CITY OF NAPLES

2021 - 2022 Annual Surface Water and Pump Station Monitoring and Analysis Report

FINAL REPORT

Prepared for

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WSP Project No. 600734.2

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EXECUTIVE SUMMARY

WSP conducted water quality sampling at 22 lakes (stormwater ponds) and three pump stations within the City of Naples. Samples were collected monthly from the outfalls from October 2021 through September 2022 and were analyzed for a variety of water quality parameters, including nutrients, chlorophyll-a, copper, and fecal indicator bacteria (*Enterococci* and *Escherichia coli*). A handheld meter was used to monitor field parameters (e.g., water temperature, dissolved oxygen saturation) at each sampling location during collection. The water quality data from 2021 – 2022 was combined with the existing stormwater lake dataset that included water quality data for select lakes beginning in 2014. Data analysis included summary statistics, trends, and correlation and an informal impairment assessment of the lakes using non-applicable water quality criteria for the waterbodies receiving stormwater lake discharge.

Notable findings include significant decreasing trends of nutrients in many lakes. However, increasing trends were identified for orthophosphate in Alligator Lake; chlorophyll-a, and total nitrate in East Lake; and chlorophyll-a in Devils Lake and Lake Suzanne. East Lake, Devils Lake, and Lake Manor all had statistically significant increasing trends in maximum annual chlorophyll-a values. Increasing fecal indicator bacteria were found in Alligator Lake, Lake Manor, and South Lake.

Stormwater lakes were commonly found to have concentration of nutrients, chlorophyll-a, and *Enterococci* in exceedance of water quality criteria established for downstream waterbodies, which include the Gordon River, Moorings Bay, and Naples Bay. It is important to note that the regulatory water quality impairment criteria do not apply to stormwater lakes since they are manmade features and are not classified as Waters of the State. Stormwater lakes are designed to receive rainfall runoff containing nutrients and other pollutants. The comparison to downstream water quality criteria is simply a tool and the downstream water quality criteria do not represent target water quality conditions in stormwater lakes.

Several of the City's stormwater lakes have recently been the subject of improvement projects or special studies (or have special studies planned). The remaining lakes are Mandarin Lake (a public lake that receives public drainage) and Diana, Forest, Thurner, Willow, Sun Lake, and Lantern Lake (six lakes not owned by the City but receiving public drainage). Additional focused study of these lakes may be useful in assisting the City in planning future improvement projects.

Recommendations for the City of Naples stormwater lake sampling program include pollutant load modeling, additional sampling at lake inflows, and sediment fractionation and sediment flux studies. Additional data gathering will provide the necessary information to propose water quality improvement projects to benefit stormwater lakes and downstream waterbodies. Water quality improvement projects could include traditional water quality improvement technologies (e.g., dredging), low impact development projects (e.g., bioswales), and outreach (e.g., fertilizer education).

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AGM	annual geometric mean
BMP	Best Management Practice
Chl-a	chlorophyll-a
City	City of Naples
Cu	copper
DO	dissolved oxygen
DOC	dissolved organic carbon
E. coli	*Escherichia coli*
EMC	Event Mean Concentration
ENTERO	*Enterococci*
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FLUCCS	Florida Land Use, Cover and Forms Classification
FY	Fiscal Year
GIS	geographic information system
LID	Low impact development
MDL	method detection limit
µg/L	micrograms per liter
mg/L	milligrams per liter
MK	Mann-Kendall
ml	milliliter
N	nitrogen
NELAP	National Laboratory Accreditation Program
NOAA	National Oceanic and Atmospheric Administration
NOx	Nitrate + Nitrite Nitrogen
OP	Orthophosphate
P	phosphorus
PCA	Principal Components Analyses
PCU	Platinum cobalt units
POR	Period of record
p-value	probability value
SCADA	Supervisory Control and Data Acquisition
SFWMD	South Florida Water Management District
SMK	Seasonal Mann-Kendall
SOP	Standard Operating Procedures
TMDL	total maximum daily load
TKN	total Kjeldahl nitrogen
TN	total nitrogen
TOC	total organic carbon
TP	total phosphorous
TSS	total suspended solids
WBID	Water Body Identification Number
Wood	Wood Environment & Infrastructure Solutions, Inc.
WSP	WSP USA

1.0 INTRODUCTION

WSP USA (WSP, formerly Wood Environment & Infrastructure Solutions, Inc.) was contracted by the City of Naples (City) to conduct water quality sampling and analysis of the stormwater lakes (ponds) receiving public drainage and the City's pump stations and to prepare an annual report to summarize and interpret the results. The City has a robust stormwater lake sampling program that includes collection of quarterly and monthly water quality data as far back as 2014 for 15 of the lakes within its inventory, including: Devils Lake, Swan Lake, Colonnade Lake, Lake Suzanne, Mandarin Lake, South Lake, Alligator Lake, East Lake, Lantern Lake, Sun Lake Terrace, Fleischmann Lake, Forest Lake, Lake Manor, Half Moon Lake (though not part of the current sampling program and does not receive public drainage), and NCH Lake (does not receive public drainage, samples collected for hospital). The stormwater lakes are a key component in the stormwater system of the City of Naples. These lakes receive stormwater, or rainfall runoff, from surrounding lands before discharging water to downstream receiving waterbodies. When properly maintained, stormwater lakes can provide water quality treatment beneficial to downstream waterbodies and flood control beneficial to the surrounding watershed. The data collected in the sampling program provides valuable insight into the water quality within the lakes and potential impacts on receiving waterbodies.

This report summarizes the water quality monitoring of the City's stormwater lakes and pump stations through September 2022. From October 2021 through September 2022, WSP collected samples at the outflows of 22 stormwater lakes and three pump stations on a monthly frequency. Location information for sampled stormwater lakes and pump stations are presented in **Figure 1-1**, and additional sampling location information is presented in **Table 1-1**. The previous year's monitoring program covering the same sites from October 2020-September 2021 was also conducted by WSP (then Wood) and the results are reported in the 2020 - 2021 Annual Surface Water and Pump Station Monitoring and Analysis Report (Wood, 2022).

This report includes an assessment of the water quality data collected from 2021-2022 and data extending back to 2014 to identify trends, potential impairment risks to downstream waterbodies, and to document noteworthy water quality issues within the stormwater lakes. **Section 1** of this report includes information on the land use within the City of Naples and the watersheds of the receiving waterbodies for the City's stormwater lakes. An overview of the water quality assessment statistical analysis methodologies is provided in **Section 2**, and the results of the analyses are summarized in **Section 3**. A summary of select results is provided in **Section 4**. Recommendations for additional study and water quality improvement projects are summarized in **Section 5**.

Table 1-1. Stormwater lakes and pump stations monitored from October 2021 – September 2022.

Lake or Pump Station Name	Lake or Pump Station Number	Station ID	Drainage Basin (Rain Gauge)
Lake Diana	17	17B	Gordon River 18-A-12 (#8)
NCH Lake	26	26B	
Forest Lake	20	20B	
Fleischmann Lake (15th Avenue N Lake-WTP)	19	19B	
Mandarin Lake	6	6B	
Lake Manor	22	22B	
Thurner	16	16B	
Willow	21	21B	
Sun Lake Terrace	15	15B	
North Lake	8	8B	Gulf of Mexico 31-A-12 (#7)
South Lake	9	9B	
Alligator Lake	10	10B	
Lake Suzanne	5	5B	Moorings Bay 109-A-12 (#10)
Swan Lake	2	2B	
Colonnade Lake	3	3B	
Lowdermilk	23	23B	
Hidden	4	4B	
Devils Lake	1	1SE-B	
Lantern Lake	14	14B	Naples Bay 92-C-12 (#4)
Lake 13	13	13B	
East Lake	31	11B	
Spring Lake	11	11C	
Port Royal Pump	14	14-Pump	Pump Stations
Cove Pump	11	11-Pump	
Public Works Pump	PW	PW-Pump	

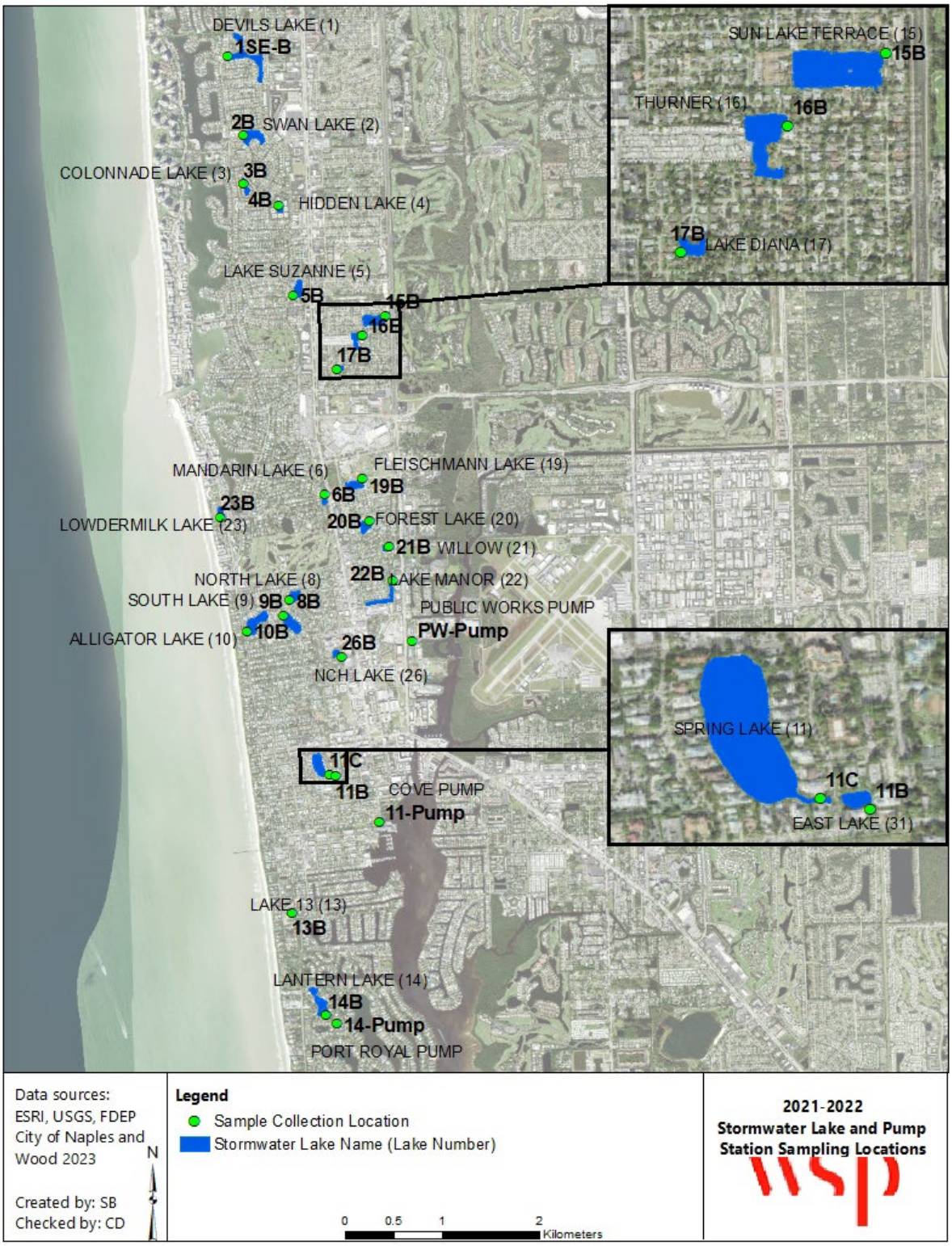


Figure 1-1. October 2021-September 2022 Stormwater Lake and Pump Station Outfall Sampling Locations

1.1. Background

There are 28 stormwater lakes in the City of Naples stormwater lake inventory (**Figure 1-2**, Wood, 2019). Of these lakes, five are public lakes (public defined as fee simple ownership or plat dedication and historical use): Mandarin Lake, Fleischmann Lake, Lake Manor, Lowdermilk Lake, and East Lake. These lakes were monitored during the 2021-2022 sampling period. The remaining lakes that are part of the sampling program are assumed to be privately owned, though ownership is described as "not specified on plat", and "reserved for lake purposes at some lakes" (North Lake and South Lake). The 22 lakes monitored during 2021-2022 are listed in **Table 1-1**. The lakes not monitored in 2020-2021, but included in the City's inventory are the following privately owned lakes: Halfmoon Lake (Lake 24), Lake 7, Lake 12, Lake 25, Lake 27, and Lake 28. Because these privately owned lakes do not receive public drainage, the City has made a concerted effort in recent years to focus sampling efforts on other lakes that receive public drainage.

The City of Naples stormwater lakes are manmade features and were excavated to provide upland fill for the surrounding homes as well as intercept pollutants through the collection and retention of stormwater runoff. Therefore, they are not considered "Waters of the State" by the Florida Department of Environmental Protection (FDEP) and are therefore not subject to regulatory water quality criteria.

In recent years (including 2021-2022), the City's stormwater lakes monitoring program included only samples at the lake outfalls. Previous monitoring efforts included monitoring at both the inflows and outflows of the lakes; influent monitoring has not been conducted since February 2014 (Amec, 2014). Monitoring both the inflow and outflow requires more effort and can be costly but allows for information about in-lake processes (e.g., pollutant removal efficiency or internal loading potential). Additional lake data previously collected, though not updated recently, included data on lake residence time, potential for stratification, sediment accumulation, mass loading of pollutants per lake volume, and absolute mass of pollutants discharged (Amec, 2012; Amec, 2014). Such data requires additional effort to collect, analyze, and interpret. The City's current stormwater lake monitoring program includes sample collection at outfalls only and is focused on maximizing the monitoring frequency (monthly), analytical parameters (17 analytical parameters plus field measurements) and number of monitoring locations (22 lakes and three pump stations).

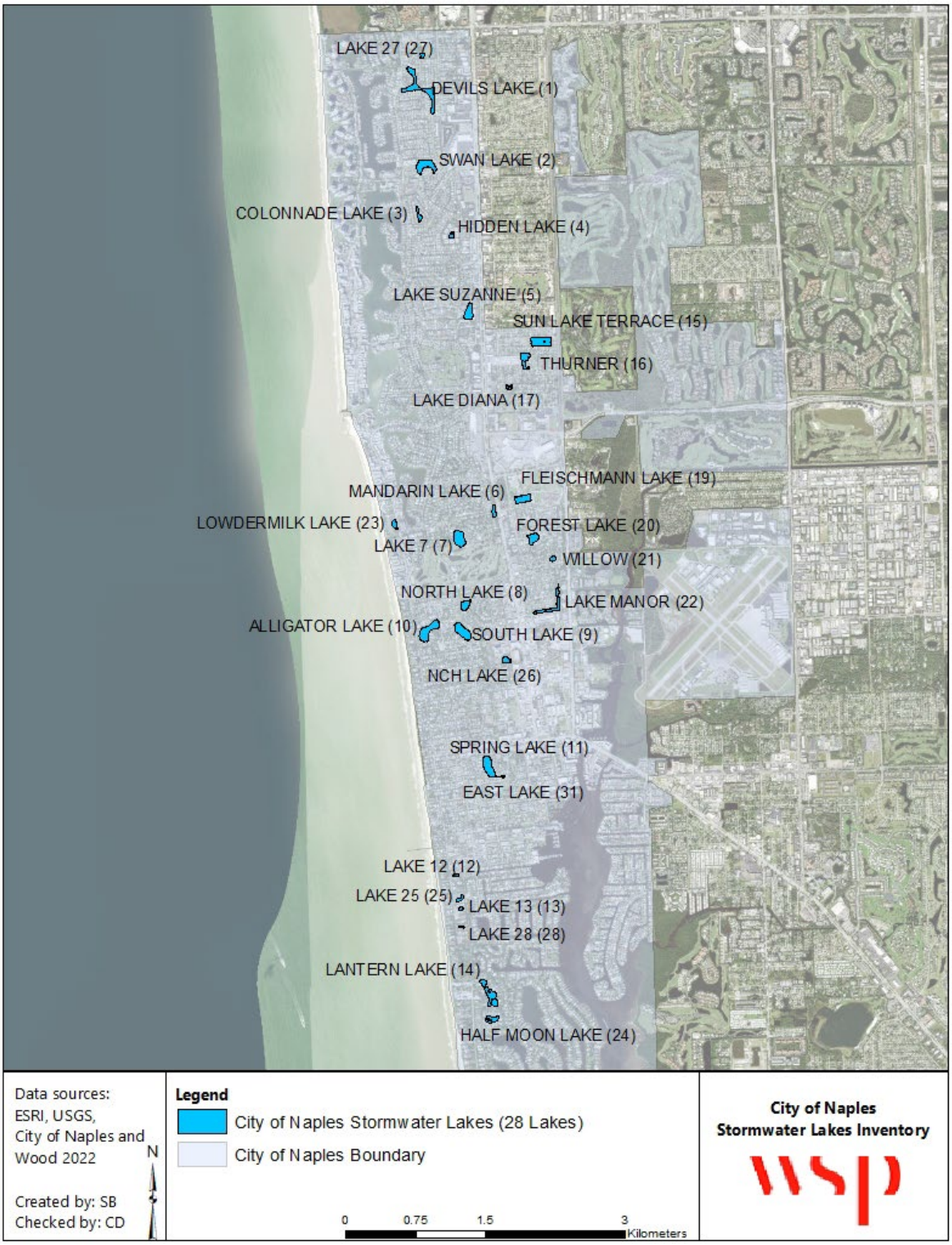


Figure 1-2. City of Naples Stormwater Lakes Inventory
(Note: inventory includes stormwater lakes that do not receive public drainage)

1.2. Watershed Setting

Rainfall runoff is the primary source of water to the stormwater lakes and the water quality of the runoff is largely dependent on the land use in the watershed surrounding the lake. Information about the land use within the City of Naples, land use implications for stormwater quality, and the receiving waterbodies for City stormwater lakes is included below. This land use analysis provides general information about the runoff characteristics in the City and is also a key component of pollutant load modeling, one of the recommendations described in **Section 5.0**. Accurate basin information is necessary for pollutant load modeling and the City is currently conducting basin assessments in select areas which will provide useful information for pollutant load modeling.

1.2.1. Surrounding Land Use

The City of Naples stormwater lakes receive stormwater from both public and private lands within the City of Naples (Wood, 2019). The land use within the City, using the Florida Land Use, Cover and Forms Classification (FLUCCS; FDOT, 1999) with land use data from 2017 – 2019 is included in **Figure 1-3**. The acreages and percent cover of the land uses present within the City are included in **Table 1-2** (showing all land uses, including surface waters) and **Table 1-3** (showing the land uses not including surface waters); both tables are sorted to show the largest areas at the top of the table. The land use acreages and percentages are based on a geographic information system (GIS) analysis of the 2017 – 2019 land use data compiled by the South Florida Water Management District (SFWMD) and downloaded from the FDEP Geospatial Open Data website[1]. As of January 2023, more recent land use data was not available and the information below was reproduced from the previous annual stormwater report (Wood 2022).

The primary developed land uses within the City of Naples are medium density residential, high density residential, recreational, and commercial and services. These land uses are an important consideration because they illustrate the general conditions within the City and because different land use types can generate different concentrations of pollutants and loads to receiving waterbodies. When modeling the pollutant loads from different land uses, an Event Mean Concentration (EMC) is typically used to represent the average concentration of a pollutant in runoff from a specific land use. The EMCs for the medium and high density residential and commercial land uses are included in **Table 1-4**; the EMCs in this table are from the FDEP's Draft Environmental Resource Permit Stormwater Quality Applicant's Handbook (FDEP, 2010) and are based on literature-based runoff characteristics from studies throughout Florida. In contrast to the developed land uses in **Table 1-4**, the EMCs are generally lower from undeveloped or more natural lands. For example, the average EMCs for total nitrogen (TN) and total phosphorous (TP) for undeveloped and forested areas are 1.15 mg/L and 0.055 mg/L, respectively (FDEP, 2007) and the TN and TP EMCs for medium density residential land use are 1.85 mg/L and 0.31 mg/L, respectively (FDEP, 2010). Recreational land use also comprises a high percentage of land within the City, with the majority (approximately 800 acres) as golf courses. Depending on how the golf course is managed, the runoff characteristics at more heavily fertilized courses can be similar to medium density residential (FDEP, 2007). At golf courses that use less fertilizer, runoff nutrient concentrations may be lower, while reclaimed water use can contribute to nutrients in golf course runoff.

It is important to note that the land uses contributing to each of the City's lakes will differ according to the land uses present within the lake's sub-basin. Although the City is dominated by residential lands, lakes will

[1]FDEP Geospatial Open Data FLUCCS Data, available at: https://geodata.dep.state.fl.us/datasets/FDEP::statewide-land-use-land-cover/about.

differ in their individual land uses, for example, some lakes may receive stormwater from primarily undeveloped areas, or primarily from recreational areas. In addition, the EMCs from FDEP (2010) are useful for comparison across different land uses but do not represent site-specific conditions. Site-specific EMCs can be developed using stormwater sampling.

The contributing land uses can provide managers with information on the primary runoff characteristics and potential pollutant sources within the watershed and the types of water quality improvement projects that may be implemented. For example, the City has large areas of residential and golf course areas, and the application of fertilizer has been recognized as an important source of nitrogen (N) and phosphorus (P) pollution in urban areas, via stormwater runoff (Souto et al., 2019; Yang and Toor, 2016; Yang and Toor, 2017; Krimsky et al., 2021). The City of Naples has already implemented a fertilizer ordinance[2] and developed web-based outreach materials including a fertilizer calculator that can assist residents, along with brochures emphasizing how everyone can do their part to minimize fertilizer impacts to surrounding waterways. Landscape companies are also required to complete the Green Industries Best Management Practices certification provided through the State—an initiative that was started within the City of Naples' and grew statewide based on these efforts.

Table 1-2. City of Naples land use (all mapped areas).

FLUCCS Code Level 2	FLUCCS Description	Acres	Percent of Total
1200	Residential Medium Density	2,748.70	29%
5100	Streams and Waterways	1,533.86	16%
1300	Residential High Density	1,043.68	11%
1800	Recreational	1,020.96	11%
1400	Commercial and Services	838.38	9%
8100	Transportation	712.63	7%
6100	Wetland Hardwood Forests	669.34	7%
5300	Reservoirs	254.32	3%
1100	Residential Low Density	182.33	2%
1700	Institutional	171.84	2%
3200	Shrub and Brushland	96.03	1%
1900	Open Land	80.21	1%
4100	Upland Coniferous Forests	73.15	1%
4300	Upland Mixed Forests	52.57	1%
5700	Oceans Seas and Gulfs	45.74	0.5%
8300	Utilities	29.89	0.3%
4200	Upland Hardwood Forests	23.96	0.2%
6300	Wetland Forested Mixed	18.27	0.2%
6400	Vegetated Non-Forested Wetlands	12.67	0.1%
5400	Bays and Estuaries	9.74	0.1%
6200	Wetland Coniferous Forests	8.00	0.1%
Total		**9,626.24**	**100%**

[2] Fertilizer Use and Maintenance of Landscapes, City of Naples, available at: https://www.naplesgov.com/fertilizer, accessed 2021-07-23.

Table 1-3. City of Naples land use (not including surface waters).

FLUCCS Code Level 2	FLUCCS Description	Acres	Percent of Total
1200	Residential Medium Density	2,748.70	35%
1300	Residential High Density	1,043.68	13%
1800	Recreational	1,020.96	13%
1400	Commercial and Services	838.38	11%
8100	Transportation	712.63	9%
6100	Wetland Hardwood Forests	669.34	9%
1100	Residential Low Density	182.33	2%
1700	Institutional	171.84	2%
3200	Shrub and Brushland	96.03	1%
1900	Open Land	80.21	1%
4100	Upland Coniferous Forests	73.15	1%
4300	Upland Mixed Forests	52.57	1%
8300	Utilities	29.89	0%
4200	Upland Hardwood Forests	23.96	0%
6300	Wetland Forested Mixed	18.27	0%
6400	Vegetated Non-Forested Wetlands	12.67	0%
6200	Wetland Coniferous Forests	8.00	0%
Total		**7,782.59**	100%

Table 1-4. Select EMCs for residential and commercial land uses (FDEP, 2010).

FLUCCS Code Level 2	Land Use	EMC (mg/L)			
		TN	TP	TSS	Cu
1200	Residential Medium Density (Single-Family)	1.85	0.31	37.5	0.016
1300	Residential High Density (Multi-Family)	1.91	0.48	77.8	0.009
1400	Commercial (range represents low and high intensity)	0.93 - 2.48	0.16 - 0.23	57.5 - 69.7	0.015 - 0.018

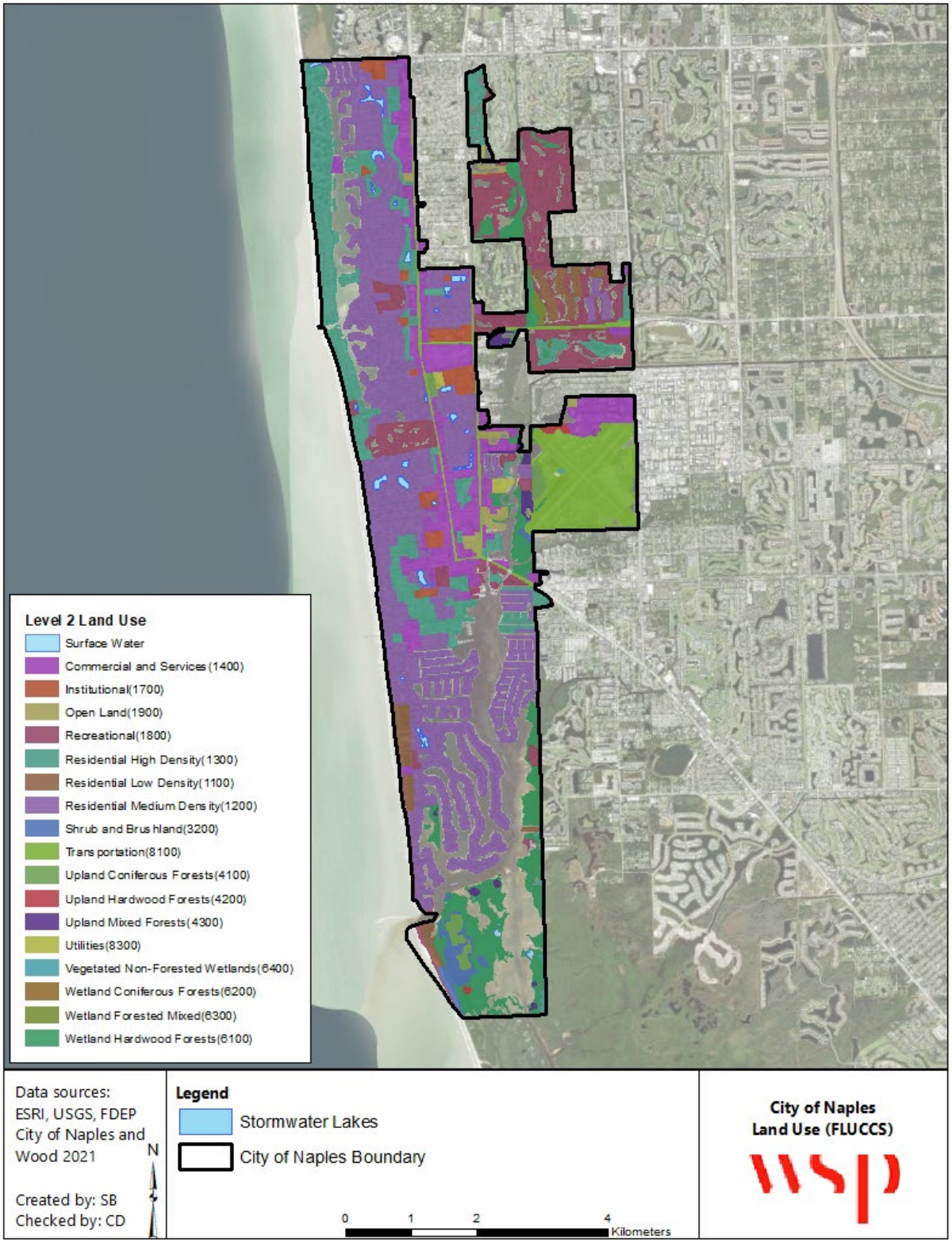


Figure 1-3. City of Naples Land Use (FLUCCS Level 2)

1.2.2. Downstream Waterbodies

The stormwater lakes (**Table 1-1**) discharge primarily to the following receiving waterbodies: Gordon River, Naples Bay, and Moorings Bay (**Figure 1-4**; Cardno, 2020). Three lakes also discharge directly to the Gulf of Mexico. The FDEP waterbody class, FDEP (2022) impairment status of Gordon River, Naples Bay, and Moorings Bay are included below and summarized in **Table 1-5**:

- Gordon River: The Gordon River is divided into two Water Body Identification (WBID) areas: the Extension (the upstream, freshwater portion WBID 3278K) and the Marine Segment (WBID 3278R5). The Gordon River (marine) is a Class III waterbody, meaning it should support fish consumption, recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife. The marine segment is on the Verified Impaired List (FDEP 2022) for dissolved oxygen (DO), *Enterococci*, chlorophyll-a (Chl-a), TN, and TP. The marine segment was recently delisted for copper (Cu). The freshwater segment is on the Verified Impaired List for *Escherichia coli* (*E. coli*). In addition, outflows from the project's stormwater lakes contribute to the downstream segment, making it the primary focus of this report.
- Naples Bay: Naples Bay (WBID 3278R4) is a Class II waterbody, meaning it is a coastal water with a designated use for shellfish propagation or harvesting. Historically, this waterbody, at the time of designation, likely supported shellfish harvesting. Naples Bay is currently on the Verified Impaired List (FDEP 2022) for Cu, *Enterococci*, fecal coliform, iron, and Chl-a.
- Moorings Bay: Moorings Bay (WBID 3278Q2) is another Class II waterbody, and is currently on the Verified Impaired List (FDEP 2022) for TP and TN.

The waterbody Class is significant because, as described below, there are specific regulatory water quality criteria according to the waterbody Class. The FDEP uses statewide water quality criteria to conduct impairment assessments and identify waterbodies with concentrations of pollutants that exceed regulatory criteria. These regulatory criteria are included in **Table 1-6**. The impairments are significant because when a waterbody is listed as impaired and if a Total Maximum Daily Load (TMDL) is established, the entities (or municipalities) contributing to the impairment are responsible for implementing pollutant load reduction projects.

Table 1-5. Impairments in downstream waterbodies.

Waterbody	WBID	Parameter	Current Status[1]
Gordon River (Marine Segment)	3278R5	Copper	Delist
		Dissolved Oxygen (Percent Saturation)	Impaired
		Enterococci	Impaired
		Nutrients (Chlorophyll-a)	Impaired
		Nutrients (Total Nitrogen)	Impaired
		Nutrients (Total Phosphorus)	Impaired
		Iron	Impaired
Gulf of Mexico (Collier County)	8062	--	--
Moorings Bay System	3278Q2	Nutrients (Total Nitrogen)	Impaired
		Nutrients (Total Phosphorus)	Impaired
Naples Bay (Coastal Segment)	3278R4	Copper	Impaired
		Enterococci	Impaired
		Fecal Coliform	Impaired
		Iron	Impaired
		Nutrients (Chlorophyll-a)	Impaired

[1]- Status on FDEP's "Verified Impaired List" (FDEP 2022)

Table 1-6. Water quality criteria for downstream waterbodies.

Downstream Waterbody	Parameter	Criteria	unit	Individual Samples / AGMs[1]
Gordon River	Copper	3.7	µg/L	Individual Samples
	Enterococci	130	#/100mL	Individual Samples
	Dissolved Oxygen Saturation	42	%	Individual Samples
	Chlorophyll-a	4.3	µg/L	AGM
	Total Nitrogen	0.57	mg/L	AGM
	Total Phosphorous	0.045	mg/L	AGM
Gulf of Mexico	Copper	3.7	µg/L	Individual Samples
	Enterococci	130	#/100mL	Individual Samples
	Dissolved Oxygen Saturation	42	%	Individual Samples
	Chlorophyll-a	3.1	µg/L	AGM
	Total Nitrogen	0.25	mg/L	AGM
	Total Phosphorous	0.032	mg/L	AGM
Moorings Bay	Copper	3.7	µg/L	Individual Samples
	Enterococci	130	#/100mL	Individual Samples
	Dissolved Oxygen Saturation	42	%	Individual Samples
	Chlorophyll-a	8.1	µg/L	AGM
	Total Nitrogen	0.85	mg/L	Individual Samples
	Total Phosphorous	0.04	mg/L	Individual Samples
Naples Bay	Copper	3.7	µg/L	Individual Samples
	Enterococci	130	#/100mL	Individual Samples
	Dissolved Oxygen Saturation	42	%	Individual Samples
	Chlorophyll-a	4.3	µg/L	AGM
	Total Nitrogen	0.57	mg/L	AGM
	Total Phosphorous	0.045	mg/L	AGM

[1]-AGM = Annual Geometric Mean

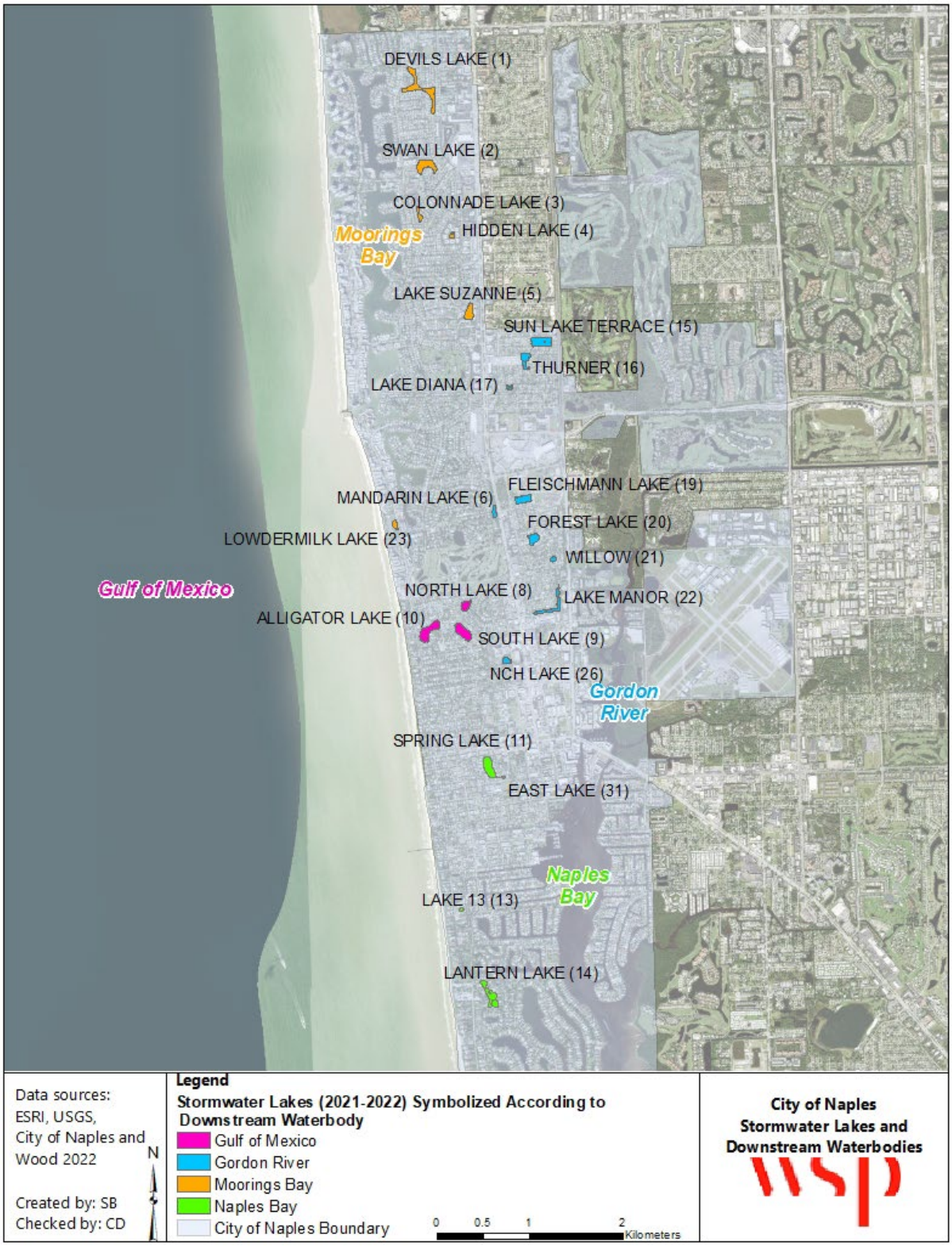


Figure 1-4. City of Naples Stormwater Lakes and Downstream Receiving Waterbodies

2.0 METHODOLOGY

Exploratory statistical data analyses were conducted to gain an understanding of the monitored water quality parameters and to assess relationships between water quality parameters (e.g., nutrients, chlorophyll-a, etc.) and among different lakes within the stormwater system. Additionally, monthly and annual loading of total nitrogen and total phosphorus from the City's pump stations were estimated using concentration and flow data provided by the City.

Statistical analyses of the stormwater lake data were conducted on two datasets: (1) the water quality data collected by WSP during the 2021 – 2022 monitoring program, and (2) the extended dataset provided by the City of Naples for the stormwater lake monitoring program, which includes water quality data beginning in December 2014. Briefly, water quality samples were collected by filling laboratory-supplied bottles, preserved as needed, with surface water from the sample location. These samples were delivered on ice to a National Environmental Laboratory Accreditation Program (NELAP) certified laboratory for chemical analysis within the method required holding times. Calibrated handheld meters were used to measure temperature, DO, conductivity, salinity, and pH at the sample location at the time of sample collection. All sampling, field measurements, and shipping followed FDEP Standard Operating Procedures (SOP)s.

2.1. Water Quality Data Collection and Processing

Under the current water quality monitoring program, WSP conducted stormwater lake and pump station water quality monitoring from October 2021 through September 2022. A database was created using the water quality data collected for this current program, last year's WSP data (October 2020-September 2021), and historical City of Naples data (2014 - September 2020). The parameters included in this database are listed in **Table 2-1**. **Appendix A** provides a complete visualization of the periods of record (POR) for select water quality parameters for each sample station in the database. The POR is the length of time for which water quality is available for a given lake. The POR can differ among lakes as lakes are added or removed from the sampling program. Data were reviewed for outliers and measurement units were checked for consistency and, if different, standardized to the same scale. Data qualifiers assigned by the analytical laboratory were reviewed; results reported at below the method detection limit (MDL) that were "U" qualified were adjusted to ½ of the MDL for statistical analysis. This standard approach of adjusting "U" data by ½ is consistent with FDEP methodology. Because bacterial data ranged over several orders of magnitude, these data were log10(x+1) transformed for some graphical presentations.

Table 2-1. Water quality parameters.

Parameter	Water Quality Significance
Laboratory Analysis	
Total Nitrogen (TN)	Contributes to algal growth
Total Kjeldahl Nitrogen (TKN)	Organic and ammonium fractions of total nitrogen
Nitrate + Nitrite Nitrogen (NOx)	Inorganic component of TN; can indicate fertilizer or waste sources
Ammonia Nitrogen	Additional inorganic component of TN
Total Phosphorus (TP)	Contributes to algal growth
Orthophosphate (OP)	Dissolved inorganic fraction of TP
Chlorophyll a (Chl-a)	Measure of algae biomass
Copper (Cu)	Can be toxic to aquatic organisms
Total Hardness	Amount of calcium and magnesium; buffering capacity of water, and used in calculating copper criteria
E. coli	Indicator of potential fecal contamination
Enterococci	Indicator of potential fecal contamination
Fecal coliform	Indicator of potential fecal contamination
Total Organic Carbon (TOC)	Measure of organic material
Dissolved Organic Carbon (DOC)	Measure of dissolved organic material
Color	Indicator of water clarity
Turbidity	Indicator of water clarity
Total Suspended Solids (TSS)	Indicator of water clarity
Field-Measured	
Dissolved Oxygen (DO)	Essential to aquatic life; often limiting in water.
pH	Measure of how acidic or basic water is.
Specific Conductance	Ability of water to conduct electricity, indicator of concentration of dissolved substances in water.
Salinity	Measure of the concentration of dissolved salts in water.
Temperature	Measured in field.

Rainfall data were obtained from two sources. For use in analyses on the full POR (2014-2021), rainfall data from Naples, Florida were obtained from the Climate Data Online Portal from the National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information. The daily rainfall data were obtained from station USW000012897 (Latitude: 26.155°, Longitude: -81.7752°). Rainfall data used in analysis of the 2020-2021 dataset were provided by the City of Naples from the City's Supervisory Control and Data Acquisition (SCADA) rainfall monitoring network. The SCADA network includes 10 rain gauges throughout the City that provide daily rainfall totals. The rain gauges are listed in **Table 2-2. Figure 2-1** shows the location of the City's SCADA gauges and the NOAA rainfall station.

Table 2-2. City of Naples SCADA rainfall gauges.

Rainfall Gauge	Station ID	Location
39-A-12 (#1)	39	4225 Gordon Dr.
109-A-12 (#10)	109	Seagate School
93-C-12 (#2)	93	PR Station
35-A-12 (#3)	35	Broad & Gulfshore
92-C-12 (#4)	92	Cove Station
61-A-12 (#5)	61	Sandpiper
130-C-12 (#6)	130	PW Station
31-A-12 (#7)	31	1578 Gulfshore N.
18-A-12 (#8)	18	28th Ave & 12th
23-A-12 (#9)	23	3377 Gulfshore

Statistical testing revealed that the rainfall totals among the stations were not significantly different.

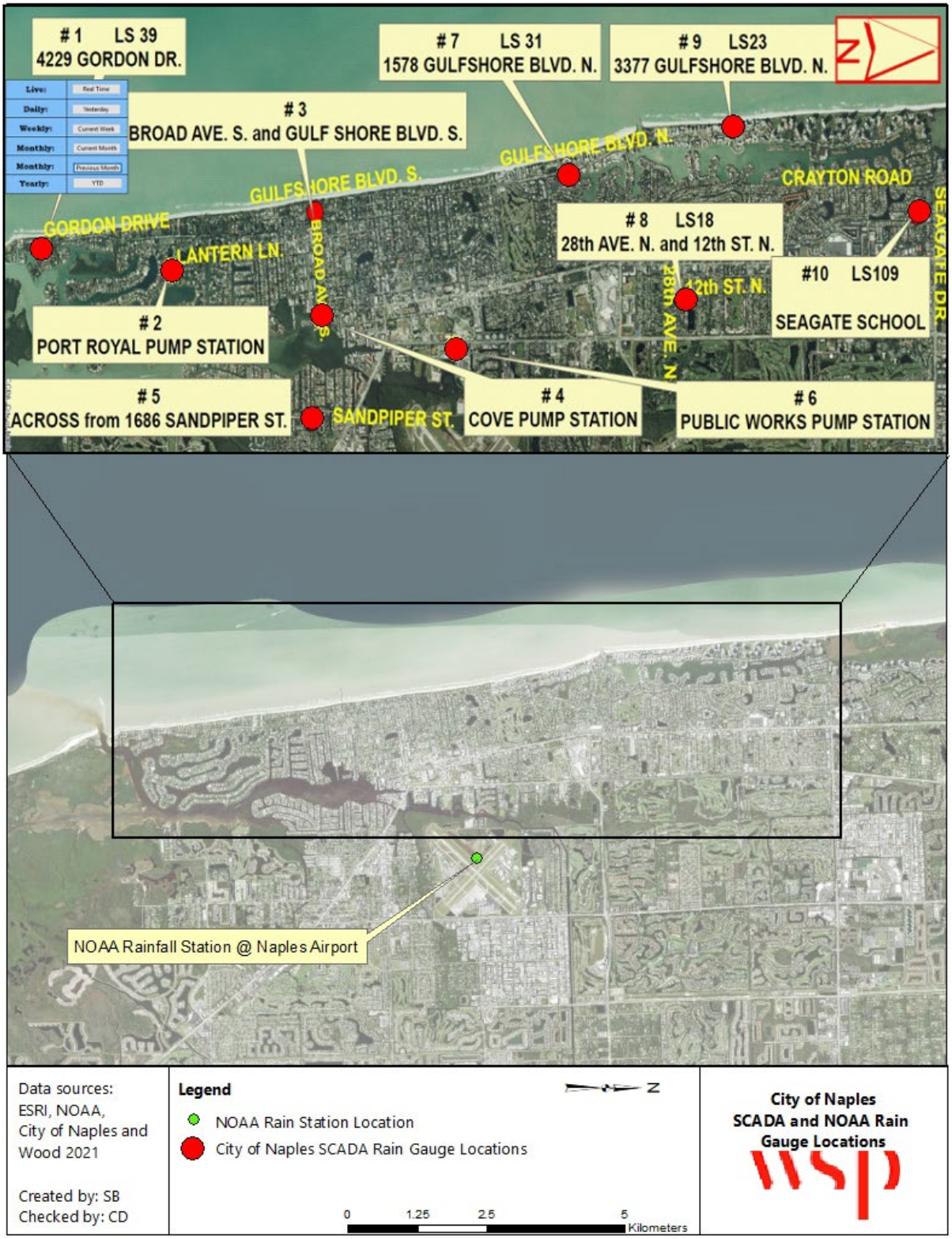


Figure 2-1. City of Naples SCADA and NOAA Rain Gauge Locations

2.2. Summary of Water Quality Data

Summary statistics for each water quality parameter were calculated for all 2021-2022 sampled lakes and pump stations and include the average, median, minimum, maximum, and standard deviation values, as well as for the POR and number of observations (count). Summary statistics for Cu, nutrient parameters, Chl-a and bacteria parameters are included in **Section 3.2** and summary statistics for all other water quality parameters are included in **Appendix B**. Additionally, a preliminary comparison of select water quality parameters among lakes was conducted using box plots. Parameters selected for box plot comparisons were Cu, Chl-a, nutrients (TN, ammonia nitrogen, TKN, NOx, TP, OP), and fecal indicator bacteria (*Enterococci, E. coli*, fecal coliform). In the box plots, the middle line represents median, upper and lower lines represent 25th and 75th percentile, and whiskers (straight lines) represent 1.5 x interquartile ranges. Points outside the whiskers are values higher or lower than the 1.5 x interquartile range. Bubble maps displaying average concentrations of select parameters were also prepared to visualize the spatial differences during the sampling year (September 2021-2022) and full POR.

2.3. Watershed Figures

For consistency with previous annual reports and to allow for a temporal comparison, select figures were replicated for TN, TP, Chl-a, *Enterococci*, and Cu for the monitoring period (2021-2022). Four figures were made for each parameter: one figure showing the lakes discharging to Moorings Bay, one showing the lakes discharging to the Gordon River, one showing the lakes discharging to the Naples Bay and one figure showing lakes discharging to the Gulf of Mexico. The analytes selected for these figures are a subset of the analytes regulated in the downstream waterbodies. These figures represent visualizations of the data over time; statistical trend analysis was conducted separately, as described below, including statistical significance testing for changes in parameters over time and correlation with precipitation.

2.4. Trend Analysis

Statistical trend analysis was conducted to assess if concentrations of water quality parameters were significantly increasing or decreasing over time. The non-parametric Mann-Kendall test was used to test for trends. The water quality data were first checked for serial correlation. If there was no evidence of serial correlation, then the Mann-Kendall (MK) test was used to test for significant trends. If there was evidence of serial correlation, the data were analyzed using the Seasonal Mann-Kendall (SMK) test. Trends were considered statistically significant at a p-value of less than 0.05, however, it should be noted that ecological effects can occur at levels above and below the 0.05 p-value. In addition to trends of raw data, trends in annual maximum Chl-a were tested to support the investigation into lake health discussed in **Section 2.7.2**.

2.5. Correlation Analysis

While trend analyses assess the changes in individual water quality parameters over time, correlation analysis explores the relationships of water quality parameters to each other. To explore these relationships between water quality parameters, the non-parametric Spearman correlation analysis was employed. Spearman's rho correlations were calculated using the monthly data from the stormwater lakes and pump stations (sampled in 2020-2021). Significant results ($p < 0.05$) were plotted on a correlation matrix using the "rstatix" package from R (Kassambara, 2021). Correlations are used to assess the strength of relationships between parameters. A strong correlation does not imply that an increase (or decrease) in one parameter causes an increase (or decrease) in another parameter since correlation does not imply causation. It does, however, suggest that the values may be behaving similarly, which warrants further attention.

Correlations were conducted on the full POR for stormwater lake data and using the NOAA station rainfall, and the water quality parameters of concern: TN, TP, chlorophyll a, and fecal indicator bacteria.

2.6. Multivariate Analyses

A multivariate approach was used to compare water quality among the stormwater lakes. This approach enabled simultaneously comparing water quality parameters using hierarchical cluster analysis, Principal Components Analysis (PCA) and an ordination plot based on PCA values. These analyses require complete data (i.e., no missing data) for all parameters. The analyses were conducted on two sets of data, using mean values for all parameters with a complete dataset. The first was for lakes with complete data for the POR from September 2014 through September 2022. This included 16 lakes, with 13 water quality parameters (**Table 2-3**). The second set of analyses included 22 lakes sampled by WSP from October 2020 through September 2022, with 17 water quality parameters (**Table 2-3**). Different water quality parameters were used in the two datasets because of changes in monitoring and collinearity (further explained in the paragraph below) between parameters.

Table 2-3. Principal Components Analysis datasets.

PCA Dataset	Lakes	Parameters
Full POR (September 2014 through September 2022)	Devils Lake (1SE-B), Swan Lake (2B), Colonnade Lake (3B), Lake Suzanne (5B), Mandarin Lake (6B), South Lake (9B), Alligator Lake (10B), East Lake (11B), Lantern Lake (14B), Lake Terrace (15B), Fleischmann Lake (19B), Forest Lake (20B), Sun Willow (21B), Lake Manor (22B), Lowdermilk (23B), NCH Lake (26B)	pH, TN, temperature, DO (mg/L), TSS, Cu, Chl-a, specific conductance, NOx, OP, *Enterococci*, ammonia nitrogen, and TP
WSP Sampling Period (October 2020 through September 2022)	Devils Lake (1SE-B), Swan Lake (2B), Colonnade Lake (3B), Hidden Lake (4B), Lake Suzanne (5B), Mandarin Lake (6B), North Lake (8B), South Lake (9B), Alligator Lake (10B), East Lake (11B), Spring Lake (11C), Lake 13 (13B), Lantern Lake (14B), Sun Lake Terrace (15B), Thurner (16B), Lake Diana (17B), Fleischmann Lake (19B), Forest Lake (20B), Willow (21B), Lake Manor (22B), Lowdermilk Lake (23B), NCH Lake (26B)	pH, TN, temperature, DO (mg/L), turbidity, TSS, Cu, Chl-a, specific conductance, NOx, OP, *Enterococci*, ammonia nitrogen, TP, color, *E. coli*, and calcium

Because of the large number (n > 15) of lakes, and sampling events (monthly), WSP averaged the water quality parameters for each lake. Averaging is recommended to discern patterns among sampling points in large datasets (Clarke et al., 2014). Next, these data were examined for collinearity, as highly correlated parameters can result in spurious results. Highly correlated results will tend to overfit the model. The assumption is that the variables are independent. Thus, highly correlated parameters affect the interpretation of the model because they undermine the significance of the independent variables. For

example, salinity and specific conductance are highly correlated because both measure the concentration of dissolved ions in the water sample. Parameters that were highly correlated (Pearson, r > 0.7) were removed. Distribution plots of the remaining parameters were examined, and data that were not normally distributed were log (x+1) transformed to satisfy the assumptions needed to perform these statistical tests. Next, these data were placed on the same scale (a requirement for this analyses), by normalizing to a mean of 0 and standard deviation of 1. Then, a resemblance matrix was created from these data for each lake and each parameter using Euclidean distances. To test significant differences in groups of stormwater lakes, WSP used the Euclidean-based matrix to conduct a hierarchical cluster analysis, using group averages, with 999 permutations, and a significance level of 5%. This routine places lakes into groups with most similar water quality and tests for significant differences among these groups. Euclidean distances among parameters and among lakes were also used to conduct the PCA. Principal Component Scores were then used to create a PCA ordination plot to visualize differences among lakes on a 2-dimensional scale. Lakes determined to be significantly different based on the hierarchical clustering were coded different colors on the PCA plot. Vectors representing influential parameters were also plotted to further aid in visualization of the differences among lakes.

2.7. Impairment Assessment

An informal impairment assessment was conducted to identify potential impacts to downstream waterbodies and in-lake health, as described below.

2.7.1. Potential Impacts to Downstream Waters

It is important to note that the FDEP water quality impairment criteria do not apply to stormwater lakes since they are manmade features and are not classified as Waters of the State. Stormwater lakes are designed to receive rainfall runoff containing nutrients and other pollutants and exceedances are expected when comparing the stormwater lakes to downstream criteria which apply to more natural waterbodies that were not designed and constructed to intercept stormwater runoff from developed lands. Comparison to downstream water quality criteria should be regarded as an evaluation and management tool only and the downstream water quality criteria do not represent target water quality conditions in stormwater lakes.

The informal impairment assessment was conducted by comparing water quality in stormwater lakes from the October 2021-September 2022 monitoring program to impairment criteria applicable to downstream waterbodies. The stormwater lakes and the downstream waterbodies are displayed in **Figure 1-4**. The downstream waterbody criteria are described in **Section 1.2.2**; with regulatory criteria included in **Table 1-6**. The percentage of the number of samples from the stormwater lakes that exceeded the regulatory criteria for the downstream waterbody was calculated. Parameters were selected based on current impairments and data availability.

2.7.2. Potential Impacts to Lake Health

Florida's long growing season and sub-tropical temperatures can lead to a wide range of growing conditions for benthic and suspended algae, including naturally occurring cyanobacteria in freshwater. These naturally occurring algae can proliferate, or bloom, under certain situations (including increased nutrients, higher temperatures, and reduced water flow[3]). In surface waters, Chl-a concentrations are analyzed to quantify the number of algae in the water.

FDEP has established an impairment threshold of 20 µg/L for Chl-a, measured as an annual geometric mean, for natural lakes with long-term geometric mean color greater than 40 platinum cobalt units (PCU, FDEP 2013).[4] This value is similar to what Hoyer et al. (2004) found (17 µg/L as a mean) above which surveyed residents identified substantial reduction in aesthetic enjoyment due to algae levels. As described earlier, the regulatory criteria do not apply to stormwater lakes, and given their position on the landscape and purpose of intercepting pollutants in stormwater runoff, many stormwater lakes have elevated nutrients which can contribute to increased concentrations of algae.

To identify which of the studied waterbodies may have the greatest tendency towards higher algae concentrations, they were ranked based on 1) number of years where AGMs exceeded the 20 µg/L Chl-a threshold and 2) the maximum Chl-a AGM. Additionally, the maximum recorded Chl-a value was included to identify waterbodies that have experienced higher concentrations of algae. Since only one month of data was collected in 2014, that year was excluded from analysis. For this analysis, the full period of record dataset was used (rather than the dataset encompassing only the October 2021 – September 2021).

Additionally, to identify future management considerations, a dataset of the maximum individual Chl-a values from each lake in each year was constructed. Trend analysis was performed on this dataset following procedures in **Section 2.4**.

Copper-based algaecides are used to control algae in stormwater lakes and preserve aesthetics (Willis and Bishop 2016). However, this can lead to cyclical water quality management issues including reductions in benthic DO as dead algae are consumed by bacteria and recurrence of blooms due to the release of nutrients from algal decomposition. Copper can also enter stormwater lakes from other sources including fertilizers, fungicides, and automobile brake pads (Lifset et al. 2012). Copper entering stormwater lakes can accumulate in sediments, aquatic plants, and fish (Campbell 1994, Rader et al. 2019, Lusk and Chapman 2020).

Although copper is a naturally occurring micronutrient, elevated concentrations can be toxic to aquatic taxa, including benthic and planktonic species which feed on suspended algae, due to chronic (long-term) and acute (short-term) exposure (EPA, 2007). The toxicity of copper is determined by its bioavailability, which is affected by several factors including dissolved organic carbon (DOC), hardness, temperature, and pH (Flemming and Trevors 1989, EPA 2007, Craven et al. 2012, Wagner et al. 2017).

[3] FDEP's Freshwater Algal Blooms Frequently Asked Questions, available at: https://floridadep.gov/sites/default/files/freshwater-algal-bloom-faqs_2019.pdf, accessed 2021-12-22.

[4] The Chl-a criteria changes based on the lake color. The criteria of 20 ug/L is applicable to freshwater lakes with long term geometric mean color of 40 PCU. Although the Chl-a criteria do not apply to stormwater lakes, based on the stormwater lake color (Appendix A), the criteria of 20 ug/L is the comparable freshwater lake criteria comparison.

Florida's water quality criteria for copper were developed by the EPA using toxicity studies. For freshwater, the copper criterion is based on hardness and can vary from 2.85 µg/L when hardness ≤ 25 mg/L CaCO3 to 30.50 µg/L when hardness ≥ 400 mg/L CaCO3. For marine waters, the copper criterion is 3.7 µg/L. The cutoff between marine and freshwater is based on specific conductance where values < 4,580 µmhos/cm are freshwater and ≥ 4,580 µmhos/cm are marine. As described earlier, these regulatory criteria do not apply to stormwater lakes, which are designed to intercept stormwater runoff containing pollutants. Comparison of stormwater lake water quality data to FDEP natural waterbody criteria is a comparison tool and does not represent goal or target conditions for stormwater lakes.

Copper concentrations in samples collected over the past year were compared to the copper criteria based on specific conductance and (if applicable) hardness values. The number of exceedances of the copper criteria were then used to calculate percent exceedances for each waterbody. Additionally, results were evaluated by month to evaluate if there were seasonal changes in copper exceedances.

2.8. Pump Station Nutrient Loading Estimates

Estimates of monthly and annual loading of TN and TP from the City's pump stations were prepared using pump station sample concentrations and pump operation data provided by the City. Pump operation data from 2021-2022 was not available and pump operation from the previous year (2020-2021) was used in the loading estimates. The pump operation data provided by the City included total monthly pump run times and maximum pumping capacities (in gallons per minute) for each pump. Pump operation data was used to estimate a potential water volume for each pump. These volumes were multiplied by monthly concentrations to estimate loads for TP, TN, TSS, and Cu.

3.0 RESULTS

3.1. Precipitation

The long-term NOAA rainfall data from gauge USW000012897 is shown in **Figure 3-1.** Rainfall was the highest during 2017 as a result of Hurricane Irma. 2022 was the first year since 2017 that the annual rainfall increased, after decreasing between 2018 and 2021. All years within the evaluation period except 2017 exhibited annual rainfall that was lower than the long-term average. City of Naples SCADA precipitation daily totals are included in **Figure 3-2**. In a statistical comparison of the rainfall at the SCADA gauges, rainfall was not significantly different among the stations.

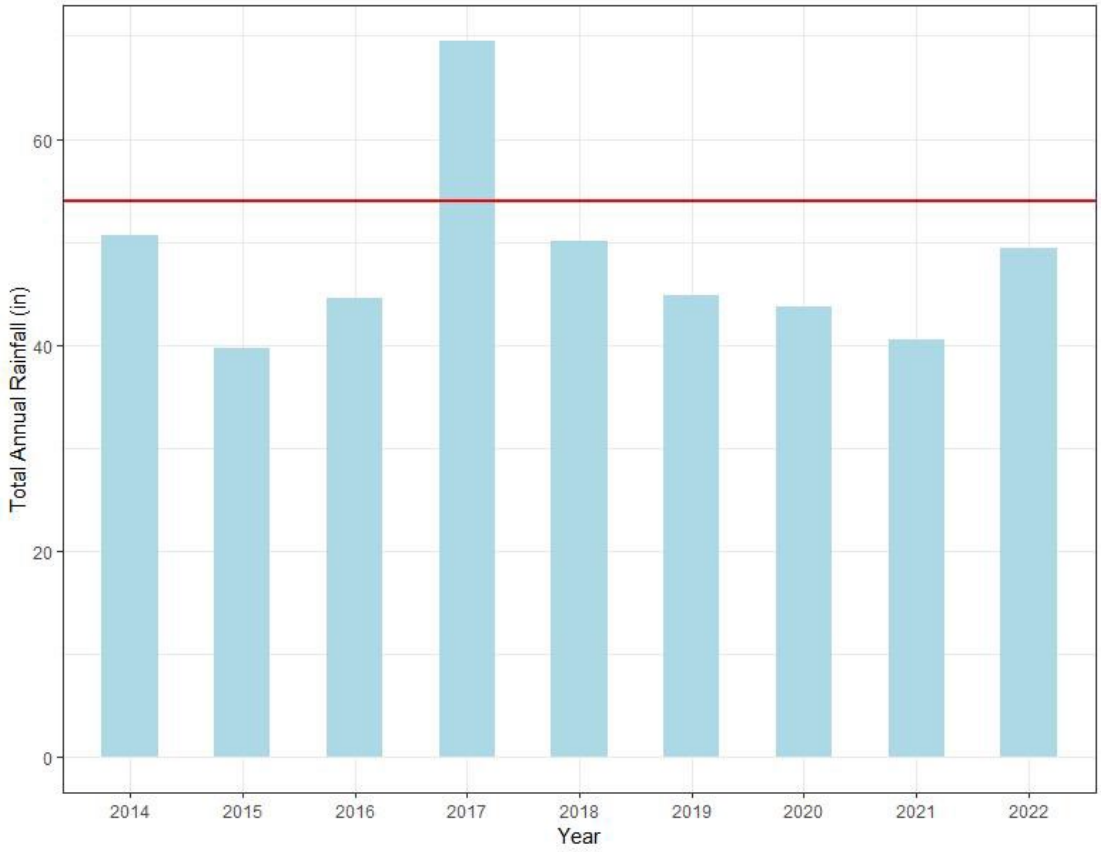


Figure 3-1. Total Annual Rainfall (Bars) and Long-Term Average (1942 through 2022, Indicated by Horizontal Red Line) Rainfall from Station USW000012897

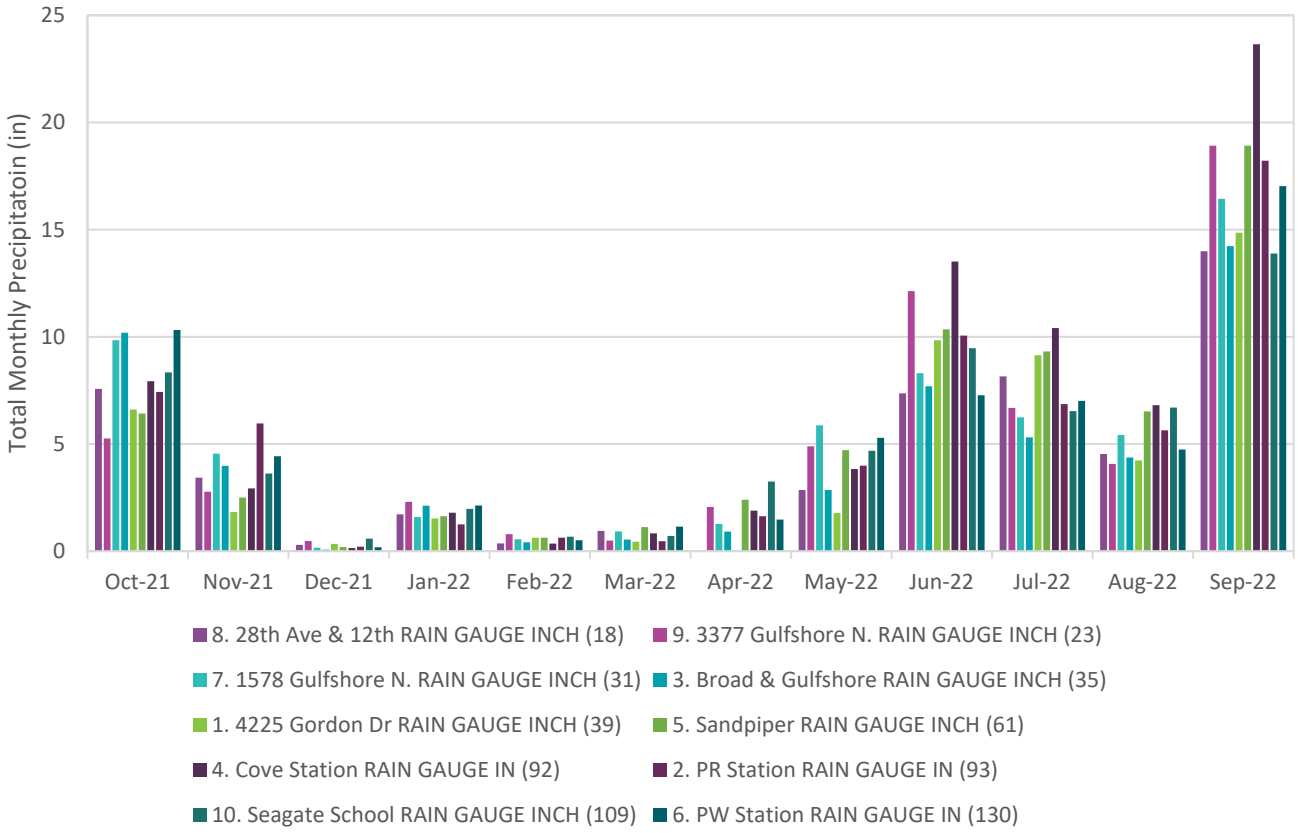


Figure 3-2. City of Naples Stormwater SCADA Monthly Precipitation Totals (October 2021-September 2022)

3.2. Summary of Water Quality Data

Water quality summary statistics for the available POR for all lakes and pump stations, as well as a comparison of lakes using box plots, is discussed below for the following parameters: Chl-a, Cu, *Enterococci*, *E. coli*, TN, ammonia nitrogen, TKN, NOx, TP, and OP. Summary statistics for all other water quality parameters sampled are available in **Appendix B.** Overall, the lakes that stood out with the highest average concentrations of nutrients, Chl-a, and fecal indicator bacteria included Half Moon Lake (not currently sampled), Hidden Lake, South Lake, and Lantern Lake. High concentrations were also found at the pump stations.

For quick reference, the box plots in this section display the highest values at the top of the plot and are sorted from highest to lowest (decreasing down the plot) concentration. The average concentrations are also represented in bubble maps (**Figures 3-14** through **3-19**).

Summary statistics for Chl-a for all sampled lakes are presented in **Table 3-1** and the Chl-a box plot comparison of lakes is presented in **Figure 3-3**. Half Moon Lake had the highest average Chl-a concentrations for the long-term POR dataset but was not included in the 22 lakes sampled by WSP during

the 2021-2022 sampling effort because it does not receive public drainage. Aside from Half Moon Lake, the lakes with the five highest average Chl-a concentrations during their sampled POR are North Lake, Lantern Lake, South Lake, Spring Lake, and Fleischman Lake. All of these lakes drain directly to either Naples Bay or the Gulf of Mexico. South Lake had the highest Chl-a concentration of 1018 µg/L.

