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Our ref: 11225022-05

November 28, 2022

Mr. Bruce Bernard Calvin, Giordano & Associates, Inc. 1800 Eller Drive, Suite 600 Fort Lauderdale, FL, 33316

#### Treviso Bay Water Quality Sampling Report - October 2022

Dear Mr. Bernard

GHD Services Inc. (GHD) is pleased to present the results of our water quality sampling services for Lakes 4, 5, 12, 14, 22, and 32 – Treviso Bay.

### Water Quality Sampling – October 2022

The October 2022 sampling event consisted of the collection of six (6) surface water samples, one each from six (6) different lakes within the Treviso Bay residential community as identified on **Figure 1**.

Samples were collected using direct-dip methods from lakes 4, 5, 12, 14, 22, and 32 at locations with a minimum water depth of three (3) feet to minimize disturbance of sediments. Where applicable, samples were collected near the outfall structure/weir, particularly if there is flow over the weir. If the water depth is too shallow near the outfall structure/weir, samples are collected using a long-reach sampling pole from the bank of the lake. See **Figure 1** for locations of outfall structures/weirs. Of note, there is no visible outfall structure/weir in Lake 5.

Conductivity, dissolved oxygen, pH, and temperature were measured in the field with a calibrated YSI Pro Plus multi-parameter water quality meter. Turbidity and total water depth were also measured at each location. Surface Water Field Sheets are attached. Field data is summarized in the Table in the **Laboratory Data Compliance Memo**.

The collected samples are capped, labelled, packed on ice, and transported to Benchmark EnviroAnalytical, Inc., in North Port, Florida. Benchmark EnviroAnalytical, Inc. is certified by the State of Florida and NELAP (National Environmental Laboratory Accreditation Conference). Laboratory analyses are conducted for 5-Day Biochemical Oxygen Demand (BOD5), Total Suspended Solids (TSS), Total Nitrogen, nitrogen speciation (ammonia, TKN, and nitrate + nitrite), Total Phosphorus, Ortho Phosphorus (Field Filtered) and Chlorophyll-a.

All samples collected during the October 2022 sampling event were prepared and analyzed within the method required holding times. The laboratory data have been reviewed with respect to authenticity, precision, limits of detection, and accuracy of the data. The laboratory analytical results are summarized in the attached **Laboratory Data Compliance Memo.** The laboratory report is also attached.

Trend graphs have been prepared for each monitor location for laboratory analytical results and select field measurements.

### 2. Analytical Summary

The October 2022 sampling event represents the ninth sampling event for the select six (6) lakes in Treviso Bay.

Biological oxygen demand (BOD) results are all within historical ranges for these lakes, with a downward trend noted on Lake 5 over the last 4 sampling events.

The dissolved oxygen readings at the monitoring locations fluctuate throughout the year as anticipated given the temperature of the water and biological activity. In general, the dissolved oxygen remains above the action level for dissolved oxygen percent (%) of a minimum of 38%. All dissolved oxygen readings for this sampling event were above 38% and were within historical ranges.

Total nitrogen at all Lakes remained relatively stable for this sampling event. An apparent downward trend is noted at Lakes 5 and 12 over the last 3 sampling events.

Chlorophyll- $\alpha$  increased at Lakes 12 and 14 while the remaining lakes slightly decreased. All results are still within historical ranges.

Total kjeldahl nitrogen (TKN) slightly decreased to stable at all Lakes during this event but remained within historical ranges.

All other results remained relatively stable during this sampling event.

A Trophic State Index calculation (defined by FAC 62-303.200 and the Water Quality Assessment for the State of Florida 305(b) Report) was used to help classify the quality of water based on each water body's Chlorophyll a, Total Phosphorous and Total Nitrogen concentration. A ratio of Total Nitrogen to Total Phosphorus was calculated for each water body to determine general conditions. For this sample event, the breakdown of the sample locations is:

- Nutrient Balanced (10<TN/TP<30) Lakes 4, 12, 14, and 22</li>
- Phosphorus Limited (TN/TP<10) Lake 5
- Nitrogen Limited (TN/TP>30) Lake 32

A TSI value was calculated based on the TN/TP ratio for each location. A TSI of 0-59 is "good", a value of 60-69 is "fair", and a value of 70+ is "poor". Based on the results of this sampling event, each sampling location's calculated TSI value is:

Lake 4	Lake 5	Lake 12	Lake 14	Lake 22	Lake 32
41.0	35.8	52.3	54.4	37.0	37.5

### 3. Annual Review

Throughout the samplings events conducted in 2022, water quality conditions have remained relatively stable throughout the year, with notable trends highlighted below. Considering the climate of the Site, typically water quality is expected to dilute in the warmer, wetter months, and concentrate in the drier, cooler months.

The parameters measured during the sampling events in February, June and October showed stable conditions at most Lakes for BOD, TSS, DO, Total Phosphorus, TSS, Orthophosphate, Total kjeldahl nitrogen, Turbidity, Conductivity, Water Depth and Temperature.

A notable downward trend was seen over the last 3 sampling events for BOD at Lake 5, dissolved oxygen at Lake 14, and total nitrogen/TKN at Lakes 5 and 12.

Additionally, a notable upward trend was seen over the last 3 sampling events for dissolved oxygen at Lake 12.

### 4. Conclusions and Recommendations

It appears water quality conditions have remained relatively stable between June 2022 and October 2022.

Most lakes during this sampling event were in Nutrient Balanced conditions, save Lake 5 which was Phosphorus limited and Lake 32 which was Nitrogen limited. When in combination with the levels of chlorophyll  $\alpha$ , there do not appear to be any water quality concerns at this time.

The next tri-annual sampling event is planned for February 2023.

Please call if you have questions or need additional information.

Regards

**Connor Haydon** Environmental Engineer

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**Lori Coolidge** Principal Geologist

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Encl: Attachments: Laboratory Data Compliance Memo

Figure

**Trend Graphs** 

Laboratory Analytical Reports Surface Water Field Sheets





# **Technical Memorandum**

#### November 23, 2022

То	Mr. Bruce Bernard Manager of Field Operations Calvin, Giordano & Associates, Inc. 1800 Eller Drive, Suite 600 Fort Lauderdale, FL 33316	Tel	716.205.1977
From	Sheri Finn/eew/15	Ref. No.	11225022
Subject	Analytical Results Compliance Report Surface Water Quality Monitoring Treviso Bay Naples, Florida October 2022		

### 1. Compliance Review

Samples were collected in October 2022 in support of the Treviso Bay Surface Water Quality Monitoring sampling. The analytical results are summarized in Table 1. All samples were prepared and analyzed within the method required holding times. The method blank results were non-detect. All reported laboratory control sample (LCS) analyses demonstrated acceptable accuracy. Laboratory duplicate analyses were performed for some analytes. All results were acceptable, indicating good analytical precision. The matrix spike (MS) results were evaluated per the laboratory limits. The MS analyses performed were acceptable, demonstrating good analytical accuracy.

Based on this compliance review, the results in Table 1 are acceptable for use.

Regards

Sheri Finn Analyst

#### Analytical Results Summary Surface Water Quality Monitoring Treviso Bay, Naples, Florida October 2022

Sample Location/Sample ID:						Lake 4				
Sample Date:		2/17/2020	6/4/2020	10/22/2020	03/04/2021	06/30/2021	10/27/2021	2/16/2022	06/09/2022	10/11/2022
Field Parameters	Units									
Total Water Depth	Feet	3	2.7	2.34	1.2	1.80	3.5	NM	NM	NM
Sample Depth	Feet	1.5	1.5	1.5	0.5	1	1.5	1.5	outfall	outfall
Conductivity, field	umhos/cm	908	1129	514	666	755	646	634	563	448
Dissolved oxygen (DO), field	mg/L	6.07	4.36	2.78	3.50	3.82	3.99	4.65	4.07	6.30
Dissolved oxygen (DO), field	%	70.6	56.4	34.7	41.7	49.3	50.6	50.8	54.3	80.1
pH, field	s.u.	7.27	8.4	7.79	8.04	7.9	7.59	7.65	8.04	7.27
Temperature, field	Deg C	22.68	29.1	26.8	24.3	28.6	27.5	19.5	30.4	27.7
Turbidity, field	NTU	1.02	2.33	1.84	2.70	2.91	1.24	1.76	0.54	0.50
Secchi Disk	Depth			-	-	-				
Wet Parameters	Units									
Ammonia-N	mg/L	0.010 I	0.008 U	0.181	0.008 U	0.084	0.083	0.008 U	0.062	0.038
TAN criteria calculation	mg/L	1.39	0.23	NS	NS	NS NS	NS	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.651	0.812	1.19	0.870	0.431	0.668	0.588	0.776	0.495
Total nitrogen	mg/L	0.770	0.818	1.23	0.05 U	0.451	0.754	0.695	0.776	0.541
Nitrite/Nitrate	mg/L	0.119	0.006 I	0.043	0.130	0.020 I	0.086	0.107	0.006 U	0.046
Ortho phosphorus (Field Filtered)	mg/L	0.039	0.043	0.026	0.008	0.020	0.004 I	0.006 I	0.008	0.013
Total phosphorus	mg/L	0.046	0.045	0.024 I	0.084	0.022 I	0.015 I	0.024 I	0.058	0.041
Chlorophyll	mg/m3	4.58	10.4	4.87	18.4	7.73	3.57	2.04	5.13	3.78
Total suspended solids (TSS)	mg/L	1.75 I	3.00	2.20 I	0.570 U	1.93 I	0.667 I	1.33 I	3.00	0.570 U
Biochemical oxygen demand (total BOD5)	mg/L	1 U	1.0 U	1 U	1.08 I	1 U	1 U	1.77	1 U	1.62 I
Biodrionical exygen demand (total BOBO)	g/.	. 0				· Ŭ				
Sample Location/Sample ID:		•		•		Lake 14			•	•
Sample Date:		2/17/2020	6/4/2020	10/22/2020	03/04/2021	6/30/2021	10/27/2021	2/16/2022	06/09/2022	10/11/2022
Field Parameters	Units									
Total Water Depth	Feet	2.5	2.41	2.81	2.2	1.83	2.3	NM	NM	NM
Sample Depth	Feet	1.5	1.5	1.5	1.5	1	1.5	1.5	outfall	1.5
Conductivity, field	umhos/cm	14.67	2066							1001
Dissolved oxygen (DO), field	mg/L			999	967	1223	1119	1032	1041	1384
	ma/L	5.79								
וטוssoivea oxvaen (שט), tiela		5.79 66.7	4.36 57.6	999 5.45 67.8	967 4.13 48.8	1223 4.31 54.1	1119 4.92 63.7	1032 6.89 74.9	1041 5.67 74.2	1384 3.74 47.7
Dissolved oxygen (DO), field pH. field	%		4.36	5.45	4.13	4.31	4.92	6.89	5.67	3.74
pH, field	% s.u.	66.7 7.71	4.36 57.6 8.33	5.45 67.8 8.44	4.13 48.8 8.55	4.31 54.1 8.28	4.92 63.7 8.43	6.89 74.9 8.49	5.67 74.2 8.53	3.74 47.7 7.97
pH, field Temperature, field	%	66.7	4.36 57.6	5.45 67.8	4.13 48.8	4.31 54.1	4.92 63.7	6.89 74.9	5.67 74.2 8.53 30.7	3.74 47.7
pH, field	% s.u. Deg C NTU	66.7 7.71 22.04	4.36 57.6 8.33 29.6	5.45 67.8 8.44 26.4	4.13 48.8 8.55 23.7	4.31 54.1 8.28 28.6	4.92 63.7 8.43 28.2	6.89 74.9 8.49 19.4	5.67 74.2 8.53	3.74 47.7 7.97 27.7
pH, field Temperature, field Turbidity, field	% s.u. Deg C	66.7 7.71 22.04	4.36 57.6 8.33 29.6	5.45 67.8 8.44 26.4	4.13 48.8 8.55 23.7	4.31 54.1 8.28 28.6	4.92 63.7 8.43 28.2	6.89 74.9 8.49 19.4	5.67 74.2 8.53 30.7	3.74 47.7 7.97 27.7
pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters	% s.u. Deg C NTU Depth Units	66.7 7.71 22.04 2.07	4.36 57.6 8.33 29.6 7.06	5.45 67.8 8.44 26.4 3.44	4.13 48.8 8.55 23.7 2.83	4.31 54.1 8.28 28.6 2.60	4.92 63.7 8.43 28.2 3.80	6.89 74.9 8.49 19.4 9.41	5.67 74.2 8.53 30.7 2.04	3.74 47.7 7.97 27.7 2.77
pH, field Temperature, field Turbidity, field Secchi Disk	% s.u. Deg C NTU Depth Units mg/L	66.7 7.71 22.04	4.36 57.6 8.33 29.6	5.45 67.8 8.44 26.4	4.13 48.8 8.55 23.7	4.31 54.1 8.28 28.6	4.92 63.7 8.43 28.2	6.89 74.9 8.49 19.4	5.67 74.2 8.53 30.7	3.74 47.7 7.97 27.7
pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation	% s.u. Deg C NTU Depth Units mg/L mg/L	66.7 7.71 22.04 2.07 0.008 U 0.99	4.36 57.6 8.33 29.6 7.06	5.45 67.8 8.44 26.4 3.44 0.008 U NS	4.13 48.8 8.55 23.7 2.83	4.31 54.1 8.28 28.6 2.60	4.92 63.7 8.43 28.2 3.80	6.89 74.9 8.49 19.4 9.41	5.67 74.2 8.53 30.7 2.04	3.74 47.7 7.97 27.7 2.77 0.019 I
pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN)	% s.u. Deg C NTU Depth Units mg/L mg/L mg/L	66.7 7.71 22.04 2.07	4.36 57.6 8.33 29.6 7.06 0.008 U 0.25 0.926	5.45 67.8 8.44 26.4 3.44	4.13 48.8 8.55 23.7 2.83 0.008 U NS 0.908	4.31 54.1 8.28 28.6 2.60	4.92 63.7 8.43 28.2 3.80	6.89 74.9 8.49 19.4 9.41	5.67 74.2 8.53 30.7 2.04	3.74 47.7 7.97 27.7 2.77
pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen	% s.u. Deg C NTU Depth Units mg/L mg/L mg/L mg/L	66.7 7.71 22.04 2.07 0.008 U 0.99 0.816 0.816	4.36 57.6 8.33 29.6 7.06 0.008 U 0.25 0.926	5.45 67.8 8.44 26.4 3.44 0.008 U NS 1.35	4.13 48.8 8.55 23.7 2.83 0.008 U NS 0.908 0.908	4.31 54.1 8.28 28.6 2.60 0.008 U NS 0.750 0.750	4.92 63.7 8.43 28.2 3.80 0.041 NS 0.738	6.89 74.9 8.49 19.4 9.41 0.008 U NS 1.17	5.67 74.2 8.53 30.7 2.04 0.063 NS 1.24	3.74 47.7 7.97 27.7 2.77 0.019 I NS 0.756 0.766
pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen Nitrite/Nitrate	% s.u. Deg C NTU Depth Units mg/L mg/L mg/L mg/L mg/L	66.7 7.71 22.04 2.07 0.008 U 0.99 0.816 0.816 0.006 U	4.36 57.6 8.33 29.6 7.06 0.008 U 0.25 0.926 0.926 0.006 U	5.45 67.8 8.44 26.4 3.44 0.008 U NS 1.35 1.35 0.006 U	4.13 48.8 8.55 23.7 2.83 0.008 U NS 0.908 0.908	4.31 54.1 8.28 28.6 2.60 0.008 U NS 0.750 0.750	4.92 63.7 8.43 28.2 3.80 0.041 NS 0.738 0.738	6.89 74.9 8.49 19.4 9.41 0.008 U NS 1.17 1.17	5.67 74.2 8.53 30.7 2.04 0.063 NS 1.24 1.24 0.006 U	3.74 47.7 7.97 27.7 2.77 0.019 I NS 0.756 0.766 0.010 I
pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen Nitrite/Nitrate Ortho phosphorus (Field Filtered)	% s.u. Deg C NTU Depth Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	66.7 7.71 22.04 2.07 0.008 U 0.99 0.816 0.816 0.006 U 0.007 I	4.36 57.6 8.33 29.6 7.06 0.008 U 0.25 0.926 0.926 0.006 U 0.031	5.45 67.8 8.44 26.4 3.44 0.008 U NS 1.35 1.35 0.006 U 0.004 I	4.13 48.8 8.55 23.7 2.83 0.008 U NS 0.908 0.908 0.908 0.006 U 0.002 U	4.31 54.1 8.28 28.6 2.60 0.008 U NS 0.750 0.750 0.006 U 0.002 U	4.92 63.7 8.43 28.2 3.80 0.041 NS 0.738 0.738 0.006 U 0.007 I	6.89 74.9 8.49 19.4 9.41  0.008 U NS 1.17 1.17 0.006 U 0.002 U	5.67 74.2 8.53 30.7 2.04 0.063 NS 1.24 1.24 0.006 U 0.003 I	3.74 47.7 7.97 27.7 2.77 0.019 I NS 0.756 0.766 0.010 I 0.009
pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen Nitrite/Nitrate Ortho phosphorus (Field Filtered) Total phosphorus	% s.u. Deg C NTU Depth Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	66.7 7.71 22.04 2.07 0.008 U 0.99 0.816 0.816 0.006 U 0.007 I 0.029 I	4.36 57.6 8.33 29.6 7.06 0.008 U 0.25 0.926 0.926 0.006 U 0.031 0.044	5.45 67.8 8.44 26.4 3.44 0.008 U NS 1.35 1.35 0.006 U 0.004 I 0.025 I	4.13 48.8 8.55 23.7 2.83 0.008 U NS 0.908 0.908 0.908 0.006 U 0.002 U 0.002 U	4.31 54.1 8.28 28.6 2.60 0.008 U NS 0.750 0.750 0.006 U 0.002 U 0.002 U	4.92 63.7 8.43 28.2 3.80 0.041 NS 0.738 0.738 0.006 U 0.007 I 0.011 I	6.89 74.9 8.49 19.4 9.41  0.008 U NS 1.17 1.17 0.006 U 0.002 U 0.035	5.67 74.2 8.53 30.7 2.04 0.063 NS 1.24 1.24 0.006 U 0.003 I 0.041	3.74 47.7 7.97 27.7 2.77 0.019 I NS 0.756 0.766 0.010 I 0.009 0.038
pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen Nitrite/Nitrate Ortho phosphorus (Field Filtered)	% s.u. Deg C NTU Depth Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	66.7 7.71 22.04 2.07 0.008 U 0.99 0.816 0.816 0.006 U 0.007 I	4.36 57.6 8.33 29.6 7.06 0.008 U 0.25 0.926 0.926 0.006 U 0.031	5.45 67.8 8.44 26.4 3.44 0.008 U NS 1.35 1.35 0.006 U 0.004 I	4.13 48.8 8.55 23.7 2.83 0.008 U NS 0.908 0.908 0.908 0.006 U 0.002 U	4.31 54.1 8.28 28.6 2.60 0.008 U NS 0.750 0.750 0.006 U 0.002 U	4.92 63.7 8.43 28.2 3.80 0.041 NS 0.738 0.738 0.006 U 0.007 I	6.89 74.9 8.49 19.4 9.41  0.008 U NS 1.17 1.17 0.006 U 0.002 U	5.67 74.2 8.53 30.7 2.04 0.063 NS 1.24 1.24 0.006 U 0.003 I	3.74 47.7 7.97 27.7 2.77 0.019 I NS 0.756 0.766 0.010 I 0.009

