MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT

AGENDA

NOVEMBER 11, 2021

PREPARED BY:

JPWARD & ASSOCIATES, LLC, 2301 NORTHEAST 37TH STREET, FORT LAUDERDALE, FL 33308

T: 954-658-4900 **E:** JimWard@JPWardAssociates.com

Miromar Lakes Community Development District

November 4, 2021

Board of Supervisors

Miromar Lakes Community Development District

Dear Board Members:

The Regular Meeting of the Board of Supervisors of the Miromar Lakes Community Development District will be held on **Thursday, November 11, 2021,** at **2:00 P.M.** in the Library at the **Beach Clubhouse, 18061 Miromar Lakes Parkway, Miromar Lakes, Florida 33913.**

The following WebEx link and telephone number are provided to join/watch the meeting remotely.
https://districts.webex.com/districts/onstage/g.php?MTID=e7739d64780f949d6ff026749b6f49b4c

Access Code: **2340 757 1666**, Event Password: **Jpward**
Phone: **408-418-9388** and enter the access code **2340 757 1666** to join the meeting.

Agenda

1. Call to Order & Roll Call.

2. Consideration of Minutes:
   I. October 14, 2021 – Regular Meeting

3. Consideration of **Resolution 2022-2**, a resolution of the Board of Supervisors of the Miromar Lakes Community Development District adopting the 2021-22 reserve study prepared by Dreux Isaac & Associates Inc.

4. Staff Reports.
   I. District Attorney.
   II. District Engineer.
   III. District Asset Manager.
      a) Operations Report November 1, 2021.
      b) Water Quality Report September 30, 2021.
   IV. District Manager
      a. State Law Requirements for new Stormwater Reporting.
      b. Resolution 2022-1 (FINAL ADOPTED).
      c. Financial Statement for period ending October 31, 2021 (unaudited).

5. Supervisor's Requests and Audience Comments.

6. Adjournment.

The first order of business is the Call to Order & Roll Call.

The second order of business is the consideration of the October 14, 2021, Regular Meeting minutes.

The third order of business is the Consideration of **Resolution 2022-2**, a resolution of the Board of Supervisors of the Miromar Lakes Community Development District adopting the 2021-22 reserve study prepared by Dreux Isaac & Associates Inc. A representative of Dreux Issac and associates will be on video for this meeting to review the results of the reserve study.

The fourth order of business are staff reports by the District Attorney, District Engineer, and District Asset Manager, including the Operations Report, dated November 1, 2021, and District Manager, including Financial Statement for period ending October 31, 2021 (unaudited).

The sixth order of business is the consideration of the Supervisor's Requests and Audience Comments.

The balance of the agenda is standard in nature, and I look forward to seeing you at the meeting. If you have any questions and/or comments before the meeting, please do not hesitate to contact me directly at (954) 658-4900.

Sincerely yours,

Miromar Lakes Community Development District

James P Ward

James P. Ward
District Manager

Meetings for Fiscal Year 2022 are as follows:

December 9, 2021	January 13, 2022
February 10, 2022	March 10, 2022
April 14, 2022	May 12, 2022
June 9, 2022	July 14, 2022
August 11, 2022	September 8, 2022

MINUTES OF MEETING
MIROMAR LAKES
COMMUNITY DEVELOPMENT DISTRICT

The Regular Meeting of the Board of Supervisors of Miromar Lakes Community Development District was held on Thursday, October 14, 2021, at 2:00 p.m. at the Library in the Beach Clubhouse, 18061 Miromar Lakes Parkway, Miromar Lakes, Florida 33913.

