed	2009	3-Jul-09		4.5		5		28			
B3 P/B	B3	Bigwin North	Disturbed	2009	17-Jul-09		10.2		8		30			
B3 P/B	B3	Bigwin North	Disturbed	2009	1-Aug-09		2.9		5		19			
B3 P/B	B3	Bigwin North	Disturbed	2009	17-Aug-09		5.4		3		11			
B3 P/B	B3	Bigwin North	Disturbed	2009	4-Sep-09		5.1		3		5			
B3 P/B	B3	Bigwin North	Disturbed	2010	5-Jul-10		3.6							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B3 P/B	B3	Bigwin North	Disturbed	2010	19-Jul-10		3.3							
B3 P/B	B3	Bigwin North	Disturbed	2010	2-Aug-10		5.1							
B3 P/B	B3	Bigwin North	Disturbed	2010	16-Aug-10		6.6							
B3 P/B	B3	Bigwin North	Disturbed	2010	7-Sep-10		3.8							
B3 P/B	B3	Bigwin North	Disturbed	2011	4-Jul-11		6.2		1		3			
B3 P/B	B3	Bigwin North	Disturbed	2011	18-Jul-11		2.6		5		11			
B3 P/B	B3	Bigwin North	Disturbed	2011	1-Aug-11		5.2		1		3			
B3 P/B	B3	Bigwin North	Disturbed	2011	14-Aug-11		5.4		8		11			
B3 P/B FD b & p	B3	Bigwin North	Disturbed	2011	2-Sep-11		3.7		1		5			
B3 P/B	B3	Bigwin North	Disturbed	2011	2-Sep-11		5.9		1		3		bs	
B3 P/B	B3	Bigwin North	Disturbed	2012	1-Jul-12		4.4							
B3 P/B	B3	Bigwin North	Disturbed	2012	23-Jul-12		4.3							
B3 P/B	B3	Bigwin North	Disturbed	2012	4-Aug-12		6.2							
B3 P/B	B3	Bigwin North	Disturbed	2012	20-Aug-12		4.4							
B3 P/B FD	B3	Bigwin North	Disturbed	2012	20-Aug-12		5.4							
B3 P/B	B3	Bigwin North	Disturbed	2012	31-Aug-12		4.2							
B3 P/B	B3	Bigwin North	Disturbed	2013	1-Jul-13		3.2							
B3 P/B	B3	Bigwin North	Disturbed	2013	21-Jul-13				3		17			
B3 P/B	B3	Bigwin North	Disturbed	2013	5-Aug-13		4.7		5		11			
B3 P/B	B3	Bigwin North	Disturbed	2013	18-Aug-13		5.7		1		8			
B3 P/B FD	B3	Bigwin North	Disturbed	2013	18-Aug-13				1		8			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B3 P/B lab	B3	Bigwin North	Disturbed	2013	18-Aug-13				2		12			
B3 P/B FD	B3	Bigwin North	Disturbed	2013	28-Aug-13		4.8		3		16			
B3 P/B	B3	Bigwin North	Disturbed	2013	28-Aug-13		6.2		3		8			
B3	B3	Bigwin North	Disturbed	2014	29-Jun-14		4.6							
B3	B3	Bigwin North	Disturbed	2014	20-Jul-14		7.7							
B3 FD	B3	Bigwin North	Disturbed	2014	3-Aug-14		3.1							
B3	B3	Bigwin North	Disturbed	2014	3-Aug-14		3.4							
B3	B3	Bigwin North	Disturbed	2014	17-Aug-14		3.8							
B3 FD	B3	Bigwin North	Disturbed	2014	17-Aug-14		3.8							
B3	B3	Bigwin North	Disturbed	2014	28-Aug-14		3.8							
B3	B3	Bigwin North	Disturbed	2015	28-Jun-15		4.2							
B3	B3	Bigwin North	Disturbed	2015	20-Jul-15		8.1							
B3 FD	B3	Bigwin North	Disturbed	2015	4-Aug-15		4.0							
B3	B3	Bigwin North	Disturbed	2015	4-Aug-15		19.3						bs	
B3	B3	Bigwin North	Disturbed	2015	23-Aug-15		4.5							
B3	B3	Bigwin North	Disturbed	2015	4-Sep-15		4.5							
B3 FD	B3	Bigwin North	Disturbed	2015	4-Sep-15		8.7						bs	
B3	B3	Bigwin North	Disturbed	2016	1-Jul-16		3.9							
B3	B3	Bigwin North	Disturbed	2016	18-Jul-16		4.9							
B3	B3	Bigwin North	Disturbed	2016	1-Aug-16		9.4		5		13			
B3	B3	Bigwin North	Disturbed	2016	14-Aug-16		3.5							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B3 FD	B3	Bigwin North	Disturbed	2016	14-Aug-16		5.9						bs	
B3	B3	Bigwin North	Disturbed	2016	1-Sep-16		3.8							
B3 FD	B3	Bigwin North	Disturbed	2016	1-Sep-16		4.0							
B3	B3	Bigwin North	Disturbed	2017	3-Jul-17		5.8							
B3	B3	Bigwin North	Disturbed	2017	7-Aug-17		6.6		8		52			
B3	B3	Bigwin North	Disturbed	2017	21-Aug-17		5.1							
B3 F/D	B3	Bigwin North	Disturbed	2017	21-Aug-17		5.4							
B3	B3	Bigwin North	Disturbed	2017	1-Sep-17		6.3							
B3	B3	Bigwin North	Disturbed	2018	2-Jul-18	Y	3.0				46			
B3 L/D	B3	Bigwin North	Disturbed	2018	2-Jul-18				4	A	201	20		
B3	B3	Bigwin North	Disturbed	2018	6-Aug-18		5.1	Y	3		5			
B3	B3	Bigwin North	Disturbed	2018	31-Aug-18	Y	3.0		3		11			
B3	B3	Bigwin North	Disturbed	2019	1-Jul-19		4.1							
B3	B3	Bigwin North	Disturbed	2019	5-Aug-19	y	3.0		8		16			
B3	B3	Bigwin North	Disturbed	2019	30-Aug-19	y	3.0							
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2005	4-Jul-05				3		8			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2005	4-Jul-05				3		11			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2005	18-Jul-05		6.2		3		11			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2005	18-Jul-05				5		8			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2005	1-Aug-05				3		16			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2005	1-Aug-05				5		8			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2005	14-Aug-05		10.3		1		1			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2005	14-Aug-05				3		8			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2005	1-Sep-05				1		8			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2005	1-Sep-05				1		13			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2006	3-Jul-06		3.9		1		1			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2006	3-Jul-06				1		1			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2006	17-Jul-06		7.7		1		1			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2006	7-Aug-06		5.7		1		33			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2006	7-Aug-06				3		22			
N24 P/B LD	N24	Boothby's	Nearshore Undisturbed	2006	7-Aug-06				1		54			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2006	21-Aug-06		5.7		1		8			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2006	1-Sep-06				3		3			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2007	2-Jul-07		3.8		1		1			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2007	23-Jul-07		7.8		1		5			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2007	6-Aug-07		7.3		1		5			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2007	6-Aug-07				1		8			
N24 P/B LD	N24	Boothby's	Nearshore Undisturbed	2007	6-Aug-07				1		108			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2007	20-Aug-07		3.0		1		3			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2007	20-Aug-07				1		1			
N24 P/B LD	N24	Boothby's	Nearshore Undisturbed	2007	20-Aug-07				1		8			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2007	31-Aug-07		4.3		1		3			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N24 P/B LD	N24	Boothby's	Nearshore Undisturbed	2008	30-Jun-08		4.6							
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2008	30-Jun-08		5.9		1		5			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2008	14-Jul-08		5.8		28		43			
N24 P/B LD	N24	Boothby's	Nearshore Undisturbed	2008	4-Aug-08		5.0							
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2008	4-Aug-08		5.8		1		11			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2008	4-Aug-08				3		8			
N24 P/B LD	N24	Boothby's	Nearshore Undisturbed	2008	4-Aug-08				4		12			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2008	18-Aug-08		5.9		1		1			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2008	29-Aug-08		4.7		1		1			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2009	3-Jul-09		5.9		1		5			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2009	17-Jul-09		6.2		3		13			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2009	17-Jul-09				5		11			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2009	1-Aug-09		2.9		1		11			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2009	17-Aug-09		4.0		5		8			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2009	4-Sep-09		2.3		1		3			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2010	5-Jul-10		3.3							
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2010	19-Jul-10		2.9							
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2010	2-Aug-10		6.4							
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2010	16-Aug-10		7.4							
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2010	7-Sep-10		2.9							
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2010	7-Sep-10		2.9							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2011	4-Jul-11		4.9		1		5			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2011	18-Jul-11		2.8		3		5			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2011	1-Aug-11		5.5		3		8			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2011	15-Aug-11		5.8		5		8			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2011	2-Sep-11		5.1		3		11			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2012	1-Jul-12		3.4							
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2012	23-Jul-12		3.7							
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2012	23-Jul-12		3.9							
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2012	4-Aug-12		3.6							
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2012	4-Aug-12		3.7							
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2012	20-Aug-12		5.2							
N26 P/B	N24	Boothby's	Nearshore Undisturbed	2012	31-Aug-12		3.2							
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2013	1-Jul-13		3.9		3		28			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2013	1-Jul-13		4.3		5		8			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2013	21-Jul-13				8		11			
N24 P/B lab	N24	Boothby's	Nearshore Undisturbed	2013	21-Jul-13				10		19			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2013	21-Jul-13				8		16			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2013	5-Aug-13		3.6		5		8			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2013	5-Aug-13		3.7		1		8			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2013	18-Aug-13				1		8			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2013	18-Aug-13				1		11			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N24 P/B lab	N24	Boothby's	Nearshore Undisturbed	2013	18-Aug-13				0		15			
N24 P/B	N24	Boothby's	Nearshore Undisturbed	2013	28-Aug-13		5.2		1		11			
N24 P/B FD	N24	Boothby's	Nearshore Undisturbed	2013	28-Aug-13				1		8			
N24 P/B lab	N24	Boothby's	Nearshore Undisturbed	2013	28-Aug-13				2		11			
N24 FD	N24	Boothby's	Nearshore Undisturbed	2014	29-Jun-14		5.3							
N24	N24	Boothby's	Nearshore Undisturbed	2014	29-Jun-14		6.6							
N24	N24	Boothby's	Nearshore Undisturbed	2014	20-Jul-14		6.0							
N24	N24	Boothby's	Nearshore Undisturbed	2014	3-Aug-14		4.2							
N24	N24	Boothby's	Nearshore Undisturbed	2014	17-Aug-14		5.2							
N24	N24	Boothby's	Nearshore Undisturbed	2014	28-Aug-14		3.7							
N24	N24	Boothby's	Nearshore Undisturbed	2015	28-Jun-15		5.0							
N24	N24	Boothby's	Nearshore Undisturbed	2015	20-Jul-15		4.1							
N24 FD	N24	Boothby's	Nearshore Undisturbed	2015	20-Jul-15		7.4						bs	
N24	N24	Boothby's	Nearshore Undisturbed	2015	4-Aug-15		4.5							
N24 FD	N24	Boothby's	Nearshore Undisturbed	2015	23-Aug-15		2.1							
N24	N24	Boothby's	Nearshore Undisturbed	2015	23-Aug-15		5.0						bs	
N24	N24	Boothby's	Nearshore Undisturbed	2015	4-Sep-15		2.6							
N24	N24	Boothby's	Nearshore Undisturbed	2016	1-Jul-16		3.3							
N24 FD	N24	Boothby's	Nearshore Undisturbed	2016	1-Jul-16		8.7						bs	
N24	N24	Boothby's	Nearshore Undisturbed	2016	18-Jul-16		7.3							
N24	N24	Boothby's	Nearshore Undisturbed	2016	1-Aug-16		4.7		3		8			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N24	N24	Boothby's	Nearshore Undisturbed	2016	14-Aug-16		2.7							
N24	N24	Boothby's	Nearshore Undisturbed	2016	1-Sep-16		8.3							
N24	N24	Boothby's	Nearshore Undisturbed	2017	3-Jul-17		5.6							
N24	N24	Boothby's	Nearshore Undisturbed	2017	7-Aug-17		4.9							
N24 F/D	N24	Boothby's	Nearshore Undisturbed	2017	7-Aug-17		5.1		5		166			
N24 lab results	N24	Boothby's	Nearshore Undisturbed	2017	7-Aug-17				5		800			
N24	N24	Boothby's	Nearshore Undisturbed	2017	21-Aug-17		8.5							
N24	N24	Boothby's	Nearshore Undisturbed	2017	1-Sep-17		5.0							
N24	N24	Boothby's	Nearshore Undisturbed	2018	2-Jul-18	Y	3.0		5		16			
N24 LD	N24	Boothby's	Nearshore Undisturbed	2018	2-Jul-18				34	A	201	16		
N24	N24	Boothby's	Nearshore Undisturbed	2018	6-Aug-18		6.1		3		8			
N24	N24	Boothby's	Nearshore Undisturbed	2018	31-Aug-18	Y	3.0	Y	3		3			
N24	N24	Boothby's	Nearshore Undisturbed	2019	1-Jul-19		3.3							
N24	N24	Boothby's	Nearshore Undisturbed	2019	5-Aug-19		4.0	y	3		8			
N24	N24	Boothby's	Nearshore Undisturbed	2019	5-Aug-19		3.2	y	3		5			
N24	N24	Boothby's	Nearshore Undisturbed	2019	30-Aug-19	y	3.0							
N11 P/B	N11	Britannia	Disturbed	2002	1-Jul-02		3.3							
N11 P/B	N11	Britannia	Disturbed	2002	15-Jul-02		4.7							
N11 P/B	N11	Britannia	Disturbed	2002	5-Aug-02		3.8							
N11 P/B	N11	Britannia	Disturbed	2002	19-Aug-02		2.7							
N11 P/B	N11	Britannia	Disturbed	2002	2-Sep-02		2.0							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N11 P/B	N11	Britannia	Disturbed	2003	8-Jun-03		4.8							
N11 P/B	N11	Britannia	Disturbed	2003	30-Jun-03		5.6							
N11 P/B	N11	Britannia	Disturbed	2003	14-Jul-03		3.6							
N11 P/B	N11	Britannia	Disturbed	2003	4-Aug-03		3.8							
N11 P/B	N11	Britannia	Disturbed	2003	14-Aug-03		5.3							
N11 P/B	N11	Britannia	Disturbed	2003	1-Sep-03		12.6							x
N11 P/B	N11	Britannia	Disturbed	2003	28-Sep-03		3.5							
N11 P/B	N11	Britannia	Disturbed	2004	5-Jul-04		2.8							
N11 P/B	N11	Britannia	Disturbed	2004	19-Jul-04		5.1							
N11 P/B	N11	Britannia	Disturbed	2004	2-Aug-04		4.6							
N11 P/B	N11	Britannia	Disturbed	2004	23-Aug-04		3.6							
N11 P/B	N11	Britannia	Disturbed	2004	6-Sep-04									
N11 P/B	N11	Britannia	Disturbed	2005	4-Jul-05									
N11 P/B	N11	Britannia	Disturbed	2005	18-Jul-05		2.1							
N11 P/B	N11	Britannia	Disturbed	2005	18-Jul-05		4.7							
N11 P/B	N11	Britannia	Disturbed	2005	1-Aug-05									
N11 P/B	N11	Britannia	Disturbed	2005	14-Aug-05		5.8							
N11 P/B	N11	Britannia	Disturbed	2005	1-Sep-05		9.4							x
N11 P/B	N11	Britannia	Disturbed	2007	2-Jul-07		3.5		3		5			
N11 P/B FD	N11	Britannia	Disturbed	2007	2-Jul-07				3		8			
N11 P/B LD	N11	Britannia	Disturbed	2007	2-Jul-07				1		4			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N11 P/B	N11	Britannia	Disturbed	2007	23-Jul-07		5.8		1		3			
N11 P/B	N11	Britannia	Disturbed	2007	6-Aug-07		3.8		1		5			
N11 P/B	N11	Britannia	Disturbed	2007	20-Aug-07		5.3		5		11			
N11 P/B	N11	Britannia	Disturbed	2007	31-Aug-07		5.1		1		3			
N11 P/B FD	N11	Britannia	Disturbed	2007	31-Aug-07				1		11			
N11 P/B	N11	Britannia	Disturbed	2008	30-Jun-08		4.2		11		19			