#### Analytical Results Summary Surface Water Quality Monitoring Treviso Bay, Naples, Florida October 2022

Sample Location/Sample ID:						Lake 5				
Sample Date:		2/17/2020	6/4/2020	10/22/2020	03/04/2021	6/30/2021	10/27/2021	2/16/2022	06/09/2022	10/11/2022
Field Parameters	Units									
Total Water Depth	Feet	7	7.5	7.50	6.2	NM	NM	NM	NM	NM
Sample Depth	Feet	1.5	1.5	1.5	1.5	surface	1.5	1.5	1.5	1.5
Conductivity, field	umhos/cm	405	630	561	284	389	308	310	311	335
Dissolved oxygen (DO), field	mg/L	9.25	4.46	6.72	5.60	4.48	5.60	8.67	5.07	5.30
Dissolved oxygen (DO), field	%	107.9	59.3	83.9	67.5	59.4	72.5	96.5	68.1	67.0
pH, field	s.u.	7.61	7.78	8.61	8.71	8.26	8.62	8.49	8.37	6.80
Temperature, field	Deg C	22.95	30.1	27.2	25.1	30.2	28.8	20.7	30.8	27.6
Turbidity, field	NTU	1.36	2.45	3.54	6.43	1.94	4.53	5.34		0.90
Secchi Disk	Depth									
Wet Parameters	Units									
Ammonia-N	mg/L	0.008 U	0.009 I	0.030 I	U 800.0	0.053	0.085	0.008 U	0.073	0.032
TAN criteria calculation	mg/L	1.04	0.54	NS	NS	NS	NS	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.654	0.750	1.04	0.828	0.638	0.910	1.41	0.954	0.462
Total nitrogen	mg/L	0.654	0.750	1.04	0.828	0.638	0.976	1.41	0.954	0.501
Nitrite/Nitrate	mg/L	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.066	0.006 U	0.006 U	0.039
Ortho phosphorus (Field Filtered)	mg/L	0.024	0.053	0.026	0.007 I	0.002 U	0.020	0.005 I	0.007 I	0.006 I
Total phosphorus	mg/L	0.044	0.063	0.027 I	0.014 I	0.008 U	0.046	0.009 I	0.033	0.096
Chlorophyll	mg/m3	6.71	8.71	9.27	6.17	9.17	29.3	14.2	6.80	2.03
Total suspended solids (TSS)	mg/L	5.00	2.25 I	6.20	4.80	1.00 I	6.67	9.67	1.67 I	0.570 U
Biochemical oxygen demand (total BOD5)	mg/L	1.11 I	1.0 U	1.49 I	1.11	1 U	1.97 I	1.75 I	1.17 l	1 U
Sample Location/Sample ID:		0/47/0000	0/4/0000	40/00/0000	00/04/0004	Lake 22	40/07/0004	0/40/0000	1 00/00/0000	40/44/0000
Sample Date: Field Parameters	Haita	2/17/2020	6/4/2020	10/22/2020	03/04/2021	6/30/2021	10/27/2021	2/16/2022	06/09/2022	10/11/2022
Total Water Depth	Units Feet	3	2.27	2.74	2.6	3.58	3.5	NM	NM	NM
Sample Depth	Feet	1.5	surface	overflow	1.5	1.5	1.5	1.5	1.5	1.5
Conductivity, field	umhos/cm	656	1057	453	450	978	462	449	475	766
Dissolved oxygen (DO), field		8.62	5.96	4.20	5.14	3.83	8.24	6.25	6.06	4.76
Dissolved oxygen (DO), field Dissolved oxygen (DO), field	mg/L %	99.6	52.6	4.20 54.0	61.0		105.8	68.9	80.2	61.0
pH. field	70	99.0								01.0
	6 11	7 73				45.7				8 03
	S.U.	7.73	8.28	8.27	8.76	7.98	8.50	8.38	8.10	8.03
Temperature, field	Deg C	22.42	8.28 29.9	8.27 26.8	8.76 24.4	7.98 28.1	8.50 28.3	8.38 20.0	8.10 30.0	28.1
Temperature, field Turbidity, field	Deg C NTU		8.28	8.27	8.76	7.98	8.50	8.38	8.10	
Temperature, field Turbidity, field Secchi Disk	Deg C NTU Depth	22.42	8.28 29.9	8.27 26.8	8.76 24.4	7.98 28.1	8.50 28.3	8.38 20.0	8.10 30.0	28.1
Temperature, field Turbidity, field Secchi Disk Wet Parameters	Deg C NTU Depth Units	22.42 1.17	8.28 29.9 1.06	8.27 26.8 1.52	8.76 24.4 1.38	7.98 28.1 2.21	8.50 28.3 1.75	8.38 20.0 1.77	8.10 30.0 0.81	28.1 1.04
Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N	Deg C NTU Depth <b>Units</b> mg/L	22.42 1.17 0.008 U	8.28 29.9 1.06	8.27 26.8 1.52	8.76 24.4 1.38	7.98 28.1 2.21	8.50 28.3 1.75	8.38 20.0 1.77	8.10 30.0 0.81	28.1 1.04 0.019 I
Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation	Deg C NTU Depth Units mg/L mg/L	22.42 1.17 0.008 U 0.94	8.28 29.9 1.06 0.008 U 0.27	8.27 26.8 1.52 0.026 I	8.76 24.4 1.38 0.008 U NS	7.98 28.1 2.21 0.008 U NS	8.50 28.3 1.75 0.036 NS	8.38 20.0 1.77 0.008 U NS	8.10 30.0 0.81 0.066 NS	28.1 1.04 0.019 I NS
Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN)	Deg C NTU Depth Units mg/L mg/L mg/L	22.42 1.17 0.008 U 0.94 0.648	8.28 29.9 1.06 0.008 U 0.27 1.05	8.27 26.8 1.52 0.026 I NS 1.23	8.76 24.4 1.38 0.008 U NS 0.807	7.98 28.1 2.21 0.008 U NS 0.678	8.50 28.3 1.75 0.036 NS 0.499	8.38 20.0 1.77 0.008 U NS 0.689	8.10 30.0 0.81 0.066 NS 0.952	28.1 1.04 0.019 I NS 0.578
Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen	Deg C NTU Depth Units mg/L mg/L mg/L mg/L	22.42 1.17 0.008 U 0.94 0.648 0.648	8.28 29.9 1.06 0.008 U 0.27 1.05 1.05	8.27 26.8 1.52 0.026 l NS 1.23 1.23	8.76 24.4 1.38 0.008 U NS 0.807 0.807	7.98 28.1 2.21 0.008 U NS 0.678	8.50 28.3 1.75 0.036 NS 0.499 0.499	8.38 20.0 1.77 0.008 U NS 0.689 0.689	8.10 30.0 0.81 0.066 NS 0.952 0.952	28.1 1.04 0.019 I NS 0.578 0.601
Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen Nitrite/Nitrate	Deg C NTU Depth Units mg/L mg/L mg/L mg/L mg/L mg/L	22.42 1.17 0.008 U 0.94 0.648 0.648	8.28 29.9 1.06 0.008 U 0.27 1.05 1.05 0.006 U	8.27 26.8 1.52 0.026 I NS 1.23 1.23 0.006 U	8.76 24.4 1.38 0.008 U NS 0.807 0.807	7.98 28.1 2.21 0.008 U NS 0.678 0.678	8.50 28.3 1.75 0.036 NS 0.499 0.499	8.38 20.0 1.77 0.008 U NS 0.689 0.689	8.10 30.0 0.81 0.066 NS 0.952 0.952 0.006 U	28.1 1.04 0.019 I NS 0.578 0.601 0.023 I
Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen Nitrite/Nitrate Ortho phosphorus (Field Filtered)	Deg C NTU Depth Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L	22.42 1.17 0.008 U 0.94 0.648 0.648 0.006 U 0.005 I	8.28 29.9 1.06 0.008 U 0.27 1.05 1.05 0.006 U 0.019	8.27 26.8 1.52 0.026 I NS 1.23 1.23 0.006 U 0.007 I	8.76 24.4 1.38 0.008 U NS 0.807 0.807 0.807 0.006 U 0.002 U	7.98 28.1 2.21 0.008 U NS 0.678 0.678 0.006 U 0.002 U	8.50 28.3 1.75 0.036 NS 0.499 0.499 0.006 U 0.002 I	8.38 20.0 1.77 0.008 U NS 0.689 0.689 0.006 U 0.002 U	8.10 30.0 0.81 0.066 NS 0.952 0.952 0.006 U	28.1 1.04 0.019 I NS 0.578 0.601 0.023 I 0.005 I
Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen Nitrite/Nitrate Ortho phosphorus (Field Filtered) Total phosphorus	Deg C NTU Depth Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	22.42 1.17 0.008 U 0.94 0.648 0.648 0.006 U 0.005 I 0.024 I	8.28 29.9 1.06 0.008 U 0.27 1.05 1.05 0.006 U 0.019	8.27 26.8 1.52 0.026 I NS 1.23 1.23 0.006 U 0.007 I 0.030 I	8.76 24.4 1.38 0.008 U NS 0.807 0.807 0.006 U 0.002 U 0.008 U	7.98 28.1 2.21 0.008 U NS 0.678 0.678 0.006 U 0.002 U 0.008 U	8.50 28.3 1.75 0.036 NS 0.499 0.499 0.006 U 0.002 I 0.021 I	8.38 20.0 1.77 0.008 U NS 0.689 0.689 0.006 U 0.002 U 0.002 I	8.10 30.0 0.81 0.066 NS 0.952 0.952 0.006 U 0.004 I 0.023 I	28.1 1.04 0.019 I NS 0.578 0.601 0.023 I 0.005 I 0.023 I
Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen Nitrite/Nitrate Ortho phosphorus (Field Filtered)	Deg C NTU Depth Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L	22.42 1.17 0.008 U 0.94 0.648 0.648 0.006 U 0.005 I	8.28 29.9 1.06 0.008 U 0.27 1.05 1.05 0.006 U 0.019	8.27 26.8 1.52 0.026 I NS 1.23 1.23 0.006 U 0.007 I	8.76 24.4 1.38 0.008 U NS 0.807 0.807 0.807 0.006 U 0.002 U	7.98 28.1 2.21 0.008 U NS 0.678 0.678 0.006 U 0.002 U	8.50 28.3 1.75 0.036 NS 0.499 0.499 0.006 U 0.002 I	8.38 20.0 1.77 0.008 U NS 0.689 0.689 0.006 U 0.002 U	8.10 30.0 0.81 0.066 NS 0.952 0.952 0.006 U	28.1 1.04 0.019 I NS 0.578 0.601 0.023 I 0.005 I