Present and constituting a quorum:

Alan Refkin	Chairman
Michael Weber	Vice Chairman
Doug Ballinger	Assistant Secretary
Patrick Reidy	Assistant Secretary
Mary LeFevre	Assistant Secretary

Also present were:

James P. Ward	District Manager
Greg Urbancic	District Attorney
Charlie Krebs	District Engineer
Bruce Bernard	Asset Manager
Bill Reagan	FMS Bonds

Audience:

Frank Austenfeld (ph)	Resident
Ekin McCormick (ph)	HOA
Tim Byal	
Lisa Van Dien	

All resident's names were not included with the minutes. If a resident did not identify themselves or the audio file did not pick up the name, the name was not recorded in these minutes.

PORTIONS OF THIS MEETING WERE TRANSCRIBED VERBATIM. ALL VERBATIM PORTIONS WERE TRANSCRIBED IN *ITALICS*.

FIRST ORDER OF BUSINESS **Call to Order/Roll Call**

District Manager James P. Ward called the meeting to order at approximately 2:00 p.m. He conducted roll call; all Members of the Board were present, constituting a quorum.

SECOND ORDER OF BUSINESS **Consideration of Minutes**

September 9, 2021 – Regular Meeting

Mr. Ward asked if there were any additions, deletions, or corrections for the Minutes.

Mr. Alan Refkin noted Bellavista should be one word, not "Bella Vista."

Mr. Ward asked if there were any additional corrections; hearing none, he called for a motion.

On MOTION made by Mr. Alan Refkin, seconded by Ms. Mary LeFevre, and with all in favor, the September 9, 2021, Regular Meeting Minutes were approved.

THIRD ORDER OF BUSINESS Discussion of Special Assessment Bonds

Discussion of the refinancing of the District's Series 2012 Special Assessment Bonds. The Series 2012 Bonds are a refinance of the District's Series 2003 Capital Improvement Revenue Bonds. Mr. Bill Reagan with FMS Bonds will be at the meeting to review and present on the refinancing.

Mr. Ward indicated Bill Reagan was the underwriter on the original bonds done for this District, as well as the refinance bonds, and was present to discuss.

Mr. Bill Reagan stated the Series 2012 bonds had a call date of 05/01/2022. He noted the federal government allowed entities to call bonds 90 days before the call date; therefore, preparations could begin now. He noted currently rates were extremely attractive. He stated there would be no cost to the District until closing. He explained there were delegated award parameters which must be met prior to closing. He noted there was approximately $7.5 million dollars in bonds outstanding. He stated there were two ways the refinancing of the bonds could be accomplished, one was to bid the refinance to the banks (preferred method), and the other was to bring the refinance into the market (secondary method). He noted the saving opportunities were substantial at a little over $125,000 dollars annually, 13.5% savings per resident. He noted the minimum required savings was 5%; this refinance would offer 13.5% savings. He stated the maturity date would remain the same. He noted the only change would be a lower interest rate and cost savings. He indicated the District's debt service reserve account requirements would be lower through the finance and the excess debt service reserve account funds could be utilized to cover fees or be applied to lower the debt amount.

Mr. Reagan discussed the fees: the cost of issuance fees which were the fees incorporated by the District (buying counsel, disposal counsel, district manager, feasibility, allocation, consultants, legal counsel, bond counsel, etc.); and FMS Bonds fees (the banker fees) of 1.5%.

Mr. Refkin stated this was pretty much the industry standard.

Mr. Reagan concurred. He discussed the savings allocation chart and how this chart might change as the market changed until the rate could be locked in. He asked if there were any questions.

Ms. LeFevre asked if there were any downsides to this refinance.

Mr. Reagan responded in the negative; there was no money required up front. He noted when negotiations began with the banks and the rates were locked in the savings and costs would be clearly outlined before the District moved forward.

Mr. Refkin noted ultimately this was about saving money and conducting business in a fiduciary manner. He noted Mr. Reagan had done this for the District in the past. He thanked Mr. Reagan.

Mr. Weber asked if $7.31 million dollars included all refinance costs.

Mr. Reagan responded in the affirmative.

Mr. Weber (10:30) asked (indecipherable).

Mr. Reagan indicated this was a typo which he would correct.

Discussion ensued regarding the debt service reserve account funds.