N11 P/B FD	N11	Britannia	Disturbed	2008	30-Jun-08				8.0		16.0			
N11 P/B	N11	Britannia	Disturbed	2008	14-Jul-08		4.4		5		13			
N11 P/B	N11	Britannia	Disturbed	2008	4-Aug-08		8.4		3		3			
N11 P/B FD	N11	Britannia	Disturbed	2008	4-Aug-08				3.0		11.0			
N11 P/B	N11	Britannia	Disturbed	2008	18-Aug-08		4.1		3		8			
N11 P/B	N11	Britannia	Disturbed	2008	29-Aug-08		6.2		1		1			
N11 P/B	N11	Britannia	Disturbed	2009	3-Jul-09		3.5		8.0		19.0			
N11 P/B FD	N11	Britannia	Disturbed	2009	3-Jul-09				11.0		16.0			
N11 P/B	N11	Britannia	Disturbed	2009	17-Jul-09		5.3		1.0		13.0			
N11 P/B	N11	Britannia	Disturbed	2009	1-Aug-09		2.0		3.0		5.0			
N11 P/B	N11	Britannia	Disturbed	2009	17-Aug-09		3.5		3.0		8.0			
N11 P/B	N11	Britannia	Disturbed	2009	4-Sep-09		3.6		1.0		1.0			
N11 P/B	N11	Britannia	Disturbed	2010	5-Jul-10		2.9							
N11 P/B	N11	Britannia	Disturbed	2010	19-Jul-10		3.8							
N11 P/B	N11	Britannia	Disturbed	2010	2-Aug-10		2.7							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N11 P/B	N11	Britannia	Disturbed	2010	16-Aug-10		4.6							
N11 P/B	N11	Britannia	Disturbed	2010	7-Sep-10		4.9							
N11 P/B	N11	Britannia	Disturbed	2011	4-Jul-11		4.9		3		5			
N11 P/B	N11	Britannia	Disturbed	2011	18-Jul-11		2.9		3		3			
N11 P/B	N11	Britannia	Disturbed	2011	1-Aug-11		4.6		3		3			
N11 P/B	N11	Britannia	Disturbed	2011	15-Aug-11		4.5		1		8			
N11 P/B COAL lab	N11	Britannia	Disturbed	2011	15-Aug-11				0		11			
N11 P/B FD bacti	N11	Britannia	Disturbed	2011	15-Aug-11				1		8			
N10 P/B	N11	Britannia	Disturbed	2011	2-Sep-11		3.9		1		5			
N11 P/B COAL lab	N11	Britannia	Disturbed	2011	2-Sep-11				0		14			
N11 P/B	N11	Britannia	Disturbed	2012	1-Jul-12		6.2							
N11 P/B	N11	Britannia	Disturbed	2012	23-Jul-12		3.1							
N11 P/B	N11	Britannia	Disturbed	2012	4-Aug-12		5.2							
N11 P/B	N11	Britannia	Disturbed	2012	20-Aug-12		4.1							
N11 P/B	N11	Britannia	Disturbed	2012	31-Aug-12		5.3							
N11 P/B	N11	Britannia	Disturbed	2013	1-Jul-13				1		8			
N11 P/B	N11	Britannia	Disturbed	2013	21-Jul-13		5.3		1		1			
N11 P/B	N11	Britannia	Disturbed	2013	5-Aug-13		2.9		1		3			
N11 P/B	N11	Britannia	Disturbed	2013	18-Aug-13		21.6		1		8			x
N11 P/B FD	N11	Britannia	Disturbed	2013	18-Aug-13				1		5			
N11 P/B lab	N11	Britannia	Disturbed	2013	18-Aug-13				0		6			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N11 P/B	N11	Britannia	Disturbed	2013	28-Aug-13		13.3		3		17			x
N11 P/B FD	N11	Britannia	Disturbed	2013	28-Aug-13				1		11			
N11 P/B lab	N11	Britannia	Disturbed	2013	28-Aug-13				2		9			
N11	N11	Britannia	Disturbed	2014	29-Jun-14		5.0							
N11	N11	Britannia	Disturbed	2014	20-Jul-14		6.0							
N11	N11	Britannia	Disturbed	2014	3-Aug-14									
N11	N11	Britannia	Disturbed	2014	17-Aug-14		4.2							
N11	N11	Britannia	Disturbed	2014	28-Aug-14		3.9							
N11	N11	Britannia	Disturbed	2015	28-Jun-15		4.6							
N11	N11	Britannia	Disturbed	2015	20-Jul-15		3.9							
N11	N11	Britannia	Disturbed	2015	4-Aug-15		6.9							
N11	N11	Britannia	Disturbed	2015	23-Aug-15		6.2							
N11	N11	Britannia	Disturbed	2015	4-Sep-15		2.6							
N11 FD	N11	Britannia	Disturbed	2015	4-Sep-15		2.7							
N11	N11	Britannia	Disturbed	2016	1-Jul-16		3.1							
N11	N11	Britannia	Disturbed	2016	18-Jul-16		7.3							
N11	N11	Britannia	Disturbed	2016	1-Aug-16		5.9		3		5		bs	
N11 FD	N11	Britannia	Disturbed	2016	1-Aug-16		3.9							
N11	N11	Britannia	Disturbed	2016	14-Aug-16		3.9							
N11 FD	N11	Britannia	Disturbed	2016	14-Aug-16		3.8							
N11	N11	Britannia	Disturbed	2016	1-Sep-16		4.5							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N11	N11	Britannia	Disturbed	2017	3-Jul-17		5.0							
N11	N11	Britannia	Disturbed	2017	23-Jul-17		5.5							
N11	N11	Britannia	Disturbed	2017	7-Aug-17		6.3		3		47			
N11	N11	Britannia	Disturbed	2017	21-Aug-17		5.0							
N11	N11	Britannia	Disturbed	2017	1-Sep-17		5.8							
N11 F/D	N11	Britannia	Disturbed	2017	1-Sep-17		5.3							
N11	N11	Britannia	Disturbed	2018	2-Jul-18		6.7		3		11			
N11	N11	Britannia	Disturbed	2018	6-Aug-18		4.5		3		52			
N11 L/D	N11	Britannia	Disturbed	2018	6-Aug-18				4	A	201	62		
N11	N11	Britannia	Disturbed	2018	31-Aug-18	Y	3.0		5		25			
N11 F/D	N11	Britannia	Disturbed	2018	31-Aug-18	Y	3.0		5		33			
N11	N11	Britannia	Disturbed	2019	1-Jul-19		3.2							
N11	N11	Britannia	Disturbed	2019	5-Aug-19	y	3.0		8		11			
N11	N11	Britannia	Disturbed	2019	30-Aug-19	y	3.0							
N1 P	N1	Dwight Bay	Deep Water	2002	1-Jul-02		6.7							
N1 P	N1	Dwight Bay	Deep Water	2002	15-Jul-02		5.7							
N1 P	N1	Dwight Bay	Deep Water	2002	5-Aug-02		4.8							
N1 P	N1	Dwight Bay	Deep Water	2002	19-Aug-02		3.8							
N1 P	N1	Dwight Bay	Deep Water	2002	2-Sep-02		1.8							
N1 P	N1	Dwight Bay	Deep Water	2003	8-Jun-03									
N1 P	N1	Dwight Bay	Deep Water	2003	30-Jun-03		5.4							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N1 P	N1	Dwight Bay	Deep Water	2003	14-Jul-03		0.7							
N1 P	N1	Dwight Bay	Deep Water	2003	4-Aug-03		2.0							
N1 P	N1	Dwight Bay	Deep Water	2003	18-Aug-03		5.0							
N1 P	N1	Dwight Bay	Deep Water	2003	1-Sep-03		5.6							
N1 P	N1	Dwight Bay	Deep Water	2003	28-Sep-03		3.1							
N1 P	N1	Dwight Bay	Deep Water	2004	19-Jul-04		7.7							
N1 P	N1	Dwight Bay	Deep Water	2004	2-Aug-04		6.3							
N1 P	N1	Dwight Bay	Deep Water	2004	23-Aug-04		4.4							
N1 P	N1	Dwight Bay	Deep Water	2004	6-Sep-04									
N1 P	N1	Dwight Bay	Deep Water	2005	18-Jul-05		6.1							
N1 P	N1	Dwight Bay	Deep Water	2005	1-Aug-05		3.3							
N1 P	N1	Dwight Bay	Deep Water	2005	14-Aug-05		5.9							
N1 P	N1	Dwight Bay	Deep Water	2005	1-Sep-05		3.4							
N1 P	N1	Dwight Bay	Deep Water	2006	3-Jul-06		5.0		1		1			
N1 P	N1	Dwight Bay	Deep Water	2006	17-Jul-06		4.5		8		8			
N1 P/B FD	N1	Dwight Bay	Deep Water	2006	17-Jul-06		4.5							
N1 P	N1	Dwight Bay	Deep Water	2006	21-Aug-06		6.7		1		1			
N1 P/B FD	N1	Dwight Bay	Deep Water	2006	21-Aug-06				3		3			
N1 P/B LD	N1	Dwight Bay	Deep Water	2006	21-Aug-06				4		8			
N1 P	N1	Dwight Bay	Deep Water	2006	1-Sep-06		9.2		3		13			
N1 P/B FD	N1	Dwight Bay	Deep Water	2006	1-Sep-06		31.9						bs	

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N1 P/B	N1	Dwight Bay	Deep Water	2007	2-Jul-07		4.3		1		5			
N1 P/B	N1	Dwight Bay	Deep Water	2007	23-Jul-07		6.1		1		13			
N1 P/B FD	N1	Dwight Bay	Deep Water	2007	23-Jul-07				1		8			
N1 P/B LD	N1	Dwight Bay	Deep Water	2007	23-Jul-07				1		4			
N1 P/B	N1	Dwight Bay	Deep Water	2007	6-Aug-07		9.6		1		5			
N1 P/B FD	N1	Dwight Bay	Deep Water	2007	6-Aug-07				1		5			
N1 P/B LD	N1	Dwight Bay	Deep Water	2007	6-Aug-07				1		8			
N1 P/B FD	N1	Dwight Bay	Deep Water	2007	20-Aug-07		4.0							
N1 P/B	N1	Dwight Bay	Deep Water	2007	20-Aug-07		4.6		1		1			
N1 P/B	N1	Dwight Bay	Deep Water	2007	31-Aug-07		5.3		1		5			
N1 P/B	N1	Dwight Bay	Deep Water	2008	30-Jun-08				1		1			
N1 P/B	N1	Dwight Bay	Deep Water	2008	14-Jul-08		6.1		1		1			
N1 P/B	N1	Dwight Bay	Deep Water	2008	4-Aug-08		6.3		1		1			
N1 P/B	N1	Dwight Bay	Deep Water	2008	18-Aug-08		6.0		1		1			
N1 P/B FD	N1	Dwight Bay	Deep Water	2008	18-Aug-08				1		1			
N1 P/B LD	N1	Dwight Bay	Deep Water	2008	18-Aug-08				1		1			
N1 P/B	N1	Dwight Bay	Deep Water	2008	29-Aug-08		6.0		1		8			
N1 P/B	N1	Dwight Bay	Deep Water	2009	3-Jul-09				5		11			
N1 P/B FD	N1	Dwight Bay	Deep Water	2009	17-Jul-09		5.2				3			
N1 P/B	N1	Dwight Bay	Deep Water	2009	17-Jul-09		5.3		1		8			
N1 P/B FD	N1	Dwight Bay	Deep Water	2009	1-Aug-09		3.2		8		11			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N1 P/B	N1	Dwight Bay	Deep Water	2009	1-Aug-09		4.5		3		8			
N1 P/B	N1	Dwight Bay	Deep Water	2009	17-Aug-09		3.6		1		11			
N1 P/B FD	N1	Dwight Bay	Deep Water	2009	17-Aug-09		3.7							
N1 P/B	N1	Dwight Bay	Deep Water	2009	4-Sep-09		6.9		1		3			
N1 P/B FD	N1	Dwight Bay	Deep Water	2010	5-Jul-10		5.0							
N1 P/B	N1	Dwight Bay	Deep Water	2010	5-Jul-10		6.5							
N1 P/B	N1	Dwight Bay	Deep Water	2010	19-Jul-10		11.7							
N1 P/B	N1	Dwight Bay	Deep Water	2010	2-Aug-10		3.6							
N1 P/B	N1	Dwight Bay	Deep Water	2010	16-Aug-10		3.4							
N1 P/B	N1	Dwight Bay	Deep Water	2010	7-Sep-10		6.6							
N1 P/B	N1	Dwight Bay	Deep Water	2011	4-Jul-11		5.3		3		5			
N1 P/B COAL lab	N1	Dwight Bay	Deep Water	2011	4-Jul-11				2		5			
N1 P/B	N1	Dwight Bay	Deep Water	2011	18-Jul-11		5.2		1		3			
N1 P/B	N1	Dwight Bay	Deep Water	2011	1-Aug-11		5.3		1		3			
N1 P/B FD B & p	N1	Dwight Bay	Deep Water	2011	1-Aug-11		5.3		1		1			
N1 P/B	N1	Dwight Bay	Deep Water	2011	15-Aug-11		6.2		1		3			
N1 P/B	N1	Dwight Bay	Deep Water	2011	2-Sep-11		4.6		1		3			
N1 P/B COAL lab	N1	Dwight Bay	Deep Water	2011	2-Sep-11				0		12			
N1 P/B	N1	Dwight Bay	Deep Water	2012	1-Jul-12		6.1							
N1 P/B FD	N1	Dwight Bay	Deep Water	2012	23-Jul-12		5.9							
N1 P/B	N1	Dwight Bay	Deep Water	2012	23-Jul-12		6.4							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N1 P/B	N1	Dwight Bay	Deep Water	2012	4-Aug-12		6.1							
N1 P/B	N1	Dwight Bay	Deep Water	2012	20-Aug-12		8.6							
N1 P/B	N1	Dwight Bay	Deep Water	2012	31-Aug-12		5.7							
N1 P/B	N1	Dwight Bay	Deep Water	2013	1-Jul-13		3.8		3		11			
N1 P/B FD	N1	Dwight Bay	Deep Water	2013	1-Jul-13		3.8		1		11			
N1 P/B	N1	Dwight Bay	Deep Water	2013	21-Jul-13		5.4		1		8			
N1 P/B FD	N1	Dwight Bay	Deep Water	2013	5-Aug-13		5.1		5		28			
N1 P/B	N1	Dwight Bay	Deep Water	2013	5-Aug-13		7.0		3		35			
N1 P/B lab	N1	Dwight Bay	Deep Water	2013	5-Aug-13				6		45			
N1 P/B	N1	Dwight Bay	Deep Water	2013	18-Aug-13		5.5		5		11			
N1 P/B FD	N1	Dwight Bay	Deep Water	2013	18-Aug-13		6.1		3		8			
N1 P/B	N1	Dwight Bay	Deep Water	2013	28-Aug-13				3		8			
N1	N1	Dwight Bay	Deep Water	2014	29-Jun-14									
N1	N1	Dwight Bay	Deep Water	2014	20-Jul-14		9.7							
N1	N1	Dwight Bay	Deep Water	2014	3-Aug-14		3.9							
N1	N1	Dwight Bay	Deep Water	2014	17-Aug-14		4.8							
N1	N1	Dwight Bay	Deep Water	2014	28-Aug-14									
N1	N1	Dwight Bay	Deep Water	2015	28-Jun-15		8.1							
N1	N1	Dwight Bay	Deep Water	2015	20-Jul-15		4.3							
N1 FD	N1	Dwight Bay	Deep Water	2015	20-Jul-15		8.3						bs	
N1	N1	Dwight Bay	Deep Water	2015	4-Aug-15		5.1							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N1	N1	Dwight Bay	Deep Water	2015	23-Aug-15		3.1							
N1 FD	N1	Dwight Bay	Deep Water	2015	4-Sep-15		4.4							
N1	N1	Dwight Bay	Deep Water	2015	4-Sep-15		7.0						bs	
N1	N1	Dwight Bay	Deep Water	2016	1-Jul-16		11.7							
N1 FD	N1	Dwight Bay	Deep Water	2016	1-Jul-16		10.4							
N1	N1	Dwight Bay	Deep Water	2016	18-Jul-16		12.4							
N1	N1	Dwight Bay	Deep Water	2016	1-Aug-16		6.5		0		3			
N1	N1	Dwight Bay	Deep Water	2016	14-Aug-16		7.3							
N1 FD	N1	Dwight Bay	Deep Water	2016	14-Aug-16		11.2						bs	
N1	N1	Dwight Bay	Deep Water	2016	1-Sep-16		7.3							
N1	N1	Dwight Bay	Deep Water	2017	3-Jul-17		6.3							
N1	N1	Dwight Bay	Deep Water	2017	23-Jul-17		13.0							x
N1 F/D	N1	Dwight Bay	Deep Water	2017	23-Jul-17		15.5							x
N1	N1	Dwight Bay	Deep Water	2017	7-Aug-17		7.0		1		5			
N1	N1	Dwight Bay	Deep Water	2017	21-Aug-17		6.9							
N1	N1	Dwight Bay	Deep Water	2017	1-Sep-17		15.4							x
N1	N1	Dwight Bay	Deep Water	2018	2-Jul-18	Y	3.0	Y	3		13			
N1	N1	Dwight Bay	Deep Water	2018	6-Aug-18		5.0		5		16			
N1 L/D	N1	Dwight Bay	Deep Water	2018	6-Aug-18				9		201	NDOGH PC		
N1	N1	Dwight Bay	Deep Water	2018	31-Aug-18	Y	3.0							
N1	N1	Dwight Bay	Deep water	2019	1-Jul-19		4.2							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N1	N1	Dwight Bay	Deep water	2019	1-Jul-19		3.2							
N1	N1	Dwight Bay	Deep water	2019	5-Aug-19		3.4		3		3			
N1	N1	Dwight Bay	Deep water	2019	30-Aug-19	y	3.0							
N3 P/B	N3	Dwight Beach	Disturbed	2011	4-Jul-11		9.5		28		36			
N3 P/B	N3	Dwight Beach	Disturbed	2011	18-Jul-11		7.4		36		46			
N3 P/B COAL lab	N3	Dwight Beach	Disturbed	2011	18-Jul-11				40		47			
N3 P/B FD bacti	N3	Dwight Beach	Disturbed	2011	18-Jul-11				36		43			
N3 P/B FD phos	N3	Dwight Beach	Disturbed	2011	1-Aug-11		5.5							
N3 P/B	N3	Dwight Beach	Disturbed	2011	1-Aug-11		5.8		19		22			
N3 P/B	N3	Dwight Beach	Disturbed	2011	15-Aug-11		4.9		22		33			
N3 P/B	N3	Dwight Beach	Disturbed	2011	2-Sep-11		3.4		13		16			
N3 P/B FD phos	N3	Dwight Beach	Disturbed	2011	2-Sep-11		4.3							
N3 P/B	N3	Dwight Beach	Disturbed	2012	1-Jul-12		4.7							
N3 P/B FD phos	N3	Dwight Beach	Disturbed	2012	23-Jul-12		4.5							
N1 P/B	N3	Dwight Beach	Disturbed	2012	23-Jul-12		4.6							
N3 P/B	N3	Dwight Beach	Disturbed	2012	4-Aug-12		4.3							
N3 P/B	N3	Dwight Beach	Disturbed	2012	20-Aug-12		5.3							
N3 P/B	N3	Dwight Beach	Disturbed	2012	31-Aug-12		3.8							
N3 P/B	N3	Dwight Beach	Disturbed	2013	1-Jul-13		4.1		3		5			
N3 P/B	N3	Dwight Beach	Disturbed	2013	21-Jul-13		6.6		3		8			
N3 P/B	N3	Dwight Beach	Disturbed	2013	5-Aug-13		10.4		1		1			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N3 P/B FD	N3	Dwight Beach	Disturbed	2013	5-Aug-13				1		5			
N3 P/B lab	N3	Dwight Beach	Disturbed	2013	5-Aug-13				3		8			
N3 P/B	N3	Dwight Beach	Disturbed	2013	18-Aug-13		6.7		3		17			
N3 P/B	N3	Dwight Beach	Disturbed	2013	28-Aug-13		6.0		5		8			
B2 P/B	B2	Fairview	Deep Water	2002	1-Jul-02		2.2							
B2 P/B	B2	Fairview	Deep Water	2002	15-Jul-02		2.3							
B2 P/B	B2	Fairview	Deep Water	2002	5-Aug-02		4.2							
B2 P/B	B2	Fairview	Deep Water	2002	19-Aug-02		3.3							
B2 P/B	B2	Fairview	Deep Water	2002	2-Sep-02		2.1							
B2 P/B	B2	Fairview	Deep Water	2003	8-Jun-03		4.4							
B2 P/B	B2	Fairview	Deep Water	2003	30-Jun-03		4.0							
B2 P/B	B2	Fairview	Deep Water	2003	14-Jul-03		4.2							
B2 P/B	B2	Fairview	Deep Water	2003	4-Aug-03		4.2							
B2 P/B	B2	Fairview	Deep Water	2003	18-Aug-03		3.2							
B2 P/B	B2	Fairview	Deep Water	2003	1-Sep-03		2.4							
B2 P/B	B2	Fairview	Deep Water	2003	28-Sep-03		2.6							
B2 P/B	B2	Fairview	Deep Water	2004	5-Jul-04		1.7							
B2 P/B	B2	Fairview	Deep Water	2004	19-Jul-04		4.8							
B2 P/B	B2	Fairview	Deep Water	2004	2-Aug-04		5.3							
B2 P/B	B2	Fairview	Deep Water	2004	23-Aug-04		4.4							
B2 P/B	B2	Fairview	Deep Water	2004	6-Sep-04		3.9							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B2 P/B	B2	Fairview	Deep Water	2005	4-Jul-05									
B2 P/B	B2	Fairview	Deep Water	2005	18-Jul-05		7.2							
B2 P/B	B2	Fairview	Deep Water	2005	1-Aug-05		3.5							
B2 P/B	B2	Fairview	Deep Water	2005	14-Aug-05		4.0							