#### Analytical Results Summary Surface Water Quality Monitoring Treviso Bay, Naples, Florida October 2022

Sample Location/Sample ID						Lake 12				
Sample Date:		2/17/2020	6/4/2020	10/22/2020	03/04/2021	6/30/2021	10/27/2021	2/16/2022	06/09/2022	10/11/2022
Field Parameters	Units	2/1//2020	0/4/2020	10/22/2020	00/04/2021	0/30/2021	10/2//2021	ZITOIZOZZ	00/03/2022	10/11/2022
Total Water Depth	Feet	1	1.95	2.30	2	2.24	2	NM	NM	NM
Sample Depth	Feet	overflow	surface	overflow	1.5	1.5	1.5	1.5	outfall	1.5
Conductivity, field	umhos/cm	959	1382	658	583	817	777	713	769	974
Dissolved oxygen (DO), field	mg/L	10.03	5.25	2.69	5.69	8.65	2.84	4.22	1.72	6.77
Dissolved oxygen (DO), field	%	116.7	69.0	33.1	66.2	40.9	35.5	45.5	61.7	87.5
pH, field	s.u.	7.54	8.31	7.74	8.63	8.65	7.58	7.90	7.97	7.92
Temperature, field	Deg C	22.43	29.2	25.8	23.1	28.1	26.9	19.1	30.4	27.9
Turbidity, field	NTU	1.75	1.46	0.58	5.48	1.32	1.66	8.64	1.86	2.97
Secchi Disk	Depth									
Wet Parameters	Units									
Ammonia-N	mg/L	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.032	0.008 U	0.078	0.073
TAN criteria calculation	mg/L	1.15	0.26	NS	NS	NS	NS	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.708	0.710	0.927	1.85	0.570	0.446	1.68	1.05	0.802
Total nitrogen	mg/L	0.708	0.710	0.927	1.86	0.570	0.446	1.68	1.05	0.838
Nitrite/Nitrate	mg/L	0.006 U	0.006 U	0.006 U	0.008 I	0.006 U	0.006 U	0.006 U	0.006 U	0.036
Ortho phosphorus (Field Filtered)	mg/L	0.012	0.034	0.005 I	0.002 I	0.002 U	0.002 I	0.002 I	0.016	0.018
Total phosphorus	mg/L	0.020 I	0.040	0.011 I	0.047	0.008 U	0.019 I	0.020 I	0.061	0.038
Chlorophyll	mg/m3	5.55	5.55	2.19	34.9	10.3	5.44	19.9	5.43	13.7
Total suspended solids (TSS)	mg/L	1.25 I	1.50 I	0.769 I	124	0.570 U	1.00 I	42.7	4.33	6.00
Biochemical oxygen demand (total BOD5)	mg/L	1 U	1.0 U	1 U	4.07	1 U	1 U	1.62 I	1.01 I	1.05 I
Sample Location/Sample ID	:				I	Lake 32				
Sample Date:		2/17/2020	6/4/2020	10/22/2020	03/04/2021	Lake 32 6/30/2021	10/27/2021	2/16/2022	06/09/2022	10/11/2022
Sample Date: Field Parameters	Units					6/30/2021				
Sample Date: Field Parameters Total Water Depth	Units Feet	3	3.28	3.87	2.3	<b>6/30/2021</b> 2.98	1.9	NM	NM	NM
Sample Date: Field Parameters Total Water Depth Sample Depth	Units Feet Feet	3 1.5	3.28 1.5	3.87 1.5	2.3	6/30/2021 2.98 1.5	1.9	NM 1.5	NM 1.5	NM 1.5
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field	Units Feet Feet umhos/cm	3 1.5 426	3.28 1.5 680	3.87 1.5 298	2.3 1.5 296	2.98 1.5 508	1.9 1 298	NM 1.5 289	NM 1.5 324	NM 1.5 391
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field	Units Feet Feet umhos/cm mg/L	3 1.5 426 8.4	3.28 1.5 680 4.27	3.87 1.5 298 6.44	2.3 1.5 296 5.08	2.98 1.5 508 5.71	1.9 1 298 5.54	NM 1.5 289 6.25	NM 1.5 324 1.37	NM 1.5 391 5.55
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field	Units Feet Feet umhos/cm mg/L %	3 1.5 426 8.4 99.5	3.28 1.5 680 4.27 56.3	3.87 1.5 298 6.44 80.3	2.3 1.5 296 5.08 61.0	2.98 1.5 508 5.71 71.8	1.9 1 298 5.54 71.8	NM 1.5 289 6.25 69.6	NM 1.5 324 1.37 18.1	NM 1.5 391 5.55 71.3
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field pH, field	Units Feet Feet umhos/cm mg/L % s.u.	3 1.5 426 8.4 99.5 8.15	3.28 1.5 680 4.27 56.3 8.15	3.87 1.5 298 6.44 80.3 8.16	2.3 1.5 296 5.08 61.0 8.49	6/30/2021 2.98 1.5 508 5.71 71.8 8.27	1.9 1 298 5.54 71.8 8.72	NM 1.5 289 6.25 69.6 8.28	NM 1.5 324 1.37 18.1 7.24	NM 1.5 391 5.55 71.3 7.82
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field DH, field Temperature, field	Units Feet Feet umhos/cm mg/L % s.u. Deg C	3 1.5 426 8.4 99.5 8.15 23.8	3.28 1.5 680 4.27 56.3 8.15 29.7	3.87 1.5 298 6.44 80.3 8.16 27.0	2.3 1.5 296 5.08 61.0 8.49 24.7	6/30/2021 2.98 1.5 508 5.71 71.8 8.27 29.1	1.9 1 298 5.54 71.8 8.72 28.7	NM 1.5 289 6.25 69.6 8.28 20.5	NM 1.5 324 1.37 18.1 7.24 29.8	NM 1.5 391 5.55 71.3 7.82 28.4
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field pH, field Temperature, field Turbidity, field	Units Feet Feet umhos/cm mg/L % s.u. Deg C NTU	3 1.5 426 8.4 99.5 8.15	3.28 1.5 680 4.27 56.3 8.15	3.87 1.5 298 6.44 80.3 8.16	2.3 1.5 296 5.08 61.0 8.49	6/30/2021 2.98 1.5 508 5.71 71.8 8.27	1.9 1 298 5.54 71.8 8.72	NM 1.5 289 6.25 69.6 8.28	NM 1.5 324 1.37 18.1 7.24	NM 1.5 391 5.55 71.3 7.82
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field pH, field Temperature, field Turbidity, field Secchi Disk	Units Feet Feet umhos/cm mg/L % s.u. Deg C NTU Depth	3 1.5 426 8.4 99.5 8.15 23.8	3.28 1.5 680 4.27 56.3 8.15 29.7	3.87 1.5 298 6.44 80.3 8.16 27.0	2.3 1.5 296 5.08 61.0 8.49 24.7	6/30/2021 2.98 1.5 508 5.71 71.8 8.27 29.1	1.9 1 298 5.54 71.8 8.72 28.7	NM 1.5 289 6.25 69.6 8.28 20.5	NM 1.5 324 1.37 18.1 7.24 29.8	NM 1.5 391 5.55 71.3 7.82 28.4
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters	Units Feet Feet umhos/cm mg/L % s.u. Deg C NTU Depth Units	3 1.5 426 8.4 99.5 8.15 23.8 0.47	3.28 1.5 680 4.27 56.3 8.15 29.7 2.75	3.87 1.5 298 6.44 80.3 8.16 27.0 3.31	2.3 1.5 296 5.08 61.0 8.49 24.7 9.56	6/30/2021 2.98 1.5 508 5.71 71.8 8.27 29.1 3.28	1.9 1 298 5.54 71.8 8.72 28.7 3.18	NM 1.5 289 6.25 69.6 8.28 20.5 1.62	NM 1.5 324 1.37 18.1 7.24 29.8 1.71	NM 1.5 391 5.55 71.3 7.82 28.4 0.54
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N	Units Feet Feet umhos/cm mg/L % s.u. Deg C NTU Depth Units mg/L	3 1.5 426 8.4 99.5 8.15 23.8 0.47	3.28 1.5 680 4.27 56.3 8.15 29.7 2.75	3.87 1.5 298 6.44 80.3 8.16 27.0 3.31	2.3 1.5 296 5.08 61.0 8.49 24.7 9.56	6/30/2021 2.98 1.5 508 5.71 71.8 8.27 29.1 3.28	1.9 1 298 5.54 71.8 8.72 28.7 3.18	NM 1.5 289 6.25 69.6 8.28 20.5 1.62	NM 1.5 324 1.37 18.1 7.24 29.8 1.71	NM 1.5 391 5.55 71.3 7.82 28.4 0.54
Sample Date: Field Parameters  Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation	Units Feet Feet umhos/cm mg/L % s.u. Deg C NTU Depth Units mg/L mg/L	3 1.5 426 8.4 99.5 8.15 23.8 0.47	3.28 1.5 680 4.27 56.3 8.15 29.7 2.75	3.87 1.5 298 6.44 80.3 8.16 27.0 3.31	2.3 1.5 296 5.08 61.0 8.49 24.7 9.56	6/30/2021  2.98 1.5 508 5.71 71.8 8.27 29.1 3.28  0.008 U NS	1.9 1 298 5.54 71.8 8.72 28.7 3.18	NM 1.5 289 6.25 69.6 8.28 20.5 1.62	NM 1.5 324 1.37 18.1 7.24 29.8 1.71	NM 1.5 391 5.55 71.3 7.82 28.4 0.54
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN)	Units Feet Feet umhos/cm mg/L % s.u. Deg C NTU Depth Units mg/L mg/L mg/L	3 1.5 426 8.4 99.5 8.15 23.8 0.47	3.28 1.5 680 4.27 56.3 8.15 29.7 2.75	3.87 1.5 298 6.44 80.3 8.16 27.0 3.31	2.3 1.5 296 5.08 61.0 8.49 24.7 9.56	6/30/2021  2.98 1.5 508 5.71 71.8 8.27 29.1 3.28  0.008 U NS 0.639	1.9 1 298 5.54 71.8 8.72 28.7 3.18	NM 1.5 289 6.25 69.6 8.28 20.5 1.62  0.008 U NS 0.514	NM 1.5 324 1.37 18.1 7.24 29.8 1.71 0.094 NS 0.872	NM 1.5 391 5.55 71.3 7.82 28.4 0.54
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen	Units Feet Feet umhos/cm mg/L % s.u. Deg C NTU Depth Units mg/L mg/L mg/L mg/L	3 1.5 426 8.4 99.5 8.15 23.8 0.47	3.28 1.5 680 4.27 56.3 8.15 29.7 2.75 0.008 U 0.33 0.897 0.897	3.87 1.5 298 6.44 80.3 8.16 27.0 3.31	2.3 1.5 296 5.08 61.0 8.49 24.7 9.56	6/30/2021  2.98  1.5 508 5.71 71.8 8.27 29.1 3.28  0.008 U NS 0.639 0.639	1.9 1 298 5.54 71.8 8.72 28.7 3.18 0.028 I NS 0.05 U 0.05 U	NM 1.5 289 6.25 69.6 8.28 20.5 1.62  0.008 U NS 0.514 0.514	NM 1.5 324 1.37 18.1 7.24 29.8 1.71 0.094 NS 0.872 0.872	NM 1.5 391 5.55 71.3 7.82 28.4 0.54  0.017 I NS 0.573 0.813
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen Nitrite/Nitrate	Units Feet Feet umhos/cm mg/L % s.u. Deg C NTU Depth Units mg/L mg/L mg/L mg/L mg/L	3 1.5 426 8.4 99.5 8.15 23.8 0.47	3.28 1.5 680 4.27 56.3 8.15 29.7 2.75 0.008 U 0.33 0.897 0.897 0.006 U	3.87 1.5 298 6.44 80.3 8.16 27.0 3.31 0.045 NS 1.65 1.67	2.3 1.5 296 5.08 61.0 8.49 24.7 9.56 0.008 U NS 0.791 0.791	6/30/2021  2.98 1.5 508 5.71 71.8 8.27 29.1 3.28  0.008 U NS 0.639 0.639 0.006 U	1.9 1 298 5.54 71.8 8.72 28.7 3.18 0.028 I NS 0.05 U 0.05 U 0.05 U	NM 1.5 289 6.25 69.6 8.28 20.5 1.62  0.008 U NS 0.514 0.514 0.006 U	NM 1.5 324 1.37 18.1 7.24 29.8 1.71  0.094 NS 0.872 0.872 0.006 U	NM 1.5 391 5.55 71.3 7.82 28.4 0.54  0.017 I NS 0.573 0.813 0.240
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field Ph, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen Nitrite/Nitrate Ortho phosphorus (Field Filtered)	Units Feet Feet umhos/cm mg/L % s.u. Deg C NTU Depth Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	3 1.5 426 8.4 99.5 8.15 23.8 0.47 0.008 U 0.49 0.483 0.483 0.006 U 0.018	3.28 1.5 680 4.27 56.3 8.15 29.7 2.75 0.008 U 0.33 0.897 0.006 U 0.035	3.87 1.5 298 6.44 80.3 8.16 27.0 3.31 0.045 NS 1.65 1.67 0.018 I	2.3 1.5 296 5.08 61.0 8.49 24.7 9.56 0.008 U NS 0.791 0.791 0.006 U 0.006 U	2.98 1.5 508 5.71 71.8 8.27 29.1 3.28 0.008 U NS 0.639 0.039 0.006 U 0.002 U	1.9 1 298 5.54 71.8 8.72 28.7 3.18 0.028 I NS 0.05 U 0.006 U 0.008	NM 1.5 289 6.25 69.6 8.28 20.5 1.62  0.008 U NS 0.514 0.006 U 0.002 U	NM 1.5 324 1.37 18.1 7.24 29.8 1.71  0.094 NS 0.872 0.872 0.006 U 0.007 I	NM 1.5 391 5.55 71.3 7.82 28.4 0.54  0.017 I NS 0.573 0.813 0.240 0.008
Sample Date: Field Parameters  Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Amonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen Nitrite/Nitrate Ortho phosphorus (Field Filtered) Total phosphorus	Units Feet Feet umhos/cm mg/L % s.u. Deg C NTU Depth Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	3 1.5 426 8.4 99.5 8.15 23.8 0.47 0.008 U 0.49 0.483 0.483 0.006 U 0.018 0.022 I	3.28 1.5 680 4.27 56.3 8.15 29.7 2.75 0.008 U 0.33 0.897 0.897 0.006 U 0.035 0.058	3.87 1.5 298 6.44 80.3 8.16 27.0 3.31 0.045 NS 1.65 1.67 0.018 I 0.008 0.041	2.3 1.5 296 5.08 61.0 8.49 24.7 9.56 0.008 U NS 0.791 0.791 0.006 U 0.002 I 0.010 I	6/30/2021  2.98 1.5 508 5.71 71.8 8.27 29.1 3.28  0.008 U NS 0.639 0.639 0.006 U 0.002 U 0.013 I	1.9 1 298 5.54 71.8 8.72 28.7 3.18  0.028 I NS 0.05 U 0.006 U 0.008 0.014 I	NM 1.5 289 6.25 69.6 8.28 20.5 1.62  0.008 U NS 0.514 0.514 0.006 U 0.002 U 0.002 U	NM 1.5 324 1.37 18.1 7.24 29.8 1.71  0.094 NS 0.872 0.872 0.006 U 0.007 I 0.044	NM 1.5 391 5.55 71.3 7.82 28.4 0.54  0.017 I NS 0.573 0.813 0.240 0.008 0.016 I
Sample Date: Field Parameters Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Ammonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen Nitrite/Nitrate Ortho phosphorus (Field Filtered) Total phosphorus Chlorophyll	Units Feet Feet umhos/cm mg/L % s.u. Deg C NTU Depth Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	3 1.5 426 8.4 99.5 8.15 23.8 0.47 0.008 U 0.49 0.483 0.483 0.006 U 0.018 0.022 I 2.00	3.28 1.5 680 4.27 56.3 8.15 29.7 2.75 0.008 U 0.33 0.897 0.097 0.006 U 0.035 0.058 7.08	3.87 1.5 298 6.44 80.3 8.16 27.0 3.31 0.045 NS 1.65 1.67 0.018 I 0.008 0.041 7.29	2.3 1.5 296 5.08 61.0 8.49 24.7 9.56 0.008 U NS 0.791 0.006 U 0.002 I 0.010 I 3.73	0.008 U NS 0.639 0.006 U 0.0013 I 11.8	1.9 1 298 5.54 71.8 8.72 28.7 3.18 0.028 I NS 0.05 U 0.006 U 0.006 U 0.008 0.014 I 16.1	NM 1.5 289 6.25 69.6 8.28 20.5 1.62  0.008 U NS 0.514 0.514 0.006 U 0.002 U 0.027 I 2.54	NM 1.5 324 1.37 18.1 7.24 29.8 1.71  0.094 NS 0.872 0.872 0.006 U 0.007 I 0.044 7.42	NM 1.5 391 5.55 71.3 7.82 28.4 0.54  0.017 I NS 0.573 0.813 0.240 0.008 0.016 I 3.26
Sample Date: Field Parameters  Total Water Depth Sample Depth Conductivity, field Dissolved oxygen (DO), field Dissolved oxygen (DO), field pH, field Temperature, field Turbidity, field Secchi Disk Wet Parameters Amonia-N TAN criteria calculation Total kjeldahl nitrogen (TKN) Total nitrogen Nitrite/Nitrate Ortho phosphorus (Field Filtered) Total phosphorus	Units Feet Feet umhos/cm mg/L % s.u. Deg C NTU Depth Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	3 1.5 426 8.4 99.5 8.15 23.8 0.47 0.008 U 0.49 0.483 0.483 0.006 U 0.018 0.022 I	3.28 1.5 680 4.27 56.3 8.15 29.7 2.75 0.008 U 0.33 0.897 0.897 0.006 U 0.035 0.058	3.87 1.5 298 6.44 80.3 8.16 27.0 3.31 0.045 NS 1.65 1.67 0.018 I 0.008 0.041	2.3 1.5 296 5.08 61.0 8.49 24.7 9.56 0.008 U NS 0.791 0.791 0.006 U 0.002 I 0.010 I	2.98 1.5 508 5.71 71.8 8.27 29.1 3.28 0.008 U NS 0.639 0.639 0.006 U 0.002 U 0.013 I	1.9 1 298 5.54 71.8 8.72 28.7 3.18  0.028 I NS 0.05 U 0.006 U 0.008 0.014 I	NM 1.5 289 6.25 69.6 8.28 20.5 1.62  0.008 U NS 0.514 0.514 0.006 U 0.002 U 0.002 U	NM 1.5 324 1.37 18.1 7.24 29.8 1.71  0.094 NS 0.872 0.872 0.006 U 0.007 I 0.044	NM 1.5 391 5.55 71.3 7.82 28.4 0.54  0.017 I NS 0.573 0.813 0.240 0.008 0.016 I