Mr. Reagan noted while currently this was written up as a bank refinance, if something happened and the banks were unwilling to refinance or the cost was too high, the refinance would be put out to bond market.

Mr. Ward stated a bond market refinance would cost a little more than a bank refinance; therefore, he asked for this to be presented as a bank refinance. He noted he understood there were a couple of banks in the market for these types of refinances.

Mr. Refkin noted this was an estimate only; the savings and costs could not be known until the refinance went out to bid.

Mr. Reagan concurred. He noted in February the rate could be locked in.

Mr. Patrick Reidy stated in ten years this would be paid off. He noted the 2015 bonds could be refinanced in 2025.

Mr. Reagan concurred.

Mr. Ward noted this District currently did not have bond counsel. He recommended Greenspoon Marder. He asked permission to retain a bond counsel. He stated he contacted Greenspoon Marder; however, Greenspoon had not provided a firm proposal yet. He stated he would bring the proposal before the Board next month for approval.

Mr. Reagan indicated he needed approval for the standard MSRB agreement.

Mr. Ward explained an MSRB standard agreement was required, and it was necessary to retain the underwriter (FMS Bonds) to enable the underwriter to move forward in the process. He asked the Board to retain FMS Bonds for this financing and authorize himself and Mr. Urbancic to review and approve the MSRB agreement.

On MOTION made by Ms. Mary LeFevre, seconded by Mr. Alan Refkin, and with all in favor, the retention of FMS Bonds was approved, and Mr. Jim Ward and Mr. Greg Urbancic were authorized to review and approve the MSRB agreement.

FOURTH ORDER OF BUSINESS Consideration of Resolution 2022-1

Consideration of Resolution 2022-1, a Resolution of the Board of Supervisors of Miromar Lakes Community Development District establishing Policies and Procedures relating to the review of requests for encroachments into drainage or lake maintenance easements dedicated to the District

Mr. Ward stated this was related to the rule in place regarding encroachments and lake maintenance easements (LME) establishing the basic procedures to evaluate encroachments. He stated attached to the resolution was an application and submittal guide. He stated on page 2 was the policy which indicated any encroachment into the LMEs beyond sodding and irrigation systems and boat docks needed to go through this procedure as this would enable the District to see what encroachments were made and ensure the encroachments were in accordance with reasonable standards identified by engineering. He noted the procedure would enable Staff to review and approve encroachments in between board meetings and these would be reported to the Board. He noted there was also an encroachment agreement attached to the policy which would be signed by all involved parties and recorded in public records.

Mr. Michael Weber asked about existing encroachments.

Mr. Ward responded Mr. Charlie Krebs created a map with the existing encroachments within the District and these would be tracked. He stated once this was completed it would be presented to the Board and approved to be included in the record. He explained this would enable the District to track all new encroachments which occurred pursuant to the new policy. He stated he did not think the map of the encroachments would be utilized to force changes to existing encroachments, but it would enable the District to at least keep track of existing versus new encroachments.

Mr. Weber stated he hoped that the District would work to accommodate encroachment applicants in any way possible, especially if applicants were willing to accommodate the needs of the District. He stated the applications should be considered in a “how do we say yes” fashion, not “how do we say no.”

Mr. Ward agreed; this was the way it should work. He noted the rule and procedure were in place to ensure encroachments were done correctly for the homeowner as well as the District.

Mr. Refkin agreed with Mr. Weber.

Discussion ensued regarding rip rap installation encroachments and how the District would handle these; the policy and procedure hopefully ensuring rip rap installation was done correctly from the start so the District could take over maintenance; fencing encroachments; and landscape encroachments.

Mr. Refkin stated catching these installations early would better enable the District to ensure the installations were done correctly from the start which would prevent many previously encountered difficulties.

Mr. Weber asked how unreported encroachments could be identified.