B2 P/B	B2	Fairview	Deep Water	2005	1-Sep-05		4.2							
B2 P/B	B2	Fairview	Deep Water	2006	3-Jul-06		4.7		5		5			
B2 P/B	B2	Fairview	Deep Water	2006	17-Jul-06		6.3		1		1			
B2 P/B	B2	Fairview	Deep Water	2006	7-Aug-06		4.3		3		8			
B2P FD	B2	Fairview	Deep Water	2006	7-Aug-06		7.5		3		3		bs	
B2P LD	B2	Fairview	Deep Water	2006	7-Aug-06				4		12			
B2 P/B	B2	Fairview	Deep Water	2006	21-Aug-06		6.7		1		5			
B2P FD	B2	Fairview	Deep Water	2006	21-Aug-06		7.5							
B2 P/B	B2	Fairview	Deep Water	2006	1-Sep-06		4.1		1		5			
B2 P/B	B2	Fairview	Deep Water	2007	2-Jul-07		3.3		1		3			
B2 P/B	B2	Fairview	Deep Water	2007	23-Jul-07		5.7		1		1			
B2 P/B	B2	Fairview	Deep Water	2007	6-Aug-07		4.1		1		5			
B2 P/B FD	B2	Fairview	Deep Water	2007	6-Aug-07				1		1			
B2 P/B LD	B2	Fairview	Deep Water	2007	6-Aug-07				4		8			
B2 P/B	B2	Fairview	Deep Water	2007	20-Aug-07		2.4		1		5			
B2 P/B	B2	Fairview	Deep Water	2007	31-Aug-07		12.5		1		3			x
B2 P/B	B2	Fairview	Deep Water	2008	30-Jun-08		3.7		1		1			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B2 P/B FD	B2	Fairview	Deep Water	2008	30-Jun-08				1		1			
B2 P/B	B2	Fairview	Deep Water	2008	14-Jul-08		6.8		3		5			
B2 P/B	B2	Fairview	Deep Water	2008	4-Aug-08		6.5		1		1			
B2 P/B FD	B2	Fairview	Deep Water	2008	4-Aug-08		8.4							
B2 P/B	B2	Fairview	Deep Water	2008	18-Aug-08		6.0		1		3			
B2 P/B	B2	Fairview	Deep Water	2008	29-Aug-08		6.3		1		11			
B2 P/B	B2	Fairview	Deep Water	2009	3-Jul-09		4.9		3		3			
B2 P/B	B2	Fairview	Deep Water	2009	17-Jul-09		12.3		3		3			x
B2 P/B	B2	Fairview	Deep Water	2009	1-Aug-09		3.7		1		1			
B2 P/B FD	B2	Fairview	Deep Water	2009	1-Aug-09				3		3			
B2 P/B	B2	Fairview	Deep Water	2009	17-Aug-09		6.1		3		3			
B2 P/B	B2	Fairview	Deep Water	2009	4-Sep-09		3.5		1		11			
B2 P/B	B2	Fairview	Deep Water	2010	5-Jul-10		4.7							
B2 P/B	B2	Fairview	Deep Water	2010	19-Jul-10		5.4							
B2 P/B	B2	Fairview	Deep Water	2010	2-Aug-10		5.5							
B2 P/B F/D	B2	Fairview	Deep Water	2010	16-Aug-10		3.9							
B2 P/B	B2	Fairview	Deep Water	2010	16-Aug-10		4.2							
B2 P/B	B2	Fairview	Deep Water	2010	7-Sep-10		6.4							
B2 P/B	B2	Fairview	Deep Water	2011	4-Jul-11		4.9		1		3			
B2 P/B COAL lab	B2	Fairview	Deep Water	2011	4-Jul-11				0		3			
B2 P/B FD bacti	B2	Fairview	Deep Water	2011	4-Jul-11				1		3			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B2 P/B	B2	Fairview	Deep Water	2011	18-Jul-11		4.0		1		1			
B2 P/B	B2	Fairview	Deep Water	2011	1-Aug-11		6.1		1		1			
B2 P/B	B2	Fairview	Deep Water	2011	14-Aug-11		4.8		1		5			
B2 P/B	B2	Fairview	Deep Water	2011	2-Sep-11		4.8		1		3			
B2 P/B	B2	Fairview	Deep Water	2012	1-Jul-12		4.3							
B2 P/B	B2	Fairview	Deep Water	2012	23-Jul-12		5.1							
B2 P/B	B2	Fairview	Deep Water	2012	4-Aug-12		5.0							
B2 P/B FD	B2	Fairview	Deep Water	2012	4-Aug-12		5.3							
B2 P/B	B2	Fairview	Deep Water	2012	20-Aug-12		5.1							
B2 P/B FD	B2	Fairview	Deep Water	2012	20-Aug-12		5.2							
B2 P/B	B2	Fairview	Deep Water	2012	31-Aug-12		4.0							
B2 P/B FD	B2	Fairview	Deep Water	2013	1-Jul-13		3.6		1		3			
B2 P/B	B2	Fairview	Deep Water	2013	1-Jul-13		3.7		1		1			
B2 P/B	B2	Fairview	Deep Water	2013	21-Jul-13		5.1		3		3			
B2 P/B	B2	Fairview	Deep Water	2013	5-Aug-13		5.1		1		1			
B2 P/B	B2	Fairview	Deep Water	2013	18-Aug-13		4.2		1		5			
B2 P/B FD	B2	Fairview	Deep Water	2013	18-Aug-13		4.6		3		3			
B2 P/B	B2	Fairview	Deep Water	2013	28-Aug-13		4.0		1		1			
B2 P/B FD	B2	Fairview	Deep Water	2013	28-Aug-13		4.2		1		3			
B2	B2	Fairview	Deep Water	2014	29-Jun-14		5.1							
B2	B2	Fairview	Deep Water	2014	20-Jul-14		5.1							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B2 FD	B2	Fairview	Deep Water	2014	3-Aug-14		3.4							
B2	B2	Fairview	Deep Water	2014	3-Aug-14		4.8							
B2 FD	B2	Fairview	Deep Water	2014	17-Aug-14		4.2							
B2	B2	Fairview	Deep Water	2014	17-Aug-14		4.7							
B2	B2	Fairview	Deep Water	2014	28-Aug-14		4.8							
B2 FD	B2	Fairview	Deep Water	2014	28-Aug-14		5.4							
B2	B2	Fairview	Deep Water	2015	28-Jun-15		5.9							
B2	B2	Fairview	Deep Water	2015	20-Jul-15		4.8							
B2	B2	Fairview	Deep Water	2015	4-Aug-15		3.7							
B2	B2	Fairview	Deep Water	2015	23-Aug-15		3.3							
B2 FD	B2	Fairview	Deep Water	2015	23-Aug-15		5.4							
B2	B2	Fairview	Deep Water	2015	4-Sep-15		3.3							
B2	B2	Fairview	Deep Water	2016	1-Jul-16		4.3							
B2 FD	B2	Fairview	Deep Water	2016	1-Jul-16		3.3							
B2	B2	Fairview	Deep Water	2016	18-Jul-16		3.6							
B2	B2	Fairview	Deep Water	2016	1-Aug-16		4.7		0		5			
B2 FD	B2	Fairview	Deep Water	2016	1-Aug-16				0		3			
B2	B2	Fairview	Deep Water	2016	14-Aug-16		10.2						bs	
B2 FD	B2	Fairview	Deep Water	2016	14-Aug-16		3.7							
B2	B2	Fairview	Deep Water	2016	1-Sep-16		4.8							
B2	B2	Fairview	Deep Water	2017	3-Jul-17		5.5							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
B2	B2	Fairview	Deep Water	2017	23-Jul-17		10.4							x
B2	B2	Fairview	Deep Water	2017	7-Aug-17		6.3		1		22			
B2 F/D	B2	Fairview	Deep Water	2017	7-Aug-17		7.5		1		28			
B2 lab results	B2	Fairview	Deep Water	2017	7-Aug-17				2		500			
B2	B2	Fairview	Deep Water	2017	21-Aug-17		5.1							
B2	B2	Fairview	Deep Water	2017	1-Sep-17		5.0							
B2 F/D	B2	Fairview	Deep Water	2017	1-Sep-17		5.7							
B2	B2	Fairview	Deep Water	2018	2-Jul-18	Y	3.0	Y	3		13			
B2 L/D	B2	Fairview	Deep Water	2018	2-Jul-18				0		27	36		
B2	B2	Fairview	Deep Water	2018	6-Aug-18		4.9	Y	3		3			
B2	B2	Fairview	Deep Water	2018	31-Aug-18	Y	3.0	Y	3	B	3			
B2 L/D	B2	Fairview	Deep Water	2018	31-Aug-18				2		95	6		
B2	B2	Fairview	Deep water	2019	1-Jul-19		3.4							
B2	B2	Fairview	Deep water	2019	1-Jul-19		4.1							
B2	B2	Fairview	Deep water	2019	5-Aug-19	y	3.0		5		11			
B2	B2	Fairview	Deep water	2019	30-Aug-19	y	3.0							
B2	B2	Fairview	Deep water	2019	30-Aug-19	y	3.0							
N10 P/B	N10	Gull Rock	Deep Water	2002	26-May-02				0.5		0.5			
N10 P/B	N10	Gull Rock	Deep Water	2002	1-Jul-02		4.6		3		25			
N10 P/B	N10	Gull Rock	Deep Water	2002	15-Jul-02		4.9							
N10 P/B	N10	Gull Rock	Deep Water	2002	5-Aug-02		4.3		5		52			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N10 P/B	N10	Gull Rock	Deep Water	2002	19-Aug-02		3.8		0.5		30			
N10 P/B	N10	Gull Rock	Deep Water	2002	2-Sep-02		2.4		0.5		33			
N10 P/B	N10	Gull Rock	Deep Water	2002	28-Sep-02				0.5		3			
N10 P/B	N10	Gull Rock	Deep Water	2003	8-Jun-03		5.0							
N10 P/B	N10	Gull Rock	Deep Water	2003	30-Jun-03		4.8		19		30			
N10 P/B	N10	Gull Rock	Deep Water	2003	14-Jul-03		16.9		1		5			x
N10 P/B	N10	Gull Rock	Deep Water	2003	4-Aug-03		6.1		1		8			
N10 P/B	N10	Gull Rock	Deep Water	2003	18-Aug-03		4.4		5		8			
N10 P/B	N10	Gull Rock	Deep Water	2003	1-Sep-03		2.1		1		1			
N10 P/B	N10	Gull Rock	Deep Water	2003	28-Sep-03		2.7		1		13			
N10 P/B	N10	Gull Rock	Deep Water	2004	5-Jul-04		6.2		1		52			
N10 P/B	N10	Gull Rock	Deep Water	2004	19-Jul-04		5.0		1		11			
N10 P/B	N10	Gull Rock	Deep Water	2004	2-Aug-04		5.4		1		11			
N10 P/B	N10	Gull Rock	Deep Water	2004	23-Aug-04		4.7		1		8			
N10 P/B	N10	Gull Rock	Deep Water	2004	6-Sep-04		4.1							
N10 P/B	N10	Gull Rock	Deep Water	2005	4-Jul-05		4.1		5		8			
N10 P/B	N10	Gull Rock	Deep Water	2005	18-Jul-05		5.0		1		5			
N10 P/B FD	N10	Gull Rock	Deep Water	2005	18-Jul-05				3		8			
N10 P/B LD	N10	Gull Rock	Deep Water	2005	18-Jul-05				1		3			
N10 P/B	N10	Gull Rock	Deep Water	2005	1-Aug-05		2.7		3		8			
N10 P/B	N10	Gull Rock	Deep Water	2005	14-Aug-05		5.6		1		3			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N10 P/B	N10	Gull Rock	Deep Water	2005	1-Sep-05		4.4		1		3			
N10 P/B FD	N10	Gull Rock	Deep Water	2005	1-Sep-05				1		1			
N10 P/B LD	N10	Gull Rock	Deep Water	2005	1-Sep-05				1		1			
N10 P/B	N10	Gull Rock	Deep Water	2006	3-Jul-06		4.7		1		3			
N10 P/B FD	N10	Gull Rock	Deep Water	2006	3-Jul-06				3		5			
N10 P/B	N10	Gull Rock	Deep Water	2006	17-Jul-06		4.2		1		1			
N10 P/B	N10	Gull Rock	Deep Water	2006	8-Aug-06		4.3		1		8			
N10 P/B	N10	Gull Rock	Deep Water	2006	21-Aug-06		6.7		5		13			
N10 P/B	N10	Gull Rock	Deep Water	2006	1-Sep-06		8.3		1		3			
N10 P/B	N10	Gull Rock	Deep Water	2007	2-Jul-07		4.1		1		1			
N10 P/B FD	N10	Gull Rock	Deep Water	2007	2-Jul-07				1		8			
N10 P/B LD	N10	Gull Rock	Deep Water	2007	2-Jul-07				1		8			
N10 P/B	N10	Gull Rock	Deep Water	2007	23-Jul-07		5.3		1		1			
N10 P/B	N10	Gull Rock	Deep Water	2007	6-Aug-07		4.9		1		5			
N10 P/B	N10	Gull Rock	Deep Water	2007	20-Aug-07		4.1		1		1			
N10 P/B FD	N10	Gull Rock	Deep Water	2007	20-Aug-07		5.4							
N10 P/B	N10	Gull Rock	Deep Water	2007	31-Aug-07		4.6		1		3			
N10 P/B	N10	Gull Rock	Deep Water	2008	30-Jun-08		4.3		1		1			
N10 P/B	N10	Gull Rock	Deep Water	2008	14-Jul-08				3		13			
N10 P/B	N10	Gull Rock	Deep Water	2008	4-Aug-08		5.7		1		1			
N10 P/B	N10	Gull Rock	Deep Water	2008	18-Aug-08		4.1		1		1			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N10 P/B FD	N10	Gull Rock	Deep Water	2008	18-Aug-08				1		1			
N10 P/B LD	N10	Gull Rock	Deep Water	2008	18-Aug-08				1		1			
N10 P/B	N10	Gull Rock	Deep Water	2008	29-Aug-08		5.7		1		3			
N10 P/B	N10	Gull Rock	Deep Water	2009	3-Jul-09		4.0		1		8			
N10 P/B	N10	Gull Rock	Deep Water	2009	17-Jul-09		5.7		3		3			
N10 P/B	N10	Gull Rock	Deep Water	2009	1-Aug-09		2.5		3		5			
N10 P/B FD	N10	Gull Rock	Deep Water	2009	1-Aug-09		2.9							
N10 P/B	N10	Gull Rock	Deep Water	2009	17-Aug-09		4.6		1		1			
N10 P/B	N10	Gull Rock	Deep Water	2009	4-Sep-09		4.8		1		3			
N10 P/B FD	N10	Gull Rock	Deep Water	2009	4-Sep-09				1		3			
N10 P/B	N10	Gull Rock	Deep Water	2010	5-Jul-10		3.9							
N10 P/B	N10	Gull Rock	Deep Water	2010	19-Jul-10		4.4							
N10 P/B	N10	Gull Rock	Deep Water	2010	2-Aug-10		8.6							
N10 P/B	N10	Gull Rock	Deep Water	2010	16-Aug-10									
N10 P/B	N10	Gull Rock	Deep Water	2010	7-Sep-10		5.0							
N10 P/B	N10	Gull Rock	Deep Water	2011	4-Jul-11		7.4		1		3			
N10 P/B COAL lab	N10	Gull Rock	Deep Water	2011	4-Jul-11				0		2			
N10 P/B FD bacti	N10	Gull Rock	Deep Water	2011	4-Jul-11				1		3			
N10 P/B	N10	Gull Rock	Deep Water	2011	18-Jul-11		5.0		3		3			
N10 P/B FD b & p	N10	Gull Rock	Deep Water	2011	1-Aug-11		4.9		1		1			
N10 P/B	N10	Gull Rock	Deep Water	2011	1-Aug-11		5.0		1		3			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N10 P/B	N10	Gull Rock	Deep Water	2011	15-Aug-11		6.0		1		1			
N10 P/B COAL lab	N10	Gull Rock	Deep Water	2011	2-Sep-11				0		7			
N10 P/B	N10	Gull Rock	Deep Water	2012	1-Jul-12		4.4							
N10 P/B FD	N10	Gull Rock	Deep Water	2012	1-Jul-12		5.9							
N10 P/B	N10	Gull Rock	Deep Water	2012	23-Jul-12		4.8							
N10 P/B	N10	Gull Rock	Deep Water	2012	4-Aug-12		6.3							
N10 P/B	N10	Gull Rock	Deep Water	2012	20-Aug-12		4.1							
N10 P/B	N10	Gull Rock	Deep Water	2012	31-Aug-12		5.3							
N10 P/B	N10	Gull Rock	Deep Water	2013	1-Jul-13		3.2		1		1			
N10 P/B FD	N10	Gull Rock	Deep Water	2013	21-Jul-13		3.8		11		17			
N10 P/B	N10	Gull Rock	Deep Water	2013	21-Jul-13		4.0		8		28			
N10 P/B lab	N10	Gull Rock	Deep Water	2013	21-Jul-13				17		49			
N10 P/B	N10	Gull Rock	Deep Water	2013	5-Aug-13		3.5		5		8			
N10 P/B	N10	Gull Rock	Deep Water	2013	18-Aug-13		5.7		1		3			
N10 P/B FD	N10	Gull Rock	Deep Water	2013	18-Aug-13				1		1			
N10 P/B lab	N10	Gull Rock	Deep Water	2013	18-Aug-13				0		1			
N10 P/B	N10	Gull Rock	Deep Water	2013	28-Aug-13		3.4		1		3			
N10 P/B FD	N10	Gull Rock	Deep Water	2013	28-Aug-13				1		8			
N10 P/B lab	N10	Gull Rock	Deep Water	2013	28-Aug-13				1		8			
N10	N10	Gull Rock	Deep Water	2014	29-Jun-14		5.5							
N10 FD	N10	Gull Rock	Deep Water	2014	29-Jun-14		9.0						bs	

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N10	N10	Gull Rock	Deep Water	2014	20-Jul-14		5.3							
N10	N10	Gull Rock	Deep Water	2014	3-Aug-14		4.7							
N10	N10	Gull Rock	Deep Water	2014	17-Aug-14		4.5							
N10	N10	Gull Rock	Deep Water	2014	28-Aug-14		4.9							
N10	N10	Gull Rock	Deep Water	2015	28-Jun-15		5.7							
N10	N10	Gull Rock	Deep Water	2015	20-Jul-15		4.8							
N10	N10	Gull Rock	Deep Water	2015	20-Jul-15		5.1							
N10 FD	N10	Gull Rock	Deep Water	2015	4-Aug-15		3.8							
N10	N10	Gull Rock	Deep Water	2015	4-Aug-15		3.9							
N10	N10	Gull Rock	Deep Water	2015	23-Aug-15		3.3							
N10	N10	Gull Rock	Deep Water	2015	4-Sep-15		2.5							
N10	N10	Gull Rock	Deep Water	2016	1-Jul-16		3.8							
N10	N10	Gull Rock	Deep Water	2016	18-Jul-16		8.5							
N10 FD	N10	Gull Rock	Deep Water	2016	18-Jul-16		7.9							
N10	N10	Gull Rock	Deep Water	2016	1-Aug-16		4.1		0		3			
N10	N10	Gull Rock	Deep Water	2016	14-Aug-16		4.8							
N10	N10	Gull Rock	Deep Water	2016	1-Sep-16									
N10	N10	Gull Rock	Deep Water	2017	3-Jul-17		4.5							
N10	N10	Gull Rock	Deep Water	2017	23-Jul-17		7.0							
N10	N10	Gull Rock	Deep Water	2017	7-Aug-17		5.0		1		17			
N10	N10	Gull Rock	Deep Water	2017	21-Aug-17		6.2							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N10 F/D	N10	Gull Rock	Deep Water	2017	21-Aug-17		4.9							
N10	N10	Gull Rock	Deep Water	2017	1-Sep-17		6.5							
N10	N10	Gull Rock	Deep Water	2018	2-Jul-18	Y	3.0	Y	3		5			
N10 L/D	N10	Gull Rock	Deep Water	2018	2-Jul-18				0		38	43		
N10	N10	Gull Rock	Deep Water	2018	6-Aug-18		5.3	Y	3		11			
N10 F/D	N10	Gull Rock	Deep Water	2018	6-Aug-18		5.9		3		11			
N10	N10	Gull Rock	Deep Water	2018	31-Aug-18	Y	3.0	Y	3		5			
N10 F/D	N10	Gull Rock	Deep Water	2018	31-Aug-18	Y	3.0	Y	3		8			
N10	N10	Gull Rock	Deep water	2019	1-Jul-19		4.1							
N10	N10	Gull Rock	Deep water	2019	5-Aug-19		4.1	y	3		5			
N10	N10	Gull Rock	Deep water	2019	5-Aug-19		11.1	y	3		8		bs	
N10	N10	Gull Rock	Deep water	2019	30-Aug-19	y	3.0							
E13 P/B	E13	Haystack Bay	Deep Water	2002	1-Jul-02		3.5							
E13 P/B	E13	Haystack Bay	Deep Water	2002	15-Jul-02		6.1							
E13 P/B	E13	Haystack Bay	Deep Water	2002	5-Aug-02		4.9							
E13 P/B	E13	Haystack Bay	Deep Water	2002	19-Aug-02		4.1							
E13 P/B	E13	Haystack Bay	Deep Water	2002	2-Sep-02		2.5							
E13 P/B	E13	Haystack Bay	Deep Water	2003	8-Jun-03		4.8							
E13 P/B	E13	Haystack Bay	Deep Water	2003	30-Jun-03		5.2							
E13 P/B	E13	Haystack Bay	Deep Water	2003	14-Jul-03		5.9							
E13 P/B	E13	Haystack Bay	Deep Water	2003	4-Aug-03		4.9							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E13 P/B	E13	Haystack Bay	Deep Water	2003	14-Aug-03		4.2							