#### Notes:

U - Not detected at the associated reporting limit

- Reported value is between method detection limit and the practical quantitation limit

NS - Not sampled during noted event

- D- DO values at or above 100% are possible super-saturation conditions due to high water temperatures and/or high volume of algae.

NM - Not Measured

# **Figures**



NOTE: LAKE 5 DOES NOT HAVE AN ABOVE WATER LEVEL OUTFALL STRUCTURE/WEIR.



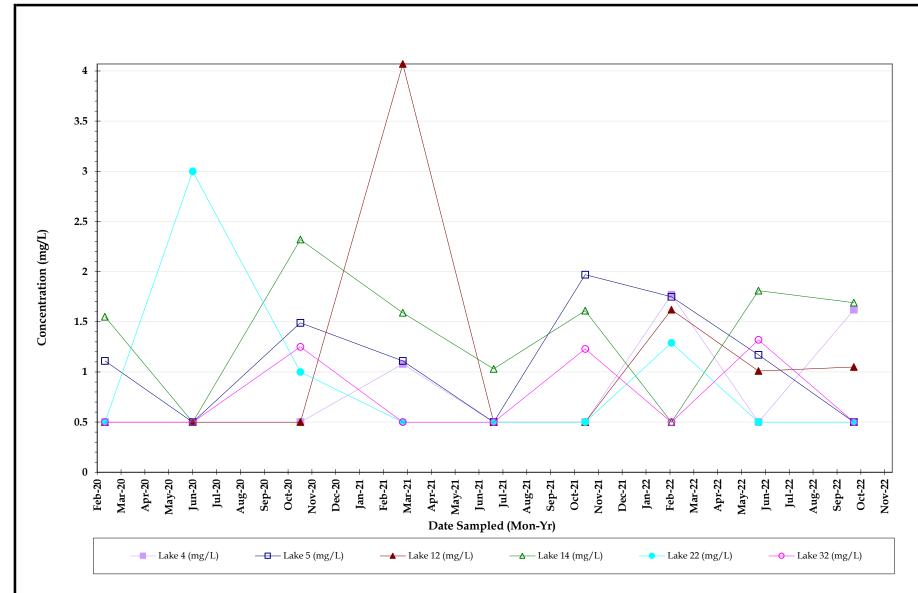
WATER QUALITY SAMPLING REPORT LAKES 4, 5, 12, 14, 22, AND 32 - TREVISO BAY NAPLES, COLLIER COUNTY, FLORIDA 11225022-01

30-June-21

SAMPLE LOCATION MAP

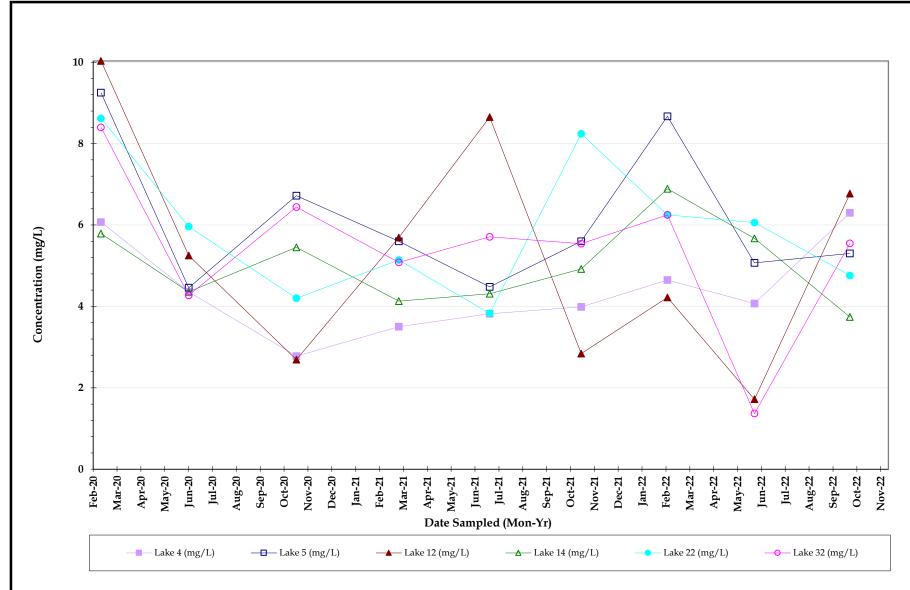
FIGURE NO. 1

**Trend Graphs** 



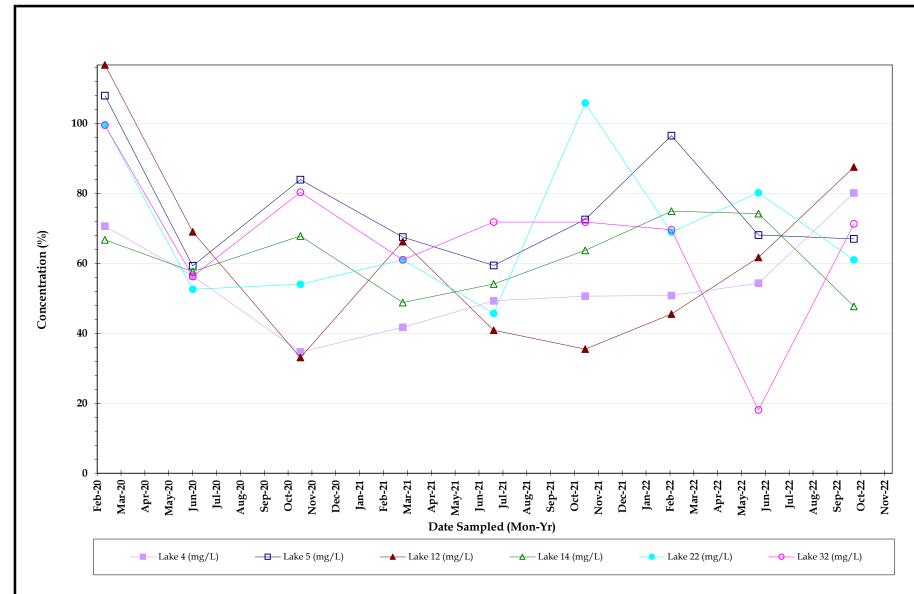


## **Biochemical Oxygen Demand**



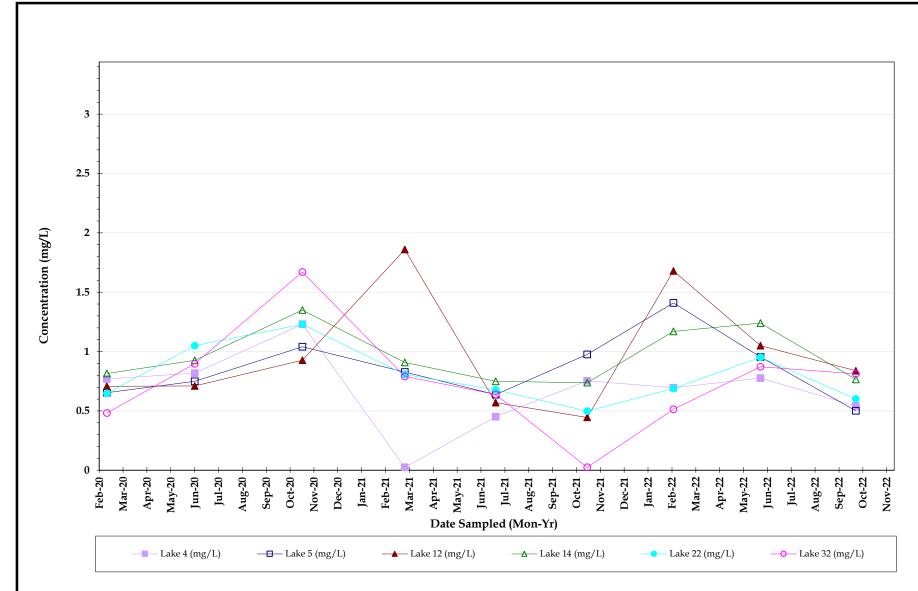


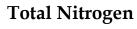
## Dissolved Oxygen (mg/L)