Mr. Refkin noted in his opinion the only way this could be accomplished was if Miromar, the CDD, and the HOA, everyone, worked together and if the application process was as simple as possible for the homeowner. He stated he was encouraged Mr. Tim Byal was working with the CDD in this regard.

Mr. Urbancic stated one thing the CDD should do was integrate with the HOA's architectural review process. He noted a memorandum of understanding was sent to Miromar for consideration which was a simple operation request asking Miromar to make the CDD aware of certain things. He stated in both the stormwater rule and the new policy, the CDD technically required showing hardship.

Mr. Weber asked how many applications were expected to be seen over the course of a year.

Mr. Ward noted three were coming in this month.

Mr. Bruce Bernard noted approximately 10 requests were sent from Miromar to the District for review. He noted most were landscape issues in the easements.

Discussion ensued regarding different types of encroachments in side-yard drainage easements including fences, generators, AC units, pool cleaning systems; Miromar coordinating with the CDD for side-yard drainage easement encroachments; the County requiring CDD approval for permit issuance; and Miromar being aware of what was permitted within drainage easements.

Mr. Weber noted the document read that the encroachment applications would be signed by the Chairman of the Board. He asked how difficult it would be for the Board to review the applications during Board Meetings as opposed to just the Chair signing the application.

Mr. Refkin stated it would be good for the Board to be aware of the applications. He stated he had no issue with the Board reviewing the applications.

Mr. Ward stated the process indicated the applications would be reviewed and approved by Staff and then presented to the Board; however, if the Board wished to have the applications presented to the Board for a formal approval this was fine, but there would be some pushback when there were timing issues.

Mr. Charlie Krebs suggested allowing Staff to approve anything considered normal while anything considered unusual be presented to the Board for review.

Discussion ensued regarding whether the Board should review all applications.

Mr. Ward noted if the Board wished to review all applications, this could be done; however, Agendas were created three weeks ahead of Meetings, and any application submitted after the Agenda had been created would not be presented until the following month's meeting. He explained this could create a six to eight week waiting period for applicants. He stated as it was written, the applications could be approved at the Staff level, and the Chairman would sign the encroachment agreement, and the Board would be advised of the applications and approvals. He noted this was a much faster process for the residents. He stated it was difficult to put something on the Agenda quickly.

Ms. LeFevre stated if most of the encroachment applications were for plantings and such, she did not see how it could be considered an emergency.

Mr. Ward explained there were many steps involved in this process; applicants were required to present plans, go through a review process, pay fees, the applicant needed to be approved, and then the encroachment agreement signed. He stated if the Board wished to review all applications prior to approval this could be done; however, it was important for the Board to understand this could cause delays to residents with respect to the process.

Mr. Refkin stated he felt having the entire Board review the applications was critical. He stated he liked the idea of the Board approving all applications.

Mr. Reidy stated he was concerned about the delays this could cause residents. He noted residents wished to get things done without delay, and this process already would take at least a month even without presentation to the Board for approval.

Discussion ensued regarding how to enable the Board to review the applications without unduly delaying residents.

Mr. Refkin asked Mr. Byal's opinion.

Mr. Byal stated this issue had been discussed thoroughly and Staff had a good understanding of what direction the Board wished to go.

Mr. Refkin agreed presenting the applications to the Board could cause a delay for some residents, but hopefully this would be the exception and not the rule. He stated the ability of the Board to look at something as a whole outweighed trying to accommodate a resident for an exception.

Mr. Reidy suggested allowing Chair Refkin to decide whether an application needed to come before the Board for review or whether it could just be approved.

Mr. Ward stated the encroachments were typically landscaping, rip rap repair, and side fencing.

Mr. Byal stated the worst encroachment was a dock.

Discussion ensued regarding docks and how docks impacted the shoreline.

Mr. Byal noted docks already required extensive approval through the architectural process. He stated if docks required CDD approval as well, it could take up to six months for homeowners to get dock approval.

Discussion continued regarding dock installation in Miromar Lakes.