Summary statistics for Cu are presented in **Table 3-2**, and the Cu box plot comparison of the lakes is presented in **Figure 3-4**. NCH Lake and Devils Lake have the highest average Cu concentrations among sampled lakes. The Cu data for NCH Lake and Devils Lake also exhibit a large degree of variability compared to most other sampled lakes. As a reminder, NCH Lake does not receive public drainage. NCH Lake also historically received copper sulfate treatment and the City educated the lake owner on the benefits of discontinuing use of copper sulfate treatment.

Summary statistics for *E. coli* are presented in **Table 3-3**, and the *E. coli* box plot comparison of lakes is presented in **Figure 3-5**. It should be noted that only the 2020-2022 samples make up the POR for *E. coli* since fecal coliform was sampled in previous years.[5] The lakes with the five highest average *E. coli* concentrations are Lake 13, Lake Diana, Sun Lake Terrace, Hidden Lake, and Lowdermilk Lake. All lakes but one (Devils Lake) had average concentrations higher than 100 counts/100mL. The sampled data are quite variable for most lakes, and there is not a significant degree of separation among most of the lakes.

Summary statistics for *Enterococci* are presented in **Table 3-4**, and the *Enterococci* box plot comparison of lakes is presented in **Figure 3-6.** All three pump stations (Cove Pump, Port Royal Pump, and Public Works Pump) samples had average *Enterococci* concentrations near or over 1000 counts/100mL, and the Fleischmann Lake, Lake Diana, and Thurner Lake are among the lakes with the highest *Enterococci* concentrations.

Summary statistics for fecal coliform are presented in **Table 3-5**, and the *Enterococci* box plot comparison of lakes is presented in **Figure 3-7**. Average fecal coliform was highest at Hidden Lake, Lake Diana, and East Lake.

Summary statistics for TN are presented IN **Table 3-6** and the TN box plot comparison of lakes is presented in **Figure 3-8**. Half Moon Lake had the highest average TN concentrations but was not included in the 22 lakes sampled for 2021-2022 because it does not receive public drainage. Aside from Half Moon Lake, the locations with the five highest average TN concentrations are North Lake, Port Royal Pump, South Lake, Fleischmann Lake, and Forest Lake.

Summary statistics for ammonia nitrogen are presented in **Table 3-7**, and the ammonia nitrogen box plot comparison of lakes is presented in **Figure 3-9**. The three pump stations had the highest average ammonia nitrogen concentrations among all sampling locations, followed by Half Moon Lake, Lowdermilk Lake, and Lake 13.

Summary statistics for TKN are presented in **Table 3-8**, and the TKN box plot comparison of lakes is presented in **Figure 3-10**. The TKN data follows a similar distribution among and lakes as TN. The highest average TKN concentrations outside of Half Moon Lake were found in North Lake, Port Royal Pump, South Lake, Forest Lake, and Lantern Lake.

[5] Fecal coliform was not included in the 2020-2021 sampling program because it is no longer used by FDEP as a regulatory criterion; in freshwater Class III waterbodies, the current regulated bacteria is *E. coli.* It has been included in the 2021-2022 sampling program.

Summary statistics for NOx are presented in **Table 3-9**, and the NOx box plot comparison of lakes is presented in **Figure 3-11**. Average NOx concentrations were highest at the three pump stations and Half Moon Lake. There is little differentiation among most other sampled lakes.

Summary statistics for TP are presented in **Table 3-10**, and the TP box plot comparison of lakes is presented in **Figure 3-12**. There is little differentiation or variability in average TP concentrations among the sampled lakes. Aside from Half Moon Lake, Lantern Lake, Port Royal pump station, and North Lake stood out with the highest average TP concentrations.

Summary statistics for OP are presented in **Table 3-11**, and the OP box plot comparison of lakes is presented in **Figure 3-13**. The OP data follows a similar distribution among and within lakes as TP, with the highest average concentrations outside of Half Moon Lake found in Lantern Lake and the Port Royal pump station.

Table 3-1. Chlorophyll-a period of record summary statistics by sampling location.

Lake Name	Station ID	POR Start	POR End	Count	Chlorophyll-a Concentration (µg/L)				
					Average	Median	Min.	Max.	Standard Dev.
Alligator Lake	10B	Dec-14	Sep-22	48	21.04	17.4	0.62	91.50	19.74
East Lake	11B	Dec-14	Sep-22	46	30.57	21.55	0.13	136.00	30.38
Spring Lake	11C	Oct-20	Sep-22	21	56.48	34.00	3.32	323.00	79.79
Lake 13	13B	Oct-20	Sep-22	23	46.64	27.1	1.32	177.00	44.85
Lantern Lake	14B	Dec-14	Sep-22	48	58.25	49.8	1.93	266.00	44.66
Sun Lake Terrace	15B	Dec-14	Sep-22	54	17.70	13.0	0.13	116.0	17.27
Thurner	16B	Oct-20	Sep-22	23	36.65	26.2	8.44	98.1	25.24
Lake Diana	17B	Oct-20	Sep-22	23	37.79	30.5	14.9	83.20	15.32
Fleischmann Lake	19B	Dec-14	Sep-22	83	35.44	29.4	0.58	252.00	33.59
Devils Lake	1SE-B	Dec-14	Sep-22	78	5.96	4.39	0.13	36.90	6.06
Forest Lake	20B	Dec-14	Sep-22	78	50.67	29.5	0.13	511.00	64.97
Willow	21B	Oct-20	Sep-22	23	19.62	15.0	4.37	63.00	16.38
Lake Manor	22B	Dec-14	Sep-22	78	16.31	15.45	0.40	54.80	10.75
Lowdermilk	23B	Oct-20	Sep-22	23	16.00	10.1	1.93	124.00	24.84
NCH Lake	26B	Dec-14	Sep-22	78	45.67	29.2	1.46	779.00	87.68
Swan Lake	2B	Dec-14	Sep-22	72	38.19	26.75	0.13	373.0	48.58
Colonnade Lake	3B	Dec-14	Sep-22	78	35.35	17.1	4.26	492.00	66.09
Hidden	4B	Oct-20	Sep-22	23	19.6	10.00	5.02	72.8	16.87
Lake Suzanne	5B	Dec-14	Sep-22	78	35.74	23.15	0.67	290.00	46.21
Mandarin Lake	6B	Dec-14	Sep-22	54	20.30	15.4	1.24	80.00	15.45
North Lake	8B	Oct-17	Sep-22	59	82.98	54.2	15.9	293.0	62.28
South Lake	9B	Dec-14	Sep-22	78	66.15	44.95	3.29	1018.00	116.38

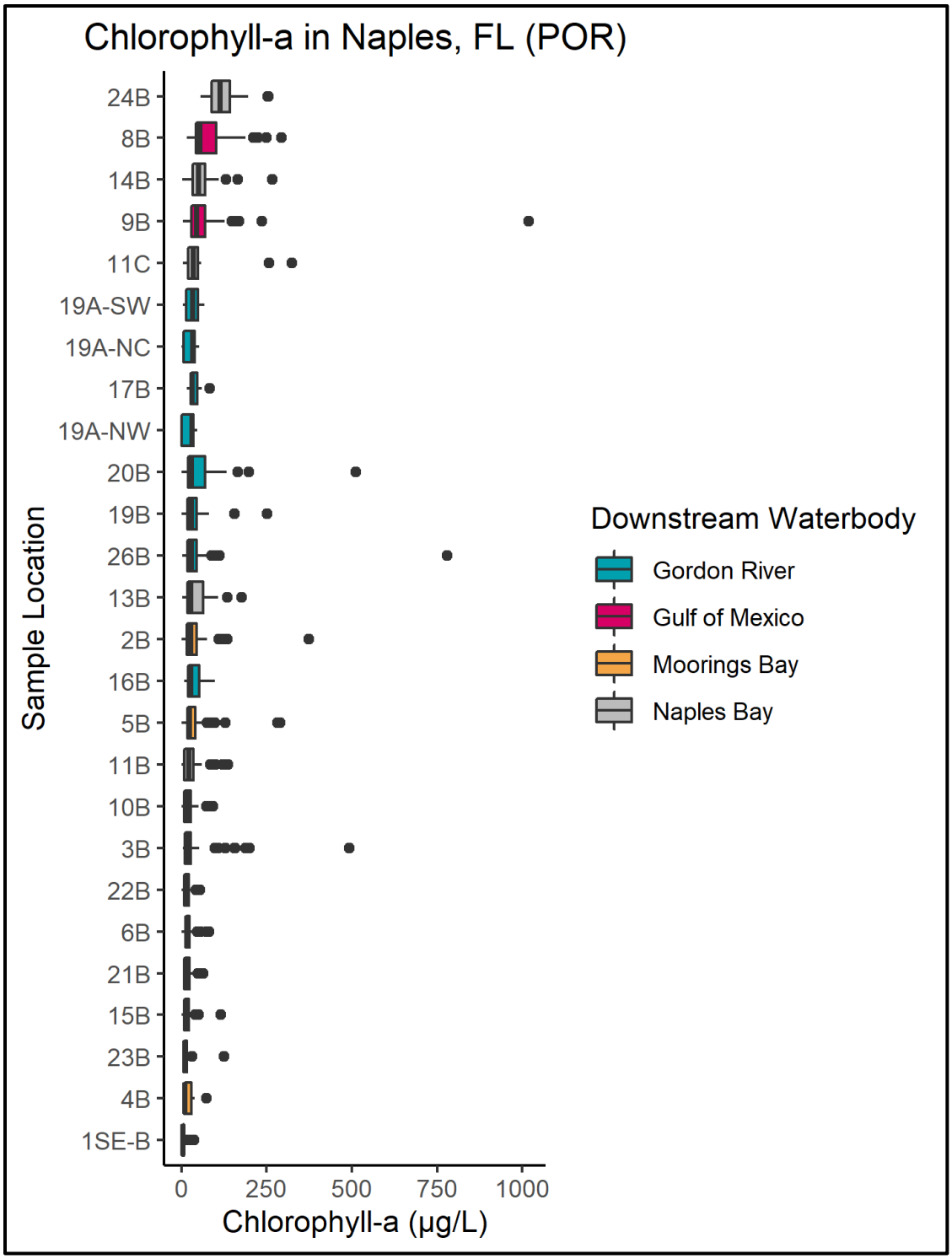


Figure 3-3. Chlorophyll-a Box Plots by Sampling Location, Available Period of Record. (Note: Included in box plot are results from the following stations not included in the current sampling program: 19A-SW, 19A-NC, 19A-NW, 24B).

Table 3-2. Copper period of record summary statistics by sampling location.

Lake Name	Station ID	POR Start	POR End	Count	Copper Concentration (µg/L)				
					Average	Median	Min.	Max.	Standard Dev.
Alligator Lake	10B	Dec-14	Sep-22	48	2.32	1.48	0.14	22.3	4.11
Cove Pump	11-Pump	Dec-14	Sep-22	47	2.31	1.37	0.17	15.5	2.67
East Lake	11B	Dec-14	Sep-22	46	4.98	3.94	0.17	33.00	5.51
Spring Lake	11C	Oct-20	Sep-22	21	4.29	2.33	3.32	12.2	3.91
Lake 13	13B	Oct-20	Sep-22	23	1.11	0.85	0.14	4.98	1.04
Port Royal Pump	14-Pump	Dec-14	Sep-22	47	4.33	2.1	0.12	46.0	7.83
Lantern Lake	14B	Dec-14	Sep-22	48	5.48	2.72	0.14	99.3	14.3
Sun Lake Terrace	15B	Dec-14	Sep-22	54	6.24	4.24	0.17	65.7	9.47
Thurner	16B	Oct-20	Sep-22	23	3.99	3.25	0.17	12.9	3.83
Lake Diana	17B	Oct-20	Sep-22	23	1.05	0.76	0.17	3.36	0.93
Fleischmann Lake	19B	Dec-14	Sep-22	83	1.46	0.89	0.17	18.4	2.36
Devils Lake	1SE-B	Dec-14	Sep-22	78	43.81	16.15	0.17	1160.0	132.3
Forest Lake	20B	Dec-14	Sep-22	78	1.07	0.79	0.17	8.00	1.12
Willow	21B	Oct-20	Sep-22	23	1.03	0.93	0.17	3.96	0.91
Lake Manor	22B	Dec-14	Sep-22	78	1.92	1.26	0.14	25.6	3.29
Lowdermilk	23B	Oct-20	Sep-22	23	2.03	0.39	0.14	10.2	3.02
NCH Lake	26B	Dec-14	Sep-22	78	60.29	40.5	7.24	436.0	63.45
Swan Lake	2B	Dec-14	Sep-22	72	6.99	4.18	0.17	59.4	9.67
Colonnade Lake	3B	Dec-14	Sep-22	78	4.33	3.91	0.17	23.6	3.36
Hidden	4B	Oct-20	Sep-22	23	10.35	7.86	0.17	25.7	6.21
Lake Suzanne	5B	Dec-14	Sep-22	78	8.07	4.79	0.17	60.8	10.02
Mandarin Lake	6B	Dec-14	Sep-22	54	3.89	0.93	0.17	86.2	13.66
North Lake	8B	Oct-17	Sep-22	59	6.92	2.97	0.17	58.9	10.99
South Lake	9B	Dec-14	Sep-22	78	7.37	5.39	0.17	47.2	8.11
Public Works Pump	PW-Pump	Dec-14	Sep-22	47	3.86	2.92	0.14	21.4	3.86

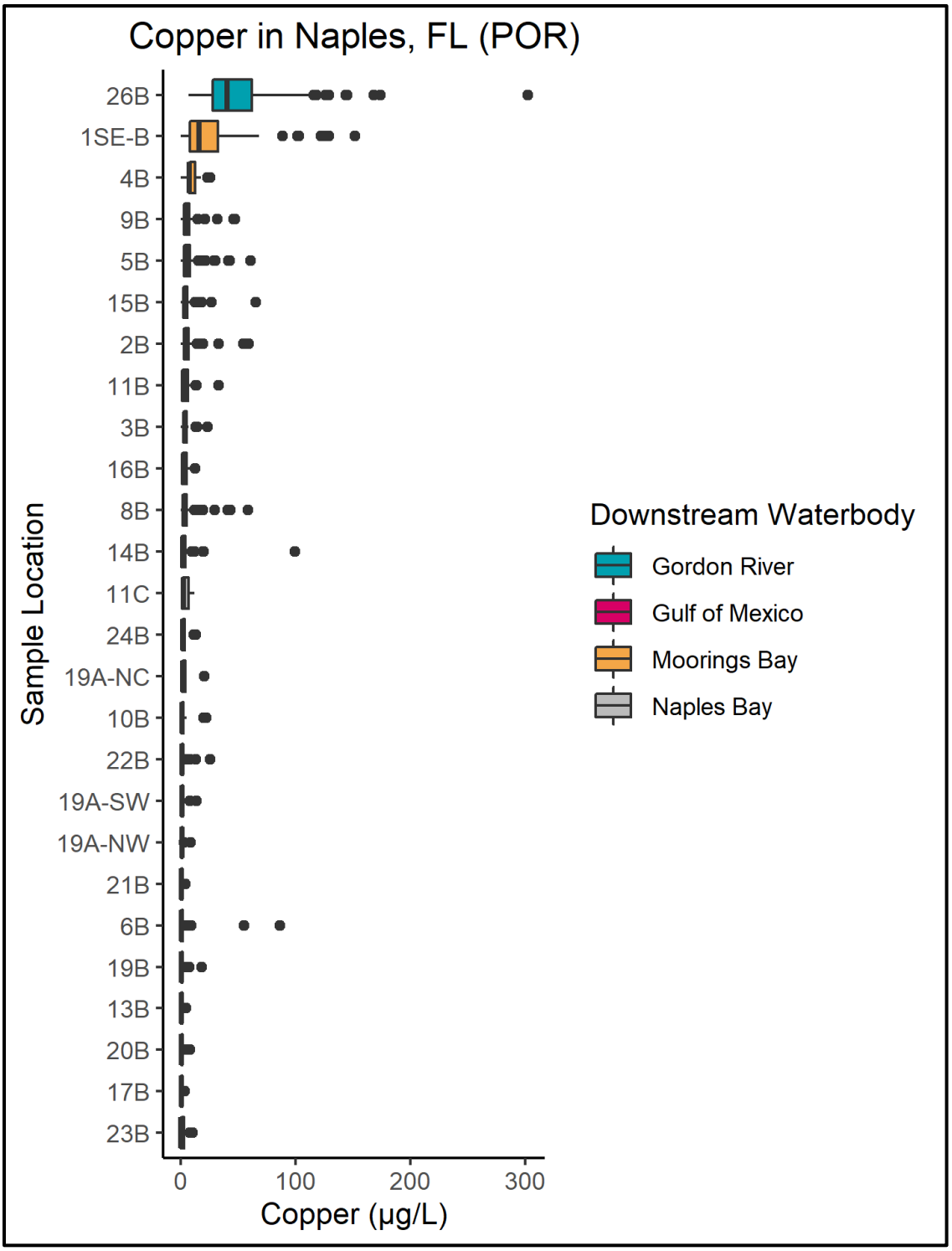


Figure 3-4. Copper Box Plots by Sampling Location, Available Period of Record (Note: Included in box plot are results from the following stations not included in the current sampling program: 19A-SW, 19A-NC, 19A-NW, 24B).

Table 3-3. *E. coli* period of record summary statistics by sampling location.

Lake Name	Station ID	POR Start	POR End	Count	*E. coli* Concentration (#/100mL)				
					Average	Median	Min.	Max.	Standard Dev.
Alligator Lake	10B	Dec-14	Sep-22	23	360.43	216.0	31.0	1223.0	320.9
Cove Pump	11-Pump	Dec-14	Sep-22	23	907.74	246.0	52.0	9208.0	1948.19
East Lake	11B	Dec-14	Sep-22	21	813.52	583.0	148.0	2613.0	701.81
Spring Lake	11C	Oct-20	Sep-22	21	587.90	369.0	74.0	1500.0	433.9
Lake 13	13B	Oct-20	Sep-22	23	4275.04	1223.0	109.0	24196.0	6288.51
Port Royal Pump	14-Pump	Oct-20	Sep-22	23	344.39	238.0	31.0	1541.0	393.03
Lantern Lake	14B	Oct-20	Sep-22	23	664.87	373.0	63.0	2909.0	832.96
Sun Lake Terrace	15B	Oct-20	Sep-22	23	1415.96	554.0	158.0	8664.0	2181.49
Thurner	16B	Oct-20	Sep-22	23	908.43	231.0	108.0	12997.0	2647.38
Lake Diana	17B	Oct-20	Sep-22	23	1432.61	717.0	84.0	5794.0	1635.79
Fleischmann Lake	19B	Oct-20	Sep-22	23	568.13	426.0	41.0	4884.0	985.01
Devils Lake	1SE-B	Oct-20	Sep-22	23	52.83	41.0	5.0	148.0	40.08
Forest Lake	20B	Oct-20	Sep-22	23	168.91	110.0	20.0	842.0	190.46
Willow	21B	Oct-20	Sep-22	23	382.3	226.0	86.0	1553	351.78
Lake Manor	22B	Oct-20	Sep-22	23	492.3	428.0	109.0	2359.0	488.24
Lowdermilk	23B	Oct-20	Sep-22	23	1201.65	495.0	74.0	5475.0	1557.58
NCH Lake	26B	Oct-20	Sep-22	23	453.43	384.0	121.0	1112.0	306.83
Swan Lake	2B	Oct-20	Sep-22	23	239.22	110.0	10.0	1076.0	296.27
Colonnade Lake	3B	Oct-20	Sep-22	23	254.13	119.0	10.0	1296.0	350.54
Hidden	4B	Oct-20	Sep-22	23	1354.65	1022.0	161.0	8164.0	1683.33
Lake Suzanne	5B	Oct-20	Sep-22	23	183.13	86.0	10.0	1169.0	267.71
Mandarin Lake	6B	Oct-20	Sep-22	23	200.09	158.0	5.0	744.0	195.78
North Lake	8B	Oct-20	Sep-22	23	495.09	185.0	5.0	5475.0	1105.28
South Lake	9B	Oct-20	Sep-22	23	222.52	148.0	41.0	882.0	190.99
Public Works Pump	PW-Pump	Oct-20	Sep-22	23	467.3	189.0	52.0	2613.0	647.79

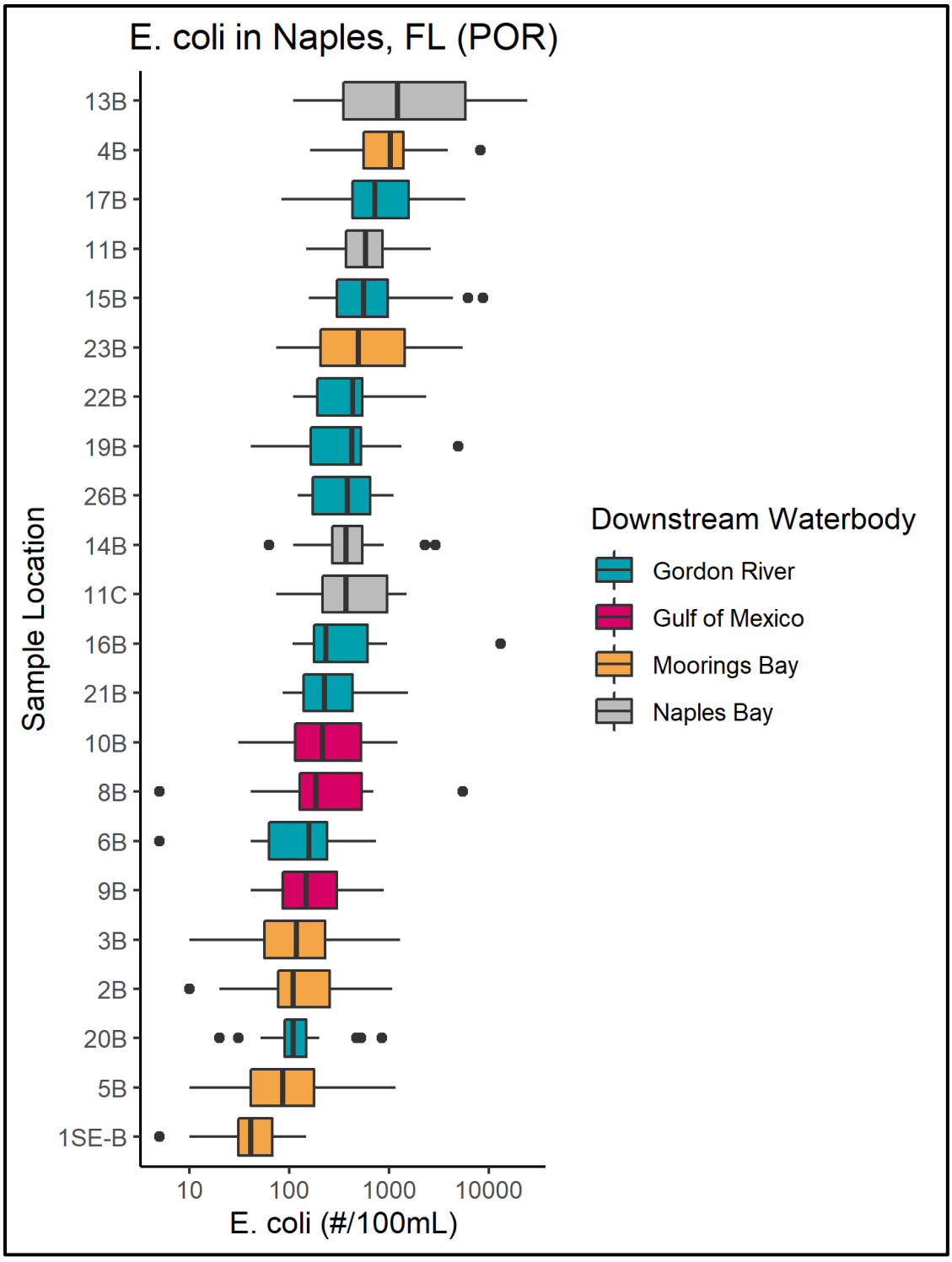


Figure 3-5. *E. coli* box plots by sampling location, available period of record.

Table 3-4. *Enterococci* period of record summary statistics by sampling location.

Lake Name	Station ID	POR Start	POR End	Count	*Enterococci* Concentration (#/100mL)				
					Average	Median	Min.	Max.	Standard Dev.
Alligator Lake	10B	Dec-14	Sep-22	48	264.10	70.0	5.0	3441.0	572.80
Cove Pump	11-Pump	Dec-14	Sep-22	47	2937.53	1390.0	400.0	14900.0	3776.51
East Lake	11B	Dec-14	Sep-22	46	448.46	275.0	40.0	3600.0	658.47
Spring Lake	11C	Oct-20	Sep-22	21	374.90	210.0	5.0	2200.0	561.60
Lake 13	13B	Oct-20	Sep-22	23	590.13	315.0	10.0	3200.0	800.67
Port Royal Pump	14-Pump	Dec-14	Sep-22	47	990.21	520.0	63.0	5200.0	1160.28
Lantern Lake	14B	Dec-14	Sep-22	48	367.08	150.0	20.0	5000.0	807.48
Sun Lake Terrace	15B	Dec-14	Sep-22	54	475.02	170.0	5.0	5400.0	965.81
Thurner	16B	Oct-20	Sep-22	23	1144.96	230.0	30.0	17329.0	3565.91
Lake Diana	17B	Oct-20	Sep-22	23	1334.26	370.0	84.0	4400.0	1607.08
Fleischmann Lake	19B	Dec-14	Sep-22	83	930.54	370.0	20.0	24196.0	2940.15
Devils Lake	1SE-B	Dec-14	Sep-22	78	331.88	60.0	5.0	12500.0	1459.89
Forest Lake	20B	Dec-14	Sep-22	78	549.62	120.0	5.0	20000.0	2372.79
Willow	21B	Oct-20	Sep-22	23	281.09	170.0	20.0	1600.0	348.89
Lake Manor	22B	Dec-14	Sep-22	78	449.83	120.0	10.0	5200.0	990.27
Lowdermilk	23B	Oct-20	Sep-22	23	149.52	70.0	5.0	710.0	202.82
NCH Lake	26B	Dec-14	Sep-22	78	833.21	460.0	5.0	20000.0	2304.45
Swan Lake	2B	Dec-14	Sep-22	72	211.04	80.0	5.0	3600.0	449.27
Colonnade Lake	3B	Dec-14	Sep-22	78	378.24	155.0	5.0	4600.0	762.76
Hidden	4B	Oct-20	Sep-22	23	730.96	384.0	50.0	4200.0	869.76
Lake Suzanne	5B	Dec-14	Sep-22	78	353.72	205.0	5.0	3448.0	580.45
Mandarin Lake	6B	Dec-14	Sep-22	54	268.46	160.0	5.0	2300.0	363.60
North Lake	8B	Oct-17	Sep-22	59	946.68	240.0	41.0	9000.0	1629.84
South Lake	9B	Dec-14	Sep-22	78	694.58	160.0	20.0	24196.0	2914.89
Public Works Pump	PW-Pump	Dec-14	Sep-22	47	1230.89	410.0	60.0	13400.0	2356.89

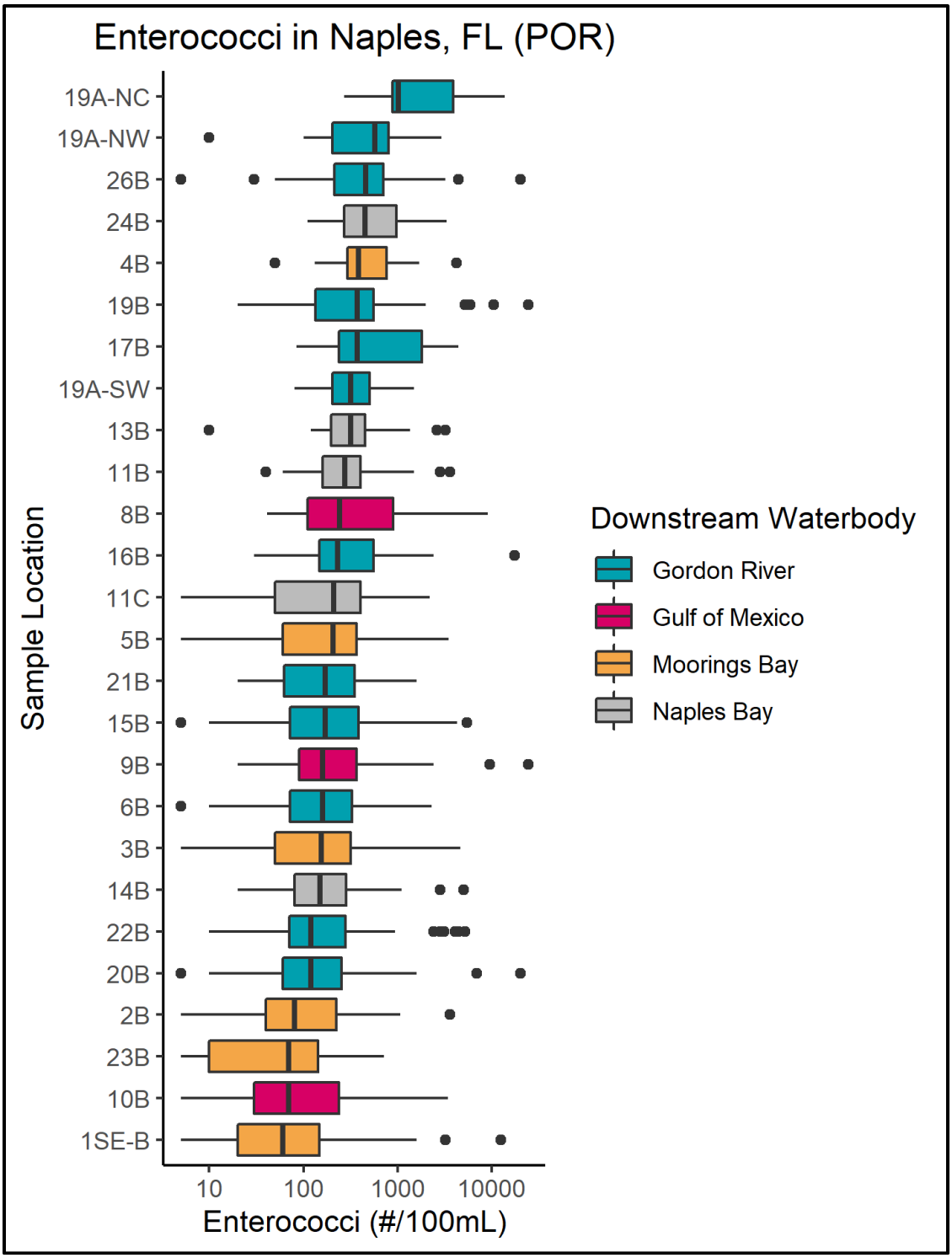


Figure 3-6. *Enterococci* Box Plots by Sampling Location, Available Period of Record (Note: Included in box plot are results from the following stations not included in the current sampling program: 19A-SW, 19A-NC, 19A-NW, 24B).

Table 3-5. Fecal coliform period of record summary statistics by sampling location (note that fecal coliform not collected in 2020-2021 monitoring program).

Lake Name	Station ID	POR Start	POR End	Count	Fecal Coliform (#/100mL)				
					Average	Median	Min.	Max.	Standard Dev.
Alligator Lake	10B	Dec-14	Sep-22	36	124.44	70	5	1080	207.4
East Lake	11B	Dec-14	Sep-22	34	1212.06	835	170	6400	1185.6
Spring Lake	11C	Oct-21	Sep-22	10	876.67	580	260	2900	825.7
Cove Pump	11-Pump	Dec-14	Sep-22	35	3230.29	1600	50	17900	3936.7
Lake 13	13B	Oct-21	Sep-22	12	1691.82	240	110	6500	2478.8
Lantern Lake	14B	Dec-14	Sep-22	36	355.28	175	20	2500	533.2
Port Royal Pump	14-Pump	Dec-14	Sep-22	35	1312.29	420	10	9500	2053.3
Sun Lake Terrace	15B	Dec-14	Sep-22	42	1072.14	380	40	14400	2562.5
Thurner	16B	Oct-21	Sep-22	12	450.91	290	70	1800	480.3
Lake 17	17B	Oct-21	Sep-22	12	2137.27	930	470	5500	1847.8
Fleischmann Lake	19B	Dec-14	Sep-22	71	755.25	370	5	5000	963.0
Devils Lake	1SE-B	Dec-14	Sep-22	66	209.02	70	5	2400	412.7
Forest Lake	20B	Dec-14	Sep-22	66	407.42	240	20	2700	510.5
Willow	21B	Oct-21	Sep-22	12	509.09	260	90	2500	683.5
Lake Manor	22B	Dec-14	Sep-22	66	630.45	185	10	13100	1773.0
Lowdermilk	23B	Oct-21	Sep-22	12	188.64	50	5	830	268.7
NCH Lake	26B	Dec-14	Sep-22	66	960.15	330	60	11400	2001.3
Swan Lake	2B	Dec-14	Sep-22	60	838.67	250	10	20000	2664.9
Colonnade Lake	3B	Dec-14	Sep-22	66	530.00	230	5	4900	899.3
Hidden	4B	Oct-21	Sep-22	12	2203.64	1300	840	5000	1554.0
Lake Suzanne	5B	Dec-14	Sep-22	66	960.98	175	5	10700	2178.1
Mandarin Lake	6B	Dec-14	Sep-22	42	1153.57	150	10	19400	3371.3
North Lake	8B	Oct-17	Sep-22	47	831.38	350	5	8900	1510.1
South Lake	9B	Dec-14	Sep-22	66	427.88	150	10	6100	934.1
Public Works Pump	PW-Pump	Dec-14	Sep-22	35	3084.14	1800	5	20000	4352.4

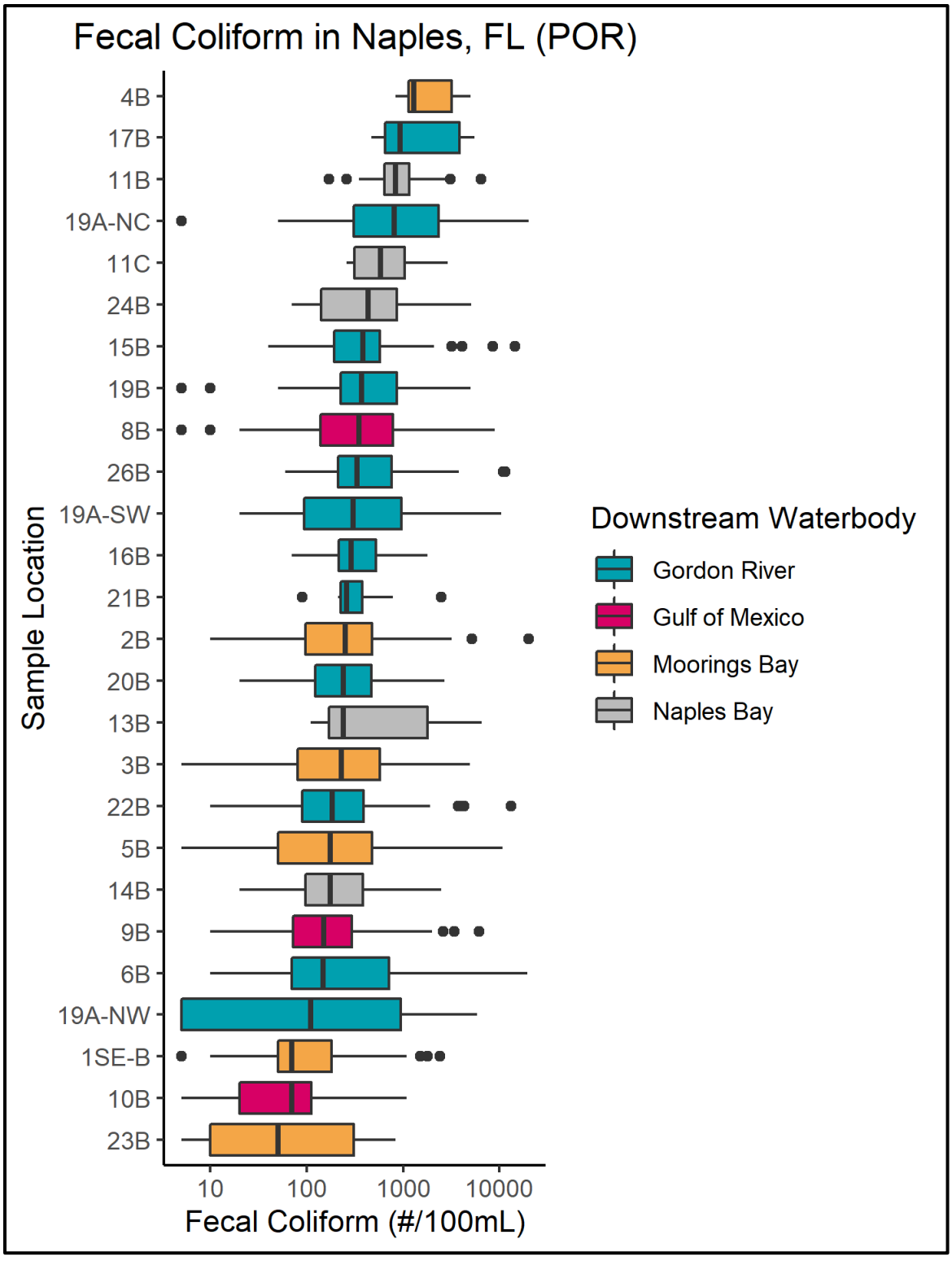


Figure 3-7. Fecal coliform Box Plots by Sampling Location, Available Period of Record (Note: Included in box plot are results from the following stations not included in the current sampling program: 19A-SW, 19A-NC, 19A-NW, 24B).

Table 3-6. Total nitrogen period of record summary statistics by sampling location.

Lake Name	Station ID	POR Start	POR End	Count	Total Nitrogen Concentration (mg/L)				
					Average	Median	Min.	Max.	Standard Dev.
Alligator Lake	10B	Dec-14	Sep-22	48	1.11	1.06	0.48	1.98	0.36
Cove Pump	11-Pump	Dec-14	Sep-22	47	1.43	1.40	0.81	2.74	0.31
East Lake	11B	Dec-14	Sep-22	46	1.19	1.09	0.46	4.62	0.63
Spring Lake	11C	Oct-20	Sep-22	21	1.48	1.23	0.73	3.95	0.87
Lake 13	13B	Oct-20	Sep-22	23	1.30	1.03	0.10	2.97	0.74
Port Royal Pump	14-Pump	Dec-14	Sep-22	47	2.45	1.48	0.26	45.70	6.50
Lantern Lake	14B	Dec-14	Sep-22	48	1.68	1.63	0.73	2.75	0.45
Sun Lake Terrace	15B	Dec-14	Sep-22	54	1.18	1.14	0.32	2.03	0.33
Thurner	16B	Oct-20	Sep-22	23	1.53	1.41	1.05	2.84	0.42
Lake Diana	17B	Oct-20	Sep-22	23	1.41	1.36	0.36	2.29	0.41
Fleischmann Lake	19B	Dec-14	Sep-22	83	1.40	1.24	0.774	5.78	0.73
Devils Lake	1SE-B	Dec-14	Sep-22	78	1.08	1.06	0.03	1.99	0.26
Forest Lake	20B	Dec-14	Sep-22	78	1.72	1.46	0.72	6.69	0.87
Willow	21B	Oct-20	Sep-22	23	1.10	1.11	0.03	1.88	0.36
Lake Manor	22B	Dec-14	Sep-22	78	0.91	0.86	0.36	2.84	0.35
Lowdermilk	23B	Oct-20	Sep-22	23	0.69	0.69	0.40	1.03	0.18
NCH Lake	26B	Dec-14	Sep-22	78	1.30	1.20	0.25	7.75	0.87
Swan Lake	2B	Dec-14	Sep-22	72	1.30	1.14	0.61	3.50	0.54
Colonnade Lake	3B	Dec-14	Sep-22	78	1.14	1.07	0.62	2.52	0.30
Hidden	4B	Oct-20	Sep-22	23	1.00	0.94	0.37	1.42	0.31
Lake Suzanne	5B	Dec-14	Sep-22	78	1.15	1.12	0.19	2.50	0.40
Mandarin Lake	6B	Dec-14	Sep-22	54	1.03	0.94	0.25	1.87	0.30
North Lake	8B	Oct-17	Sep-22	59	3.40	1.96	1.13	46.5	6.02
South Lake	9B	Dec-14	Sep-22	78	1.88	1.55	0.03	9.63	1.21
Public Works Pump	PW-Pump	Dec-14	Sep-22	47	1.29	1.26	0.93	1.90	0.22

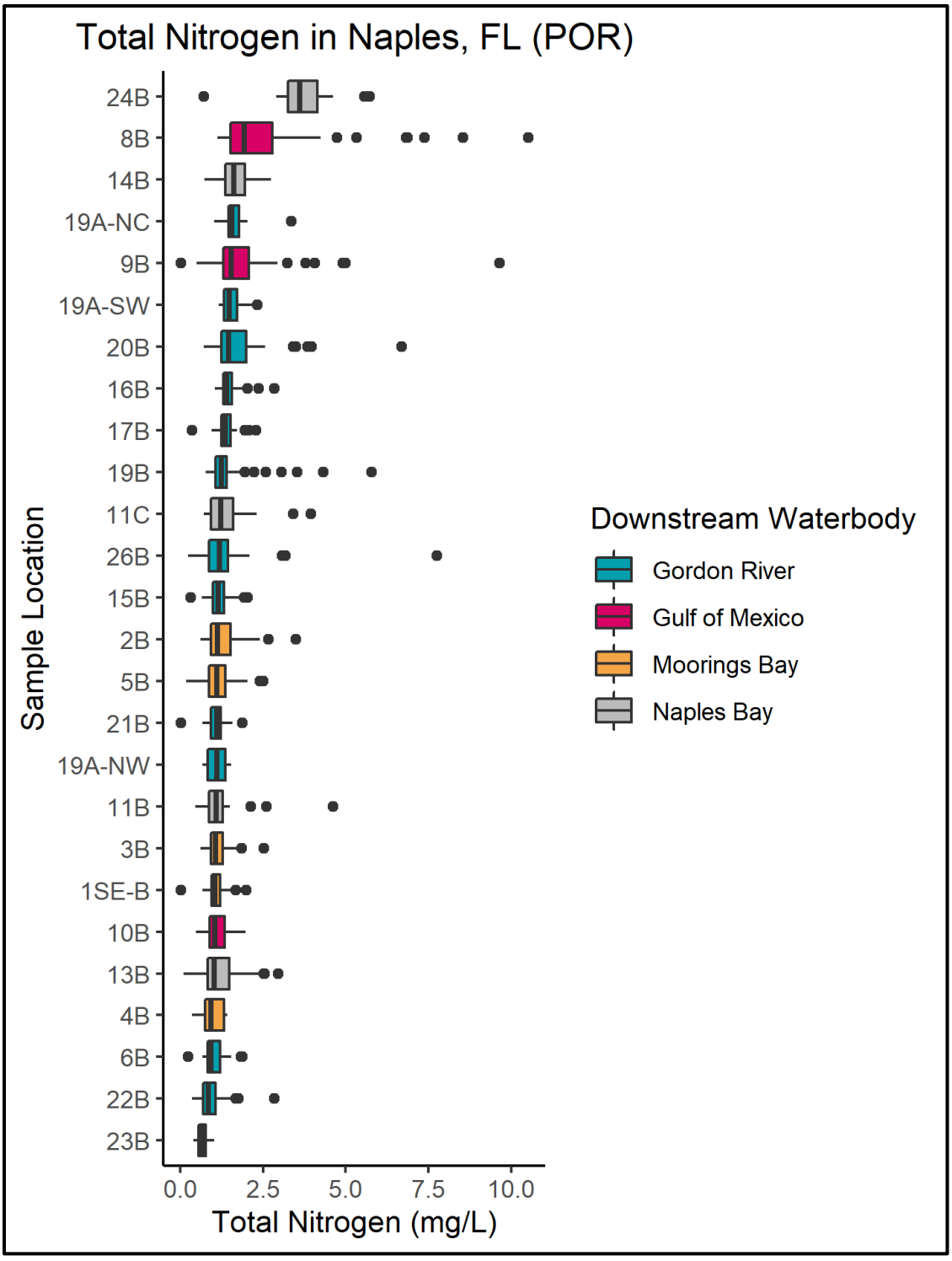


Figure 3-8. Total Nitrogen Box Plots by Sampling Location, Available Period of Record (Note: Included in box plot are results from the following stations not included in the current sampling program: 19A-SW, 19A-NC, 19A-NW, 24B).

Table 3-7. Ammonia nitrogen period of record summary statistics by sampling location.

Lake Name	Station ID	POR Start	POR End	Count	Ammonia Concentration (mg/L)				
					Average	Median	Min.	Max.	Standard Dev.
Alligator Lake	10B	Dec-14	Sep-22	48	0.08	0.02	0.004	0.86	0.14
Cove Pump	11-Pump	Dec-14	Sep-22	47	0.34	0.31	0.16	1.36	0.17
East Lake	11B	Dec-14	Sep-22	46	0.04	0.01	0.004	0.75	0.11
Spring Lake	11C	Oct-20	Sep-22	21	0.05	0.004	0.004	0.67	0.14
Lake 13	13B	Oct-20	Sep-22	23	0.26	0.24	0.004	1.11	0.28
Port Royal Pump	14-Pump	Dec-14	Sep-22	47	0.38	0.34	0.004	1.10	0.21
Lantern Lake	14B	Dec-14	Sep-22	48	0.13	0.05	0.004	0.97	0.20
Sun Lake Terrace	15B	Dec-14	Sep-22	54	0.04	0.01	0.004	0.27	0.06
Thurner	16B	Oct-20	Sep-22	23	0.07	0.02	0.004	0.42	0.11
Lake Diana	17B	Oct-20	Sep-22	23	0.05	0.004	0.004	0.68	0.14
Fleischmann Lake	19B	Dec-14	Sep-22	83	0.06	0.004	0.004	1.04	0.14
Devils Lake	1SE-B	Dec-14	Sep-22	78	0.04	0.02	0.004	0.25	0.05
Forest Lake	20B	Dec-14	Sep-22	78	0.05	0.01	0.004	1.11	0.14
Willow	21B	Oct-20	Sep-22	23	0.04	0.004	0.004	0.21	0.06
Lake Manor	22B	Dec-14	Sep-22	78	0.04	0.004	0.004	0.39	0.06
Lowdermilk	23B	Oct-20	Sep-22	23	0.25	0.23	0.004	0.73	0.22
NCH Lake	26B	Dec-14	Sep-22	78	0.03	0.004	0.004	0.32	0.05
Swan Lake	2B	Dec-14	Sep-22	72	0.06	0.01	0.004	0.68	0.12
Colonnade Lake	3B	Dec-14	Sep-22	78	0.09	0.03	0.004	0.40	0.11
Hidden	4B	Oct-20	Sep-22	23	0.08	0.08	0.004	0.21	0.07
Lake Suzanne	5B	Dec-14	Sep-22	78	0.06	0.03	0.004	0.35	0.08
Mandarin Lake	6B	Dec-14	Sep-22	54	0.02	0.004	0.004	0.12	0.02
North Lake	8B	Oct-17	Sep-22	59	0.04	0.01	0.004	0.40	0.07
South Lake	9B	Dec-14	Sep-22	78	0.08	0.01	0.004	2.21	0.29
Public Works Pump	PW-Pump	Dec-14	Sep-22	47	0.33	0.35	0.10	0.54	0.09

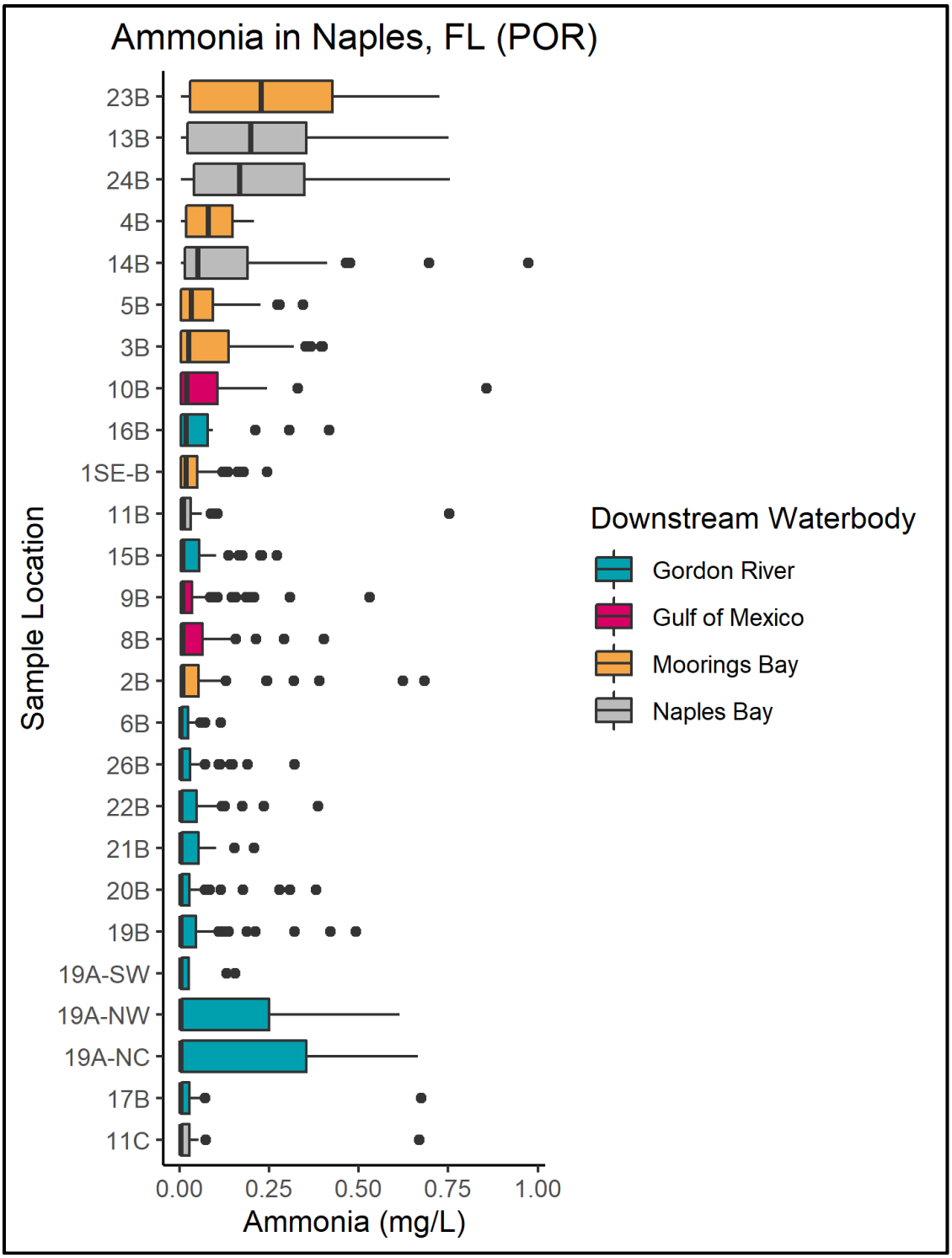


Figure 3-9. Ammonia Nitrogen Box Plots by Sampling Location, Available Period of Record (Note: Included in box plot are results from the following stations not included in the current sampling program: 19A-SW, 19A-NC, 19A-NW, 24B).

Table 3-8. Total Kjeldahl Nitrogen period of record summary statistics by sampling location.

Lake Name	Station ID	POR Start	POR End	Count	Total Kjeldahl Nitrogen Concentration (mg/L)				
					Average	Median	Min.	Max.	Standard Dev.
Alligator Lake	10B	Dec-14	Sep-22	48	1.087	1.05	0.477	1.970	0.363
Cove Pump	11-Pump	Dec-14	Sep-22	47	1.131	1.06	0.502	2.46	0.312
East Lake	11B	Dec-14	Sep-22	46	1.155	1.045	0.463	4.620	0.635
Spring Lake	11C	Oct-20	Sep-22	21	1.460	1.230	0.726	3.780	0.834
Lake 13	13B	Oct-20	Sep-21	23	1.281	1.010	0.101	2.970	0.741
Port Royal Pump	14-Pump	Dec-14	Sep-22	47	2.274	1.150	0.148	45.50	6.493
Lantern Lake	14B	Dec-14	Sep-22	48	1.635	1.560	0.708	2.560	0.426
Sun Lake Terrace	15B	Dec-14	Sep-22	54	1.117	1.055	0.284	1.990	0.320
Thurner	16B	Oct-20	Sep-22	23	1.505	1.360	1.050	2.850	0.421
Lake Diana	17B	Oct-20	Sep-22	23	1.386	1.330	0.359	2.290	0.417
Fleischmann Lake	19B	Dec-14	Sep-22	83	1.358	1.220	0.532	5.710	0.697
Devils Lake	1SE-B	Dec-14	Sep-22	78	1.033	1.020	0.577	1.810	0.208
Forest Lake	20B	Dec-14	Sep-22	78	1.671	1.460	0.707	6.600	0.834
Willow	21B	Oct-20	Sep-22	23	1.128	1.080	0.647	1.860	0.272
Lake Manor	22B	Dec-14	Sep-22	78	0.882	0.832	0.362	2.830	0.348
Lowdermilk	23B	Oct-20	Sep-22	23	0.676	0.686	0.403	1.030	0.180
NCH Lake	26B	Dec-14	Sep-22	78	1.282	1.170	0.248	7.740	0.875
Swan Lake	2B	Dec-14	Sep-22	72	1.259	1.095	0.609	3.500	0.539
Colonnade Lake	3B	Dec-14	Sep-22	78	1.073	1.020	0.586	2.520	0.292
Hidden	4B	Oct-20	Sep-22	23	0.894	0.840	0.269	1.350	0.288
Lake Suzanne	5B	Dec-14	Sep-22	78	1.065	1.025	0.163	2.480	0.381
Mandarin Lake	6B	Dec-14	Sep-22	54	1.018	0.926	0.248	1.870	0.282
North Lake	8B	Oct-17	Sep-22	59	3.331	1.960	1.110	46.400	5.991
South Lake	9B	Dec-14	Sep-22	78	1.873	1.530	0.496	9.600	1.182
Public Works Pump	PW-Pump	Dec-14	Sep-22	47	1.059	1.020	0.692	1.570	0.203

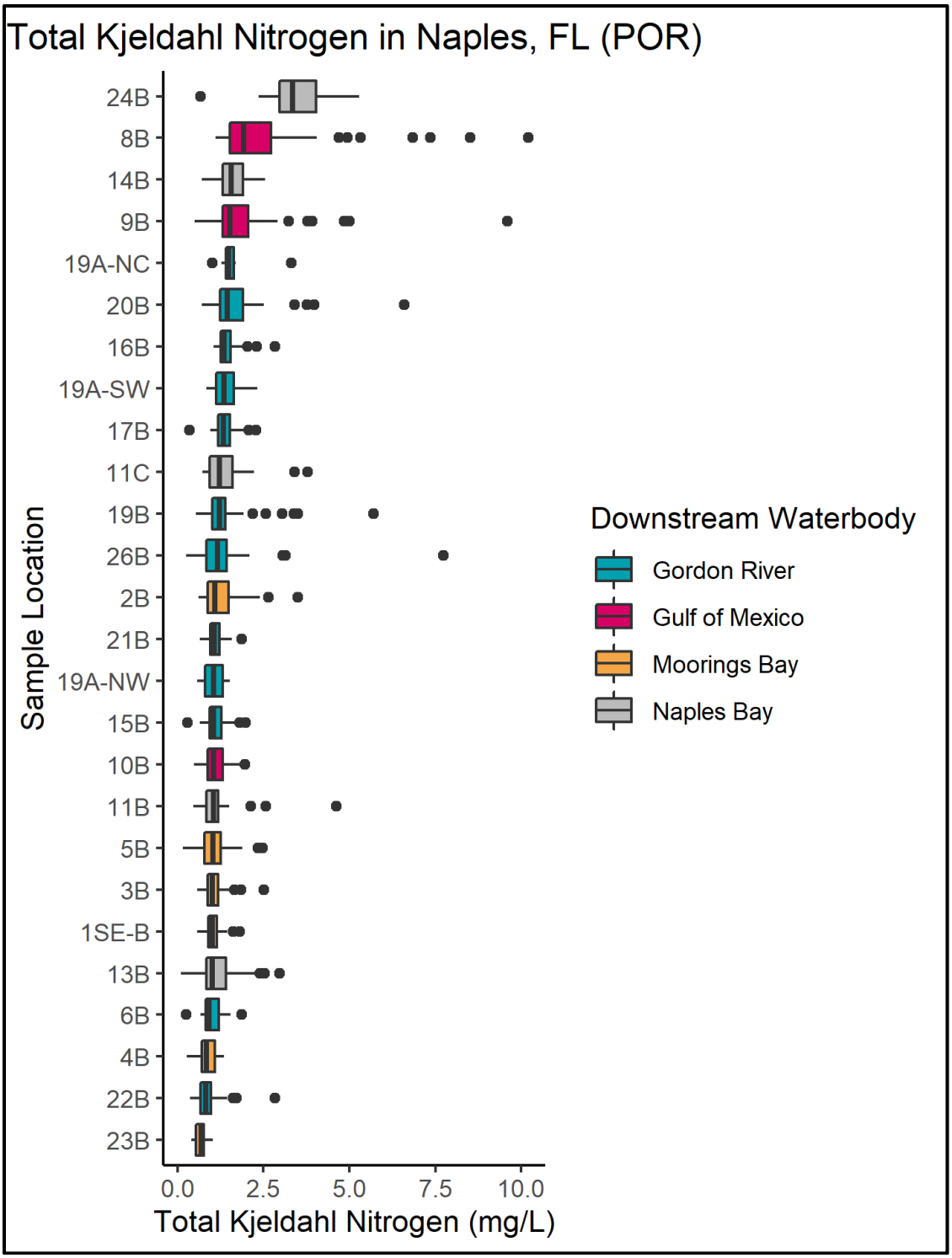


Figure 3-10. Total Kjeldahl Nitrogen Box Plots by Sampling Location, Available Period of Record (Note: Included in box plot are results from the following stations not included in the current sampling program: 19A-SW, 19A-NC, 19A-NW, 24B).

Table 3-9. Nitrate and nitrite period of record summary statistics by sampling location.

Lake Name	Station ID	POR Start	POR End	Count	Nitrate+Nitrite Concentration (mg/L)				
					Average	Median	Min.	Max.	Standard Dev.
Alligator Lake	10B	Dec-14	Sep-22	48	0.027	0.011	0.002	0.236	0.045
Cove Pump	11-Pump	Dec-14	Sep-22	47	0.298	0.303	0.106	0.496	0.085
East Lake	11B	Dec-14	Sep-22	46	0.036	0.011	0.003	0.344	0.060
Spring Lake	11C	Oct-20	Sep-22	21	0.019	0.003	0.003	0.170	0.046
Lake 13	13B	Oct-20	Sep-21	23	0.017	0.003	0.003	0.091	0.025
Port Royal Pump	14-Pump	Dec-14	Sep-22	47	0.177	0.17	0.059	0.468	0.088
Lantern Lake	14B	Dec-14	Sep-22	48	0.044	0.015	0.002	0.263	0.059
Sun Lake Terrace	15B	Dec-14	Sep-22	54	0.065	0.017	0.002	0.418	0.0.98
Thurner	16B	Oct-20	Sep-22	23	0.030	0.010	0.003	0.197	0.047
Lake Diana	17B	Oct-20	Sep-22	23	0.020	0.003	0.003	0.206	0.046
Fleischmann Lake	19B	Dec-14	Sep-22	83	0.042	0.013	0.002	0.945	0.121
Devils Lake	1SE-B	Dec-14	Sep-22	78	0.062	0.033	0.002	0.282	0.075
Forest Lake	20B	Dec-14	Sep-22	78	0.051	0.003	0.002	1.940	0.230
Willow	21B	Oct-20	Sep-22	23	0.014	0.003	0.003	0.104	0.024
Lake Manor	22B	Dec-14	Sep-22	78	0.033	0.010	0.002	0.390	0.059
Lowdermilk	23B	Oct-20	Sep-22	23	0.018	0.003	0.003	0.165	0.038
NCH Lake	26B	Dec-14	Sep-22	78	0.019	0.006	0.002	0.187	0.031
Swan Lake	2B	Dec-14	Sep-22	72	0.046	0.024	0.002	0.265	0.057
Colonnade Lake	3B	Dec-14	Sep-22	78	0.066	0.029	0.002	0.693	0.097
Hidden	4B	Oct-20	Sep-22	23	0.106	0.096	0.003	0.268	0.085
Lake Suzanne	5B	Dec-14	Sep-22	78	0.081	0.059	0.003	0.367	0.078
Mandarin Lake	6B	Dec-14	Sep-22	54	0.019	0.003	0.002	0.317	0.052
North Lake	8B	Oct-17	Sep-22	59	0.073	0.014	0.003	1.880	0.249
South Lake	9B	Dec-14	Sep-22	78	0.030	0.014	0.002	0.291	0.049
Public Works Pump	PW-Pump	Dec-14	Sep-22	47	0.234	0.230	0.103	0.675	0.090

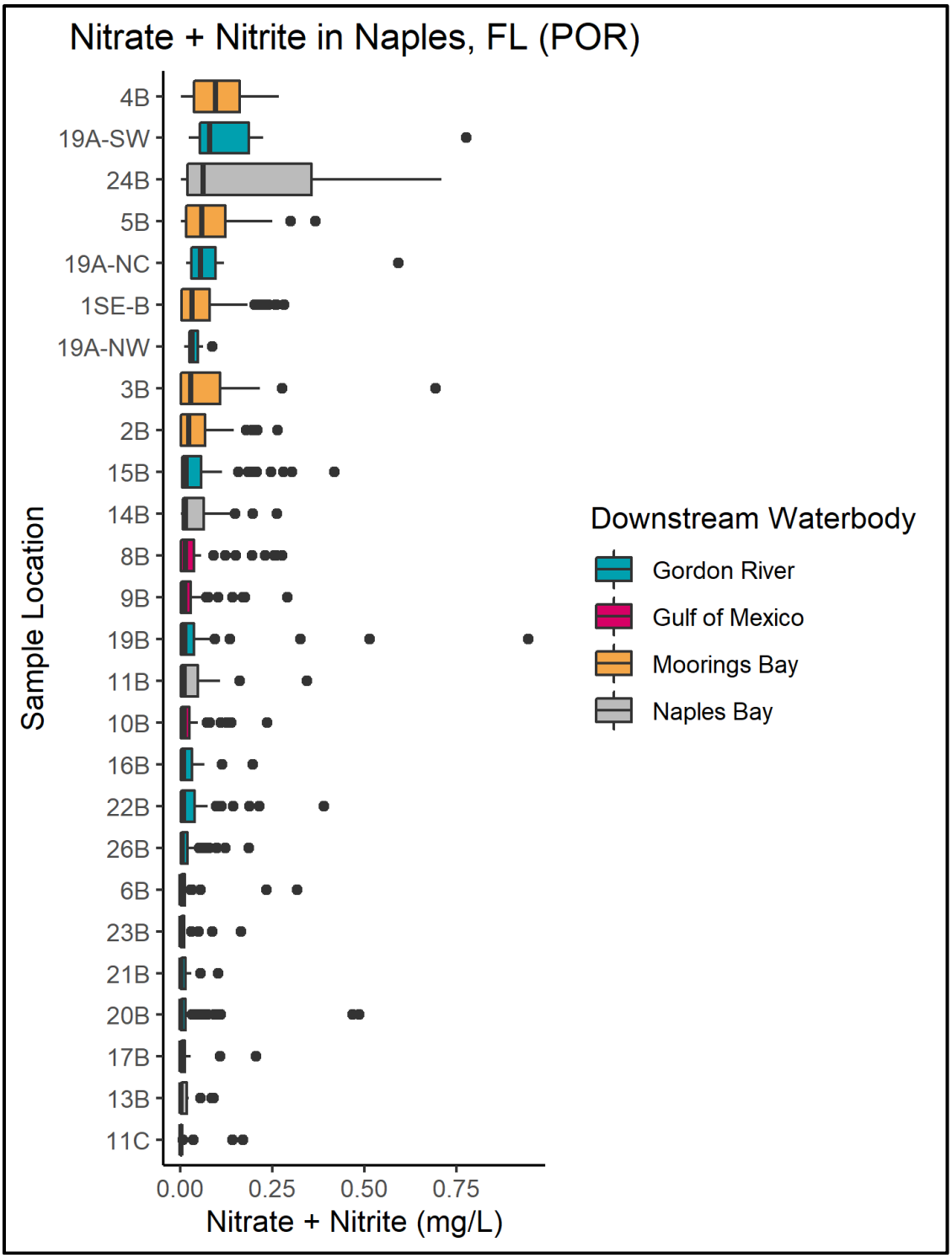


Figure 3-11. Nitrate and Nitrite Box Plots by Sampling Location, Available Period of Record (Note: Included in box plot are results from the following stations not included in the current sampling program: 19A-SW, 19A-NC, 19A-NW, 24B).

Table 3-10. Total phosphorus period of record summary statistics by sampling location.