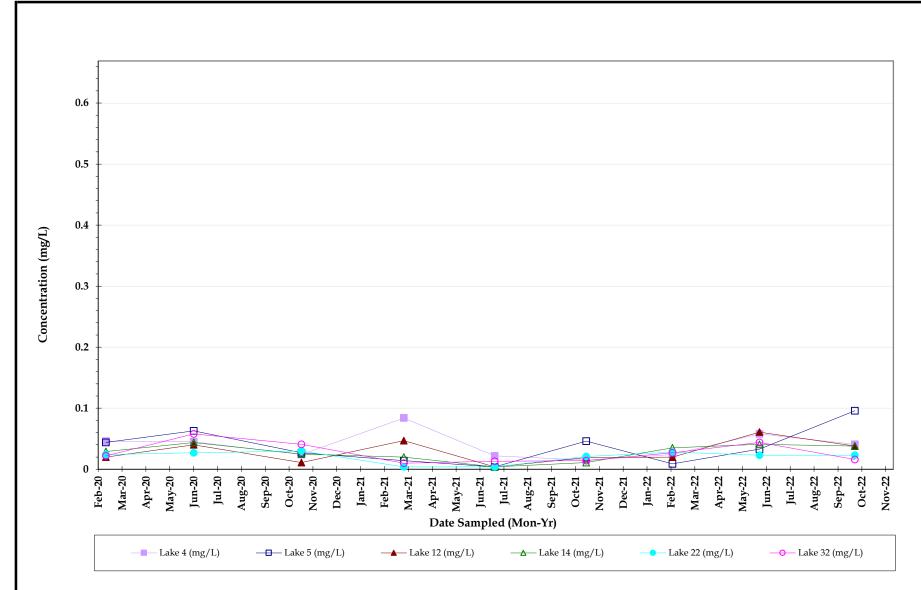


## Dissolved Oxygen (%)



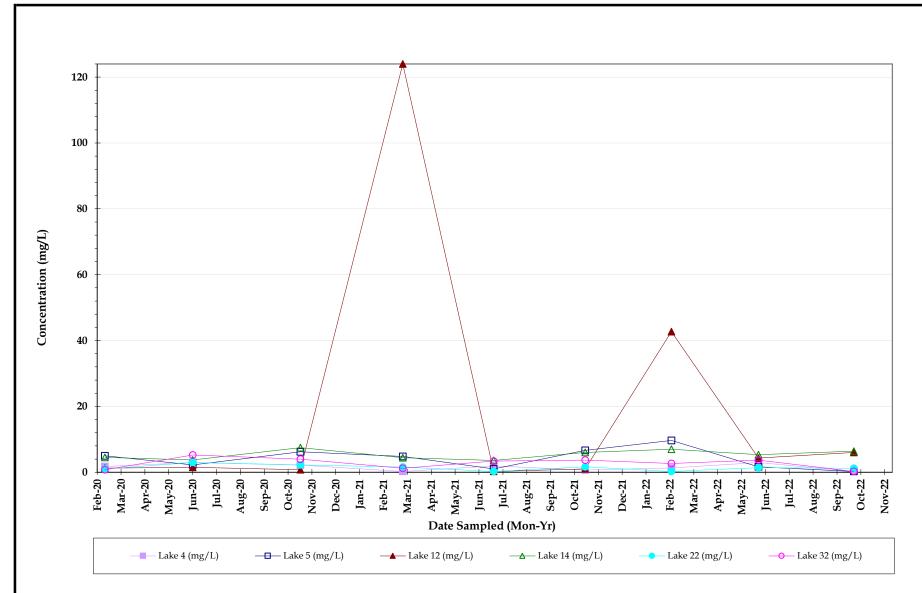






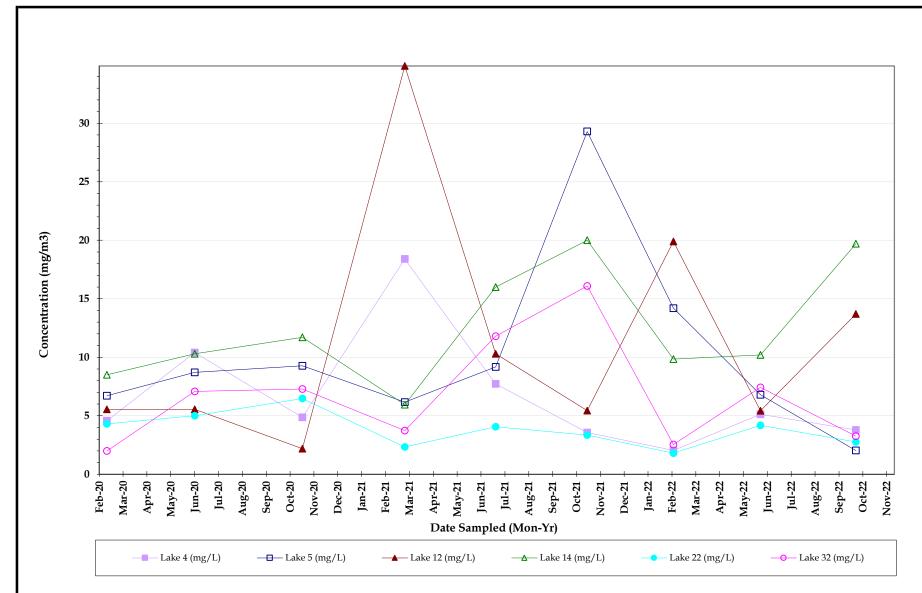


## **Total Phosphorus**



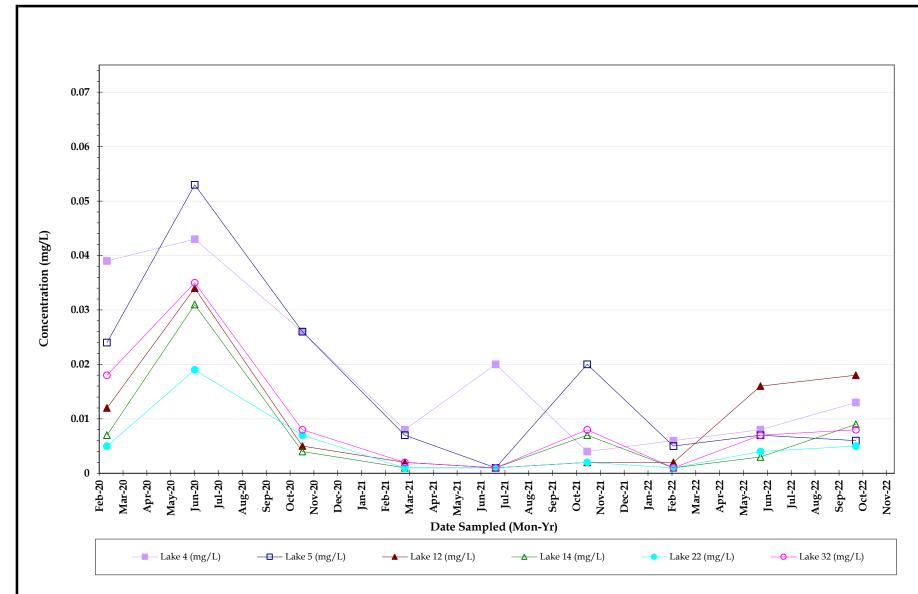


## **Total Suspended Solids**



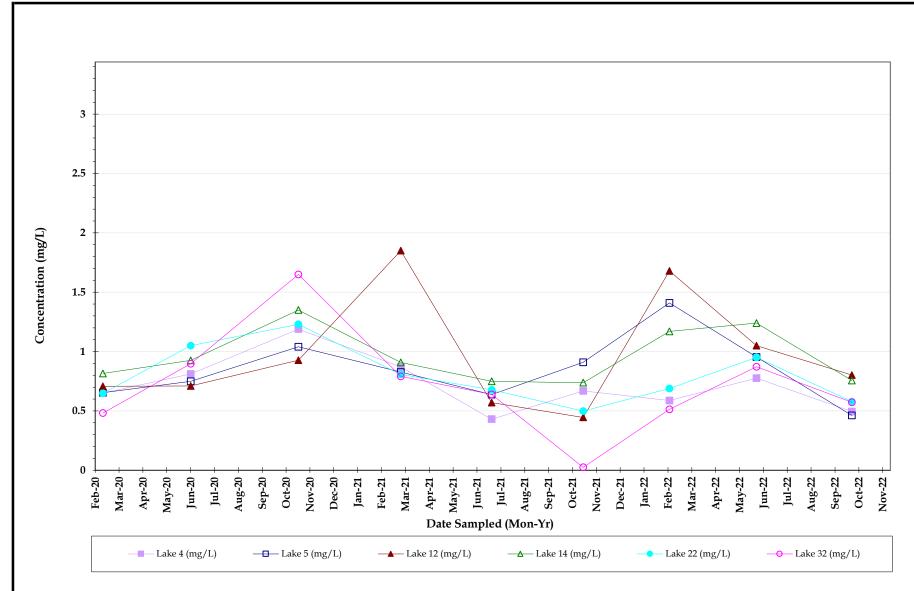
## Chlorophyll a





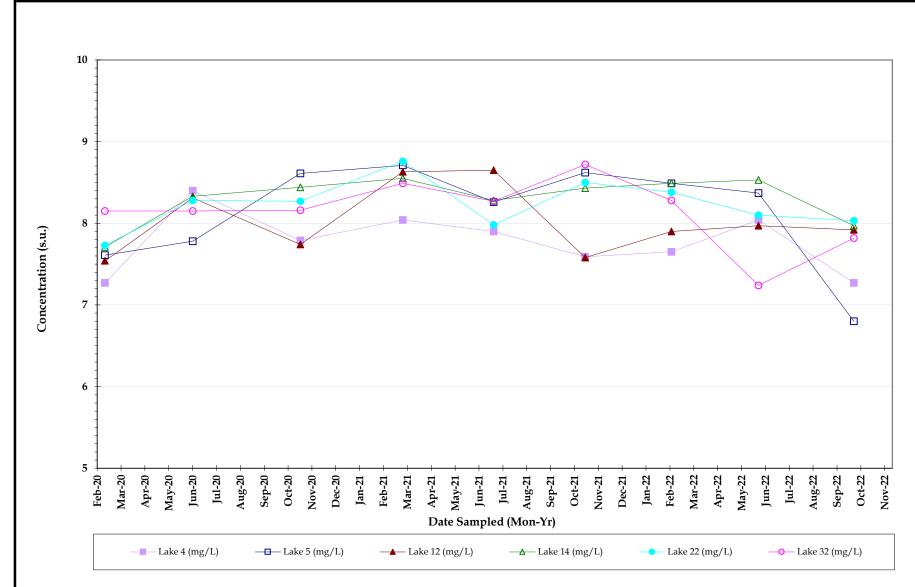


## Orthophosphate



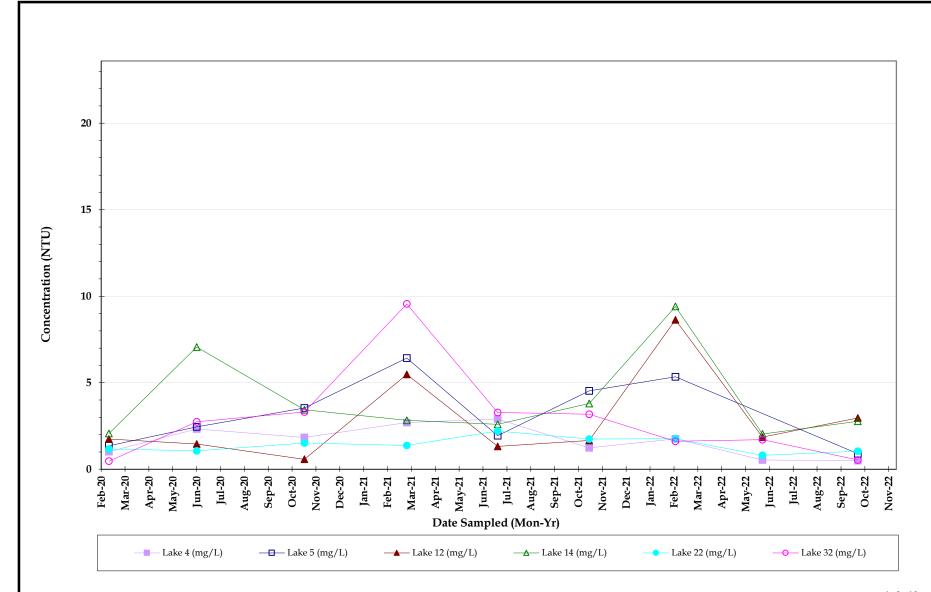


## Total kjeldahl nitrogen (TKN)



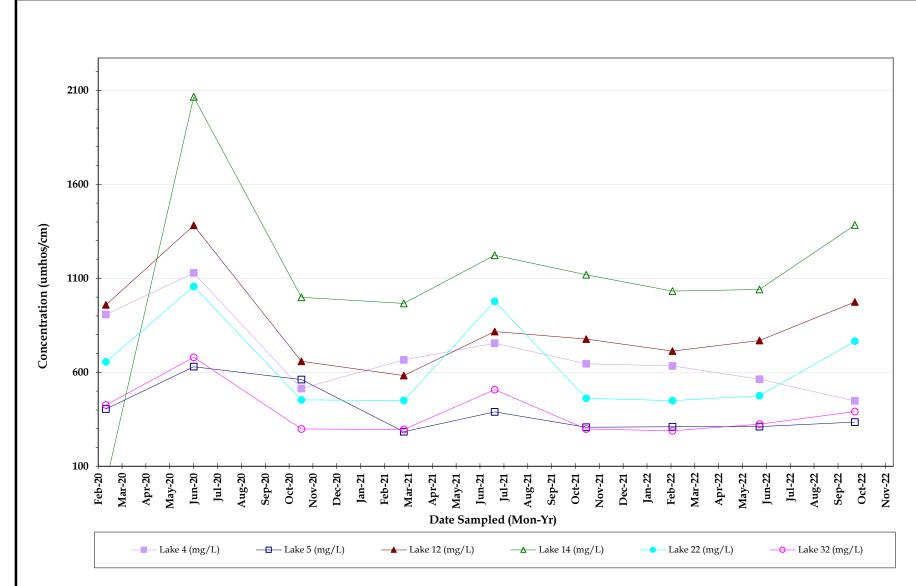


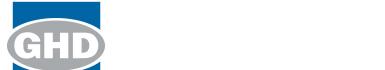




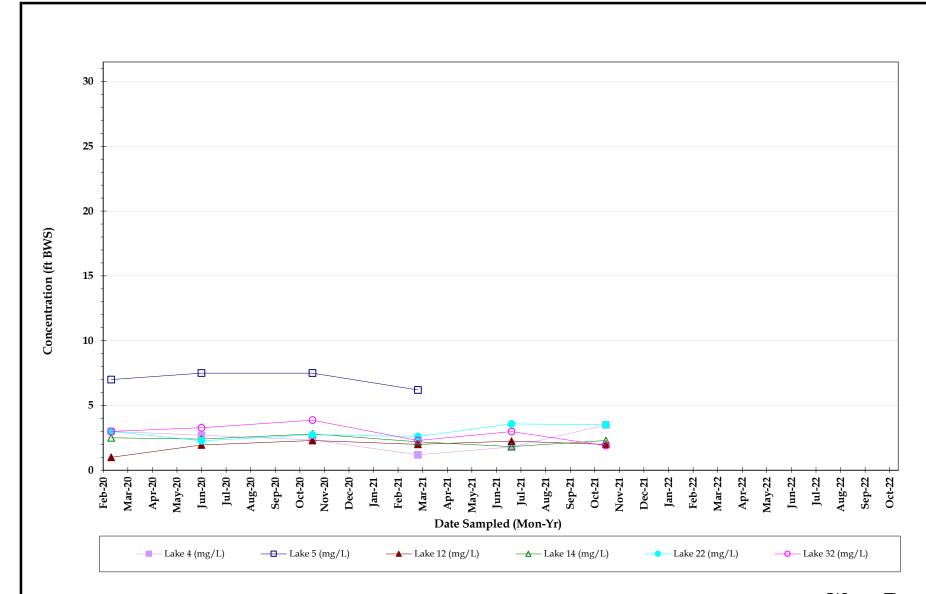


## Turbidity



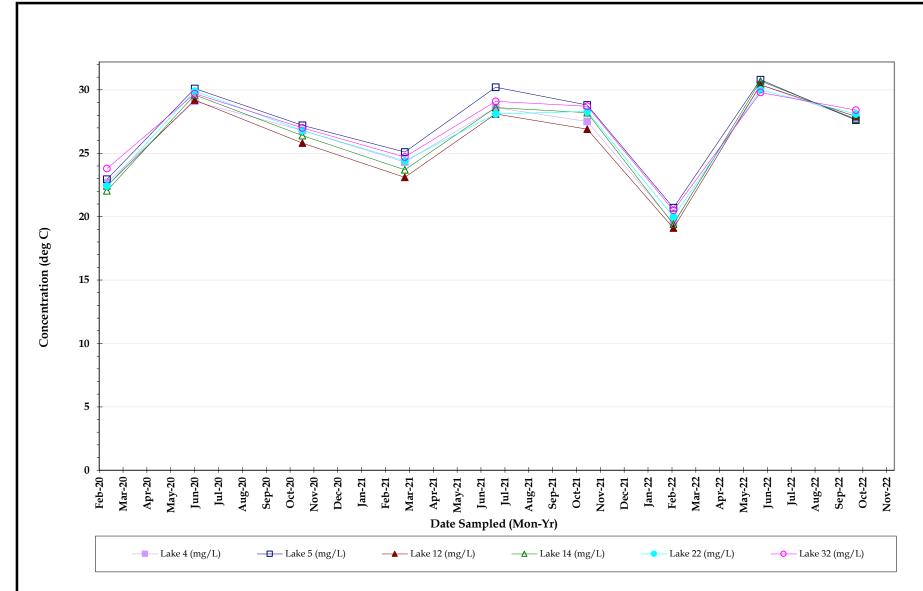


## Conductivity











## Temperature, sample



### **ANALYTICAL TEST REPORT**

#### THESE RESULTS MEET NELAC STANDARDS

Submission Number: 22101017

GHD Services, Inc.

2675 Winkler Ave., Ste.180

Fort Myers, FL 33901

Project Name:

TREVISO LAKES WQM

Date Received:

10/12/2022

Time Received:

14:40

Project #:

11147356-01

**Submission Number:** 

Sample Description:

22101017

Sample Number:

001

Lake 5

Sample Date:

10/11/2022

Sample Time:

09:35

Sample Method:

Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.032	MG/L	0.008	0.032	350.1	10/19/2022 19:24	EQ
TOTAL KJELDAHL NITROGEN	0.462	MG/L	0,05	0.20	351.2	10/14/2022 14:43	EO
ORTHO PHOSPHORUS AS P	0.0061	MG/L	0,002	800,0	365.3	10/12/2022 18:16	YQ
TOTAL PHOSPHORUS AS P	0.096	MG/L	800,0	0.032	365.3	10/17/2022 09:45	YQ
CHLOROPHYLL A	2.03	MG/M3	0.25	1.00	445.0	11/02/2022 11:36	CH/AT
TOTAL SUSPENDED SOLIDS	0.570 U	MG/L	0.570	2.280	SM2540D	10/12/2022 17:27	MN/TG
BIOCHEMICAL OXYGEN DEMAND	1 U	MG/L	1	4	SM5210B	10/12/2022 16:00	LD/LD
NITRATE+NITRITE AS N	0.039	MG/L	0.006	0.024	SYSTEA EASY	10/23/2022 18:11	MV
TOTAL NITROGEN	0.501	MG/L	0.05	0.20	SYSTEA+351	10/23/2022 18:11	EO/MV

**Submission Number:** 

22101017

Sample Number:

002

Sample Description:

Lake 4

Sample Date:

10/11/2022

Sample Time:

09:50

Sample Method:

Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.038	MG/L	0.008	0.032	350.1	10/19/2022 19:26	EO
TOTAL KJELDAHL NITROGEN	0.495	MG/L	0.05	0.20	351.2	10/14/2022 14:44	EO
ORTHO PHOSPHORUS AS P	0.013	MG/L	0,002	0.008	365.3	10/12/2022 18:17	YQ
TOTAL PHOSPHORUS AS P	0.041	MG/L	0.008	0.032	365.3	10/17/2022 11:26	YQ
CHLOROPHYLL A	3,78	MG/M3	0.25	1.00	445.0	11/02/2022 11:36	CH/AT
TOTAL SUSPENDED SOLIDS	0.570 U	MG/L	0,570	2.280	SM2540D	10/12/2022 17:27	MN/TG
BIOCHEMICAL OXYGEN DEMAND	1.62 l	MG/L	1	4	SM5210B	10/12/2022 16:00	LD/LD
NITRATE+NITRITE AS N	0.046	MG/L	0.006	0.024	SYSTEA EASY	10/23/2022 18:12	MV
TOTAL NITROGEN	0.541	MG/L	0.05	0.20	SYSTEA+351	10/23/2022 18:12	EO/MV



- EnviroAnalytical, Inc.

Submission Number:

22101017

Sample Number:

003

Sample Description:

Lake 12

Sample Date:

10/11/2022

Sample Time:

10:10

Sample Method:

Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.073	MG/L	800.0	0,032	350.1	10/19/2022 19:27	EO
TOTAL KJELDAHL NITROGEN	0.802	MG/L	0.05	0,20	351.2	10/14/2022 14:46	EO
ORTHO PHOSPHORUS AS P	0.018	MG/L	0.002	800,0	365,3	10/12/2022 18:19	YQ
TOTAL PHOSPHORUS AS P	0.038	MG/L	800.0	0,032	365,3	10/17/2022 09:47	YQ
CHLOROPHYLL A	13.7	MG/M3	0.25	1.00	445.0	11/02/2022 11:36	CH/AT
TOTAL SUSPENDED SOLIDS	6.00	MG/L	0.570	2.280	SM2540D	10/12/2022 17:27	MN/TG
BIOCHEMICAL OXYGEN DEMAND	1.05 l	MG/L	1	4	SM5210B	10/12/2022 16:00	LD/LD
NITRATE+NITRITE AS N	0.036	MG/L	0.006	0.024	SYSTEA EASY	10/23/2022 18:13	MV
TOTAL NITROGEN	0.838	MG/L	0,05	0,20	SYSTEA+351	10/23/2022 18:13	EO/MV

**Submission Number:** 

22101017

Sample Number:

004

Sample Description:

Lake 14

Sample Date:

10/11/2022

Sample Time:

10:30

Sample Method:

Grab