Mr. Ward stated encroachments were typically landscaping, fencing, and rip rap installation or repair. He stated these were simple encroachments and he did not feel the Board necessarily needed to review these types of encroachment applications. He stated if a resident wished to encroach a pool deck and hot tub into the easement, or put a generator into an easement, Staff would say no; alternatively, if pushed by the homeowner, the application would come before the Board for consideration. He stated if the Board wished, the minor-type encroachment applications such as landscaping, or a 1-inch pool deck encroachment, etc., could be approved at the Staff level and sent to the Board. He noted if any

application were bigger or more involved, said application could be presented to the Board for consideration. He stated this could help with timing for homeowners.

Mr. Refkin noted he would not sign anything without first speaking with Mr. Krebs, Mr. Bernard, Mr. Ward, and/or Mr. Urbancic to be sure he understood what was being signed. He stated if anything came to him which was not routine, he would ensure it was brought before the Board for consideration.

Ms. LeFevre noted the policy currently stated Staff would approve the applications. She asked if the policy could be adjusted to indicate the Chair would ultimately approve the applications.

Mr. Ward responded policy indicated Staff could approve but the Chair had to sign off on that approval.

Mr. Refkin noted non-routine types of encroachments included seawalls, fences, rip rap, etc.

Mr. Ward stated which types of encroachments were minor versus major could also be spelled out more clearly in the policy. He stated moving forward, if it were determined this minor versus major concept was not working, policy could be changed.

Mr. Refkin indicated Mr. Urbancic would need to help with this as well, especially in determining what was minor versus major.

Mr. Urbancic agreed and noted clarity could be put into the revision regarding what was considered a minor item, and anything which did not fall in the class of minor items would come before the Board for consideration. He noted if there were any uncertainty, the matter would be brought to the Board as well.

On MOTION made by Mr. Doug Ballinger, seconded by Mr. Pat Reidy, and with all in favor, Resolution 2022-1 was adopted subject to changes, and the Chair was authorized to sign.

FIFTH ORDER OF BUSINESS Staff Reports

I. District Attorney

No report.

II. District Engineer

No report.

III. Asset Manager

a) Operations Report October 1, 2021

Mr. Bruce Bernard briefly discussed his Operations Report. He indicated the drainage contractor recently cleared a clogged drainage line and three basins.

Discussion ensued regarding flooding after the most recent rain event.

Mr. Bernard indicated the Water Quality Report was completed and sent in as required. He stated Solitude Lake Management would be conducting a quarterly report regarding the condition of the lakes. He displayed the first report from Solitude.

Mr. Refkin commented the lake report from Solitude was excellent.

Discussion ensued regarding the Solitude report and the numbering of the lakes/basins.

Mr. Bernard noted per NDPES requirements once a year illicit discharges were to be discussed. He noted this would be included on a Board Meeting Agenda. He stated a refresher course full of information was available on the CDD website which reviewed such things as water turbidity and what needed to be done in case of illicit discharge, appropriate phone numbers, Department of Environmental Protection summary of procedures for petroleum cleanup, etc.

IV. District Manager

a) Financial Statement for period ending September 30, 2021 (unaudited)

No report.

Mr. Reidy noted the financial statement for September showed about $74,000 dollars going into cash which was approximately $20,000 dollars less than anticipated.

A brief discussion ensued regarding the financial statement but was indecipherable.

SIXTH ORDER OF BUSINESS Supervisor's Requests and Audience Comments

Mr. Ward asked if there were any Supervisor's requests; there were none.

Mr. Ward noted there were several audience members present which he believed were from London Bay Homes with respect to lots 11, 12 and 13. He asked if there were any questions or comments.

Ms. Lisa Van Dien asked how these lots would be handled. She noted she had been communicating with Mr. Ward for several months regarding these lots. She indicated she could not get certificates of occupancy for these homes until a resolution was reached regarding the encroaching fences. She stated these fences were the required pool safety barriers. She noted two of the homes were within 30 days of completion. She requested the encroaching fences be approved at the Staff level or be considered by the Board today.