E13 P/B	E13	Haystack Bay	Deep Water	2003	1-Sep-03		3.0							
E13 P/B	E13	Haystack Bay	Deep Water	2003	28-Sep-03		2.7							
E13 P/B	E13	Haystack Bay	Deep Water	2004	5-Jul-04		2.4							
E13 P/B	E13	Haystack Bay	Deep Water	2004	19-Jul-04		5.9							
E13 P/B	E13	Haystack Bay	Deep Water	2004	2-Aug-04		5.9							
E13 P/B	E13	Haystack Bay	Deep Water	2004	23-Aug-04		4.3							
E13 P/B	E13	Haystack Bay	Deep Water	2004	6-Sep-04		74							x
E13 P/B	E13	Haystack Bay	Deep Water	2006	3-Jul-06		5.6		3		3			
E13 P/B	E13	Haystack Bay	Deep Water	2006	17-Jul-06		5.7		3		8			
E13 P/B	E13	Haystack Bay	Deep Water	2006	7-Aug-06		40.3		1		5			x
E13 P/B	E13	Haystack Bay	Deep Water	2006	21-Aug-06		9.1		3		3			
E13 P/B FD	E13	Haystack Bay	Deep Water	2006	21-Aug-06				5		11			
E13 P/B LD	E13	Haystack Bay	Deep Water	2006	21-Aug-06				4		8			
E13 P/B	E13	Haystack Bay	Deep Water	2006	1-Sep-06		14.1		3		5			x
E13 P/B	E13	Haystack Bay	Deep Water	2007	2-Jul-07		4.0		1		3			
E13 P/B	E13	Haystack Bay	Deep Water	2007	23-Jul-07		4.3		1		5			
E13 P/B	E13	Haystack Bay	Deep Water	2007	6-Aug-07		10.8		1		13			
E13 P/B FD	E13	Haystack Bay	Deep Water	2007	6-Aug-07		12.8							
E13 P/B	E13	Haystack Bay	Deep Water	2007	20-Aug-07		2.6		1		1			
E13 P/B	E13	Haystack Bay	Deep Water	2007	31-Aug-07		5.0		1		5			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E13 P/B	E13	Haystack Bay	Deep Water	2008	30-Jun-08		5.1		1		1			
E13 P/B	E13	Haystack Bay	Deep Water	2008	14-Jul-08		4.8		3		11			
E13 P/B FD	E13	Haystack Bay	Deep Water	2008	14-Jul-08				1		16			
E13 P/B LD	E13	Haystack Bay	Deep Water	2008	14-Jul-08				1		8			
E13 P/B	E13	Haystack Bay	Deep Water	2008	4-Aug-08		5.6		1		3			
E13 P/B FD	E13	Haystack Bay	Deep Water	2008	4-Aug-08				3		5			
E13 P/B LD	E13	Haystack Bay	Deep Water	2008	4-Aug-08				1		20			
E13 P/B	E13	Haystack Bay	Deep Water	2008	18-Aug-08		5.6		3		3			
E13 P/B	E13	Haystack Bay	Deep Water	2008	29-Aug-08				3		11			
E13 P/B	E13	Haystack Bay	Deep Water	2009	3-Jul-09		6.8		1		8			
E13 P/B FD	E13	Haystack Bay	Deep Water	2009	3-Jul-09				1		5			
E13 P/B	E13	Haystack Bay	Deep Water	2009	17-Jul-09		57.7		3		11			x
E13 P/B	E13	Haystack Bay	Deep Water	2009	1-Aug-09		4.0		3		8			
E13 P/B	E13	Haystack Bay	Deep Water	2009	17-Aug-09		6.3		3		3			
E13 P/B	E13	Haystack Bay	Deep Water	2009	4-Sep-09		8.4		5		11			
E13 P/B	E13	Haystack Bay	Deep Water	2010	5-Jul-10		6.2							
E13 P/B	E13	Haystack Bay	Deep Water	2010	19-Jul-10		6.1							
E13 P/B	E13	Haystack Bay	Deep Water	2010	2-Aug-10		5.0							
E13 P/B	E13	Haystack Bay	Deep Water	2010	16-Aug-10		5.4							
E13 P/B	E13	Haystack Bay	Deep Water	2010	7-Sep-10		6.8							
E13 P/B	E13	Haystack Bay	Deep Water	2011	4-Jul-11		6.9		3		8			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E13 P/B	E13	Haystack Bay	Deep Water	2011	18-Jul-11		6.1		5		11			
E13 P/B	E13	Haystack Bay	Deep Water	2011	1-Aug-11		5.6		5		8			
E13 P/B	E13	Haystack Bay	Deep Water	2011	14-Aug-11		5.3		1		1			
E13 P/B	E13	Haystack Bay	Deep Water	2011	2-Sep-11		7.1		1		3			
E13 P/B	E13	Haystack Bay	Deep Water	2012	1-Jul-12		5.2							
E13 P/B	E13	Haystack Bay	Deep Water	2012	23-Jul-12		3.8							
E13 P/B	E13	Haystack Bay	Deep Water	2012	4-Aug-12		5.8							
E13 P/B	E13	Haystack Bay	Deep Water	2012	20-Aug-12		3.9							
E13 P/B	E13	Haystack Bay	Deep Water	2012	31-Aug-12		22.4							x
E13 P/B	E13	Haystack Bay	Deep Water	2013	1-Jul-13		7.6		1		3			
E13 P/B	E13	Haystack Bay	Deep Water	2013	21-Jul-13		7.7		3		3			
E13 P/B	E13	Haystack Bay	Deep Water	2013	5-Aug-13		6.7		1		5			
E13 P/B FD	E13	Haystack Bay	Deep Water	2013	5-Aug-13				1		8			
E13 P/B lab	E13	Haystack Bay	Deep Water	2013	5-Aug-13				0		10			
E13 P/B	E13	Haystack Bay	Deep Water	2013	18-Aug-13		10.3		1		11			
E13 P/B FD	E13	Haystack Bay	Deep Water	2013	18-Aug-13				1		8			
E13 P/B lab	E13	Haystack Bay	Deep Water	2013	18-Aug-13				0		8			
E13 P/B FD	E13	Haystack Bay	Deep Water	2013	28-Aug-13		3.6		1		5			
E13 P/B	E13	Haystack Bay	Deep Water	2013	28-Aug-13		4.3		1		3			
E13	E13	Haystack Bay	Deep Water	2014	29-Jun-14		8.5							
E13	E13	Haystack Bay	Deep Water	2014	20-Jul-14		9.2							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E13	E13	Haystack Bay	Deep Water	2014	3-Aug-14		4.7							
E13	E13	Haystack Bay	Deep Water	2014	17-Aug-14		4.2							
E13	E13	Haystack Bay	Deep Water	2014	28-Aug-14		4.4							
E13	E13	Haystack Bay	Deep Water	2015	28-Jun-15		14.6							x
E13	E13	Haystack Bay	Deep Water	2015	20-Jul-15									
E13	E13	Haystack Bay	Deep Water	2015	4-Aug-15		4.8							
E13	E13	Haystack Bay	Deep Water	2015	23-Aug-15		3.3							
E13	E13	Haystack Bay	Deep Water	2015	4-Sep-15		15.7							x
E13 FD	E13	Haystack Bay	Deep Water	2015	4-Sep-15		20.5							x
E13	E13	Haystack Bay	Deep Water	2016	1-Jul-16		7.2							
E13	E13	Haystack Bay	Deep Water	2016	18-Jul-16		4.3							
E13 F/D	E13	Haystack Bay	Deep Water	2016	18-Jul-16		4.1							
E13	E13	Haystack Bay	Deep Water	2016	1-Aug-16		5.8		0		8			
E13	E13	Haystack Bay	Deep Water	2016	14-Aug-16		5.5							
E13	E13	Haystack Bay	Deep Water	2017	3-Jul-17		10.3							
E13	E13	Haystack Bay	Deep Water	2017	23-Jul-17		5.7							
E13	E13	Haystack Bay	Deep Water	2017	7-Aug-17		10.2		5		52			
E13 lab results	E13	Haystack Bay	Deep Water	2017	7-Aug-17				9		600			
E13	E13	Haystack Bay	Deep Water	2017	21-Aug-17		7.9							
E13	E13	Haystack Bay	Deep Water	2017	1-Sep-17		7.1							
E13	E13	Haystack Bay	Deep Water	2018	2-Jul-18	Y	3.0	Y	3		28			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E13	E13	Haystack Bay	Deep Water	2018	6-Aug-18		4.5		3		55			
E13 L/D	E13	Haystack Bay	Deep Water	2018	6-Aug-18				4		118	119		
E13	E13	Haystack Bay	Deep Water	2018	31-Aug-18	Y	3.0	Y	3		30			
E13 F/D	E13	Haystack Bay	Deep Water	2018	31-Aug-18	Y	3.0	Y	3		39			
E13 L/D	E13	Haystack Bay	Deep Water	2018	31-Aug-18				3		74	9		
E13	E13	Haystack Bay	Deep water	2019	1-Jul-19		4.3							
E13	E13	Haystack Bay	Deep water	2019	5-Aug-19		4.7		5		8			
E13	E13	Haystack Bay	Deep water	2019	30-Aug-19		4.3							
E 6 P/B	E6	Hollow River Lagoon	River	2002	26-May-02				3		43			
E 6 P/B	E6	Hollow River Lagoon	River	2002	1-Jul-02				13		166			
E 6 P/B	E6	Hollow River Lagoon	River	2002	15-Jul-02				11		188			
E 6 P/B FD	E6	Hollow River Lagoon	River	2002	15-Jul-02				16		256			
E 6 P/B	E6	Hollow River Lagoon	River	2002	5-Aug-02				8		1174			
E 6 P/B	E6	Hollow River Lagoon	River	2002	19-Aug-02				22		587			
E 6 P/B	E6	Hollow River Lagoon	River	2002	2-Sep-02				0.5		2424			
E 6 P/B	E6	Hollow River Lagoon	River	2003	30-Jun-03		11.4		25		240			
E 6 P/B	E6	Hollow River Lagoon	River	2003	14-Jul-03		8.5		11		388			
E 6 P/B	E6	Hollow River Lagoon	River	2003	4-Aug-03		7.7		25		619			
E 6 P/B LD	E6	Hollow River Lagoon	River	2003	4-Aug-03				24		76			
E 6 P/B	E6	Hollow River Lagoon	River	2003	14-Aug-03		5.2		3		469			
E 6 P/B	E6	Hollow River Lagoon	River	2003	1-Sep-03		5.2							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E 6 P/B	E6	Hollow River Lagoon	River	2003	28-Sep-03		5.1							
E 6 P/B	E6	Hollow River Lagoon	River	2007	2-Jul-07		3.6		3		263			
E 6 P/B	E6	Hollow River Lagoon	River	2007	23-Jul-07		5.7		25		79			
E 6 P/B	E6	Hollow River Lagoon	River	2007	6-Aug-07		5.7		39		110			
E 6 P/B FD	E6	Hollow River Lagoon	River	2007	6-Aug-07				39		108			
E 6 P/B LD	E6	Hollow River Lagoon	River	2007	6-Aug-07				42		600			
E 6 P/B	E6	Hollow River Lagoon	River	2007	20-Aug-07		5.1		25		79			
E 6 P/B FD	E6	Hollow River Lagoon	River	2007	20-Aug-07				30		98			
E 6 P/B LD	E6	Hollow River Lagoon	River	2007	20-Aug-07				26		172			
E 6 P/B	E6	Hollow River Lagoon	River	2007	31-Aug-07		6.5		8		52			
E 6 P/B	E6	Hollow River Lagoon	River	2008	14-Jul-08		8.1		25		65			
E 6 P/B	E6	Hollow River Lagoon	River	2008	4-Aug-08		5.2		11		39			
E 6 P/B	E6	Hollow River Lagoon	River	2008	18-Aug-08		5.5		1		19			
E 6 P/B FD	E6	Hollow River Lagoon	River	2008	18-Aug-08				8		30			
E 6 P/B LD	E6	Hollow River Lagoon	River	2008	18-Aug-08				8		48			
E 6 P/B	E6	Hollow River Lagoon	River	2009	3-Jul-09				8		11			
E 6 P/B	E6	Hollow River Lagoon	River	2009	17-Jul-09				16		39			
E 6 P/B	E6	Hollow River Lagoon	River	2009	1-Aug-09				11		28			
E 6 P/B	E6	Hollow River Lagoon	River	2009	17-Aug-09				8		43			
E 6 P/B	E6	Hollow River Lagoon	River	2009	4-Sep-09				3		16			
E 6A P/B	E6a	Hollow River lagoon-upstream	River	2003	30-Jun-03		7.3		30		177			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E 6A P/B	E6a	Hollow River lagoon-upstream	River	2003	14-Jul-03		6.5		102		534			
E 6A P/B	E6a	Hollow River lagoon-upstream	River	2003	4-Aug-03		6.4		403		619			
E 6A P/B	E6a	Hollow River lagoon-upstream	River	2003	14-Aug-03		4.4		30		271			
E 6A P/B	E6a	Hollow River lagoon-upstream	River	2003	1-Sep-03		4.4							
E 6A P/B	E6a	Hollow River lagoon-upstream	River	2007	20-Aug-07				3		25			
E 6A P/B	E6a	Hollow River lagoon-upstream	River	2007	31-Aug-07				3		11			
E 6A P/B	E6a	Hollow River lagoon-upstream	River	2008	14-Jul-08		24.7		39		98			
E 6A P/B	E6a	Hollow River lagoon-upstream	River	2008	4-Aug-08		6.5		19		39			
E 6A P/B	E6a	Hollow River lagoon-upstream	River	2008	18-Aug-08		5.3		5		25			
E18 P/B	E18	Hollow River mouth	River	2003	30-Jun-03		7.4		30		166			
E18 P/B	E18	Hollow River mouth	River	2003	14-Jul-03		6.2		46		307			
E18 P/B	E18	Hollow River mouth	River	2003	4-Aug-03		5.1		94		489			
E18 P/B	E18	Hollow River mouth	River	2003	14-Aug-03		4.3		52		226			
E18 P/B	E18	Hollow River mouth	River	2003	1-Sep-03		4.3							
E18 P/B	E18	Hollow River mouth	River	2004	5-Jul-04		6.0		141		694			
E18 P/B	E18	Hollow River mouth	River	2004	19-Jul-04		25.1		33		166			x
E18 P/B	E18	Hollow River mouth	River	2004	2-Aug-04		7.1		62		1038			
E18 P/B FD	E18	Hollow River mouth	River	2004	2-Aug-04				119		1174			
E18 P/B LD	E18	Hollow River mouth	River	2004	2-Aug-04				38		80			
E18 P/B	E18	Hollow River mouth	River	2004	23-Aug-04				52		132			
E18 P/B	E18	Hollow River mouth	River	2005	4-Jul-05		11.0		16		72			x

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E18 P/B	E18	Hollow River mouth	River	2005	18-Jul-05		6.3		11		102			
E18 P/B	E18	Hollow River mouth	River	2005	1-Aug-05		3.0		8		59			
E18 P/B	E18	Hollow River mouth	River	2005	14-Aug-05				28		182			
E18 P/B	E18	Hollow River mouth	River	2005	1-Sep-05		3.8		19		114			
E18 P/B	E18	Hollow River mouth	River	2007	2-Jul-07		3.9		1		177			
E18 P/B	E18	Hollow River mouth	River	2007	23-Jul-07		6.6		28		72			
E18 P/B	E18	Hollow River mouth	River	2007	6-Aug-07		5.7		30		79			
E18 P/B	E18	Hollow River mouth	River	2007	20-Aug-07		3.9		25		30			
E18 P/B	E18	Hollow River mouth	River	2007	31-Aug-07		5.7		5		43			
E18 P/B	E18	Hollow River mouth	River	2008	14-Jul-08		10.1		50		90			x
E18 P/B	E18	Hollow River mouth	River	2008	4-Aug-08		5.5		33		62			
E18 P/B	E18	Hollow River mouth	River	2008	18-Aug-08		5.8		5		16			
E 18 P/B	E18	Hollow River mouth	River	2009	3-Jul-09				5		39			
E 18 P/B	E18	Hollow River mouth	River	2009	17-Jul-09				11		90			
E 18 P/B	E18	Hollow River mouth	River	2009	1-Aug-09				8		62			
E 18 P/B	E18	Hollow River mouth	River	2009	17-Aug-09				16		19			
E 18 P/B	E18	Hollow River mouth	River	2009	4-Sep-09				3		28			
E 18 P/B	E18	Hollow River mouth	River	2010	5-Jul-10		4.0							
E 18 P/B	E18	Hollow River mouth	River	2010	19-Jul-10		4.0							
E 18 P/B F/D	E18	Hollow River mouth	River	2010	2-Aug-10		5.2							
E 18 P/B	E18	Hollow River mouth	River	2010	2-Aug-10		5.7							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E 18 P/B	E18	Hollow River mouth	River	2010	16-Aug-10		5.4							
E 18 P/B	E18	Hollow River mouth	River	2010	7-Sep-10		3.4							
E 18 P/B	E18	Hollow River mouth	River	2011	4-Jul-11		4.6		8		28			
E 18 P/B	E18	Hollow River mouth	River	2011	18-Jul-11		4.5		11		36			
E 18 P/B	E18	Hollow River mouth	River	2011	1-Aug-11		6.7		8		19			
E 18 P/B FD bacti	E18	Hollow River mouth	River	2011	1-Aug-11				11		16			
E 18 P/B	E18	Hollow River mouth	River	2012	1-Jul-12		5.5							
E 18 P/B	E18	Hollow River mouth	River	2012	23-Jul-12		5.0							
E 18 P/B	E18	Hollow River mouth	River	2012	4-Aug-12									
E 18 P/B	E18	Hollow River mouth	River	2012	20-Aug-12		4.8							
E 18 P/B	E18	Hollow River mouth	River	2012	31-Aug-12		4.9							
E 18 P/B	E18	Hollow River mouth	River	2013	1-Jul-13		4.8		3		17			
E 18 P/B	E18	Hollow River mouth	River	2013	21-Jul-13				5		28			
E 18 P/B	E18	Hollow River mouth	River	2013	5-Aug-13		3.8		3		28			
E 18 P/B FD	E18	Hollow River mouth	River	2013	5-Aug-13				1		17			
E 18 P/B lab	E18	Hollow River mouth	River	2013	5-Aug-13				2		14			
E 18 P/B	E18	Hollow River mouth	River	2013	18-Aug-13				3		11			
E 18 P/B	E18	Hollow River mouth	River	2013	28-Aug-13		3.8		3		8			
E18	E18	Hollow River mouth	River	2014	29-Jun-14		6.2							
E18	E18	Hollow River mouth	River	2014	20-Jul-14		4.7							
E18	E18	Hollow River mouth	River	2014	3-Aug-14		4.3							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E18	E18	Hollow River mouth	River	2014	17-Aug-14		5.7							
E18	E18	Hollow River mouth	River	2014	28-Aug-14		6.6							
E18	E18	Hollow River mouth	River	2015	28-Jun-15		16.3							x
E18	E18	Hollow River mouth	River	2015	20-Jul-15		8.6							
E18	E18	Hollow River mouth	River	2015	4-Aug-15		5.5							
E18	E18	Hollow River mouth	River	2015	4-Aug-15		6.3							
E18	E18	Hollow River mouth	River	2015	23-Aug-15									
E18	E18	Hollow River mouth	River	2015	4-Sep-15		7.5							
E18	E18	Hollow River mouth	River	2016	1-Jul-16									
E18	E18	Hollow River mouth	River	2016	18-Jul-16		13.3							x
E18	E18	Hollow River mouth	River	2016	1-Aug-16		7.3		3		11			
E18	E18	Hollow River mouth	River	2016	14-Aug-16		25.7							x
E18	E18	Hollow River mouth	River	2016	1-Sep-16		18.3							x
E18	E18	Hollow River mouth	River	2017	3-Jul-17		6.4							
E18	E18	Hollow River mouth	River	2017	23-Jul-17		7.4							
E18 F/D	E18	Hollow River mouth	River	2017	23-Jul-17		7.3							
E18	E18	Hollow River mouth	River	2017	7-Aug-17		11.4		8		80			
E18	E18	Hollow River mouth	River	2017	21-Aug-17		5.8							
E18	E18	Hollow River mouth	River	2017	1-Sep-17		15.9							
E18	E18	Hollow River mouth	River	2018	2-Jul-18		4.2		28		69			
E18 L/D	E18	Hollow River mouth	River	2018	2-Jul-18				83	A	201	463		