Parameter	Resuit	Units	MOL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.019	MG/L	800.0	0.032	350.1	10/19/2022 19:29	EO
TOTAL KJELDAHL NITROGEN	0.756	MG/L	0.05	0.20	351.2	10/14/2022 14:56	EO
ORTHO PHOSPHORUS AS P	0.009	MG/L	0.002	0.008	365.3	10/12/2022 18;20	YQ
TOTAL PHOSPHORUS AS P	0.038	MG/L	800.0	0.032	365.3	10/17/2022 11:27	YQ
CHLOROPHYLL A	19.7	MG/M3	0.25	1.00	445.0	11/02/2022 11:36	CH/AT
TOTAL SUSPENDED SOLIDS	6.40	MG/L	0.570	2.280	SM2540D	10/12/2022 17:27	MN/TG
BIOCHEMICAL OXYGEN DEMAND	1.69 I	MG/L	1	4	SM5210B	10/12/2022 16:00	LD/LD
NITRATE+NITRITE AS N	0.010	MG/L	0,006	0.024	SYSTEA EASY	10/23/2022 18:14	MV
TOTAL NITROGEN	0.766	MG/L	0.05	0.20	SYSTEA+351	10/23/2022 18:14	EO/MV

Submission Number:

22101017

Sample Number:

005

Sample Description:

Lake 22

Sample Date:

10/11/2022

Sample Time:

10:50

Sample Method:

Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.019 l	MG/L	800.0	0.032	350.1	10/19/2022 19;39	EO
TOTAL KJELDAHL NITROGEN	0.578	MG/L	0,05	0.20	351.2	10/14/2022 14:57	EO
ORTHO PHOSPHORUS AS P	0.0 <b>0</b> 5 l	MG/L	0.002	0.008	365.3	10/12/2022 18:22	YQ
TOTAL PHOSPHORUS AS P	0.0231	MG/L	800.0	0.032	365.3	10/17/2022 09:49	YQ
CHLOROPHYLL A	2.76	MG/M3	0.25	1.00	445.0	11/02/2022 11:36	CH/AT
TOTAL SUSPENDED SOLIDS	1.20	MG/L	0.570	2.280	SM2540D	10/12/2022 17:27	MN/TG
BIOCHEMICAL OXYGEN DEMAND	<b>1</b> U	MG/L	1	4	SM5210B	10/12/2022 16:00	LD/LD



•	Envir	oAna	lytica	l,	Inc.
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NITRATE+NITRITE AS N	0.023	MG/L	0.006	0.024	SYSTEA EASY	10/23/2022 18:15	MV
TOTAL NITROGEN	0.601	MG/L	0.06	0.20	SYSTEA+351	10/23/2022 18:15	EO/MV

Submission Number:

22101017

Sample Number:

006

Sample Description:

Lake 32

Sample Date:

10/11/2022

Sample Time:

11:05

Sample Method:

Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.017 I	MG/L	0.008	0.032	350.1	10/19/2022 19:43	EO
TOTAL KJELDAHL NITROGEN	0.573	MG/L	0.05	0.20	351.2	10/14/2022 14:58	EO
ORTHO PHOSPHORUS AS P	800.0	MG/L	0.002	0.008	365.3	10/12/2022 18:23	YQ
TOTAL PHOSPHORUS AS P	0.016 I	MG/L	0.008	0.032	365.3	10/17/2022 09:54	YQ
CHLOROPHYLL A	3.26	MG/M3	0.25	1.00	445.0	11/02/2022 11:36	CH/AT
TOTAL SUSPENDED SOLIDS	0.570 U	MG/L	0.570	2.280	SM2540D	10/12/2022 17:27	MN/TG
BIOCHEMICAL OXYGEN DEMAND	1 U	MG/L	1	4	SM5210B	10/12/2022 16:00	LD/LD
NITRATE+NITRITE AS N	0.240	MG/L	0.006	0.024	SYSTEA EASY	10/23/2022 18:18	MV
TOTAL NITROGEN	0.813	MG/L	0.05	0.20	SYSTEA+351	10/23/2022 18:18	EO/MV
· · · · · · · · · · · · · · · · · · ·							

11/04/2022

Date

Tülay Tanrisever - Technical Director/QC Officer

Haley Richardson - QA Officer

#### DATA QUALIFIERS THAT MAY APPLY:

- A = Value reported is an average of two or more determinations.
- H = Value based upon colony counts outside the ideal range.
   H = Value based on field kit determination. Results may not be accurate.
   I = Reported value is between the laboratory MDL and the PQL.
   J1 = Estimated value. Surrogate recovery limits exceeded.

- J2 = Estimated value. No quality control criteria exists for component.
  J3 = Estimated value. Quality control criteria for precision or accuracy not met.
  J4 = Estimated value. Sample matrix interference suspected.
- J5 = Estimated value. Data questionable due to improper lab or field protocols.
- K = Off-scale low. Value is known to be < the value reported. L = Off-scale high. Value is known to be > the value reported.
- N = Presumptive evidence of presence of material.
- O = Sampled, but analysis lost or not performed.
- Q = Sample held beyond accepted hold time.

#### NOTES:

MBAS calculated as LAS; molecular weight = 340.

PQL = 4xMDL

ND = Not detected at or above the adjusted reporting limit.