Mr. Ward stated he would go through the procedures with London Bay as were just approved by the Board. He noted Staff had the ability to approve the encroachment application.

Mr. Reidy stated the Board Members received an email yesterday from Bob Bruns (ph).

Mr. Ward stated Mr. Bruns was a London Bay homeowner who was closing in 30 days.

Mr. Reidy noted Mr. Bruns' email indicated the CDD was requiring him to install a back fence (across his yard) and Mr. Bruns wanted to know if the CDD could do anything which would enable him not to install a back fence as this would disrupt his water view.

Mr. Krebs explained the fences were required by Lee County for safety purposes. He stated Lee County indicated taking the fence down to the control elevation was sufficient for rear protection. He stated if the fences were not brought down to the control elevation, a back fence enclosing in the pool area was required. He explained if the CDD did not approve the encroachment of the fence down to the control elevation waterline, then Mr. Bruns would be required to install the back fence across his yard enclosing in the pool space.

Discussion continued regarding the email from Mr. Bruns and why Mr. Bruns felt the CDD was requiring the back fence; the CDD's blanket statement that it was no longer going to permit any encroachments causing Mr. Bruns to send the email; and side fence encroachments always being approved in the past.

Mr. Reidy stated he felt the side fence encroachment should be approved.

Mr. Ballinger asked if gate installation was required with side fence encroachments.

Mr. Ward responded in the affirmative; a gate or removable fence was required. He noted a "removable" fence was a fence which was easy to lift and move for access. He stated he would provide Lisa with the rules adopted today once the rules were updated, and then London Bay would be required to submit the necessary documents, following which the documents would be reviewed right away.

Discussion continued regarding approval of this side fence encroachment with the addition of a gate or removable fence.

Mr. Ward noted side fencing, landscaping, and rip rap were standard minor encroachments which were easily and commonly approved but had to go through the proper procedure for approval as adopted by the Board. He stated he did not feel there would be any complications, difficulties, or delays in approving the London Bay side fence encroachments. He stated all three London Bay encroachment requests were the same: side fence encroachments. He asked if there were any additional audience questions or comments; there were none.

SEVENTH ORDER OF BUSINESS **Adjournment**

Mr. Ward adjourned the meeting at 3:08 p.m.

On MOTION made by Mr. Doug Ballinger, seconded by Mr. Alan Refkin, and with all in favor, the meeting was adjourned.

ATTEST: **Miromar Lakes Community Development District**

_____ _____

James P. Ward, Secretary **Alan Refkin, Chairman**

RESOLUTION NO. 2022-2

A RESOLUTION OF THE BOARD OF SUPERVISORS OF MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT ADOPTING THE 2021-22 RESERVE STUDY PREPARED BY DREUX ISAAC & ASSOCIATES INC.; PROVIDING FOR SEVERABILITY, CONFLICTS AND AN EFFECTIVE DATE.

WHEREAS, Miromar Lakes Community Development District (the "**District**") is a community development district that was established pursuant to the provisions of Chapter 190, Florida Statutes by the Board of County Commissioners of Lee County, Florida through the adoption of Ordinance No. 00-17 on September 12, 2000, as amended by that certain Ordinance No. 10-22 adopted on April 27, 2010 by the Board of County Commissioners of Lee County, Florida; and

WHEREAS, the Board of Supervisors of the District (the "**Board**") has previously authorized the engagement of Dreux Isaac & Associates Inc. ("**DI&A**") to review the assets of the District and prepare a reserve study for the assets of the District; and

WHEREAS, DI&A has presented to the Board that certain 2021-22 Reserve Study, a copy of which is attached hereto as **Exhibit "A"** (the "**DI&A Reserve Study**"); and

WHEREAS, the Board finds that it is in the best interests of the District to adopt the DI&A Reserve Study for use by the District.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT:

SECTION 1. FINDINGS. The above recitals are true and correct and incorporated herein by this reference.