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E18	E18	Hollow River mouth	River	2018	6-Aug-18		7.0							
E18 L/D	E18	Hollow River mouth	River	2018	6-Aug-18				1	A	201	NDOGH PC		
E18	E18	Hollow River mouth	River	2018	31-Aug-18	Y	3.0		8		22			
E18	E18	Hollow River mouth	River	2019	1-Jul-19		5.8							
E18	E18	Hollow River mouth	River	2019	30-Aug-19		3.0							
E20 P/B	E20	Little Trading Bay	Deep Water	2005	4-Jul-05		5.9		8		28			
E20 P/B	E20	Little Trading Bay	Deep Water	2005	18-Jul-05		5.8		5		11			
E20 P/B FD	E20	Little Trading Bay	Deep Water	2005	18-Jul-05				3		8			
E20 P/B LD	E20	Little Trading Bay	Deep Water	2005	18-Jul-05				1		4			
E20 P/B	E20	Little Trading Bay	Deep Water	2005	1-Aug-05		5.2		3		19			
E20 P/B	E20	Little Trading Bay	Deep Water	2005	14-Aug-05				1		33			
E20 P/B	E20	Little Trading Bay	Deep Water	2005	1-Sep-05		4.8		3		33			
E20 P/B	E20	Little Trading Bay	Deep Water	2006	3-Jul-06		11.9		3		13			
E20 P/B	E20	Little Trading Bay	Deep Water	2006	17-Jul-06		6.1		5		19			
E20 P/B FD	E20	Little Trading Bay	Deep Water	2006	17-Jul-06				5		19			
E20 P/B LD	E20	Little Trading Bay	Deep Water	2006	17-Jul-06				4		20			
E20 P/B	E20	Little Trading Bay	Deep Water	2006	8-Aug-06		4.4		3		19			
E20 P/B	E20	Little Trading Bay	Deep Water	2006	21-Aug-06		6.5							
E20 P/B	E20	Little Trading Bay	Deep Water	2006	1-Sep-06		10.3		3		11			
E20 P/B	E20	Little Trading Bay	Deep Water	2007	2-Jul-07		4.8		1		25			
E20 P/B	E20	Little Trading Bay	Deep Water	2007	23-Jul-07		7.9		8		65			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E20 P/B	E20	Little Trading Bay	Deep Water	2007	6-Aug-07		7.6		3		8			
E20 P/B	E20	Little Trading Bay	Deep Water	2007	20-Aug-07		7.9		1		8			
E20 P/B	E20	Little Trading Bay	Deep Water	2007	31-Aug-07		7.0		1		5			
E20 P/B	E20	Little Trading Bay	Deep Water	2008	30-Jun-08		7.4		1		59			
E20 P/B	E20	Little Trading Bay	Deep Water	2008	14-Jul-08		7.0		1		16			
E20 P/B	E20	Little Trading Bay	Deep Water	2008	4-Aug-08		8.3		8		22			
E20 P/B	E20	Little Trading Bay	Deep Water	2008	18-Aug-08		6.5		1		3			
E20 P/B	E20	Little Trading Bay	Deep Water	2008	29-Aug-08		9.4		3		62			
E20 P/B FD	E20	Little Trading Bay	Deep Water	2008	29-Aug-08				5		52			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2005	4-Jul-05		11.0		1		5			x
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2005	18-Jul-05		2.4		1		3			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2005	1-Aug-05				1		16			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2005	14-Aug-05		3.9		1		8			
S2 P/B FD	S2	Menominee Bay	Nearshore Undisturbed	2005	14-Aug-05				1		11			
S2 P/B LD	S2	Menominee Bay	Nearshore Undisturbed	2005	14-Aug-05				1		12			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2005	1-Sep-05		2.9		1		5			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2006	3-Jul-06		4.8		1		1			
S2 P/B FD	S2	Menominee Bay	Nearshore Undisturbed	2006	3-Jul-06				3		3			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2006	17-Jul-06		3.9		1		8			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2006	7-Aug-06		2.8		3		19			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2006	21-Aug-06		5.6		3		3			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
S2 P/B FD	S2	Menominee Bay	Nearshore Undisturbed	2006	1-Sep-06		8.1							
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2006	1-Sep-06		15.9		1		5		bs	
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2007	2-Jul-07		2.7		1		1			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2007	23-Jul-07		3.8		1		1			
S2 P/B FD	S2	Menominee Bay	Nearshore Undisturbed	2007	23-Jul-07				1		1			
S2 P/B LD	S2	Menominee Bay	Nearshore Undisturbed	2007	23-Jul-07				4		60			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2007	6-Aug-07		6.0		3		5			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2007	20-Aug-07		2.7		3		11			
S2 P/B FD	S2	Menominee Bay	Nearshore Undisturbed	2007	20-Aug-07				5		108			
S2 P/B LD	S2	Menominee Bay	Nearshore Undisturbed	2007	20-Aug-07				8		116			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2007	31-Aug-07		4.2		1		3			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2008	30-Jun-08		4.8		1		8			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2008	14-Jul-08		7.0		13		83			
S2 P/B LD	S2	Menominee Bay	Nearshore Undisturbed	2008	4-Aug-08		7.5							
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2008	4-Aug-08		8.5		1		1			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2008	18-Aug-08		5.8		1		16			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2008	29-Aug-08		4.3		1		3			
S2 P/B LD	S2	Menominee Bay	Nearshore Undisturbed	2008	29-Aug-08		4.3							
S2 P/B FD	S2	Menominee Bay	Nearshore Undisturbed	2008	29-Aug-08				1		3			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2009	3-Jul-09		3.9		5		8			
S2 P/B FD	S2	Menominee Bay	Nearshore Undisturbed	2009	3-Jul-09				3		8			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2009	17-Jul-09		4.9		8		19			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2009	1-Aug-09		1.9		3		5			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2009	17-Aug-09		2.9		1		16			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2009	4-Sep-09		2.1		1		11			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2010	5-Jul-10		3.5							
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2010	19-Jul-10		2.0							
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2010	2-Aug-10		3.4							
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2010	16-Aug-10		1.9							
S2 P/B FD	S2	Menominee Bay	Nearshore Undisturbed	2010	16-Aug-10		2.1							
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2010	7-Sep-10		3.4							
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2011	4-Jul-11		5.1		8		11			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2011	18-Jul-11		3.9		3		5			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2011	1-Aug-11		4.4		5		11			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2011	15-Aug-11		5.0		1		3			
S2 P/B FD phos	S2	Menominee Bay	Nearshore Undisturbed	2011	2-Sep-11		5.5							
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2011	2-Sep-11		7.1		8		11			
S2 P/B FD	S2	Menominee Bay	Nearshore Undisturbed	2012	1-Jul-12		3.0							
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2012	1-Jul-12		4.2							
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2012	23-Jul-12		3.9							
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2012	4-Aug-12		3.4							
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2012	20-Aug-12		4.2							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2012	31-Aug-12		3.6							
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2013	1-Jul-13		3.1		5		8			
S2 P/B FD	S2	Menominee Bay	Nearshore Undisturbed	2013	21-Jul-13		4.4		1		3			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2013	21-Jul-13		5.7		3		5			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2013	5-Aug-13		2.9		3		11			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2013	18-Aug-13		5.9		1		3			
S2 P/B	S2	Menominee Bay	Nearshore Undisturbed	2013	28-Aug-13		4.4		5		5			
S2	S2	Menominee Bay	Nearshore Undisturbed	2014	29-Jun-14		4.5							
S2	S2	Menominee Bay	Nearshore Undisturbed	2014	20-Jul-14		5.6							
S2	S2	Menominee Bay	Nearshore Undisturbed	2014	3-Aug-14		6.2							
S2	S2	Menominee Bay	Nearshore Undisturbed	2014	17-Aug-14		3.2							
S2 FD	S2	Menominee Bay	Nearshore Undisturbed	2014	17-Aug-14		3.2							
S2	S2	Menominee Bay	Nearshore Undisturbed	2014	28-Aug-14		4.6							
S2	S2	Menominee Bay	Nearshore Undisturbed	2014	28-Aug-14		4.6							
S2	S2	Menominee Bay	Nearshore Undisturbed	2015	28-Jun-15		4.8							
S2	S2	Menominee Bay	Nearshore Undisturbed	2015	20-Jul-15		4.5							
S2 FD	S2	Menominee Bay	Nearshore Undisturbed	2015	4-Aug-15		3.7							
S2	S2	Menominee Bay	Nearshore Undisturbed	2015	4-Aug-15		4.5							
S2	S2	Menominee Bay	Nearshore Undisturbed	2015	23-Aug-15		1.9							
S2	S2	Menominee Bay	Nearshore Undisturbed	2015	4-Sep-15		3.0							
S2	S2	Menominee Bay	Nearshore Undisturbed	2016	1-Jul-16		3.1							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
S2 FD	S2	Menominee Bay	Nearshore Undisturbed	2016	1-Jul-16		4.8						bs	
S2	S2	Menominee Bay	Nearshore Undisturbed	2016	18-Jul-16		7.1							
S2	S2	Menominee Bay	Nearshore Undisturbed	2016	1-Aug-16		7.3		5		8			
S2	S2	Menominee Bay	Nearshore Undisturbed	2016	14-Aug-16		4.9							
S2 FD	S2	Menominee Bay	Nearshore Undisturbed	2016	14-Aug-16		5.6							
S2	S2	Menominee Bay	Nearshore Undisturbed	2016	1-Sep-16		12.0							x
S2	S2	Menominee Bay	Nearshore Undisturbed	2017	3-Jul-17		4.6							
S2	S2	Menominee Bay	Nearshore Undisturbed	2017	23-Jul-17		4.8							
S2	S2	Menominee Bay	Nearshore Undisturbed	2017	7-Aug-17		5.6		8		22			
S2	S2	Menominee Bay	Nearshore Undisturbed	2017	21-Aug-17		5.1							
S2	S2	Menominee Bay	Nearshore Undisturbed	2017	1-Sep-17		8.6							
S2	S2	Menominee Bay	Nearshore Undisturbed	2018	2-Jul-18	Y	3.0		3		28			
S2	S2	Menominee Bay	Nearshore Undisturbed	2018	6-Aug-18		5.1		3		49			
S2 L/D	S2	Menominee Bay	Nearshore Undisturbed	2018	6-Aug-18				1		201	121		
S2	S2	Menominee Bay	Nearshore Undisturbed	2018	31-Aug-18	Y	3.0	Y	3		52			
S2 F/D	S2	Menominee Bay	Nearshore Undisturbed	2018	31-Aug-18	Y	3.0	Y	3		62			
S2 L/D	S2	Menominee Bay	Nearshore Undisturbed	2018	31-Aug-18				2		145	113		
S2	S2	Menominee Bay	Nearshore Undisturbed	2019	1-Jul-19		3.1							
S2	S2	Menominee Bay	Nearshore Undisturbed	2019	5-Aug-19		4.3		3		3			
S2	S2	Menominee Bay	Nearshore Undisturbed	2019	30-Aug-19	y	3.0							
S2	S2	Menominee Bay	Nearshore Undisturbed	2019	30-Aug-19	y	3.0							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2002	26-May-02				0.5		0.5			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2002	1-Jul-02		5.6		0.5		11.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2002	15-Jul-02		5.1		0.5		33.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2002	5-Aug-02		36.7		0.5		123.0			x
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2002	19-Aug-02		3.8		0.5		55.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2002	2-Sep-02		1.8		0.5		55.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2002	29-Sep-02				0.5		8.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2003	8-Jun-03		5.2							
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2003	30-Jun-03		4.0		1.0		1.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2003	14-Jul-03		4.9		1.0		11.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2003	4-Aug-03		3.5		1.0		7.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2003	14-Aug-03		2.9		3.0		5.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2003	1-Sep-03		1.8		1.0		16.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2003	28-Sep-03		2.3		1.0		5.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2004	5-Jul-04		2.8		8.0		19.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2004	19-Jul-04		5.8		1.0		13.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2004	2-Aug-04		4.3		1.0		28.0			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2004	2-Aug-04				3.0		13.0			
N13 P/B LD	N13	Moffat's	Nearshore Undisturbed	2004	2-Aug-04				1.0		8.0			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2004	23-Aug-04		3.3		3.0		33.0			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2004	23-Aug-04				1.0		33.0			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2004	6-Sep-04		4.7		1.0		127.0			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2005	4-Jul-05		4.0							
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2005	4-Jul-05		5.7		3		16		bs	
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2005	18-Jul-05		2.8		5		39			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2005	18-Jul-05				3		30			
N13 P/B LD	N13	Moffat's	Nearshore Undisturbed	2005	18-Jul-05				1		56			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2005	1-Aug-05				3		43			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2005	1-Aug-05				5		28			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2005	14-Aug-05		4.4		3		19			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2005	14-Aug-05				3		22			
N13 P/B LD	N13	Moffat's	Nearshore Undisturbed	2005	14-Aug-05				1		8			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2005	1-Sep-05		3.5		8		22			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2005	1-Sep-05				8		28			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2006	3-Jul-06		4.8		1		1			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2006	3-Jul-06				3		11			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2006	17-Jul-06		4.3		5		13			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2006	17-Jul-06				3		11			
N13 P/B LD	N13	Moffat's	Nearshore Undisturbed	2006	17-Jul-06				4		16			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2006	7-Aug-06		4.2		3		5			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2006	21-Aug-06		6.7		1		3			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2006	1-Sep-06		4.7		3		5			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2007	2-Jul-07		3.8		1		1			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2007	2-Jul-07				1		5			
N13 P/B LD	N13	Moffat's	Nearshore Undisturbed	2007	2-Jul-07				1		4			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2007	23-Jul-07		5.0		3		3			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2007	6-Aug-07		15.1		1		11			x
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2007	20-Aug-07		2.7		1		1			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2007	31-Aug-07		3.7		1		1			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2008	30-Jun-08		5.1		1		1			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2008	14-Jul-08		4.7		1		1			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2008	4-Aug-08		6.3		1		1			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2008	18-Aug-08				1		3			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2008	29-Aug-08		4.7		1		3			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2008	29-Aug-08				1		3			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2009	3-Jul-09		4.4		5		8			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2009	17-Jul-09		6.9		3		5			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2009	1-Aug-09		5.5		1		19			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2009	17-Aug-09		4.5		1		3			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2009	17-Aug-09				1		3			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2009	4-Sep-09		2.6		1		3			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2010	5-Jul-10		4.2							