Lake Name	Station ID	POR Start	POR End	Count	Total Phosphorus Concentration (mg/L)				
					Average	Median	Min.	Max.	Standard Dev.
Alligator Lake	10B	Dec-14	Sep-22	48	0.114	0.109	0.009	0.254	0.050
Cove Pump	11-Pump	Dec-14	Sep-22	47	0.128	0.123	0.046	0.222	0.038
East Lake	11B	Dec-14	Sep-22	46	0.088	0.071	0.010	0.398	0.069
Spring Lake	11C	Oct-20	Sep-22	21	0.060	0.057	0.023	0.143	0.025
Lake 13	13B	Oct-20	Sep-21	23	0.096	0.069	0.008	0.235	0.069
Port Royal Pump	14-Pump	Dec-14	Sep-22	47	0.378	0.303	0.025	1.210	0.230
Lantern Lake	14B	Dec-14	Sep-22	48	0.432	0.400	0.059	1.040	0.245
Sun Lake Terrace	15B	Dec-14	Sep-22	54	0.051	0.041	0.004	0.356	0.052
Thurner	16B	Oct-20	Sep-22	23	0.069	0.067	0.033	0.154	0.027
Lake Diana	17B	Oct-20	Sep-22	23	0.163	0.165	0.050	0.322	0.058
Fleischmann Lake	19B	Dec-14	Sep-22	83	0.080	0.071	0.004	0.270	0.050
Devils Lake	1SE-B	Dec-14	Sep-22	78	0.044	0.038	0.004	0.208	0.030
Forest Lake	20B	Dec-14	Sep-22	78	0.077	0.053	0.004	0.418	0.072
Willow	21B	Oct-20	Sep-22	23	0.046	0.043	0.008	0.094	0.024
Lake Manor	22B	Dec-14	Sep-22	78	0.078	0.074	0.004	0.265	0.052
Lowdermilk	23B	Oct-20	Sep-22	23	0.055	0.059	0.004	0.265	0.052
NCH Lake	26B	Dec-14	Sep-22	78	0.091	0.084	0.004	0.293	0.054
Swan Lake	2B	Dec-14	Sep-22	72	0.108	0.885	0.008	0.386	0.710
Colonnade Lake	3B	Dec-14	Sep-22	78	0.105	0.095	0.004	0.249	0.050
Hidden	4B	Oct-20	Sep-22	23	0.076	0.078	0.013	0.159	0.036
Lake Suzanne	5B	Dec-14	Sep-22	78	0.119	0.104	0.012	0.454	0.075
Mandarin Lake	6B	Dec-14	Sep-22	54	0.075	0.070	0.013	0.170	0.040
North Lake	8B	Oct-17	Sep-22	59	0.258	0.148	0.014	3.000	0.440
South Lake	9B	Dec-14	Sep-22	78	0.170	0.133	0.014	0.698	0.124
Public Works Pump	PW-Pump	Dec-14	Sep-22	47	0.109	0.096	0.029	0.354	0.065

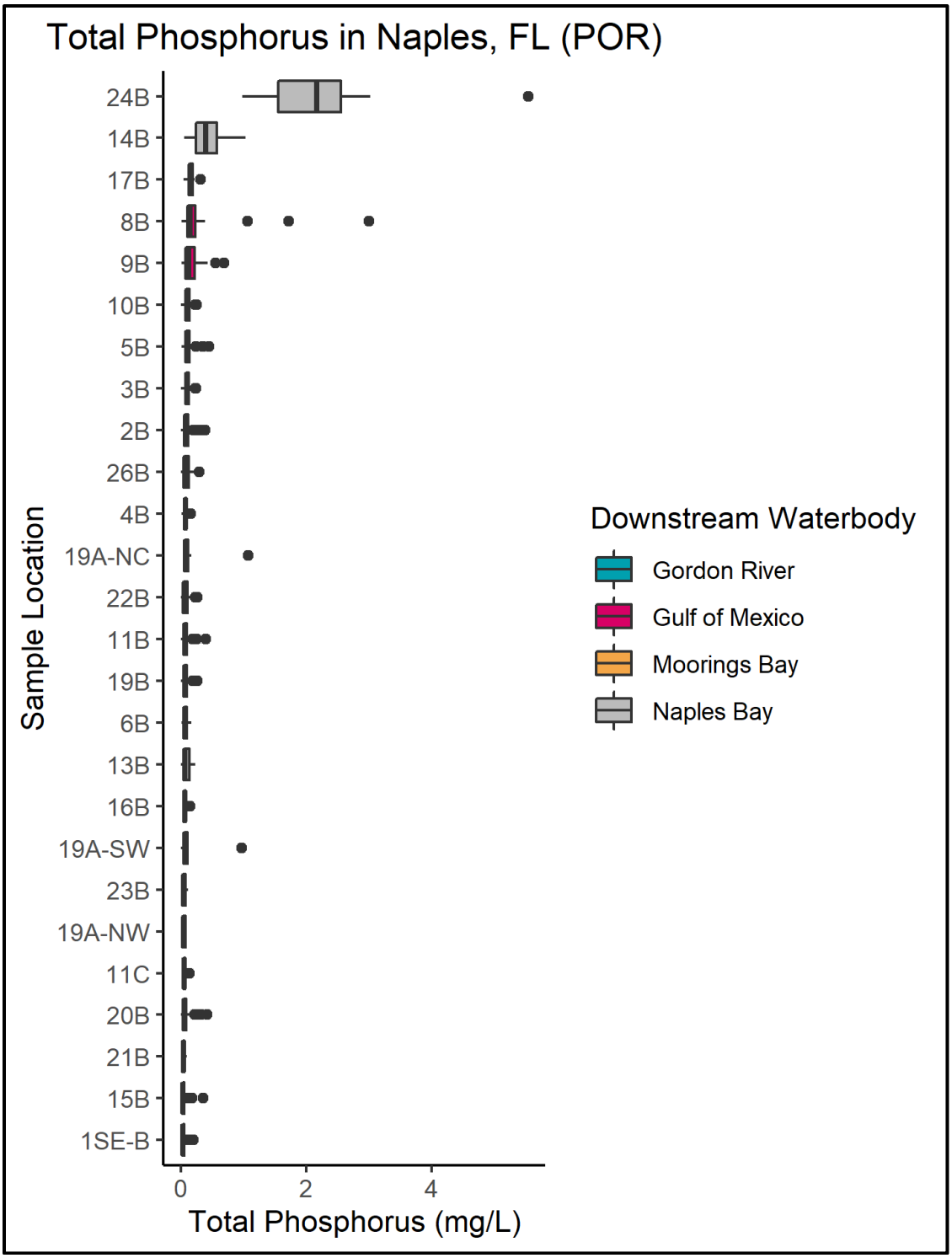


Figure 3-12. Total Phosphorus Box Plots by Sampling Location, Available Period of Record (Note: Included in box plot are results from the following stations not included in the current sampling program: 19A-SW, 19A-NC, 19A-NW, 24B).

Table 3-11. Orthophosphate period of record summary statistics by sampling location.

Lake Name	Station ID	POR Start	POR End	Count	Orthophosphate Concentration (mg/L)				
					Average	Median	Min.	Max.	Standard Dev.
Alligator Lake	10B	Dec-14	Sep-22	48	0.070	0.066	0.002	0.226	0.045
Cove Pump	11-Pump	Dec-14	Sep-22	47	0.097	0.101	0.017	0.156	0.029
East Lake	11B	Dec-14	Sep-22	46	0.040	0.025	0.001	0.212	0.041
Spring Lake	11C	Oct-20	Sep-22	21	0.020	0.017	0.001	0.058	0.016
Lake 13	13B	Oct-20	Sep-21	23	0.052	0.050	0.001	0.132	0.044
Port Royal Pump	14-Pump	Dec-14	Sep-22	47	0.320	0.281	0.044	1.150	0.205
Lantern Lake	14B	Dec-14	Sep-22	48	0.298	0.259	0.001	0.804	0.207
Sun Lake Terrace	15B	Dec-14	Sep-22	54	0.014	0.008	0.001	0.055	0.014
Thurner	16B	Oct-20	Sep-22	23	0.022	0.014	0.001	0.053	0.017
Lake Diana	17B	Oct-20	Sep-22	23	0.097	0.079	0.050	0.245	0.044
Fleischmann Lake	19B	Dec-14	Sep-22	83	0.031	0.023	0.001	0.134	0.027
Devils Lake	1SE-B	Dec-14	Sep-22	78	0.015	0.009	0.001	0.101	0.016
Forest Lake	20B	Dec-14	Sep-22	78	0.019	0.014	0.001	0.230	0.027
Willow	21B	Oct-20	Sep-22	23	0.022	0.017	0.001	0.087	0.024
Lake Manor	22B	Dec-14	Sep-22	78	0.038	0.032	0.001	0.162	0.035
Lowdermilk	23B	Oct-20	Sep-22	23	0.029	0.027	0.001	0.101	0.022=
NCH Lake	26B	Dec-14	Sep-22	78	0.030	0.020	0.001	0.118	0.030
Swan Lake	2B	Dec-14	Sep-22	72	0.044	0.02993	0.001	0.289	0.047
Colonnade Lake	3B	Dec-14	Sep-22	78	0.051	0.044	0.001	0.148	0.034
Hidden	4B	Oct-20	Sep-22	23	0.045	0.044	0.002	0.111	0.027
Lake Suzanne	5B	Dec-14	Sep-22	78	0.062	0.052	0.001	0.362	0.060
Mandarin Lake	6B	Dec-14	Sep-22	54	0.035	0.033	0.001	0.156	0.029
North Lake	8B	Oct-17	Sep-22	59	0.056	0.048	0.001	0.200	0.041
South Lake	9B	Dec-14	Sep-22	78	0.071	0.041	0.005	0.276	0.063
Public Works Pump	PW-Pump	Dec-14	Sep-22	47	0.778	0.073	0.021	0.222	0.032

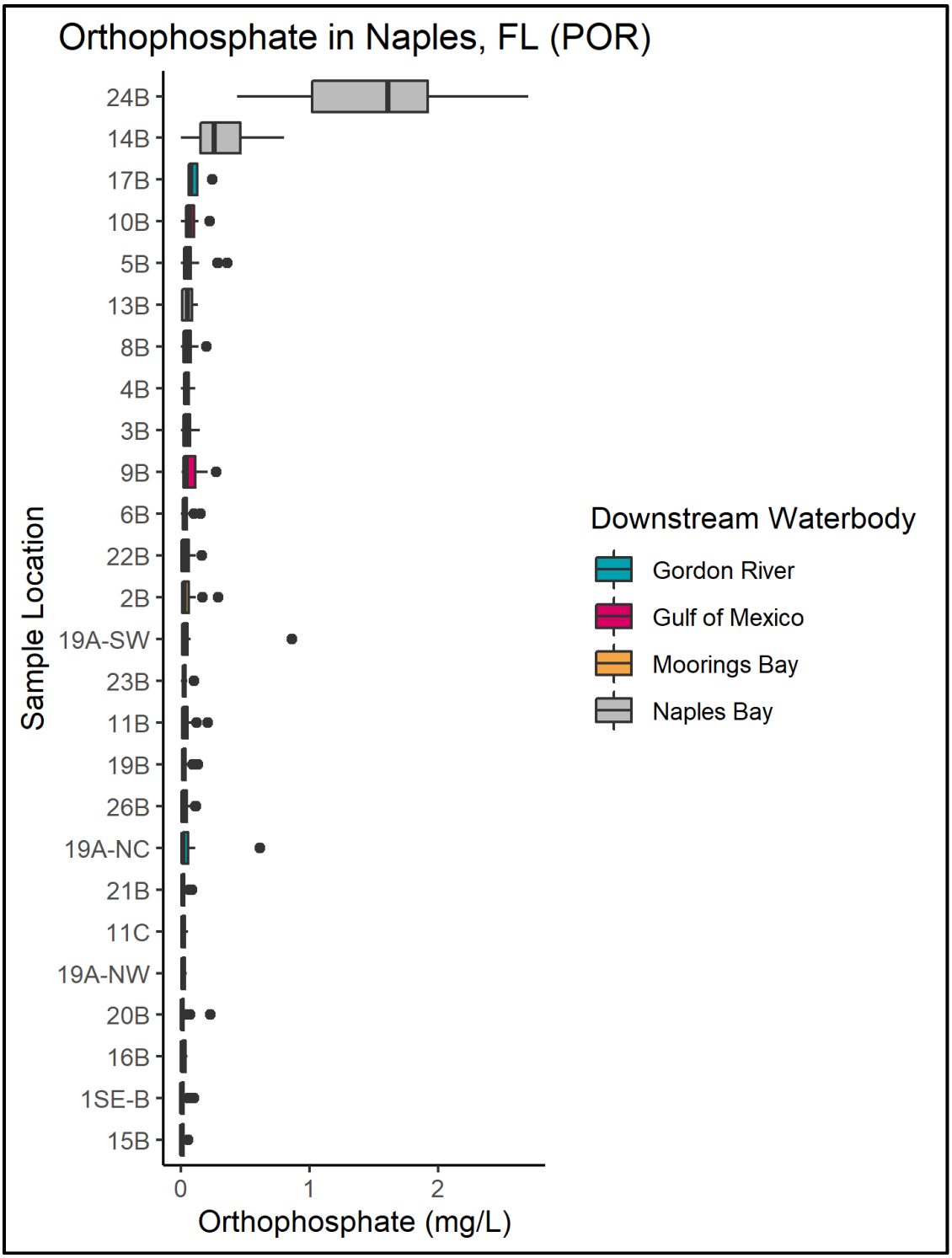


Figure 3-13. Orthophosphate Box Plots by Sampling Location, Available Period of Record (Note: Included in box plot are results from the following stations not included in the current sampling program: 19A-SW, 19A-NC, 19A-NW, 24B).

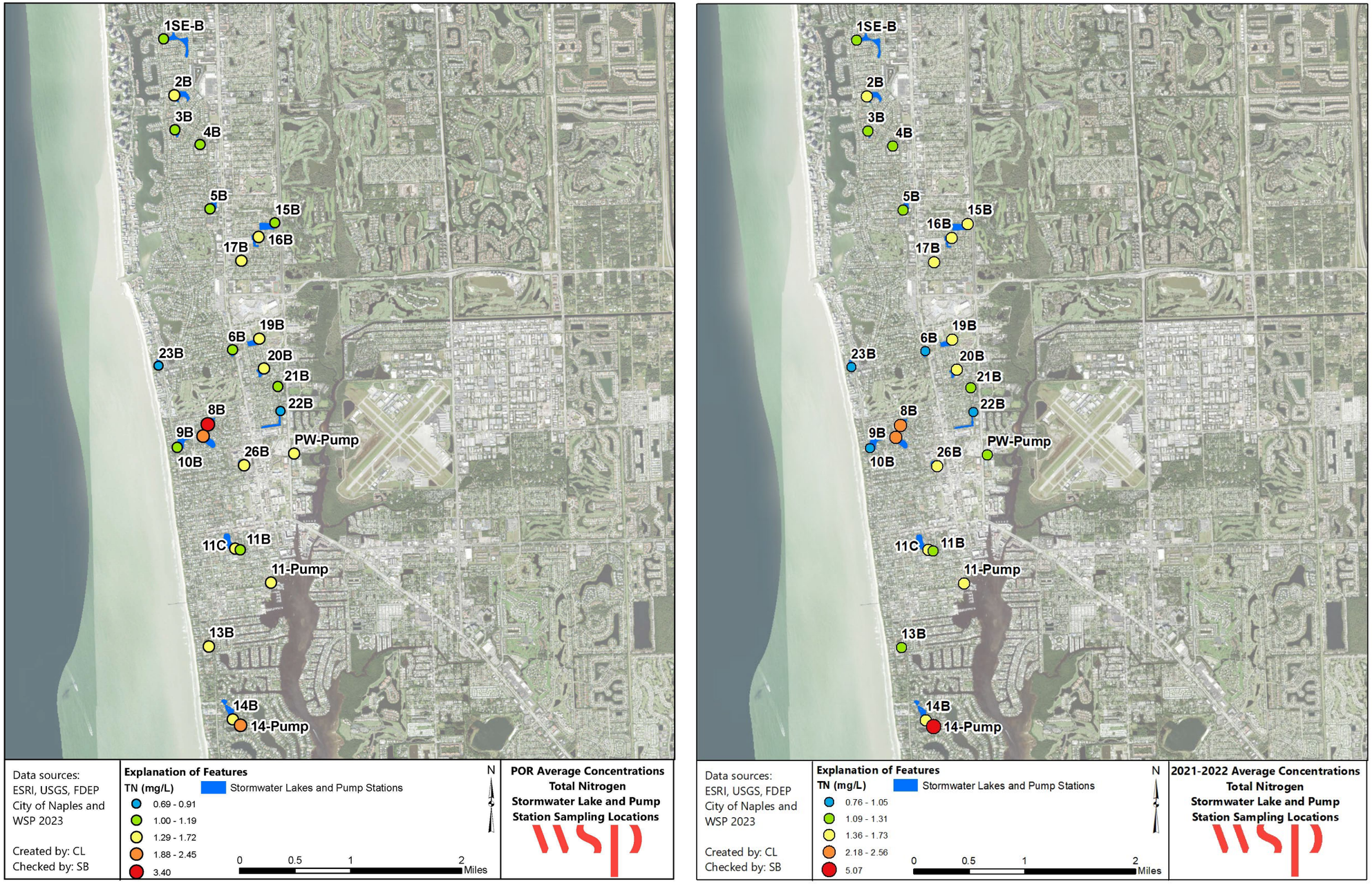


Figure 3-14. Average TN concentrations from the full POR dataset (left) and the 2021-2022 dataset (right) for locations monitored during the current program.

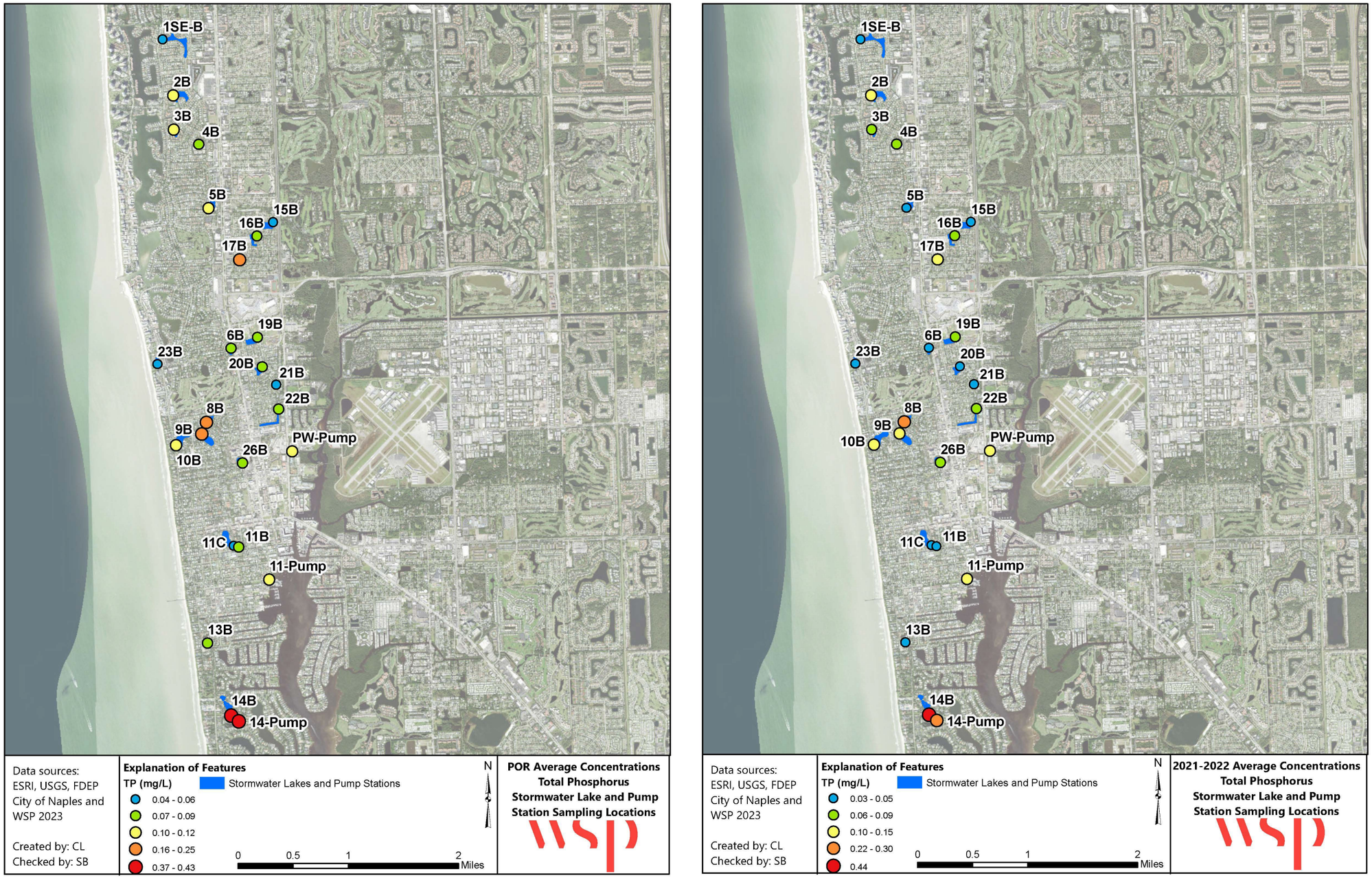


Figure 3-15. Average TP concentrations from the full POR dataset (left) and the 2021-2022 dataset (right) for locations monitored during the current program.

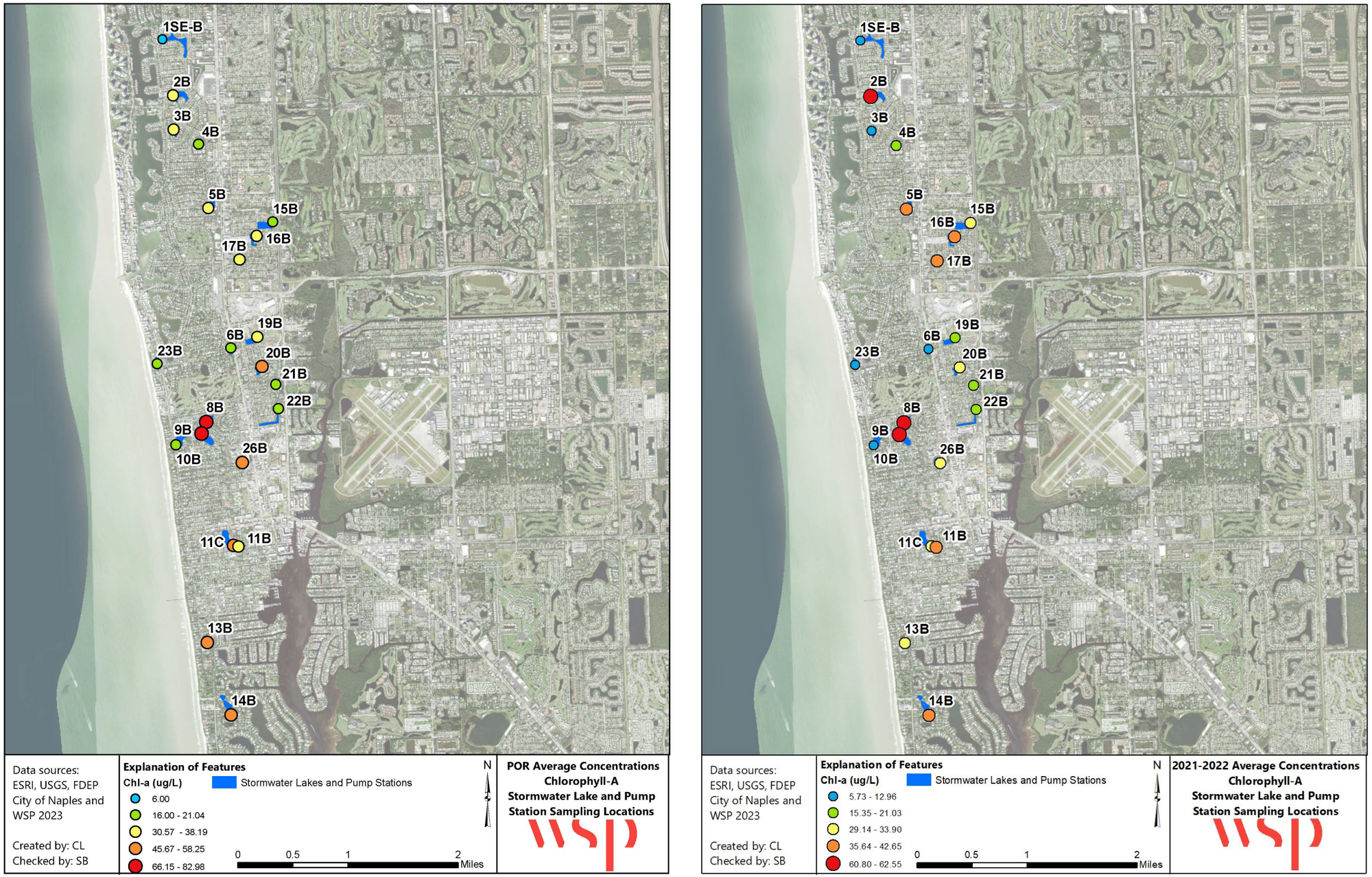


Figure 3-16. Average Chl-a concentrations from the full POR dataset (left) and the 2021-2022 dataset (right) for locations monitored during the current program.

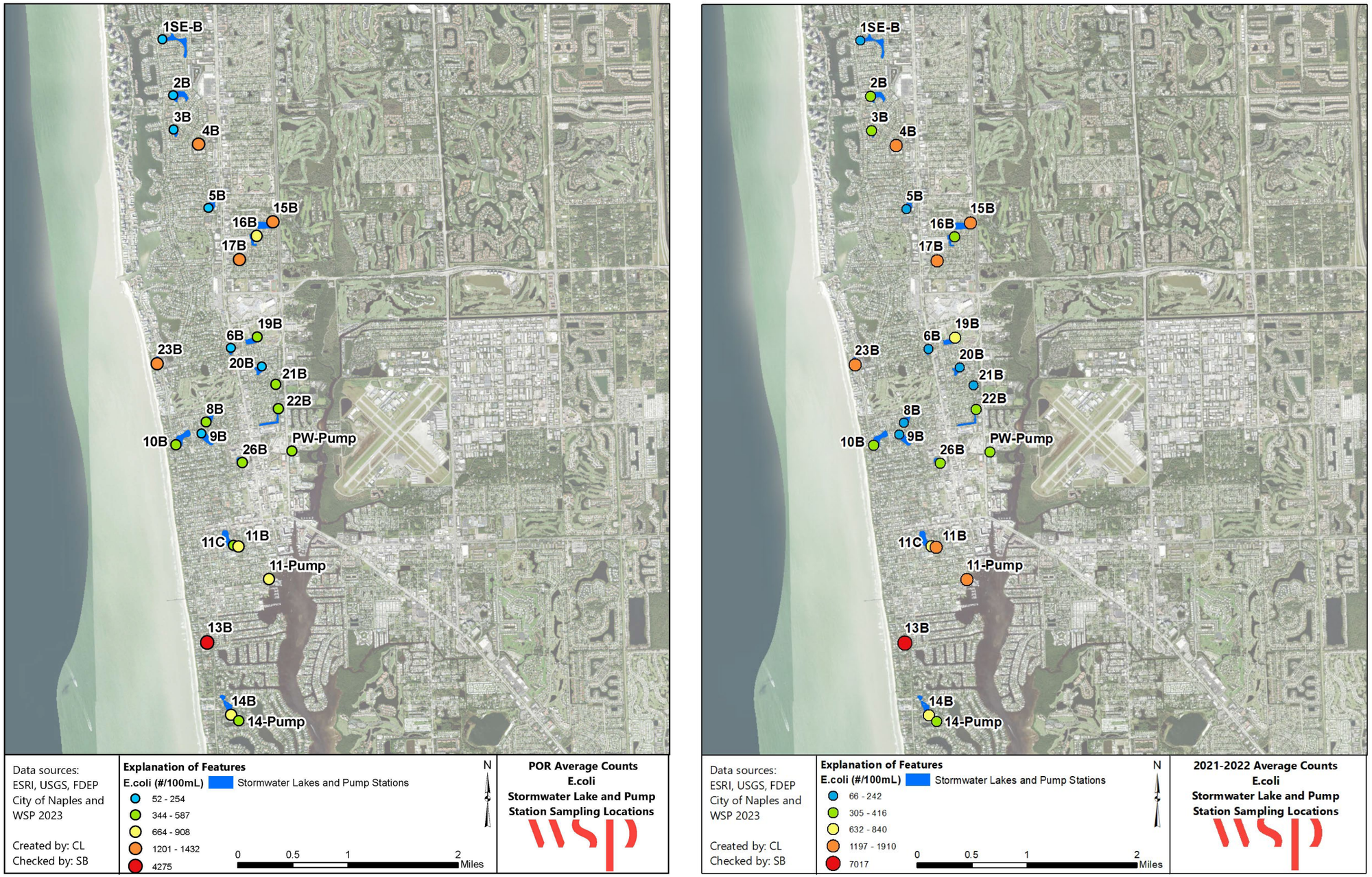


Figure 3-17. Average E. coli from the full POR dataset (left) and the 2021-2022 dataset (right) for locations monitored during the current program.

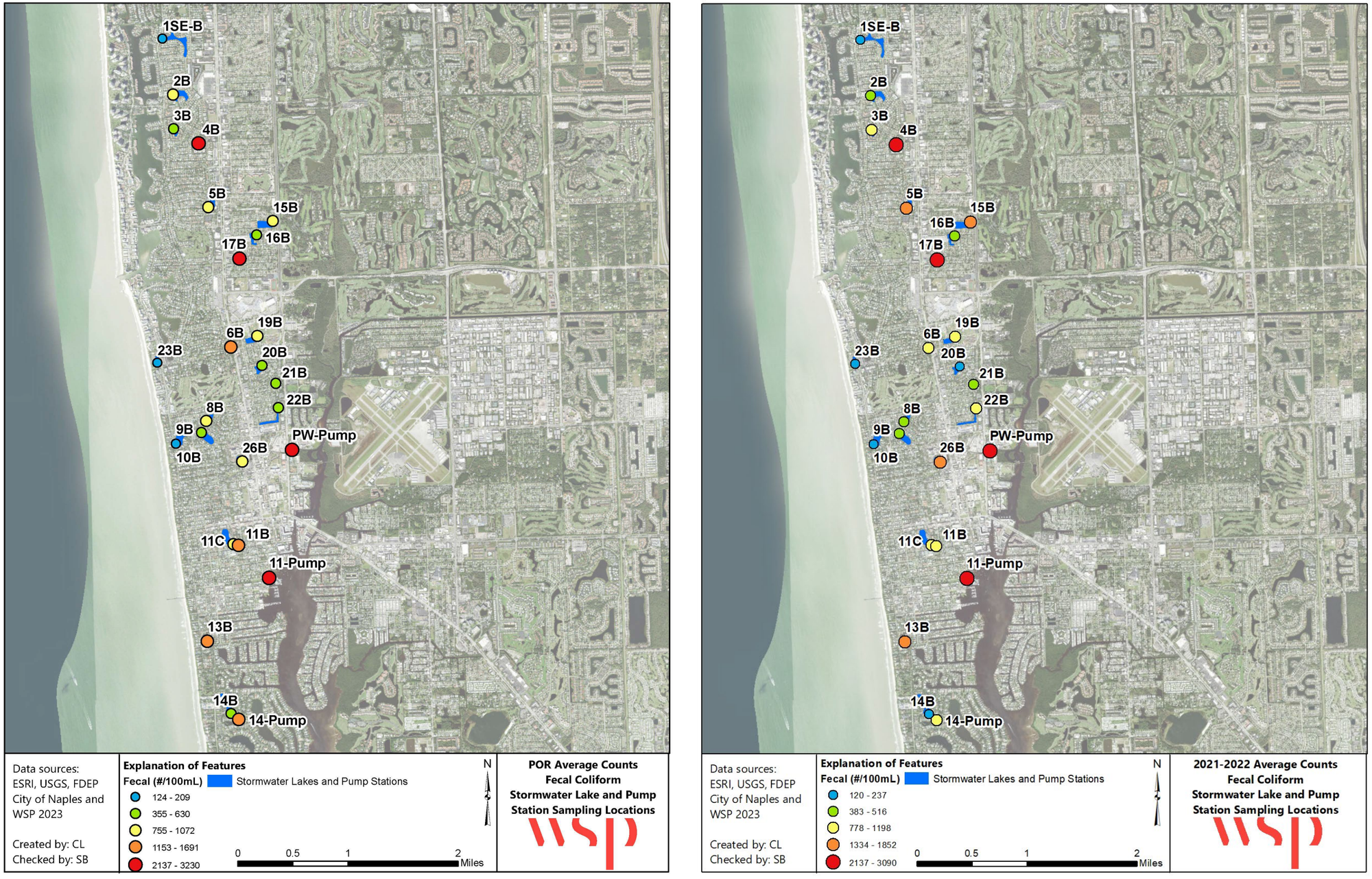


Figure 3-18. Average fecal coliform from the full POR dataset (left) and the 2021-2022 dataset (right) for locations monitored during the current program.

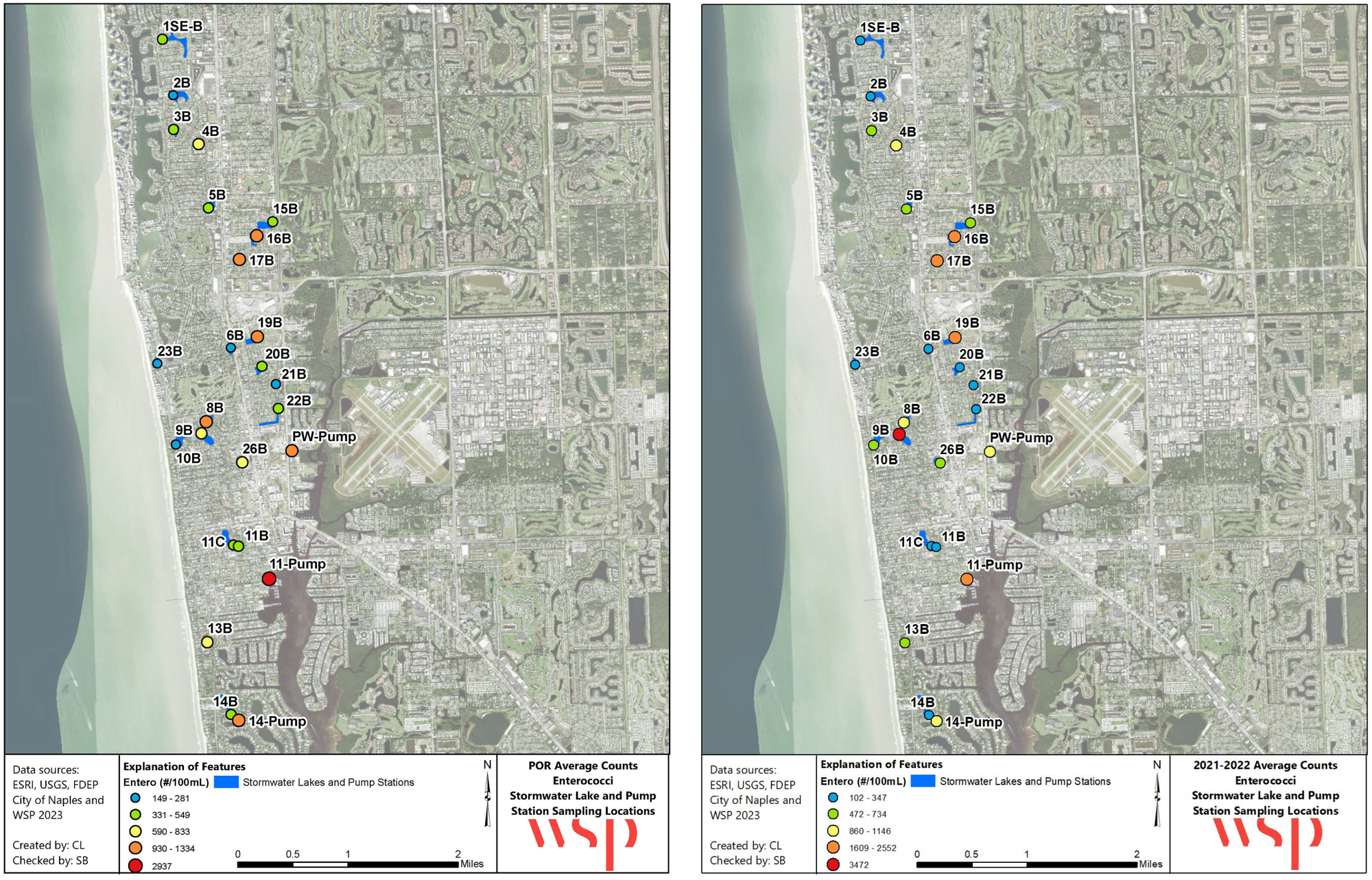
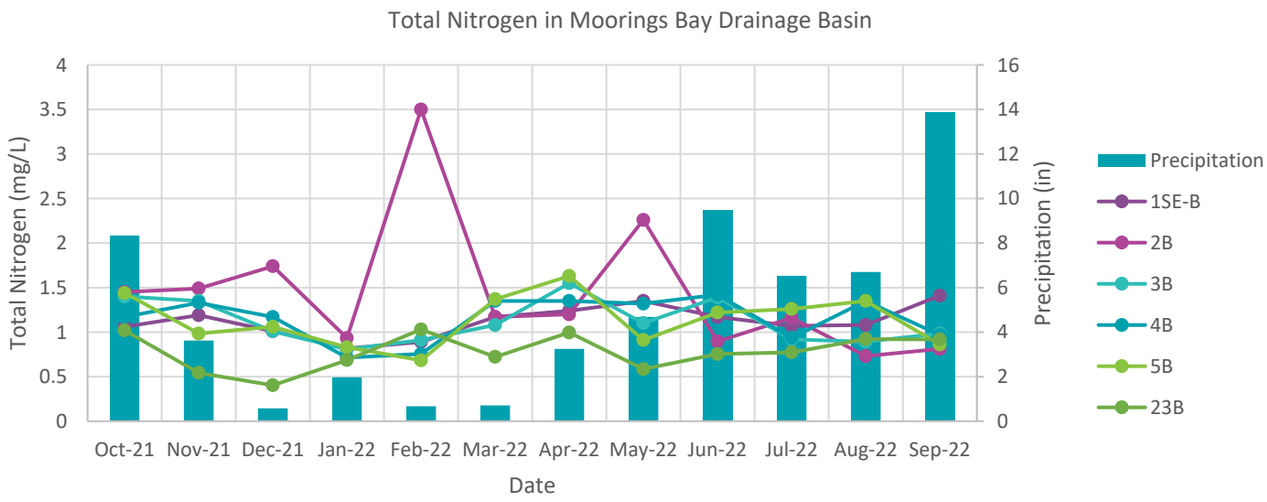
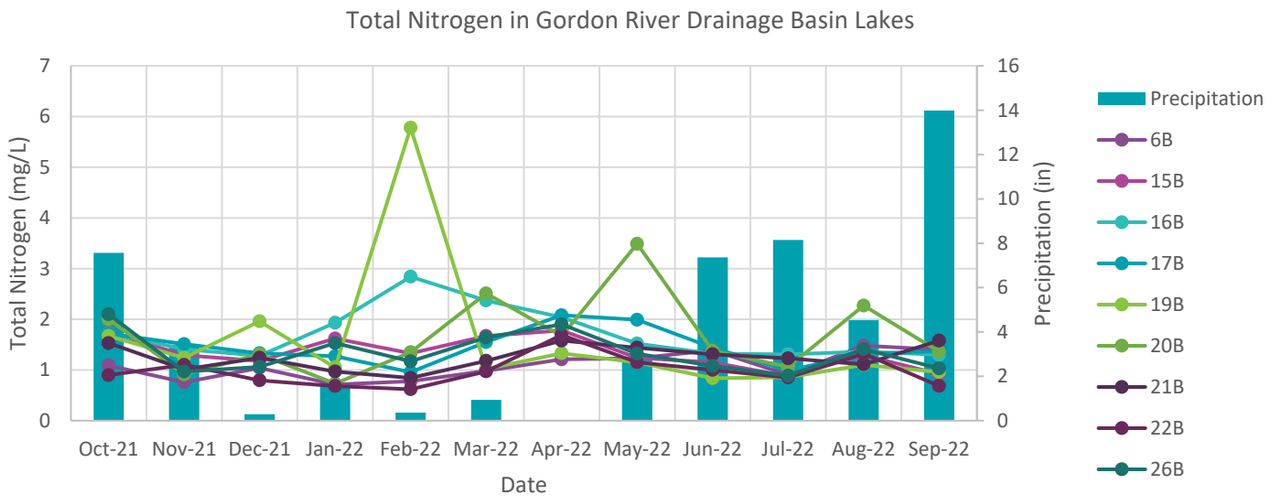


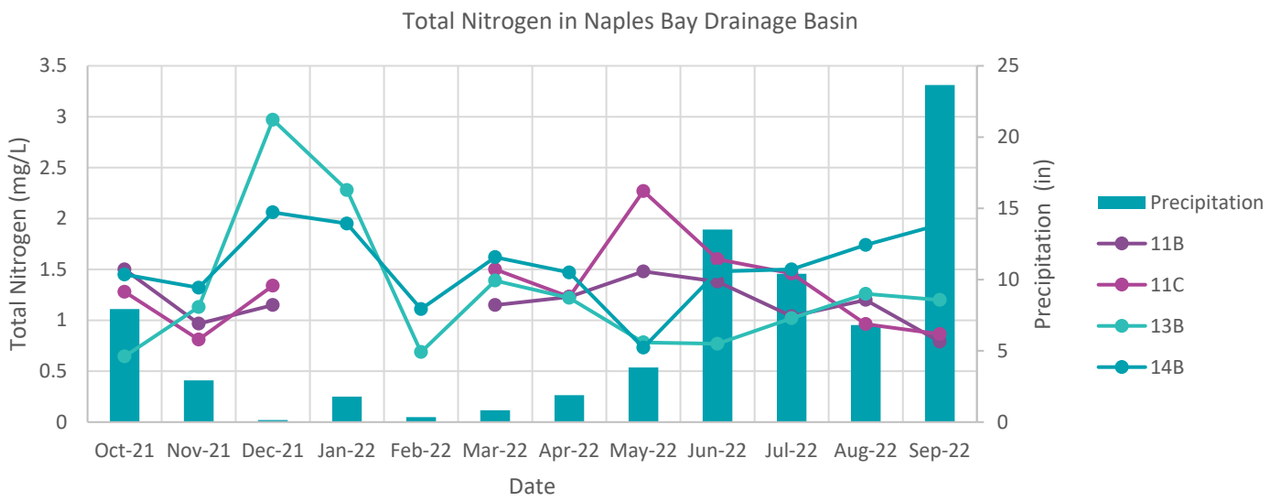
Figure 3-19. Average *Enterococci* from the full POR dataset (left) and the 2021-2022 dataset (right) for locations monitored during the current program.

3.3. Watershed Figures

Watershed figures are included below in **Figures 3-20** through **3-24.** Bars show monthly rainfall totals and points represent sample location concentrations of TN, TP, Chl-a, *Enterococci,* and Cu. Rainfall data is sourced from the City of Naples SCADA data and assigned as described in **Table 1-1.** Note that the September sample was collected on September 15, 2022, and the monthly rainfall represents the entire month of September.







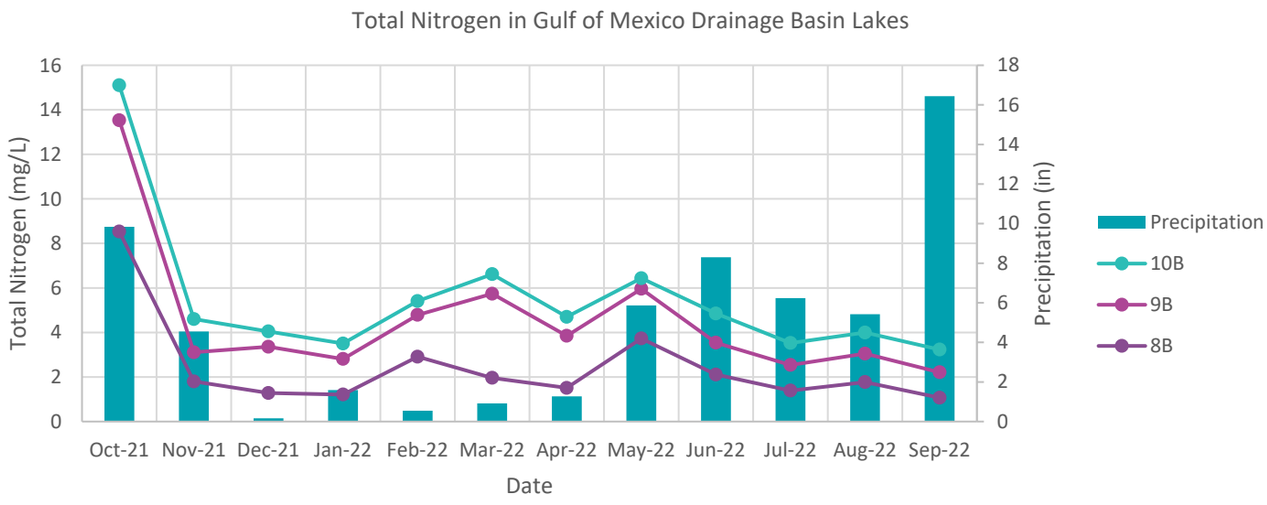
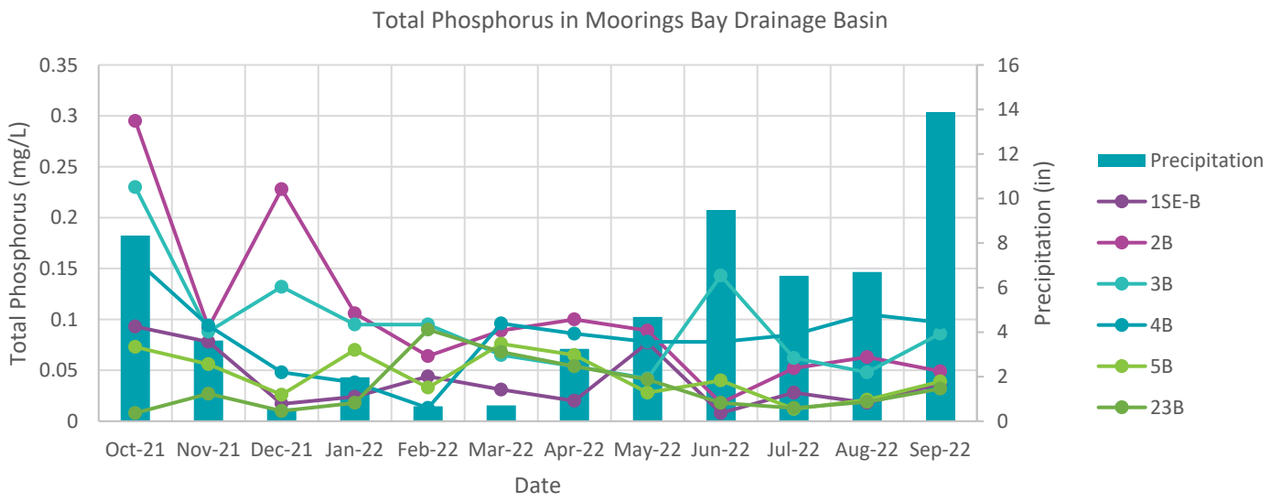
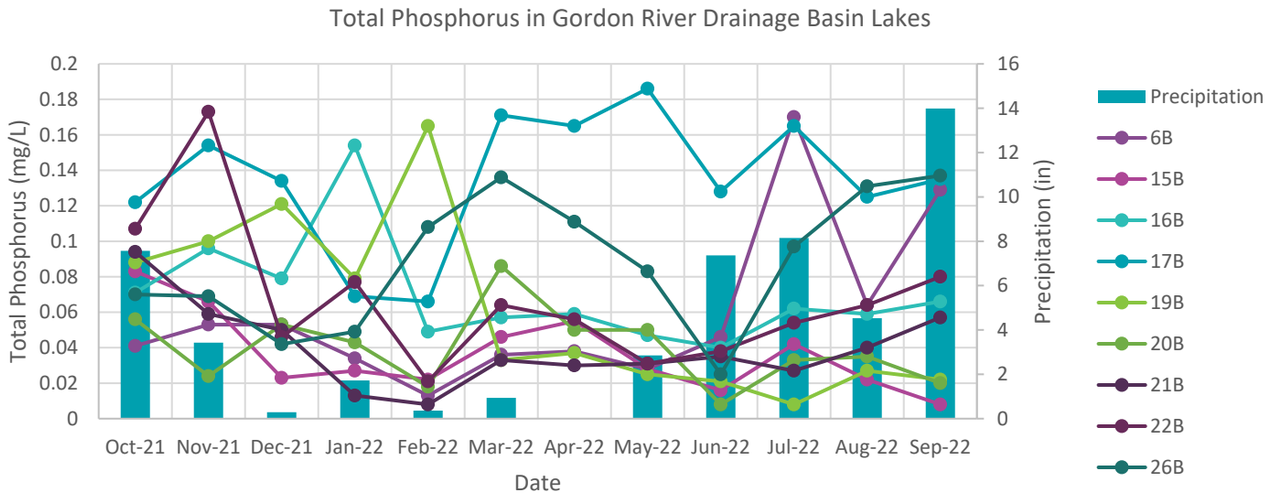
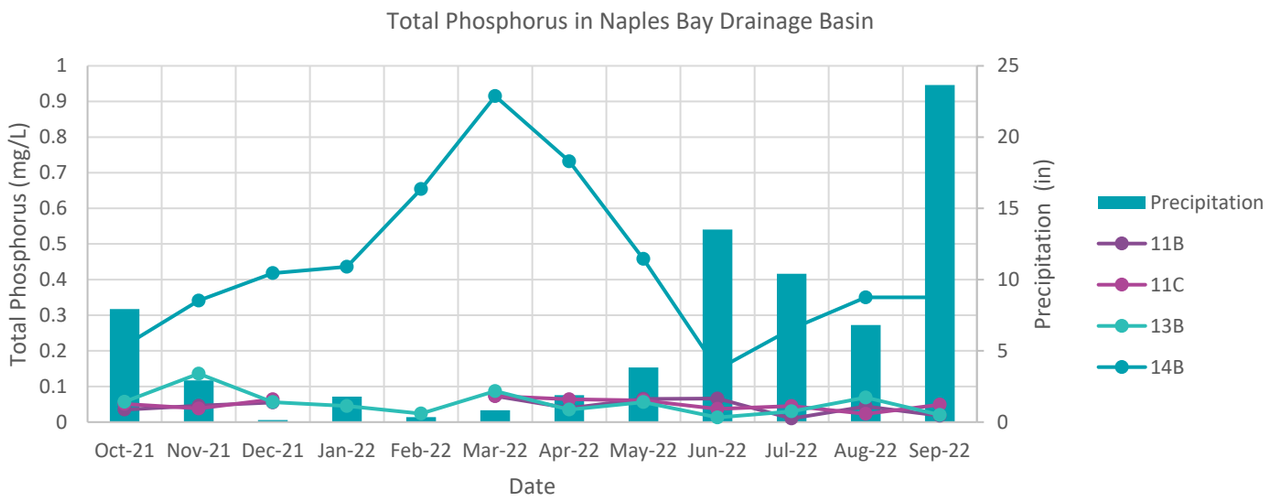


Figure 3-20. Time series plots of total nitrogen from October 2021 through September 2022.







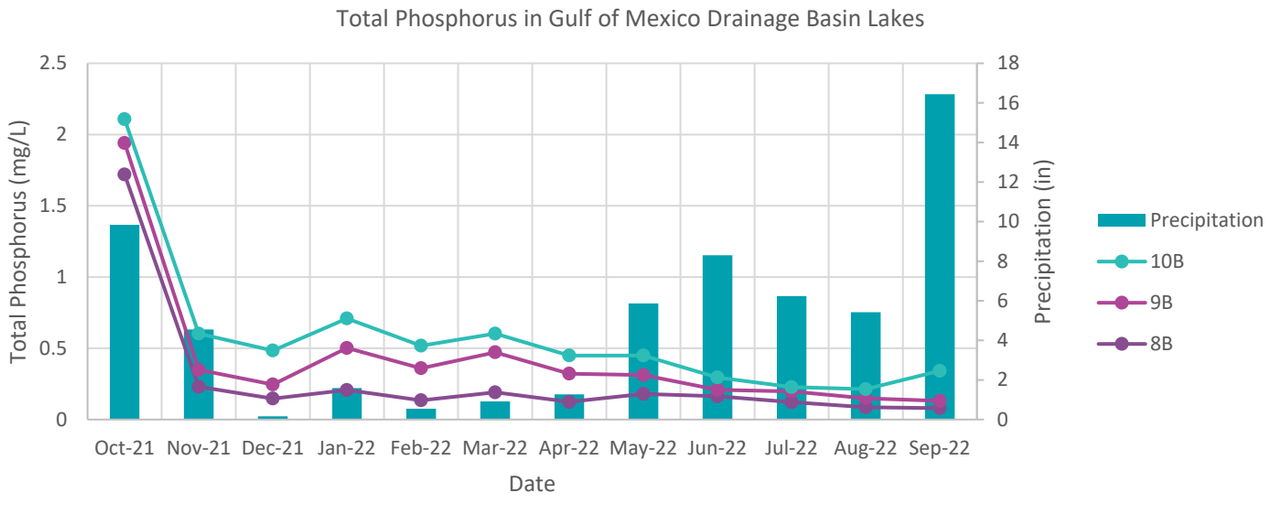
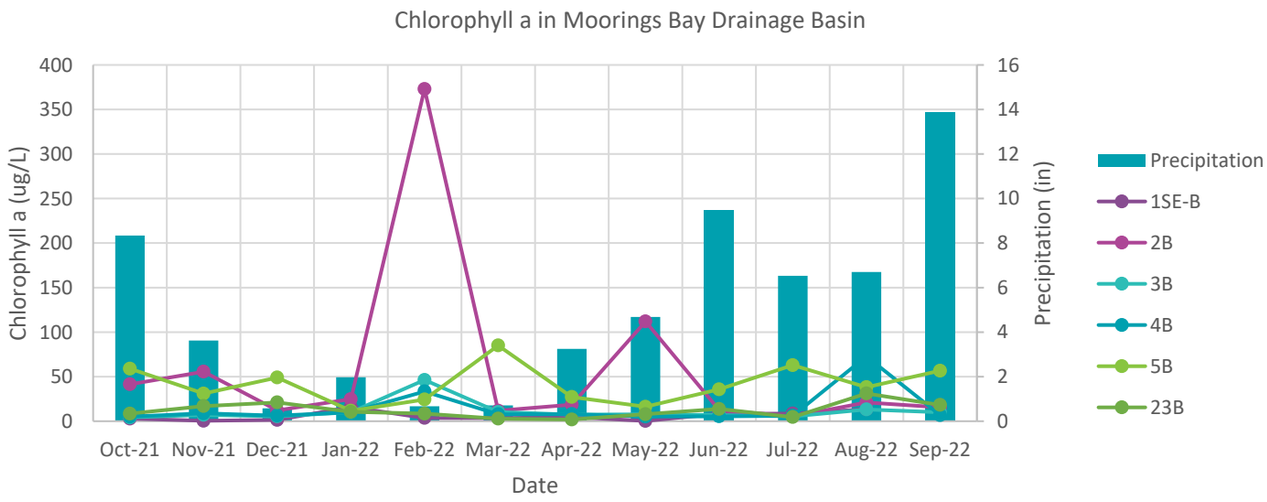
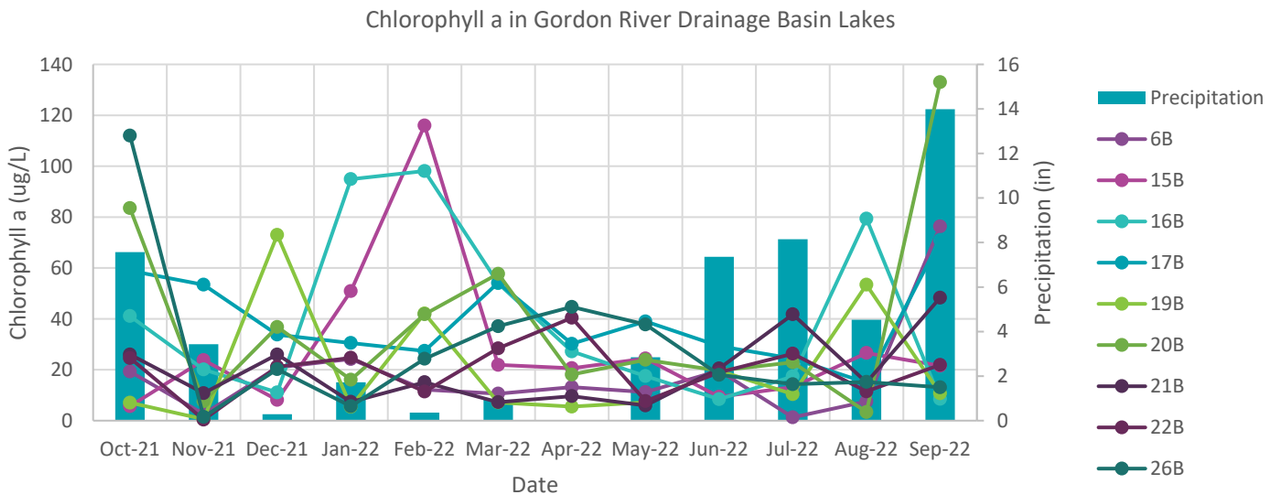
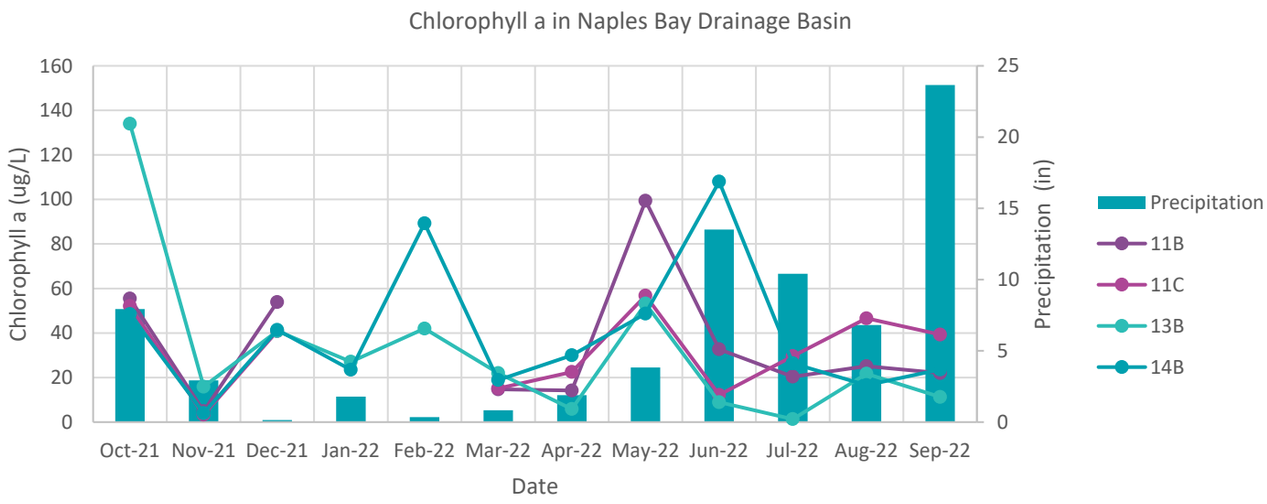


Figure 3-21. Time series plots of total phosphorus from October 2021 through September 2022.







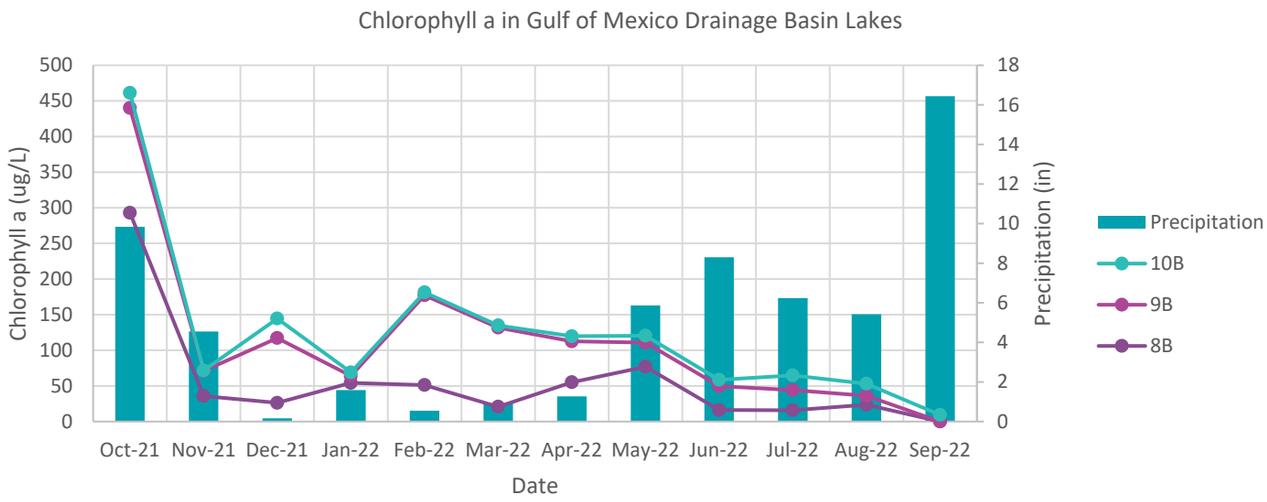
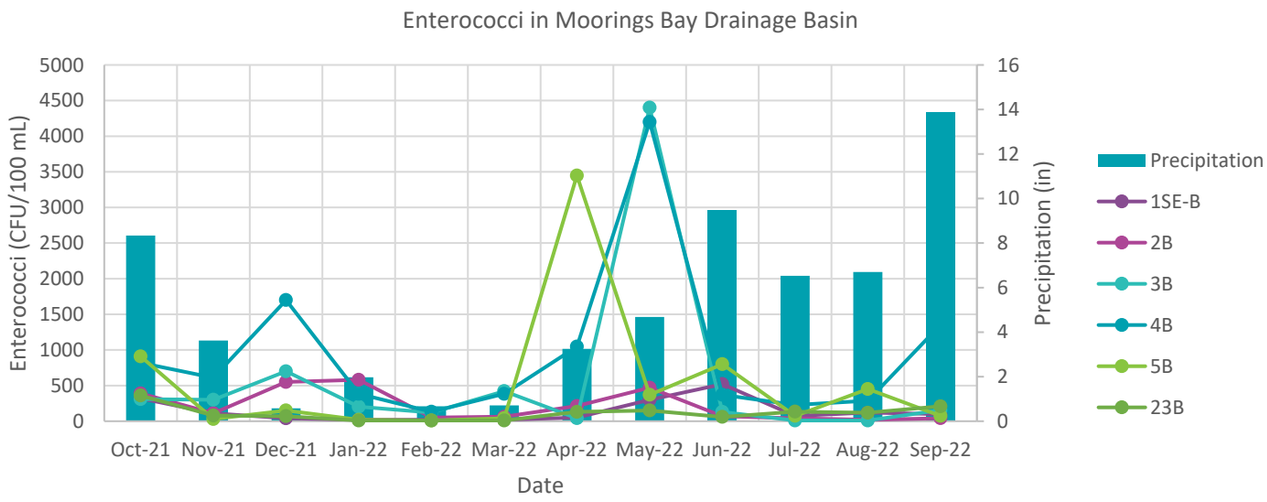
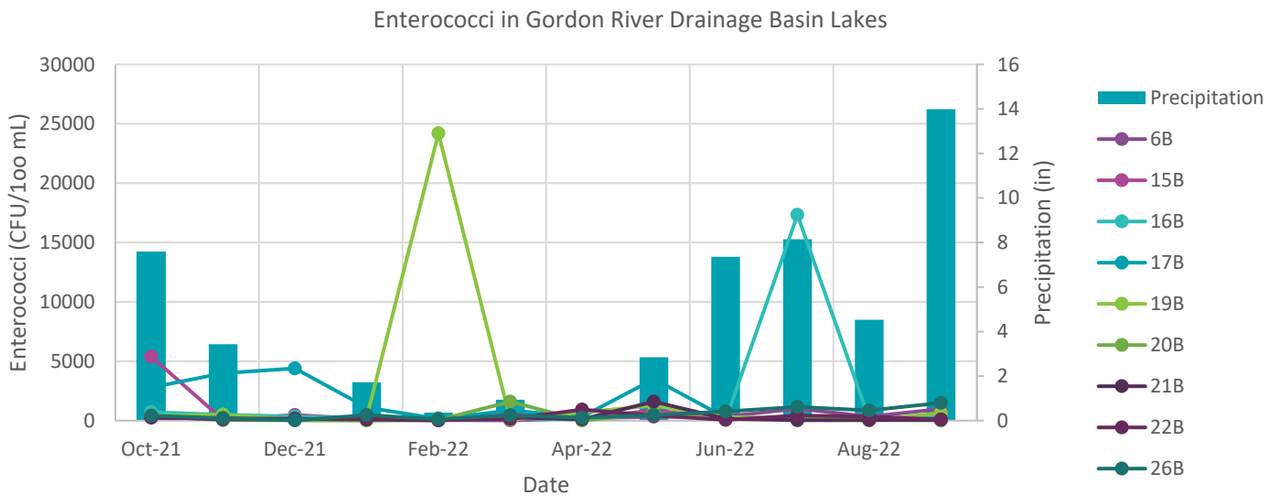
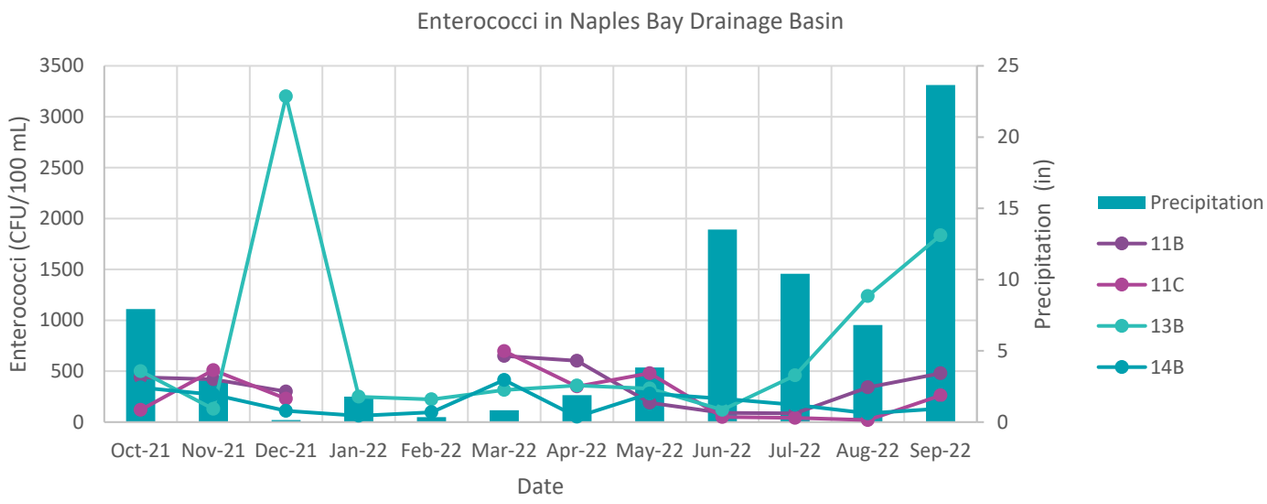


Figure 3-22. Time series plots of chlorophyl-a from October 2021 through September 2022.