SECTION 2. ADOPTION OF RESERVE STUDY. The DI&A Reserve Study attached hereto as **Exhibit "A"** is hereby adopted pursuant to this Resolution. The Board may supplement, revise, modify or update the DI&A Reserve Study from time to time as the Board determines necessary or appropriate.

SECTION 3. SEVERABILITY. If any section or part of a section of this Resolution be declared invalid or unconstitutional, the validity, force and effect of any other section or part of a section of this Resolution shall not thereby be affected or impaired unless it clearly appears that such other section or part of a section of this Resolution is wholly or necessarily dependent upon the section or part of a section so held to be invalid or unconstitutional, it being expressly found and declared that the remainder of this Resolution would have been adopted despite the invalidity of such section or part of such section.

SECTION 4. CONFLICTS. All resolutions or parts thereof in conflict herewith are, to the extent of such conflict, superseded and repealed.

SECTION 5. EFFECTIVE DATE. This Resolution shall be effective immediately upon its adoption.

PASSED AND ADOPTED at a meeting of the Board of Supervisors of Miromar Lakes Community Development District this 11th day of November, 2021.

Attest:

MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT

James P. Ward, Secretary

Alan Refkin, Chairman

Exhibit “A”

2021-22 Reserve Study

Miromar Lakes Community Development District

Miromar Lakes Parkway
Miromar Lakes, Florida 33913

Report No: 7563 Version 2

October 1, 2021 - September 30, 2022

DREUX ISAAC & ASSOCIATES INC
Reserve Studies & Insurance Appraisals Since 1989

10151 University Boulevard, Suite 323
Orlando, Florida 32817

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October 22, 2021

Board of Directors
Miromar Lakes Community Development District
Miromar Lakes Parkway
Miromar Lakes, Florida 33913

Re: Reserve Study Report

As authorized, this reserve study has been prepared on the Miromar Lakes Community Development District property, located at Miromar Lakes Parkway in Miromar Lakes, Florida.

Your report has been divided into sections for easier referencing. Section one includes disclosures, definitions, requirements, explanations, and conditions.

Each section that follows provides detailed reserve information for each phase of your property beginning with an executive summary of recommendations and findings. Following that are a series of charts which graphically show the overall numbers and compare them to your current plan.

For each phase we have also included two plans for calculating your reserve contribution. The first is the straight line or segregated plan. Also referred to as the component method, this plan calculates the total contribution based on the sum of contributions for the individual components.

The second plan is based on 30 years of projected expenditures and uses the pooled cash flow method to calculate a positive cash flow with stable annual contribution amounts over 30 years.

Thank you for this opportunity. Should you have any questions, please contact us.

Respectfully Submitted,

Dreux Isaac, RS, PRA
President

D.J. Muehlstedt, Jr.
Sr. Reserve Analyst/Insurance Appraiser
Marshall & Swift Cost Approach Certified

Report Process

The purpose of this report is to provide Miromar Lakes Community Development District with specific information necessary in establishing a capital reserves program for the current budget year beginning October 1, 2021 and ending September 30, 2022.

The process of preparing this report began with an on-site inspection of the District's property. During this inspection, an initial review was made of past reserve expenditures and the current reserve plan. From there, a complete inventory was made of the common area elements and a reserve component list was developed.

Using this list, a takeoff was then made of each component through a review of available construction drawings, checking maintenance records, taking pertinent measurements and noting its current observed physical condition. Additional background information on the property was obtained through discussions with various contact personnel.

Using the information gathered during the site inspection, calculations were then performed to determine the correct quantity of each component. From there cost estimates were then prepared based on a combination of local contractor information, any available bid proposals, and our own database of construction costs.

Asset lives have been determined using a combination of published guidelines and our review of the properties climatic conditions and the components observed physical condition noted during our site inspection.