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2010	19-Jul-10		2.3							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2010	2-Aug-10		3.3							
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2010	16-Aug-10		4.7							
N13 P/B F/D	N13	Moffat's	Nearshore Undisturbed	2010	7-Sep-10		3.3							
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2010	7-Sep-10		5.1						bs	
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2011	4-Jul-11		5.6		3		8			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2011	18-Jul-11		3.6		5		16			
N13 P/B COAL lab	N13	Moffat's	Nearshore Undisturbed	2011	18-Jul-11				7		17			
N13 P/B FD bacti	N13	Moffat's	Nearshore Undisturbed	2011	18-Jul-11				7		11			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2011	1-Aug-11		4.4		3		8			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2011	15-Aug-11		6.2		1		11			
N13 P/B COAL lab	N13	Moffat's	Nearshore Undisturbed	2011	15-Aug-11				2		28			
N11 P/B	N13	Moffat's	Nearshore Undisturbed	2011	2-Sep-11		2.9		1		13			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2011	2-Sep-11		3.3		3		11			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2012	1-Jul-12		4.9							
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2012	23-Jul-12		3.1							
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2012	23-Jul-12		3.3							
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2012	4-Aug-12		5.7							
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2012	20-Aug-12		4.2							
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2012	31-Aug-12		4.1							
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2012	31-Aug-12		4.6							
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2013	1-Jul-13		3.9		3		8			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2013	21-Jul-13				3		11			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2013	21-Jul-13				5		17			
N13 P/B lab	N13	Moffat's	Nearshore Undisturbed	2013	21-Jul-13				8		23			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2013	5-Aug-13				1		11			
N13 P/B lab	N13	Moffat's	Nearshore Undisturbed	2013	5-Aug-13				2		15			
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2013	5-Aug-13		11.4		1		8			x
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2013	18-Aug-13		4.1		1		11			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2013	18-Aug-13		6.1		1		8		bs	
N13 P/B	N13	Moffat's	Nearshore Undisturbed	2013	28-Aug-13		3.6		3		17			
N13 P/B FD	N13	Moffat's	Nearshore Undisturbed	2013	28-Aug-13				3		36			
N13 P/B lab	N13	Moffat's	Nearshore Undisturbed	2013	28-Aug-13				4		25			
N13	N13	Moffat's	Nearshore Undisturbed	2014	29-Jun-14		6.1							
N13	N13	Moffat's	Nearshore Undisturbed	2014	20-Jul-14		5.9							
N13	N13	Moffat's	Nearshore Undisturbed	2014	3-Aug-14		5.0							
N13	N13	Moffat's	Nearshore Undisturbed	2014	17-Aug-14		5.9							
N13	N13	Moffat's	Nearshore Undisturbed	2014	28-Aug-14		4.4							
N13 FD	N13	Moffat's	Nearshore Undisturbed	2014	28-Aug-14		6.9						bs	
N13	N13	Moffat's	Nearshore Undisturbed	2015	28-Jun-15		4.9							
N13	N13	Moffat's	Nearshore Undisturbed	2015	20-Jul-15		4.1							
N13	N13	Moffat's	Nearshore Undisturbed	2015	20-Jul-15		7.3							
N13	N13	Moffat's	Nearshore Undisturbed	2015	4-Aug-15		4.1							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N13 FD	N13	Moffat's	Nearshore Undisturbed	2015	23-Aug-15		1.8							
N13	N13	Moffat's	Nearshore Undisturbed	2015	23-Aug-15		3.9							
N13	N13	Moffat's	Nearshore Undisturbed	2015	4-Sep-15		3.1							
N13	N13	Moffat's	Nearshore Undisturbed	2016	1-Jul-16		3.5							
N13	N13	Moffat's	Nearshore Undisturbed	2016	18-Jul-16		17.2							x
N13	N13	Moffat's	Nearshore Undisturbed	2016	1-Aug-16		4.5		0		5			
N13 FD	N13	Moffat's	Nearshore Undisturbed	2016	1-Aug-16				0		3			
N13	N13	Moffat's	Nearshore Undisturbed	2016	14-Aug-16		3.4							
N13 FD	N13	Moffat's	Nearshore Undisturbed	2016	14-Aug-16		3.3							
N13	N13	Moffat's	Nearshore Undisturbed	2016	1-Sep-16		3.8							
N13	N13	Moffat's	Nearshore Undisturbed	2017	3-Jul-17		6.3							
N13 F/D	N13	Moffat's	Nearshore Undisturbed	2017	3-Jul-17		7.1							
N13	N13	Moffat's	Nearshore Undisturbed	2017	23-Jul-17									
N13	N13	Moffat's	Nearshore Undisturbed	2017	7-Aug-17		4.8		3		80			
N13 lab results	N13	Moffat's	Nearshore Undisturbed	2017	7-Aug-17				4		600			
N13	N13	Moffat's	Nearshore Undisturbed	2017	21-Aug-17		5.5							
N13	N13	Moffat's	Nearshore Undisturbed	2017	1-Sep-17		5.1							
N13	N13	Moffat's	Nearshore Undisturbed	2018	2-Jul-18		3.0	Y	3		5			
N13	N13	Moffat's	Nearshore Undisturbed	2018	6-Aug-18			Y	3	B	3			
N13	N13	Moffat's	Nearshore Undisturbed	2018	31-Aug-18		4.2		3		8			
N13	N13	Moffat's	Nearshore Undisturbed	2019	1-Jul-19	y	3.0							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N13	N13	Moffat's	Nearshore Undisturbed	2019	5-Aug-19		7.6	y	3		3		bs	
N13	N13	Moffat's	Nearshore Undisturbed	2019	5-Aug-19		3.4		3		5			
N13	N13	Moffat's	Nearshore Undisturbed	2019	30-Aug-19	y	3.0							
E25 P/B	E25	Narrows East	Nearshore Undisturbed	2007	2-Jul-07		3.9		1		16			
E25 P/B	E25	Narrows East	Nearshore Undisturbed	2007	23-Jul-07		7.2		1		3			
E25 P/B FD	E25	Narrows East	Nearshore Undisturbed	2007	23-Jul-07				1		3			
E25 P/B LD	E25	Narrows East	Nearshore Undisturbed	2007	23-Jul-07				1		1			
E25 P/B	E25	Narrows East	Nearshore Undisturbed	2007	6-Aug-07		16.9		1		11			
E25 P/B	E25	Narrows East	Nearshore Undisturbed	2007	20-Aug-07		12.9		3		8			
E25 P/B	E25	Narrows East	Nearshore Undisturbed	2007	31-Aug-07		16.1		1		1			
E25 P/B FD	E25	Narrows East	Nearshore Undisturbed	2007	31-Aug-07				1		5			
E25 P/B	E25	Narrows East	Nearshore Undisturbed	2008	30-Jun-08				1		5			
E25 P/B	E25	Narrows East	Nearshore Undisturbed	2008	14-Jul-08		4.9		3		19			
E25 P/B FD	E25	Narrows East	Nearshore Undisturbed	2008	14-Jul-08				1		19			
E25 P/B FD	E25	Narrows East	Nearshore Undisturbed	2008	14-Jul-08				3		8			
E25 P/B	E25	Narrows East	Nearshore Undisturbed	2008	4-Aug-08		6.3		1		3			
E25 P/B LD	E25	Narrows East	Nearshore Undisturbed	2008	4-Aug-08				1		19			
E25 P/B LD	E25	Narrows East	Nearshore Undisturbed	2008	4-Aug-08				1		16			
E25 P/B	E25	Narrows East	Nearshore Undisturbed	2008	18-Aug-08		4.3		1		16			
E25 P/B	E25	Narrows East	Nearshore Undisturbed	2008	29-Aug-08		7.2		5		16			
E26 P/B	E26	Narrows West	Nearshore Undisturbed	2007	2-Jul-07		4.5		1		65			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E26 P/B FD	E26	Narrows West	Nearshore Undisturbed	2007	23-Jul-07		4.1							
E26 P/B	E26	Narrows West	Nearshore Undisturbed	2007	23-Jul-07		8.2		1		1		bs	
E26 P/B FD	E26	Narrows West	Nearshore Undisturbed	2007	6-Aug-07		6.4		1		1			
E26 P/B	E26	Narrows West	Nearshore Undisturbed	2007	6-Aug-07		7.0		13		25			
E26 P/B FD	E26	Narrows West	Nearshore Undisturbed	2007	6-Aug-07				8		13			
E26 P/B	E26	Narrows West	Nearshore Undisturbed	2007	20-Aug-07		5.7		1		1			
E26 P/B	E26	Narrows West	Nearshore Undisturbed	2007	31-Aug-07		4.4		1		8			
E26 P/B	E26	Narrows West	Nearshore Undisturbed	2008	30-Jun-08				3		8			
E26 P/B	E26	Narrows West	Nearshore Undisturbed	2008	14-Jul-08		2.4		5		8			
E26 P/B	E26	Narrows West	Nearshore Undisturbed	2008	4-Aug-08		5.5		13		69			
E26 P/B	E26	Narrows West	Nearshore Undisturbed	2008	18-Aug-08		4.6		1		1			
E26 P/B FD	E26	Narrows West	Nearshore Undisturbed	2008	18-Aug-08		5.9		1		1			
E26 P/B LD	E26	Narrows West	Nearshore Undisturbed	2008	18-Aug-08				1		24			
E26 P/B	E26	Narrows West	Nearshore Undisturbed	2008	29-Aug-08		5.5		3		11			
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2009	3-Jul-09				3		16			
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2009	17-Jul-09				5		8			
E 26 P/B FD	E26	Narrows West	Nearshore Undisturbed	2009	17-Jul-09				8		8			
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2009	1-Aug-09				3		11			
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2009	17-Aug-09				8		11			
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2009	4-Sep-09				3		11			
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2010	5-Jul-10		4.2							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2010	19-Jul-10		4.9							
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2010	2-Aug-10		5.8							
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2010	16-Aug-10		3.2							
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2010	7-Sep-10		3.4							
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2011	4-Jul-11		11.4		8		19			x
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2011	18-Jul-11		3.4		25		30			
E 26 P/B COAL lab	E26	Narrows West	Nearshore Undisturbed	2011	18-Jul-11				32		66			
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2011	1-Aug-11		8.5		11		16			x
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2011	15-Aug-11		4.1		5		8			
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2011	2-Sep-11		4.6		16		30			
E 26 P/B COAL lab	E26	Narrows West	Nearshore Undisturbed	2011	2-Sep-11				18		35			
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2012	1-Jul-12		4.6							
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2012	23-Jul-12		4.9							
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2012	4-Aug-12									
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2012	20-Aug-12		3.8							
E 26 P/B FD	E26	Narrows West	Nearshore Undisturbed	2012	20-Aug-12		3.8							
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2012	31-Aug-12		4.5							
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2013	1-Jul-13		3.6		5		8			
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2013	21-Jul-13				5		17			
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2013	5-Aug-13		4.5		28		35			
E 26 P/B FD	E26	Narrows West	Nearshore Undisturbed	2013	5-Aug-13				18		35			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E 26 P/B lab	E26	Narrows West	Nearshore Undisturbed	2013	5-Aug-13				52		80			
E 26 P/B	E26	Narrows West	Nearshore Undisturbed	2013	18-Aug-13		5.3		11		17			
E 26 P/B FD	E26	Narrows West	Nearshore Undisturbed	2013	18-Aug-13		5.4		11		28			
E26	E26	Narrows West	Nearshore Undisturbed	2014	29-Jun-14		6.3							
E26	E26	Narrows West	Nearshore Undisturbed	2014	20-Jul-14		4.3							
E26	E26	Narrows West	Nearshore Undisturbed	2014	3-Aug-14		3.6							
E26	E26	Narrows West	Nearshore Undisturbed	2014	17-Aug-14		5.0							
E26 FD	E26	Narrows West	Nearshore Undisturbed	2014	17-Aug-14		5.5							
E26	E26	Narrows West	Nearshore Undisturbed	2014	28-Aug-14		4.5							
E26 FD	E26	Narrows West	Nearshore Undisturbed	2014	28-Aug-14		5.2							
E25	E26	Narrows West	Nearshore Undisturbed	2015	28-Jun-15		3.4							
E26	E26	Narrows West	Nearshore Undisturbed	2015	20-Jul-15		4.5							
E26 FD	E26	Narrows West	Nearshore Undisturbed	2015	20-Jul-15		5.1							
E26	E26	Narrows West	Nearshore Undisturbed	2015	4-Aug-15		4.9							
E26	E26	Narrows West	Nearshore Undisturbed	2015	23-Aug-15									
E26	E26	Narrows West	Nearshore Undisturbed	2015	4-Sep-15		8.9							x
E26	E26	Narrows West	Nearshore Undisturbed	2016	1-Jul-16									
E26	E26	Narrows West	Nearshore Undisturbed	2016	18-Jul-16		5.9							
E26 F/D	E26	Narrows West	Nearshore Undisturbed	2016	18-Jul-16		12.3						bs	
E26	E26	Narrows West	Nearshore Undisturbed	2016	1-Aug-16		5.8		3		8			
E26	E26	Narrows West	Nearshore Undisturbed	2016	14-Aug-16		3.7							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E26	E26	Narrows West	Nearshore Undisturbed	2016	1-Sep-16		6.1							
E26	E26	Narrows West	Nearshore Undisturbed	2017	3-Jul-17		6.2							
E26 F/D	E26	Narrows West	Nearshore Undisturbed	2017	3-Jul-17		12.7						bs	
E26	E26	Narrows West	Nearshore Undisturbed	2017	23-Jul-17		6.1							
E26	E26	Narrows West	Nearshore Undisturbed	2017	7-Aug-17		8.6		11		52			x
E26	E26	Narrows West	Nearshore Undisturbed	2017	21-Aug-17		6.1							
E26 F/D	E26	Narrows West	Nearshore Undisturbed	2017	21-Aug-17		29.5						bs	
E26	E26	Narrows West	Nearshore Undisturbed	2017	1-Sep-17		5.5							
E26	E26	Narrows West	Nearshore Undisturbed	2018	2-Jul-18		4.1		3		8			
E26	E26	Narrows West	Nearshore Undisturbed	2018	6-Aug-18				3		11			
E26	E26	Narrows West	Nearshore Undisturbed	2018	31-Aug-18	Y	3.0		5		16			
E26	E26	Narrows West	Nearshore Undisturbed	2019	1-Jul-19		3.8							
E26	E26	Narrows West	Nearshore Undisturbed	2019	5-Aug-19	y	3.0		8		19			
E26	E26	Narrows West	Nearshore Undisturbed	2019	30-Aug-19		4.5							
E26	E26	Narrows West	Nearshore Undisturbed	2019	30-Aug-19	y	3.0							
N30 P/B	N30	Oxtongue Delta	River	2008	4-Aug-08		5.9		3		8			
N30 P/B	N30	Oxtongue Delta	River	2008	18-Aug-08		5.0		1		1			
N30 P/B	N30	Oxtongue Delta	River	2008	29-Aug-08		9.7		5		11			
N30 P/B	N30	Oxtongue Delta	River	2009	3-Jul-09		5.7		3		11			
N30 P/B	N30	Oxtongue Delta	River	2009	17-Jul-09		6.3		5		11			
N30 P/B	N30	Oxtongue Delta	River	2009	1-Aug-09		4.1		3		8			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N30 P/B	N30	Oxtongue Delta	River	2009	17-Aug-09		4.8		3		5			
N30 P/B	N30	Oxtongue Delta	River	2009	4-Sep-09		2.9		5		11			
N30 P/B	N30	Oxtongue Delta	River	2010	5-Jul-10		4.5							
N30 P/B	N30	Oxtongue Delta	River	2010	19-Jul-10		4.0							
N30 P/B	N30	Oxtongue Delta	River	2010	2-Aug-10		4.7							
N30 P/B	N30	Oxtongue Delta	River	2010	16-Aug-10		3.1							
N30 P/B	N30	Oxtongue Delta	River	2010	7-Sep-10		3.5							
N30 P/B	N30	Oxtongue Delta	River	2011	4-Jul-11		8.2		3		11			
N30 P/B	N30	Oxtongue Delta	River	2011	18-Jul-11		4.5		8		11			
N30 P/B	N30	Oxtongue Delta	River	2011	1-Aug-11		5.2		5		8			
N30 P/B FD bacti	N30	Oxtongue Delta	River	2011	1-Aug-11		5.2		3		8			