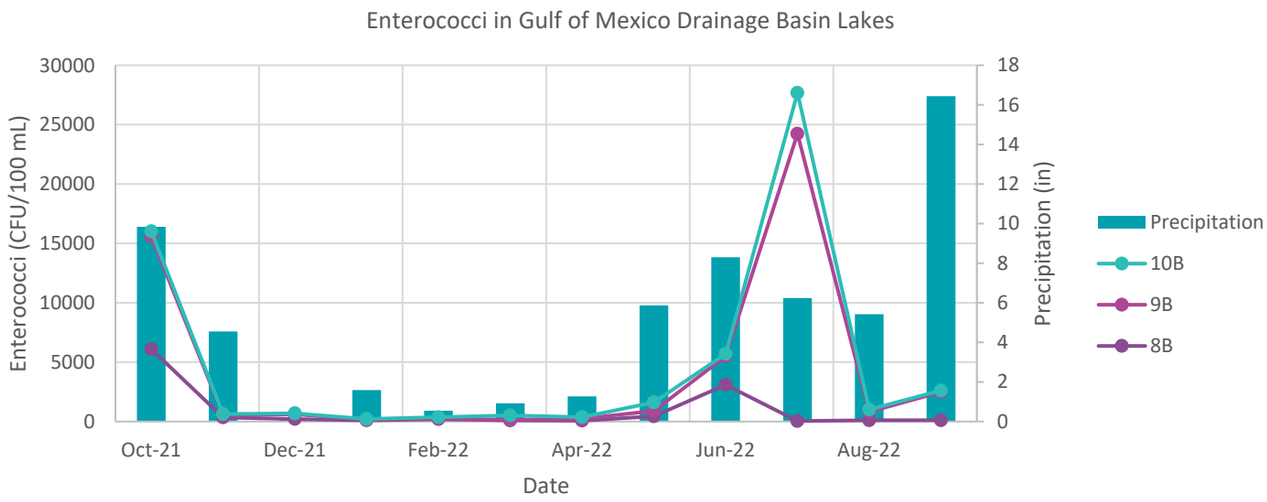
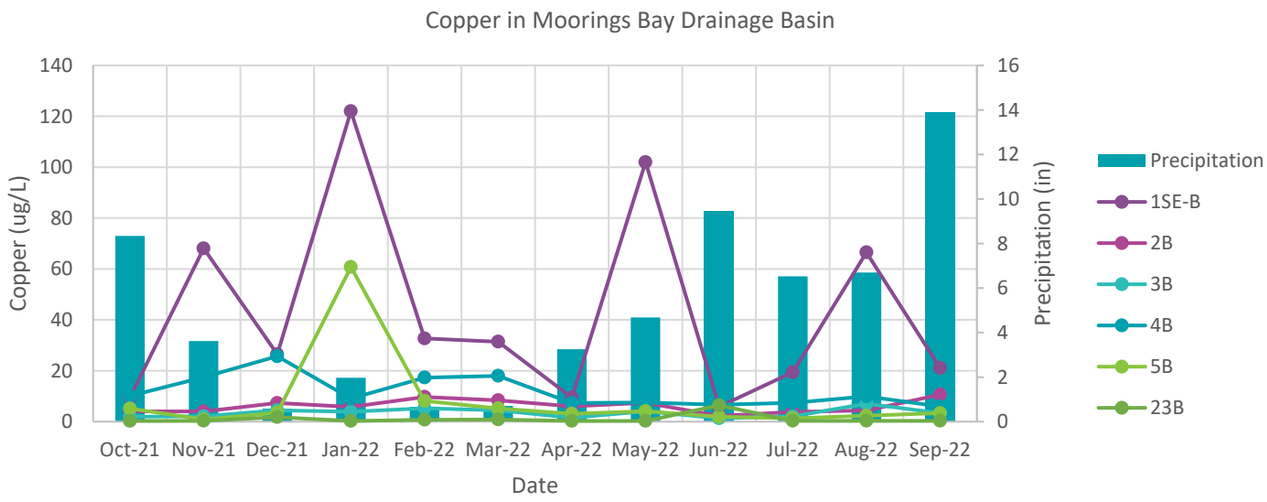
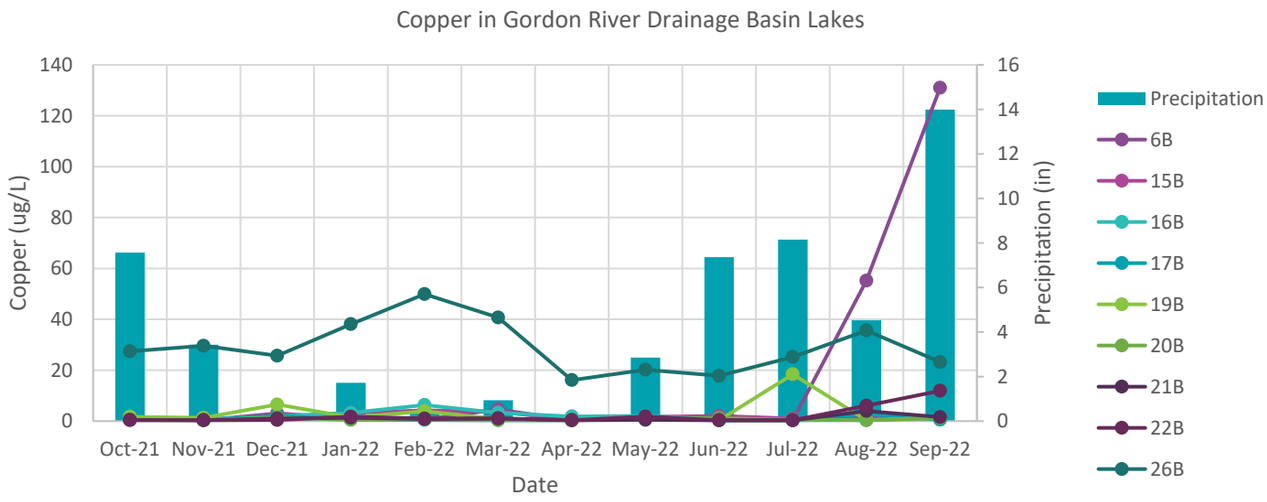
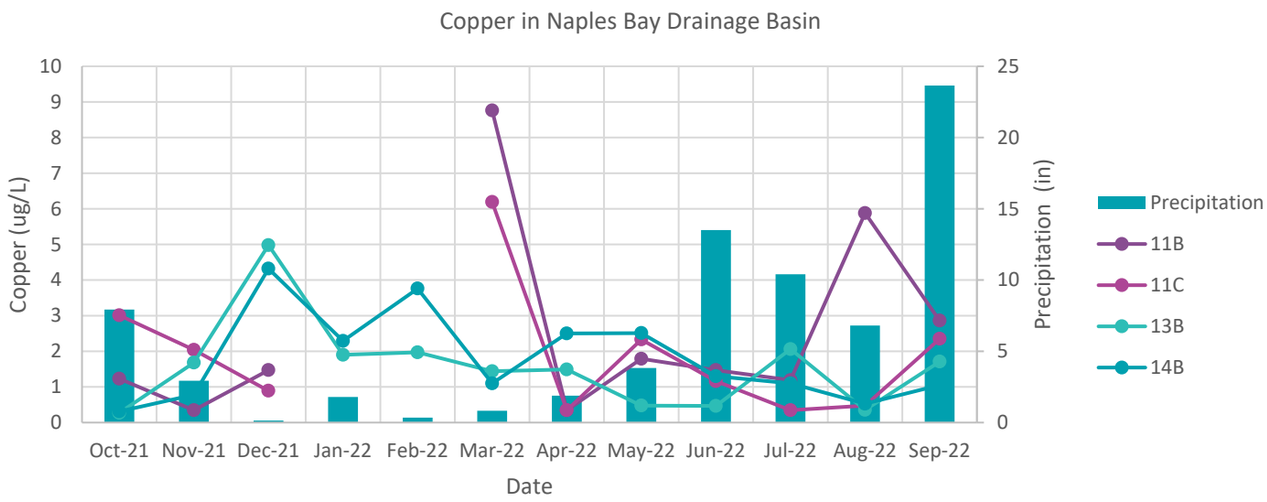


Figure 3-23. Time series plots of *Enterococci* from October 2021 through September 2022.







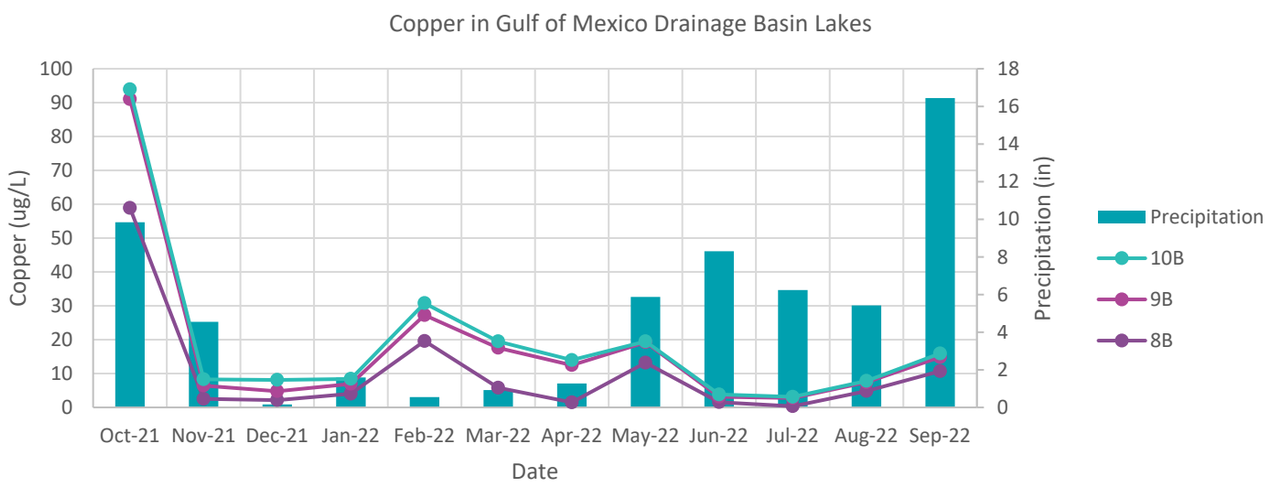


Figure 3-24. Time series plots of copper from October 2021 through September 2022.

3.4. Trend Analysis

Trends were analyzed for the following parameters: Chl-a, NOx, ammonia nitrogen, TKN, TN, OP, TP, TSS, Cu, *Enterococci,* and fecal coliform. Statistically significant trends in water quality are presented in **Table 3-12** (Cu, TSS, nutrients, and Chl-a) and **Table 3-13** (*Enterococci* and fecal coliform). Only waterbodies with multiple years of data were included in the trend analysis. It was not possible to evaluate trends of *E. coli* as only two years of data is available. Lakes monitored beginning in 2020 were also not included in the trend analysis. If a parameter or lake is not listed in these tables then a statistically significant trend was not observed.

Increasing trends can be a useful preliminary screening tool to assess if there may be a water quality issue at hand. Monthly data are valuable for predicting trends and changes in conditions; however, they are not used to identify the mechanisms causing those changes in conditions. Generally, anthropogenic impacts in watersheds can result in changes in runoff quantity and quality, especially with respect to nutrients, TSS, metals and bacteria For example, nutrients can be introduced to stormwater lakes via runoff from fertilized lawns. However, the form of nutrients in the runoff (for example, dissolved or particulate) varies and once introduced into the water column, in-lake process can further affect the nutrient concentrations. In some lakes, sediments can be a source of nutrients. Monthly water quality sampling cannot account for the specific runoff characteristics or the in-lake process.

Most significant trends were decreasing, but increasing trends were identified for OP in Alligator Lake; Chl-a, TN, and TKN in East Lake; Chl-a in Devils Lake and Lake Suzanne, and ammonia nitrogen in North Lake. In addition to trends of raw data, trends of the highest Chl-a concentration per year for each lake were analyzed (**Table 3-14**) to support the investigation into lake health described in **Section 3.7.2**. East Lake, Devils Lake, and Lake Manor all had statistically significant increasing trends in maximum annual Chl-a values. *Enterococci* were increasing in Alligator Lake, Lake Manor, and South Lake **Table 3-13**. Fecal coliforms were increasing in Lake Manor and South Lake. In Fleischmann Lake, *Enterococci* were decreasing.

In the previous report encompassing data up to September 2021 (Wood 2022), increasing trends were identified for NOx, ammonia nitrogen and OP in Alligator Lake, NOx at the Port Royal pump station, OP in Lake Manor, and copper in Lake Suzanne; statistically significant trends for these parameter/lakes were not observed in the current analysis (through September 2022). The Chl-a in Devils Lake was increasing in both the previous and current reports. In the previous report (Wood 2022) East Lake, Devils Lake, and Lake Manor also had statistically significant increasing trends in maximum annual Chl-a values, similar to the current analysis. In the previous report, statistically significant increasing trends for *Enterococci* were identified in Alligator Lake, Sun Lake Terrace, Forest Lake, and South Lake (Wood 2022). Statistically significant increasing trends for fecal coliform were identified in Forest Lake, Lake Manor, North Lake, and South Lake (Wood 2022).

It should also be noted that while the trends may be statistically significant, they may not be ecologically significant. A trend slope near zero likely will not show a measurable effect within a reasonable time frame (i.e., years to decades). Therefore, decreasing trends do not necessarily indicate that additional water quality improvement projects would not be beneficial to the stormwater lake and downstream.

Table 3-12. Significant trends in copper and nutrient parameters identified by Mann-Kendall trend tests.

Lake	Station ID	Parameter	Sen's Slope	Tau	*p*-value	Trend
Alligator Lake	10B	Chl-a	-0.20	-0.28	0.01	Significantly Decreasing
		TN	-0.0047	-0.26	0.01	Significantly Decreasing
		TKN	-0.005	-0.28	0.01	Significantly Decreasing
		OP	0.0007	0.31	0.01	Significantly Increasing
East Lake	11B	Chl-a	0.22	0.20	0.05	Significantly Increasing
		TP	-0.00097	-0.42	<<0.001	Significantly Decreasing
		OP	-0.0006	-0.38	<<0.001	Significantly Decreasing
		TN	0.003	-0.20	0.05	Significantly Increasing
		NOx	-0.0003	-0.41	<<0.001	Significantly Decreasing
		TKN	0.004	0.26	0.01	Significantly Increasing
		Copper	-0.03	-0.21	0.04	Significantly Decreasing
Cove Pump	11-Pump	TP	-0.0008	-0.42	<<0.001	Significantly Decreasing
		NOx	-0.001	-0.25	0.01	Significantly Decreasing
		OP	-0.0004	-0.27	0.006	Significantly Decreasing
		Copper	-0.02	-.24	.02	Significantly Decreasing
Lantern Lake	14B	TKN	-0.01	-0.23	0.02	Significantly Decreasing
		Copper	-0.04	-0.29	0.003	Significantly Decreasing
Port Royal Pump	14-Pump	TP	0.00	-0.26	0.02	Significantly Decreasing
		OP	-0.002	-0.22	0.03	Significantly Decreasing
		TN	-0.01	-0.23	0.02	Significantly Decreasing
		TKN	-0.01	-0.25	0.01	Significantly Decreasing
Sun Lake Terrace	15B	Copper	-0.05	-0.34	<<0.001	Significantly Decreasing
Fleischmann Lake	19B	TN	-0.004	-0.21	0.006	Significantly Decreasing
		TP	-0.0005	-0.19	0.01	Significantly Decreasing
		TKN	-0.004	-0.21	0.006	Significantly Decreasing
Devils Lake	1SE-B	Chl-a	0.03	0.18	0.02	Significantly Increasing
Forest Lake	20B	Chl-a	-0.27	-0.18	0.02	Significantly Decreasing
		TN	-0.01	-0.21	0.01	Significantly Decreasing
		TKN	-0.01	-0.29	0.003	Significantly Decreasing
		TP	-0.0005	-0.09	0.01	Significantly Decreasing
		OP	-0.0001	-0.20	0.01	Significantly Decreasing
Lake Manor	22B	TN	-0.003	-0.16	0.04	Significantly Decreasing
		TKN	0.003	-0.15	0.05	Significantly Decreasing
NCH Lake	26B	Copper	-0.56	-0.35	<<0.001	Significantly Decreasing

Continued next page

Lake	Station ID	Parameter	Sen's Slope	Tau	*p*-value	Trend
Swan Lake	2B	TP	-0.0008	-0.24	0.003	Significantly Decreasing
		OP	-0.0003	-0.18	0.03	Significantly Decreasing
Colonnade Lake	3B	Chl-a	-0.14	-0.20	0.01	Significantly Decreasing
		TP	-0.0006	-0.19	<<0.001	Significantly Decreasing
		Copper	-0.02	-0.18	0.02	Significantly Decreasing
Lake Suzanne	5B	Chl-a	0.19	0.19	0.01	Significantly Increasing
		TP	-0.002	-0.49	<<0.001	Significantly Decreasing
		NOx	-0.001	-0.30	<<0.001	Significantly Decreasing
		OP	-0.0008	-0.36	<<0.001	Significantly Decreasing
Mandarin Lake	6B	TN	-0.003	-0.25	0.008	Significantly Decreasing
		TP	-0.0007	-0.30	0.002	Significantly Decreasing
		TKN	-0.003	-0.25	0.009	Significantly Decreasing
North Lake	8B	ammonia nitrogen	0.00004	0.19	0.05	Significantly Increasing
South Lake	9B	TP	-0.002	-0.24	0.002	Significantly Decreasing
		OP	-0.0005	-0.16	0.04	Significantly Decreasing
		Copper	-0.04	-0.18	0.02	Significantly Decreasing
Public Works Pump	PW-Pump	Copper	-0.04	-0.32	0.001	Significantly Decreasing

Table 3-13. Significant trends in *Enterococci* and fecal coliform by Mann-Kendall trend tests.

Lake	Station ID	Parameter	Sen's Slope	Tau	*p*-value	Trend
Alligator Lake	10B	*Enterococci*	2.15	0.34	0.00087	Significantly Increasing
Fleischmann Lake	19B	*Enterococci*	-3.00	-0.18	0.02	Significantly Decreasing
Lake Manor	22B	*Enterococci*	1.11	0.17	0.03	Significantly Increasing
		Fecal Coliform	4.23	0.35	<<0.001	Significantly Increasing
South Lake	9B	*Enterococci*	2.17	0.23	0.004	Significantly Increasing
		Fecal Coliform	2.65	0.31	0.0003	Significantly Increasing

Table 3-14. Waterbodies with significant increasing trends in maximum annual Chl-a concentrations.

Lake	Station ID	Parameter	Sen's Slope	Tau	*p*-value	Trend
East Lake	11B	Chl-a	0.83	0.89	0.00	Significantly Increasing
Devils Lake	1SE-B	Chl-a	0.23	0.76	0.01	Significantly Increasing
Lake Manor	22B	Chl-a	0.26	0.56	0.05	Significantly Increasing

3.5. Correlation Analysis

Significant correlation results from the full POR are included in **Table 3-15**. Correlation plots, which provide a visualization of the correlations, are included in Appendix C. Both positive and negative precipitation correlations were observed for nutrients, indicating that the relationships between nutrient concentrations and precipitation are dependent on nutrient and lake-specific factors. Positive correlations between nutrients and rainfall may be due to 1) increased runoff of nutrients into the lakes, and/or 2) increased sediment nutrient flux rates that occur when water column concentrations decrease.

Table 3-15. Statistically significant water quality correlations for select parameters with precipitation (full POR).

Lake Name	Station ID	Rainfall	Positive Correlations	Negative Correlations
Alligator Lake	10B	7-day	Chl-a	TN, TP
		30-day	Chl-a, TN	TP
East Lake	11B	7-day	Chl-a	TP
		30-day	Chl-a, TN, TP	--
Spring Lake	11C	7-day	--	TN, TP
		30-day	--	Chl-a, TN, TP
Cove Pump	11-Pump	7-day	--	TN, TP
		30-day	--	TN, TP
Lake 13	13B	7-day	--	Chl-a, TN, TP
		30-day	--	Chl-a, TN, TP
Lantern Lake	14B	7-day	Chl-a, TN	--
		30-day	Chl-a, TN	--
Port Royal Pump	14-Pump	7-day	TN, TP	--
		30-day	TN, TP	--
Sun Lake Terrace	15B	7-day	--	Chl-a, TN, TP
		30-day	TP	Chl-a, TN
Thurner	16B	7-day	TP	Chl-a, TN
		30-day	TP	Chl-a, TN
Lake Diana	17B	7-day	Chl-a, TN, TP	--
		30-day	Chl-a, TN, TP	--
Fleischmann Lake	19B	7-day	Chl-a	TN, TP
		30-day	Chl-a	TN, TP
Devils Lake	1SE-B	7-day	Chl-a, TP	TN
		30-day	Chl-a, TP	TN
Forest Lake	20B	7-day	Chl-a	TN, TP
		30-day	Chl-a	TP
Willow	21B	7-day	Chl-a, TN, TP	--
		30-day	Chl-a, TN, TP	--
Lake Manor	22B	7-day	Chl-a, TP	TN
		30-day	Chl-a, TP	--
Lowdermilk	23B	7-day	Chl-a, TN, TP	--
		30-day	Chl-a, TN	TP
Half Moon Lake	24B	7-day	TN, TP	Chl-a
		30-day	Chl-a, TN, TP	--
NCH Lake	26B	7-day	TP	Chl-a, TN
		30-day	TP	Chl-a, TN
Swan Lake	2B	7-day	--	Chl-a, TN, TP
		30-day	--	Chl-a, TN, TP
Colonnade Lake	3B	7-day	TP	Chl-a, TN
		30-day	TP	Chl-a, TN
Hidden	4B	7-day	TP	Chl-a
		30-day	TP, TN	Chl-a
Lake Suzanne	5B	7-day	--	Chl-a, TN, TP
		30-day	--	Chl-a, TN, TP

Continued next page

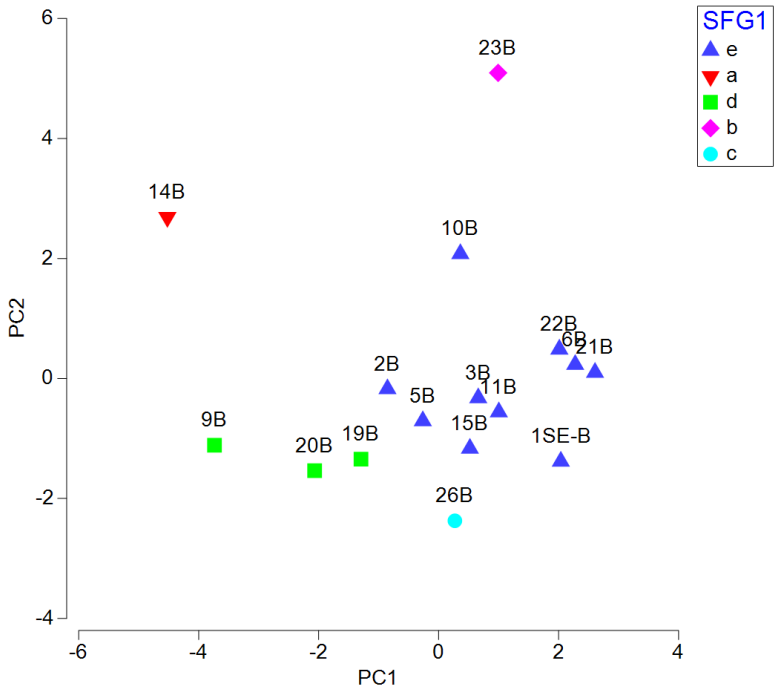
Lake Name	Station ID	Rainfall	Positive Correlations	Negative Correlations
Mandarin Lake	6B	7-day	Chl-a, TP	TN
		30-day	Chl-a, TP	--
North Lake	8B	7-day	Chl-a	TN, TP
		30-day	Chl-a	TN, TP
South Lake	9B	7-day	Chl-a	TN, TP
		30-day	--	Chl-a, TN, TP
Public Works Pump	PW-Pump	7-day	--	TN, TP
		30-day	TP	TN

3.6. Multivariate Analysis

Multivariate analysis was used to explore differences in water quality among lakes. Analyses were conducted on two datasets: One on the full POR from 2014 through 2022, and the second for lake data collected 2020-2022. The ordination plots provide a useful summary to compare water quality among the lakes.

- Full dataset (2014-2021):
    - Cluster analyses differentiated lakes into five groups, based on water quality ($p < 0.05$) (**Figure 3-18**): Lantern Lake (14B) (group a), Lowdermilk Lake (23B) (group b), NCH Lake (26B) (group c). Lakes South Lake (9B), Forest Lake (20B), and Fleischman Lake (19B) clustered together (group d), and the remaining lakes clustered into a third group (group e).
    - The two primary axes of the PCA ordination comprised 93.0% of the water quality variation (axes 1 = 32.9%, axes 1 = 60.1%) (**Appendix D**).
    - PC axis 1 was associated with copper and Chl-a. PC axis 2 was associated with conductivity and Enterococci.
- The shorter-term water quality data collected by WSP from October 2020 through September 2022 (**Figure 3-19**):
    - Cluster analyses indicated that there were three statistically significant groupings among the lakes ($p < 0.05$)
    - The two primary axes of the PCA ordination comprised 82.8% of the water quality variation (axes 1 = 30.0%, axes 1 = 52.8%) (Appendix D).
    - PC axis 1 was associated with copper and TSS and temperature on the negative. PC axis 2 was associated with specific conductance and TN.

The differences between the two datasets (and resulting PCAs) can be explained by the fact that different water quality data were used, as well as different sets of lakes. A greater number of lake groupings were found in the long-term dataset because of greater differences in the mean values, resulting from a longer-term dataset. When comparing the 2020-2021 results to this year's results, there were some differences: a greater number of groupings in the long-term dataset, and conversely fewer groups in the WSP collected dataset (2020 through 2022). This may be attributed to some slight differences in parameters that were used. However, the results were generally similar between the results in this report and the 2020-2021 results (Wood, 2022).



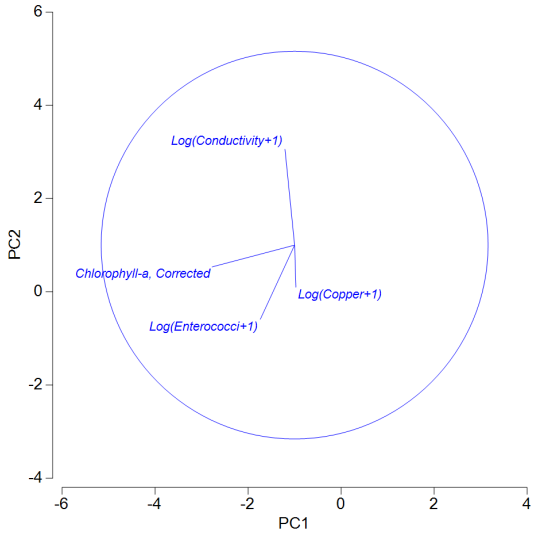


Figure 3-25. Principal components analyses ordination illustrating (dis)similarities in water quality for stormwater lakes from December 2014 through September 2022. Data is based on averages of monthly sampling. Top plot: PCA ordination. Lakes with different colors were significantly different ($p < 0.05$) in water quality, based on hierarchical cluster analysis (SFGI). Bottom: Vector plot for influential water quality parameters. The length of the line indicates the strength of the association.

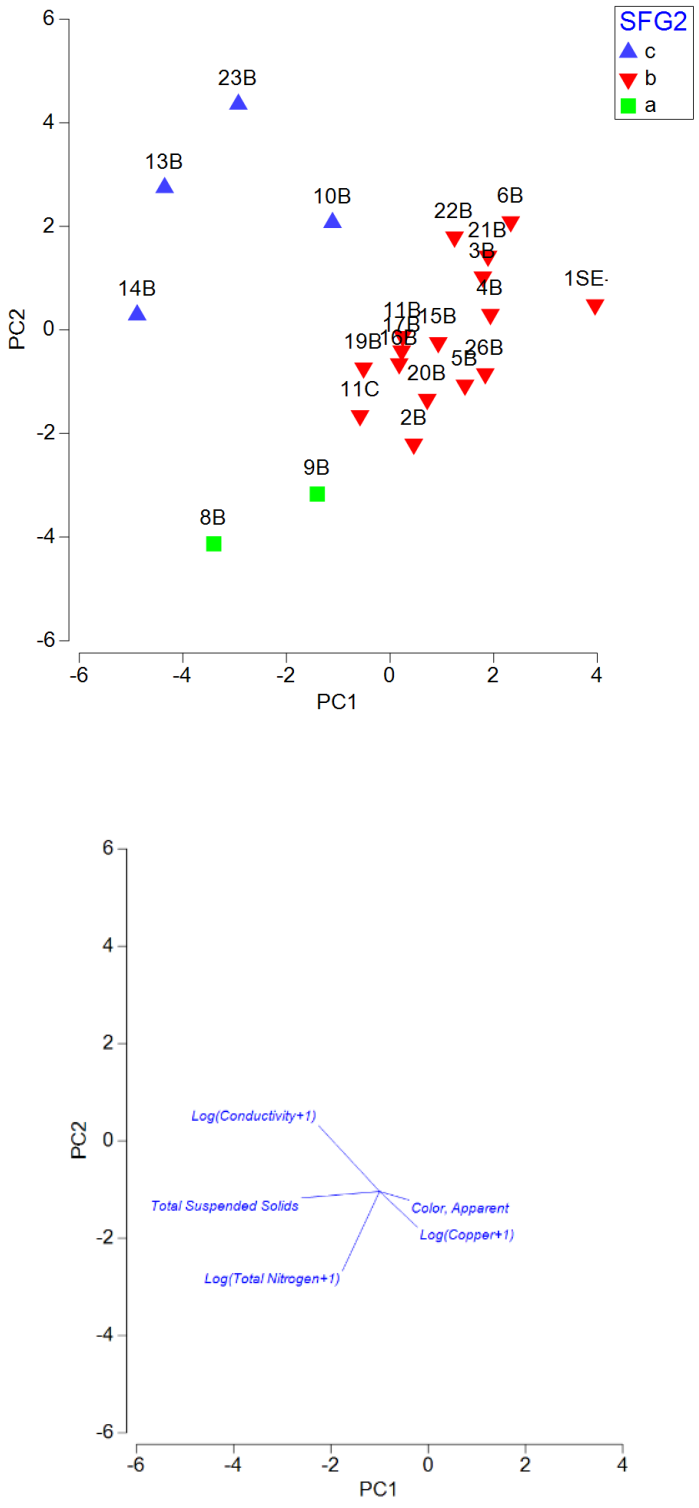


Figure 3-26. Principal components analyses plot of stormwater lakes for data by WSP from October 2020 through September 2022. Notes: Top plot: PCA ordination. Lakes with different colors were significantly different ($p < 0.05$) in water quality, based on hierarchical cluster analysis (SFGI). Bottom: Vector plot for influential water quality parameters. The length of the line indicates the strength of the association.

3.7. Impairment Assessment

To assess the relative water quality within each stormwater lake, data were compared to FDEP regulatory criteria applicable to downstream waterbodies. These comparisons incorporate both site specific criteria for Chl-a, TN, and TP (which vary based on Estuary Nutrient Region) as well as impairments of downstream waterbodies. Exceedances within stormwater lakes are only presented as a management tool for the City and do not indicate a regulatory impairment. As noted earlier, FDEP water quality criteria do not apply to stormwater lakes since they are manmade features and are not classified as Waters of the State. Stormwater lakes are designed to receive rainfall runoff containing nutrients and other pollutants and exceedances are expected when comparing the stormwater lakes to downstream criteria which apply to more natural waterbodies that were not designed and constructed to intercept stormwater runoff from developed lands.

An evaluation of the Chl-a data was also completed to identify waterbodies with the highest long-term Chl-a concentrations. This evaluation included comparing Chl-a data to the natural freshwater lakes criteria and identifying individual years (and individual samples) of high Chl-a concentrations. It also incorporated a trend test to identify if any waterbodies' highest annual Chl-a concentration is increasing over time.

3.7.1. Potential Impacts to Downstream Waters

Stormwater lake data collected from October 2021-September 2022 as were compared to the downstream criteria for the selected parameters (**Table 3-16**). Water quality criteria do not apply to stormwater lakes, from a regulatory perspective. The downstream waterbody criteria are described in **Section 1.2.2**; with regulatory criteria included in **Table 1-6**.

During the October 2021-September 2022 monitoring program, all monthly samples from NCH Lake, Devils Lake, and Hidden Lake exceeded downstream copper criteria. Downstream *Enterococci* exceedances were most common in Lake Diana and Hidden Lake. Lakes in the Gordon River and Naples Bay watersheds most frequently had samples exceeding downstream Chl-a, TN, and TP criteria.

Table 3-16. Percent of number of samples from current monitoring program (October 2021-September 2022) not meeting non-applicable downstream criteria.

Station ID	Lake Name	Percent of No. of Samples Exceeding Downstream Criteria					
		CU	ENTERO	Chl-a[1]	TN[1]	TP[1]	DO
Gordon River *(verified impaired for DO, ENTERO, Chl-a, and nutrients)*		***>3.7 µg/L***	***>130 #/100mL***	***>4.3 µg/L***	***>0.57 mg/L***	***>0.045 mg/L***	***<42 %***
15B	Sun Lake Terrace	17	75	100	100	33	8
16B	Thurner	8	75	100	100	92	33
17B	Lake Diana	0	92	100	100	100	8
19B	Fleischmann Lake	25	75	92	100	42	25
20B	Forest Lake	0	33	92	100	42	17
21B	Willow	8	50	100	100	33	25
22B	Lake Manor	17	58	92	100	75	17
26B	NCH Lake	100	83	92	100	83	17
6B	Mandarin Lake	25	67	83	100	50	83
Gulf of Mexico		***>3.7 µg/L***	***>130 #/100mL***	***>3.1 µg/L***	***>0.25 mg/L***	***>0.032 mg/L***	***<42 %***
10B	Alligator Lake	0	58	83	100	92	18
8B	North Lake	58	50	92	100	100	17
9B	South Lake	58	75	92	100	100	9
Moorings Bay *(verified impaired for TP and TN)*		***>3.7 µg/L***	***>130 #/100mL***	***>8.1 µg/L***	***>0.85 mg/L***	***>0.04 mg/L***	***<42 %0***
1SE-B	Devils Lake	100	25	42	92	33	0
23B	Lowdermilk	8	42	67	42	33	25
2B	Swan Lake	92	42	92	83	92	0
3B	Colonnade Lake	50	58	42	92	100	9
4B	Hidden	100	100	33	83	83	8
5B	Lake Suzanne	42	50	100	83	42	0
Naples Bay *(verified impaired for Chl-a, Cu, and ENTERO)*		***>3.7 µg/L***	***>130 #/100mL***	***>4.3 µg/L***	***>0.57 mg/L***	***>0.045 mg/L***	***<42 %***
11B	East Lake	20	80	100	100	50	22
11C	Spring Lake	10	60	90	100	60	10
13B	Lake 13	8	83	92	100	50	75
14B	Lantern Lake	17	58	92	100	100	17

Note: Yellow shading indicates downstream waterbody is impaired for this parameter. [1] Although individual samples are used for this analysis, impairments are based on AGMs and multiple years of data for Chl-a, TN, and TP FOR Naples Bay and Gordon River and Chl-a for Moorings Bay. See Table 1-6 for additional information on downstream waterbody criteria.

3.7.2. Potential Impacts to Lake Health

The FDEP determines applicable nutrient (and Chl-a) criteria by the long-term geometric mean of color for freshwater lakes in the State of Florida. However, color was only included as a parameter during the previous two years). Nonetheless, all lakes that were sampled had geometric mean color results of greater than 40 PCU. This indicates that they fall under the category of high color lakes and the comparable natural waterbody Chl-a criteria is 20 µg/L (as an AGM). As previously mentioned, no lake in this report is considered a Water of the State, and comparisons to the criteria are for informational and comparison purposes only.

As shown in **Table 3-17** Lantern Lake and South Lake AGMs were above the natural waterbody criteria in eight of the past eight years. NCH and Fleischmann Lake exceeded the AGM in seven of the eight years and North Lake exceeded in six of the past six years. Higher AGMs indicate higher algal concentrations. In natural waterbodies, these Chl-a concentrations would indicate impaired conditions. However, stormwater lakes are designed to intercept nutrient-laden runoff which can contribute to the cyclical increasing and decreasing algal populations.

Hidden Lake, Lake Manor, Lowdermilk Lake, and Devils Lake were the only waterbodies that did not have a Chl-a AGM over 20 µg/L in their respective period of record. However, maximum individual Chl-a concentrations per year show statistically significant ($p<0.05$) increasing trends in Devils Lake and Lake Manor, indicating that these lakes may begin to experience increasing concentrations of Chl-a, indicating a potential increased chance for algal blooms.

Copper concentrations observed in the waterbodies were also compared to FDEP's water quality criteria. Similar to the analysis of Chl-a above, these copper criteria are not applicable to the stormwater ponds as they are not considered Waters of the State.

As shown in **Table 3-18** copper concentrations exceeding the criteria were observed eight of the 25 stormwater ponds and pump stations between October 2021 and September 2022, which is a decrease from the previous year of sampling. All but one of the samples collected from NCH Lake were above the copper criteria while Devils Lake and Hidden Lake also had notable percentages of samples above the downstream criteria. **Table 3-19** shows exceedances of the copper criteria were observed throughout the year. April and June had only one lake exceeding criteria; February had the most exceedances.

Table 3-17. Waterbodies organized by highest algal abundance.

Lake	Station ID	Count of Chl-a AGMs > 20 µg/L / Total Years of Samples[1]	Maximum Chl-a AGM (µg/L)[2]	Maximum Individual Chl-a (µg/L)[2]
Lantern Lake	14B	8 / 8	94	266
South Lake	9B	8 / 8	60	1,018
North Lake	8B	6 / 6	78	**293**
Spring Lake	11C	3 / 3	48	323
Lake Diana	17B	3 / 3	44	83
Thurner	16B	3 / 3	34	**98.1**
NCH Lake	26B	7 / 8	53	779
Fleischmann Lake	19B	7 / 8	51	252
Half Moon Lake	24B	6 / 7	169	255
Forest Lake	20B	6 / 8	93	511
Lake 13	13B	2 / 3	72	177
Lake Suzanne	5B	5 / 8	**36**	290
Swan Lake	2B	5 / 8	30	**373**
Alligator Lake	10B	4 / 8	32	92
Colonnade Lake	3B	3 / 8	31	492
East Lake*	11B	3 / 8	27	136
Willow	21B	1 / 3	21	63
Mandarin Lake	6B	2 / 8	29	80
Sun Lake Terrace	15B	1 / 8	**20**	**116**
Hidden	4B	0 / 3	20	**72.8**
Lake Manor*	22B	0 / 8	18	55
Lowdermilk	23B	0 / 3	17	124
Devils Lake*	1SE-B	0 / 8	7	37

* - Significant increasing trend in maximum Chl-a, see **Section 3.3.1.**

[1] – Data from 2014 was not included in this analysis as only one month of data was collected.

[1] – Bold red font indicates that maximum from current program (October 2021 through September 2022)

Table 3-18. Waterbodies organized by copper exceedances observed between October 2021 and September 2022.

Lake	Station ID	Number of Exceedances (2021-2022)	Percent Exceedance (2021-2022)	Percent Exceedance (2020-2022)
NCH Lake	26B	**11**	**92%**	**100%**
Devils Lake	1SE-B	**9**	**75%**	**50%**
Hidden	4B	**4**	**33%**	**17%**
North Lake	8B	**2**	**17%**	**8%**
Mandarin Lake	6B	**2**	**17%**	0%
Lake Suzanne	5B	**1**	**8%**	**25%**
Fleischmann Lake	19B	**1**	**8%**	0%
South Lake	9B	**1**	**9%**	0%
Port Royal Pump	14-PUMP	0	0%	**42%**
Lowdermilk	23B	0	0%	**42%**
Lantern Lake	14B	0	0%	**25%**
Alligator Lake	10B	0	0%	**17%**
Thurner	16B	0	0%	**8%**
Colonnade Lake	3B	0	0%	**8%**
East Lake	11B	0	0%	0%
Spring Lake	11C	0	0%	0%
Cove Pump	11-Pump	0	0%	0%
Lake 13	13B	0	0%	0%
Sun Lake Terrace	15B	0	0%	0%
Lake Diana	17B	0	0%	0%
Forest Lake	20B	0	0%	0%
Willow	21B	0	0%	0%
Lake Manor	22B	0	0%	0%
Swan Lake	2B	0	0%	0%
Public Works Pump	PW-PUMP	0	0%	0%

Notes: Waterbodies with at least one copper exceedance are **bold.**
For marine waters, the copper criterion is 3.7 µg/L. In freshwater, the copper criterion is calculated based on the hardness of the water.

Table 3-19. Number and Percent of waterbodies exceeding Copper Criteria between October 2021 and September 2022.

Month	Number of Lakes Exceeding Copper Criteria (2021-2022)	Percent of Lakes Exceeding Copper Criteria (2021-2022)	Percent of Lakes Exceeding Copper Criteria (2020-2021)
January	3	15%	**20%**
February	**4**	**21%**	12%
March	3	15%	16%
April	1	4%	**20%**
May	2	9%	16%
June	1	4%	8%
July	2	9%	16%
August	3	14%	8%
September	3	14%	16%
October	3	14%	**20%**
November	3	14%	8%
December	3	14%	4%

Note: Months with over 20% copper exceedances are **bold**.
For marine waters, the copper criterion is 3.7 µg/L. In freshwater, the copper criterion is calculated based on the hardness of the water.

3.8. Pump Station Pollutant Loading Estimates

Monthly loads from the three pump stations were calculated for parameters of concern (TP, TN, TSS, Cu). Total monthly pump run times were multiplied by maximum capacities for each pump to calculate volumes used in the monthly load estimates. Considering that the pumps are on variable frequency drive (which modifies pumping velocity based on pump station volume), using the maximum pump capacities likely overestimates actual volumes and loads from the pump stations. Therefore, these loads are represented as estimates of maximum loads; actual loads will vary and will likely be lower during dry periods. The largest pollutant loads of TP, TN, TSS, and Cu appear to be from 11-Pump (**Table 3-20**). As a reminder, pump operation data from 2021-2022 was not available and pump operation from the previous year (2020-2021) was used in the loading estimates.

Table 3-20. Maximum monthly and annual pollutant loading (in pounds) from City of Naples Pump Stations from October 2020 to September 2021

Station ID	Pump Station	Month	TP (lbs.)	TN (lbs.)	TSS (lbs.)	Cu (lbs.)
11-Pump	Cove Pump	October-21	78.2	1,042.11	1,517.57	0.79
		November-21	84.7	665.05	1,461.86	0.11
		December-21	44.5	556.00	1,069.05	0.08
		January-22	48.6	599.90	1,532.59	1.48
		February-22	38.6	380.73	3,418.20	1.24
		March-22	19.7	320.93	467.36	0.12
		April-22	27.6	477.81	683.00	0.12
		May-22	13.0	219.12	3,579.91	0.15
		June-22	38.4	1,186.35	1,670.92	0.32
		July-22	119.0	1,636.09	353.25	0.21
		August-22	137.7	975.74	2,124.73	0.16
		Total	*649.9*	*8,059.81*	*17,878.43*	*4.8*
14-Pump	Port Royal Pump	October-21	19.8	164.80	990.63	0.22
		November-21	12.4	21.87	1,909.09	0.13
		December-21	9.1	23.46	930.98	0.13
		January-22	7.0	33.76	545.92	0.09
		February-22	2.9	51.05	72.42	0.06
		March-22	12.8	29.09	586.09	0.01
		April-22	20.5	80.42	177.72	0.07
		May-22	5.3	12.78	194.44	0.00
		June-22	22.6	4,056.98	680.90	0.15
		July-22	3.1	84.62	2,849.41	0.18
		August-22	18.9	91.61	1,745.02	0.06
		Total	*134.4*	*4,650.45*	*10,682.62*	*1.1*
PW-Pump	Public Works Pump	October-21	26.2	267.14	1,403.68	1.25
		November-21	19.8	215.28	791.47	0.33
		December-21	22.8	386.13	918.68	0.47
		January-22	2.9	127.97	101.56	0.23
		February-22	21.9	59.89	370.44	0.10
		March-22	3.6	83.65	189.50	0.17
		April-22	6.9	168.63	174.91	0.02
		May-22	4.7	57.95	112.17	0.12
		June-22	13.5	447.51	1,380.13	0.44
		July-22	46.4	709.82	1,144.86	2.88
		August-22	28.2	319.22	268.26	0.54
		Total	*196.9*	*2,843.18*	*6,855.65*	*6.5*

4.0 SUMMARY AND RECOMMENDATIONS

This 2021-2022 Annual Surface Water and Pump Station Monitoring and Analysis Report includes data analyses (trends, correlations, multivariate analyses, impairment assessment) for over 15 water quality parameters, 22 lakes, and three pump stations, with data spanning from 2014-2022 for some locations. To focus this summary section, specific lakes are identified and discussed with respect to in-lake water quality conditions and non-applicable downstream criteria.

It is important to note that the FDEP water quality impairment criteria do not apply to stormwater lakes since they are manmade features and are not classified as Waters of the State. Stormwater lakes are designed to receive rainfall runoff containing nutrients and other pollutants thus exceedances are expected when comparing the stormwater lakes to downstream criteria which apply to more natural waterbodies that were not designed and constructed to intercept stormwater runoff from developed lands. The comparison to downstream water quality criteria is simply a comparison tool and the downstream water quality criteria do not represent target water quality conditions in stormwater lakes. Information on stormwater lake samples with exceedances of non-applicable downstream waterbody criteria is provided to assist managers in where to conduct additional study to support water quality improvement projects.

Several of the City's stormwater lakes have recently been the subject of improvement projects or special studies (or have special studies planned) (**Table 4-1**). The remaining lakes are Mandarin Lake (a public lake that received public drainage) and six lakes not owned by the City that receive public drainage (Diana, Forest, Thurner, Willow, Sun Lake, and Lantern Lake). Notable results for these lakes are summarized below:

- Mandarin Lake: This lake did not generally have high (compared to other lakes) concentrations of nutrients, Chl-a, copper, or bacteria. The positive correlation of TP with precipitation indicates that stormwater runoff may be contributing nutrients to the lake. In-lake concentrations of nutrients and Chl-a frequently exceeded non-appliable downstream waterbody criteria for the Gordon River which is impaired for nutrients (TN, TP), *Enterococci,* and Chl-a. However, the relative input (load) of this lake to the Gordon River is unknown. The POR for this lake begins in December 2014.
- Lake Diana: Lake Diana had relatively high concentrations of fecal indicator bacteria) compared to other lakes and higher concentrations of *Enterococci*, nutrients and Chl-a compared to the non-applicable downstream water body criteria for the Gordon River (impaired for *Enterococci, nutrients, and Chl-a),* though actual downstream loading is unknown. Positive correlations of TN and TP with rainfall indicate stormwater as a potential source for nutrients in the lake. Note that the POR for this lake is relatively short, with sampling beginning in 2020.
- Forest Lake: Forest Lake had relatively high concentrations of TN compared to other lakes and samples from this lake frequently exceeded TN criteria for the Gordon River which is impaired for TN. As noted earlier, loading from the lakes to the Gordon River is unknown and the Gordon River criteria do not apply to Forest Lake. The POR for this lake begins in December 2014.
- Willow: Concentrations of nutrients, Chl-a, copper, and FIB were not generally high in Willow compared to other lakes. Concentrations frequently exceeded non-applicable waterbody criteria (Gordon River) for Chl-a and TN. Positive correlations of TN and TP indicate stormwater as a

potential source for nutrients in the lake. Note that the POR for this lake is relatively short, with sampling beginning in 2020.

- Sun Lake: This lake had high *E. coli* compared to other lakes and sample concentrations frequently exceeded the Gordon River criteria for *Enterococci*, Chl-a, and TN. Statistically significant increasing concentrations of FIB and nutrients were not observed. The POR for this lake begins in December 2014.
- Lantern Lake: Lantern Lake had high concentrations of Chl-a compared to other lakes and Chl-a exceeded the natural lake waterbody criteria and downstream, criteria (Naples Bay, impaired for Chl-a) in all sample years (though these criteria are not applicable to Lantern Lake). Positive correlations of TN and rainfall indicate stormwater as a potential source for nutrients in the lake. The POR for this lake begins in December 2014.

At a minimum, WSP recommends that the monitoring program be continued for these lakes, especially Lakes Diana and Willow which have short PORs, limiting data interpretation. Additional focused study of the lakes listed above may also be useful in assisting the City in planning future improvement projects. The recommendations provided below include additional data collection and analysis to support the development of water quality improvement projects. In addition, WSP provides a discussion of effective water quality improvement technologies that can be employed for improving the water quality of stormwater runoff into and out of the City's stormwater lakes. Mandarin Lake, a publicly owned lake receiving public drainage, is of particular interest because it was identified by the City as priority in the first Stormwater Lakes Management Plan (as described in Wood, 2019).

In addition, WSP recommends monitoring pump station outflows so that pump station loads can be estimated. Accurate estimation of loads is key for understanding nutrient inputs from pump stations. Monitoring options for pump station outflows can include flow meters that sync with the SCADA system for easier access to real-time data.

Table 4-1. Lake Summary for the 2021-2022 Monitoring Period

Lake Name (Bold=City Owned) (Sample No.)	Drainage Basin (Impairments[1])	Recent Improvement Project Status	Receives Public Drainage? (Wood 2019)	Recommendation
Lake Diana (17B)	Gordon River (DO, *Enterococci*, Nutrients [Chl-a, TN, TP])	NA	**Yes**	Consider additional studies at this lake, see text (**Section 4.0**)
NCH Lake (26B)		NA	No	NA – private lake/does not receive public drainage and is therefore assumed lower priority for City projects
Forest Lake (20B)		NA	**Yes**	Consider additional studies at this lake, see text (**Section 4.0**)
Fleischmann Lake (15th Avenue N Lake-WTP) (19B)		Improvements have been conducted	**Yes**	NA – has undergone improvements
Mandarin Lake (6B)		NA	**Yes**	Consider additional studies at this lake, see text (**Section 4.0**)
Lake Manor (22B)		Improvements have been conducted	**Yes**	NA – has undergone improvements
Thurner (16B)		NA	**Yes**	Consider additional studies at this lake, see text (**Section 4.0**)
Willow (21B)		NA	**Yes**	Consider additional studies at this lake, see text (**Section 4.0**)
Sun Lake Terrace (15B)		NA	**Yes**	Consider additional studies at this lake, see text (**Section 4.0**)
North Lake (8B)	Gulf of Mexico	Improvements underway	**Yes**	NA – improvements underway
South Lake (9B)		Improvements underway	**Yes**	NA – improvements underway
Alligator Lake (10B)		NA	**Yes**	NA – improvements underway in upstream waterbodies
Lake Suzanne (5B)	Moorings Bay (Nutrients [TN, TP])	Special study underway to support improvements at Swan Lake, additional Moorings Bay lakes also slated for special study to support improvements	**Yes**	NA-targeted monitoring proposed for Moorings Bay Basin lakes to support improvements
Swan Lake (2B)			**Yes**	
Colonnade Lake (3B)			**Yes**	
Lowdermilk (23B)			**Yes**	
Hidden (4B)			**Yes**	
Devils Lake (1SE-B)			**Yes**	
Lantern Lake (14B)	Naples Bay (Copper, *Enterococci,* Fecal Coliform, Nutrients [Chl-a])	NA	**Yes**	Consider additional studies at this lake, see text (**Section 4.0**)
Lake 13 (13B)		NA	No	NA – private lake/does not receive public drainage and is therefore lower priority for City projects
East Lake (11B)		Improvement projects recently completed	**Yes**	NA – has undergone improvements
Spring Lake (11C)		Improvement projects recently completed	**Yes**	NA – has undergone improvements

[1]- Status on FDEP's "Verified Impaired List" (FDEP 2022); impairments and regulatory criteria do not apply to stormwater lakes.

4.1. Recommended Analyses

Pollutant load modeling is a desktop analysis, assuming drainage basin delineations are sufficiently detailed and permit coverages for existing stormwater treatment systems are available. This modeling can be supplemented by additional sampling at lake inflows and lake outflows to quantify in-lake processes (i.e., potential contributions from groundwater seepage and/or sediment flux-driven internal loading) and monitoring flows out of the lakes as well as sediment quality evaluations.

Pollutant load modeling, with prioritized site-specific information, is the primary recommendation because it could provide valuable data for identifying potential hot spots and water quality improvement projects. Deciding which lakes to include in a pollutant load modeling study is outside of the scope of the current project and requires assessing whether the potential projects that will be identified based on the modeling results will be targeted for improving water quality within the lake or downstream, or a combination of both.

As described above, pollutant load modeling should be supplemented by monitoring priority lake inflows and outflows. If monitoring inflows and outflows indicates that the lake is exporting nutrients, sediment internal loading should be assessed via a sediment characterization study. Sediment characterization studies can include bathymetric and sediment thickness surveys, screening level sediment characterization with grab sampling, hot spot identification, sediment nutrient fractionation, and sediment flux.

More in-depth pollutant source tracking methods can be incorporated as needed. These include flow-weighted stormwater sampling and isotopic analysis of water samples.

4.2. BMPS

As described previously, stormwater lake concentration data provides valuable information, however, it does not provide pollutant loads in and out of the lakes, which are key in proposing specific projects. To understand which lakes are the highest overall load contributors, it is important to include both concentration and flow data from specific sources to quantify input and output loads so that projects can be designed to properly attenuate target loads. Measuring the internally derived loads from each lake if nutrients are found to export out of the lake is key to selecting and prioritizing projects. Furthermore, identifying ways to reduce downstream export of pollutant loads by improving the removal efficiency of a particular stormwater lake is also important to improving downstream water quality. Once lakes or areas are selected for projects, there are a variety of structural and non-structural Best Management Practices (BMPs) that can be employed to improve the quality of stormwater runoff.

Low impact development (LID) structural BMPs may be incorporated into the stormwater lake watersheds to reduce nutrients (nitrogen, phosphorus, or both) and other constituents of concern. Encouraging widespread LID practices in existing developments as retrofits and future redevelopments is an effective strategy to mitigate existing water quality issues, improve resiliency, and prevent future watershed degradation. The overall goals of LIDs are to “slow, spread, and soak” (i.e., to prevent excess stormwater runoff by creating upgradient storage volumes, to reduce the volume of stormwater runoff by increasing the amount of pervious area, allowing stored water to infiltrate into the groundwater, and by treating stored water (for nutrient removal) with vegetation or biosorptive activated filter media before infiltration or discharge). Storing stormwater, slowing it down, and allowing it to infiltrate lessens peak flows and reduces erosion, sedimentation, and flooding, which in turn reduces nutrient runoff inputs to lakes. Nutrient removal from surface water and groundwater contributions to the lakes can further improve water quality. Although

planning a new development (or redevelopment) with LID practices is typically easier and more cost effective, LID BMPs can also be implemented to improve existing development. Examples of LID structural BMPs include bioretention/bioinfiltration basins (commonly referred to as rain gardens), stormwater treatment wetlands and bioswales.

More traditional stormwater lake improvement methods can also be beneficial to the City's stormwater lakes. These traditional BMPs include larger-scale projects like dredging and sediment capping to improve in-lake conditions and upstream improvements to the stormwater infrastructure (e.g., nutrient separating baffle boxes, media filters) to improve water quality before it reaches the stormwater lake.

Non-structural BMPs, such as, education and outreach can also reduce pollutant loading. Specifically, public outreach regarding fertilizer use may be beneficial. Nutrient runoff from nonpoint sources such as fertilizer contributes to algae blooms, anoxia (lack of oxygen), and biodiversity loss in aquatic environments (Yang and Toor, 2016). Jani et. al (2020) reported that stormwater runoff is a leading source of nitrogen to waterbodies. In particular, the application of fertilizer to grass lawns and sports/recreational fields/courses have been recognized as an important source of nitrogen and phosphorus pollution in urban areas (Souto et al., 2019; Yang and Toor, 2016; Yang and Toor, 2017; Krimsky et al., 2021), via stormwater runoff and over application of fertilizer which can result in nitrogen leaching through the root zone during infiltration. Krimsky et al. (2021) reported that the source and concentration of the nutrients in runoff are influenced by homeowner fertilizer behavior and recommended that nutrient management should include outreach and education. As described earlier in **Section 1.2.1**, the City of Naples has a fertilizer ordinance[6] and web-based outreach materials. Landscape companies are also required to complete the Green Industries Best Management Practices certification provided through the State—an initiative that was started within the City of Naples' and grew statewide based on these efforts. The addition of public outreach staff within the City would allow for the expansion of outreach efforts to landscape companies and Homeowners Associations, for example. Other initiatives to supplement ongoing efforts could contribute to a targeted outreach or education campaign. Outreach may be a useful tool for lakes receiving only private discharge, like Half Moon Lake, which was monitored in previous City sampling programs and had high concentrations of nutrients and Chl-a. Outreach would also be an opportunity for the City to further educate residents on Florida-Friendly landscaping with low maintenance plants, keeping grass clippings out of stormwater lakes, and adjusting fertilizer use if irrigating with reclaimed water. Moreover, potentially enhancing restrictions of fertilizer and other ordinances that increase water quality protection are highly recommended.

[6] Fertilizer Use and Maintenance of Landscapes, City of Naples, available at: https://www.naplesgov.com/fertilizer, accessed 2021-07-23.

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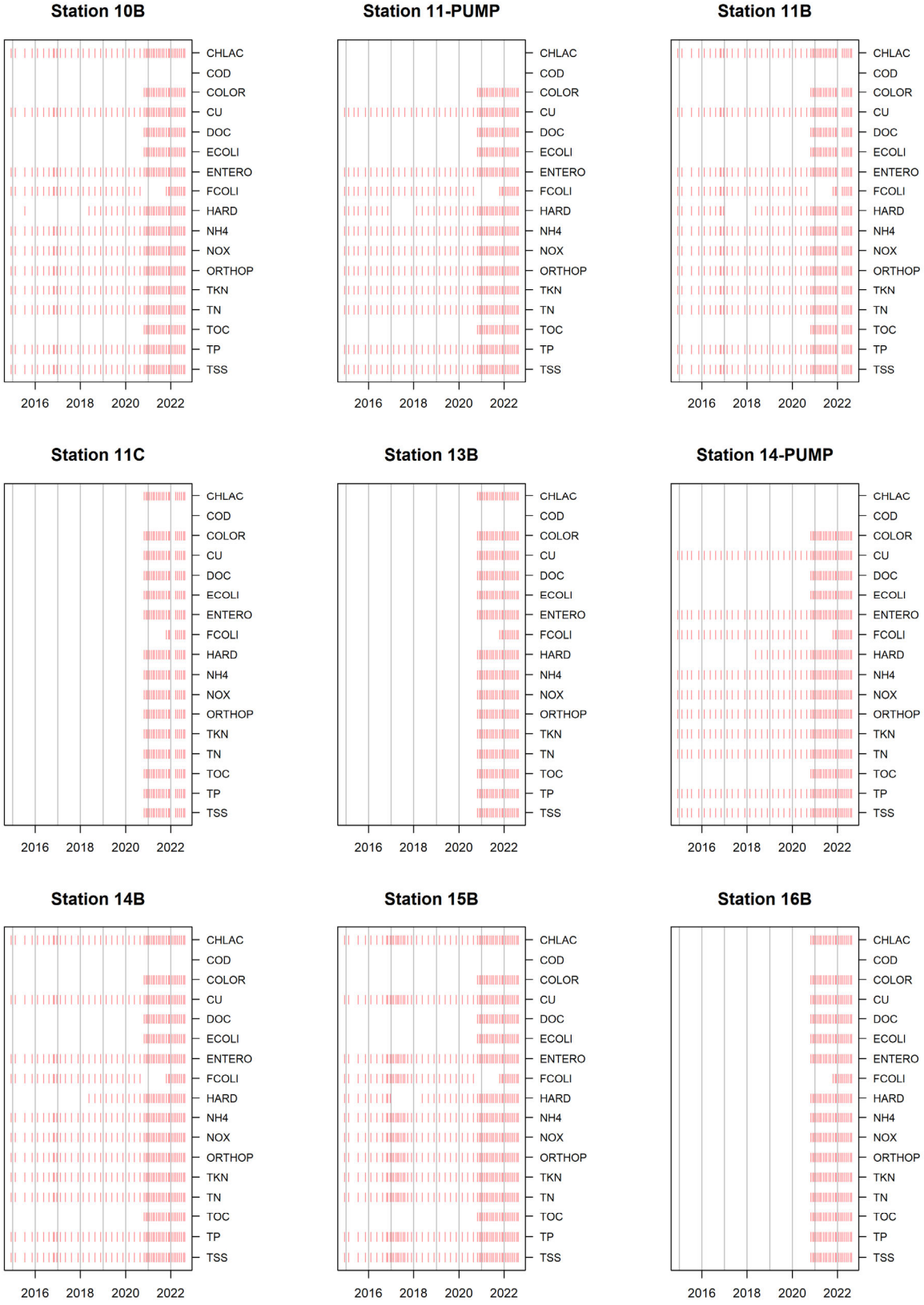
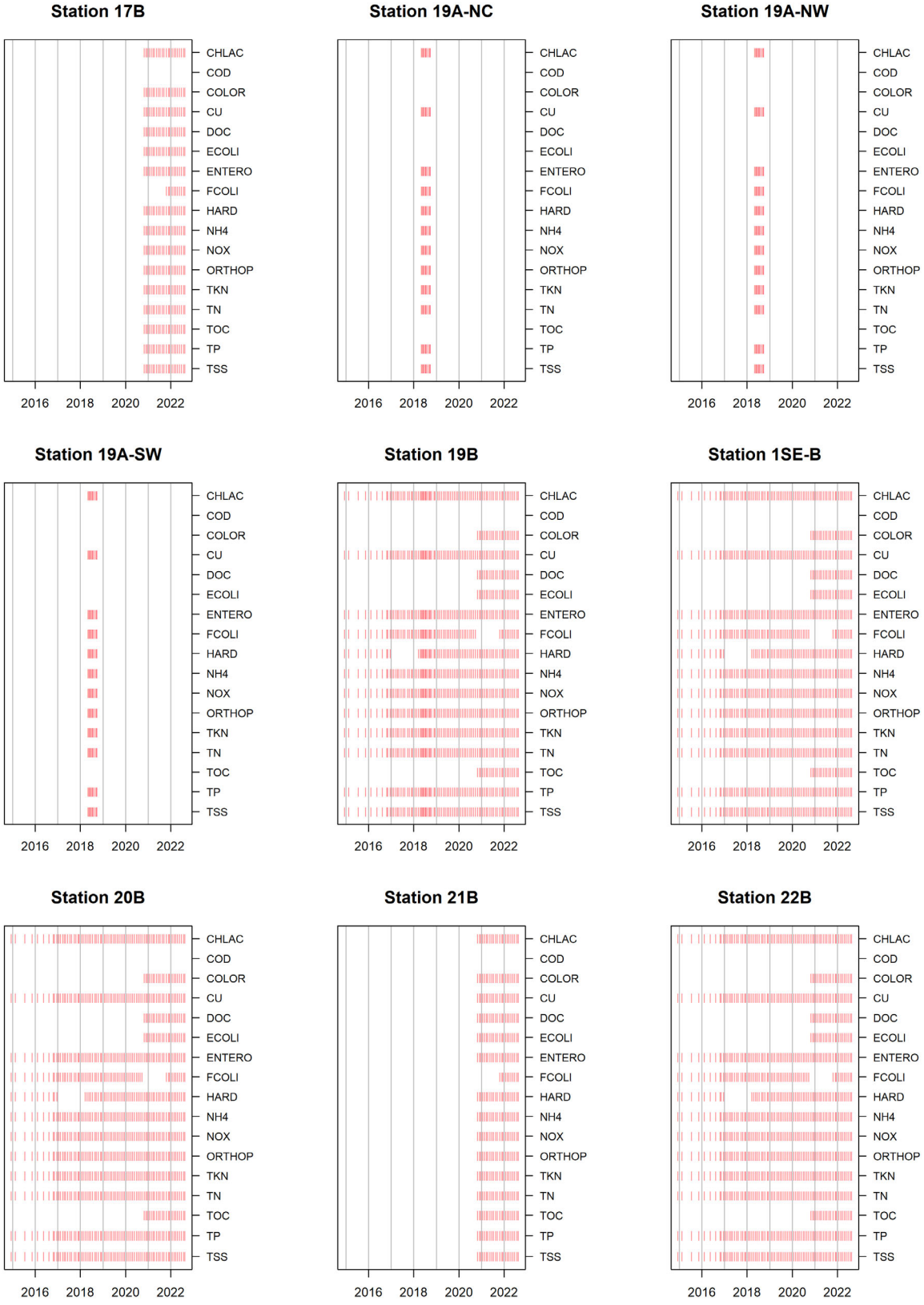
APPENDIX A

Water Quality Periods of Record for Naples Stormwater Stations

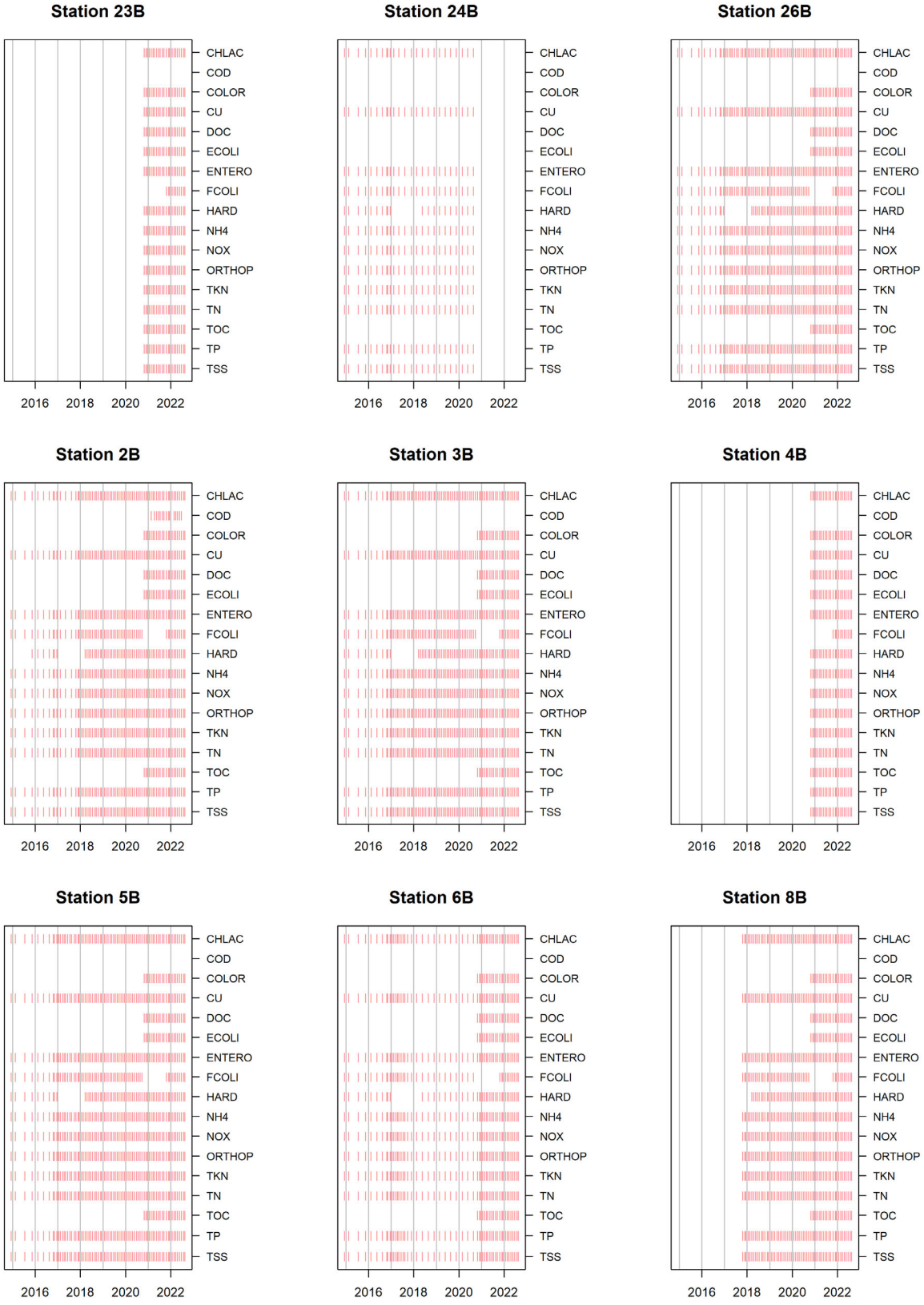
Appendix A – Water Quality Periods of Record for Naples Stormwater Stations