G1 = Accuracy standard does not meet method control limits, but does meet lab control limits that are in agreement with USEPA generated data. USEPA letter available upon request. G2 = Accuracy standard exceeds acceptable control limits. Duplicate and spike values are within control limits. Reported data are usable,

For questions or comments regarding these results, please contact us at (941) 723-9986, Results relate only to the samples.

- T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.
- U = Analyte analyzed but not detected at the value Indicated.
- V = Analyte detected in sample and method blank, Results for this analyte in associated samples may be blased high. Standard, Duplicate and Spike values are within control limits. Reported data are usable.
- Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.
- Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.
  I = Data deviate from historically established concentration ranges,
  ? = Data rejected and should not be used. Some or all of QC data were outside criteria, and

- the presence or absence of the analyte cannot be determined from the data,
- \* = Not reported due to interference.
- Oll & Grease If client does not send sufficient sample quantity for spike evaluation surface water samples are supplied by the laboratory.

#### COMMENTS:

Chlorophyll a was filtered at E85086 10/12/22 0856

Sample Temperature checked upon receipt at BEAS with Temperature Gun ID #7 (941) 625-3137 / (800) 736-9986 Benchmark EA South (941) 423-7336 fax North Port, FL 34289 1001 Corporate Avenue, Suite 102

> BEA with Temperature Gun ID #258 Sample Temperature checked upon receipt at (941) 723-6061-fax (941) 723-9986 / (800) 736-9986 Benchmark EA, Inc. Palmetto, FL 34221 1711 12th St. East

> > Client: GHD Services, Inc. (HSA ENG)

Ft. Myers Fl 33901 2675 Winkler Ave. Suite 180

Erik Isem (239) 215-3914

Shannon Tucker 239-210-8653

Kit Shipped to client via UPS Standard in I large cooler

Email EDD & PDF Reports to: Connor Haydon (Connor Haydon@ghd.com); Joe.Mizera@ghd.com 2022 PO# 34043112

Notes:	Love 32	have 22	Lawe 14	have 12	LANK 4	Lake S				ID ID	Ctotion	Chain of Custody Form: Treviso Lakes WQM Project Number: 11147356 - 01
	Grab	Grab	Grab	Grab	Grab	Grab				Запирке Туре <sup>1</sup>	Comple	
	sw	SW	SW	SW	SW	SW				Matrix <sup>2</sup>	Cample	Pπ
	Date/Time:	Date/lime:	Date/Time:	Date/Time:	Date/Time:	Date/Time:	1 x ½ Pint Plastic	1.1mL 1:4 H <sub>2</sub> SO <sub>4</sub> pH<2 <b>[7]</b> Lot # 22-16	NO3-NO2 (353.2) TKN (351.2) NH3 (350.1) TP (365.3) T-N (Calc.)	Unique bottle ID 1A		Profile: 840, QC Report
	<b>*</b>	•		•	•	10/w/22	1 x 1 Quart Plastic	Plain	BOD5 (sm5210B)	Unique bottle ID 1B	Parameters Preservati	Laborato
	1107	. 2Sm	1030	9103	450	935	l x ½ Pint Plastic	Plain	Ortho-Phos (Lab Filtered) (365.3)	Unique borde ID IC	Parameters Preservative*. Container Type3 / Total # of Containers = 30	Laboratory Submission #:
	•	*	<b>b</b>	•	•	•	1 x 1 Quart Plastic	Plain	TSS (SN2540D)	Unique bottle ID 1D	al # of Containers = 30	_
	•		w	•	•	•	1 x 500mL Opaque Plastic	Plain	Chlorophyll a (4450) Filtered @ BEAS 10/11/22 0856	Unique bottle ID IE		2101017
	6	5	C	J	ی					Submission #	Laboratory	

"Sample Type" is used to indicate whether the sample was a grab (G) or whether it was a composite (C).
"Sample Type" is used to indicate whether the sample is being discharged to dribting water (DW), groundwater (GW), surface water (SW), firsh surface water (SSW), soil, sediment (SDMNT), or shadge (SIDG),
"Container Type" is used to indicate whether the container is player; (C) or glass (G).
"Container Type" is used to indicate whether the container is player; (C) or glass (G).
"Container Type" is used to indicate whether the container is player; (C) or glass (G).
"Container Type" is used to indicate whether the container is being discharged to office the surface water (SW), satisface water (SSW), salice surface water (SSW), soil, sediment (SDMNT), or shadge (SIDG),
"Container Type" is used to indicate whether the sample is being discharged to office water (SW), firsh surface water (SSW), salice surface water (SSW), soil, sediment (SDMNT), or shadge (SIDG),
"Container Type" is used to indicate whether the sample is being discharged to office water (SW), firsh surface water (SSW), salice surface water (SSW), soil, sediment (SDMNT), or shadge (SIDG),
"Container Type" is used to indicate whether the sample is being discharged to office water (SW), firsh surface water (SSW), salice surface water (SSW), soil, sediment (SDMNT), or shadge (SIDG),
"Container Type" is used to indicate whether the being discharged to office water (SW), surface water (SW), firsh surface water (SW), salice surface water (SSW), soil, sediment (SDMNT), or shadge (SDMNT), or s

Instructions

Each bottle lasts tabel identifying sample ID, premeasured preservative contained in the tottle, sample; pps, client ID, and premeaters for easilysts.
The following information about he sudded to each bottle label after collection with permeater black not doze and time of collection, sampler's name or initials, and any field number or ID.
All bottles are containing preservative may be tinsed with appropriate sample prior to collection.
The client is responsible for documentation of the sampling event. Pleass note special sampling events on the sample custody form.
Sample of it has been created by 1814, when pers, certifical bottles unless otherwise noted.

BEAS Temperature: 3,3°C PH <2 :4T BEA Temperature:0,37 Laboratory Sample Acceptability:

Un		(L)	12	
5 Relinquished By & Affiliation: (Print & Sign)	4 Relinquished By & Affilization: (Print & Sign)	Relinquished By & Affiliation: (Print & Sign)	2 Relinguished By & Affiliation: (Prim & Sign) BATHE Kinhunh BETS BETS	Collector & Affiliation: (Print & Sigg) (Print & Sigg) (Onner Hengiser CH)
Date:	Date	Pate: P/UIV	Date: 12 22	Date: W/w122
Time:	Time:	Time:	Time: ///27	Time: (3#
Received By & Affiliation: (Print & Sign)	Received By & Affiliation: (Print & Sign)	Received By & Affiliation: (Print & Sign) (Por Affiliation: (Print & Sign) (Print & Sign)	Received By & Affiliation: (Print & Sign)  (Print & Sign)	Received By & Affiliation: Swook Fratemical Print & Sign) BUHLL & Willynd & EAS
Date:	Date:	16/12/2)	Date: <b>6171</b>	Date: 10/11/22
Time:	Time:	Time: 6	Time:	Time: 1314



NELAP Certification #E84167

Submission Number: 22101017

**QC REPORT** 

TREVIS

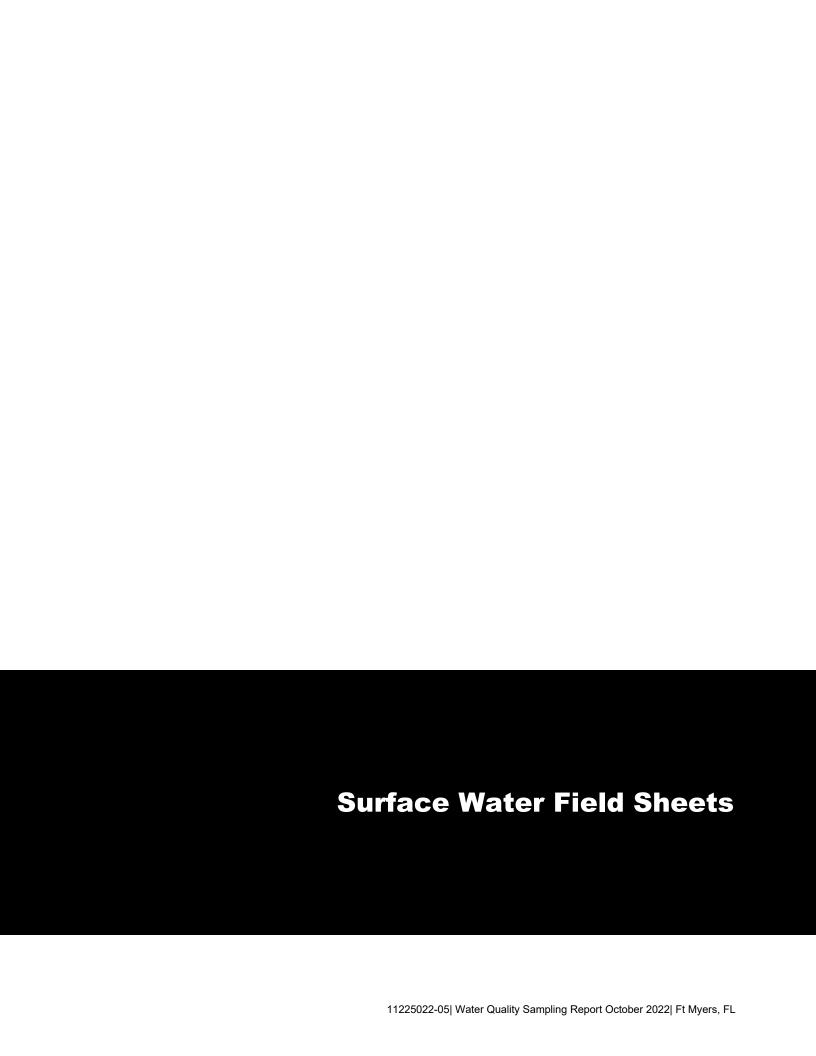
Project Name: TR

TREVISO LAKES WQM

SUBMISSION	SAMPLE	METHOD	ANALYTE	ANALYSIS DATE/TIME	QC FLAG	QC VALUE	SAMPLE RESULT	LR RESULT	LR %RSD	SPK RESULT	STD-SPK %REC
NOMBER	REGISTON			700000	<u>_</u>		0.019	0.020	2.90		
22101017 - 005	662774	350.1	AMMONIA NITROGEN		í !	Ç.	000				
		350.1	AMMONIA NITROGEN	10/19/2022 09:09	MB	0.00	0.000			0	8
200	683507	350.1	AMMONIA NITROGEN	10/19/2022 20:03	SPK	1.00	1.040			1.030	0.0
22101/51 - 002	700000	350.1	AMMONIA NITROGEN	10/19/2022 09:29	STD	1.00	0.966				9.96
500	787	3512	TOTAL KJELDAHL NITROGEN	10/14/2022 18:29	띰		30.800	30.200	1.42		
22101024 - 002	1700 1700	351.2	TOTAL KJELDAHL NITROGEN	10/14/2022 10:05	MB	0.00	0.000				6
		3.7.7.2 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.	TOTAL KJELDAHL NITROGEN	10/14/2022 10:09	PQL	0.25	0.271				108.0
		20 6 20 6 1 6 7	TOTAL KJELDAHL NITROGEN	10/14/2022 17:10	SPK	2.00	2.660			2.460	2.08
22101182 - 002	662980	2.155	TOTAL KIELDAHL NITROGEN	10/14/2022 12:38	STD	2.50	2.330				93.2
		5. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	TOTAL KJELDAHL NITROGEN	10/14/2022 10:11	STD	2.00	2.030				102.0
00000	A7777A	3653	ORTHO PHOSPHORUS AS P	10/12/2022 09:14	LR.		0.270	0.267	0.74	•	2
22100826 - 009	0024/4	365.3	ORTHO PHOSPHORUS AS P	10/12/2022 10:21	SPK	0.20	0.228			0.230	0.101
22100833 - 016	\$1 CZ90		ORTHO PHOSPHORUS AS P	10/12/2022 10:01	STD	0.20	0.207				104.0
		202.3	TOTAL PHOSPHORIS AS P	10/17/2022 12:45	뭐		0.135	0.137	0.83		
22101113 - 011	662879	365.3	TOTAL BEOSPHORIS AS P	10/17/2022 09:23	MB	0.00	0.000				
		365.3	TOTAL BUOSCHORIS AS P	10/17/2022 09:26	POL	0.02	0.020				101.0
		365.3	TOTAL BHOSPHORUS AS P	10/17/2022 10:19	SPK	0.20	0.206			0.202	97.8
22101151 - 016	662952	365.3	TOTAL PHOSPHORUS AS P	10/17/2022 12:08	STD	0.20	0.185				92.3
		300.0	CHIOBOPHYLLA	11/02/2022 11:36	H		2.026	2.160	4.62		
22101017 - 001	662770	443.0 SM25640D	TOTAL SUSPENDED SOLIDS	10/12/2022 17:27	R		4.000	4.000	0.00		
22100658 - 001	662394	SINZOTOD	TOTAL SUSPENDED SOLIDS	10/12/2022 17:27	MB	0.00	0.000				
		SIMIZS40D	TOTAL SUSPENDED SOLIDS	10/12/2022 17:27	STD	951.00	1024.000				107.7
	i de	SIMES40D	BIOCHEMICAL OXYGEN DEMAND	10/12/2022 12:00	H		1220.000	1230.000	0.58		
22101024 - 002	40/700	SM5210B	BIOCHEMICAL OXYGEN DEMAND	10/12/2022 12:00	MB	0.00					4.000
		SM5210B	BIOCHEMICAL OXYGEN DEMAND	10/12/2022 12:00	STD	198.00	202.100				102.1

QC FLAGS: MB or BLK = METHOD BLANK LR = LAB REPLICATE MSD = MATRIX SPIKE DUPLICATE STD or LCS = STANDARD SPK or MS = MATRIX SPIKE

							1		2	YOU'S	STD-SPK
SUBMISSION SAMPLE	SAMPLE	METHOD	ANALYTE	ANALYSIS DATE/TIME	QC FLAG	QC VALUE	SAMPLE LK RESULT RES	ULT	%RSD	RESULT	%REC
NOMBER	NOMIDER						0 400	0.204	0.78		
	. 020000	CVCTEA EASY	CONTRACTE HITRATE + NITRATE + NITRATE + NITRATE	10/23/2022 18:30	LR		0.130	0.50	) :		
22101113 - 010	9/9799			10/23/2002 14:26	MB	00.00	0.000		•		
		SYSTEA EASY	SYSTEA EASY NITRATE+NITRITE AS N				Č			0.203	95.2
		CVCTEA EASY	SYSTEA EASY NITRATE+NITRITE AS N	10/23/2022 17:26	SPK	0.20	0.213				6
22101007 - 014	652/44	5		19:97	ES	0.25	0.250				88.8
		SYSTEA EASY	SYSTEA EASY NITRATE+NITRITE AS N	1012312022 10:01							