N30 P/B	N30	Oxtongue Delta	River	2011	14-Aug-11		3.7		3		3			
N30 P/B	N30	Oxtongue Delta	River	2011	2-Sep-11		3.1		3		5			
N30 P/B	N30	Oxtongue Delta	River	2012	1-Jul-12		6.0							
N30 P/B	N30	Oxtongue Delta	River	2012	23-Jul-12		3.8							
N30 P/B	N30	Oxtongue Delta	River	2012	4-Aug-12		4.5							
N30 P/B FD	N30	Oxtongue Delta	River	2012	20-Aug-12		4.0							
N30 P/B	N30	Oxtongue Delta	River	2012	20-Aug-12		4.1							
N30 P/B	N30	Oxtongue Delta	River	2012	31-Aug-12		3.5							
N30 P/B	N30	Oxtongue Delta	River	2013	1-Jul-13		4.7		5		11			
N30 P/B	N30	Oxtongue Delta	River	2013	21-Jul-13		5.1		3		8			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N30 P/B FD	N30	Oxtongue Delta	River	2013	21-Jul-13		6.4		3		11			
N30 P/B	N30	Oxtongue Delta	River	2013	5-Aug-13		6.8		3		17			
N30 P/B	N30	Oxtongue Delta	River	2013	18-Aug-13		10.3		1		5			
N30 P/B	N30	Oxtongue Delta	River	2013	28-Aug-13		3.2		8		11			
N30 P/B	N30	Oxtongue Delta	River	2013	28-Aug-13		5.1		1		8			
N30	N30	Oxtongue Delta	River	2014	29-Jun-14		10.9							
N30	N30	Oxtongue Delta	River	2014	20-Jul-14		9.1							
N30	N30	Oxtongue Delta	River	2014	3-Aug-14		7.8							
N30	N30	Oxtongue Delta	River	2014	17-Aug-14		6.5							
N30	N30	Oxtongue Delta	River	2014	28-Aug-14		8.3							
N30 FD	N30	Oxtongue Delta	River	2014	28-Aug-14		8.3							
N30	N30	Oxtongue Delta	River	2015	28-Jun-15		7.1							
N30 FD	N30	Oxtongue Delta	River	2015	28-Jun-15		8.1							
N30	N30	Oxtongue Delta	River	2015	20-Jul-15		7.0							
N30 FD	N30	Oxtongue Delta	River	2015	4-Aug-15		4.9							
N30	N30	Oxtongue Delta	River	2015	4-Aug-15		5.1							
N30	N30	Oxtongue Delta	River	2015	23-Aug-15		2.4							
N30 FD	N30	Oxtongue Delta	River	2015	23-Aug-15		2.5							
N30	N30	Oxtongue Delta	River	2015	4-Sep-15		8.1							
N30	N30	Oxtongue Delta	River	2016	1-Jul-16		5.5							
N30	N30	Oxtongue Delta	River	2016	18-Jul-16		13.2							x

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N 2P/B	N2	Oxtongue mouth	River	2004	19-Jul-04		7.9		16		156			
N 2P/B	N2	Oxtongue mouth	River	2004	2-Aug-04		8.1		46		350			
N 2P/B	N2	Oxtongue mouth	River	2004	23-Aug-04		7.1		1		69			
N 2P/B	N2	Oxtongue mouth	River	2004	6-Sep-04		6.5		1		206			
N 2P/B	N2	Oxtongue mouth	River	2005	4-Jul-05									
N 2P/B	N2	Oxtongue mouth	River	2005	18-Jul-05		7.2		28		132			
N 2P/B	N2	Oxtongue mouth	River	2005	1-Aug-05		4.2							
N 2P/B	N2	Oxtongue mouth	River	2005	14-Aug-05		6.2		52		87			
N 2P/B	N2	Oxtongue mouth	River	2005	1-Sep-05		6.1							
N 2P/B	N2	Oxtongue mouth	River	2008	4-Aug-08		8.3		30		52			
N 2P/B	N2	Oxtongue mouth	River	2008	18-Aug-08		6.9		16		33			
N 2P/B	N2	Oxtongue mouth	River	2008	29-Aug-08		6.6		25		46			
N 2P/B	N2	Oxtongue mouth	River	2009	3-Jul-09		9.4		5		22			
N 2P/B	N2	Oxtongue mouth	River	2009	17-Jul-09		8.5		11		13			
N 2P/B	N2	Oxtongue mouth	River	2009	1-Aug-09		6.8		8		30			
N 2P/B	N2	Oxtongue mouth	River	2009	17-Aug-09		6.9		11		33			
N 2P/B	N2	Oxtongue mouth	River	2009	4-Sep-09		6.4		25		46			
N 2P/B	N2	Oxtongue mouth	River	2010	5-Jul-10		8.1							
N 2P/B	N2	Oxtongue mouth	River	2010	19-Jul-10		13.8							x
N 2P/B	N2	Oxtongue mouth	River	2010	2-Aug-10		6.8							
N 2P/B	N2	Oxtongue mouth	River	2010	16-Aug-10		10.4							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N 2P/B	N2	Oxtongue mouth	River	2010	7-Sep-10		8.0							
N 2P/B	N2	Oxtongue mouth	River	2011	4-Jul-11		9.3		5		11			
N 2P/B	N2	Oxtongue mouth	River	2011	18-Jul-11		7.9		3		8			
N 2P/B	N2	Oxtongue mouth	River	2011	1-Aug-11		7.1		8		8			
N 2P/B	N2	Oxtongue mouth	River	2011	15-Aug-11		6.9		3		5			
N 2P/B	N2	Oxtongue mouth	River	2011	2-Sep-11				11		16			
N 2P/B	N2	Oxtongue mouth	River	2012	1-Jul-12		6.3							
N 2P/B	N2	Oxtongue mouth	River	2012	23-Jul-12		7.5							
N 2P/B	N2	Oxtongue mouth	River	2012	4-Aug-12		6.3							
N 2P/B	N2	Oxtongue mouth	River	2012	20-Aug-12		6.4							
N 2P/B	N2	Oxtongue mouth	River	2012	31-Aug-12		5.4							
N 2P/B	N2	Oxtongue mouth	River	2013	1-Jul-13		6.0		8		17			
N 2P/B	N2	Oxtongue mouth	River	2013	21-Jul-13		10.0		5		28			
N 2P/B	N2	Oxtongue mouth	River	2013	5-Aug-13		8.0		5		11			
N 2P/B	N2	Oxtongue mouth	River	2013	18-Aug-13		8.6		3		8			
N 2P/B	N2	Oxtongue mouth	River	2013	28-Aug-13		8.0		5		8			
N2	N2	Oxtongue mouth	River	2014	29-Jun-14		76.8							x
N2	N2	Oxtongue mouth	River	2014	20-Jul-14		9.4							
N2	N2	Oxtongue mouth	River	2014	3-Aug-14		8.2							
N2 FD	N2	Oxtongue mouth	River	2014	3-Aug-14		8.4							
N2	N2	Oxtongue mouth	River	2014	17-Aug-14		8.0							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N2 FD	N2	Oxtongue mouth	River	2014	17-Aug-14		8.1							
N2	N2	Oxtongue mouth	River	2014	28-Aug-14		9.2							
N2	N2	Oxtongue mouth	River	2015	28-Jun-15		7.4							
N2	N2	Oxtongue mouth	River	2015	20-Jul-15		7.5							
N2	N2	Oxtongue mouth	River	2015	4-Aug-15		4.6							
N2	N2	Oxtongue mouth	River	2015	23-Aug-15		5.7							
N2 FD	N2	Oxtongue mouth	River	2015	23-Aug-15		6.1							
N2	N2	Oxtongue mouth	River	2015	4-Sep-15		7.7							
N2	N2	Oxtongue mouth	River	2016	1-Jul-16		5.6							
N2	N2	Oxtongue mouth	River	2016	18-Jul-16		11.9							
N2	N2	Oxtongue mouth	River	2016	1-Aug-16		6.2		3		13			
N2	N2	Oxtongue mouth	River	2016	14-Aug-16		5.6							
N2	N2	Oxtongue mouth	River	2016	1-Sep-16		6.7							
N2	N2	Oxtongue mouth	River	2017	3-Jul-17		10.4							
N2	N2	Oxtongue mouth	River	2017	23-Jul-17		9.1							
N2	N2	Oxtongue mouth	River	2017	7-Aug-17		7.2							
N2 F/D	N2	Oxtongue mouth	River	2017	7-Aug-17		8.2		5		80			
N2	N2	Oxtongue mouth	River	2017	21-Aug-17		8.6							
N2 F/D	N2	Oxtongue mouth	River	2017	21-Aug-17		7.4							
N2	N2	Oxtongue mouth	River	2017	1-Sep-17		9.3							
N2	N2	Oxtongue mouth	River	2018	2-Jul-18		40.4		13		36			x

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N2	N2	Oxtongue mouth	River	2018	6-Aug-18		6.3		8		22			
N2	N2	Oxtongue mouth	River	2018	31-Aug-18		16.5		5		16			x
N2	N2	Oxtongue mouth	River	2019	1-Jul-19		4.4							
N2	N2	Oxtongue mouth	River	2019	5-Aug-19		7.0		13		49			
N2	N2	Oxtongue mouth	River	2019	30-Aug-19		646.0							x
B6 P/B	B6	Port Cunningham	Disturbed	2011	4-Jul-11		5.1		1		8			
B6 P/B COAL lab	B6	Port Cunningham	Disturbed	2011	4-Jul-11				1		9			
B6 P/B	B6	Port Cunningham	Disturbed	2011	18-Jul-11		2.6		5		11			
B6 P/B	B6	Port Cunningham	Disturbed	2011	1-Aug-11		4.0		8		13			
B6 P/B	B6	Port Cunningham	Disturbed	2011	15-Aug-11		3.8		5		13			
B6 P/B	B6	Port Cunningham	Disturbed	2011	2-Sep-11		3.5		3		16			
B6 P/B	B6	Port Cunningham	Disturbed	2012	1-Jul-12		4.7							
B6 P/B	B6	Port Cunningham	Disturbed	2012	23-Jul-12		5.1							
B6 P/B	B6	Port Cunningham	Disturbed	2012	4-Aug-12		3.9							
B6 P/B	B6	Port Cunningham	Disturbed	2012	20-Aug-12		4.5							
B6 P/B	B6	Port Cunningham	Disturbed	2012	31-Aug-12		4.0							
N26 P/B	N26	Portage Bay	Deep Water	2012	1-Jul-12		6.3							
N26 P/B	N26	Portage Bay	Deep Water	2012	23-Jul-12		12.9							
N26 P/B	N26	Portage Bay	Deep Water	2012	4-Aug-12		11.6							
N26 P/B	N26	Portage Bay	Deep Water	2012	20-Aug-12		61.3							x
N26 P/B	N26	Portage Bay	Deep Water	2012	31-Aug-12		7.7							

[illegible]

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N26	N26	Portage Bay	Deep water	2017	3-Jul-17		11.4							
N26	N26	Portage Bay	Deep water	2017	23-Jul-17		8.1							
N26	N26	Portage Bay	Deep water	2017	7-Aug-17		5.8		5		47			
N26 F/D	N26	Portage Bay	Deep water	2017	7-Aug-17		5.5							
N26	N26	Portage Bay	Deep water	2017	21-Aug-17		5.9							
N26	N26	Portage Bay	Deep water	2017	1-Sep-17		9.6							
N26	N26	Portage Bay	Deep water	2018	2-Jul-18				5		16			
N26	N26	Portage Bay	Deep water	2018	6-Aug-18		5.3		5		11			
N26	N26	Portage Bay	Deep water	2018	31-Aug-18		9.2		3		25			
N26	N26	Portage Bay	Deep Water	2019	1-Jul-19		4.7							
N26	N26	Portage Bay	Deep Water	2019	5-Aug-19		3.8		33		36			
N26	N26	Portage Bay	Deep Water	2019	30-Aug-19		3.3							
N31	N31	Portage Bay docks	Nearshore Undisturbed	2019	5-Aug-19		3.6		16		25			
N31	N31	Portage Bay docks	Nearshore Undisturbed	2019	30-Aug-19		20.7						bs	
N31	N31	Portage Bay docks	Nearshore Undisturbed	2019	30-Aug-19	y	3.0							
N26 P/B	N26	Portage Bay RR	Nearshore Undisturbed	2007	2-Jul-07									
N26 P/B	N26	Portage Bay RR	Nearshore Undisturbed	2007	25-Jul-07		5.7							
N26 P/B	N26	Portage Bay RR	Nearshore Undisturbed	2007	6-Aug-07		5.2		1		13			
N26 P/B	N26	Portage Bay RR	Nearshore Undisturbed	2007	20-Aug-07		7.0		1		11			
N26 P/B	N26	Portage Bay RR	Nearshore Undisturbed	2007	31-Aug-07		8.1		3		19			
N27 P/B	N27	Portage Bay Wee Is.	Deep Water	2007	25-Jul-07		6.1							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
N27 P/B	N27	Portage Bay Wee Is.	Deep Water	2007	6-Aug-07		5.2		1		3			
N27 P/B	N27	Portage Bay Wee Is.	Deep Water	2007	20-Aug-07		4.6		1		5			
N27 P/B	N27	Portage Bay Wee Is.	Deep Water	2007	20-Aug-07		5.5							
N27 P/B	N27	Portage Bay Wee Is.	Deep Water	2007	31-Aug-07		6.7		1		5			
S3 P/B	S3	Price's Point	Deep Water	2005	4-Jul-05				1		11			
S3 P/B	S3	Price's Point	Deep Water	2005	18-Jul-05		3.7		1		8			
S3 P/B	S3	Price's Point	Deep Water	2005	1-Aug-05				1		5			
S3 P/B	S3	Price's Point	Deep Water	2005	14-Aug-05		2.4		1		11			
S3 P/B FD	S3	Price's Point	Deep Water	2005	14-Aug-05				1		3			
S3 P/B LD	S3	Price's Point	Deep Water	2005	14-Aug-05				1		1			
S3 P/B	S3	Price's Point	Deep Water	2005	1-Sep-05		4.1		1		8			
S3 P/B FD	S3	Price's Point	Deep Water	2005	1-Sep-05				1		5			
S3 P/B LD	S3	Price's Point	Deep Water	2005	1-Sep-05				1		1			
S3 P/B	S3	Price's Point	Deep Water	2006	3-Jul-06		5.9		1		5			
S3 P/B	S3	Price's Point	Deep Water	2006	17-Jul-06		4.9		1		1			
S3 P/B	S3	Price's Point	Deep Water	2006	7-Aug-06		4.1		1		16			
S3 P/B	S3	Price's Point	Deep Water	2006	21-Aug-06		6.5		3		3			
S3 P/B	S3	Price's Point	Deep Water	2006	1-Sep-06		8.5		1		5			
S3 P/B	S3	Price's Point	Deep Water	2007	2-Jul-07		5.2		1		1			
S3 P/B FD	S3	Price's Point	Deep Water	2007	2-Jul-07				1		4			
S3 P/B LD	S3	Price's Point	Deep Water	2007	2-Jul-07				1		1			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
S3 P/B	S3	Price's Point	Deep Water	2007	23-Jul-07		4.0		1		1			
S3 P/B	S3	Price's Point	Deep Water	2007	6-Aug-07		3.6		1		3			
S3 P/B	S3	Price's Point	Deep Water	2007	20-Aug-07		4.2		1		1			
S3 P/B	S3	Price's Point	Deep Water	2007	31-Aug-07		5.3		1		3			
S3 P/B LD	S3	Price's Point	Deep Water	2008	30-Jun-08		3.9							
S3 P/B	S3	Price's Point	Deep Water	2008	30-Jun-08		3.6		1		1			
S3 P/B	S3	Price's Point	Deep Water	2008	14-Jul-08		3.6		3		16			
S3 P/B FD	S3	Price's Point	Deep Water	2008	14-Jul-08				1		11			
S3 P/B LD	S3	Price's Point	Deep Water	2008	14-Jul-08				1		4			
S3 P/B	S3	Price's Point	Deep Water	2008	4-Aug-08		5.1		1		3			
S3 P/B FD	S3	Price's Point	Deep Water	2008	4-Aug-08				1		1			
S3 P/B LD	S3	Price's Point	Deep Water	2008	4-Aug-08				1		1			
S3 P/B	S3	Price's Point	Deep Water	2008	18-Aug-08		5.0		1		1			
S3 P/B LD	S3	Price's Point	Deep Water	2008	18-Aug-08		4.9							
S3 P/B	S3	Price's Point	Deep Water	2008	29-Aug-08		6.0		1		1			
S3 P/B	S3	Price's Point	Deep Water	2009	3-Jul-09		9.5		3		5			
S3 P/B FD	S3	Price's Point	Deep Water	2009	3-Jul-09		9.2							
S3 P/B	S3	Price's Point	Deep Water	2009	17-Jul-09		7.4		1		16			
S3 P/B FD	S3	Price's Point	Deep Water	2009	17-Jul-09				3		19			
S3 P/B	S3	Price's Point	Deep Water	2009	1-Aug-09		2.3		1		3			
S3 P/B	S3	Price's Point	Deep Water	2009	17-Aug-09		6.7		3		3			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
S3 P/B FD	S3	Price's Point	Deep Water	2009	4-Sep-09		2.7							
S3 P/B	S3	Price's Point	Deep Water	2009	4-Sep-09		2.6		1		1			
S3 P/B	S3	Price's Point	Deep Water	2010	5-Jul-10		4.2							
S3 P/B	S3	Price's Point	Deep Water	2010	19-Jul-10		4.1							
S3 P/B	S3	Price's Point	Deep Water	2010	2-Aug-10		12.7							x
S3 P/B	S3	Price's Point	Deep Water	2010	16-Aug-10		7.3							
S3 P/B	S3	Price's Point	Deep Water	2010	7-Sep-10		5.1							
S3 P/B	S3	Price's Point	Deep Water	2011	4-Jul-11		4.4		1		5			
S3 P/B FD b & p	S3	Price's Point	Deep Water	2011	4-Jul-11		4.0		1		1			
S3 P/B COAL lab	S3	Price's Point	Deep Water	2011	4-Jul-11				0		8			
S3 P/B	S3	Price's Point	Deep Water	2011	18-Jul-11		12.8		3		3			x
S3 P/B	S3	Price's Point	Deep Water	2011	1-Aug-11		5.6		1		1			
S3 P/B	S3	Price's Point	Deep Water	2011	15-Aug-11		4.7		1		5			
S3 P/B	S3	Price's Point	Deep Water	2011	15-Aug-11				1		3			
S3 P/B COAL lab	S3	Price's Point	Deep Water	2011	15-Aug-11				0		3			
S3 P/B	S3	Price's Point	Deep Water	2011	2-Sep-11		7.6		3		5			
S3 P/B	S3	Price's Point	Deep Water	2012	1-Jul-12		4.3							
S3 P/B	S3	Price's Point	Deep Water	2012	23-Jul-12		4.5							
S3 P/B	S3	Price's Point	Deep Water	2012	4-Aug-12		4.6							
S3 P/B	S3	Price's Point	Deep Water	2012	20-Aug-12		4.2							
S3 P/B	S3	Price's Point	Deep Water	2012	31-Aug-12		5.1							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
S3 P/B	S3	Price's Point	Deep Water	2013	1-Jul-13		3.4		1		3			
S3 P/B FD	S3	Price's Point	Deep Water	2013	1-Jul-13		3.2		1		1			
S3 P/B	S3	Price's Point	Deep Water	2013	21-Jul-13		7.3		1		5			
S3 P/B	S3	Price's Point	Deep Water	2013	5-Aug-13		6.4		3		3			
S3 P/B FD	S3	Price's Point	Deep Water	2013	5-Aug-13		5.7		5		11			
S3 P/B	S3	Price's Point	Deep Water	2013	18-Aug-13		7.5		3		5			
S3 P/B FD	S3	Price's Point	Deep Water	2013	28-Aug-13		5.0		1		3			
S3 P/B	S3	Price's Point	Deep Water	2013	28-Aug-13		4.2		1		1			
S3	S3	Price's Point	Deep Water	2014	29-Jun-14		5.3							
S3	S3	Price's Point	Deep Water	2014	20-Jul-14		5.3							
S3	S3	Price's Point	Deep Water	2014	3-Aug-14		3.7							
S3	S3	Price's Point	Deep Water	2014	17-Aug-14		3.4							
S3 FD	S3	Price's Point	Deep Water	2014	28-Aug-14		4.8							
S3	S3	Price's Point	Deep Water	2014	28-Aug-14		4.7							
S3	S3	Price's Point	Deep Water	2015	28-Jun-15		5.4							
S3 FD	S3	Price's Point	Deep Water	2015	20-Jul-15		5.3							
S3	S3	Price's Point	Deep Water	2015	20-Jul-15		4.8							
S3	S3	Price's Point	Deep Water	2015	4-Aug-15		4.2							
S3	S3	Price's Point	Deep Water	2015	23-Aug-15		2.3							
S3	S3	Price's Point	Deep Water	2015	4-Sep-15		3.0							
S3	S3	Price's Point	Deep water	2016	1-Jul-16		6.1							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