Appendix A – Water Quality Periods of Record for Naples Stormwater Stations



Appendix A – Water Quality Periods of Record for Naples Stormwater Stations



APPENDIX B

Water Quality Summary Statistics for Naples Stormwater Stations

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Ammonia	5/8/2018	9/27/2018	10	0.18	0.004	0.004	0.665	0.262350487	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Chlorophyll-a, Corrected	5/8/2018	9/27/2018	10	25.4729	32.65	0.349	52.9	19.44553778	MG/M3
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Conductivity	5/8/2018	9/27/2018	10	767.34	633	452	2063	479.267358	µS/cm
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Copper	5/8/2018	9/27/2018	10	4.1057	1.92	0.719	20.6	5.937484691	UG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Dissolved Oxygen	5/8/2018	9/27/2018	10	3	2.375	1.49	7.03	1.73563309	mg/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Dissolved Oxygen, Saturation	5/8/2018	9/27/2018	10	39.111	30.65	18.2	89.1	22.31454655	%
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Enterococci	5/8/2018	9/27/2018	10	2994	1010	270	13600	4016.699032	#/100 ML
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Fecal Coliform	5/8/2018	9/27/2018	10	3268.5	825	5	20000	6150.661234	#/100 ML
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Nitrate+Nitrite	5/8/2018	9/27/2018	10	0.1124	0.056	0.016	0.592	0.172091836	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Orthophosphate	5/8/2018	9/27/2018	10	0.0905	0.019	0.006	0.618	0.188170283	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	pH	5/8/2018	9/27/2018	10	8.327	8.15	7.35	11.16	1.057775969	S.U.
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Salinity	5/8/2018	9/27/2018	10	0.376	0.305	0.22	1.05	0.248112878	ppt
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Temperature	5/8/2018	9/27/2018	10	27.99	28.6	22.7	31.2	2.702036269	°C
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Total Hardness, CaCO3	5/8/2018	9/27/2018	10	199.64	165	96.4	498	118.7834931	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Total Kjeldahl Nitrogen	5/8/2018	9/27/2018	10	1.631	1.485	1.02	3.32	0.623849163	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Total Nitrogen	5/8/2018	9/27/2018	10	1.744	1.57	1.04	3.35	0.621703752	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Total Phosphorus	5/8/2018	9/27/2018	10	0.182	0.078	0.038	1.08	0.318166623	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Total Suspended Solids	5/8/2018	9/27/2018	10	18.831	16.9	5.6	36	10.29561336	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NC	Turbidity	5/8/2018	9/27/2018	10	8.661	7.2	3.84	17.2	5.032455663	NTU
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Ammonia	5/8/2018	9/27/2018	10	0.1496	0.004	0.004	0.614	0.239316713	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Chlorophyll-a, Corrected	5/8/2018	9/27/2018	10	21.8291	30.45	0.125	46.9	19.09310747	MG/M3
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Conductivity	5/8/2018	9/27/2018	10	707.22	544	430.2	2202	535.1587777	µS/cm
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Copper	5/8/2018	9/27/2018	10	1.9008	1.1105	0.173	8.55	2.488661255	UG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Dissolved Oxygen	5/8/2018	9/27/2018	10	5.89	6.18	3.62	8.03	1.518647059	mg/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Dissolved Oxygen, Saturation	5/8/2018	9/27/2018	10	76.04	80.55	48.5	100.3	18.16383464	%
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Enterococci	5/8/2018	9/27/2018	10	762	575	10	2900	868.2779893	#/100 ML
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Fecal Coliform	5/8/2018	9/27/2018	10	1013	110	5	5900	1868.472638	#/100 ML
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Nitrate+Nitrite	5/8/2018	9/27/2018	10	0.0378	0.032	0.011	0.088	0.023583422	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Orthophosphate	5/8/2018	9/27/2018	10	0.0199	0.015	0.001	0.048	0.016113831	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	pH	5/8/2018	9/27/2018	10	9.13	8.24	7.75	11.57	1.526273603	S.U.
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Salinity	5/8/2018	9/27/2018	10	0.345	0.26	0.2	1.12	0.277218326	ppt
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Temperature	5/8/2018	9/27/2018	10	28.65	28.7	26.4	30.5	1.376993504	°C
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Total Hardness, CaCO3	5/8/2018	9/27/2018	10	203.2	151	102	672	166.9975382	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Total Kjeldahl Nitrogen	5/8/2018	9/27/2018	10	1.0556	1.06	0.583	1.52	0.323711188	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Total Nitrogen	5/8/2018	9/27/2018	10	1.0926	1.105	0.671	1.54	0.311777413	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Total Phosphorus	5/8/2018	9/27/2018	10	0.0542	0.059	0.004	0.102	0.033108576	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Total Suspended Solids	5/8/2018	9/27/2018	10	43.94	15.5	6	190	62.24118322	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-NW	Turbidity	5/8/2018	9/27/2018	10	15.53	8.16	3.99	69.5	20.07478518	NTU
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Ammonia	5/8/2018	9/27/2018	10	0.0358	0.004	0.004	0.155	0.057383312	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Chlorophyll-a, Corrected	5/8/2018	9/27/2018	10	32.462	33	4.62	67	21.46710652	MG/M3
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Conductivity	5/8/2018	9/27/2018	9	656.9444	653	477.5	1139	211.2584975	µS/cm
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Copper	5/8/2018	9/27/2018	10	3.0071	1.206	0.173	13.9	4.435493295	UG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Dissolved Oxygen	5/8/2018	9/27/2018	9	2.865556	2.53	1.8	4.41	0.848573967	mg/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Dissolved Oxygen, Saturation	5/8/2018	9/27/2018	9	37.16667	31.3	24	54.9	10.84654323	%
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Enterococci	5/8/2018	9/27/2018	10	477	315	80	1500	446.0455881	#/100 ML

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Fecal Coliform	5/8/2018	9/27/2018	10	1683	310	20	10400	3271.992427	#/100 ML
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Nitrate+Nitrite	5/8/2018	9/27/2018	10	0.1673	0.0795	0.023	0.777	0.225592085	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Orthophosphate	5/8/2018	9/27/2018	10	0.1131	0.0285	0.002	0.863	0.264797386	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	pH	5/8/2018	9/27/2018	9	8.026667	8.01	7.11	8.94	0.664887208	S.U.
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Salinity	5/8/2018	9/27/2018	9	0.31	0.3	0.23	0.56	0.103802697	ppt
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Temperature	5/8/2018	9/27/2018	9	28.42222	29.1	25.4	30.4	1.776075574	°C
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Total Hardness, CaCO3	5/8/2018	9/27/2018	10	154	149.5	101	206	32.37282811	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Total Kjeldahl Nitrogen	5/8/2018	9/27/2018	10	1.432	1.35	0.84	2.32	0.458034448	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Total Nitrogen	5/8/2018	9/27/2018	10	1.598	1.48	1.17	2.34	0.398407943	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Total Phosphorus	5/8/2018	9/27/2018	10	0.1558	0.064	0.004	0.978	0.291369105	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Total Suspended Solids	5/8/2018	9/27/2018	10	17.427	8.6	2.8	96	27.91750866	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19A-SW	Turbidity	5/8/2018	9/27/2018	9	9.692222	4.94	1.94	26.8	8.777732876	NTU
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Ammonia	12/15/2014	8/18/2022	83	0.055795	0.004	0.004	1.04	0.138204405	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Calcium	11/30/2020	8/18/2022	22	65.58636	64.65	32.7	119	20.76712823	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Chlorophyll-a, Corrected	12/15/2014	8/18/2022	83	35.4409	29.4	0.575	252	33.58551342	MG/M3
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Color pH	10/29/2020	8/18/2022	23	7.817391	7.94	7.11	8.2	0.293446873	S.U.
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Color, Apparent	10/29/2020	8/18/2022	23	84.78261	80	40	200	41.13387956	PCU
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Conductivity	12/15/2014	9/15/2022	84	572.0095	549	414.2	1499	145.6091762	µS/cm
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Copper	12/15/2014	8/18/2022	83	1.461361	0.891	0.173	18.4	2.361220936	UG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	10.34348	11.1	1.355	19.3	4.273667106	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Dissolved Oxygen	12/15/2014	9/15/2022	84	6.268452	6.275	0.23	12.5	2.612897802	mg/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Dissolved Oxygen, Saturation	12/15/2014	9/15/2022	84	77.18464	77.5	3	168.5	33.96116178	%
Gordon River	15th Avenue N Lake (WTP Lake)	19B	E. coli	10/29/2020	8/18/2022	23	568.1304	426	41	4884	985.0091972	#/100 ML
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Enterococci	12/15/2014	8/18/2022	83	930.5422	370	20	24196	2940.150972	#/100 ML
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Fecal Coliform	12/15/2014	8/18/2022	71	755.2535	370	5	5000	962.9599416	#/100 ML
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Magnesium	11/30/2020	8/18/2022	22	7.620909	6.72	4.4	19.6	3.738843607	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Nitrate+Nitrite	12/15/2014	8/18/2022	83	0.041687	0.013	0.002	0.945	0.121202504	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Orthophosphate	12/15/2014	8/18/2022	83	0.03127	0.023	0.001	0.134	0.027312669	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	pH	12/15/2014	8/18/2022	81	8.048272	8.03	6.57	9.13	0.456778913	S.U.
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Salinity	12/15/2014	9/15/2022	84	0.277901	0.265	0.2	0.75	0.076330955	ppt
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Temperature	12/15/2014	9/15/2022	84	26.21417	27.1	16.9	33.98	4.178088341	°C
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Total Hardness, CaCO3	12/15/2014	8/18/2022	69	175.3681	172	95.6	378	45.50404795	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Total Kjeldahl Nitrogen	12/15/2014	8/18/2022	83	1.358133	1.22	0.532	5.71	0.697453937	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Total Nitrogen	12/15/2014	8/18/2022	83	1.402482	1.24	0.774	5.78	0.734613277	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Total Organic Carbon	10/29/2020	8/18/2022	23	11.47065	11.1	1.355	20.1	3.568213936	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Total Phosphorus	12/15/2014	8/18/2022	83	0.080205	0.071	0.004	0.27	0.050491912	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Total Suspended Solids	12/15/2014	8/18/2022	83	11.87072	8.75	2	108	13.27867774	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Turbidity	12/15/2014	8/18/2022	83	8.530843	5.62	1.74	55	9.093090006	NTU
Gordon River	Forest Lake	20B	Ammonia	12/15/2014	8/18/2022	78	0.045654	0.006	0.004	1.11	0.13865334	MG/L
Gordon River	Forest Lake	20B	Calcium	11/30/2020	8/18/2022	22	67.71818	66.5	52.9	90.5	9.166535221	MG/L
Gordon River	Forest Lake	20B	Chlorophyll-a, Corrected	12/15/2014	8/18/2022	78	50.6709	29.5	0.125	511	64.97233569	MG/M3
Gordon River	Forest Lake	20B	Color pH	10/29/2020	8/18/2022	23	8.06	8.11	7.44	8.89	0.323896729	S.U.
Gordon River	Forest Lake	20B	Color, Apparent	10/29/2020	8/18/2022	23	85.43478	80	50	160	30.89252055	PCU
Gordon River	Forest Lake	20B	Conductivity	12/15/2014	9/15/2022	79	557.1949	541	351	1042	101.350257	µS/cm
Gordon River	Forest Lake	20B	Copper	12/15/2014	8/18/2022	78	1.071115	0.785	0.173	8	1.124507396	UG/L

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Gordon River	Forest Lake	20B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	12.55217	13.4	1.355	23.6	5.108554952	MG/L
Gordon River	Forest Lake	20B	Dissolved Oxygen	12/15/2014	9/15/2022	79	6.822532	6.48	0.57	18.01	3.501169207	mg/L
Gordon River	Forest Lake	20B	Dissolved Oxygen, Saturation	12/15/2014	9/15/2022	79	84.11101	81.8	5.07	223.3	44.94510346	%
Gordon River	Forest Lake	20B	E. coli	10/29/2020	8/18/2022	23	168.913	110	20	842	190.4568462	#/100 ML
Gordon River	Forest Lake	20B	Enterococci	12/15/2014	8/18/2022	78	549.6154	120	5	20000	2372.789822	#/100 ML
Gordon River	Forest Lake	20B	Fecal Coliform	12/15/2014	8/18/2022	66	407.4242	240	20	2700	510.5300733	#/100 ML
Gordon River	Forest Lake	20B	Magnesium	11/30/2020	8/18/2022	22	3.623182	3.485	2.56	4.57	0.57226689	MG/L
Gordon River	Forest Lake	20B	Nitrate+Nitrite	12/15/2014	8/18/2022	78	0.050936	0.003	0.002	1.94	0.230001939	MG/L
Gordon River	Forest Lake	20B	Orthophosphate	12/15/2014	8/18/2022	78	0.018546	0.014	0.001	0.23	0.027315258	MG/L
Gordon River	Forest Lake	20B	pH	12/15/2014	8/18/2022	76	8.070395	8.04	6.97	9.61	0.42935437	S.U.
Gordon River	Forest Lake	20B	Salinity	12/15/2014	9/15/2022	79	0.269399	0.26	0.17	0.51	0.055096531	ppt
Gordon River	Forest Lake	20B	Temperature	12/15/2014	9/15/2022	79	26.27975	27.36	16.4	33.65	4.166318849	°C
Gordon River	Forest Lake	20B	Total Hardness, CaCO3	12/15/2014	8/18/2022	64	184.7813	181.5	127	245	25.93549309	MG/L
Gordon River	Forest Lake	20B	Total Kjeldahl Nitrogen	12/15/2014	8/18/2022	78	1.671167	1.46	0.707	6.6	0.834461447	MG/L
Gordon River	Forest Lake	20B	Total Nitrogen	12/15/2014	8/18/2022	78	1.720821	1.46	0.722	6.69	0.868443491	MG/L
Gordon River	Forest Lake	20B	Total Organic Carbon	10/29/2020	8/18/2022	23	14.72326	14.4	1.355	28.6	5.306578167	MG/L
Gordon River	Forest Lake	20B	Total Phosphorus	12/15/2014	8/18/2022	78	0.076679	0.053	0.004	0.418	0.072112735	MG/L
Gordon River	Forest Lake	20B	Total Suspended Solids	12/15/2014	8/18/2022	78	11.85788	9.415	0.285	78.5	11.18961426	MG/L
Gordon River	Forest Lake	20B	Turbidity	12/15/2014	8/18/2022	77	10.65182	7.6	1.13	74.1	12.70212712	NTU
Gordon River	Lake 17	17B	Ammonia	10/29/2020	8/18/2022	23	0.045478	0.004	0.004	0.675	0.13883079	MG/L
Gordon River	Lake 17	17B	Calcium	11/30/2020	8/18/2022	22	51.41364	50.9	37.8	62.9	6.321414508	MG/L
Gordon River	Lake 17	17B	Chlorophyll-a, Corrected	10/29/2020	8/18/2022	23	37.78696	30.5	14.9	83.2	15.3186845	MG/M3
Gordon River	Lake 17	17B	Color pH	10/29/2020	8/18/2022	23	7.636522	7.72	6.93	7.9	0.226808063	S.U.
Gordon River	Lake 17	17B	Color, Apparent	10/29/2020	8/18/2022	23	102.1739	100	20	160	35.15634195	PCU
Gordon River	Lake 17	17B	Conductivity	10/29/2020	9/15/2022	24	397.5	371.5	264	743	116.6891076	µS/cm
Gordon River	Lake 17	17B	Copper	10/29/2020	8/18/2022	23	1.04987	0.76	0.173	3.36	0.92808994	UG/L
Gordon River	Lake 17	17B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	14.33304	13.6	8.58	24.6	3.654733462	MG/L
Gordon River	Lake 17	17B	Dissolved Oxygen	10/29/2020	9/15/2022	24	4.32	4.2	1.21	7.52	1.399142595	mg/L
Gordon River	Lake 17	17B	Dissolved Oxygen, Saturation	10/29/2020	9/15/2022	24	51.525	49.9	15.3	87.3	16.85950255	%
Gordon River	Lake 17	17B	E. coli	10/29/2020	8/18/2022	23	1432.609	717	84	5794	1635.791628	#/100 ML
Gordon River	Lake 17	17B	Enterococci	10/29/2020	8/18/2022	23	1334.261	370	84	4400	1607.082286	#/100 ML
Gordon River	Lake 17	17B	Fecal Coliform	10/26/2021	8/18/2022	11	2137.273	930	470	5500	1847.755887	#/100 ML
Gordon River	Lake 17	17B	Magnesium	11/30/2020	8/18/2022	22	4.074091	3.855	2.98	5.49	0.756386517	MG/L
Gordon River	Lake 17	17B	Nitrate+Nitrite	10/29/2020	8/18/2022	23	0.020391	0.003	0.003	0.206	0.046322721	MG/L
Gordon River	Lake 17	17B	Orthophosphate	10/29/2020	8/18/2022	23	0.097322	0.079	0.05	0.245	0.044482264	MG/L
Gordon River	Lake 17	17B	pH	10/29/2020	6/22/2022	18	7.514444	7.545	6.66	8.39	0.455518092	S.U.
Gordon River	Lake 17	17B	Salinity	10/29/2020	9/15/2022	24	0.185	0.175	0.09	0.36	0.059709441	ppt
Gordon River	Lake 17	17B	Temperature	10/29/2020	9/15/2022	24	24.73917	25.985	16	29.76	3.970040977	°C
Gordon River	Lake 17	17B	Total Hardness, CaCO3	10/29/2020	8/18/2022	23	150.6087	145	107	270	31.56053221	MG/L
Gordon River	Lake 17	17B	Total Kjeldahl Nitrogen	10/29/2020	8/18/2022	23	1.386217	1.33	0.359	2.29	0.417368919	MG/L
Gordon River	Lake 17	17B	Total Nitrogen	10/29/2020	8/18/2022	23	1.405348	1.36	0.359	2.29	0.414248565	MG/L
Gordon River	Lake 17	17B	Total Organic Carbon	10/29/2020	8/18/2022	23	15.61783	14.5	8.81	30	5.119822402	MG/L
Gordon River	Lake 17	17B	Total Phosphorus	10/29/2020	8/18/2022	23	0.162696	0.165	0.05	0.322	0.057624517	MG/L
Gordon River	Lake 17	17B	Total Suspended Solids	10/29/2020	8/18/2022	23	7.481304	7.33	2.33	14.7	3.110286898	MG/L
Gordon River	Lake 17	17B	Turbidity	10/29/2020	8/18/2022	23	4.58913	3.8	2.6	10	1.919149701	NTU

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Gordon River	Lake Manor	22B	Ammonia	12/15/2014	8/18/2022	78	0.036949	0.004	0.004	0.387	0.060572785	MG/L
Gordon River	Lake Manor	22B	Calcium	11/30/2020	8/18/2022	22	67.47273	68.2	42	91.4	14.33378233	MG/L
Gordon River	Lake Manor	22B	Chlorophyll-a, Corrected	12/15/2014	8/18/2022	78	16.30764	15.45	0.396	54.8	10.74522658	MG/M3
Gordon River	Lake Manor	22B	Color pH	10/29/2020	8/18/2022	23	7.671304	7.7	7.24	8.06	0.183657397	S.U.
Gordon River	Lake Manor	22B	Color, Apparent	10/29/2020	8/18/2022	23	89.56522	80	50	160	27.04848523	PCU
Gordon River	Lake Manor	22B	Conductivity	12/15/2014	9/15/2022	79	2776.981	1792	385	33927	4425.958782	µS/cm
Gordon River	Lake Manor	22B	Copper	12/15/2014	8/18/2022	78	1.916859	1.26	0.136	25.6	3.294646668	UG/L
Gordon River	Lake Manor	22B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	10.70022	12.1	1.355	17.5	4.857296638	MG/L
Gordon River	Lake Manor	22B	Dissolved Oxygen	12/15/2014	9/15/2022	79	4.873671	4.8	0.23	10.95	1.999030648	mg/L
Gordon River	Lake Manor	22B	Dissolved Oxygen, Saturation	12/15/2014	9/15/2022	79	60.40506	57.9	2.8	150.6	24.31049103	%
Gordon River	Lake Manor	22B	E. coli	10/29/2020	8/18/2022	23	492.3043	428	109	2359	488.2408529	#/100 ML
Gordon River	Lake Manor	22B	Enterococci	12/15/2014	8/18/2022	78	449.8333	120	10	5200	990.2651149	#/100 ML
Gordon River	Lake Manor	22B	Fecal Coliform	12/15/2014	8/18/2022	66	630.4545	185	10	13100	1772.959657	#/100 ML
Gordon River	Lake Manor	22B	Magnesium	11/30/2020	8/18/2022	22	21.36773	16	3.77	61.7	16.32361128	MG/L
Gordon River	Lake Manor	22B	Nitrate+Nitrite	12/15/2014	8/18/2022	78	0.032808	0.0095	0.002	0.39	0.05879594	MG/L
Gordon River	Lake Manor	22B	Orthophosphate	12/15/2014	8/18/2022	78	0.038113	0.032	0.001	0.162	0.034632176	MG/L
Gordon River	Lake Manor	22B	pH	12/15/2014	9/15/2022	77	7.597403	7.61	6.73	8.2	0.286344486	S.U.
Gordon River	Lake Manor	22B	Salinity	12/15/2014	9/15/2022	79	1.24146	0.91	0.18	8.9	1.529076587	ppt
Gordon River	Lake Manor	22B	Temperature	12/15/2014	9/15/2022	79	26.31506	27.2	15.2	32.76	3.985921016	°C
Gordon River	Lake Manor	22B	Total Hardness, CaCO3	12/15/2014	8/18/2022	64	369.4375	284	122	2266	364.7907804	MG/L
Gordon River	Lake Manor	22B	Total Kjeldahl Nitrogen	12/15/2014	8/18/2022	78	0.881756	0.8315	0.362	2.83	0.348302719	MG/L
Gordon River	Lake Manor	22B	Total Nitrogen	12/15/2014	8/18/2022	78	0.9135	0.8605	0.362	2.84	0.349700159	MG/L
Gordon River	Lake Manor	22B	Total Organic Carbon	10/29/2020	8/18/2022	23	11.71978	12.5	1.355	19	3.821320714	MG/L
Gordon River	Lake Manor	22B	Total Phosphorus	12/15/2014	8/18/2022	78	0.078115	0.0735	0.004	0.265	0.052145894	MG/L
Gordon River	Lake Manor	22B	Total Suspended Solids	12/15/2014	8/18/2022	78	3.556282	2.94	0.285	10.7	2.225979544	MG/L
Gordon River	Lake Manor	22B	Turbidity	12/15/2014	8/18/2022	78	2.641295	2.085	0.89	16.4	2.041698332	NTU
Gordon River	Mandarin Lake	6B	Ammonia	12/15/2014	8/18/2022	54	0.017389	0.004	0.004	0.116	0.021694636	MG/L
Gordon River	Mandarin Lake	6B	Calcium	11/30/2020	8/18/2022	22	80.50909	83.05	56.8	105	13.05063068	MG/L
Gordon River	Mandarin Lake	6B	Chlorophyll-a, Corrected	12/15/2014	8/18/2022	54	20.29944	15.4	1.24	80	15.45409898	MG/M3
Gordon River	Mandarin Lake	6B	Color pH	10/29/2020	8/18/2022	23	7.579565	7.55	7.1	8.11	0.234374957	S.U.
Gordon River	Mandarin Lake	6B	Color, Apparent	10/29/2020	8/18/2022	23	108.2609	100	60	180	29.94725271	PCU
Gordon River	Mandarin Lake	6B	Conductivity	12/15/2014	9/15/2022	55	694.7455	700	504	1318	141.3600889	µS/cm
Gordon River	Mandarin Lake	6B	Copper	12/15/2014	8/18/2022	54	3.894704	0.925	0.173	86.2	13.66440053	UG/L
Gordon River	Mandarin Lake	6B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	13.17304	14.6	1.355	27.9	5.705758005	MG/L
Gordon River	Mandarin Lake	6B	Dissolved Oxygen	12/15/2014	9/15/2022	55	4.162909	3.51	0.56	9.09	2.393638694	mg/L
Gordon River	Mandarin Lake	6B	Dissolved Oxygen, Saturation	12/15/2014	9/15/2022	55	51.39636	43.3	7.2	124.5	30.09764334	%
Gordon River	Mandarin Lake	6B	E. coli	10/29/2020	8/18/2022	23	200.087	158	5	744	195.7779152	#/100 ML
Gordon River	Mandarin Lake	6B	Enterococci	12/15/2014	8/18/2022	54	268.463	160	5	2300	363.5969006	#/100 ML
Gordon River	Mandarin Lake	6B	Fecal Coliform	12/15/2014	8/18/2022	42	1153.571	150	10	19400	3371.273785	#/100 ML
Gordon River	Mandarin Lake	6B	Magnesium	11/30/2020	8/18/2022	22	48.77182	5.665	3.99	956	202.6337267	MG/L
Gordon River	Mandarin Lake	6B	Nitrate+Nitrite	12/15/2014	8/18/2022	54	0.018574	0.003	0.002	0.317	0.052456128	MG/L
Gordon River	Mandarin Lake	6B	Orthophosphate	12/15/2014	8/18/2022	54	0.035407	0.0325	0.001	0.156	0.028503239	MG/L
Gordon River	Mandarin Lake	6B	pH	12/15/2014	9/15/2022	53	7.52717	7.49	6.78	8.49	0.311432036	S.U.
Gordon River	Mandarin Lake	6B	Salinity	12/15/2014	9/15/2022	55	0.914121	0.34	0.24	32	4.269872959	ppt
Gordon River	Mandarin Lake	6B	Temperature	12/15/2014	9/15/2022	55	25.93855	27	18.67	32.68	3.520949692	°C

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Gordon River	Mandarin Lake	6B	Total Hardness, CaCO3	12/15/2014	8/18/2022	43	314.5349	235	160	4142	598.2869334	MG/L
Gordon River	Mandarin Lake	6B	Total Kjeldahl Nitrogen	12/15/2014	8/18/2022	54	1.017704	0.9255	0.248	1.87	0.28201349	MG/L
Gordon River	Mandarin Lake	6B	Total Nitrogen	12/15/2014	8/18/2022	54	1.034648	0.935	0.248	1.87	0.301694657	MG/L
Gordon River	Mandarin Lake	6B	Total Organic Carbon	10/29/2020	8/18/2022	23	14.34196	14.5	1.355	27.7	4.827684543	MG/L
Gordon River	Mandarin Lake	6B	Total Phosphorus	12/15/2014	8/18/2022	54	0.074741	0.0695	0.013	0.17	0.040438719	MG/L
Gordon River	Mandarin Lake	6B	Total Suspended Solids	12/15/2014	8/18/2022	54	5.968463	5.1	0.667	24	4.350120106	MG/L
Gordon River	Mandarin Lake	6B	Turbidity	12/15/2014	8/18/2022	54	3.473519	2.98	1.1	13	2.13361608	NTU
Gordon River	NCH Lake	26B	Ammonia	12/15/2014	8/18/2022	78	0.027115	0.004	0.004	0.322	0.04935874	MG/L
Gordon River	NCH Lake	26B	Calcium	11/30/2020	8/18/2022	22	47.2	48.2	19.6	78.2	13.56206193	MG/L
Gordon River	NCH Lake	26B	Chlorophyll-a, Corrected	12/15/2014	8/18/2022	78	45.67051	29.2	1.46	779	87.68181951	MG/M3
Gordon River	NCH Lake	26B	Color pH	10/29/2020	8/18/2022	23	7.863913	7.86	7.41	8.17	0.232001942	S.U.
Gordon River	NCH Lake	26B	Color, Apparent	10/29/2020	8/18/2022	23	86.30435	80	40	200	39.0575738	PCU
Gordon River	NCH Lake	26B	Conductivity	12/15/2014	9/15/2022	79	627.8924	609	333	1466	181.3135093	µS/cm
Gordon River	NCH Lake	26B	Copper	12/15/2014	8/18/2022	78	60.28641	40.5	7.24	436	63.44903561	UG/L
Gordon River	NCH Lake	26B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	12.79326	14.8	1.355	19.4	5.105348712	MG/L
Gordon River	NCH Lake	26B	Dissolved Oxygen	12/15/2014	9/15/2022	79	5.319241	5.42	0.62	8.87	1.913556075	mg/L
Gordon River	NCH Lake	26B	Dissolved Oxygen, Saturation	12/15/2014	9/15/2022	79	63.7557	65.8	10.4	103.2	19.25910206	%
Gordon River	NCH Lake	26B	E. coli	10/29/2020	8/18/2022	23	453.4348	384	121	1112	306.8333611	#/100 ML
Gordon River	NCH Lake	26B	Enterococci	12/15/2014	8/18/2022	78	833.2051	460	5	20000	2304.4477	#/100 ML
Gordon River	NCH Lake	26B	Fecal Coliform	12/15/2014	8/18/2022	66	960.1515	330	60	11400	2001.323018	#/100 ML
Gordon River	NCH Lake	26B	Magnesium	11/30/2020	8/18/2022	22	10.48182	11.2	4.02	15.2	3.160311372	MG/L
Gordon River	NCH Lake	26B	Nitrate+Nitrite	12/15/2014	8/18/2022	78	0.018705	0.006	0.002	0.187	0.030582275	MG/L
Gordon River	NCH Lake	26B	Orthophosphate	12/15/2014	8/18/2022	78	0.030103	0.02	0.001	0.118	0.029956934	MG/L
Gordon River	NCH Lake	26B	pH	12/15/2014	9/15/2022	77	7.672468	7.71	5.89	9.09	0.461496866	S.U.
Gordon River	NCH Lake	26B	Salinity	12/15/2014	9/15/2022	79	0.307223	0.3	0.16	0.74	0.095092809	ppt
Gordon River	NCH Lake	26B	Temperature	12/15/2014	9/15/2022	79	24.53899	25.4	14.5	30.7	4.013867498	°C
Gordon River	NCH Lake	26B	Total Hardness, CaCO3	12/15/2014	8/18/2022	64	156.6125	158	65.5	255	39.98783347	MG/L
Gordon River	NCH Lake	26B	Total Kjeldahl Nitrogen	12/15/2014	8/18/2022	78	1.281628	1.17	0.248	7.74	0.874684316	MG/L
Gordon River	NCH Lake	26B	Total Nitrogen	12/15/2014	8/18/2022	78	1.29941	1.195	0.248	7.75	0.873895688	MG/L
Gordon River	NCH Lake	26B	Total Organic Carbon	10/29/2020	8/18/2022	23	14.45087	14.9	3.2	27.7	5.054786133	MG/L
Gordon River	NCH Lake	26B	Total Phosphorus	12/15/2014	8/18/2022	78	0.091538	0.084	0.004	0.293	0.053896171	MG/L
Gordon River	NCH Lake	26B	Total Suspended Solids	12/15/2014	8/18/2022	78	10.02506	7.8	0.285	74	9.936135629	MG/L
Gordon River	NCH Lake	26B	Turbidity	12/15/2014	8/18/2022	78	5.361538	4.87	1.37	22.3	3.119900963	NTU
Gordon River	Sun Lake Terrace	15B	Ammonia	12/16/2014	8/18/2022	54	0.044537	0.0105	0.004	0.272	0.063984583	MG/L
Gordon River	Sun Lake Terrace	15B	Calcium	11/30/2020	8/18/2022	22	71.10909	71.85	55	84	7.792053895	MG/L
Gordon River	Sun Lake Terrace	15B	Chlorophyll-a, Corrected	12/16/2014	8/18/2022	54	17.69676	13	0.125	116	17.27314715	MG/M3
Gordon River	Sun Lake Terrace	15B	Color pH	10/29/2020	8/18/2022	23	7.992174	8.06	7.45	8.69	0.295311184	S.U.
Gordon River	Sun Lake Terrace	15B	Color, Apparent	10/29/2020	8/18/2022	23	103.913	100	60	200	31.72884126	PCU
Gordon River	Sun Lake Terrace	15B	Conductivity	12/16/2014	9/15/2022	55	483.4327	480	334	928	99.10711014	µS/cm
Gordon River	Sun Lake Terrace	15B	Copper	12/16/2014	8/18/2022	54	6.239593	4.235	0.173	65.7	9.472122815	UG/L
Gordon River	Sun Lake Terrace	15B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	16.1913	15.6	10.1	26.7	3.766227078	MG/L
Gordon River	Sun Lake Terrace	15B	Dissolved Oxygen	12/16/2014	9/15/2022	55	5.851455	5.67	1.52	13.82	2.245860734	mg/L
Gordon River	Sun Lake Terrace	15B	Dissolved Oxygen, Saturation	12/16/2014	9/15/2022	55	72.35091	71.6	20	162.3	25.92521204	%
Gordon River	Sun Lake Terrace	15B	E. coli	10/29/2020	8/18/2022	23	1415.957	554	158	8664	2181.486034	#/100 ML
Gordon River	Sun Lake Terrace	15B	Enterococci	12/16/2014	8/18/2022	54	475.0185	170	5	5400	965.8071898	#/100 ML

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Gordon River	Sun Lake Terrace	15B	Fecal Coliform	12/16/2014	8/18/2022	42	1072.143	380	40	14400	2562.466928	#/100 ML
Gordon River	Sun Lake Terrace	15B	Magnesium	11/30/2020	8/18/2022	22	3.809545	3.72	2.87	5.14	0.609195232	MG/L
Gordon River	Sun Lake Terrace	15B	Nitrate+Nitrite	12/16/2014	8/18/2022	54	0.064889	0.017	0.002	0.418	0.097817633	MG/L
Gordon River	Sun Lake Terrace	15B	Orthophosphate	12/16/2014	8/18/2022	54	0.01393	0.008	0.001	0.055	0.013632766	MG/L
Gordon River	Sun Lake Terrace	15B	pH	12/16/2014	9/15/2022	50	7.928	7.945	6.8	8.77	0.379166648	S.U.
Gordon River	Sun Lake Terrace	15B	Salinity	12/16/2014	9/15/2022	55	0.230415	0.23	0.11	0.46	0.053039391	ppt
Gordon River	Sun Lake Terrace	15B	Temperature	12/16/2014	9/15/2022	55	26.55455	26.3	17.78	32.91	3.835357349	°C
Gordon River	Sun Lake Terrace	15B	Total Hardness, CaCO3	12/16/2014	8/18/2022	43	189.2558	188	149	231	18.5960736	MG/L
Gordon River	Sun Lake Terrace	15B	Total Kjeldahl Nitrogen	12/16/2014	8/18/2022	54	1.116611	1.055	0.284	1.99	0.320016828	MG/L
Gordon River	Sun Lake Terrace	15B	Total Nitrogen	12/16/2014	8/18/2022	54	1.181426	1.14	0.317	2.03	0.330874576	MG/L
Gordon River	Sun Lake Terrace	15B	Total Organic Carbon	10/29/2020	8/18/2022	23	17.04783	16.4	11.2	29.1	3.927394413	MG/L
Gordon River	Sun Lake Terrace	15B	Total Phosphorus	12/16/2014	8/18/2022	54	0.050741	0.0405	0.004	0.356	0.052362015	MG/L
Gordon River	Sun Lake Terrace	15B	Total Suspended Solids	12/16/2014	8/18/2022	54	6.072222	4.56	1	28	4.763944246	MG/L
Gordon River	Sun Lake Terrace	15B	Turbidity	12/16/2014	8/18/2022	54	3.783556	2.73	0.852	13	2.749991771	NTU
Gordon River	Thurner	16B	Ammonia	10/29/2020	8/18/2022	23	0.066261	0.019	0.004	0.418	0.106530498	MG/L
Gordon River	Thurner	16B	Calcium	11/30/2020	8/18/2022	22	71.74545	72.35	57.8	90.1	8.126894052	MG/L
Gordon River	Thurner	16B	Chlorophyll-a, Corrected	10/29/2020	8/18/2022	23	36.64957	26.2	8.44	98.1	25.24498069	MG/M3
Gordon River	Thurner	16B	Color pH	10/29/2020	8/18/2022	23	7.867391	7.85	7.4	8.25	0.245601625	S.U.
Gordon River	Thurner	16B	Color, Apparent	10/29/2020	8/18/2022	23	117.3913	110	50	200	34.80039071	PCU
Gordon River	Thurner	16B	Conductivity	10/29/2020	9/15/2022	23	486.413	456	320	965	159.701757	µS/cm
Gordon River	Thurner	16B	Copper	10/29/2020	8/18/2022	23	3.99187	3.25	0.173	12.9	3.829054658	UG/L
Gordon River	Thurner	16B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	18.16522	18.1	6.1	32.4	5.351856831	MG/L
Gordon River	Thurner	16B	Dissolved Oxygen	10/29/2020	9/15/2022	23	4.505217	4.12	1.39	8.52	1.880152	mg/L
Gordon River	Thurner	16B	Dissolved Oxygen, Saturation	10/29/2020	9/15/2022	23	55.43913	58.4	17.8	100.5	21.85245439	%
Gordon River	Thurner	16B	E. coli	10/29/2020	8/18/2022	23	908.4348	231	108	12997	2647.383062	#/100 ML
Gordon River	Thurner	16B	Enterococci	10/29/2020	8/18/2022	23	1144.957	230	30	17329	3565.907541	#/100 ML
Gordon River	Thurner	16B	Fecal Coliform	10/26/2021	8/18/2022	11	450.9091	290	70	1800	480.3426807	#/100 ML
Gordon River	Thurner	16B	Magnesium	11/30/2020	8/18/2022	22	4.066818	3.94	2.79	5.67	0.73847582	MG/L
Gordon River	Thurner	16B	Nitrate+Nitrite	10/29/2020	8/18/2022	23	0.03	0.01	0.003	0.197	0.046530537	MG/L
Gordon River	Thurner	16B	Orthophosphate	10/29/2020	8/18/2022	23	0.022165	0.014	0.001	0.053	0.016641968	MG/L
Gordon River	Thurner	16B	pH	10/29/2020	9/15/2022	18	7.722222	7.7	6.98	8.47	0.408059332	S.U.
Gordon River	Thurner	16B	Salinity	10/29/2020	9/15/2022	23	0.228696	0.22	0.11	0.47	0.080696082	ppt
Gordon River	Thurner	16B	Temperature	10/29/2020	9/15/2022	23	25.93565	27.24	18.36	30.69	3.539307619	°C
Gordon River	Thurner	16B	Total Hardness, CaCO3	10/29/2020	8/18/2022	23	203.1304	198	162	360	40.31388701	MG/L
Gordon River	Thurner	16B	Total Kjeldahl Nitrogen	10/29/2020	8/18/2022	23	1.505217	1.36	1.05	2.84	0.421424743	MG/L
Gordon River	Thurner	16B	Total Nitrogen	10/29/2020	8/18/2022	23	1.533043	1.41	1.05	2.84	0.417529909	MG/L
Gordon River	Thurner	16B	Total Organic Carbon	10/29/2020	8/18/2022	23	18.2	17.6	12.6	24.6	3.381903713	MG/L
Gordon River	Thurner	16B	Total Phosphorus	10/29/2020	8/18/2022	23	0.068826	0.067	0.033	0.154	0.026648643	MG/L
Gordon River	Thurner	16B	Total Suspended Solids	10/29/2020	8/18/2022	23	9.172174	8.67	0.8	25	6.29905401	MG/L
Gordon River	Thurner	16B	Turbidity	10/29/2020	8/18/2022	23	5.52913	4.1	2.1	23	4.285144437	NTU
Gordon River	Thurner	23B	Conductivity	4/15/2021	4/15/2021	1	27993	27993	27993	27993	NA	µS/cm
Gordon River	Thurner	23B	Dissolved Oxygen	4/15/2021	4/15/2021	1	5.62	5.62	5.62	5.62	NA	mg/L
Gordon River	Thurner	23B	Dissolved Oxygen, Saturation	4/15/2021	4/15/2021	1	78.2	78.2	78.2	78.2	NA	%
Gordon River	Thurner	23B	pH	4/15/2021	4/15/2021	1	8.13	8.13	8.13	8.13	NA	S.U.
Gordon River	Thurner	23B	Salinity	4/15/2021	4/15/2021	1	17.17	17.17	17.17	17.17	NA	ppt

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Gordon River	Thurner	23B	Temperature	4/15/2021	4/15/2021	1	27.4	27.4	27.4	27.4	NA	°C
Gordon River	Willow	21B	Ammonia	10/29/2020	8/18/2022	23	0.038652	0.004	0.004	0.209	0.056012668	MG/L
Gordon River	Willow	21B	Calcium	11/30/2020	8/18/2022	22	87.62727	87.35	67.3	117	10.80269727	MG/L
Gordon River	Willow	21B	Chlorophyll-a, Corrected	10/29/2020	8/18/2022	23	19.61957	15	4.37	63	16.38111121	MG/M3
Gordon River	Willow	21B	Color pH	10/29/2020	8/18/2022	23	7.683478	7.75	6.73	8.17	0.295736503	S.U.
Gordon River	Willow	21B	Color, Apparent	10/29/2020	8/18/2022	23	149.4022	160	1.25	220	50.42696897	PCU
Gordon River	Willow	21B	Conductivity	10/29/2020	9/15/2022	24	654	612.5	524	1207	172.5126334	µS/cm
Gordon River	Willow	21B	Copper	10/29/2020	8/18/2022	23	1.02613	0.926	0.173	3.96	0.906375916	UG/L
Gordon River	Willow	21B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	19.20478	20.5	1.355	31.7	7.288495056	MG/L
Gordon River	Willow	21B	Dissolved Oxygen	10/29/2020	9/15/2022	24	4.383333	4.62	0.94	8.84	1.901838165	mg/L
Gordon River	Willow	21B	Dissolved Oxygen, Saturation	10/29/2020	9/15/2022	24	53.10417	54.65	12	102.5	21.21749645	%
Gordon River	Willow	21B	E. coli	10/29/2020	8/18/2022	23	382.3043	226	86	1553	351.7789123	#/100 ML
Gordon River	Willow	21B	Enterococci	10/29/2020	8/18/2022	23	281.087	170	20	1600	348.8904377	#/100 ML
Gordon River	Willow	21B	Fecal Coliform	10/26/2021	8/18/2022	11	509.0909	260	90	2500	683.4830582	#/100 ML
Gordon River	Willow	21B	Magnesium	11/30/2020	8/18/2022	22	3.445909	3.425	2.51	4.29	0.511688699	MG/L
Gordon River	Willow	21B	Nitrate+Nitrite	10/29/2020	8/18/2022	23	0.013739	0.003	0.003	0.104	0.023516372	MG/L
Gordon River	Willow	21B	Orthophosphate	10/29/2020	8/18/2022	23	0.022148	0.017	0.001	0.087	0.02375582	MG/L
Gordon River	Willow	21B	pH	10/29/2020	8/18/2022	21	7.534762	7.48	6.76	8.33	0.395987614	S.U.
Gordon River	Willow	21B	Salinity	10/29/2020	9/15/2022	24	0.31875	0.3	0.25	0.6	0.087938343	ppt
Gordon River	Willow	21B	Temperature	10/29/2020	9/15/2022	24	25.635	26.825	17.72	31.39	3.509265995	°C
Gordon River	Willow	21B	Total Hardness, CaCO3	10/29/2020	8/18/2022	23	231.7826	234	179	310	28.86796986	MG/L
Gordon River	Willow	21B	Total Kjeldahl Nitrogen	10/29/2020	8/18/2022	23	1.128087	1.08	0.647	1.86	0.272130302	MG/L
Gordon River	Willow	21B	Total Nitrogen	10/29/2020	8/18/2022	23	1.097304	1.11	0.025	1.88	0.359995762	MG/L
Gordon River	Willow	21B	Total Organic Carbon	10/29/2020	8/18/2022	23	21.69804	21.8	1.355	30.3	5.418608245	MG/L
Gordon River	Willow	21B	Total Phosphorus	10/29/2020	8/18/2022	23	0.046435	0.043	0.008	0.094	0.024338197	MG/L
Gordon River	Willow	21B	Total Suspended Solids	10/29/2020	8/18/2022	23	3.82487	4	0.285	8.67	2.412041276	MG/L
Gordon River	Willow	21B	Turbidity	10/29/2020	8/18/2022	23	2.128217	2.1	0.599	4.1	0.845189272	NTU
Gulf of Mexico	Alligator Lake	10B	Ammonia	12/15/2014	8/18/2022	48	0.07975	0.0205	0.004	0.857	0.139140294	MG/L
Gulf of Mexico	Alligator Lake	10B	Calcium	11/30/2020	8/18/2022	22	104.6955	108	55.8	154	27.28838018	MG/L
Gulf of Mexico	Alligator Lake	10B	Chlorophyll-a, Corrected	12/15/2014	8/18/2022	48	21.0411	17.4	0.615	91.5	19.7394152	MG/M3
Gulf of Mexico	Alligator Lake	10B	Color pH	10/29/2020	8/18/2022	23	7.769565	7.74	7.53	8.12	0.157926285	S.U.
Gulf of Mexico	Alligator Lake	10B	Color, Apparent	10/29/2020	8/18/2022	23	70	70	30	120	22.10512076	PCU
Gulf of Mexico	Alligator Lake	10B	Conductivity	12/15/2014	9/15/2022	48	9109.146	8216	636	26404	5208.010912	µS/cm
Gulf of Mexico	Alligator Lake	10B	Copper	12/15/2014	8/18/2022	48	2.31988	1.48	0.1355	22.3	4.109976659	UG/L
Gulf of Mexico	Alligator Lake	10B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	11.04804	12.1	1.355	15.8	3.235135496	MG/L
Gulf of Mexico	Alligator Lake	10B	Dissolved Oxygen	12/15/2014	9/15/2022	48	5.789792	5.575	1.75	10.52	2.009258876	mg/L
Gulf of Mexico	Alligator Lake	10B	Dissolved Oxygen, Saturation	12/15/2014	9/15/2022	48	74.20625	75.1	22.8	122.1	25.65019519	%
Gulf of Mexico	Alligator Lake	10B	E. coli	10/29/2020	8/18/2022	23	360.4348	216	31	1223	320.9026794	#/100 ML
Gulf of Mexico	Alligator Lake	10B	Enterococci	12/15/2014	8/18/2022	48	264.1042	70	5	3441	572.7954311	#/100 ML
Gulf of Mexico	Alligator Lake	10B	Fecal Coliform	12/15/2014	8/18/2022	36	124.4444	70	5	1080	207.353314	#/100 ML
Gulf of Mexico	Alligator Lake	10B	Magnesium	11/30/2020	8/18/2022	22	150.4227	167.5	17.2	314	73.37246747	MG/L
Gulf of Mexico	Alligator Lake	10B	Nitrate+Nitrite	12/15/2014	8/18/2022	48	0.026729	0.0105	0.002	0.236	0.044801092	MG/L
Gulf of Mexico	Alligator Lake	10B	Orthophosphate	12/15/2014	8/18/2022	48	0.069769	0.066	0.002	0.226	0.044541648	MG/L
Gulf of Mexico	Alligator Lake	10B	pH	12/15/2014	6/22/2022	43	7.686279	7.64	6.78	8.35	0.307501632	S.U.
Gulf of Mexico	Alligator Lake	10B	Salinity	12/15/2014	9/15/2022	48	5.267696	4.6	0.66	16.17	3.10520055	ppt

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Gulf of Mexico	Alligator Lake	10B	Temperature	12/15/2014	9/15/2022	48	26.91771	27.63	19.7	32.8	3.933785595	°C
Gulf of Mexico	Alligator Lake	10B	Total Hardness, CaCO3	7/22/2015	8/18/2022	34	958.9412	947	210	2755	495.9646823	MG/L
Gulf of Mexico	Alligator Lake	10B	Total Kjeldahl Nitrogen	12/15/2014	8/18/2022	48	1.086542	1.05	0.477	1.97	0.36271177	MG/L
Gulf of Mexico	Alligator Lake	10B	Total Nitrogen	12/15/2014	8/18/2022	48	1.112188	1.06	0.477	1.98	0.36031196	MG/L
Gulf of Mexico	Alligator Lake	10B	Total Organic Carbon	10/29/2020	8/18/2022	23	12.92	12.9	7.49	18.2	2.642015415	MG/L
Gulf of Mexico	Alligator Lake	10B	Total Phosphorus	12/15/2014	8/18/2022	48	0.113583	0.109	0.009	0.254	0.050099405	MG/L
Gulf of Mexico	Alligator Lake	10B	Total Suspended Solids	12/15/2014	8/18/2022	48	7.532083	6.935	0.285	35.3	5.806916898	MG/L
Gulf of Mexico	Alligator Lake	10B	Turbidity	12/15/2014	8/18/2022	48	3.804583	3.205	0.58	15.5	2.873136738	NTU
Gulf of Mexico	North Lake	8B	Ammonia	10/26/2017	8/18/2022	59	0.044661	0.01	0.004	0.404	0.074267134	MG/L
Gulf of Mexico	North Lake	8B	Calcium	11/30/2020	8/18/2022	22	76.21364	76.15	47.8	106	15.06327276	MG/L
Gulf of Mexico	North Lake	8B	Chlorophyll-a, Corrected	10/26/2017	8/18/2022	59	82.98136	54.2	15.9	293	62.28032422	MG/M3
Gulf of Mexico	North Lake	8B	Color pH	10/29/2020	8/18/2022	23	7.872174	7.85	7.44	8.25	0.212281043	S.U.
Gulf of Mexico	North Lake	8B	Color, Apparent	10/29/2020	8/18/2022	23	109.7826	100	25	200	37.30946324	PCU
Gulf of Mexico	North Lake	8B	Conductivity	10/26/2017	9/15/2022	60	672.665	647.5	429	1348	166.2899386	µS/cm
Gulf of Mexico	North Lake	8B	Copper	10/26/2017	8/18/2022	59	6.924322	2.97	0.173	58.9	10.98542524	UG/L
Gulf of Mexico	North Lake	8B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	13.17957	14.2	4.62	18.3	3.6244805	MG/L
Gulf of Mexico	North Lake	8B	Dissolved Oxygen	10/26/2017	9/15/2022	60	6.1575	6.01	0.92	11.45	2.510003461	mg/L
Gulf of Mexico	North Lake	8B	Dissolved Oxygen, Saturation	10/26/2017	9/15/2022	60	75.69167	75	12.1	140.2	29.00480551	%
Gulf of Mexico	North Lake	8B	E. coli	10/29/2020	8/18/2022	23	495.087	185	5	5475	1105.277008	#/100 ML
Gulf of Mexico	North Lake	8B	Enterococci	10/26/2017	8/18/2022	59	946.678	240	41	9000	1629.842561	#/100 ML
Gulf of Mexico	North Lake	8B	Fecal Coliform	10/26/2017	8/18/2022	47	831.383	350	5	8900	1510.129818	#/100 ML
Gulf of Mexico	North Lake	8B	Magnesium	11/30/2020	8/18/2022	22	21.33818	10.38	6.64	134	28.03670717	MG/L
Gulf of Mexico	North Lake	8B	Nitrate+Nitrite	10/26/2017	8/18/2022	59	0.073153	0.014	0.003	1.88	0.249486494	MG/L
Gulf of Mexico	North Lake	8B	Orthophosphate	10/26/2017	8/18/2022	59	0.055742	0.048	0.001	0.2	0.040793408	MG/L
Gulf of Mexico	North Lake	8B	pH	10/26/2017	9/15/2022	55	7.823455	7.82	7.11	8.61	0.345672818	S.U.
Gulf of Mexico	North Lake	8B	Salinity	10/26/2017	9/15/2022	60	0.325546	0.31	0.21	0.67	0.085495789	ppt
Gulf of Mexico	North Lake	8B	Temperature	10/26/2017	9/15/2022	60	26.43717	27.315	16.4	32.04	4.264239592	°C
Gulf of Mexico	North Lake	8B	Total Hardness, CaCO3	3/22/2018	8/18/2022	54	233.2222	212	142	814	95.80969082	MG/L
Gulf of Mexico	North Lake	8B	Total Kjeldahl Nitrogen	10/26/2017	8/18/2022	59	3.331695	1.96	1.11	46.4	5.990564176	MG/L
Gulf of Mexico	North Lake	8B	Total Nitrogen	10/26/2017	8/18/2022	59	3.404237	1.96	1.13	46.5	6.017843927	MG/L
Gulf of Mexico	North Lake	8B	Total Organic Carbon	10/29/2020	8/18/2022	23	14.72696	15.5	6.66	20.5	3.6067833	MG/L
Gulf of Mexico	North Lake	8B	Total Phosphorus	10/26/2017	8/18/2022	59	0.257831	0.148	0.014	3	0.44029219	MG/L
Gulf of Mexico	North Lake	8B	Total Suspended Solids	10/26/2017	8/18/2022	59	33.59034	13.8	0.75	354	60.07814661	MG/L
Gulf of Mexico	North Lake	8B	Turbidity	10/26/2017	8/18/2022	58	9.722759	7.365	1.2	61.1	9.670760015	NTU
Gulf of Mexico	South Lake	9B	Ammonia	12/15/2014	8/18/2022	78	0.083833	0.0105	0.004	2.21	0.291188448	MG/L
Gulf of Mexico	South Lake	9B	Calcium	11/30/2020	8/18/2022	22	73.75455	72.65	48.1	102	13.59347628	MG/L
Gulf of Mexico	South Lake	9B	Chlorophyll-a, Corrected	12/15/2014	8/18/2022	78	66.15474	44.95	3.29	1018	116.3770802	MG/M3
Gulf of Mexico	South Lake	9B	Color pH	10/29/2020	8/18/2022	23	8.227826	8.28	7.8	8.61	0.265791383	S.U.
Gulf of Mexico	South Lake	9B	Color, Apparent	10/29/2020	8/18/2022	23	105.8696	100	60	200	35.27979637	PCU
Gulf of Mexico	South Lake	9B	Conductivity	12/15/2014	9/15/2022	78	769.8718	620	48	11442	1231.634901	µS/cm
Gulf of Mexico	South Lake	9B	Copper	12/15/2014	8/18/2022	78	7.367474	5.39	0.173	47.2	8.107596655	UG/L
Gulf of Mexico	South Lake	9B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	12.18217	13.1	3.32	18.9	4.143381312	MG/L
Gulf of Mexico	South Lake	9B	Dissolved Oxygen	12/15/2014	9/15/2022	78	7.644231	7.375	2.02	19.82	3.053897879	mg/L
Gulf of Mexico	South Lake	9B	Dissolved Oxygen, Saturation	12/15/2014	9/15/2022	78	93.45385	90.9	12	235.8	37.2478595	%
Gulf of Mexico	South Lake	9B	E. coli	10/29/2020	8/18/2022	23	222.5217	148	41	882	190.9864035	#/100 ML

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Gulf of Mexico	South Lake	9B	Enterococci	12/15/2014	8/18/2022	78	694.5769	160	20	24196	2914.894347	#/100 ML
Gulf of Mexico	South Lake	9B	Fecal Coliform	12/15/2014	8/18/2022	66	427.8788	150	10	6100	934.1001678	#/100 ML
Gulf of Mexico	South Lake	9B	Magnesium	11/30/2020	8/18/2022	22	6.774545	6.415	3.82	9.56	1.554445935	MG/L
Gulf of Mexico	South Lake	9B	Nitrate+Nitrite	12/15/2014	8/18/2022	78	0.029513	0.0135	0.002	0.291	0.048524125	MG/L
Gulf of Mexico	South Lake	9B	Orthophosphate	12/15/2014	8/18/2022	78	0.070915	0.0405	0.005	0.276	0.063088374	MG/L
Gulf of Mexico	South Lake	9B	pH	12/15/2014	9/15/2022	73	8.033014	8.02	7.11	8.94	0.356961268	S.U.
Gulf of Mexico	South Lake	9B	Salinity	12/15/2014	9/15/2022	78	0.305205	0.3	0.02	0.6	0.070205879	ppt
Gulf of Mexico	South Lake	9B	Temperature	12/15/2014	9/15/2022	78	26.78256	27.87	16.1	33.64	4.32879829	°C
Gulf of Mexico	South Lake	9B	Total Hardness, CaCO3	12/15/2014	8/18/2022	64	205.2031	204	140	291	30.52668865	MG/L
Gulf of Mexico	South Lake	9B	Total Kjeldahl Nitrogen	12/15/2014	8/18/2022	78	1.873064	1.53	0.496	9.6	1.181917398	MG/L
Gulf of Mexico	South Lake	9B	Total Nitrogen	12/15/2014	8/18/2022	78	1.878628	1.55	0.025	9.63	1.205771178	MG/L
Gulf of Mexico	South Lake	9B	Total Organic Carbon	10/29/2020	8/18/2022	23	13.61565	13.8	5.73	18.8	3.150553813	MG/L
Gulf of Mexico	South Lake	9B	Total Phosphorus	12/15/2014	8/18/2022	78	0.169821	0.133	0.014	0.689	0.124294659	MG/L
Gulf of Mexico	South Lake	9B	Total Suspended Solids	12/15/2014	8/18/2022	78	11.89853	9.675	0.285	57	8.817168359	MG/L
Gulf of Mexico	South Lake	9B	Turbidity	12/15/2014	8/18/2022	78	8.711795	6.16	2.1	109	12.56214678	NTU
Moorings Bay	Colonnade Lake	3B	Ammonia	12/16/2014	8/18/2022	78	0.086628	0.026	0.004	0.399	0.111873202	MG/L
Moorings Bay	Colonnade Lake	3B	Calcium	11/30/2020	8/18/2022	22	68.27273	72.4	39	84.8	11.08779603	MG/L
Moorings Bay	Colonnade Lake	3B	Chlorophyll-a, Corrected	12/16/2014	8/18/2022	78	35.35218	17.1	4.26	492	66.09383905	MG/M3
Moorings Bay	Colonnade Lake	3B	Color pH	10/29/2020	8/18/2022	23	7.661739	7.7	7.21	7.96	0.183690752	S.U.
Moorings Bay	Colonnade Lake	3B	Color, Apparent	10/29/2020	8/18/2022	23	135	120	50	500	86.43179129	PCU
Moorings Bay	Colonnade Lake	3B	Conductivity	12/16/2014	9/15/2022	79	1311.513	1098	94.3	6462	947.7901313	µS/cm
Moorings Bay	Colonnade Lake	3B	Copper	12/16/2014	8/18/2022	78	4.325436	3.905	0.173	23.6	3.355389433	UG/L
Moorings Bay	Colonnade Lake	3B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	14.64348	14.4	7.3	29.1	4.484197109	MG/L
Moorings Bay	Colonnade Lake	3B	Dissolved Oxygen	12/16/2014	9/15/2022	78	5.762179	5.81	0.69	10.48	2.089919931	mg/L
Moorings Bay	Colonnade Lake	3B	Dissolved Oxygen, Saturation	12/16/2014	9/15/2022	78	69.56038	70.85	1.23	119.6	23.7766012	%
Moorings Bay	Colonnade Lake	3B	E. coli	10/29/2020	8/18/2022	23	254.1304	119	10	1296	350.5426059	#/100 ML
Moorings Bay	Colonnade Lake	3B	Enterococci	12/16/2014	8/18/2022	78	378.2436	155	5	4600	762.7620893	#/100 ML
Moorings Bay	Colonnade Lake	3B	Fecal Coliform	12/16/2014	8/18/2022	66	530	230	5	4900	899.2693615	#/100 ML
Moorings Bay	Colonnade Lake	3B	Magnesium	11/30/2020	8/18/2022	22	18.70591	19.85	4.67	44.5	10.15192201	MG/L
Moorings Bay	Colonnade Lake	3B	Nitrate+Nitrite	12/16/2014	8/18/2022	78	0.065551	0.0285	0.002	0.693	0.096669829	MG/L
Moorings Bay	Colonnade Lake	3B	Orthophosphate	12/16/2014	8/18/2022	78	0.050997	0.044	0.001	0.148	0.034090719	MG/L
Moorings Bay	Colonnade Lake	3B	pH	12/16/2014	9/15/2022	74	7.587973	7.57	7.08	8.09	0.260173702	S.U.
Moorings Bay	Colonnade Lake	3B	Salinity	12/16/2014	9/15/2022	79	0.673348	0.55	0.18	3.59	0.515500822	ppt
Moorings Bay	Colonnade Lake	3B	Temperature	12/16/2014	9/15/2022	79	25.53139	26.7	16.9	31.6	3.684426941	°C
Moorings Bay	Colonnade Lake	3B	Total Hardness, CaCO3	12/16/2014	8/18/2022	64	239.0313	228.5	102	457	75.58616837	MG/L
Moorings Bay	Colonnade Lake	3B	Total Kjeldahl Nitrogen	12/16/2014	8/18/2022	78	1.072949	1.02	0.586	2.52	0.291781047	MG/L
Moorings Bay	Colonnade Lake	3B	Total Nitrogen	12/16/2014	8/18/2022	78	1.137987	1.07	0.623	2.52	0.302059102	MG/L
Moorings Bay	Colonnade Lake	3B	Total Organic Carbon	10/29/2020	8/18/2022	23	15.6513	15	8.63	28.2	4.316789953	MG/L
Moorings Bay	Colonnade Lake	3B	Total Phosphorus	12/16/2014	8/18/2022	78	0.104449	0.095	0.004	0.249	0.049661098	MG/L
Moorings Bay	Colonnade Lake	3B	Total Suspended Solids	12/16/2014	8/18/2022	78	4.865833	4.365	0.285	15.3	2.987137949	MG/L
Moorings Bay	Colonnade Lake	3B	Turbidity	12/16/2014	8/18/2022	78	3.907692	3.595	0.8	13.7	2.493298511	NTU
Moorings Bay	Devils Lake	1SE-B	Ammonia	12/16/2014	8/18/2022	78	0.037936	0.0185	0.004	0.245	0.049748547	MG/L
Moorings Bay	Devils Lake	1SE-B	Calcium	11/30/2020	8/18/2022	22	64.37273	64.55	45.7	81.7	8.187690053	MG/L
Moorings Bay	Devils Lake	1SE-B	Chlorophyll-a, Corrected	12/16/2014	8/18/2022	78	5.961038	4.385	0.125	36.9	6.058021308	MG/M3
Moorings Bay	Devils Lake	1SE-B	Color pH	10/29/2020	8/18/2022	23	7.748696	7.81	7.2	8.22	0.22095463	S.U.