STATION ID:

LOCATION:

DATE/TIME:

				ALL TIMES A	ARE:	(circle	CTZ one)
WATERBC (Circle	e One) // (collection) // Smalls	Stream	nd <10HA) middle of oper	•	Large River	·10HA) les at selected l es in representa	
Water Char	acteristics						•
(Average of STREAM F	TER DEPTH:  2 measurements)  (Circle One if LOW:applicable)  VEL:(Circle One)	Im (No Lov		within Banks	s Flood C	epth:	(feet)
WATER SA	MPLE COLLECTION DEVIC	E with Var		Grab with	Dipper	Other	
Field Measurer	ments l	Meter ID	)#		Field Meas Read By:		
Time (24 hr.)	Surface Depth Collected (feet)	pH* (SU)		D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
935	1,5	6.89	5.30	61.0	27.6	335	0.9
Time (24 hr.)	Bottom Depth Collected (feet)	pHi(SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
-	preserved sample: number es immediately placed on ice	· ·	ulfuric acid add	l ded in field to	L achieve pH o	l of less than 2:	N A  Yes No
WEATHER CO	NDITIONS: (circle) raining	clear, p	artly cloudy, w	vindy		,	
PERSONNEL C	ON SITE: Como	Haydi	00 Jus	to Le	eblanc		
REMARKS:	sample till	ected	from 1	nanu of	larce.	grass whi	ngs
	sample coll	medium	lengm	grass	avound	lake per	rimeter
						by:	

STATION ID:

LOCATION:

DATE/TIME:

ALL TIMES ARE:

Lake 4

رcircle one)

	WATERBC (Circle		Lake (>4 ar t samples in	d <1017A) middle of ope		Large Lake (> (collect samp	·10HA) les at selected l	ocation point)
		Small: (collec		representative		Large River (collect sampl	es in representa	ntive area)
	Water Chara	acteristics						
		TER DEPTH:	vn	(fee	t)	Sample D	epth: <u>©</u>	(feet)
	STREAM F	(Circle One if LOW: applicable)	No	Flow Flow	within Banks	s Flood C	onditions	
	WATER LE	VEL: (Circle One)  MPLE COLLECTION DEVIC  (Circle One)	Low CE Var	Dorn Direc	al High t Grab with ble Bottle	Dipper	Other	
Fie	ld Measurer	ments	Meter ID	#		Field Meas Read By:		
	ne (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
O	150	1.5	7.27	6.30	80.1	27.7	448	0.50
Tin	ne (24 hr.)	Bottom Depth Collected (feet)	pH (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
	•	preserved sample: number es immediately placed on ice	•	ulfuric acid add	lded in field to	c achieve pH c	l of less than 2:	NA (es) No
WE	ATHER CO	NDITIONS: (circle) raining	, (lear) pa	artly cloudy, v	vindy			
PE	RSONNEL C	ON SITE: Connor		Justin	Lebio	inc		:
RE	MARKS:	SAMPIC COUR	cted	@ outle	cu (in f	int of	outfare, n	o flow over
		reir) mn	not orga	nic Pirm	Page (A)	ater Jur	face me	dium
		Sample cone reis), mo mergus	grasses	min 1	pround	penme	ver	

STATION ID:

LOCATION:

DATE/TIME:

Lake 12

@ outfan

10/11/22

*pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2:				A	ALL TIMES A	NRE:	- ETZ or (circle	CTZ one)
Water Characteristics  TOTAL WATER DEPTH: Nm (feet) Sample Depth: 1.5  (Average of 2 measurements) (Circle One if STREAM FLOW: applicable) No Flow Normal High WATER LEVEL: (Circle One) Low Normal High WATER SAMPLE COLLECTION DEVICE Van Dorp Direct Grab with Sample Bottle Sample Sam		e One) (collection) Small	ct samples in Stream	middle of oper	n water)	(collect samp Large River	les at selected lo	
(Ret)  (Circle One if STREAM FLOW: applicable)  WATER LEVEL: (Circle One)  WATER SAMPLE COLLECTION DEVICE (CIRC	Water Char	acteristics						
WATER SAMPLE COLLECTION DEVICE Van Dorp Direct Grab with Sample Bottle  Water ID# Field Measurements  Weter ID# Field Measurements  Read By: (initials)  Weter ID# (feet)  Water ID# Field Measurements  Read By: (initials)  Turbidity  (pmhos/cm) (NTU)  Turbidity  (pmhos/cm) (NTU)  Water ID# Field Measurements  Read By: (initials)  Turbidity  (pmhos/cm) (NTU)  Turbidity  (pmhos/cm) (NTU)  Water ID# Field Measurements  Read By: (initials)  Turbidity  (pmhos/cm) (NTU)  Turbidity  (pmhos/cm) (NTU)  Water ID# Field Measurements  Read By: (initials)  Turbidity  (pmhos/cm) (NTU)  Turbidity  (pmhos/cm) (NTU)  *pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2:  Samples immediately placed on ice?  Water ID# Field Measurements  Read By: (initials)  Turbidity  (pmhos/cm) (NTU)  *pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2:  Samples immediately placed on ice?  Ves N  Water ID# Field Measurements  Read By: (initials)  Turbidity  (pmhos/cm) (NTU)  *pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2:  Ves N	(Average of	f 2 measurements) (Circle One if		_				(feet)
eld Measurements       Meter ID#       Read By: (initials)         me (24 hr.)       Surface Depth Collected (feet)       pH* (SU)       D.O.(mg./L)       D.O. (%)       Temp (°C)       Conductivity (µmhos/cm)       Turbidity (NTU)         iol 0       i.5       7.92       2.77       8.7.5       27.9       9.74       2.3.9         me (24 hr.)       Bottom Depth Collected (feet)       pH (SU)       D.O.(mg./L)       D.O. (%)       Temp (°C)       Conductivity (µmhos/cm)       Turbidity (NTU)         *pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2:       NA         Samples immediately placed on ice?         Yes N         PEATHER CONDITIONS: (circle) raining, clear) partly cloudy, windy         ERSONNEL ON SITE:       Nay Usa       Justra LeBicac	WATER LE	VEL: (Circle One)	Lov	Norm  Norm  Dorp Direct	al High			
me (24 fir.)   Surface Depth Collected (feet)   pH* (SU)   D.O.(mg./L)   D.O. (%)   Temp (°C)   Conductivity (µmhos/cm)   Turbidity (NTU)    1010   1.5   7.92   1.77   87.5   27.9   974   2.37    me (24 hr.)   Bottom Depth Collected (feet)   pH (SU)   D.O.(mg./L)   D.O. (%)   Temp (°C)   Conductivity (µmhos/cm)   Turbidity (µmhos/cm)    *pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2:   NA    Samples immediately placed on ice?   Sampl	old Mossura	mante !	Meter IC	<b>1</b> #				
*pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2:  Samples immediately placed on ice?  *EATHER CONDITIONS: (circle) raining, Clean partly cloudy, windy  *ERSONNEL ON SITE: Connow Hayden Justin LeBiene		Surface Depth Collected			D.O. (%)		Conductivity	,
*pH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2:  Samples immediately placed on ice?  *EATHER CONDITIONS: (circle) raining, clear partly cloudy, windy  *ERSONNEL ON SITE:   **D.O. (%) Temp (°C) Conductivity (µmhos/cm) (NTU)  **Turbidity (µmhos/cm) (NTU)  **Turbidity (µmhos/cm) (NTU)  **PH of preserved sample: number of drops of sulfuric acid added in field to achieve pH of less than 2:  **Yes N  **EATHER CONDITIONS: (circle) raining, clear partly cloudy, windy  **ERSONNEL ON SITE:   **Language PH (SU) D.O. (%) Temp (°C) Conductivity (µmhos/cm) (NTU)	1010	1.5	7.92	6.77	87.5	27.9	974	2.27
Samples immediately placed on ice?  EATHER CONDITIONS: (circle) raining, clear partly cloudy, windy ERSONNEL ON SITE: Conner Haydon Just LeBiene	ne (24 hr.)		pH (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)		
EATHER CONDITIONS: (circle) raining, clear partly cloudy, windy ERSONNEL ON SITE: Conner Haydon Jusson LeBlane	*pH of	preserved sample: number	of drops of s	l sulfuric acid add	l ded in field to	o achieve pH o	l of less than 2:	NA
ERSONNEL ON SITE: Conner Haydon Justin LeBiene	Sampl	es immediately placed on ic	e?					Yes No
ERSONNEL ON SITE: Conner Haydon Justin LeBiene	FATHER CO	NDITIONS: (circle) raining	clean n	artly cloudy - v	vindv			
EMARKS: Sample collected @ outfall water flowing over weil						m LeBic	ne	
namor grass growth around parimeter	EMARKS:	sample co	offected	<u>@ 051</u>	Pali iv	nater from	wing ove	er weir
		money grass	growin	around	parimete	er	V	

STATION ID:

LOCATION:

DATE/TIME:

Lake 14

(030

@ outform

10/n /21

				ALL TIMES	ARE:	ETZ or (circle	CTZ one)
		Lake (>4 ar ct samples ir	nd <10HA) middle of ope	n water)	Large Lake (> (collect samp	10HA) les at selected l	ocation point)
- 10 14 15 15 15 15 15 15 15 15 15 15 15 15 15		Stream at samples in	representative	area)	Large River (collect sampl	es in representa	ntive area)
Water Char	acteristics						
į.	TER DEPTH: V n f 2 measurements) .(Circle One if LOW: applicable)		(fee		>	epth: (.5	(feet)
WATER LE		Lov	v <u>Norm</u> Dorn Direc	al High		Other	
ield Measure	ments	Meter ID	)#		Field Meas Read By:		
ime (24 hr.)	Surface Depth Collected (feet)		D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
1030	1.5	7.97	3.74	47.7	27.7	1384	2.77
me (24 hr.)	Bottom Depth Collected (feet)	íp⊞ (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
*pH of	preserved sample: number	of drops of s	ulfuric acid add	ded in field t	 o achieve pH o	l of less than 2:	NA
•	es immediately placed on ic	•					(Yes) No
EATHER CO	NDITIONS: (circle) raining	, Clear, p	artly cloudy, v	vindy			
ERSONNEL (	ON SITE: Con	nor H	aydon,	Justin	LeBianc.		
EMARKS:	sample coned	wood from	ovtlen.	strong	grass	grown ar	ound
		wover fi	owing li	vilo outl	au		

STATION ID:

LOCATION:

DATE/TIME:

Lake 22

@ outfan

1050

10/4/22

	4		A	LL TIMES A	ARE:	ETZ or (circle	CTZ one)
	DDY TYPE: Small e One) (collect	Lake (>4 ar ct samples in	nd <10HA)		Large Lake (> (collect samp	10HA) les at selected l	ocation point)
	Small (collec		representative		Large River (collect sampl	es in representa	tive area)
Water Chara	acteristics						
	TER DEPTH:  2 measurements)  (Circle One if	1m	(fee	(1)	Sample D	epth:	.5 (feet)
STREAM F	LOW: applicable)	817 1 % No	Flow Flow		Flood C	onditions	
WATER LE	MPLE COLLECTION DEVICE		Dorn Direct		Dipper	Other	
eld Measurei	ments	Meter ID	)#		Field Meas Read By:		
me (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O:(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
1050	1.5	8.03	4.76	61.0	28	766	1.04
me (24 hr.)	Bottom Depth Collected (feet)	.p∺⊹(SU)	.D.O;(mg./Ľ)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
•	preserved sample: number es immediately placed on ice	•	ulfuric acid add	led in field to	achieve pH o	of less than 2:	Yes) No
EATHER CO	NDITIONS: (circle) raining	, clear, p	artly cloudy, w	rindy			
ERSONNEL C	ON SITE: Concey	Hayo	un Jo	sin · I	eBlanc		
EMARKS:	sample conect	ed fro	n butfan	. war	er flown	rg over	weir
	no vegetaño	r arov	ind samp	ne loca	rion		

STATION ID:

LOCATION:

DATE/TIME:

ALL TIMES ARE:

Lake 32

or (circle one)

1105

CTZ

10/11/22

ETZ

1	DDY TYPE:: e One)	Small (collec	Lake (>4 ar t samples in	nd <10HA) middle of ope		Large Lake (> (collect samp	10HA) les at selected l	ocation point)
	. 3.5. 1 - 3.	Small ( (collec		representative		Large River (collect sampl	es in representa	tive area)
Water Chara	acteristics	** .				***************************************		
	TER DEPTH: 2 measurements (Circle		<u> </u>	(fee	t)	Sample D	epth:1.5	(feet)
STREAM FI	LOW: applica	ible)			within Banks		onditions	
WATER LE	VEL: (Circle MPLE COLLECT (Circle)	ION DEVIC	Lov E Var	Dorn Direct		Dipper	Other	
ield Measurer	nents		Meter ID	)#		Field Meas Read By: (		
ime (24 hr.)	Surface Depth ( (feet)	Collected	pH* (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
1105	1.5		7.82	5,55	71.3	28.4	391	0.54
ime (24 hr.)	Bottom Depth C (feet)	Collected	pH:(SU)	D.O.(mg./L.)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
*pH of	preserved sample	e: number	of drops of s	ulfuric acid add	led in field to	l o achieve pH c	l of less than 2:	NA
Sample	es immediately pl	aced on ice	?			•		Yes No
/EATHER COI	NDITIONS: (circl	le) raining,	Clear pa	artly cloudy,  v	vindy			
ERSONNEL C	ON SITE:	Conn	w Ha	ydan,	Justin	teBlanc		
EMARKS:	sampy	e wi	ected evound	from sampi	luve ba	nk, liv	nited Je	getu trun
	q	Lionan	erov ed	sampl	e rocan	Nen		