S3 FD	S3	Price's Point	Deep water	2016	18-Jul-16		9.3							
S3	S3	Price's Point	Deep water	2016	18-Jul-16		7.6							
S3 FD	S3	Price's Point	Deep water	2016	1-Aug-16		6.2		0		8		bs	
S3	S3	Price's Point	Deep water	2016	1-Aug-16		3.9		3		5			
S3	S3	Price's Point	Deep water	2016	14-Aug-16		4.1							
S3	S3	Price's Point	Deep water	2016	1-Sep-16		5.9							
S3	S3	Price's Point	Deep water	2017	3-Jul-17		4.5							
S3 F/D	S3	Price's Point	Deep water	2017	23-Jul-17		8.5						bs	
S3	S3	Price's Point	Deep water	2017	23-Jul-17		5.4							
S3	S3	Price's Point	Deep water	2017	7-Aug-17		5.1		3		13			
S3 F/D	S3	Price's Point	Deep water	2017	7-Aug-17		4.3		1		16			
S3	S3	Price's Point	Deep water	2017	21-Aug-17		7.0							
S3	S3	Price's Point	Deep water	2017	1-Sep-17		4.9							
S3	S3	Price's Point	Deep water	2018	2-Jul-18		102.0	Y	3		30			x
S3	S3	Price's Point	Deep water	2018	6-Aug-18		12.3	Y	3		33			x
S3	S3	Price's Point	Deep water	2018	31-Aug-18		3.9	Y	3		47			
S3	S3	Price's Point	Deep Water	2019	1-Jul-19		12.1							x
S3	S3	Price's Point	Deep Water	2019	5-Aug-19		5.2	y	3		3			
S3	S3	Price's Point	Deep Water	2019	30-Aug-19	y	3.0							
S3	S3	Price's Point	Deep Water	2019	30-Aug-19		3.3							
E30 P/B	E30	Ten Mile Bay	Deep Water	2006	3-Jul-06		6.4		1		1			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E30 P/B	E30	Ten Mile Bay	Deep Water	2006	17-Jul-06		7.7		1		3			
E30 P/B	E30	Ten Mile Bay	Deep Water	2006	7-Aug-06		6.0		1		1			
E30 P/B	E30	Ten Mile Bay	Deep Water	2006	21-Aug-06		10.2		1		8			x
E30 P/B FD	E30	Ten Mile Bay	Deep Water	2006	21-Aug-06		10.2							x
E30 P/B	E30	Ten Mile Bay	Deep Water	2006	1-Sep-06		4.2		1		5			
E30 P/B	E30	Ten Mile Bay	Deep Water	2007	2-Jul-07		3.4		1		3			
E30 P/B	E30	Ten Mile Bay	Deep Water	2007	23-Jul-07		4.9		1		1			
E30 P/B FD	E30	Ten Mile Bay	Deep Water	2007	23-Jul-07				1		3			
E30 P/B LD	E30	Ten Mile Bay	Deep Water	2007	23-Jul-07				1		4			
E30 P/B	E30	Ten Mile Bay	Deep Water	2007	6-Aug-07		5.8		1		1			
E30 P/B	E30	Ten Mile Bay	Deep Water	2007	20-Aug-07		4.6		1		3			
E30 P/B	E30	Ten Mile Bay	Deep Water	2007	31-Aug-07		6.2		1		1			
E30 P/B	E30	Ten Mile Bay	Deep Water	2008	30-Jun-08		5.1		8		28			
E30 P/B	E30	Ten Mile Bay	Deep Water	2008	14-Jul-08		4.7		5		11			
E30 P/B FD	E30	Ten Mile Bay	Deep Water	2008	14-Jul-08		6.9		3		11		bs	
E30 P/B LD	E30	Ten Mile Bay	Deep Water	2008	14-Jul-08				1		8			
E30 P/B	E30	Ten Mile Bay	Deep Water	2008	4-Aug-08		5.3		1		5			
E30 P/B	E30	Ten Mile Bay	Deep Water	2008	18-Aug-08		6.6		1		11			
E30 P/B FD	E30	Ten Mile Bay	Deep Water	2008	18-Aug-08				1		19			
E30 P/B LD	E30	Ten Mile Bay	Deep Water	2008	18-Aug-08				1		16			
E30 P/B	E30	Ten Mile Bay	Deep Water	2008	29-Aug-08		6.0		1		3			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E30 P/B	E30	Ten Mile Bay	Deep Water	2009	3-Jul-09		4.6		1		28			
E30 P/B	E30	Ten Mile Bay	Deep Water	2009	17-Jul-09		6.6		1		11			
E30 P/B	E30	Ten Mile Bay	Deep Water	2009	1-Aug-09		3.7		3		5			
E30 P/B	E30	Ten Mile Bay	Deep Water	2009	17-Aug-09		5.1		3		11			
E30 P/B FD	E30	Ten Mile Bay	Deep Water	2009	17-Aug-09				1		8			
E30 P/B	E30	Ten Mile Bay	Deep Water	2009	4-Sep-09		4.0		3		3			
E30 P/B	E30	Ten Mile Bay	Deep Water	2010	5-Jul-10		5.2							
E30 P/B	E30	Ten Mile Bay	Deep Water	2010	19-Jul-10		5.3							
E30 P/B	E30	Ten Mile Bay	Deep Water	2010	2-Aug-10		5.2							
E30 P/B FD	E30	Ten Mile Bay	Deep Water	2010	16-Aug-10		3.9							
E30 P/B	E30	Ten Mile Bay	Deep Water	2010	16-Aug-10		4.4							
E30 P/B	E30	Ten Mile Bay	Deep Water	2010	7-Sep-10		6.1							
E30 P/B F/D	E30	Ten Mile Bay	Deep Water	2010	7-Sep-10		12.9						bs	
E30 P/B	E30	Ten Mile Bay	Deep Water	2011	4-Jul-11		5.7		3		5			
E30 P/B	E30	Ten Mile Bay	Deep Water	2011	18-Jul-11		4.5		3		3			
E30 P/B COAL lab	E30	Ten Mile Bay	Deep Water	2011	18-Jul-11				0		2			
E30 P/B FD bacti	E30	Ten Mile Bay	Deep Water	2011	18-Jul-11				1		3			
E30 P/B	E30	Ten Mile Bay	Deep Water	2011	1-Aug-11		5.2		3		3			
E30 P/B	E30	Ten Mile Bay	Deep Water	2011	15-Aug-11		5.1		1		1			
E30 P/B	E30	Ten Mile Bay	Deep Water	2011	2-Sep-11		4.9		1		3			
E30 P/B	E30	Ten Mile Bay	Deep Water	2012	1-Jul-12		6.7							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E30 P/B	E30	Ten Mile Bay	Deep Water	2012	23-Jul-12		6.0							
E30 P/B	E30	Ten Mile Bay	Deep Water	2012	4-Aug-12		7.0							
E30 P/B FD	E30	Ten Mile Bay	Deep Water	2012	4-Aug-12		8.7							
E30 P/B	E30	Ten Mile Bay	Deep Water	2012	20-Aug-12		6.7							
E30 P/B	E30	Ten Mile Bay	Deep Water	2013	1-Jul-13		5.5		3		3			
E30 P/B	E30	Ten Mile Bay	Deep Water	2013	21-Jul-13		6.1		5		8			
E30 P/B	E30	Ten Mile Bay	Deep Water	2013	5-Aug-13		5.1		3		8			
E30 P/B	E30	Ten Mile Bay	Deep Water	2013	18-Aug-13		6.9		1		3			
E30 P/B	E30	Ten Mile Bay	Deep Water	2013	28-Aug-13		5.1		1		5			
E30	E30	Ten Mile Bay	Deep Water	2014	29-Jun-14		10.2							x
E30 FD	E30	Ten Mile Bay	Deep Water	2014	29-Jun-14		10.3							x
E30	E30	Ten Mile Bay	Deep Water	2014	20-Jul-14		8.7							
E30	E30	Ten Mile Bay	Deep Water	2014	3-Aug-14		4.9							
E30	E30	Ten Mile Bay	Deep Water	2014	17-Aug-14		5.7							
E30	E30	Ten Mile Bay	Deep Water	2014	28-Aug-14		6.7							
E30	E30	Ten Mile Bay	Deep Water	2015	28-Jun-15		4.8							
E30	E30	Ten Mile Bay	Deep Water	2015	20-Jul-15		5.6							
E30	E30	Ten Mile Bay	Deep Water	2015	4-Aug-15		5.8							
E30	E30	Ten Mile Bay	Deep Water	2015	23-Aug-15		4.3							
E30 FD	E30	Ten Mile Bay	Deep Water	2015	23-Aug-15		5.3							
E30	E30	Ten Mile Bay	Deep Water	2015	4-Sep-15		4.6							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E30	E30	Ten Mile Bay	Deep water	2016	1-Jul-16									
E30	E30	Ten Mile Bay	Deep water	2016	18-Jul-16		15.0							x
E30	E30	Ten Mile Bay	Deep water	2016	1-Aug-16		7.3		0		8			
E30 FD	E30	Ten Mile Bay	Deep water	2016	1-Aug-16				3		8			
E30	E30	Ten Mile Bay	Deep water	2016	14-Aug-16		7.9							
E30	E30	Ten Mile Bay	Deep water	2016	1-Sep-16		7.0							
E30 FD	E30	Ten Mile Bay	Deep water	2016	1-Sep-16		6.1							
E30	E30	Ten Mile Bay	Deep water	2017	3-Jul-17		9.5							
E30	E30	Ten Mile Bay	Deep water	2017	23-Jul-17		5.7							
E30	E30	Ten Mile Bay	Deep water	2017	7-Aug-17		5.8		1		8			
E30	E30	Ten Mile Bay	Deep water	2017	21-Aug-17		5.3							
E30	E30	Ten Mile Bay	Deep water	2017	1-Sep-17		5.7							
E30	E30	Ten Mile Bay	Deep water	2018	2-Jul-18		3.3	Y	3		11			
E30	E30	Ten Mile Bay	Deep water	2018	6-Aug-18		5.2	Y	3		8			
E30	E30	Ten Mile Bay	Deep water	2018	31-Aug-18	Y	3.0	Y	3		13			
E30	E30	Ten Mile Bay	Deep water	2019	1-Jul-19		4.5							
E30	E30	Ten Mile Bay	Deep water	2019	5-Aug-19	y	3.0		3		28			
E30	E30	Ten Mile Bay	Deep water	2019	30-Aug-19	y	3.0							
E1 P/B	E1	Trading Bay	Deep Water	2002	26-May-02				0.5		3			
E1 P/B	E1	Trading Bay	Deep Water	2002	1-Jul-02		4.6		0.5		11			
E1 P/B	E1	Trading Bay	Deep Water	2002	15-Jul-02		4.2		0.5		3			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E1 P/B	E1	Trading Bay	Deep Water	2002	5-Aug-02		5.9		0.5		5			
E1 P/B	E1	Trading Bay	Deep Water	2002	19-Aug-02		17.7		0.5		13			x
E1 P/B	E1	Trading Bay	Deep Water	2002	2-Sep-02		1.8		0.5		8			
E1 P/B	E1	Trading Bay	Deep Water	2002	29-Sep-02				0.5		59			
E1 P/B	E1	Trading Bay	Deep Water	2003	8-Jun-03									
E1 P/B	E1	Trading Bay	Deep Water	2003	30-Jun-03		4.3		3		8			
E1 P/B	E1	Trading Bay	Deep Water	2003	14-Jul-03		4.9		1		3			
E1 P/B	E1	Trading Bay	Deep Water	2003	4-Aug-03		6.9		1		1			
E1 P/B	E1	Trading Bay	Deep Water	2003	18-Aug-03		2.9		1		5			
E1 P/B	E1	Trading Bay	Deep Water	2003	1-Sep-03		2.4		1		1			
E1 P/B	E1	Trading Bay	Deep Water	2003	28-Sep-03		2.8		1		3			
E1 P/B	E1	Trading Bay	Deep Water	2004	5-Jul-04		1.9		3		19			
E1 P/B	E1	Trading Bay	Deep Water	2004	19-Jul-04		12.3		3		16			x
E1 P/B	E1	Trading Bay	Deep Water	2004	2-Aug-04		7.8		3		22			
E1 P/B	E1	Trading Bay	Deep Water	2004	23-Aug-04		5.8							
E1 P/B	E1	Trading Bay	Deep Water	2004	6-Sep-04		3.9		1		22			
E1 P/B	E1	Trading Bay	Deep Water	2005	4-Jul-05		6.7		5		8			
E1 P/B	E1	Trading Bay	Deep Water	2005	18-Jul-05		4.9		8		16			
E1 P/B	E1	Trading Bay	Deep Water	2005	1-Aug-05		2.6		5		11			
E1 P/B	E1	Trading Bay	Deep Water	2005	14-Aug-05				5		16			
E1 P/B	E1	Trading Bay	Deep Water	2005	1-Sep-05		6.0		3		8			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E1 P/B	E1	Trading Bay	Deep Water	2006	3-Jul-06		5.4		1		5			
E1 P/B	E1	Trading Bay	Deep Water	2006	17-Jul-06		7.3		1		1		bs	
E1 P/B FD	E1	Trading Bay	Deep Water	2006	17-Jul-06		4.5							
E1 P/B	E1	Trading Bay	Deep Water	2006	7-Aug-06		3.3		1		8			
E1 P/B	E1	Trading Bay	Deep Water	2006	21-Aug-06		11.0		3		5			
E1 P/B FD	E1	Trading Bay	Deep Water	2006	21-Aug-06				5		13			
E1 P/B LD	E1	Trading Bay	Deep Water	2006	21-Aug-06				4		4			
E1 P/B	E1	Trading Bay	Deep Water	2006	1-Sep-06		5.6		3		13			
E1 P/B	E1	Trading Bay	Deep Water	2007	2-Jul-07		2.9		1		5			
E1 P/B	E1	Trading Bay	Deep Water	2007	23-Jul-07		6.1		1		16			
E1 P/B	E1	Trading Bay	Deep Water	2007	6-Aug-07		6.2		1		1			
E1 P/B FD	E1	Trading Bay	Deep Water	2007	6-Aug-07				1		8			
E1 P/B LD	E1	Trading Bay	Deep Water	2007	6-Aug-07				1		6			
E1 P/B	E1	Trading Bay	Deep Water	2007	20-Aug-07		3.8		1		1			
E1 P/B FD	E1	Trading Bay	Deep Water	2007	20-Aug-07		3.3							
E1 P/B	E1	Trading Bay	Deep Water	2007	31-Aug-07		4.6		1		1			
E1 P/B	E1	Trading Bay	Deep Water	2008	30-Jun-08		4.0		1		33			
E1 P/B	E1	Trading Bay	Deep Water	2008	14-Jul-08		5.8		3		5			
E1 P/B FD	E1	Trading Bay	Deep Water	2008	14-Jul-08				5		16			
E1 P/B	E1	Trading Bay	Deep Water	2008	4-Aug-08		4.8		3		5			
E1 P/B FD	E1	Trading Bay	Deep Water	2008	4-Aug-08				1		8			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E1 P/B LD	E1	Trading Bay	Deep Water	2008	4-Aug-08				1		8			
E1 P/B FD	E1	Trading Bay	Deep Water	2008	18-Aug-08		5.8							
E1 P/B	E1	Trading Bay	Deep Water	2008	18-Aug-08		5.3		1		5			
E1 P/B	E1	Trading Bay	Deep Water	2008	29-Aug-08		6.7		1		5			
E1 P/B	E1	Trading Bay	Deep Water	2009	3-Jul-09		5.4		5		11			
E1 P/B	E1	Trading Bay	Deep Water	2009	17-Jul-09		5.4		3		3			
E1 P/B	E1	Trading Bay	Deep Water	2009	1-Aug-09		3.0		3		3			
E1 P/B	E1	Trading Bay	Deep Water	2009	17-Aug-09		5.3		1		5			
E1 P/B FD	E1	Trading Bay	Deep Water	2009	17-Aug-09		5.1							
E1 P/B	E1	Trading Bay	Deep Water	2009	4-Sep-09		5.6		3		5			
E1 P/B FD	E1	Trading Bay	Deep Water	2009	4-Sep-09				3		3			
E1 P/B FD	E1	Trading Bay	Deep Water	2010	5-Jul-10		3.8							
E1 P/B	E1	Trading Bay	Deep Water	2010	5-Jul-10		3.4							
E1 P/B	E1	Trading Bay	Deep Water	2010	19-Jul-10		6.6							
E1 P/B	E1	Trading Bay	Deep Water	2010	2-Aug-10		4.3							
E1 P/B	E1	Trading Bay	Deep Water	2010	16-Aug-10		4.6							
E1 P/B	E1	Trading Bay	Deep Water	2010	7-Sep-10		6.8							
E1 P/B	E1	Trading Bay	Deep Water	2011	4-Jul-11		5.1		3		5			
E1 P/B	E1	Trading Bay	Deep Water	2011	18-Jul-11		4.2		1		1			
E1 P/B	E1	Trading Bay	Deep Water	2011	1-Aug-11		6.9		3		5			
E1 P/B	E1	Trading Bay	Deep Water	2011	15-Aug-11		7.1		1		8			

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E1 P/B FD bacti	E1	Trading Bay	Deep Water	2011	15-Aug-11				1		8			
E1 P/B COAL lab	E1	Trading Bay	Deep Water	2011	15-Aug-11				2		8			
E1 P/B	E1	Trading Bay	Deep Water	2011	2-Sep-11		5.7		1		8			
E1 P/B	E1	Trading Bay	Deep Water	2011	2-Sep-11		5.6		1		5			
E1 P/B	E1	Trading Bay	Deep Water	2012	1-Jul-12		4.5							
E1 P/B	E1	Trading Bay	Deep Water	2012	23-Jul-12		4.5							
E1 P/B FD	E1	Trading Bay	Deep Water	2012	23-Jul-12		3.9							
E1 P/B	E1	Trading Bay	Deep Water	2012	4-Aug-12		5.6							
E1 P/B	E1	Trading Bay	Deep Water	2012	20-Aug-12		5.5							
E1 P/B	E1	Trading Bay	Deep Water	2012	31-Aug-12		5.7							
E1 P/B	E1	Trading Bay	Deep Water	2013	1-Jul-13		2.4		5		17			
E1 P/B FD	E1	Trading Bay	Deep Water	2013	1-Jul-13		2.2		8		11			
E1 P/B	E1	Trading Bay	Deep Water	2013	21-Jul-13									
E1 P/B FD	E1	Trading Bay	Deep Water	2013	5-Aug-13		2.8							
E1 P/B	E1	Trading Bay	Deep Water	2013	5-Aug-13		2.5		3		8			
E1 P/B	E1	Trading Bay	Deep Water	2013	18-Aug-13									
E1 P/B	E1	Trading Bay	Deep Water	2013	28-Aug-13		2.6		3		5			
E1	E1	Trading Bay	Deep Water	2014	29-Jun-14		4.4							
E1	E1	Trading Bay	Deep Water	2014	20-Jul-14		4.7							
E1	E1	Trading Bay	Deep Water	2014	3-Aug-14		3.7							
E1 FD	E1	Trading Bay	Deep Water	2014	17-Aug-14		4.6							

Site Code	Site ID	Site Name	Site Type	Year	Date	TP BD L	Total Phosphorus (ug/L)	E. coli BD L	E. coli (cfu/100 mL)	Total Coliforms Above DL=A, Below DL=B	Total Coliform (cfu/100 mL)	Heterotrophic	Bad Splits	Outliers 2019
E1	E1	Trading Bay	Deep Water	2014	17-Aug-14		3.8							
E1	E1	Trading Bay	Deep Water	2014	28-Aug-14		4.2							
E1	E1	Trading Bay	Deep Water	2015	28-Jun-15		10.6							
E1	E1	Trading Bay	Deep Water	2015	20-Jul-15		8.2							
E1	E1	Trading Bay	Deep Water	2015	4-Aug-15		9.5							
E1	E1	Trading Bay	Deep Water	2015	23-Aug-15		5.0							
E1	E1	Trading Bay	Deep Water	2015	4-Sep-15		4.7							
E1	E1	Trading Bay	Deep water	2016	1-Jul-16									
E1	E1	Trading Bay	Deep water	2016	18-Jul-16		8.8							
E1	E1	Trading Bay	Deep water	2016	1-Aug-16		6.6		3		8			
E1	E1	Trading Bay	Deep water	2016	14-Aug-16		5.4							
E1 F/D	E1	Trading Bay	Deep water	2016	14-Aug-16		5.0							
E1	E1	Trading Bay	Deep water	2016	1-Sep-16		15.8							x
E1	E1	Trading Bay	Deep water	2017	3-Jul-17		6.9							
E1	E1	Trading Bay	Deep water	2017	23-Jul-17		5.6							
E1	E1	Trading Bay	Deep water	2017	7-Aug-17		7.2		3		17			
E1 F/D	E1	Trading Bay	Deep water	2017	7-Aug-17				3		22			
E1	E1	Trading Bay	Deep water	2017	21-Aug-17		11.1						bs	
E1 F/D	E1	Trading Bay	Deep water	2017	21-Aug-17		6.1							
E1 F/D	E1	Trading Bay	Deep water	2017	1-Sep-17		6.6							
E1	E1	Trading Bay	Deep water	2017	1-Sep-17		4.9							

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E1	E1	Trading Bay	Deep water	2018	2-Jul-18		6.2	Y	3		8			
E1	E1	Trading Bay	Deep water	2018	6-Aug-18		5.6		3		11			
E1	E1	Trading Bay	Deep water	2018	31-Aug-18	Y	3.0		3		8			
E1	E1	Trading Bay	Deep water	2019	1-Jul-19		10.3							
E1	E1	Trading Bay	Deep water	2019	5-Aug-19		19.5		3		5			x
E1	E1	Trading Bay	Deep water	2019	30-Aug-19	y	3.0							
E1	E1	Trading Bay	Deep water	2019	30-Aug-19	y	3.0							