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Moorings Bay	Devils Lake	1SE-B	Color, Apparent	10/29/2020	8/18/2022	23	145.6522	160	50	220	39.17630162	PCU
Moorings Bay	Devils Lake	1SE-B	Conductivity	12/16/2014	9/15/2022	79	810.3253	530	318	10278	1362.56913	µS/cm
Moorings Bay	Devils Lake	1SE-B	Copper	12/16/2014	8/18/2022	78	43.80671	16.15	0.173	1160	132.2965349	UG/L
Moorings Bay	Devils Lake	1SE-B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	20.62174	20.5	11.6	32.9	4.32466042	MG/L
Moorings Bay	Devils Lake	1SE-B	Dissolved Oxygen	12/16/2014	9/15/2022	79	6.021646	5.9	1.61	10.1	1.770071294	mg/L
Moorings Bay	Devils Lake	1SE-B	Dissolved Oxygen, Saturation	12/16/2014	9/15/2022	79	73.95443	76	20.8	110.5	19.70975157	%
Moorings Bay	Devils Lake	1SE-B	E. coli	10/29/2020	8/18/2022	23	52.82609	41	5	148	40.08247426	#/100 ML
Moorings Bay	Devils Lake	1SE-B	Enterococci	12/16/2014	8/18/2022	78	331.8846	60	5	12500	1459.894917	#/100 ML
Moorings Bay	Devils Lake	1SE-B	Fecal Coliform	12/16/2014	8/18/2022	66	209.0152	70	5	2400	412.7340545	#/100 ML
Moorings Bay	Devils Lake	1SE-B	Magnesium	11/30/2020	8/18/2022	22	5.177273	4.785	3.82	10	1.297107338	MG/L
Moorings Bay	Devils Lake	1SE-B	Nitrate+Nitrite	12/16/2014	8/18/2022	78	0.061949	0.033	0.002	0.282	0.074531419	MG/L
Moorings Bay	Devils Lake	1SE-B	Orthophosphate	12/16/2014	8/18/2022	78	0.014641	0.009	0.001	0.101	0.016357193	MG/L
Moorings Bay	Devils Lake	1SE-B	pH	12/16/2014	9/15/2022	74	7.753243	7.805	6.78	8.8	0.370042975	S.U.
Moorings Bay	Devils Lake	1SE-B	Salinity	12/16/2014	9/15/2022	79	0.4121	0.26	0.12	5.84	0.766184974	ppt
Moorings Bay	Devils Lake	1SE-B	Temperature	12/16/2014	9/15/2022	79	26.17101	26.77	15.9	33.4	4.258053183	°C
Moorings Bay	Devils Lake	1SE-B	Total Hardness, CaCO3	12/16/2014	8/18/2022	64	201.6406	170	120	997	139.5788867	MG/L
Moorings Bay	Devils Lake	1SE-B	Total Kjeldahl Nitrogen	12/16/2014	8/18/2022	78	1.033333	1.02	0.577	1.81	0.208314739	MG/L
Moorings Bay	Devils Lake	1SE-B	Total Nitrogen	12/16/2014	8/18/2022	78	1.08191	1.06	0.025	1.99	0.258132966	MG/L
Moorings Bay	Devils Lake	1SE-B	Total Organic Carbon	10/29/2020	8/18/2022	23	23.36522	22.4	16.2	38.7	5.000146243	MG/L
Moorings Bay	Devils Lake	1SE-B	Total Phosphorus	12/16/2014	8/18/2022	78	0.044346	0.038	0.004	0.208	0.030036699	MG/L
Moorings Bay	Devils Lake	1SE-B	Total Suspended Solids	12/16/2014	8/18/2022	78	2.204538	1.655	0.285	12.3	2.098089036	MG/L
Moorings Bay	Devils Lake	1SE-B	Turbidity	12/16/2014	8/18/2022	78	2.015513	1.77	0.99	12.3	1.372380288	NTU
Moorings Bay	Hidden	4B	Ammonia	10/29/2020	8/18/2022	23	0.084435	0.08	0.004	0.208	0.068008573	MG/L
Moorings Bay	Hidden	4B	Calcium	11/30/2020	8/18/2022	22	59.49091	61.15	35.9	70.4	8.258900486	MG/L
Moorings Bay	Hidden	4B	Chlorophyll-a, Corrected	10/29/2020	8/18/2022	23	19.60435	10	5.02	72.8	16.86578538	MG/M3
Moorings Bay	Hidden	4B	Color pH	10/29/2020	8/18/2022	23	7.556522	7.59	7.17	7.93	0.180620363	S.U.
Moorings Bay	Hidden	4B	Color, Apparent	10/29/2020	8/18/2022	23	145	160	15	200	42.13074887	PCU
Moorings Bay	Hidden	4B	Conductivity	10/29/2020	9/15/2022	24	531.8333	509.5	333	1228	205.5115921	µS/cm
Moorings Bay	Hidden	4B	Copper	10/29/2020	8/18/2022	23	10.34709	7.86	0.173	25.7	6.209080717	UG/L
Moorings Bay	Hidden	4B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	14.41174	14.8	6.57	18.9	3.155483902	MG/L
Moorings Bay	Hidden	4B	Dissolved Oxygen	10/29/2020	9/15/2022	24	5.143333	4.93	3.14	7.93	1.320937304	mg/L
Moorings Bay	Hidden	4B	Dissolved Oxygen, Saturation	10/29/2020	9/15/2022	24	62.33333	60.05	40.3	86.1	13.44003321	%
Moorings Bay	Hidden	4B	E. coli	10/29/2020	8/18/2022	23	1354.652	1022	161	8164	1683.329914	#/100 ML
Moorings Bay	Hidden	4B	Enterococci	10/29/2020	8/18/2022	23	730.9565	384	50	4200	869.7606504	#/100 ML
Moorings Bay	Hidden	4B	Fecal Coliform	10/26/2021	8/18/2022	11	2203.636	1300	840	5000	1553.983737	#/100 ML
Moorings Bay	Hidden	4B	Magnesium	11/30/2020	8/18/2022	22	5.204545	5.24	2.95	6.67	0.897826621	MG/L
Moorings Bay	Hidden	4B	Nitrate+Nitrite	10/29/2020	8/18/2022	23	0.105565	0.096	0.003	0.268	0.084651062	MG/L
Moorings Bay	Hidden	4B	Orthophosphate	10/29/2020	8/18/2022	23	0.045309	0.044	0.002	0.111	0.026978458	MG/L
Moorings Bay	Hidden	4B	pH	10/29/2020	9/15/2022	19	7.489474	7.5	6.72	7.96	0.347937952	S.U.
Moorings Bay	Hidden	4B	Salinity	10/29/2020	9/15/2022	24	0.258333	0.245	0.13	0.61	0.105280853	ppt
Moorings Bay	Hidden	4B	Temperature	10/29/2020	9/15/2022	24	25.48	26.18	18.91	29.59	3.064024066	°C
Moorings Bay	Hidden	4B	Total Hardness, CaCO3	10/29/2020	8/18/2022	23	170.2609	175	102	198	23.14031781	MG/L
Moorings Bay	Hidden	4B	Total Kjeldahl Nitrogen	10/29/2020	8/18/2022	23	0.894304	0.84	0.269	1.35	0.28821984	MG/L
Moorings Bay	Hidden	4B	Total Nitrogen	10/29/2020	8/18/2022	23	0.999783	0.936	0.365	1.42	0.310348039	MG/L
Moorings Bay	Hidden	4B	Total Organic Carbon	10/29/2020	8/18/2022	23	16.14217	16.2	9.1	32.9	4.763631117	MG/L

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Moorings Bay	Hidden	4B	Total Phosphorus	10/29/2020	8/18/2022	23	0.07587	0.078	0.013	0.159	0.035613205	MG/L
Moorings Bay	Hidden	4B	Total Suspended Solids	10/29/2020	8/18/2022	23	5.63913	6	1.5	11.3	2.935117952	MG/L
Moorings Bay	Hidden	4B	Turbidity	10/29/2020	8/18/2022	23	3.735217	3.42	1.7	7.46	1.492389389	NTU
Moorings Bay	Lake Suzanne	5B	Ammonia	12/16/2014	8/18/2022	78	0.062808	0.0335	0.004	0.345	0.077614274	MG/L
Moorings Bay	Lake Suzanne	5B	Calcium	11/30/2020	8/18/2022	22	51.84091	54.55	28.6	66.9	10.69497697	MG/L
Moorings Bay	Lake Suzanne	5B	Chlorophyll-a, Corrected	12/16/2014	8/18/2022	78	35.73604	23.15	0.671	290	46.20912224	MG/M3
Moorings Bay	Lake Suzanne	5B	Color pH	10/29/2020	8/18/2022	23	7.757826	7.79	7.45	8.05	0.180452878	S.U.
Moorings Bay	Lake Suzanne	5B	Color, Apparent	10/29/2020	8/18/2022	23	98.26087	100	20	160	39.15611805	PCU
Moorings Bay	Lake Suzanne	5B	Conductivity	12/16/2014	9/15/2022	79	483.9734	476	196.6	1048	141.6794266	µS/cm
Moorings Bay	Lake Suzanne	5B	Copper	12/16/2014	8/18/2022	78	8.071462	4.785	0.173	60.8	10.01596956	UG/L
Moorings Bay	Lake Suzanne	5B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	10.01152	11.2	1.355	14.5	3.526498854	MG/L
Moorings Bay	Lake Suzanne	5B	Dissolved Oxygen	12/16/2014	9/15/2022	79	6.646835	6.9	1.52	11.36	2.202764897	mg/L
Moorings Bay	Lake Suzanne	5B	Dissolved Oxygen, Saturation	12/16/2014	9/15/2022	79	82.31329	80.4	19.5	150.4	27.25333161	%
Moorings Bay	Lake Suzanne	5B	E. coli	10/29/2020	8/18/2022	23	183.1304	86	10	1169	267.713433	#/100 ML
Moorings Bay	Lake Suzanne	5B	Enterococci	12/16/2014	8/18/2022	78	353.7179	205	5	3448	580.4477872	#/100 ML
Moorings Bay	Lake Suzanne	5B	Fecal Coliform	12/16/2014	8/18/2022	66	960.9848	175	5	10700	2178.093418	#/100 ML
Moorings Bay	Lake Suzanne	5B	Magnesium	11/30/2020	8/18/2022	22	4.792727	4.97	2.29	6.94	1.24904223	MG/L
Moorings Bay	Lake Suzanne	5B	Nitrate+Nitrite	12/16/2014	8/18/2022	78	0.080923	0.0585	0.003	0.367	0.077879822	MG/L
Moorings Bay	Lake Suzanne	5B	Orthophosphate	12/16/2014	8/18/2022	78	0.062106	0.052	0.001	0.362	0.060483722	MG/L
Moorings Bay	Lake Suzanne	5B	pH	12/16/2014	9/15/2022	74	7.670946	7.645	6.79	8.71	0.385924149	S.U.
Moorings Bay	Lake Suzanne	5B	Salinity	12/16/2014	9/15/2022	79	0.242394	0.23	0.08	0.9	0.105172419	ppt
Moorings Bay	Lake Suzanne	5B	Temperature	12/16/2014	9/15/2022	79	26.42759	27.5	17.6	33.1	3.80127179	°C
Moorings Bay	Lake Suzanne	5B	Total Hardness, CaCO3	12/16/2014	8/18/2022	64	151.0656	151.5	80	225	30.79808909	MG/L
Moorings Bay	Lake Suzanne	5B	Total Kjeldahl Nitrogen	12/16/2014	8/18/2022	78	1.065141	1.025	0.163	2.48	0.38128725	MG/L
Moorings Bay	Lake Suzanne	5B	Total Nitrogen	12/16/2014	8/18/2022	78	1.145769	1.115	0.187	2.5	0.399294928	MG/L
Moorings Bay	Lake Suzanne	5B	Total Organic Carbon	10/29/2020	8/18/2022	23	11.32261	11.5	3.35	20.9	3.613034757	MG/L
Moorings Bay	Lake Suzanne	5B	Total Phosphorus	12/16/2014	8/18/2022	78	0.118538	0.104	0.012	0.454	0.075228603	MG/L
Moorings Bay	Lake Suzanne	5B	Total Suspended Solids	12/16/2014	8/18/2022	78	6.987308	6.165	1.4	28	4.232432807	MG/L
Moorings Bay	Lake Suzanne	5B	Turbidity	12/16/2014	8/18/2022	78	5.036667	4.095	1.2	24.8	3.630086996	NTU
Moorings Bay	Lowdermilk	16B	Conductivity	4/15/2021	4/15/2021	1	412	412	412	412	NA	µS/cm
Moorings Bay	Lowdermilk	16B	Dissolved Oxygen	4/15/2021	4/15/2021	1	2.13	2.13	2.13	2.13	NA	mg/L
Moorings Bay	Lowdermilk	16B	Dissolved Oxygen, Saturation	4/15/2021	4/15/2021	1	25.6	25.6	25.6	25.6	NA	%
Moorings Bay	Lowdermilk	16B	pH	4/15/2021	4/15/2021	1	7.34	7.34	7.34	7.34	NA	S.U.
Moorings Bay	Lowdermilk	16B	Salinity	4/15/2021	4/15/2021	1	0.2	0.2	0.2	0.2	NA	ppt
Moorings Bay	Lowdermilk	16B	Temperature	4/15/2021	4/15/2021	1	24.73	24.73	24.73	24.73	NA	°C
Moorings Bay	Lowdermilk	23B	Ammonia	10/29/2020	8/18/2022	23	0.250304	0.228	0.004	0.725	0.216438829	MG/L
Moorings Bay	Lowdermilk	23B	Calcium	11/30/2020	8/18/2022	22	214.8318	210.5	95.1	335	66.53213607	MG/L
Moorings Bay	Lowdermilk	23B	Chlorophyll-a, Corrected	10/29/2020	8/18/2022	23	15.99957	10.1	1.93	124	24.84045024	MG/M3
Moorings Bay	Lowdermilk	23B	Color pH	10/29/2020	8/18/2022	23	7.733043	7.76	7.34	8.35	0.219160273	S.U.
Moorings Bay	Lowdermilk	23B	Color, Apparent	10/29/2020	8/18/2022	23	48.47826	40	20	110	24.14138198	PCU
Moorings Bay	Lowdermilk	23B	Conductivity	10/29/2020	9/15/2022	23	29428.74	29021	548	65933	14446.00272	µS/cm
Moorings Bay	Lowdermilk	23B	Copper	10/29/2020	8/18/2022	23	2.025174	0.39	0.1355	10.2	3.024887878	UG/L
Moorings Bay	Lowdermilk	23B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	8.394565	8.45	1.355	12.2	2.333422629	MG/L
Moorings Bay	Lowdermilk	23B	Dissolved Oxygen	10/29/2020	9/15/2022	23	4.527826	4.27	1.84	7.58	1.558206885	mg/L
Moorings Bay	Lowdermilk	23B	Dissolved Oxygen, Saturation	10/29/2020	9/15/2022	23	62.34	62.6	23.4	106.8	21.28784288	%

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Moorings Bay	Lowdermilk	23B	E. coli	10/29/2020	8/18/2022	23	1201.652	495	74	5475	1557.579755	#/100 ML
Moorings Bay	Lowdermilk	23B	Enterococci	10/29/2020	8/18/2022	23	149.5217	70	5	710	202.8151576	#/100 ML
Moorings Bay	Lowdermilk	23B	Fecal Coliform	10/26/2021	8/18/2022	11	188.6364	50	5	830	268.6735092	#/100 ML
Moorings Bay	Lowdermilk	23B	Magnesium	11/30/2020	8/18/2022	22	505.6364	457	188	895	199.1377952	MG/L
Moorings Bay	Lowdermilk	23B	Nitrate+Nitrite	10/29/2020	8/18/2022	23	0.018478	0.003	0.003	0.165	0.037576431	MG/L
Moorings Bay	Lowdermilk	23B	Orthophosphate	10/29/2020	8/18/2022	23	0.029043	0.027	0.001	0.101	0.021646915	MG/L
Moorings Bay	Lowdermilk	23B	pH	10/29/2020	6/22/2022	17	7.698235	7.6	7.07	8.67	0.468871455	S.U.
Moorings Bay	Lowdermilk	23B	Salinity	10/29/2020	9/15/2022	23	19.68739	20.05	7.31	44.76	9.272391678	ppt
Moorings Bay	Lowdermilk	23B	Temperature	10/29/2020	9/15/2022	23	27.11783	27.65	18.3	32.4	4.116427132	°C
Moorings Bay	Lowdermilk	23B	Total Hardness, CaCO3	10/29/2020	8/18/2022	23	2686.783	2434	1009	4427	1013.514585	MG/L
Moorings Bay	Lowdermilk	23B	Total Kjeldahl Nitrogen	10/29/2020	8/18/2022	23	0.675609	0.686	0.403	1.03	0.180321869	MG/L
Moorings Bay	Lowdermilk	23B	Total Nitrogen	10/29/2020	8/18/2022	23	0.69213	0.686	0.403	1.03	0.180627518	MG/L
Moorings Bay	Lowdermilk	23B	Total Organic Carbon	10/29/2020	8/18/2022	23	9.685435	8.83	1.355	26.3	5.097120603	MG/L
Moorings Bay	Lowdermilk	23B	Total Phosphorus	10/29/2020	8/18/2022	23	0.055087	0.059	0.004	0.119	0.032692664	MG/L
Moorings Bay	Lowdermilk	23B	Total Suspended Solids	10/29/2020	8/18/2022	23	18.61348	15.5	4	37.3	9.611659401	MG/L
Moorings Bay	Lowdermilk	23B	Turbidity	10/29/2020	8/18/2022	23	1.894348	1.9	0.5	3.36	0.788126813	NTU
Moorings Bay	Swan Lake	2B	Ammonia	12/16/2014	8/18/2022	72	0.059681	0.01	0.004	0.684	0.124843319	MG/L
Moorings Bay	Swan Lake	2B	Calcium	11/30/2020	8/18/2022	22	52.8	54.45	30.2	67.5	9.256915047	MG/L
Moorings Bay	Swan Lake	2B	Chemical Oxygen Demand	2/18/2021	6/22/2022	15	47.40667	37.9	18.8	106	28.11683448	MG/L
Moorings Bay	Swan Lake	2B	Chlorophyll-a, Corrected	12/16/2014	8/18/2022	72	38.18711	26.75	0.125	373	48.58080998	MG/M3
Moorings Bay	Swan Lake	2B	Color pH	10/29/2020	8/18/2022	23	7.853478	7.73	7.27	8.94	0.408340418	S.U.
Moorings Bay	Swan Lake	2B	Color, Apparent	10/29/2020	8/18/2022	23	95	100	25	250	43.01162634	PCU
Moorings Bay	Swan Lake	2B	Conductivity	12/16/2014	9/15/2022	73	1708.753	432	251	42344	6541.162416	µS/cm
Moorings Bay	Swan Lake	2B	Copper	12/16/2014	8/18/2022	72	6.990851	4.18	0.173	59.4	9.665831386	UG/L
Moorings Bay	Swan Lake	2B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	12.58391	12.4	4.19	25.3	4.876020862	MG/L
Moorings Bay	Swan Lake	2B	Dissolved Oxygen	12/16/2014	9/15/2022	73	7.747534	6.78	1.64	65.2	7.370793863	mg/L
Moorings Bay	Swan Lake	2B	Dissolved Oxygen, Saturation	12/16/2014	9/15/2022	73	86.06438	82.8	22.2	194.6	34.49871725	%
Moorings Bay	Swan Lake	2B	E. coli	10/29/2020	8/18/2022	23	239.2174	110	10	1076	296.2709074	#/100 ML
Moorings Bay	Swan Lake	2B	Enterococci	12/16/2014	8/18/2022	72	211.0417	80	5	3600	449.2698439	#/100 ML
Moorings Bay	Swan Lake	2B	Fecal Coliform	12/16/2014	8/18/2022	60	838.6667	250	10	20000	2664.862045	#/100 ML
Moorings Bay	Swan Lake	2B	Magnesium	11/30/2020	8/18/2022	22	4.408182	4.545	2.32	6.85	1.029968267	MG/L
Moorings Bay	Swan Lake	2B	Nitrate+Nitrite	12/16/2014	8/18/2022	72	0.045833	0.024	0.002	0.265	0.056728163	MG/L
Moorings Bay	Swan Lake	2B	Orthophosphate	12/16/2014	8/18/2022	72	0.044397	0.0293	0.001	0.289	0.046799693	MG/L
Moorings Bay	Swan Lake	2B	pH	12/16/2014	9/15/2022	68	7.937206	7.87	7.09	8.98	0.387108861	S.U.
Moorings Bay	Swan Lake	2B	Salinity	12/16/2014	9/15/2022	73	1.059521	0.21	0.11	29.73	4.403919984	ppt
Moorings Bay	Swan Lake	2B	Temperature	12/16/2014	9/15/2022	73	26.38822	27.32	16.8	32.61	4.101702337	°C
Moorings Bay	Swan Lake	2B	Total Hardness, CaCO3	11/17/2015	8/18/2022	61	145.8098	151	82.4	194	25.44364822	MG/L
Moorings Bay	Swan Lake	2B	Total Kjeldahl Nitrogen	12/16/2014	8/18/2022	72	1.259139	1.095	0.609	3.5	0.539050869	MG/L
Moorings Bay	Swan Lake	2B	Total Nitrogen	12/16/2014	8/18/2022	72	1.304514	1.135	0.609	3.5	0.53527563	MG/L
Moorings Bay	Swan Lake	2B	Total Organic Carbon	10/29/2020	8/18/2022	23	13.42522	12.2	5.98	25.3	4.630295366	MG/L
Moorings Bay	Swan Lake	2B	Total Phosphorus	12/16/2014	8/18/2022	72	0.107931	0.0885	0.008	0.386	0.078021544	MG/L
Moorings Bay	Swan Lake	2B	Total Suspended Solids	12/16/2014	8/18/2022	72	6.560764	5.5	0.285	32	4.743965897	MG/L
Moorings Bay	Swan Lake	2B	Turbidity	12/16/2014	8/18/2022	72	7.224583	4.71	1.48	32	6.823270443	NTU
Naples Bay	East Lake	11B	Ammonia	12/15/2014	8/18/2022	46	0.037239	0.012	0.004	0.753	0.110814998	MG/L
Naples Bay	East Lake	11B	Calcium	11/30/2020	8/18/2022	20	78.73	78.65	50.3	117	15.93004774	MG/L

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Naples Bay	East Lake	11B	Chlorophyll-a, Corrected	12/15/2014	8/18/2022	46	30.57228	21.55	0.125	136	30.37575871	MG/M3
Naples Bay	East Lake	11B	Color pH	10/29/2020	8/18/2022	21	7.901905	7.94	7.47	8.43	0.219308437	S.U.
Naples Bay	East Lake	11B	Color, Apparent	10/29/2020	8/18/2022	21	108.5714	100	40	220	37.85309951	PCU
Naples Bay	East Lake	11B	Conductivity	12/15/2014	9/15/2022	47	708.0851	689	516	1469	170.7702283	µS/cm
Naples Bay	East Lake	11B	Copper	12/15/2014	8/18/2022	46	4.976522	3.935	0.173	33	5.510600353	UG/L
Naples Bay	East Lake	11B	Dissolved Organic Carbon	10/29/2020	8/18/2022	21	12.62452	13.1	1.355	21.2	4.663556557	MG/L
Naples Bay	East Lake	11B	Dissolved Oxygen	12/15/2014	9/15/2022	46	4.613043	4.75	0.16	9.03	1.962866237	mg/L
Naples Bay	East Lake	11B	Dissolved Oxygen, Saturation	12/15/2014	9/15/2022	46	56.92609	58	2.1	111.9	24.10697856	%
Naples Bay	East Lake	11B	E. coli	10/29/2020	8/18/2022	21	813.5238	583	148	2613	701.8102036	#/100 ML
Naples Bay	East Lake	11B	Enterococci	12/15/2014	8/18/2022	46	448.4565	275	40	3600	658.4674364	#/100 ML
Naples Bay	East Lake	11B	Fecal Coliform	12/15/2014	8/18/2022	34	1212.059	835	170	6400	1185.551347	#/100 ML
Naples Bay	East Lake	11B	Magnesium	11/30/2020	8/18/2022	20	6.806	6.59	3.88	11.3	1.868484891	MG/L
Naples Bay	East Lake	11B	Nitrate+Nitrite	12/15/2014	8/18/2022	46	0.035891	0.0105	0.003	0.344	0.059643842	MG/L
Naples Bay	East Lake	11B	Orthophosphate	12/15/2014	8/18/2022	46	0.039935	0.025	0.001	0.212	0.040890315	MG/L
Naples Bay	East Lake	11B	pH	12/15/2014	8/18/2022	44	7.703409	7.695	6.97	8.51	0.319191881	S.U.
Naples Bay	East Lake	11B	Salinity	12/15/2014	9/15/2022	47	0.344907	0.34	0.25	0.74	0.088559557	ppt
Naples Bay	East Lake	11B	Temperature	12/15/2014	9/15/2022	47	26.01894	26.2	16.83	34.91	4.163241439	°C
Naples Bay	East Lake	11B	Total Hardness, CaCO3	12/15/2014	8/18/2022	41	213.3415	208	145	329	37.71247125	MG/L
Naples Bay	East Lake	11B	Total Kjeldahl Nitrogen	12/15/2014	8/18/2022	46	1.154587	1.045	0.463	4.62	0.635417014	MG/L
Naples Bay	East Lake	11B	Total Nitrogen	12/15/2014	8/18/2022	46	1.190087	1.09	0.463	4.62	0.632458934	MG/L
Naples Bay	East Lake	11B	Total Organic Carbon	10/29/2020	8/18/2022	21	13.75381	13.8	7.6	19.4	3.150889519	MG/L
Naples Bay	East Lake	11B	Total Phosphorus	12/15/2014	8/18/2022	46	0.087739	0.071	0.01	0.398	0.069104891	MG/L
Naples Bay	East Lake	11B	Total Suspended Solids	12/15/2014	8/18/2022	46	5.337435	5.065	0.285	14.4	3.274963448	MG/L
Naples Bay	East Lake	11B	Turbidity	12/15/2014	8/18/2022	46	3.571739	2.98	0.79	12.1	2.426412353	NTU
Naples Bay	Half Moon Lake	24B	Ammonia	12/15/2014	8/25/2020	25	0.27988	0.184	0.004	1.62	0.353142242	MG/L
Naples Bay	Half Moon Lake	24B	Chlorophyll-a, Corrected	12/15/2014	8/25/2020	25	126.932	113	55.6	255	54.24094179	MG/M3
Naples Bay	Half Moon Lake	24B	Conductivity	12/15/2014	8/25/2020	25	1328.44	1309	1085	1593	113.0656446	µS/cm
Naples Bay	Half Moon Lake	24B	Copper	12/15/2014	8/25/2020	25	3.00624	2.13	0.5	13	3.012137921	UG/L
Naples Bay	Half Moon Lake	24B	Dissolved Oxygen	12/15/2014	8/25/2020	25	4.708	4.22	0.87	10.66	2.740228093	mg/L
Naples Bay	Half Moon Lake	24B	Dissolved Oxygen, Saturation	12/15/2014	8/25/2020	25	56.38	51.2	12.1	127.7	30.19804078	%
Naples Bay	Half Moon Lake	24B	Enterococci	12/15/2014	8/25/2020	25	872.8	450	110	3300	910.3365678	#/100 ML
Naples Bay	Half Moon Lake	24B	Fecal Coliform	12/15/2014	8/25/2020	25	896.8	430	70	5100	1193.509251	#/100 ML
Naples Bay	Half Moon Lake	24B	Nitrate+Nitrite	12/15/2014	8/25/2020	25	0.21408	0.062	0.002	0.709	0.241796388	MG/L
Naples Bay	Half Moon Lake	24B	Orthophosphate	12/15/2014	8/25/2020	25	1.5056	1.61	0.44	2.7	0.624468507	MG/L
Naples Bay	Half Moon Lake	24B	pH	12/15/2014	8/25/2020	25	8.1556	8.1	6.94	8.84	0.457694221	S.U.
Naples Bay	Half Moon Lake	24B	Salinity	12/15/2014	8/25/2020	25	0.663878	0.65	0.59	0.8	0.054367373	ppt
Naples Bay	Half Moon Lake	24B	Temperature	12/15/2014	8/25/2020	25	25.3412	25.09	17.54	31.74	4.101296868	°C
Naples Bay	Half Moon Lake	24B	Total Hardness, CaCO3	12/15/2014	8/25/2020	20	324.7	316	271	512	48.08774874	MG/L
Naples Bay	Half Moon Lake	24B	Total Kjeldahl Nitrogen	12/15/2014	8/25/2020	25	3.46116	3.35	0.679	5.29	0.912474369	MG/L
Naples Bay	Half Moon Lake	24B	Total Nitrogen	12/15/2014	8/25/2020	25	3.67476	3.62	0.719	5.72	0.966806051	MG/L
Naples Bay	Half Moon Lake	24B	Total Phosphorus	12/15/2014	8/25/2020	25	2.16	2.17	0.98	5.54	0.908501513	MG/L
Naples Bay	Half Moon Lake	24B	Total Suspended Solids	12/15/2014	8/25/2020	25	22.836	21.3	10.6	40.8	8.912766125	MG/L
Naples Bay	Half Moon Lake	24B	Turbidity	12/15/2014	8/25/2020	25	11.172	10.4	6.17	21.2	3.767409588	NTU
Naples Bay	Lake 13	13B	Ammonia	10/29/2020	8/18/2022	23	0.257348	0.236	0.004	1.11	0.282377988	MG/L
Naples Bay	Lake 13	13B	Calcium	11/30/2020	8/18/2022	22	188.5409	176.5	55.7	485	104.6919729	MG/L

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Naples Bay	Lake 13	13B	Chlorophyll-a, Corrected	10/29/2020	8/18/2022	23	46.63783	27.1	1.32	177	44.84541184	MG/M3
Naples Bay	Lake 13	13B	Color pH	10/29/2020	8/18/2022	23	7.526522	7.53	7.09	7.87	0.201485589	S.U.
Naples Bay	Lake 13	13B	Color, Apparent	10/29/2020	8/18/2022	23	134.7826	100	50	400	78.44335334	PCU
Naples Bay	Lake 13	13B	Conductivity	10/29/2020	9/15/2022	24	21786.21	20376	2001	54882	16143.79207	µS/cm
Naples Bay	Lake 13	13B	Copper	10/29/2020	8/18/2022	23	1.10687	0.847	0.136	4.98	1.038735871	UG/L
Naples Bay	Lake 13	13B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	12.92391	12.3	5.74	21.5	4.472014737	MG/L
Naples Bay	Lake 13	13B	Dissolved Oxygen	10/29/2020	9/15/2022	24	3.186667	2.145	0.16	18.3	3.703864805	mg/L
Naples Bay	Lake 13	13B	Dissolved Oxygen, Saturation	10/29/2020	9/15/2022	24	40.31417	25.5	2.3	274.2	53.70366629	%
Naples Bay	Lake 13	13B	E. coli	10/29/2020	8/18/2022	23	4275.043	1223	109	24196	6288.50818	#/100 ML
Naples Bay	Lake 13	13B	Enterococci	10/29/2020	8/18/2022	23	590.1304	315	10	3200	800.6707588	#/100 ML
Naples Bay	Lake 13	13B	Fecal Coliform	10/26/2021	8/18/2022	11	1691.818	240	110	6500	2478.841738	#/100 ML
Naples Bay	Lake 13	13B	Magnesium	11/30/2020	8/18/2022	22	360.9636	366	37.7	868	249.5900669	MG/L
Naples Bay	Lake 13	13B	Nitrate+Nitrite	10/29/2020	8/18/2022	23	0.016739	0.003	0.003	0.091	0.025427647	MG/L
Naples Bay	Lake 13	13B	Orthophosphate	10/29/2020	8/18/2022	23	0.052104	0.05	0.001	0.132	0.043876433	MG/L
Naples Bay	Lake 13	13B	pH	10/29/2020	8/18/2022	21	7.352857	7.36	6.07	8.65	0.518431701	S.U.
Naples Bay	Lake 13	13B	Salinity	10/29/2020	9/15/2022	24	13.45042	12.055	1.01	36.33	10.66197937	ppt
Naples Bay	Lake 13	13B	Temperature	10/29/2020	9/15/2022	24	27.69083	28.905	19.11	31.44	3.398546897	°C
Naples Bay	Lake 13	13B	Total Hardness, CaCO3	10/29/2020	8/18/2022	23	1887.739	1892	334	4771	1277.515708	MG/L
Naples Bay	Lake 13	13B	Total Kjeldahl Nitrogen	10/29/2020	8/18/2022	23	1.281087	1.01	0.101	2.97	0.741222449	MG/L
Naples Bay	Lake 13	13B	Total Nitrogen	10/29/2020	8/18/2022	23	1.296565	1.03	0.101	2.97	0.742600763	MG/L
Naples Bay	Lake 13	13B	Total Organic Carbon	10/29/2020	8/18/2022	23	14.85391	15.1	6.19	23.6	4.518479973	MG/L
Naples Bay	Lake 13	13B	Total Phosphorus	10/29/2020	8/18/2022	23	0.095957	0.069	0.008	0.235	0.068833447	MG/L
Naples Bay	Lake 13	13B	Total Suspended Solids	10/29/2020	8/18/2022	23	17.12739	14	1.6	44.8	11.11811267	MG/L
Naples Bay	Lake 13	13B	Turbidity	10/29/2020	8/18/2022	23	7.91087	5	2.9	35	7.312398508	NTU
Naples Bay	Lantern Lake	14B	Ammonia	12/15/2014	8/18/2022	48	0.131542	0.0515	0.004	0.973	0.195912699	MG/L
Naples Bay	Lantern Lake	14B	Calcium	11/30/2020	8/18/2022	22	152.9136	144	96.1	255	34.60418768	MG/L
Naples Bay	Lantern Lake	14B	Chlorophyll-a, Corrected	12/15/2014	8/18/2022	48	58.25396	49.8	1.93	266	44.65829225	MG/M3
Naples Bay	Lantern Lake	14B	Color pH	10/29/2020	8/18/2022	23	7.703478	7.69	5.81	8.35	0.491728017	S.U.
Naples Bay	Lantern Lake	14B	Color, Apparent	10/29/2020	8/18/2022	23	100	100	30	180	39.39889246	PCU
Naples Bay	Lantern Lake	14B	Conductivity	12/15/2014	9/15/2022	49	8709.692	8573	427.9	18792	2698.567046	µS/cm
Naples Bay	Lantern Lake	14B	Copper	12/15/2014	8/18/2022	48	5.483378	2.72	0.1355	99.3	14.31487693	UG/L
Naples Bay	Lantern Lake	14B	Dissolved Organic Carbon	10/29/2020	8/18/2022	23	7.416087	7.09	3.59	12.8	2.332812854	MG/L
Naples Bay	Lantern Lake	14B	Dissolved Oxygen	12/15/2014	9/15/2022	49	5.588163	4.73	1.49	12.37	2.868253442	mg/L
Naples Bay	Lantern Lake	14B	Dissolved Oxygen, Saturation	12/15/2014	9/15/2022	49	70.8898	62.1	19.3	147.2	35.13266076	%
Naples Bay	Lantern Lake	14B	E. coli	10/29/2020	8/18/2022	23	664.8696	373	63	2909	832.9634557	#/100 ML
Naples Bay	Lantern Lake	14B	Enterococci	12/15/2014	8/18/2022	48	367.0833	150	20	5000	807.4823187	#/100 ML
Naples Bay	Lantern Lake	14B	Fecal Coliform	12/15/2014	8/18/2022	36	355.2778	175	20	2500	533.197825	#/100 ML
Naples Bay	Lantern Lake	14B	Magnesium	11/30/2020	8/18/2022	22	196.0227	186	90.5	320	53.71717764	MG/L
Naples Bay	Lantern Lake	14B	Nitrate+Nitrite	12/15/2014	8/18/2022	48	0.044104	0.015	0.002	0.263	0.059390607	MG/L
Naples Bay	Lantern Lake	14B	Orthophosphate	12/15/2014	8/18/2022	48	0.298438	0.259	0.001	0.804	0.206538844	MG/L
Naples Bay	Lantern Lake	14B	pH	12/15/2014	9/15/2022	47	7.777021	7.78	6.93	8.64	0.408804806	S.U.
Naples Bay	Lantern Lake	14B	Salinity	12/15/2014	9/15/2022	49	5.027464	4.8	2.95	11.1	1.526567749	ppt
Naples Bay	Lantern Lake	14B	Temperature	12/15/2014	9/15/2022	49	26.71041	27.16	18.55	32.06	3.842287166	°C
Naples Bay	Lantern Lake	14B	Total Hardness, CaCO3	5/22/2018	8/18/2022	33	1187.939	1147	611	1950	275.4143401	MG/L
Naples Bay	Lantern Lake	14B	Total Kjeldahl Nitrogen	12/15/2014	8/18/2022	48	1.634958	1.56	0.708	2.56	0.425803469	MG/L

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Naples Bay	Lantern Lake	14B	Total Nitrogen	12/15/2014	8/18/2022	48	1.678146	1.625	0.731	2.75	0.447005069	MG/L
Naples Bay	Lantern Lake	14B	Total Organic Carbon	10/29/2020	8/18/2022	23	9.372609	8.52	6.24	14.8	2.706453932	MG/L
Naples Bay	Lantern Lake	14B	Total Phosphorus	12/15/2014	8/18/2022	48	0.43175	0.3965	0.059	1.04	0.24466186	MG/L
Naples Bay	Lantern Lake	14B	Total Suspended Solids	12/15/2014	8/18/2022	48	17.64719	14.25	0.285	58	12.96286574	MG/L
Naples Bay	Lantern Lake	14B	Turbidity	12/15/2014	8/18/2022	48	9.139792	6.65	2.5	24.2	5.295590896	NTU
Naples Bay	Spring Lake	11C	Ammonia	10/29/2020	8/18/2022	21	0.048762	0.004	0.004	0.669	0.143597669	MG/L
Naples Bay	Spring Lake	11C	Calcium	11/30/2020	8/18/2022	20	78.58	78.35	46.9	120	17.40588527	MG/L
Naples Bay	Spring Lake	11C	Chlorophyll-a, Corrected	10/29/2020	8/18/2022	21	56.48381	34	3.32	323	79.7856718	MG/M3
Naples Bay	Spring Lake	11C	Color pH	10/29/2020	8/18/2022	21	8.095714	8.15	7.49	8.94	0.364891373	S.U.
Naples Bay	Spring Lake	11C	Color, Apparent	10/29/2020	8/18/2022	21	111.4286	110	40	260	47.25311781	PCU
Naples Bay	Spring Lake	11C	Conductivity	10/29/2020	9/15/2022	22	1023.818	692.5	456	6955	1347.793422	µS/cm
Naples Bay	Spring Lake	11C	Copper	10/29/2020	8/18/2022	21	4.29219	2.33	0.173	12.2	3.907247722	UG/L
Naples Bay	Spring Lake	11C	Dissolved Organic Carbon	10/29/2020	8/18/2022	21	13.26738	13.7	1.355	30.9	6.070372645	MG/L
Naples Bay	Spring Lake	11C	Dissolved Oxygen	10/29/2020	9/15/2022	22	7.462727	7.2	0.67	13.83	3.757918854	mg/L
Naples Bay	Spring Lake	11C	Dissolved Oxygen, Saturation	10/29/2020	9/15/2022	22	93.61364	89	8.7	178.7	47.26393264	%
Naples Bay	Spring Lake	11C	E. coli	10/29/2020	8/18/2022	21	587.9048	369	74	1500	433.8980185	#/100 ML
Naples Bay	Spring Lake	11C	Enterococci	10/29/2020	8/18/2022	21	374.9048	210	5	2200	561.5954865	#/100 ML
Naples Bay	Spring Lake	11C	Fecal Coliform	10/26/2021	8/18/2022	9	876.6667	580	260	2900	825.6815367	#/100 ML
Naples Bay	Spring Lake	11C	Magnesium	11/30/2020	8/18/2022	20	6.4035	6.425	3.82	10.3	1.54167467	MG/L
Naples Bay	Spring Lake	11C	Nitrate+Nitrite	10/29/2020	8/18/2022	21	0.019286	0.003	0.003	0.17	0.046195392	MG/L
Naples Bay	Spring Lake	11C	Orthophosphate	10/29/2020	8/18/2022	21	0.019971	0.017	0.001	0.058	0.016102706	MG/L
Naples Bay	Spring Lake	11C	pH	10/29/2020	8/18/2022	19	7.884211	7.87	6.11	8.96	0.723005423	S.U.
Naples Bay	Spring Lake	11C	Salinity	10/29/2020	9/15/2022	22	0.357727	0.33	0.22	0.75	0.128875422	ppt
Naples Bay	Spring Lake	11C	Temperature	10/29/2020	9/15/2022	22	27.32955	28.655	19.88	32.3	3.466268032	°C
Naples Bay	Spring Lake	11C	Total Hardness, CaCO3	10/29/2020	8/18/2022	21	221.4762	217	134	336	46.55493427	MG/L
Naples Bay	Spring Lake	11C	Total Kjeldahl Nitrogen	10/29/2020	8/18/2022	21	1.459619	1.23	0.726	3.78	0.834276302	MG/L
Naples Bay	Spring Lake	11C	Total Nitrogen	10/29/2020	8/18/2022	21	1.476762	1.23	0.726	3.95	0.866442203	MG/L
Naples Bay	Spring Lake	11C	Total Organic Carbon	10/29/2020	8/18/2022	21	14.02619	14.3	5.75	19	3.203810975	MG/L
Naples Bay	Spring Lake	11C	Total Phosphorus	10/29/2020	8/18/2022	21	0.060238	0.057	0.023	0.143	0.024923693	MG/L
Naples Bay	Spring Lake	11C	Total Suspended Solids	10/29/2020	8/18/2022	21	7.748333	6	0.285	28	5.886362487	MG/L
Naples Bay	Spring Lake	11C	Turbidity	10/29/2020	8/18/2022	21	5.691905	4	2.13	24.3	5.349651034	NTU
Pump Stations	Cove Pump	11-Pump	Ammonia	12/15/2014	8/18/2022	47	0.338723	0.309	0.164	1.36	0.172835899	MG/L
Pump Stations	Cove Pump	11-Pump	Calcium	11/30/2020	8/18/2022	22	96.59545	99.85	69.2	121	13.61793206	MG/L
Pump Stations	Cove Pump	11-Pump	Color pH	10/30/2020	8/18/2022	23	7.553478	7.54	7.19	8.17	0.194155718	S.U.
Pump Stations	Cove Pump	11-Pump	Color, Apparent	10/30/2020	8/18/2022	23	125.6522	120	80	180	26.25505786	PCU
Pump Stations	Cove Pump	11-Pump	Conductivity	12/15/2014	9/15/2022	48	1502.667	1367.5	694	3649	537.0072044	µS/cm
Pump Stations	Cove Pump	11-Pump	Copper	12/15/2014	8/18/2022	47	2.30575	1.365	0.173	15.5	2.668372063	UG/L
Pump Stations	Cove Pump	11-Pump	Dissolved Organic Carbon	10/30/2020	8/18/2022	23	15.02652	14.7	2.87	23.6	4.482979537	MG/L
Pump Stations	Cove Pump	11-Pump	Dissolved Oxygen	12/15/2014	9/15/2022	48	5.131042	4.91	1.88	10.41	1.515549531	mg/L
Pump Stations	Cove Pump	11-Pump	Dissolved Oxygen, Saturation	12/15/2014	9/15/2022	48	63.99375	62.2	24.7	122.9	18.0418592	%
Pump Stations	Cove Pump	11-Pump	E. coli	10/30/2020	8/18/2022	23	907.7391	246	52	9208	1948.188884	#/100 ML
Pump Stations	Cove Pump	11-Pump	Enterococci	12/15/2014	8/18/2022	47	2937.532	1390	400	14900	3776.513626	#/100 ML
Pump Stations	Cove Pump	11-Pump	Fecal Coliform	12/15/2014	8/18/2022	35	3230.286	1600	50	17900	3936.67558	#/100 ML
Pump Stations	Cove Pump	11-Pump	Magnesium	11/30/2020	8/18/2022	22	19.9	20.6	10.7	31.3	4.742814113	MG/L
Pump Stations	Cove Pump	11-Pump	Nitrate+Nitrite	12/15/2014	8/18/2022	47	0.297979	0.303	0.106	0.496	0.085175647	MG/L

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Pump Stations	Cove Pump	11-Pump	Orthophosphate	12/15/2014	8/18/2022	47	0.096809	0.101	0.017	0.156	0.028735403	MG/L
Pump Stations	Cove Pump	11-Pump	pH	12/15/2014	8/18/2022	45	7.417111	7.38	6.32	8.04	0.334804028	S.U.
Pump Stations	Cove Pump	11-Pump	Salinity	12/15/2014	9/15/2022	48	0.756126	0.69	0.34	1.92	0.286298127	ppt
Pump Stations	Cove Pump	11-Pump	Temperature	12/15/2014	9/15/2022	48	26.52708	26.775	22.77	29.25	1.836949319	°C
Pump Stations	Cove Pump	11-Pump	Total Hardness, CaCO3	12/15/2014	8/18/2022	43	325.7907	330	221	431	49.11868917	MG/L
Pump Stations	Cove Pump	11-Pump	Total Kjeldahl Nitrogen	12/15/2014	8/18/2022	47	1.131149	1.06	0.502	2.46	0.312321948	MG/L
Pump Stations	Cove Pump	11-Pump	Total Nitrogen	12/15/2014	8/18/2022	47	1.429723	1.4	0.807	2.74	0.313556922	MG/L
Pump Stations	Cove Pump	11-Pump	Total Organic Carbon	10/30/2020	8/18/2022	23	16.13304	17.1	9.06	21.2	3.078492008	MG/L
Pump Stations	Cove Pump	11-Pump	Total Phosphorus	12/15/2014	8/18/2022	47	0.128447	0.123	0.046	0.222	0.038450312	MG/L
Pump Stations	Cove Pump	11-Pump	Total Suspended Solids	12/15/2014	8/18/2022	47	4.229915	2	0.285	46.7	8.397112378	MG/L
Pump Stations	Cove Pump	11-Pump	Turbidity	12/15/2014	8/18/2022	47	3.071489	2	0.9	33.1	4.823181333	NTU
Pump Stations	Port Royal Pump	14-Pump	Ammonia	12/15/2014	8/18/2022	47	0.376085	0.341	0.004	1.1	0.208904475	MG/L
Pump Stations	Port Royal Pump	14-Pump	Calcium	11/30/2020	8/18/2022	22	174.8864	151.5	77.3	286	67.00600752	MG/L
Pump Stations	Port Royal Pump	14-Pump	Color pH	10/30/2020	8/18/2022	23	7.562609	7.5	7.33	8.39	0.222510825	S.U.
Pump Stations	Port Royal Pump	14-Pump	Color, Apparent	10/30/2020	8/18/2022	23	81.08696	70	20	200	40.39454626	PCU
Pump Stations	Port Royal Pump	14-Pump	Conductivity	12/15/2014	9/15/2022	48	17622.73	10151	3248	65167	14691.88611	µS/cm
Pump Stations	Port Royal Pump	14-Pump	Copper	12/15/2014	8/18/2022	47	4.334214	2.1	0.121	46	7.82776686	UG/L
Pump Stations	Port Royal Pump	14-Pump	Dissolved Organic Carbon	10/30/2020	8/18/2022	23	9.463913	9.11	4.47	17	3.473224516	MG/L
Pump Stations	Port Royal Pump	14-Pump	Dissolved Oxygen	12/15/2014	9/15/2022	48	4.080625	3.82	2.03	8.35	1.335180928	mg/L
Pump Stations	Port Royal Pump	14-Pump	Dissolved Oxygen, Saturation	12/15/2014	9/15/2022	48	53.93125	50.75	25	105.4	18.23695286	%
Pump Stations	Port Royal Pump	14-Pump	E. coli	10/30/2020	8/18/2022	23	344.3913	238	31	1541	393.027843	#/100 ML
Pump Stations	Port Royal Pump	14-Pump	Enterococci	12/15/2014	8/18/2022	47	990.2128	520	63	5200	1160.275247	#/100 ML
Pump Stations	Port Royal Pump	14-Pump	Fecal Coliform	12/15/2014	8/18/2022	35	1312.286	420	10	9500	2053.305922	#/100 ML
Pump Stations	Port Royal Pump	14-Pump	Magnesium	11/30/2020	8/18/2022	22	285.6545	197.5	13.5	818	211.3916197	MG/L
Pump Stations	Port Royal Pump	14-Pump	Nitrate+Nitrite	12/15/2014	8/18/2022	47	0.176638	0.17	0.059	0.468	0.087593534	MG/L
Pump Stations	Port Royal Pump	14-Pump	Orthophosphate	12/15/2014	8/18/2022	47	0.320234	0.281	0.044	1.15	0.205295568	MG/L
Pump Stations	Port Royal Pump	14-Pump	pH	12/15/2014	8/18/2022	45	7.27	7.25	6.39	8.13	0.33677616	S.U.
Pump Stations	Port Royal Pump	14-Pump	Salinity	12/15/2014	9/15/2022	48	10.75193	5.71	1.69	44.16	9.819492336	ppt
Pump Stations	Port Royal Pump	14-Pump	Temperature	12/15/2014	9/15/2022	48	26.30583	26.19	20.19	31	2.932238875	°C
Pump Stations	Port Royal Pump	14-Pump	Total Hardness, CaCO3	5/22/2018	8/18/2022	33	1716.394	1406	290	3976	1022.511062	MG/L
Pump Stations	Port Royal Pump	14-Pump	Total Kjeldahl Nitrogen	12/15/2014	8/18/2022	47	2.274681	1.15	0.148	45.5	6.49286172	MG/L
Pump Stations	Port Royal Pump	14-Pump	Total Nitrogen	12/15/2014	8/18/2022	47	2.452213	1.48	0.26	45.7	6.496059558	MG/L
Pump Stations	Port Royal Pump	14-Pump	Total Organic Carbon	10/30/2020	8/18/2022	23	10.39478	10.6	4.8	17.5	3.390679564	MG/L
Pump Stations	Port Royal Pump	14-Pump	Total Phosphorus	12/15/2014	8/18/2022	47	0.377511	0.303	0.025	1.21	0.229786467	MG/L
Pump Stations	Port Royal Pump	14-Pump	Total Suspended Solids	12/15/2014	8/18/2022	47	11.13447	8.8	1	48.4	9.917535372	MG/L
Pump Stations	Port Royal Pump	14-Pump	Turbidity	12/15/2014	8/18/2022	46	5.618913	4.45	1.3	25	4.710406554	NTU
Pump Stations	Public Works Pump	PW-Pump	Ammonia	12/16/2014	8/18/2022	47	0.333979	0.352	0.103	0.537	0.088165972	MG/L
Pump Stations	Public Works Pump	PW-Pump	Calcium	11/30/2020	8/18/2022	22	97.25	99.8	68.4	133	17.34810954	MG/L
Pump Stations	Public Works Pump	PW-Pump	Color pH	10/30/2020	8/18/2022	23	7.488696	7.51	7.08	7.69	0.130324921	S.U.
Pump Stations	Public Works Pump	PW-Pump	Color, Apparent	10/30/2020	8/18/2022	23	119.5652	120	10	160	38.07627045	PCU
Pump Stations	Public Works Pump	PW-Pump	Conductivity	12/16/2014	9/15/2022	48	2287.917	1355.5	720	14189	2514.670291	µS/cm
Pump Stations	Public Works Pump	PW-Pump	Copper	12/16/2014	8/18/2022	47	3.860708	2.915	0.136	21.4	3.579041307	UG/L
Pump Stations	Public Works Pump	PW-Pump	Dissolved Organic Carbon	10/30/2020	8/18/2022	23	15.51891	16	1.355	26.7	6.037508509	MG/L
Pump Stations	Public Works Pump	PW-Pump	Dissolved Oxygen	12/16/2014	9/15/2022	48	4.225833	4.15	1.84	8.85	1.322508631	mg/L
Pump Stations	Public Works Pump	PW-Pump	Dissolved Oxygen, Saturation	12/16/2014	9/15/2022	48	53.29375	52.85	23.5	109	16.14482865	%

Appendix B1. Summary Stats (Full POR)

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Avg	Median	Min	Max	StandardDev	Units
Pump Stations	Public Works Pump	PW-Pump	E. coli	10/30/2020	8/18/2022	23	467.3043	189	52	2613	647.78598	#/100 ML
Pump Stations	Public Works Pump	PW-Pump	Enterococci	12/16/2014	8/18/2022	47	1230.894	410	60	13400	2356.890151	#/100 ML
Pump Stations	Public Works Pump	PW-Pump	Fecal Coliform	12/16/2014	8/18/2022	35	3084.143	1800	5	20000	4352.409151	#/100 ML
Pump Stations	Public Works Pump	PW-Pump	Magnesium	11/30/2020	8/18/2022	22	26.03364	14.3	6.52	123	31.84640916	MG/L
Pump Stations	Public Works Pump	PW-Pump	Nitrate+Nitrite	12/16/2014	8/18/2022	47	0.233957	0.23	0.103	0.675	0.08974625	MG/L
Pump Stations	Public Works Pump	PW-Pump	Orthophosphate	12/16/2014	8/18/2022	47	0.077774	0.073	0.021	0.222	0.031884837	MG/L
Pump Stations	Public Works Pump	PW-Pump	pH	12/16/2014	8/18/2022	45	7.287778	7.33	6.24	7.78	0.263118439	S.U.
Pump Stations	Public Works Pump	PW-Pump	Salinity	12/16/2014	9/15/2022	48	1.204647	0.675	0.35	8.18	1.432524001	ppt
Pump Stations	Public Works Pump	PW-Pump	Temperature	12/16/2014	9/15/2022	48	26.86104	26.94	23.76	30.39	1.726371474	°C
Pump Stations	Public Works Pump	PW-Pump	Total Hardness, CaCO3	2/17/2015	8/18/2022	41	415.3171	332	132	1664	314.31747	MG/L
Pump Stations	Public Works Pump	PW-Pump	Total Kjeldahl Nitrogen	12/16/2014	8/18/2022	47	1.059255	1.02	0.692	1.57	0.20301622	MG/L
Pump Stations	Public Works Pump	PW-Pump	Total Nitrogen	12/16/2014	8/18/2022	47	1.293511	1.26	0.933	1.9	0.218028506	MG/L
Pump Stations	Public Works Pump	PW-Pump	Total Organic Carbon	10/30/2020	8/18/2022	23	17.3113	17.6	9.86	26.4	4.075428928	MG/L
Pump Stations	Public Works Pump	PW-Pump	Total Phosphorus	12/16/2014	8/18/2022	47	0.109021	0.096	0.029	0.354	0.063051907	MG/L
Pump Stations	Public Works Pump	PW-Pump	Total Suspended Solids	12/16/2014	8/18/2022	47	8.425213	2.05	0.285	207	30.1244067	MG/L
Pump Stations	Public Works Pump	PW-Pump	Turbidity	12/16/2014	8/18/2022	47	9.916447	2.19	0.75	273	40.11508696	NTU

Appendix B2. Summary Stats (Oct 2021 through September 2022)

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Calcium	10/26/2021	9/15/2022	12	75.62727	71.8	51.9	119	20.9783741	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	21.03773	7.18	0.575	73	24.0616832	MG/M3
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Color, Apparent	10/26/2021	9/15/2022	12	86.81818	80	40	200	48.6966491	PCU
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Color pH	10/26/2021	9/15/2022	12	7.707273	7.77	7.11	8.2	0.3401203	S.U.
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Conductivity	10/26/2021	9/15/2022	12	693.25	561.5	461	1499	327.810124	µS/cm
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Copper	10/26/2021	9/15/2022	12	3.281091	1.5	0.173	18.4	5.3623538	UG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Dissolved Oxygen	10/26/2021	9/15/2022	12	4.709167	4.83	2.1	6.93	1.59725024	mg/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	10.47727	11.1	1.355	19.3	5.49909418	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	57.15833	59.45	27.4	79.7	18.0368541	%
Gordon River	15th Avenue N Lake (WTP Lake)	19B	E. coli	10/26/2021	9/15/2022	12	840.4545	495	41	4884	1388.84307	#/100 ML
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Enterococci	10/26/2021	9/15/2022	12	2552.273	310	31	24196	7187.21338	#/100 ML
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Fecal Coliform	10/26/2021	9/15/2022	12	922.5455	660	50	5000	1389.5637	#/100 ML
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	225.7273	212	155	378	71.3008989	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Magnesium	10/26/2021	9/15/2022	12	8.981818	7.06	6.03	19.6	4.80891218	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Ammonia	10/26/2021	9/15/2022	12	0.198818	0.031	0.004	1.04	0.32869798	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.105727	0.044	0.003	0.515	0.16252082	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Orthophosphate	10/26/2021	9/15/2022	12	0.035491	0.018	0.01	0.134	0.0368588	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	pH	10/26/2021	9/15/2022	9	7.987778	8.12	6.93	8.66	0.5335208	S.U.
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Salinity	10/26/2021	9/15/2022	12	0.340833	0.27	0.24	0.75	0.1668673	ppt
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Temperature	10/26/2021	9/15/2022	12	25.41	23.875	20.88	30.48	3.43949521	°C
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.528273	1.05	0.532	5.71	1.44059468	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Total Nitrogen	10/26/2021	9/15/2022	12	1.635545	1.15	0.837	5.78	1.4151179	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Total Organic Carbon	10/26/2021	9/15/2022	12	11.59591	11.5	1.355	20.1	4.44814389	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Total Phosphorus	10/26/2021	9/15/2022	12	0.063636	0.037	0.004	0.165	0.05057128	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Total Suspended Solids	10/26/2021	9/15/2022	12	19.70182	6	2	108	31.1125016	MG/L
Gordon River	15th Avenue N Lake (WTP Lake)	19B	Turbidity	10/26/2021	9/15/2022	12	12.96364	4.8	2.7	55	16.0895166	NTU
Gordon River	Forest Lake	20B	Calcium	10/26/2021	9/15/2022	12	68.25455	66.2	58.3	81.3	7.83535113	MG/L
Gordon River	Forest Lake	20B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	30.13273	22.9	3.36	83.5	23.5686356	MG/M3
Gordon River	Forest Lake	20B	Color, Apparent	10/26/2021	9/15/2022	12	79.09091	60	50	160	36.1121989	PCU
Gordon River	Forest Lake	20B	Color pH	10/26/2021	9/15/2022	12	8.020909	8.1	7.5	8.35	0.27416982	S.U.
Gordon River	Forest Lake	20B	Conductivity	10/26/2021	9/15/2022	12	611	523	481	1042	202.350731	µS/cm
Gordon River	Forest Lake	20B	Copper	10/26/2021	9/15/2022	12	0.608636	0.54	0.173	1.47	0.42587305	UG/L
Gordon River	Forest Lake	20B	Dissolved Oxygen	10/26/2021	9/15/2022	12	5.0975	5.125	0.75	9.93	2.45790053	mg/L
Gordon River	Forest Lake	20B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	12.65545	14.7	1.355	23.6	6.57294624	MG/L
Gordon River	Forest Lake	20B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	62.70833	63.85	9.5	114.1	28.993556	%
Gordon River	Forest Lake	20B	E. coli	10/26/2021	9/15/2022	12	118.0909	96	20	473	124.619785	#/100 ML
Gordon River	Forest Lake	20B	Enterococci	10/26/2021	9/15/2022	12	287.7273	74	5	1597	472.234918	#/100 ML
Gordon River	Forest Lake	20B	Fecal Coliform	10/26/2021	9/15/2022	12	188.1818	60	20	860	255.022281	#/100 ML
Gordon River	Forest Lake	20B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	185.8182	181	159	217	20.7885458	MG/L
Gordon River	Forest Lake	20B	Magnesium	10/26/2021	9/15/2022	12	3.72	3.4	3.08	4.57	0.58172158	MG/L
Gordon River	Forest Lake	20B	Ammonia	10/26/2021	9/15/2022	12	0.042455	0.004	0.004	0.308	0.09127581	MG/L
Gordon River	Forest Lake	20B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.190182	0.003	0.003	1.94	0.58121834	MG/L
Gordon River	Forest Lake	20B	Orthophosphate	10/26/2021	9/15/2022	12	0.0066	0.006	0.001	0.0206	0.00589237	MG/L
Gordon River	Forest Lake	20B	pH	10/26/2021	9/15/2022	9	8.298889	8.32	7.44	9.61	0.65328869	S.U.
Gordon River	Forest Lake	20B	Salinity	10/26/2021	9/15/2022	12	0.29	0.245	0.22	0.51	0.10383553	ppt

Appendix B2. Summary Stats (Oct 2021 through September 2022)

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Gordon River	Forest Lake	20B	Temperature	10/26/2021	9/15/2022	12	26.25833	26.545	20.5	32.14	3.68826353	°C
Gordon River	Forest Lake	20B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.510636	1.37	0.732	2.51	0.56633317	MG/L
Gordon River	Forest Lake	20B	Total Nitrogen	10/26/2021	9/15/2022	12	1.698545	1.38	0.732	3.49	0.8136673	MG/L
Gordon River	Forest Lake	20B	Total Organic Carbon	10/26/2021	9/15/2022	12	15.48682	14.7	1.355	28.6	6.97652574	MG/L
Gordon River	Forest Lake	20B	Total Phosphorus	10/26/2021	9/15/2022	12	0.041091	0.043	0.004	0.086	0.0220157	MG/L
Gordon River	Forest Lake	20B	Total Suspended Solids	10/26/2021	9/15/2022	12	7.502727	6.33	3	17.3	4.20388651	MG/L
Gordon River	Forest Lake	20B	Turbidity	10/26/2021	9/15/2022	12	4.590909	4	2.1	8.5	1.99872687	NTU
Gordon River	Lake 17	17B	Calcium	10/26/2021	9/15/2022	12	53.15455	53	44	62.9	5.65850928	MG/L
Gordon River	Lake 17	17B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	36	30.5	14.9	58.9	13.9095651	MG/M3
Gordon River	Lake 17	17B	Color, Apparent	10/26/2021	9/15/2022	12	85.45455	80	20	160	36.1562267	PCU
Gordon River	Lake 17	17B	Color pH	10/26/2021	9/15/2022	12	7.667273	7.69	7.41	7.83	0.13161238	S.U.
Gordon River	Lake 17	17B	Conductivity	10/26/2021	9/15/2022	12	444.3333	384.5	325	743	144.631402	µS/cm
Gordon River	Lake 17	17B	Copper	10/26/2021	9/15/2022	12	0.852818	0.441	0.173	2.83	0.90307916	UG/L
Gordon River	Lake 17	17B	Dissolved Oxygen	10/26/2021	9/15/2022	12	4.4775	4.05	3.02	7.52	1.27462026	mg/L
Gordon River	Lake 17	17B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	15.80909	14.5	12.8	24.6	3.50041556	MG/L
Gordon River	Lake 17	17B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	54.05	49.9	34.5	87.3	14.6805066	%
Gordon River	Lake 17	17B	E. coli	10/26/2021	9/15/2022	12	1381.182	880	84	3873	1282.11511	#/100 ML
Gordon River	Lake 17	17B	Enterococci	10/26/2021	9/15/2022	12	1609.818	857	84	4400	1707.44352	#/100 ML
Gordon River	Lake 17	17B	Fecal Coliform	10/26/2021	9/15/2022	12	2137.273	930	470	5500	1847.75589	#/100 ML
Gordon River	Lake 17	17B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	150.7273	151	124	178	15.9504916	MG/L
Gordon River	Lake 17	17B	Magnesium	10/26/2021	9/15/2022	12	4.355455	4.41	3.53	5.49	0.71188993	MG/L
Gordon River	Lake 17	17B	Ammonia	10/26/2021	9/15/2022	12	0.008727	0.004	0.004	0.056	0.01567859	MG/L
Gordon River	Lake 17	17B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.018455	0.003	0.003	0.109	0.03133485	MG/L
Gordon River	Lake 17	17B	Orthophosphate	10/26/2021	9/15/2022	12	0.070491	0.065	0.05	0.114	0.01835241	MG/L
Gordon River	Lake 17	17B	pH	10/26/2021	9/15/2022	6	7.391667	7.37	6.66	7.98	0.54781079	S.U.
Gordon River	Lake 17	17B	Salinity	10/26/2021	9/15/2022	12	0.205	0.18	0.15	0.36	0.0740393	ppt
Gordon River	Lake 17	17B	Temperature	10/26/2021	9/15/2022	12	25.04833	25.755	16.5	29.76	4.31302854	°C
Gordon River	Lake 17	17B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.451273	1.42	0.957	2.08	0.36528074	MG/L
Gordon River	Lake 17	17B	Total Nitrogen	10/26/2021	9/15/2022	12	1.468545	1.44	0.957	2.08	0.35950448	MG/L
Gordon River	Lake 17	17B	Total Organic Carbon	10/26/2021	9/15/2022	12	17.31	15.6	8.81	30	6.47780055	MG/L
Gordon River	Lake 17	17B	Total Phosphorus	10/26/2021	9/15/2022	12	0.135	0.134	0.066	0.186	0.03936242	MG/L
Gordon River	Lake 17	17B	Total Suspended Solids	10/26/2021	9/15/2022	12	7.820909	7.67	2.33	14.7	2.90071872	MG/L
Gordon River	Lake 17	17B	Turbidity	10/26/2021	9/15/2022	12	5.363636	5.2	2.6	10	2.31269225	NTU
Gordon River	Lake Manor	22B	Calcium	10/26/2021	9/15/2022	12	69.62727	67.9	52.7	87	10.2051057	MG/L
Gordon River	Lake Manor	22B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	19.59964	21.2	0.396	40.4	11.189967	MG/M3
Gordon River	Lake Manor	22B	Color, Apparent	10/26/2021	9/15/2022	12	97.27273	90	50	160	36.0807176	PCU
Gordon River	Lake Manor	22B	Color pH	10/26/2021	9/15/2022	12	7.653636	7.7	7.24	7.85	0.16764681	S.U.
Gordon River	Lake Manor	22B	Conductivity	10/26/2021	9/15/2022	12	4379.667	1832.5	586	33927	9357.56974	µS/cm
Gordon River	Lake Manor	22B	Copper	10/26/2021	9/15/2022	12	1.182455	0.436	0.173	6.07	1.74125101	UG/L
Gordon River	Lake Manor	22B	Dissolved Oxygen	10/26/2021	9/15/2022	12	4.509167	4.685	2.3	6.69	1.37453766	mg/L
Gordon River	Lake Manor	22B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	10.53227	13.3	1.355	17.5	6.17410494	MG/L
Gordon River	Lake Manor	22B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	56.425	59.1	31.6	84	14.4860513	%
Gordon River	Lake Manor	22B	E. coli	10/26/2021	9/15/2022	12	394.7273	203	120	987	305.612202	#/100 ML
Gordon River	Lake Manor	22B	Enterococci	10/26/2021	9/15/2022	12	287.9091	228	70	934	254.876227	#/100 ML
Gordon River	Lake Manor	22B	Fecal Coliform	10/26/2021	9/15/2022	12	782.7273	390	180	4100	1133.48216	#/100 ML

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Gordon River	Lake Manor	22B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	276.6364	277	167	412	91.5513765	MG/L
Gordon River	Lake Manor	22B	Magnesium	10/26/2021	9/15/2022	12	25.01545	26.1	5.93	51.8	16.5261093	MG/L
Gordon River	Lake Manor	22B	Ammonia	10/26/2021	9/15/2022	12	0.019	0.004	0.004	0.093	0.03349925	MG/L
Gordon River	Lake Manor	22B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.007909	0.003	0.003	0.028	0.00917011	MG/L
Gordon River	Lake Manor	22B	Orthophosphate	10/26/2021	9/15/2022	12	0.019982	0.016	0.001	0.05	0.01549076	MG/L
Gordon River	Lake Manor	22B	pH	10/26/2021	9/15/2022	10	7.692	7.775	6.97	8.11	0.31389312	S.U.
Gordon River	Lake Manor	22B	Salinity	10/26/2021	9/15/2022	12	0.811667	0.85	0.25	2.13	0.55957506	ppt
Gordon River	Lake Manor	22B	Temperature	10/26/2021	9/15/2022	12	26.625	27.015	19.35	31.9	3.94408533	°C
Gordon River	Lake Manor	22B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.001	0.971	0.619	1.69	0.30363564	MG/L
Gordon River	Lake Manor	22B	Total Nitrogen	10/26/2021	9/15/2022	12	1.006818	0.971	0.619	1.69	0.30537577	MG/L
Gordon River	Lake Manor	22B	Total Organic Carbon	10/26/2021	9/15/2022	12	12.33227	12.6	1.355	19	4.48989497	MG/L
Gordon River	Lake Manor	22B	Total Phosphorus	10/26/2021	9/15/2022	12	0.066455	0.056	0.021	0.173	0.04234941	MG/L
Gordon River	Lake Manor	22B	Total Suspended Solids	10/26/2021	9/15/2022	12	4.631818	3.67	2	9	2.41518454	MG/L
Gordon River	Lake Manor	22B	Turbidity	10/26/2021	9/15/2022	12	2.481818	2	1.5	4.8	1.11697644	NTU
Gordon River	Mandarin Lake	6B	Calcium	10/26/2021	9/15/2022	12	78.85455	81.7	56.8	95.4	10.5352137	MG/L
Gordon River	Mandarin Lake	6B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	12.96091	12.2	1.3	24.2	7.4618154	MG/M3
Gordon River	Mandarin Lake	6B	Color, Apparent	10/26/2021	9/15/2022	12	105.4545	100	60	160	32.6691403	PCU
Gordon River	Mandarin Lake	6B	Color pH	10/26/2021	9/15/2022	12	7.586364	7.51	7.35	8.11	0.22388715	S.U.
Gordon River	Mandarin Lake	6B	Conductivity	10/26/2021	9/15/2022	12	742.0833	642	520	1318	274.648687	µS/cm
Gordon River	Mandarin Lake	6B	Copper	10/26/2021	9/15/2022	12	6.184909	0.978	0.173	55.2	16.3162427	UG/L
Gordon River	Mandarin Lake	6B	Dissolved Oxygen	10/26/2021	9/15/2022	12	2.205833	2.275	0.65	3.96	1.23180177	mg/L
Gordon River	Mandarin Lake	6B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	13.15091	14.6	1.355	27.9	7.63055726	MG/L
Gordon River	Mandarin Lake	6B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	25.775	25.05	8.4	42.5	13.4601179	%
Gordon River	Mandarin Lake	6B	E. coli	10/26/2021	9/15/2022	12	114.4545	108	5	309	92.7290285	#/100 ML
Gordon River	Mandarin Lake	6B	Enterococci	10/26/2021	9/15/2022	12	262.9091	205	20	1014	278.727987	#/100 ML
Gordon River	Mandarin Lake	6B	Fecal Coliform	10/26/2021	9/15/2022	12	1198.182	80	20	11100	3292.12338	#/100 ML
Gordon River	Mandarin Lake	6B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	575.2727	228	163	4142	1183.2349	MG/L
Gordon River	Mandarin Lake	6B	Magnesium	10/26/2021	9/15/2022	12	92.23273	5.81	5.21	956	286.479554	MG/L
Gordon River	Mandarin Lake	6B	Ammonia	10/26/2021	9/15/2022	12	0.015182	0.004	0.004	0.071	0.02376896	MG/L
Gordon River	Mandarin Lake	6B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.010455	0.003	0.003	0.033	0.01114777	MG/L
Gordon River	Mandarin Lake	6B	Orthophosphate	10/26/2021	9/15/2022	12	0.028273	0.01	0.001	0.156	0.0445872	MG/L
Gordon River	Mandarin Lake	6B	pH	10/26/2021	9/15/2022	10	7.412	7.43	6.78	8.11	0.33888051	S.U.
Gordon River	Mandarin Lake	6B	Salinity	10/26/2021	9/15/2022	12	3.0025	0.31	0.25	32	9.13294548	ppt
Gordon River	Mandarin Lake	6B	Temperature	10/26/2021	9/15/2022	12	25.3625	26.275	18.7	29.94	3.49325617	°C
Gordon River	Mandarin Lake	6B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.043364	1.01	0.707	1.45	0.2503255	MG/L
Gordon River	Mandarin Lake	6B	Total Nitrogen	10/26/2021	9/15/2022	12	1.052091	1.04	0.713	1.48	0.25688225	MG/L
Gordon River	Mandarin Lake	6B	Total Organic Carbon	10/26/2021	9/15/2022	12	14.48682	14.5	1.355	27.7	6.21087042	MG/L
Gordon River	Mandarin Lake	6B	Total Phosphorus	10/26/2021	9/15/2022	12	0.052364	0.041	0.013	0.17	0.04135039	MG/L
Gordon River	Mandarin Lake	6B	Total Suspended Solids	10/26/2021	9/15/2022	12	4.742455	4.33	0.667	12.3	3.45269261	MG/L
Gordon River	Mandarin Lake	6B	Turbidity	10/26/2021	9/15/2022	12	2.081818	1.9	1.2	3.3	0.737317	NTU
Gordon River	NCH Lake	26B	Calcium	10/26/2021	9/15/2022	12	49.12727	48.6	34.9	61.2	8.1093885	MG/L
Gordon River	NCH Lake	26B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	30.06364	20.2	1.46	112	30.3270451	MG/M3
Gordon River	NCH Lake	26B	Color, Apparent	10/26/2021	9/15/2022	12	76.36364	65	40	200	44.1639507	PCU
Gordon River	NCH Lake	26B	Color pH	10/26/2021	9/15/2022	12	7.863636	7.86	7.41	8.17	0.2157903	S.U.
Gordon River	NCH Lake	26B	Conductivity	10/26/2021	9/15/2022	12	800	708.5	519	1466	308.213326	µS/cm

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Gordon River	NCH Lake	26B	Copper	10/26/2021	9/15/2022	12	29.66364	27.4	16.1	49.9	10.4535422	UG/L
Gordon River	NCH Lake	26B	Dissolved Oxygen	10/26/2021	9/15/2022	12	5.405833	6.02	1.37	8.87	2.20434471	mg/L
Gordon River	NCH Lake	26B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	13.80227	15.6	1.355	19.4	5.61366964	MG/L
Gordon River	NCH Lake	26B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	65.05	71.05	16	96	25.0831164	%
Gordon River	NCH Lake	26B	E. coli	10/26/2021	9/15/2022	12	305.3636	173	121	934	253.49133	#/100 ML
Gordon River	NCH Lake	26B	Enterococci	10/26/2021	9/15/2022	12	472.2727	446	30	1153	338.809413	#/100 ML
Gordon River	NCH Lake	26B	Fecal Coliform	10/26/2021	9/15/2022	12	1334.545	270	170	11000	3214.08265	#/100 ML
Gordon River	NCH Lake	26B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	170.1818	175	122	214	28.8229706	MG/L
Gordon River	NCH Lake	26B	Magnesium	10/26/2021	9/15/2022	12	11.53182	11.7	8.32	15.2	2.39402096	MG/L
Gordon River	NCH Lake	26B	Ammonia	10/26/2021	9/15/2022	12	0.049091	0.004	0.004	0.322	0.09406429	MG/L
Gordon River	NCH Lake	26B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.032818	0.012	0.003	0.099	0.03554945	MG/L
Gordon River	NCH Lake	26B	Orthophosphate	10/26/2021	9/15/2022	12	0.036091	0.025	0.001	0.118	0.03504698	MG/L
Gordon River	NCH Lake	26B	pH	10/26/2021	9/15/2022	10	7.59	7.635	6.42	9.09	0.75230018	S.U.
Gordon River	NCH Lake	26B	Salinity	10/26/2021	9/15/2022	12	0.390833	0.345	0.25	0.74	0.16144002	ppt
Gordon River	NCH Lake	26B	Temperature	10/26/2021	9/15/2022	12	25.01167	25.15	18.3	30.5	3.93418314	°C
Gordon River	NCH Lake	26B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.337636	1.32	0.828	2.1	0.39317153	MG/L
Gordon River	NCH Lake	26B	Total Nitrogen	10/26/2021	9/15/2022	12	1.369545	1.32	0.887	2.1	0.39134265	MG/L
Gordon River	NCH Lake	26B	Total Organic Carbon	10/26/2021	9/15/2022	12	16.76364	15.5	11	27.7	4.65859909	MG/L
Gordon River	NCH Lake	26B	Total Phosphorus	10/26/2021	9/15/2022	12	0.083727	0.083	0.025	0.136	0.03643924	MG/L
Gordon River	NCH Lake	26B	Total Suspended Solids	10/26/2021	9/15/2022	12	6.256364	6	2	12	2.84117325	MG/L
Gordon River	NCH Lake	26B	Turbidity	10/26/2021	9/15/2022	12	3.872727	3.2	2.2	6.4	1.53368244	NTU
Gordon River	Sun Lake Terrace	15B	Calcium	10/26/2021	9/15/2022	12	71.84545	71.6	62.1	83.2	6.05117569	MG/L
Gordon River	Sun Lake Terrace	15B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	29.14182	21.9	5.65	116	31.3667145	MG/M3
Gordon River	Sun Lake Terrace	15B	Color, Apparent	10/26/2021	9/15/2022	12	90.90909	80	60	150	23.0019762	PCU
Gordon River	Sun Lake Terrace	15B	Color pH	10/26/2021	9/15/2022	12	7.977273	7.97	7.45	8.69	0.34073717	S.U.
Gordon River	Sun Lake Terrace	15B	Conductivity	10/26/2021	9/15/2022	12	531.7917	461.5	390	928	185.911936	µS/cm
Gordon River	Sun Lake Terrace	15B	Copper	10/26/2021	9/15/2022	12	1.810818	1.53	0.173	4.21	1.38154767	UG/L
Gordon River	Sun Lake Terrace	15B	Dissolved Oxygen	10/26/2021	9/15/2022	12	6.245833	5.635	2.47	13.82	2.9367993	mg/L
Gordon River	Sun Lake Terrace	15B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	17.94545	15.8	15	26.7	3.8653237	MG/L
Gordon River	Sun Lake Terrace	15B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	76.675	71.8	32.9	162.3	32.777407	%
Gordon River	Sun Lake Terrace	15B	E. coli	10/26/2021	9/15/2022	12	1648.091	426	158	6131	2046.7298	#/100 ML
Gordon River	Sun Lake Terrace	15B	Enterococci	10/26/2021	9/15/2022	12	734.1818	146	31	5400	1571.68221	#/100 ML
Gordon River	Sun Lake Terrace	15B	Fecal Coliform	10/26/2021	9/15/2022	12	1852.727	450	200	8500	2586.786	#/100 ML
Gordon River	Sun Lake Terrace	15B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	196.2727	196	169	227	17.1644453	MG/L
Gordon River	Sun Lake Terrace	15B	Magnesium	10/26/2021	9/15/2022	12	4.026364	3.86	3.27	5.14	0.55563068	MG/L
Gordon River	Sun Lake Terrace	15B	Ammonia	10/26/2021	9/15/2022	12	0.049909	0.009	0.004	0.23	0.07799033	MG/L
Gordon River	Sun Lake Terrace	15B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.034818	0.018	0.003	0.159	0.04581445	MG/L
Gordon River	Sun Lake Terrace	15B	Orthophosphate	10/26/2021	9/15/2022	12	0.0162	0.0102	0.001	0.041	0.01658674	MG/L
Gordon River	Sun Lake Terrace	15B	pH	10/26/2021	9/15/2022	7	7.931429	7.93	7.29	8.77	0.5311757	S.U.
Gordon River	Sun Lake Terrace	15B	Salinity	10/26/2021	9/15/2022	12	0.254167	0.22	0.18	0.46	0.09746406	ppt
Gordon River	Sun Lake Terrace	15B	Temperature	10/26/2021	9/15/2022	12	26.6325	26.65	20.15	30.92	3.78789489	°C
Gordon River	Sun Lake Terrace	15B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.344818	1.29	0.873	1.78	0.28709469	MG/L
Gordon River	Sun Lake Terrace	15B	Total Nitrogen	10/26/2021	9/15/2022	12	1.379364	1.29	0.873	1.78	0.28754905	MG/L
Gordon River	Sun Lake Terrace	15B	Total Organic Carbon	10/26/2021	9/15/2022	12	18.32727	17.2	14.6	29.1	4.18810002	MG/L
Gordon River	Sun Lake Terrace	15B	Total Phosphorus	10/26/2021	9/15/2022	12	0.039091	0.028	0.016	0.083	0.02146371	MG/L

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Gordon River	Sun Lake Terrace	15B	Total Suspended Solids	10/26/2021	9/15/2022	12	6.327273	5.67	1.33	12	3.55041432	MG/L
Gordon River	Sun Lake Terrace	15B	Turbidity	10/26/2021	9/15/2022	12	4.254545	3.5	1.4	13	3.5026743	NTU
Gordon River	Thurner	16B	Calcium	10/26/2021	9/15/2022	12	71	69	66.7	78.4	4.36921045	MG/L
Gordon River	Thurner	16B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	42.65818	27.2	8.44	98.1	33.8667512	MG/M3
Gordon River	Thurner	16B	Color, Apparent	10/26/2021	9/15/2022	12	110	100	50	200	42.4264069	PCU
Gordon River	Thurner	16B	Color pH	10/26/2021	9/15/2022	12	7.867273	7.92	7.4	8.14	0.21973124	S.U.
Gordon River	Thurner	16B	Conductivity	10/26/2021	9/15/2022	12	533.875	467.5	339.5	965	200.154273	µS/cm
Gordon River	Thurner	16B	Copper	10/26/2021	9/15/2022	12	2.037091	1.82	0.173	6.32	1.76387372	UG/L
Gordon River	Thurner	16B	Dissolved Oxygen	10/26/2021	9/15/2022	12	4.498333	4.06	1.39	8.52	2.09260965	mg/L
Gordon River	Thurner	16B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	21.12727	19.6	15.2	32.4	5.08548737	MG/L
Gordon River	Thurner	16B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	55.38333	56.15	17.8	100.5	24.9613459	%
Gordon River	Thurner	16B	E. coli	10/26/2021	9/15/2022	12	310.1818	201	108	833	251.176758	#/100 ML
Gordon River	Thurner	16B	Enterococci	10/26/2021	9/15/2022	12	1855.818	238	70	17329	5136.47484	#/100 ML
Gordon River	Thurner	16B	Fecal Coliform	10/26/2021	9/15/2022	12	450.9091	290	70	1800	480.342681	#/100 ML
Gordon River	Thurner	16B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	194.6364	189	181	216	12.0935746	MG/L
Gordon River	Thurner	16B	Magnesium	10/26/2021	9/15/2022	12	4.19	4.09	3.35	5.52	0.67434413	MG/L
Gordon River	Thurner	16B	Ammonia	10/26/2021	9/15/2022	12	0.098727	0.024	0.004	0.418	0.14580404	MG/L
Gordon River	Thurner	16B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.032818	0.023	0.003	0.114	0.03534917	MG/L
Gordon River	Thurner	16B	Orthophosphate	10/26/2021	9/15/2022	12	0.021982	0.027	0.001	0.053	0.01805446	MG/L
Gordon River	Thurner	16B	pH	10/26/2021	9/15/2022	7	7.567143	7.56	6.98	8.47	0.51915683	S.U.
Gordon River	Thurner	16B	Salinity	10/26/2021	9/15/2022	12	0.259167	0.225	0.19	0.47	0.09755729	ppt
Gordon River	Thurner	16B	Temperature	10/26/2021	9/15/2022	12	25.82583	26.15	18.96	30.69	3.64025338	°C
Gordon River	Thurner	16B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.707273	1.5	1.2	2.84	0.52322253	MG/L
Gordon River	Thurner	16B	Total Nitrogen	10/26/2021	9/15/2022	12	1.737273	1.52	1.28	2.84	0.51064843	MG/L
Gordon River	Thurner	16B	Total Organic Carbon	10/26/2021	9/15/2022	12	19.32727	19.6	13	24.6	3.53527677	MG/L
Gordon River	Thurner	16B	Total Phosphorus	10/26/2021	9/15/2022	12	0.070273	0.059	0.04	0.154	0.0318719	MG/L
Gordon River	Thurner	16B	Total Suspended Solids	10/26/2021	9/15/2022	12	8.802727	7	0.8	25	7.68276394	MG/L
Gordon River	Thurner	16B	Turbidity	10/26/2021	9/15/2022	12	6.536364	4.4	2.1	23	6.02963892	NTU
Gordon River	Willow	21B	Calcium	10/26/2021	9/15/2022	12	89.23636	90	79.1	99.9	6.81282214	MG/L
Gordon River	Willow	21B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	16.85727	15	5.96	41.8	10.9486265	MG/M3
Gordon River	Willow	21B	Color, Apparent	10/26/2021	9/15/2022	12	132.3864	120	1.25	220	64.7602659	PCU
Gordon River	Willow	21B	Color pH	10/26/2021	9/15/2022	12	7.604545	7.72	6.73	7.82	0.3203237	S.U.
Gordon River	Willow	21B	Conductivity	10/26/2021	9/15/2022	12	690.1667	587.5	524	1207	242.684169	µS/cm
Gordon River	Willow	21B	Copper	10/26/2021	9/15/2022	12	0.887545	0.48	0.173	3.96	1.09794566	UG/L
Gordon River	Willow	21B	Dissolved Oxygen	10/26/2021	9/15/2022	12	4.26	4.23	1.91	8.37	1.75795336	mg/L
Gordon River	Willow	21B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	18.63727	20.5	1.355	31.7	9.72098127	MG/L
Gordon River	Willow	21B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	51.675	51	25.2	91.3	18.4746571	%
Gordon River	Willow	21B	E. coli	10/26/2021	9/15/2022	12	217.2727	201	108	495	117.349129	#/100 ML
Gordon River	Willow	21B	Enterococci	10/26/2021	9/15/2022	12	267.7273	160	20	1600	449.90112	#/100 ML
Gordon River	Willow	21B	Fecal Coliform	10/26/2021	9/15/2022	12	509.0909	260	90	2500	683.483058	#/100 ML
Gordon River	Willow	21B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	237.9091	241	212	265	18.2233616	MG/L
Gordon River	Willow	21B	Magnesium	10/26/2021	9/15/2022	12	3.590909	3.52	3	4.15	0.40272707	MG/L
Gordon River	Willow	21B	Ammonia	10/26/2021	9/15/2022	12	0.031545	0.004	0.004	0.209	0.06578961	MG/L
Gordon River	Willow	21B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.020636	0.003	0.003	0.104	0.03213805	MG/L
Gordon River	Willow	21B	Orthophosphate	10/26/2021	9/15/2022	12	0.012309	0.009	0.002	0.034	0.01055893	MG/L

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Gordon River	Willow	21B	pH	10/26/2021	9/15/2022	9	7.653333	7.58	6.99	8.33	0.42511763	S.U.
Gordon River	Willow	21B	Salinity	10/26/2021	9/15/2022	12	0.339167	0.285	0.25	0.6	0.12310072	ppt
Gordon River	Willow	21B	Temperature	10/26/2021	9/15/2022	12	25.83167	26.275	19.5	31.39	3.83996883	°C
Gordon River	Willow	21B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.203091	1.18	0.843	1.58	0.23185446	MG/L
Gordon River	Willow	21B	Total Nitrogen	10/26/2021	9/15/2022	12	1.221909	1.23	0.843	1.58	0.23368631	MG/L
Gordon River	Willow	21B	Total Organic Carbon	10/26/2021	9/15/2022	12	22.51409	23.7	1.355	30.3	7.66628229	MG/L
Gordon River	Willow	21B	Total Phosphorus	10/26/2021	9/15/2022	12	0.038	0.033	0.008	0.094	0.02356693	MG/L
Gordon River	Willow	21B	Total Suspended Solids	10/26/2021	9/15/2022	12	3.866364	4	1.33	6.67	1.89915914	MG/L
Gordon River	Willow	21B	Turbidity	10/26/2021	9/15/2022	12	2.3	2.1	1.1	3.2	0.6465292	NTU
Gulf of Mexico	Alligator Lake	10B	Calcium	10/26/2021	9/15/2022	12	114.4091	112	89.8	154	20.6607577	MG/L
Gulf of Mexico	Alligator Lake	10B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	11.33709	8.92	0.658	27.3	8.80296161	MG/M3
Gulf of Mexico	Alligator Lake	10B	Color, Apparent	10/26/2021	9/15/2022	12	70	75	30	120	28.8963666	PCU
Gulf of Mexico	Alligator Lake	10B	Color pH	10/26/2021	9/15/2022	12	7.79	7.78	7.53	8.03	0.15511286	S.U.
Gulf of Mexico	Alligator Lake	10B	Conductivity	10/26/2021	9/15/2022	12	9407.636	8229	636	19296	5866.9793	µS/cm
Gulf of Mexico	Alligator Lake	10B	Copper	10/26/2021	9/15/2022	12	1.623591	1.5	0.1355	3.53	1.22521216	UG/L
Gulf of Mexico	Alligator Lake	10B	Dissolved Oxygen	10/26/2021	9/15/2022	12	5.033636	5.17	1.75	7.68	1.74698181	mg/L
Gulf of Mexico	Alligator Lake	10B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	10.68773	11.1	1.355	15.8	4.05587559	MG/L
Gulf of Mexico	Alligator Lake	10B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	64.05455	67.5	22.8	96.5	22.6160281	%
Gulf of Mexico	Alligator Lake	10B	E. coli	10/26/2021	9/15/2022	12	331.4545	259	63	839	246.730364	#/100 ML
Gulf of Mexico	Alligator Lake	10B	Enterococci	10/26/2021	9/15/2022	12	527.4545	187	63	3441	986.322905	#/100 ML
Gulf of Mexico	Alligator Lake	10B	Fecal Coliform	10/26/2021	9/15/2022	12	155.4545	90	10	690	195.722438	#/100 ML
Gulf of Mexico	Alligator Lake	10B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	990	1007	559	1672	308.543676	MG/L
Gulf of Mexico	Alligator Lake	10B	Magnesium	10/26/2021	9/15/2022	12	171.7	171	81.7	314	64.2340253	MG/L
Gulf of Mexico	Alligator Lake	10B	Ammonia	10/26/2021	9/15/2022	12	0.136636	0.021	0.004	0.857	0.25760989	MG/L
Gulf of Mexico	Alligator Lake	10B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.035182	0.006	0.003	0.138	0.05072439	MG/L
Gulf of Mexico	Alligator Lake	10B	Orthophosphate	10/26/2021	9/15/2022	12	0.104445	0.102	0.0419	0.226	0.05007118	MG/L
Gulf of Mexico	Alligator Lake	10B	pH	10/26/2021	9/15/2022	6	7.56	7.6	6.78	8.11	0.49420643	S.U.
Gulf of Mexico	Alligator Lake	10B	Salinity	10/26/2021	9/15/2022	12	5.842727	4.64	2.05	11.45	3.13828645	ppt
Gulf of Mexico	Alligator Lake	10B	Temperature	10/26/2021	9/15/2022	12	27.59909	27.83	19.94	32.73	4.2951588	°C
Gulf of Mexico	Alligator Lake	10B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	0.921636	0.876	0.477	1.53	0.36884367	MG/L
Gulf of Mexico	Alligator Lake	10B	Total Nitrogen	10/26/2021	9/15/2022	12	0.955364	0.876	0.477	1.57	0.35900035	MG/L
Gulf of Mexico	Alligator Lake	10B	Total Organic Carbon	10/26/2021	9/15/2022	12	13.29	14.2	9.09	17	2.39860376	MG/L
Gulf of Mexico	Alligator Lake	10B	Total Phosphorus	10/26/2021	9/15/2022	12	0.145455	0.137	0.031	0.254	0.06974721	MG/L
Gulf of Mexico	Alligator Lake	10B	Total Suspended Solids	10/26/2021	9/15/2022	12	11.31182	8.33	4	35.3	9.06794665	MG/L
Gulf of Mexico	Alligator Lake	10B	Turbidity	10/26/2021	9/15/2022	12	1.827273	1.7	0.8	3.2	0.61982402	NTU
Gulf of Mexico	North Lake	8B	Calcium	10/26/2021	9/15/2022	11	77.10909	75.5	64.9	96.9	9.60515013	MG/L
Gulf of Mexico	North Lake	8B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	11	60.80909	35.8	15.9	293	79.4703901	MG/M3
Gulf of Mexico	North Lake	8B	Color, Apparent	10/26/2021	9/15/2022	11	103.1818	100	25	160	33.4867681	PCU
Gulf of Mexico	North Lake	8B	Color pH	10/26/2021	9/15/2022	11	7.870909	7.77	7.69	8.21	0.18886262	S.U.
Gulf of Mexico	North Lake	8B	Conductivity	10/26/2021	9/15/2022	12	796.3333	659.5	574	1348	269.005689	µS/cm
Gulf of Mexico	North Lake	8B	Copper	10/26/2021	9/15/2022	11	10.38845	4.04	0.173	58.9	17.1157245	UG/L
Gulf of Mexico	North Lake	8B	Dissolved Oxygen	10/26/2021	9/15/2022	12	5.293333	5.59	0.92	10.58	2.33584064	mg/L
Gulf of Mexico	North Lake	8B	Dissolved Organic Carbon	10/26/2021	9/15/2022	11	13.95455	14.2	10.2	18.3	2.69420253	MG/L
Gulf of Mexico	North Lake	8B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	65.74167	68.75	12.1	115	26.0651791	%
Gulf of Mexico	North Lake	8B	E. coli	10/26/2021	9/15/2022	11	198.3636	158	5	538	175.69933	#/100 ML

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Gulf of Mexico	North Lake	8B	Enterococci	10/26/2021	9/15/2022	11	983.0909	197	41	6100	1913.77739	#/100 ML
Gulf of Mexico	North Lake	8B	Fecal Coliform	10/26/2021	9/15/2022	11	383.6364	260	50	2100	581.674698	#/100 ML
Gulf of Mexico	North Lake	8B	Total Hardness, CaCO3	10/26/2021	9/15/2022	11	250.5455	239	193	370	47.6179874	MG/L
Gulf of Mexico	North Lake	8B	Magnesium	10/26/2021	9/15/2022	11	14.11273	9.72	6.64	37.8	9.33526335	MG/L
Gulf of Mexico	North Lake	8B	Ammonia	10/26/2021	9/15/2022	11	0.100182	0.018	0.004	0.404	0.13594618	MG/L
Gulf of Mexico	North Lake	8B	Nitrate+Nitrite	10/26/2021	9/15/2022	11	0.037909	0.02	0.003	0.152	0.0461789	MG/L
Gulf of Mexico	North Lake	8B	Orthophosphate	10/26/2021	9/15/2022	11	0.094527	0.082	0.039	0.2	0.04597497	MG/L
Gulf of Mexico	North Lake	8B	pH	10/26/2021	9/15/2022	7	7.577143	7.39	7.11	8.17	0.46664456	S.U.
Gulf of Mexico	North Lake	8B	Salinity	10/26/2021	9/15/2022	12	0.385	0.32	0.28	0.67	0.13892444	ppt
Gulf of Mexico	North Lake	8B	Temperature	10/26/2021	9/15/2022	12	27.20333	27.165	19.31	32.01	4.17589475	°C
Gulf of Mexico	North Lake	8B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	11	2.527273	1.74	1.19	8.52	2.12690428	MG/L
Gulf of Mexico	North Lake	8B	Total Nitrogen	10/26/2021	9/15/2022	11	2.563636	1.8	1.21	8.53	2.11727784	MG/L
Gulf of Mexico	North Lake	8B	Total Organic Carbon	10/26/2021	9/15/2022	11	15.51455	16.1	6.66	20.5	3.75210971	MG/L
Gulf of Mexico	North Lake	8B	Total Phosphorus	10/26/2021	9/15/2022	11	0.300455	0.163	0.086	1.72	0.47266127	MG/L
Gulf of Mexico	North Lake	8B	Total Suspended Solids	10/26/2021	9/15/2022	11	17.64636	12.3	0.8	67	19.8479658	MG/L
Gulf of Mexico	North Lake	8B	Turbidity	10/26/2021	9/15/2022	11	6.7	3.7	1.2	20	6.18514349	NTU
Gulf of Mexico	South Lake	9B	Calcium	10/26/2021	9/15/2022	11	80.04545	79.6	63.4	102	12.3744385	MG/L
Gulf of Mexico	South Lake	9B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	11	62.33545	35.2	9.89	147	48.1758594	MG/M3
Gulf of Mexico	South Lake	9B	Color, Apparent	10/26/2021	9/15/2022	11	107.2727	100	75	200	34.01203	PCU
Gulf of Mexico	South Lake	9B	Color pH	10/26/2021	9/15/2022	11	8.223636	8.28	7.8	8.55	0.2727003	S.U.
Gulf of Mexico	South Lake	9B	Conductivity	10/26/2021	9/15/2022	11	1695.455	640	499	11442	3241.19149	µS/cm
Gulf of Mexico	South Lake	9B	Copper	10/26/2021	9/15/2022	11	7.696364	3.91	1.6	32.1	8.83099459	UG/L
Gulf of Mexico	South Lake	9B	Dissolved Oxygen	10/26/2021	9/15/2022	11	7.377273	7.06	2.85	12.43	3.00560174	mg/L
Gulf of Mexico	South Lake	9B	Dissolved Organic Carbon	10/26/2021	9/15/2022	11	12.74727	13.5	4.33	18.9	4.60354666	MG/L
Gulf of Mexico	South Lake	9B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	11	93.03636	89	39.8	156.9	33.6809226	%
Gulf of Mexico	South Lake	9B	E. coli	10/26/2021	9/15/2022	11	242	120	41	882	256.181186	#/100 ML
Gulf of Mexico	South Lake	9B	Enterococci	10/26/2021	9/15/2022	11	3471.545	410	41	24196	7415.13037	#/100 ML
Gulf of Mexico	South Lake	9B	Fecal Coliform	10/26/2021	9/15/2022	11	516.3636	250	120	2000	575.052567	#/100 ML
Gulf of Mexico	South Lake	9B	Total Hardness, CaCO3	10/26/2021	9/15/2022	11	229.3636	226	183	291	34.6821935	MG/L
Gulf of Mexico	South Lake	9B	Magnesium	10/26/2021	9/15/2022	11	7.132727	6.49	6.02	9.24	1.17014607	MG/L
Gulf of Mexico	South Lake	9B	Ammonia	10/26/2021	9/15/2022	11	0.056727	0.004	0.004	0.53	0.15722601	MG/L
Gulf of Mexico	South Lake	9B	Nitrate+Nitrite	10/26/2021	9/15/2022	11	0.025091	0.003	0.003	0.176	0.05130781	MG/L
Gulf of Mexico	South Lake	9B	Orthophosphate	10/26/2021	9/15/2022	11	0.069582	0.0444	0.014	0.189	0.05759031	MG/L
Gulf of Mexico	South Lake	9B	pH	10/26/2021	9/15/2022	6	7.798333	7.92	7.26	8.26	0.41542348	S.U.
Gulf of Mexico	South Lake	9B	Salinity	10/26/2021	9/15/2022	11	0.341818	0.3	0.24	0.6	0.12520529	ppt
Gulf of Mexico	South Lake	9B	Temperature	10/26/2021	9/15/2022	11	28.06727	28.2	19.28	32.8	4.43101815	°C
Gulf of Mexico	South Lake	9B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	11	2.165455	1.88	1.15	5	1.20437838	MG/L
Gulf of Mexico	South Lake	9B	Total Nitrogen	10/26/2021	9/15/2022	11	2.189091	1.88	1.15	5	1.19022229	MG/L
Gulf of Mexico	South Lake	9B	Total Organic Carbon	10/26/2021	9/15/2022	11	14.90182	15	9.92	18.8	2.7360622	MG/L
Gulf of Mexico	South Lake	9B	Total Phosphorus	10/26/2021	9/15/2022	11	0.159455	0.132	0.046	0.295	0.08835651	MG/L
Gulf of Mexico	South Lake	9B	Total Suspended Solids	10/26/2021	9/15/2022	11	10.44045	8.33	0.285	21.7	6.54318594	MG/L
Gulf of Mexico	South Lake	9B	Turbidity	10/26/2021	9/15/2022	11	7.181818	6.4	2.3	17	4.25272105	NTU
Moorings Bay	Colonnade Lake	3B	Calcium	10/26/2021	9/15/2022	12	73.36364	72.6	67.6	84.8	4.57280499	MG/L
Moorings Bay	Colonnade Lake	3B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	11.28636	7.42	4.26	46.3	11.8918722	MG/M3
Moorings Bay	Colonnade Lake	3B	Color, Apparent	10/26/2021	9/15/2022	12	138.6364	120	50	500	125.341352	PCU

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Moorings Bay	Colonnade Lake	3B	Color pH	10/26/2021	9/15/2022	12	7.68	7.7	7.36	7.86	0.15524175	S.U.
Moorings Bay	Colonnade Lake	3B	Conductivity	10/26/2021	9/15/2022	12	1772.667	1513.5	992	3057	689.205647	µS/cm
Moorings Bay	Colonnade Lake	3B	Copper	10/26/2021	9/15/2022	12	3.462727	3.89	1.32	7.05	1.81751529	UG/L
Moorings Bay	Colonnade Lake	3B	Dissolved Oxygen	10/26/2021	9/15/2022	12	5.887273	5.48	4.12	9.42	1.46123298	mg/L
Moorings Bay	Colonnade Lake	3B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	16.92727	15.3	12.2	29.1	4.67484565	MG/L
Moorings Bay	Colonnade Lake	3B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	65.86364	65.5	5.7	110.7	24.9511231	%
Moorings Bay	Colonnade Lake	3B	E. coli	10/26/2021	9/15/2022	12	367.9091	173	30	1296	468.010994	#/100 ML
Moorings Bay	Colonnade Lake	3B	Enterococci	10/26/2021	9/15/2022	12	603.9091	203	5	4400	1275.82189	#/100 ML
Moorings Bay	Colonnade Lake	3B	Fecal Coliform	10/26/2021	9/15/2022	12	778.1818	320	50	4700	1354.26599	#/100 ML
Moorings Bay	Colonnade Lake	3B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	288.7273	287	230	351	29.1756436	MG/L
Moorings Bay	Colonnade Lake	3B	Magnesium	10/26/2021	9/15/2022	12	25.66364	24.8	13.5	44.5	7.81130882	MG/L
Moorings Bay	Colonnade Lake	3B	Ammonia	10/26/2021	9/15/2022	12	0.090273	0.025	0.004	0.366	0.11366186	MG/L
Moorings Bay	Colonnade Lake	3B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.086727	0.09	0.003	0.185	0.05749798	MG/L
Moorings Bay	Colonnade Lake	3B	Orthophosphate	10/26/2021	9/15/2022	12	0.0458	0.04	0.003	0.084	0.02977449	MG/L
Moorings Bay	Colonnade Lake	3B	pH	10/26/2021	9/15/2022	7	7.59	7.57	7.1	8.09	0.31701735	S.U.
Moorings Bay	Colonnade Lake	3B	Salinity	10/26/2021	9/15/2022	12	0.89475	0.745	0.49	1.59	0.37043442	ppt
Moorings Bay	Colonnade Lake	3B	Temperature	10/26/2021	9/15/2022	12	25.43167	25.895	18.57	29.61	3.40896634	°C
Moorings Bay	Colonnade Lake	3B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.041182	1.03	0.622	1.55	0.26633844	MG/L
Moorings Bay	Colonnade Lake	3B	Total Nitrogen	10/26/2021	9/15/2022	12	1.128091	1.08	0.807	1.55	0.25229247	MG/L
Moorings Bay	Colonnade Lake	3B	Total Organic Carbon	10/26/2021	9/15/2022	12	16.92727	15.2	12.3	28.2	4.89348361	MG/L
Moorings Bay	Colonnade Lake	3B	Total Phosphorus	10/26/2021	9/15/2022	12	0.095818	0.088	0.042	0.23	0.05534224	MG/L
Moorings Bay	Colonnade Lake	3B	Total Suspended Solids	10/26/2021	9/15/2022	12	3.509091	4	0.67	5.67	1.71212999	MG/L
Moorings Bay	Colonnade Lake	3B	Turbidity	10/26/2021	9/15/2022	12	2.209091	2	1.2	3.4	0.78670775	NTU
Moorings Bay	Devils Lake	1SE-B	Calcium	10/26/2021	9/15/2022	12	65.86364	63.5	58.9	78.5	6.20665332	MG/L
Moorings Bay	Devils Lake	1SE-B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	5.738636	3.66	0.125	15.9	5.22848548	MG/M3
Moorings Bay	Devils Lake	1SE-B	Color, Apparent	10/26/2021	9/15/2022	12	125.4545	120	50	220	44.3539483	PCU
Moorings Bay	Devils Lake	1SE-B	Color pH	10/26/2021	9/15/2022	12	7.740909	7.72	7.39	8.22	0.22500909	S.U.
Moorings Bay	Devils Lake	1SE-B	Conductivity	10/26/2021	9/15/2022	12	592.7917	533.5	406	1059	220.822991	µS/cm
Moorings Bay	Devils Lake	1SE-B	Copper	10/26/2021	9/15/2022	12	44.85818	31.4	5.89	122	39.4476141	UG/L
Moorings Bay	Devils Lake	1SE-B	Dissolved Oxygen	10/26/2021	9/15/2022	12	5.431667	5.03	3.83	8.86	1.45482166	mg/L
Moorings Bay	Devils Lake	1SE-B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	22.78182	21.3	18.4	32.9	4.02288906	MG/L
Moorings Bay	Devils Lake	1SE-B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	65.975	63.7	47.9	94.2	14.0926883	%
Moorings Bay	Devils Lake	1SE-B	E. coli	10/26/2021	9/15/2022	12	66.27273	52	31	148	39.4083517	#/100 ML
Moorings Bay	Devils Lake	1SE-B	Enterococci	10/26/2021	9/15/2022	12	145.1818	74	20	520	163.91023	#/100 ML
Moorings Bay	Devils Lake	1SE-B	Fecal Coliform	10/26/2021	9/15/2022	12	120	80	20	500	137.477271	#/100 ML
Moorings Bay	Devils Lake	1SE-B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	185.0909	178	165	220	17.7958116	MG/L
Moorings Bay	Devils Lake	1SE-B	Magnesium	10/26/2021	9/15/2022	12	5.019091	5.11	4.1	6.11	0.68579085	MG/L
Moorings Bay	Devils Lake	1SE-B	Ammonia	10/26/2021	9/15/2022	12	0.027636	0.024	0.004	0.084	0.02780026	MG/L
Moorings Bay	Devils Lake	1SE-B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.055273	0.029	0.003	0.164	0.06210329	MG/L
Moorings Bay	Devils Lake	1SE-B	Orthophosphate	10/26/2021	9/15/2022	12	0.012727	0.006	0.001	0.065	0.01889492	MG/L
Moorings Bay	Devils Lake	1SE-B	pH	10/26/2021	9/15/2022	7	7.862857	7.85	6.82	8.8	0.68657882	S.U.
Moorings Bay	Devils Lake	1SE-B	Salinity	10/26/2021	9/15/2022	12	0.286667	0.26	0.19	0.52	0.11284207	ppt
Moorings Bay	Devils Lake	1SE-B	Temperature	10/26/2021	9/15/2022	12	25.70917	25.665	18.29	30.7	3.89366726	°C
Moorings Bay	Devils Lake	1SE-B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.040727	1.03	0.765	1.35	0.17339094	MG/L
Moorings Bay	Devils Lake	1SE-B	Total Nitrogen	10/26/2021	9/15/2022	12	1.095182	1.08	0.817	1.35	0.15327545	MG/L

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Moorings Bay	Devils Lake	1SE-B	Total Organic Carbon	10/26/2021	9/15/2022	12	25.95455	24.4	20.2	38.7	5.54695658	MG/L
Moorings Bay	Devils Lake	1SE-B	Total Phosphorus	10/26/2021	9/15/2022	12	0.039818	0.028	0.004	0.093	0.02946801	MG/L
Moorings Bay	Devils Lake	1SE-B	Total Suspended Solids	10/26/2021	9/15/2022	12	2.860455	2.33	0.635	6.33	1.65872007	MG/L
Moorings Bay	Devils Lake	1SE-B	Turbidity	10/26/2021	9/15/2022	12	1.863636	1.8	1	2.8	0.60542997	NTU
Moorings Bay	Hidden	4B	Calcium	10/26/2021	9/15/2022	12	61.23636	61.3	52.4	69.6	4.51248772	MG/L
Moorings Bay	Hidden	4B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	15.35727	7.77	5.1	72.8	20.6943162	MG/M3
Moorings Bay	Hidden	4B	Color, Apparent	10/26/2021	9/15/2022	12	132.2727	140	15	200	50.1678999	PCU
Moorings Bay	Hidden	4B	Color pH	10/26/2021	9/15/2022	12	7.622727	7.62	7.45	7.93	0.14339393	S.U.
Moorings Bay	Hidden	4B	Conductivity	10/26/2021	9/15/2022	12	620.9167	519	427	1228	251.448335	µS/cm
Moorings Bay	Hidden	4B	Copper	10/26/2021	9/15/2022	12	12.40364	9.92	6.63	25.7	6.23624129	UG/L
Moorings Bay	Hidden	4B	Dissolved Oxygen	10/26/2021	9/15/2022	12	5.020833	4.7	3.14	7.93	1.46886758	mg/L
Moorings Bay	Hidden	4B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	15.5	15.1	10.5	18.9	2.40416306	MG/L
Moorings Bay	Hidden	4B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	61.26667	58.95	40.3	86.1	13.9054164	%
Moorings Bay	Hidden	4B	E. coli	10/26/2021	9/15/2022	12	1737	1067	480	8164	2160.97048	#/100 ML
Moorings Bay	Hidden	4B	Enterococci	10/26/2021	9/15/2022	12	923.8182	384	132	4200	1177.49478	#/100 ML
Moorings Bay	Hidden	4B	Fecal Coliform	10/26/2021	9/15/2022	12	2203.636	1300	840	5000	1553.98374	#/100 ML
Moorings Bay	Hidden	4B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	176.0909	176	147	198	13.7000332	MG/L
Moorings Bay	Hidden	4B	Magnesium	10/26/2021	9/15/2022	12	5.606364	5.8	4.01	6.67	0.73824485	MG/L
Moorings Bay	Hidden	4B	Ammonia	10/26/2021	9/15/2022	12	0.076182	0.058	0.004	0.208	0.07261104	MG/L
Moorings Bay	Hidden	4B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.151909	0.13	0.003	0.268	0.08808684	MG/L
Moorings Bay	Hidden	4B	Orthophosphate	10/26/2021	9/15/2022	12	0.0511	0.051	0.002	0.08	0.02371771	MG/L
Moorings Bay	Hidden	4B	pH	10/26/2021	9/15/2022	7	7.41	7.4	6.72	7.91	0.4586938	S.U.
Moorings Bay	Hidden	4B	Salinity	10/26/2021	9/15/2022	12	0.299167	0.25	0.2	0.61	0.12816597	ppt
Moorings Bay	Hidden	4B	Temperature	10/26/2021	9/15/2022	12	25.66167	25.93	19.31	29.59	3.31476266	°C
Moorings Bay	Hidden	4B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.017182	1.07	0.507	1.29	0.23925167	MG/L
Moorings Bay	Hidden	4B	Total Nitrogen	10/26/2021	9/15/2022	12	1.169636	1.32	0.714	1.42	0.2533548	MG/L
Moorings Bay	Hidden	4B	Total Organic Carbon	10/26/2021	9/15/2022	12	17.24545	16.2	12.7	32.9	5.54479281	MG/L
Moorings Bay	Hidden	4B	Total Phosphorus	10/26/2021	9/15/2022	12	0.08	0.085	0.013	0.159	0.0382936	MG/L
Moorings Bay	Hidden	4B	Total Suspended Solids	10/26/2021	9/15/2022	12	5.702727	6	2	9	2.62630193	MG/L
Moorings Bay	Hidden	4B	Turbidity	10/26/2021	9/15/2022	12	4.272727	4.2	2.3	6.9	1.32897773	NTU
Moorings Bay	Lake Suzanne	5B	Calcium	10/26/2021	9/15/2022	12	54.76364	53.9	44.8	66.9	6.78693933	MG/L
Moorings Bay	Lake Suzanne	5B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	40.03636	35.8	11.7	85	22.0631037	MG/M3
Moorings Bay	Lake Suzanne	5B	Color, Apparent	10/26/2021	9/15/2022	12	80	80	20	160	37.9473319	PCU
Moorings Bay	Lake Suzanne	5B	Color pH	10/26/2021	9/15/2022	12	7.731818	7.78	7.5	7.91	0.14379278	S.U.
Moorings Bay	Lake Suzanne	5B	Conductivity	10/26/2021	9/15/2022	12	529.55	466.5	196.6	1048	249.222268	µS/cm
Moorings Bay	Lake Suzanne	5B	Copper	10/26/2021	9/15/2022	12	8.771	3.5	0.881	60.8	17.3811326	UG/L
Moorings Bay	Lake Suzanne	5B	Dissolved Oxygen	10/26/2021	9/15/2022	12	7.015833	7.22	4.87	8.57	1.08832196	mg/L
Moorings Bay	Lake Suzanne	5B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	10.15818	11.2	2.99	13.3	3.16429082	MG/L
Moorings Bay	Lake Suzanne	5B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	87.35833	88.85	65	102.2	11.7046578	%
Moorings Bay	Lake Suzanne	5B	E. coli	10/26/2021	9/15/2022	12	195.1818	120	10	1169	335.186461	#/100 ML
Moorings Bay	Lake Suzanne	5B	Enterococci	10/26/2021	9/15/2022	12	572.7273	150	5	3448	1006.02228	#/100 ML
Moorings Bay	Lake Suzanne	5B	Fecal Coliform	10/26/2021	9/15/2022	12	1586.364	280	20	10400	3100.6621	#/100 ML
Moorings Bay	Lake Suzanne	5B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	158.4545	155	128	194	21.1488233	MG/L
Moorings Bay	Lake Suzanne	5B	Magnesium	10/26/2021	9/15/2022	12	5.245455	5.28	3.89	6.94	1.08421735	MG/L
Moorings Bay	Lake Suzanne	5B	Ammonia	10/26/2021	9/15/2022	12	0.028636	0.004	0.004	0.118	0.03912614	MG/L

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Moorings Bay	Lake Suzanne	5B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.033	0.01	0.003	0.099	0.04058325	MG/L
Moorings Bay	Lake Suzanne	5B	Orthophosphate	10/26/2021	9/15/2022	12	0.008755	0.006	0.001	0.029	0.0087443	MG/L
Moorings Bay	Lake Suzanne	5B	pH	10/26/2021	9/15/2022	7	7.584286	7.55	7.02	8.61	0.58320543	S.U.
Moorings Bay	Lake Suzanne	5B	Salinity	10/26/2021	9/15/2022	12	0.255833	0.225	0.08	0.52	0.1263083	ppt
Moorings Bay	Lake Suzanne	5B	Temperature	10/26/2021	9/15/2022	12	26.76167	27.01	19.18	30.51	3.65980832	°C
Moorings Bay	Lake Suzanne	5B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.126455	1.13	0.683	1.53	0.28193204	MG/L
Moorings Bay	Lake Suzanne	5B	Total Nitrogen	10/26/2021	9/15/2022	12	1.158	1.22	0.683	1.63	0.28852418	MG/L
Moorings Bay	Lake Suzanne	5B	Total Organic Carbon	10/26/2021	9/15/2022	12	11.25182	11.4	7.45	13.3	1.7614302	MG/L
Moorings Bay	Lake Suzanne	5B	Total Phosphorus	10/26/2021	9/15/2022	12	0.045455	0.04	0.012	0.076	0.02317914	MG/L
Moorings Bay	Lake Suzanne	5B	Total Suspended Solids	10/26/2021	9/15/2022	12	7.412727	7.67	3.2	13	2.8288234	MG/L
Moorings Bay	Lake Suzanne	5B	Turbidity	10/26/2021	9/15/2022	12	4.654545	3.8	1.8	8.9	2.29667744	NTU
Moorings Bay	Lowdermilk	23B	Calcium	10/26/2021	9/15/2022	12	236.6364	212	195	329	45.8830529	MG/L
Moorings Bay	Lowdermilk	23B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	11.60909	8.52	1.93	31.1	8.70983979	MG/M3
Moorings Bay	Lowdermilk	23B	Color, Apparent	10/26/2021	9/15/2022	12	49.09091	40	20	110	32.6204063	PCU
Moorings Bay	Lowdermilk	23B	Color pH	10/26/2021	9/15/2022	12	7.701818	7.77	7.34	7.89	0.17313684	S.U.
Moorings Bay	Lowdermilk	23B	Conductivity	10/26/2021	9/15/2022	12	34477.42	33750	548	65933	17135.0324	µS/cm
Moorings Bay	Lowdermilk	23B	Copper	10/26/2021	9/15/2022	12	0.984364	0.173	0.1355	6.41	1.87059338	UG/L
Moorings Bay	Lowdermilk	23B	Dissolved Oxygen	10/26/2021	9/15/2022	12	4.265833	4.23	1.84	7.03	1.57574489	mg/L
Moorings Bay	Lowdermilk	23B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	8.797273	8.96	4.63	12.2	2.12281931	MG/L
Moorings Bay	Lowdermilk	23B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	60.675	63.4	23.4	89.2	20.6829805	%
Moorings Bay	Lowdermilk	23B	E. coli	10/26/2021	9/15/2022	12	1910.545	1162	109	5475	1940.92748	#/100 ML
Moorings Bay	Lowdermilk	23B	Enterococci	10/26/2021	9/15/2022	12	102.1818	80	5	360	100.784739	#/100 ML
Moorings Bay	Lowdermilk	23B	Fecal Coliform	10/26/2021	9/15/2022	12	188.6364	50	5	830	268.673509	#/100 ML
Moorings Bay	Lowdermilk	23B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	2880.273	2698	2087	4427	741.965645	MG/L
Moorings Bay	Lowdermilk	23B	Magnesium	10/26/2021	9/15/2022	12	558.1818	533	390	895	158.452402	MG/L
Moorings Bay	Lowdermilk	23B	Ammonia	10/26/2021	9/15/2022	12	0.297909	0.349	0.004	0.515	0.18568062	MG/L
Moorings Bay	Lowdermilk	23B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.023455	0.003	0.003	0.165	0.04896808	MG/L
Moorings Bay	Lowdermilk	23B	Orthophosphate	10/26/2021	9/15/2022	12	0.017545	0.016	0.001	0.037	0.01357471	MG/L
Moorings Bay	Lowdermilk	23B	pH	10/26/2021	9/15/2022	6	7.571667	7.385	7.07	8.67	0.60429849	S.U.
Moorings Bay	Lowdermilk	23B	Salinity	10/26/2021	9/15/2022	12	23.93	22.425	13.31	44.76	9.65537062	ppt
Moorings Bay	Lowdermilk	23B	Temperature	10/26/2021	9/15/2022	12	27.14167	27.35	18.3	32.4	4.44191775	°C
Moorings Bay	Lowdermilk	23B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	0.745273	0.743	0.403	1.03	0.20644374	MG/L
Moorings Bay	Lowdermilk	23B	Total Nitrogen	10/26/2021	9/15/2022	12	0.766818	0.754	0.403	1.03	0.20845662	MG/L
Moorings Bay	Lowdermilk	23B	Total Organic Carbon	10/26/2021	9/15/2022	12	10.27955	9.32	1.355	26.3	6.15923228	MG/L
Moorings Bay	Lowdermilk	23B	Total Phosphorus	10/26/2021	9/15/2022	12	0.032909	0.019	0.004	0.09	0.02725969	MG/L
Moorings Bay	Lowdermilk	23B	Total Suspended Solids	10/26/2021	9/15/2022	12	24.52727	25.7	10.7	37.3	8.5465889	MG/L
Moorings Bay	Lowdermilk	23B	Turbidity	10/26/2021	9/15/2022	12	1.659091	1.6	0.5	2.8	0.65223392	NTU
Moorings Bay	Swan Lake	2B	Calcium	10/26/2021	9/15/2022	12	55.74545	54.8	47.3	67.5	6.36527511	MG/L
Moorings Bay	Swan Lake	2B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	62.55727	21	5.33	373	107.38141	MG/M3
Moorings Bay	Swan Lake	2B	Chemical Oxygen Demand	10/26/2021	9/15/2022	12	54.875	47	31	96.6	25.4699683	MG/L
Moorings Bay	Swan Lake	2B	Color, Apparent	10/26/2021	9/15/2022	12	77.72727	90	25	100	26.3024368	PCU
Moorings Bay	Swan Lake	2B	Color pH	10/26/2021	9/15/2022	12	7.818182	7.69	7.53	8.85	0.36320292	S.U.
Moorings Bay	Swan Lake	2B	Conductivity	10/26/2021	9/15/2022	12	498.0167	417	352.2	947	206.263212	µS/cm
Moorings Bay	Swan Lake	2B	Copper	10/26/2021	9/15/2022	12	5.746364	5.79	2.25	9.73	2.27839098	UG/L
Moorings Bay	Swan Lake	2B	Dissolved Oxygen	10/26/2021	9/15/2022	12	11.17833	5.945	3.22	65.2	17.323564	mg/L

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Moorings Bay	Swan Lake	2B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	14.64273	12.4	8.24	25.3	5.69579159	MG/L
Moorings Bay	Swan Lake	2B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	76.48333	71.1	42.4	194.6	39.2802248	%
Moorings Bay	Swan Lake	2B	E. coli	10/26/2021	9/15/2022	12	369.7273	203	97	1076	374.913881	#/100 ML
Moorings Bay	Swan Lake	2B	Enterococci	10/26/2021	9/15/2022	12	232.7273	110	20	581	220.998231	#/100 ML
Moorings Bay	Swan Lake	2B	Fecal Coliform	10/26/2021	9/15/2022	12	449.0909	330	50	900	298.410943	#/100 ML
Moorings Bay	Swan Lake	2B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	158.1818	155	134	191	18.7019688	MG/L
Moorings Bay	Swan Lake	2B	Magnesium	10/26/2021	9/15/2022	12	4.585455	4.65	3.73	6.08	0.76993979	MG/L
Moorings Bay	Swan Lake	2B	Ammonia	10/26/2021	9/15/2022	12	0.102545	0.038	0.004	0.684	0.19765342	MG/L
Moorings Bay	Swan Lake	2B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.058	0.028	0.003	0.18	0.05909145	MG/L
Moorings Bay	Swan Lake	2B	Orthophosphate	10/26/2021	9/15/2022	12	0.0466	0.037	0.009	0.108	0.03237592	MG/L
Moorings Bay	Swan Lake	2B	pH	10/26/2021	9/15/2022	7	7.962857	7.84	7.39	8.98	0.53816708	S.U.
Moorings Bay	Swan Lake	2B	Salinity	10/26/2021	9/15/2022	12	0.236667	0.2	0.15	0.47	0.10696927	ppt
Moorings Bay	Swan Lake	2B	Temperature	10/26/2021	9/15/2022	12	26.3125	26.41	18.82	30.61	3.78271457	°C
Moorings Bay	Swan Lake	2B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.444182	1.19	0.704	3.5	0.81502231	MG/L
Moorings Bay	Swan Lake	2B	Total Nitrogen	10/26/2021	9/15/2022	12	1.502727	1.2	0.731	3.5	0.78929615	MG/L
Moorings Bay	Swan Lake	2B	Total Organic Carbon	10/26/2021	9/15/2022	12	15.05364	13.7	9.39	25.3	5.3009476	MG/L
Moorings Bay	Swan Lake	2B	Total Phosphorus	10/26/2021	9/15/2022	12	0.108727	0.089	0.018	0.295	0.08099764	MG/L
Moorings Bay	Swan Lake	2B	Total Suspended Solids	10/26/2021	9/15/2022	12	10.38818	7.67	2.67	32	8.31804282	MG/L
Moorings Bay	Swan Lake	2B	Turbidity	10/26/2021	9/15/2022	12	8.154545	4.5	2.3	32	9.47822385	NTU
Naples Bay	East Lake	11B	Calcium	10/26/2021	9/15/2022	9	86.11111	81.5	71.3	117	13.9588184	MG/L
Naples Bay	East Lake	11B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	9	35.64111	25.1	4.87	99.4	29.5595325	MG/M3
Naples Bay	East Lake	11B	Color, Apparent	10/26/2021	9/15/2022	9	88.88889	100	40	110	20.8832735	PCU
Naples Bay	East Lake	11B	Color pH	10/26/2021	9/15/2022	9	7.844444	7.79	7.65	8.03	0.14833333	S.U.
Naples Bay	East Lake	11B	Conductivity	10/26/2021	9/15/2022	10	861.5	710.5	628	1469	310.624908	µS/cm
Naples Bay	East Lake	11B	Copper	10/26/2021	9/15/2022	9	2.459556	1.47	0.173	8.76	2.90219822	UG/L
Naples Bay	East Lake	11B	Dissolved Oxygen	10/26/2021	9/15/2022	9	5.077778	4.76	1.7	7.78	1.98842134	mg/L
Naples Bay	East Lake	11B	Dissolved Organic Carbon	10/26/2021	9/15/2022	9	12.06611	12.9	1.355	17.8	4.85157563	MG/L
Naples Bay	East Lake	11B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	9	65.61111	57.2	22.5	111.9	27.9267992	%
Naples Bay	East Lake	11B	E. coli	10/26/2021	9/15/2022	9	1197.889	855	345	2613	924.062829	#/100 ML
Naples Bay	East Lake	11B	Enterococci	10/26/2021	9/15/2022	9	346.5556	341	86	650	203.676896	#/100 ML
Naples Bay	East Lake	11B	Fecal Coliform	10/26/2021	9/15/2022	9	1133.333	810	660	2700	643.583716	#/100 ML
Naples Bay	East Lake	11B	Total Hardness, CaCO3	10/26/2021	9/15/2022	9	244.7778	243	204	329	38.2386512	MG/L
Naples Bay	East Lake	11B	Magnesium	10/26/2021	9/15/2022	9	7.203333	6.48	5.32	11.3	1.86399437	MG/L
Naples Bay	East Lake	11B	Ammonia	10/26/2021	9/15/2022	9	0.008	0.004	0.004	0.03	0.00888819	MG/L
Naples Bay	East Lake	11B	Nitrate+Nitrite	10/26/2021	9/15/2022	9	0.021333	0.003	0.003	0.095	0.0343875	MG/L
Naples Bay	East Lake	11B	Orthophosphate	10/26/2021	9/15/2022	9	0.015778	0.016	0.003	0.029	0.00944428	MG/L
Naples Bay	East Lake	11B	pH	10/26/2021	9/15/2022	7	7.75	7.53	6.97	8.51	0.65724171	S.U.
Naples Bay	East Lake	11B	Salinity	10/26/2021	9/15/2022	10	0.423	0.34	0.31	0.74	0.16241579	ppt
Naples Bay	East Lake	11B	Temperature	10/26/2021	9/15/2022	10	27.603	28.55	20.31	34.91	4.19740409	°C
Naples Bay	East Lake	11B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	9	1.211889	1.19	0.967	1.5	0.16815799	MG/L
Naples Bay	East Lake	11B	Total Nitrogen	10/26/2021	9/15/2022	9	1.233	1.2	0.967	1.5	0.18600672	MG/L
Naples Bay	East Lake	11B	Total Organic Carbon	10/26/2021	9/15/2022	9	13.90333	13.1	9.93	19.4	2.98246542	MG/L
Naples Bay	East Lake	11B	Total Phosphorus	10/26/2021	9/15/2022	9	0.048111	0.046	0.01	0.073	0.01936779	MG/L
Naples Bay	East Lake	11B	Total Suspended Solids	10/26/2021	9/15/2022	9	5.825556	5.33	2.4	10.7	2.41771644	MG/L
Naples Bay	East Lake	11B	Turbidity	10/26/2021	9/15/2022	9	3.944444	3.5	2.7	6.1	1.2660086	NTU

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Naples Bay	Lake 13	13B	Calcium	10/26/2021	9/15/2022	12	212.6364	190	123	334	72.3854581	MG/L
Naples Bay	Lake 13	13B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	33.90091	22	1.32	134	36.9310987	MG/M3
Naples Bay	Lake 13	13B	Color, Apparent	10/26/2021	9/15/2022	12	106.3636	100	50	200	43.8800017	PCU
Naples Bay	Lake 13	13B	Color pH	10/26/2021	9/15/2022	12	7.43	7.43	7.09	7.55	0.13660161	S.U.
Naples Bay	Lake 13	13B	Conductivity	10/26/2021	9/15/2022	12	28749	30235	8718	54882	14789.694	µS/cm
Naples Bay	Lake 13	13B	Copper	10/26/2021	9/15/2022	12	1.541182	1.49	0.136	4.98	1.34579336	UG/L
Naples Bay	Lake 13	13B	Dissolved Oxygen	10/26/2021	9/15/2022	12	1.916667	1.8	0.16	3.8	1.32659053	mg/L
Naples Bay	Lake 13	13B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	13.17	12.3	8.39	21.4	3.95815108	MG/L
Naples Bay	Lake 13	13B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	26.61667	25.35	2.3	51.6	18.2530114	%
Naples Bay	Lake 13	13B	E. coli	10/26/2021	9/15/2022	12	7017.364	5172	109	24196	8042.89304	#/100 ML
Naples Bay	Lake 13	13B	Enterococci	10/26/2021	9/15/2022	12	647.5455	330	120	3200	900.049706	#/100 ML
Naples Bay	Lake 13	13B	Fecal Coliform	10/26/2021	9/15/2022	12	1691.818	240	110	6500	2478.84174	#/100 ML
Naples Bay	Lake 13	13B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	2322.818	2058	1107	4004	895.09383	MG/L
Naples Bay	Lake 13	13B	Magnesium	10/26/2021	9/15/2022	12	436.9091	389	195	773	176.415676	MG/L
Naples Bay	Lake 13	13B	Ammonia	10/26/2021	9/15/2022	12	0.336455	0.304	0.004	1.11	0.34341822	MG/L
Naples Bay	Lake 13	13B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.019091	0.003	0.003	0.085	0.02708304	MG/L
Naples Bay	Lake 13	13B	Orthophosphate	10/26/2021	9/15/2022	12	0.027491	0.013	0.001	0.078	0.02845647	MG/L
Naples Bay	Lake 13	13B	pH	10/26/2021	9/15/2022	9	7.161111	7.17	6.07	7.83	0.57577002	S.U.
Naples Bay	Lake 13	13B	Salinity	10/26/2021	9/15/2022	12	17.905	18.715	3.79	36.33	10.2015226	ppt
Naples Bay	Lake 13	13B	Temperature	10/26/2021	9/15/2022	12	27.87583	28.51	23.68	31.06	2.81439953	°C
Naples Bay	Lake 13	13B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.269091	1.13	0.645	2.97	0.72797012	MG/L
Naples Bay	Lake 13	13B	Total Nitrogen	10/26/2021	9/15/2022	12	1.286818	1.13	0.645	2.97	0.7227453	MG/L
Naples Bay	Lake 13	13B	Total Organic Carbon	10/26/2021	9/15/2022	12	15.56364	15.2	11.6	23.1	3.40595735	MG/L
Naples Bay	Lake 13	13B	Total Phosphorus	10/26/2021	9/15/2022	12	0.055273	0.056	0.013	0.136	0.03411185	MG/L
Naples Bay	Lake 13	13B	Total Suspended Solids	10/26/2021	9/15/2022	12	21.83	23.3	8.67	35.3	9.81177252	MG/L
Naples Bay	Lake 13	13B	Turbidity	10/26/2021	9/15/2022	12	9.036364	5	3.2	35	9.50381741	NTU
Naples Bay	Lantern Lake	14B	Calcium	10/26/2021	9/15/2022	12	154.2727	149	124	197	26.5521785	MG/L
Naples Bay	Lantern Lake	14B	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	12	41.39727	30	4.07	108	31.6604782	MG/M3
Naples Bay	Lantern Lake	14B	Color, Apparent	10/26/2021	9/15/2022	12	83.18182	100	30	150	35.3746185	PCU
Naples Bay	Lantern Lake	14B	Color pH	10/26/2021	9/15/2022	12	7.571818	7.66	5.81	8.35	0.64418659	S.U.
Naples Bay	Lantern Lake	14B	Conductivity	10/26/2021	9/15/2022	12	9760.408	8873.5	427.9	18792	4790.32887	µS/cm
Naples Bay	Lantern Lake	14B	Copper	10/26/2021	9/15/2022	12	1.863364	1.3	0.312	4.32	1.32254272	UG/L
Naples Bay	Lantern Lake	14B	Dissolved Oxygen	10/26/2021	9/15/2022	12	6.285	5.54	2.66	10.89	2.81348861	mg/L
Naples Bay	Lantern Lake	14B	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	7.969091	6.82	4.46	12.8	2.83801499	MG/L
Naples Bay	Lantern Lake	14B	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	82.36667	72.9	34.1	143.5	36.5289507	%
Naples Bay	Lantern Lake	14B	E. coli	10/26/2021	9/15/2022	12	739	373	63	2909	939.173573	#/100 ML
Naples Bay	Lantern Lake	14B	Enterococci	10/26/2021	9/15/2022	12	191.8182	169	52	414	122.667696	#/100 ML
Naples Bay	Lantern Lake	14B	Fecal Coliform	10/26/2021	9/15/2022	12	237.2727	250	80	520	139.93505	#/100 ML
Naples Bay	Lantern Lake	14B	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	1234	1136	985	1628	242.712587	MG/L
Naples Bay	Lantern Lake	14B	Magnesium	10/26/2021	9/15/2022	12	206.9091	200	158	300	46.8389892	MG/L
Naples Bay	Lantern Lake	14B	Ammonia	10/26/2021	9/15/2022	12	0.138	0.031	0.004	0.466	0.16058518	MG/L
Naples Bay	Lantern Lake	14B	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.071545	0.073	0.003	0.144	0.05100071	MG/L
Naples Bay	Lantern Lake	14B	Orthophosphate	10/26/2021	9/15/2022	12	0.377455	0.316	0.111	0.804	0.22186589	MG/L
Naples Bay	Lantern Lake	14B	pH	10/26/2021	9/15/2022	10	7.894	7.86	6.93	8.61	0.51713312	S.U.
Naples Bay	Lantern Lake	14B	Salinity	10/26/2021	9/15/2022	12	5.914167	5.015	4.12	11.1	2.38084957	ppt

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Naples Bay	Lantern Lake	14B	Temperature	10/26/2021	9/15/2022	12	27.78917	29.63	21.07	31.2	3.83576106	°C
Naples Bay	Lantern Lake	14B	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.423455	1.45	0.708	1.92	0.33587389	MG/L
Naples Bay	Lantern Lake	14B	Total Nitrogen	10/26/2021	9/15/2022	12	1.493727	1.48	0.731	2.06	0.36977401	MG/L
Naples Bay	Lantern Lake	14B	Total Organic Carbon	10/26/2021	9/15/2022	12	10.00182	8.88	6.24	14.8	3.15413005	MG/L
Naples Bay	Lantern Lake	14B	Total Phosphorus	10/26/2021	9/15/2022	12	0.448	0.418	0.148	0.915	0.23296566	MG/L
Naples Bay	Lantern Lake	14B	Total Suspended Solids	10/26/2021	9/15/2022	12	13.38955	14.8	0.285	21	5.29208865	MG/L
Naples Bay	Lantern Lake	14B	Turbidity	10/26/2021	9/15/2022	12	4.772727	4.5	3.3	6.9	1.11542898	NTU
Naples Bay	Spring Lake	11C	Calcium	10/26/2021	9/15/2022	9	87.37778	80.8	73	120	15.3632498	MG/L
Naples Bay	Spring Lake	11C	Chlorophyll-a, Corrected	10/26/2021	9/15/2022	9	31.01333	29.6	3.32	56.8	19.0356928	MG/M3
Naples Bay	Spring Lake	11C	Color, Apparent	10/26/2021	9/15/2022	9	90	80	40	160	36.7423461	PCU
Naples Bay	Spring Lake	11C	Color pH	10/26/2021	9/15/2022	9	7.936667	7.89	7.68	8.4	0.23167866	S.U.
Naples Bay	Spring Lake	11C	Conductivity	10/26/2021	9/15/2022	10	1496.5	748.5	667	6955	1942.35014	µS/cm
Naples Bay	Spring Lake	11C	Copper	10/26/2021	9/15/2022	9	1.827	1.16	0.173	6.19	1.9154662	UG/L
Naples Bay	Spring Lake	11C	Dissolved Oxygen	10/26/2021	9/15/2022	10	6.166	6.515	0.7	11.65	2.96730031	mg/L
Naples Bay	Spring Lake	11C	Dissolved Organic Carbon	10/26/2021	9/15/2022	9	13.07944	12.4	1.355	30.9	7.91289156	MG/L
Naples Bay	Spring Lake	11C	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	10	79.16	82.85	9.5	154.4	40.1237862	%
Naples Bay	Spring Lake	11C	E. coli	10/26/2021	9/15/2022	9	632.7778	754	134	1076	394.015792	#/100 ML
Naples Bay	Spring Lake	11C	Enterococci	10/26/2021	9/15/2022	9	277.5556	230	20	697	244.273469	#/100 ML
Naples Bay	Spring Lake	11C	Fecal Coliform	10/26/2021	9/15/2022	9	876.6667	580	260	2900	825.681537	#/100 ML
Naples Bay	Spring Lake	11C	Total Hardness, CaCO3	10/26/2021	9/15/2022	9	245.8889	229	205	336	42.274237	MG/L
Naples Bay	Spring Lake	11C	Magnesium	10/26/2021	9/15/2022	9	6.702222	6.48	5.37	8.83	1.08839076	MG/L
Naples Bay	Spring Lake	11C	Ammonia	10/26/2021	9/15/2022	9	0.018556	0.004	0.004	0.074	0.02631117	MG/L
Naples Bay	Spring Lake	11C	Nitrate+Nitrite	10/26/2021	9/15/2022	9	0.007	0.003	0.003	0.035	0.01058301	MG/L
Naples Bay	Spring Lake	11C	Orthophosphate	10/26/2021	9/15/2022	9	0.0156	0.015	0.002	0.031	0.00816027	MG/L
Naples Bay	Spring Lake	11C	pH	10/26/2021	9/15/2022	7	7.738571	7.8	6.11	8.84	0.96587488	S.U.
Naples Bay	Spring Lake	11C	Salinity	10/26/2021	9/15/2022	10	0.422	0.34	0.3	0.75	0.1660522	ppt
Naples Bay	Spring Lake	11C	Temperature	10/26/2021	9/15/2022	10	27.689	28.81	20.77	32.3	3.68481102	°C
Naples Bay	Spring Lake	11C	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	9	1.378222	1.34	0.811	2.23	0.40637445	MG/L
Naples Bay	Spring Lake	11C	Total Nitrogen	10/26/2021	9/15/2022	9	1.383778	1.34	0.811	2.27	0.41727113	MG/L
Naples Bay	Spring Lake	11C	Total Organic Carbon	10/26/2021	9/15/2022	9	14.25556	13.2	11.1	17.8	2.71850653	MG/L
Naples Bay	Spring Lake	11C	Total Phosphorus	10/26/2021	9/15/2022	9	0.050667	0.051	0.023	0.073	0.01622498	MG/L
Naples Bay	Spring Lake	11C	Total Suspended Solids	10/26/2021	9/15/2022	9	8.378889	6.33	3.67	28	7.4579864	MG/L
Naples Bay	Spring Lake	11C	Turbidity	10/26/2021	9/15/2022	9	4.722222	4.2	2.5	9.4	1.94343625	NTU
Pump Stations	Cove Pump	11-Pump	Calcium	10/26/2021	9/15/2022	12	100.0182	101	84.8	121	10.0815493	MG/L
Pump Stations	Cove Pump	11-Pump	Color, Apparent	10/26/2021	9/15/2022	12	122.7273	120	80	180	29.6954236	PCU
Pump Stations	Cove Pump	11-Pump	Color pH	10/26/2021	9/15/2022	12	7.565455	7.55	7.19	8.17	0.24213069	S.U.
Pump Stations	Cove Pump	11-Pump	Conductivity	10/26/2021	9/15/2022	12	1352.75	1270	694	2656	500.840407	µS/cm
Pump Stations	Cove Pump	11-Pump	Copper	10/26/2021	9/15/2022	12	1.41	0.42	0.173	6.77	2.17086665	UG/L
Pump Stations	Cove Pump	11-Pump	Dissolved Oxygen	10/26/2021	9/15/2022	12	6.386667	5.33	4.31	10.41	2.10113534	mg/L
Pump Stations	Cove Pump	11-Pump	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	15.77	16.7	2.87	23.6	5.32968104	MG/L
Pump Stations	Cove Pump	11-Pump	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	79.73333	66.5	55.2	122.9	24.1373846	%
Pump Stations	Cove Pump	11-Pump	E. coli	10/26/2021	9/15/2022	12	1302.727	246	52	9208	2696.85495	#/100 ML
Pump Stations	Cove Pump	11-Pump	Enterococci	10/26/2021	9/15/2022	12	1973.091	896	470	8864	2478.72505	#/100 ML
Pump Stations	Cove Pump	11-Pump	Fecal Coliform	10/26/2021	9/15/2022	12	3090.909	2200	270	7600	2443.81036	#/100 ML
Pump Stations	Cove Pump	11-Pump	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	336.9091	341	273	431	39.7352603	MG/L

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Pump Stations	Cove Pump	11-Pump	Magnesium	10/26/2021	9/15/2022	12	21.17273	20.9	14.6	31.3	4.02345397	MG/L
Pump Stations	Cove Pump	11-Pump	Ammonia	10/26/2021	9/15/2022	12	0.407636	0.305	0.164	1.36	0.33342594	MG/L
Pump Stations	Cove Pump	11-Pump	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.271727	0.276	0.161	0.345	0.05829424	MG/L
Pump Stations	Cove Pump	11-Pump	Orthophosphate	10/26/2021	9/15/2022	12	0.082909	0.075	0.017	0.156	0.03790634	MG/L
Pump Stations	Cove Pump	11-Pump	pH	10/26/2021	9/15/2022	9	7.331111	7.74	6.32	8.04	0.64665378	S.U.
Pump Stations	Cove Pump	11-Pump	Salinity	10/26/2021	9/15/2022	12	0.675833	0.63	0.34	1.37	0.26310932	ppt
Pump Stations	Cove Pump	11-Pump	Temperature	10/26/2021	9/15/2022	12	26.90667	27.195	23.57	28.88	1.70052577	°C
Pump Stations	Cove Pump	11-Pump	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.238636	1.16	0.753	2.46	0.44248532	MG/L
Pump Stations	Cove Pump	11-Pump	Total Nitrogen	10/26/2021	9/15/2022	12	1.511818	1.42	1.06	2.74	0.44984038	MG/L
Pump Stations	Cove Pump	11-Pump	Total Organic Carbon	10/26/2021	9/15/2022	12	17.07273	17.6	10.8	21.2	2.89727144	MG/L
Pump Stations	Cove Pump	11-Pump	Total Phosphorus	10/26/2021	9/15/2022	12	0.113364	0.098	0.046	0.222	0.04830998	MG/L
Pump Stations	Cove Pump	11-Pump	Total Suspended Solids	10/26/2021	9/15/2022	12	5.348636	2.33	0.285	23.2	6.78843653	MG/L
Pump Stations	Cove Pump	11-Pump	Turbidity	10/26/2021	9/15/2022	12	2.9	1.8	0.9	11	3.3117971	NTU
Pump Stations	Port Royal Pump	14-Pump	Calcium	10/26/2021	9/15/2022	12	183.0455	206	77.3	284	71.9994217	MG/L
Pump Stations	Port Royal Pump	14-Pump	Color, Apparent	10/26/2021	9/15/2022	12	75.90909	60	40	150	33.527465	PCU
Pump Stations	Port Royal Pump	14-Pump	Color pH	10/26/2021	9/15/2022	12	7.627273	7.63	7.33	8.39	0.3013334	S.U.
Pump Stations	Port Royal Pump	14-Pump	Conductivity	10/26/2021	9/15/2022	12	22858.83	14449	3248	65167	21681.705	µS/cm
Pump Stations	Port Royal Pump	14-Pump	Copper	10/26/2021	9/15/2022	12	1.588409	1.58	0.1355	2.92	0.91778927	UG/L
Pump Stations	Port Royal Pump	14-Pump	Dissolved Oxygen	10/26/2021	9/15/2022	12	5.033333	4.56	3.11	8.35	1.76362402	mg/L
Pump Stations	Port Royal Pump	14-Pump	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	9.53	8.77	5.41	17	3.83005744	MG/L
Pump Stations	Port Royal Pump	14-Pump	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	68.275	62.2	40	105.4	24.1570665	%
Pump Stations	Port Royal Pump	14-Pump	E. coli	10/26/2021	9/15/2022	12	392.6364	95	31	1541	549.008246	#/100 ML
Pump Stations	Port Royal Pump	14-Pump	Enterococci	10/26/2021	9/15/2022	12	860.9091	259	63	3436	1179.54953	#/100 ML
Pump Stations	Port Royal Pump	14-Pump	Fecal Coliform	10/26/2021	9/15/2022	12	830.9091	190	10	4200	1329.16857	#/100 ML
Pump Stations	Port Royal Pump	14-Pump	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	1729.182	2176	290	2871	986.302065	MG/L
Pump Stations	Port Royal Pump	14-Pump	Magnesium	10/26/2021	9/15/2022	12	310.1455	396	13.5	537	198.598476	MG/L
Pump Stations	Port Royal Pump	14-Pump	Ammonia	10/26/2021	9/15/2022	12	0.410455	0.403	0.075	0.788	0.23198162	MG/L
Pump Stations	Port Royal Pump	14-Pump	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.160545	0.141	0.071	0.267	0.07128024	MG/L
Pump Stations	Port Royal Pump	14-Pump	Orthophosphate	10/26/2021	9/15/2022	12	0.192091	0.172	0.044	0.399	0.11056442	MG/L
Pump Stations	Port Royal Pump	14-Pump	pH	10/26/2021	9/15/2022	9	7.525556	7.65	6.78	8.13	0.46300948	S.U.
Pump Stations	Port Royal Pump	14-Pump	Salinity	10/26/2021	9/15/2022	12	14.46833	8.39	1.69	44.16	14.7840343	ppt
Pump Stations	Port Royal Pump	14-Pump	Temperature	10/26/2021	9/15/2022	12	26.73667	27.275	21.98	30.05	2.68098806	°C
Pump Stations	Port Royal Pump	14-Pump	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	4.915818	0.803	0.148	45.5	13.4689549	MG/L
Pump Stations	Port Royal Pump	14-Pump	Total Nitrogen	10/26/2021	9/15/2022	12	5.078818	1.05	0.26	45.7	13.482035	MG/L
Pump Stations	Port Royal Pump	14-Pump	Total Organic Carbon	10/26/2021	9/15/2022	12	10.11545	9.87	5.81	17.5	3.55428576	MG/L
Pump Stations	Port Royal Pump	14-Pump	Total Phosphorus	10/26/2021	9/15/2022	12	0.221727	0.22	0.025	0.461	0.12737118	MG/L
Pump Stations	Port Royal Pump	14-Pump	Total Suspended Solids	10/26/2021	9/15/2022	12	13.17	11	2	23	7.5038057	MG/L
Pump Stations	Port Royal Pump	14-Pump	Turbidity	10/26/2021	9/15/2022	12	5.372727	3.4	1.3	25	6.80442369	NTU
Pump Stations	Public Works Pump	PW-Pump	Calcium	10/26/2021	9/15/2022	12	96.9	96.5	77.5	125	13.3439874	MG/L
Pump Stations	Public Works Pump	PW-Pump	Color, Apparent	10/26/2021	9/15/2022	12	102.7273	100	10	160	44.9646326	PCU
Pump Stations	Public Works Pump	PW-Pump	Color pH	10/26/2021	9/15/2022	12	7.439091	7.46	7.08	7.58	0.13938827	S.U.
Pump Stations	Public Works Pump	PW-Pump	Conductivity	10/26/2021	9/15/2022	12	1568.667	984	787	6144	1498.62994	µS/cm
Pump Stations	Public Works Pump	PW-Pump	Copper	10/26/2021	9/15/2022	12	2.626636	2.09	0.173	7.69	2.08844259	UG/L
Pump Stations	Public Works Pump	PW-Pump	Dissolved Oxygen	10/26/2021	9/15/2022	12	4.6525	3.8	2.73	8.85	1.89073879	mg/L
Pump Stations	Public Works Pump	PW-Pump	Dissolved Organic Carbon	10/26/2021	9/15/2022	12	14.785	15.7	1.355	26.7	7.52334999	MG/L

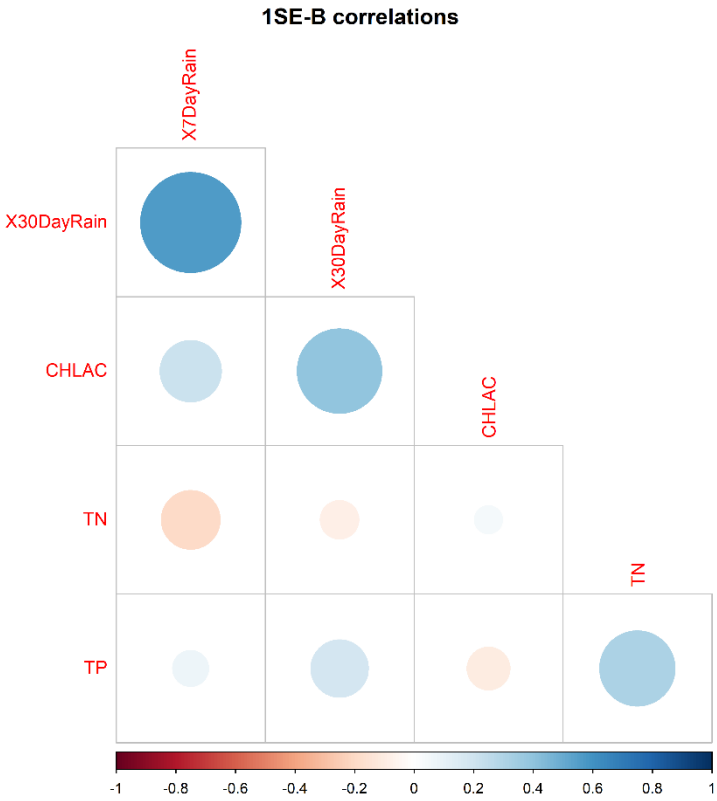
Appendix B2. Summary Stats (Oct 2021 through September 2022)

Discharges to	Waterbody Name	Sample Number	Parameter	POR Start	POR End	Count	Average	Median	Min	Max	StandardDev	Units
Pump Stations	Public Works Pump	PW-Pump	Dissolved Oxygen, Saturation	10/26/2021	9/15/2022	12	58.28333	49.35	33.9	109	22.518309	%
Pump Stations	Public Works Pump	PW-Pump	E. coli	10/26/2021	9/15/2022	12	416.5455	187	52	2613	737.246955	#/100 ML
Pump Stations	Public Works Pump	PW-Pump	Enterococci	10/26/2021	9/15/2022	12	1145.636	309	63	7200	2109.47582	#/100 ML
Pump Stations	Public Works Pump	PW-Pump	Fecal Coliform	10/26/2021	9/15/2022	12	2622.727	2300	440	7400	2445.36333	#/100 ML
Pump Stations	Public Works Pump	PW-Pump	Total Hardness, CaCO3	10/26/2021	9/15/2022	12	378.9091	314	239	788	187.576893	MG/L
Pump Stations	Public Works Pump	PW-Pump	Magnesium	10/26/2021	9/15/2022	12	33.32545	13	9.31	123	42.9944716	MG/L
Pump Stations	Public Works Pump	PW-Pump	Ammonia	10/26/2021	9/15/2022	12	0.326727	0.295	0.221	0.463	0.08769731	MG/L
Pump Stations	Public Works Pump	PW-Pump	Nitrate+Nitrite	10/26/2021	9/15/2022	12	0.207455	0.188	0.156	0.263	0.03823183	MG/L
Pump Stations	Public Works Pump	PW-Pump	Orthophosphate	10/26/2021	9/15/2022	12	0.074218	0.066	0.021	0.222	0.05322747	MG/L
Pump Stations	Public Works Pump	PW-Pump	pH	10/26/2021	9/15/2022	9	7.181111	7.33	6.24	7.78	0.50431747	S.U.
Pump Stations	Public Works Pump	PW-Pump	Salinity	10/26/2021	9/15/2022	12	0.8	0.48	0.38	3.32	0.8226454	ppt
Pump Stations	Public Works Pump	PW-Pump	Temperature	10/26/2021	9/15/2022	12	26.9875	27.175	24.01	29.34	1.70289126	°C
Pump Stations	Public Works Pump	PW-Pump	Total Kjeldahl Nitrogen	10/26/2021	9/15/2022	12	1.109818	1.06	0.785	1.49	0.19972822	MG/L
Pump Stations	Public Works Pump	PW-Pump	Total Nitrogen	10/26/2021	9/15/2022	12	1.319091	1.26	0.97	1.65	0.19745655	MG/L
Pump Stations	Public Works Pump	PW-Pump	Total Organic Carbon	10/26/2021	9/15/2022	12	17.31455	17.5	9.86	23.9	3.76153257	MG/L
Pump Stations	Public Works Pump	PW-Pump	Total Phosphorus	10/26/2021	9/15/2022	12	0.105	0.081	0.029	0.354	0.09225725	MG/L
Pump Stations	Public Works Pump	PW-Pump	Total Suspended Solids	10/26/2021	9/15/2022	12	3.285455	2.4	1	8.67	2.41866229	MG/L
Pump Stations	Public Works Pump	PW-Pump	Turbidity	10/26/2021	9/15/2022	12	1.895455	1.5	0.75	3.9	1.09600514	NTU

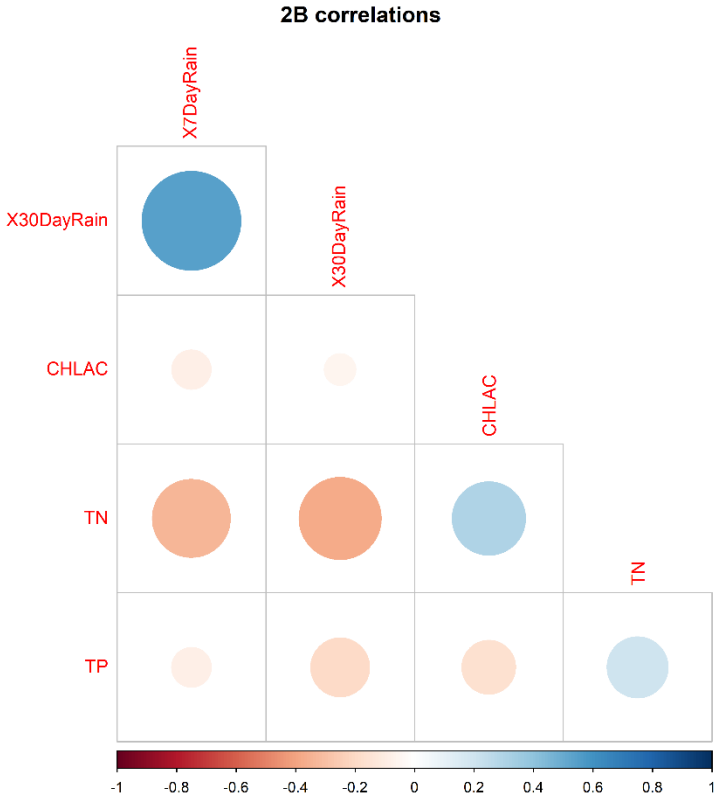
APPENDIX C

Water Quality Correlation Plots

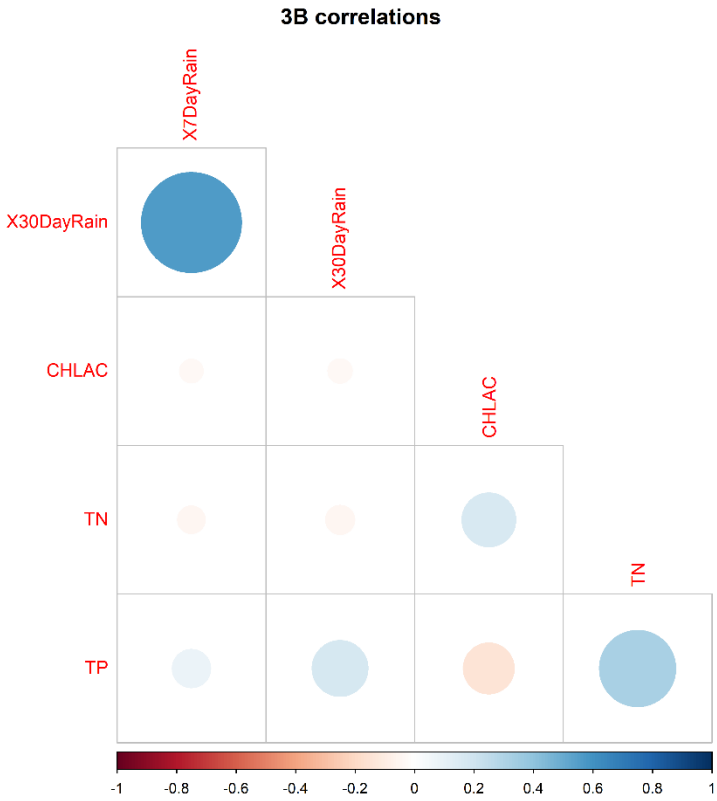
Appendix C – Water Quality Correlation Plots

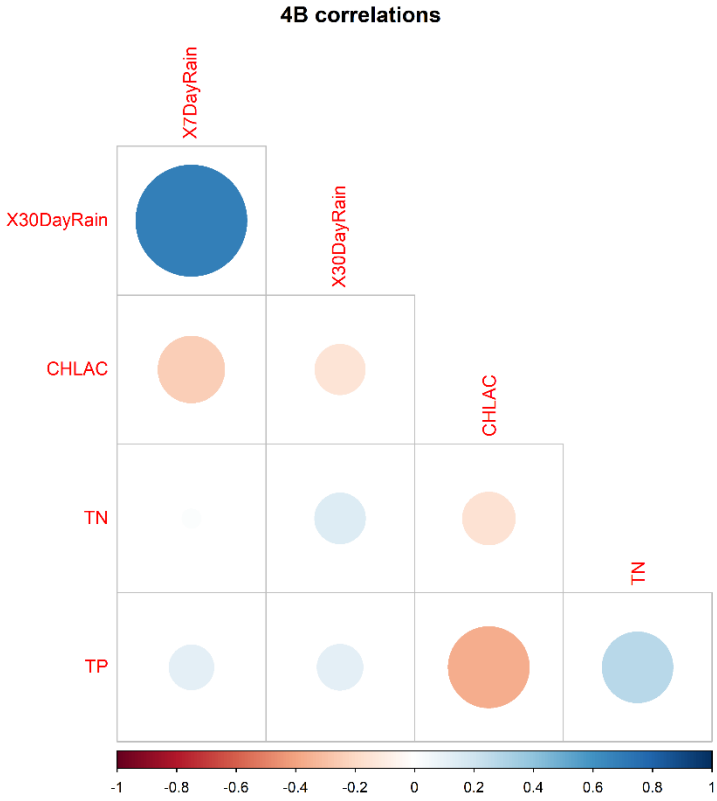


Correlation Plot Key: Red indicates negative correlation, blue indicates positive correlation. Larger, darker circles indicate a stronger association.



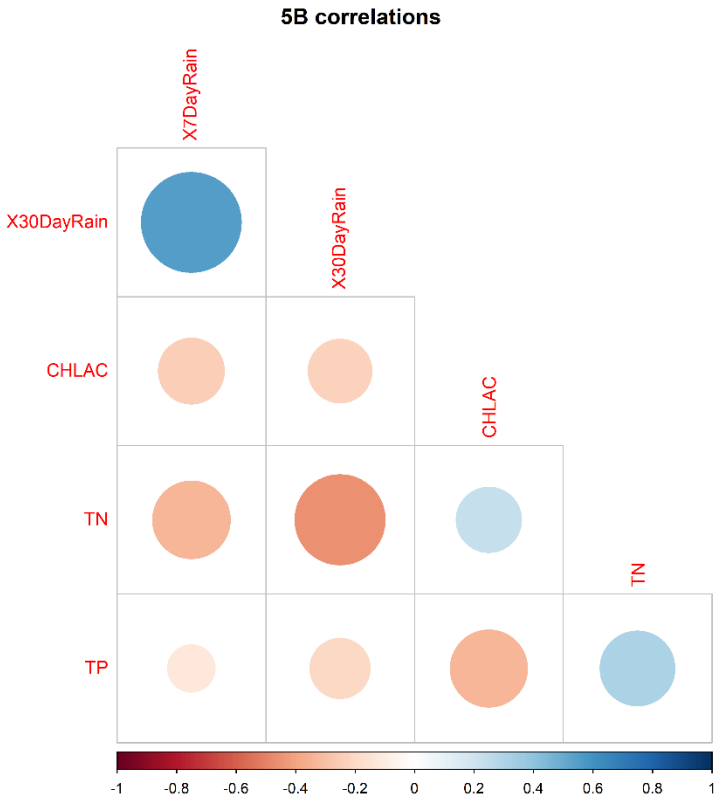
Appendix C – Water Quality Correlation Plots

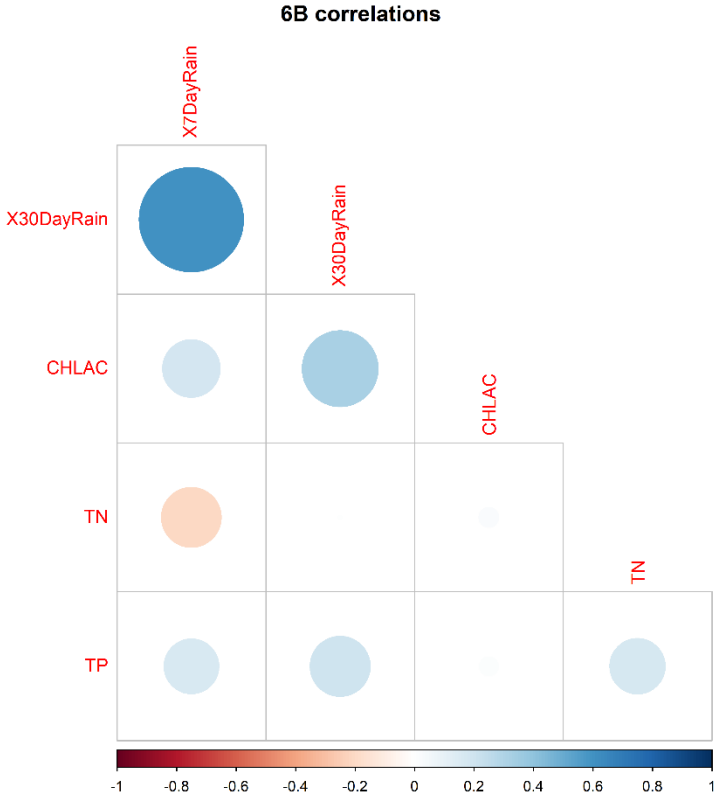




Correlation Plot Key: Red indicates negative correlation, blue indicates positive correlation. Larger, darker circles indicate a stronger association.

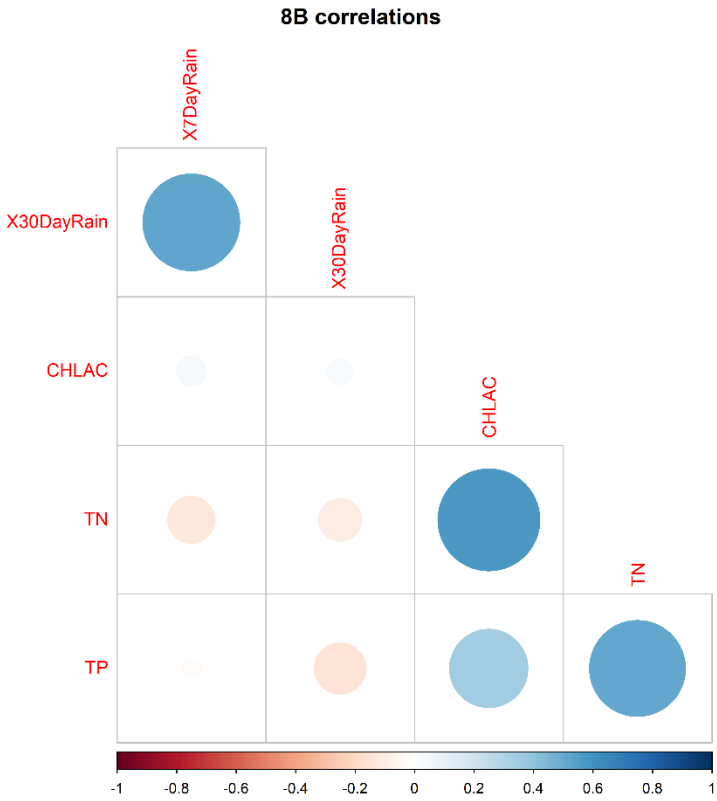
Appendix C – Water Quality Correlation Plots

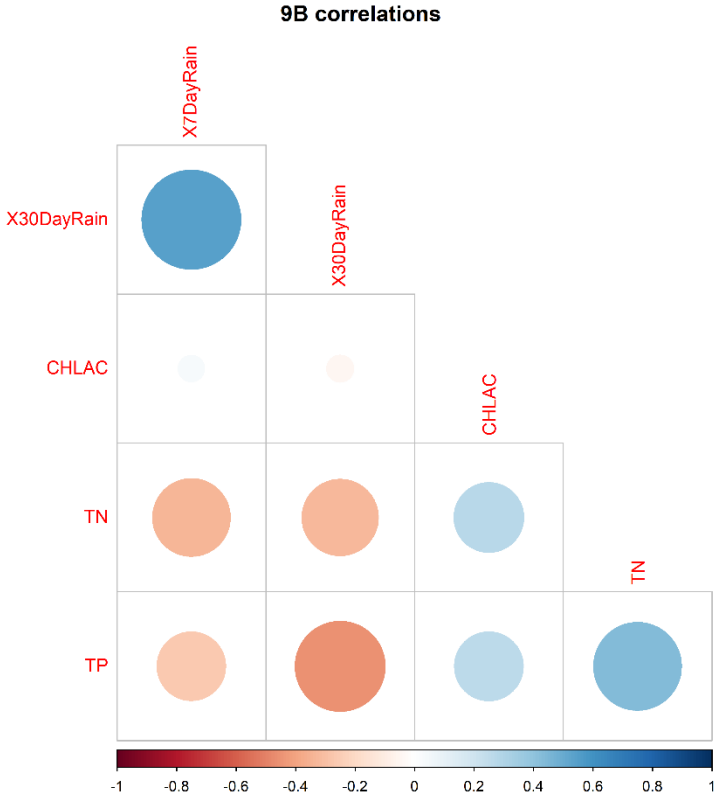




Correlation Plot Key: Red indicates negative correlation, blue indicates positive correlation. Larger, darker circles indicate a stronger association.

Appendix C – Water Quality Correlation Plots





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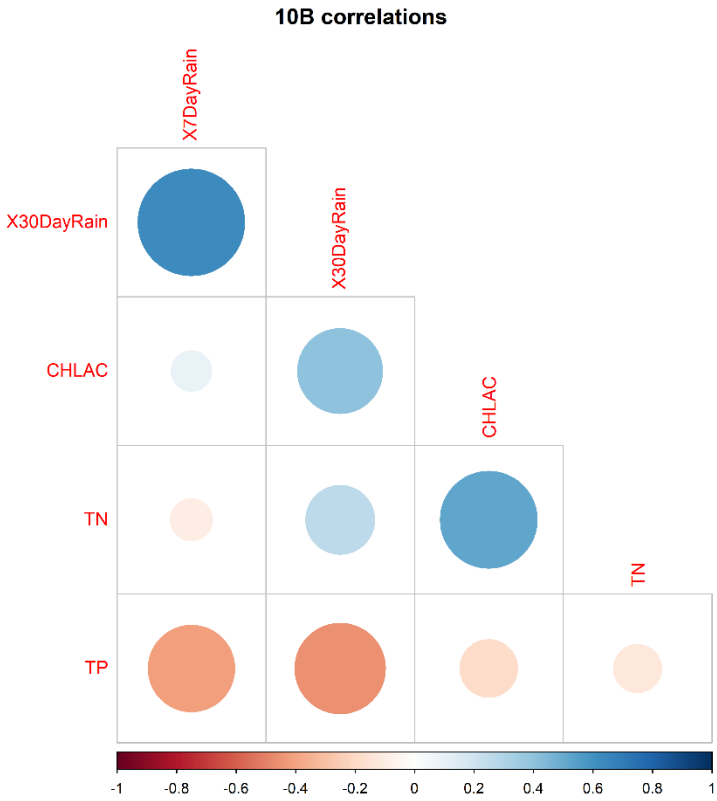

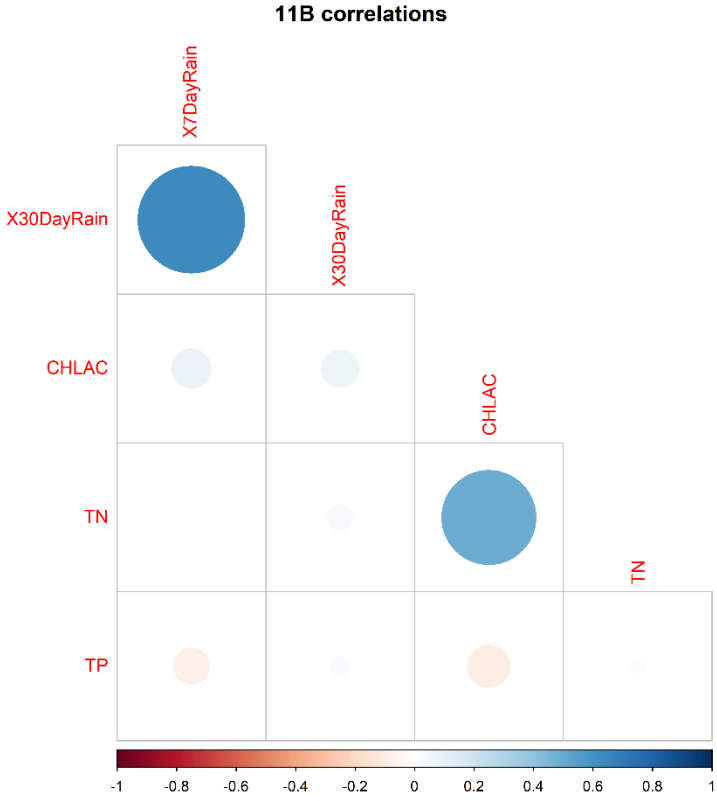

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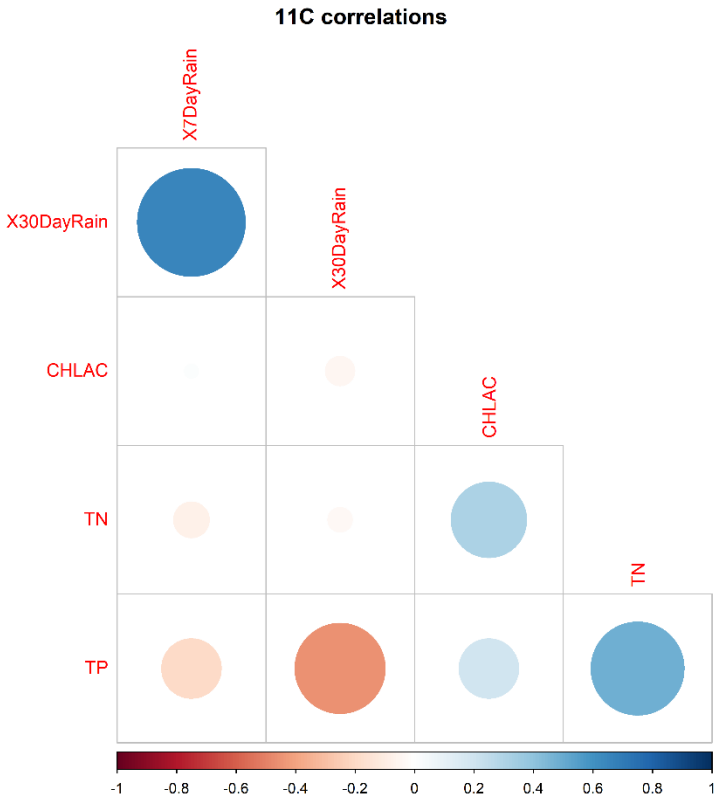

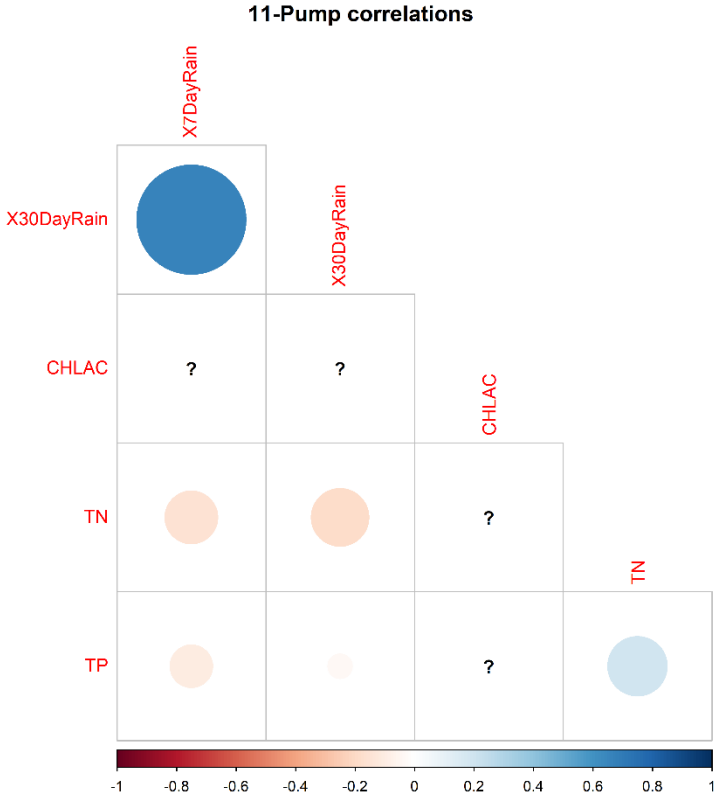

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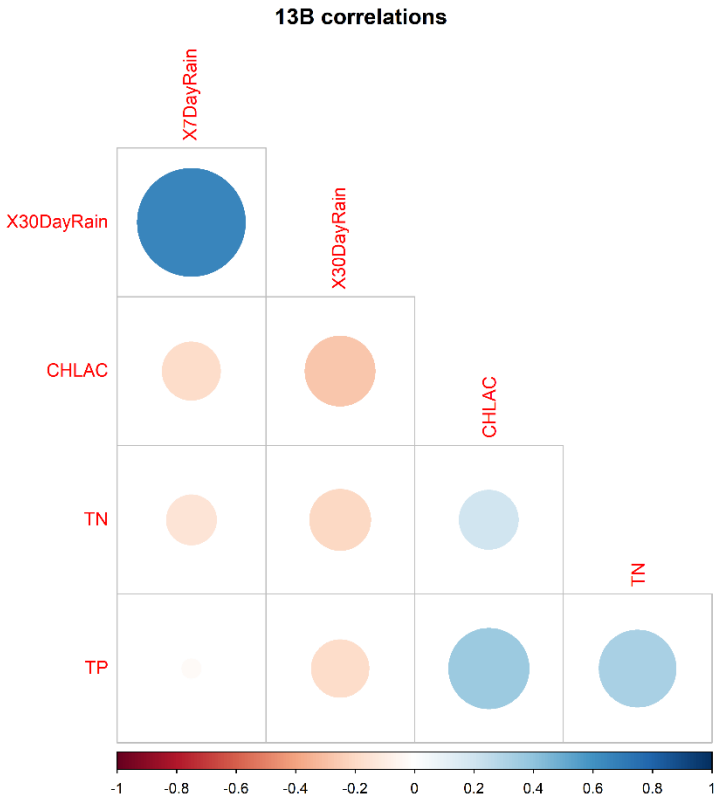

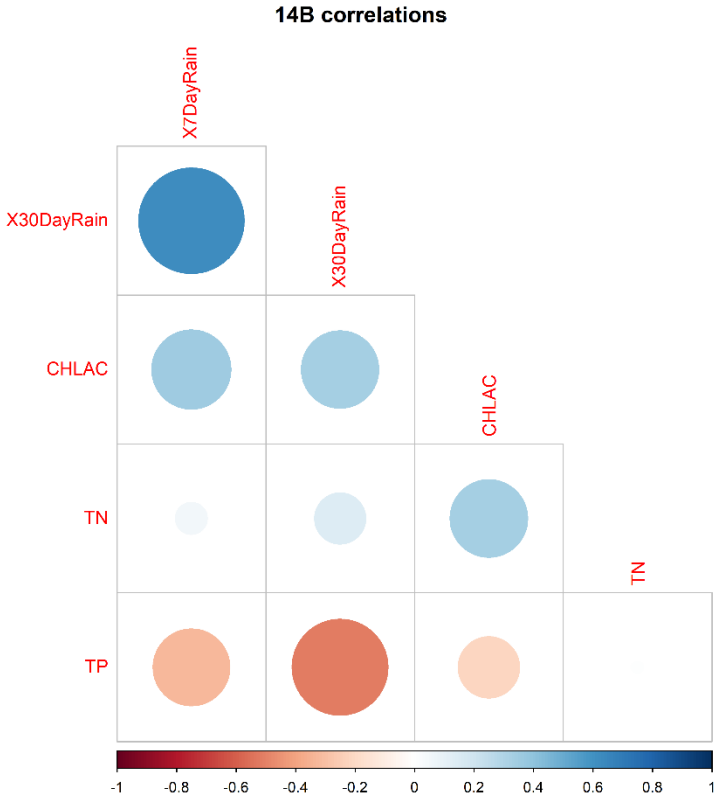

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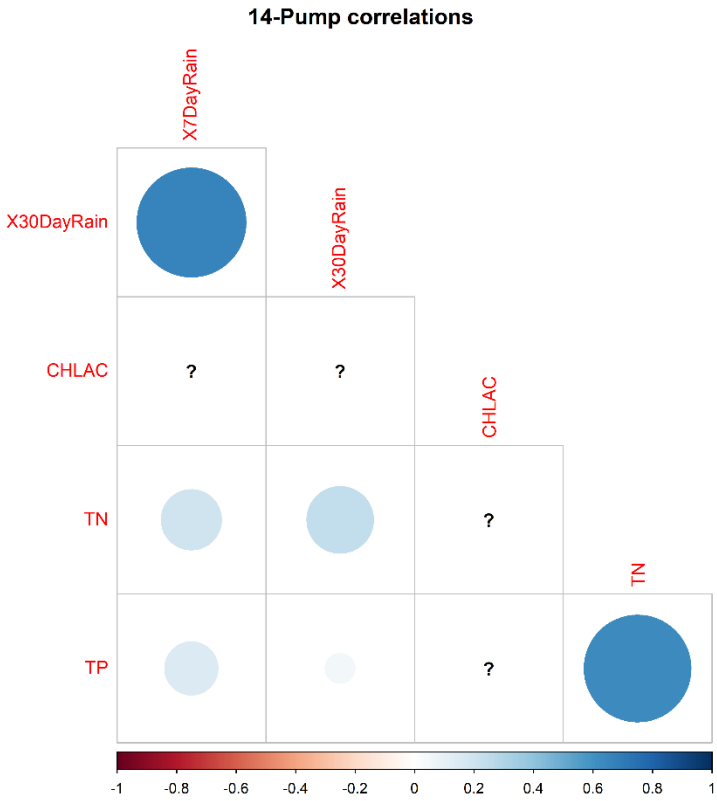

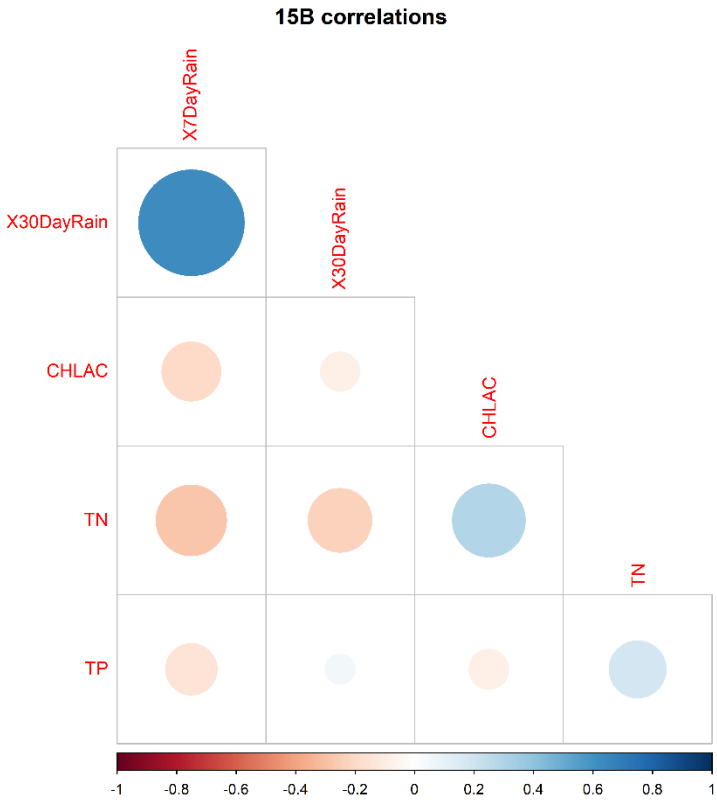

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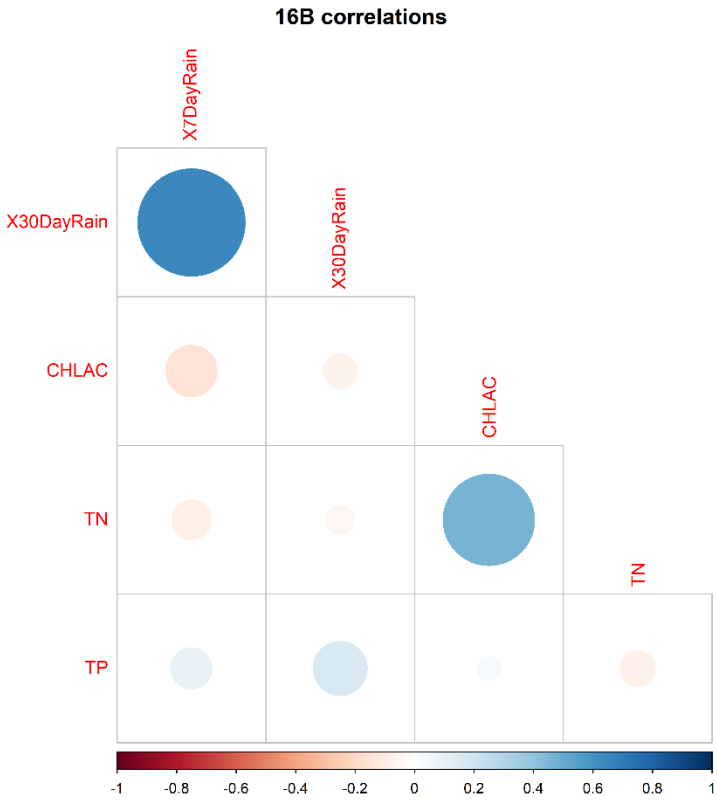

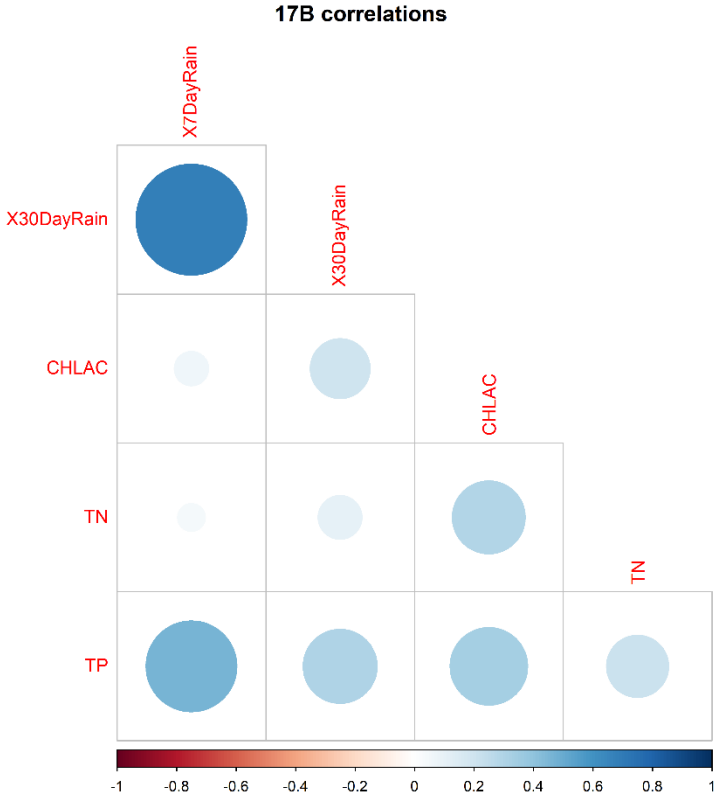

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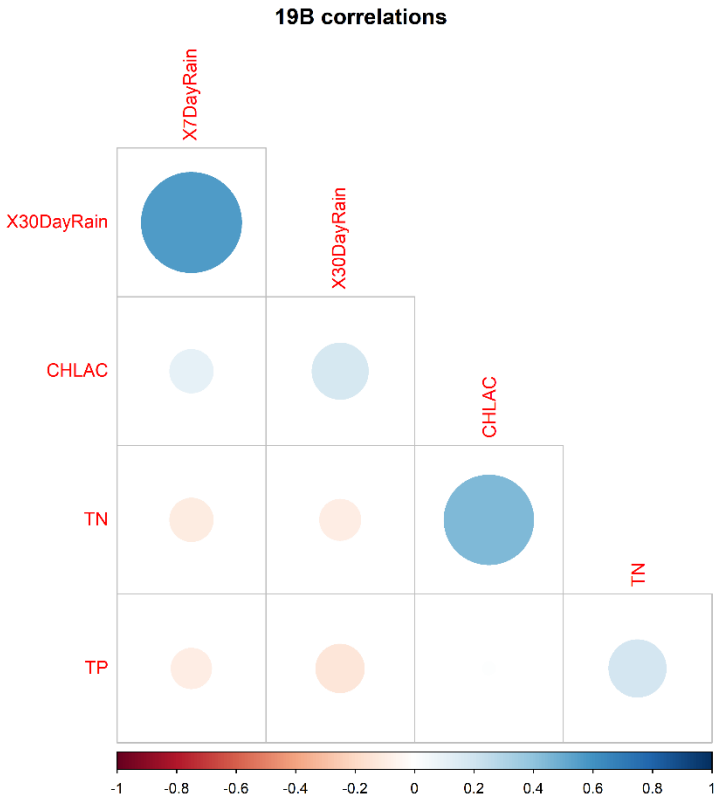

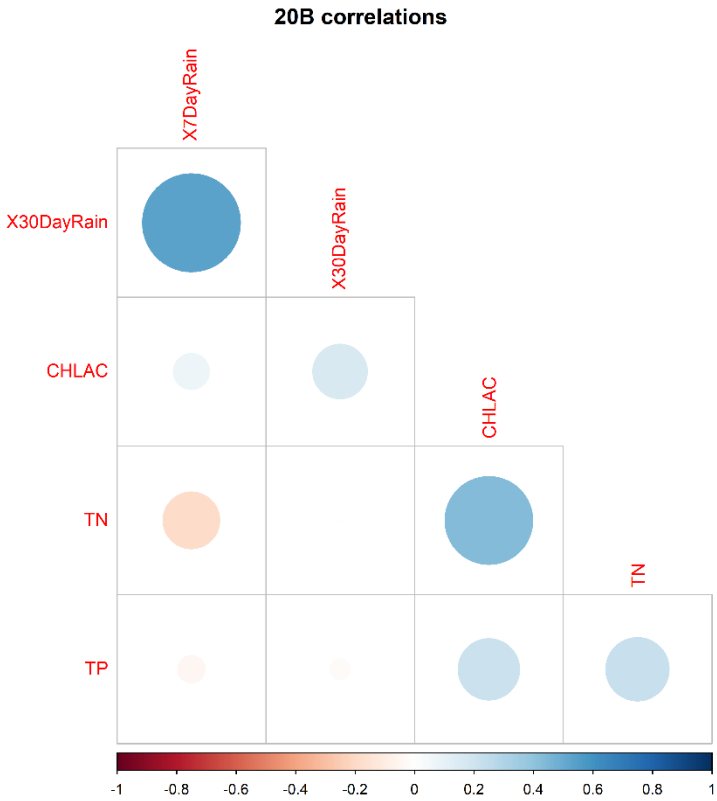

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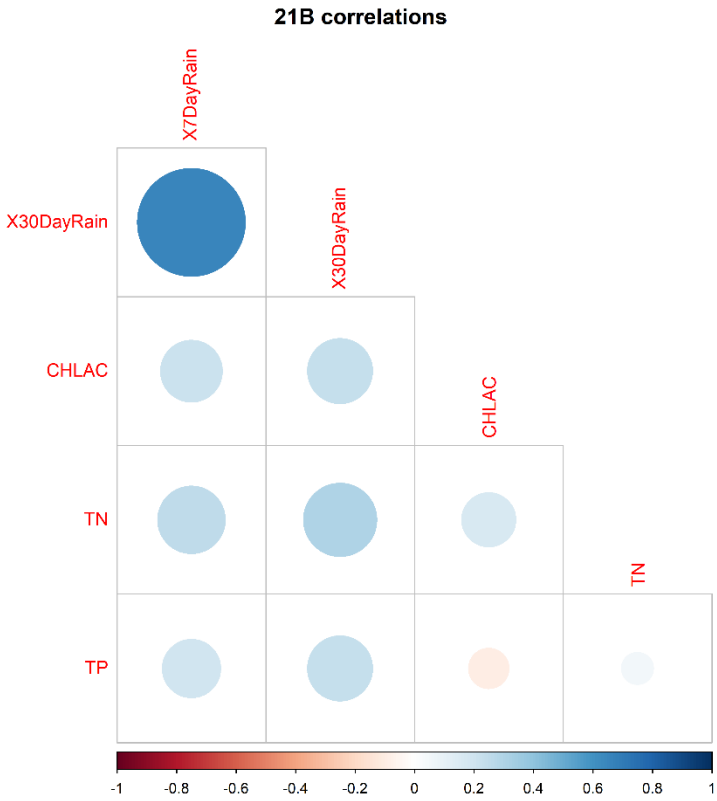

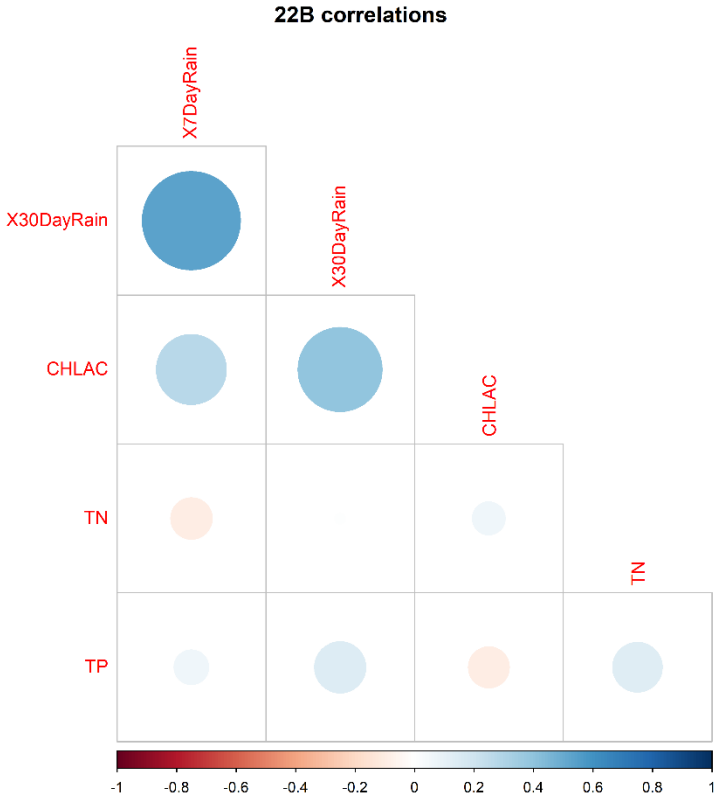

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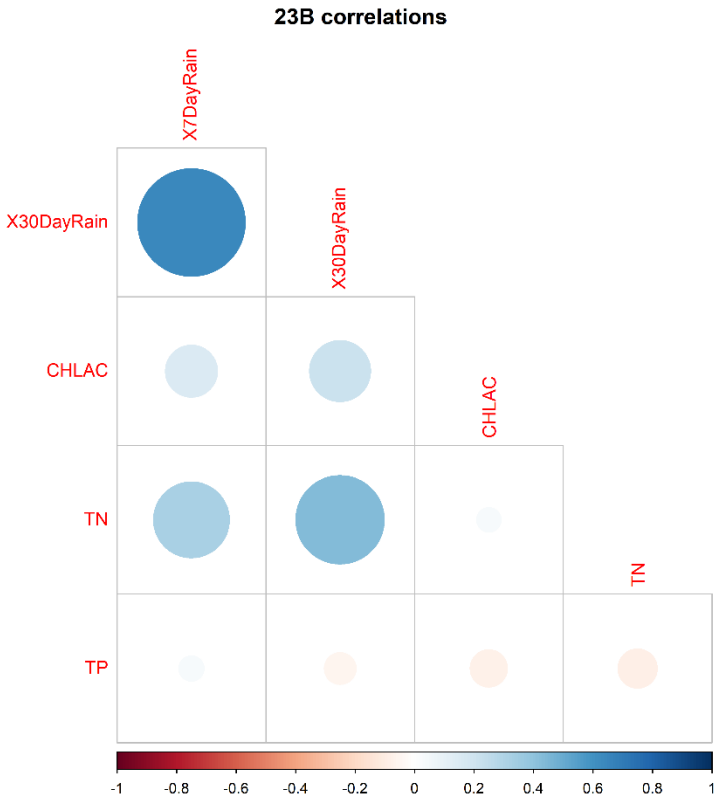

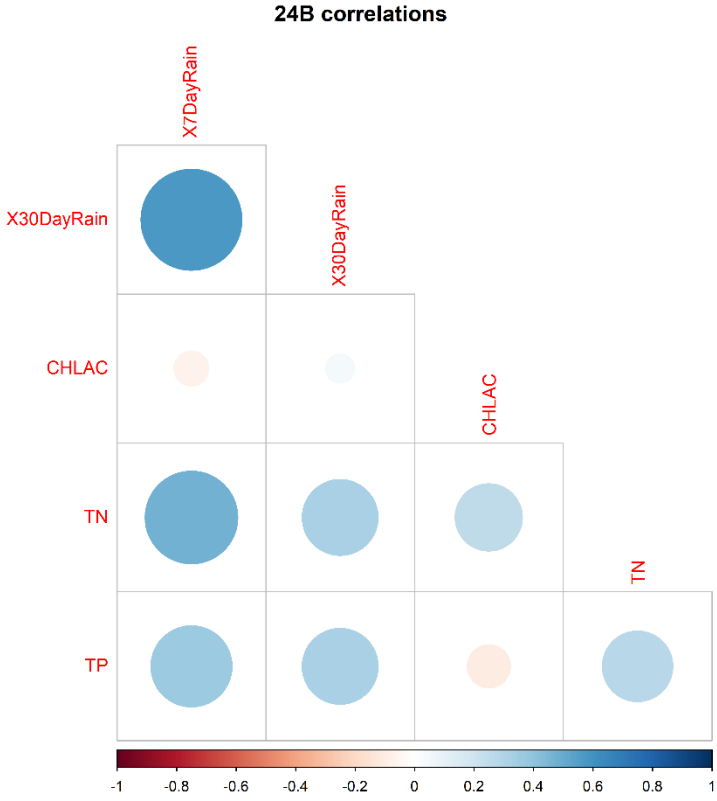

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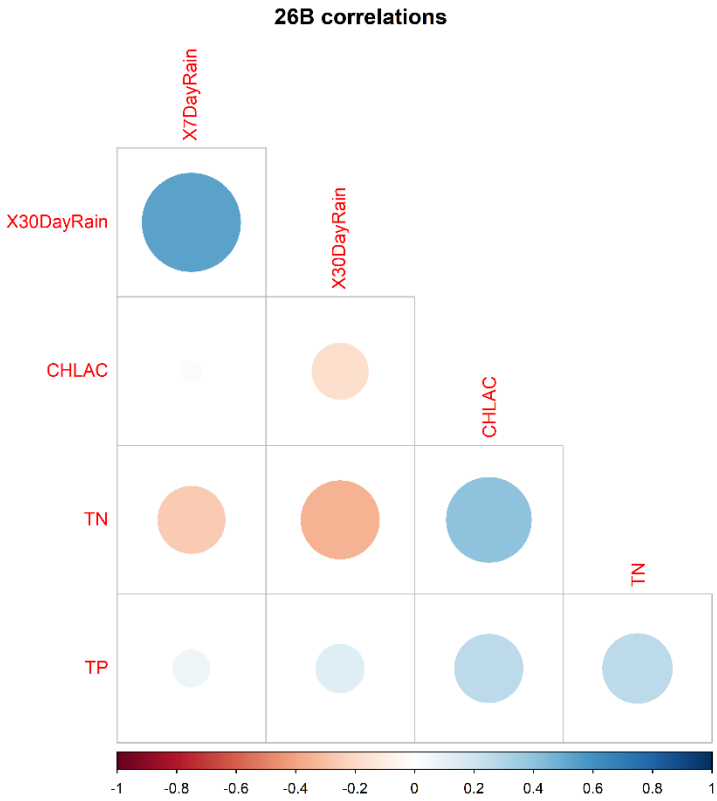

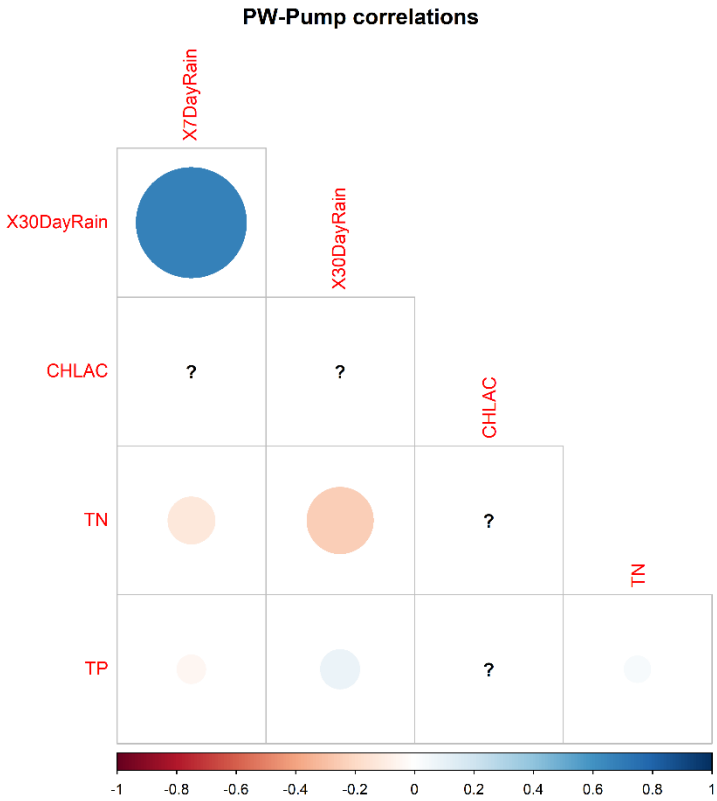

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APPENDIX D

Multivariate Analysis

Eigenvalues

PC	WSP Sampled Lakes			POR		
	Eigenvalues	%Variation	Cum.%Variation	Eigenvalues	%Variation	Cum.%Variation
1	5.1	30	30	4.28	32.9	32.9
2	3.88	22.8	52.8	3.53	27.2	60.1
3	1.83	10.8	63.6	1.74	13.4	73.5
4	1.42	8.3	71.9	1.32	10.1	83.6
5	1.2	7	79	0.838	6.4	90.1

Eigenvectors

Variable	WSP Sampled Lakes					POR				
	PC1	PC2	PC3	PC4	PC5	PC1	PC2	PC3	PC4	PC5
Log(Ammonia+1)	-0.308	0.266	-0.047	0.003	-0.161	-0.135	0.439	-0.131	0.019	-0.364
Log(Calcium+1)	-0.319	0.304	-0.109	-0.004	0.092					
Chlorophyll-a, Corrected	-0.242	-0.357	0.12	0.072	0.261	-0.427	-0.112	0.185	0.127	-0.031
Color, Apparent	0.146	-0.043	0.344	-0.306	0.066					
Log(Conductivity+1)	-0.302	0.326	-0.169	-0.049	0.045	-0.05	0.494	0.018	-0.039	-0.179
Log(Copper+1)	0.187	-0.177	-0.1	-0.237	0.35	0.007	-0.217	0.242	-0.419	-0.728
Dissolved Oxygen	-0.042	-0.369	-0.381	-0.014	0.009	-0.312	-0.199	-0.374	-0.193	-0.155
Log(E. coli+1)	-0.235	0.137	0.43	0.24	-0.089					
Log(Enterococci+1)	-0.132	-0.214	0.433	0.132	-0.221	-0.177	-0.383	0.142	0.252	0.003
Nitrate+Nitrite	0.136	-0.061	-0.125	-0.137	-0.739	-0.162	0.316	-0.452	-0.1	0.209
Log(Nitrate+Nitrite+1)						-0.09	-0.179	-0.312	-0.612	0.124
Log(Orthophosphate+1)	-0.258	0.016	0.012	-0.581	-0.184	-0.315	0.217	0.357	-0.298	0.247
pH	-0.11	-0.321	-0.399	0.221	-0.237	-0.33	-0.153	-0.423	0.189	-0.128
Temperature	-0.332	-0.01	-0.281	0.033	0.163	-0.346	-0.162	0.316	-0.452	-0.1
Log(Total Nitrogen+1)	-0.184	-0.393	0.14	-0.095	0.118	-0.135	0.439	-0.131	0.019	-0.364
Total Nitrogen						-0.415	-0.216	0.06	0.096	0.146
Log(Total Phosphorus+1)	-0.292	-0.155	0.063	-0.53	-0.044	-0.366	0.157	0.344	-0.265	0.198
Total Suspended Solids	-0.386	-0.032	0.007	0.139	0.042	-0.346	0.208	0.024	0.341	-0.289
Turbidity	-0.218	-0.287	0.14	0.229	-0.177					

Principle Component Scores

Lake Name	Station ID	WSP Sampled Lakes					POR				
		SCORE1	SCORE2	SCORE3	SCORE4	SCORE5	SCORE1	SCORE2	SCORE3	SCORE4	SCORE5
Alligator Lake	10B	-1.11	2.07	-1.63	-0.38	-0.498	0.362	2.08	-0.389	-0.00123	0.31
East Lake	11B	0.242	-0.126	0.307	0.78	1.25	1	-0.559	0.667	0.306	0.473
Spring Lake	11C	-0.581	-1.66	-0.764	0.968	1.15					
Lake 13	13B	-4.35	2.75	2.17	0.871	0.595					
Lantern Lake	14B	-4.88	0.289	-0.617	-3.44	-0.83	-4.52	2.69	2.37	-1.36	0.725
Sun Lake Terrace	15B	0.93	-0.245	0.0683	1.07	-1.03	0.521	-1.17	-1.52	-0.461	0.118
Thurner	16B	0.176	-0.653	1.69	0.833	0.0463					
Lake Diana	17B	0.224	-0.406	2.77	-0.211	-0.455					
Fleischmann Lake	19B	-0.511	-0.735	0.883	1.62	-1.65	-1.29	-1.34	-0.941	1.58	0.3
Devils Lake	1SE-B	3.96	0.484	-1.5	-1.76	0.978	2.04	-1.38	-0.694	-2.14	-0.907
Forest Lake	20B	0.717	-1.34	-1.61	1.27	-2.11	-2.07	-1.54	-1.41	1.3	0.548
Willow	21B	1.89	1.42	0.936	-0.243	0.821	2.61	0.0998	0.925	1.08	1.11
Lake Manor	22B	1.24	1.79	-0.126	0.0549	-0.101	2.01	0.487	0.224	0.0871	0.981
Lowdermilk	23B	-2.93	4.36	-2.25	1.49	0.511	0.992	5.09	-1.22	1.03	-1.65
NCH Lake	26B	1.84	-0.846	0.431	-0.224	1.49	0.271	-2.37	2.79	0.798	-2.17
Swan Lake	2B	0.457	-2.21	-1.58	0.398	0.0323	-0.853	-0.174	-1.33	-0.782	-0.456
Colonnade Lake	3B	1.79	1.02	-0.109	-1.27	-1.56	0.66	-0.324	0.416	-1.02	0.161
Hidden	4B	1.94	0.299	1.51	-0.876	-1.71					
Lake Suzanne	5B	1.45	-1.07	-0.827	0.0371	0.305	-0.264	-0.707	-0.662	-1.82	0.184
Mandarin Lake	6B	2.33	2.09	0.71	-0.459	1.33	2.28	0.231	1.19	0.57	0.653
North Lake	8B	-3.4	-4.13	0.713	-0.971	0.964					
South Lake	9B	-1.41	-3.17	-1.16	0.45	0.465	-3.74	-1.11	-0.419	0.837	-0.378