Based on the latest available financial records, projections were made as to what the District's end of year reserve balances would be. However, accumulating interest on the varying reserve balance amounts and/or unplanned expenditures may cause the actual end of year reserve balances to differ from what is presented in this report.

Reserve Study Accounting

This reserve study report calculates the annual reserve contribution using two methods. These are as follows:

Straight Line Funding Plan

This plan utilizes straight line accounting formulas. Straight line accounting is based on current costs and neither interest or inflation are factored into the calculations.

Straight line accounting takes each individual component line item in the reserve schedule breakdown and computes its' annual contribution amount by taking its' unfunded balance (current replacement cost minus projected year end reserve balance) and divides it by the component's remaining life. This is the amount that should be contributed into the reserves accounts over the component's remaining life.

30 Year Pooled Cash Flow Plan

To calculate the annual contribution amount using this method, a thirty year cash flow analysis is performed to determine that there will be adequate reserve funds on deposit as the reserve components of the property age and are repaired and/or replaced.

This analysis takes the total beginning year reserve balance along with the projected annual reserve expenditures over a thirty year period, and through pooling of all of the reserve funds and creating one general reserve fund, arrives at an annual contribution amount so as to provide a positive cash flow and adequate reserve account balance over the next thirty years.

Unlike straight line accounting, the numbers calculated in the thirty year cash flow plan factor in both interest and inflation as well as any annual contribution increases.

Report Definitions

Reserves
Monies set aside for the projected repair and/or replacement of the Districts common elements.

Component
The individual line items in the Reserve Study developed or updated in the Physical Analysis.

Quantity
The quantity or amount of each reserve component element.

Units
The unit of measurement for each quantity.

Cost Per Unit
The estimated cost to replace a reserve component per unit of measurement.

Current Cost
The estimated current cost to replace a reserve component.

Useful Life
The total average estimated life, in years, of a component to maintain its useful purpose.

Remaining Life
The estimated remaining useful life, in years, of a reserve component as of the current budget year.

09/30/2021 Balance
A projection of estimated reserve funds at the end of the previous budget year.

Unfunded Balance
The total remaining amount of reserve funds that are required to fully fund a component. Calculated by subtracting the component's current replacement cost from its' year-end reserve balance.

2021-22 Contribution
This is the total annual contribution amount for the current budget year calculated by dividing every component's unfunded balance by its' remaining life.

Unit Abbreviations

Sq Ft - Square Feet

Ln Ft - Linear Feet

Each - Each

Sq Yds - Square Yards

Kw - Kilowatts

Lp Sm - Lump Sum

Allow - Allowance

Hp - Horsepower

Cu Ft - Cubic Feet

Pair - Pair

Dbl Ct - Double Tennis Court

Court - Court

Units - Units

Cu Yds - Cubic Yards

Squares - Squares (roofing)

Company Information

Since 1989 Dreux Isaac & Associates has been serving community associations, businesses, private clubs and non-profit organizations throughout Florida and the Southeast United States by performing reserve studies, insurance appraisals and turnover reports.

Experience - We have inspected and prepared thousands of reserve studies and insurance appraisals for all sizes and types of communities, located in large cities, small towns, resort areas and remote islands.

Training - All technical work is performed by professionals with backgrounds in engineering or architecture.

Accuracy - All our reports are based on local data and conditions which we continuously monitor.

Understandability - We're numbers people, but many who read and use our reports are not. So we summarize the data and present it to you in a way that is clear and logical.

Compliance - The reports we prepare will comply with all governing regulations for your District.

Safety - We carry errors and omissions, liability and workers compensation insurance.

Update Reports

Inflation, labor rates, material availability, taxes, insurance and asset lives are just but a few of the ever changing variables addressed in your reserve study report.

It is important that you keep your reserve plan on target with annual update reports. Since the initial calculations on the property have now been performed, we can offer this service to you (with or without site re-inspection) at just a percentage of the cost of your "First Time" reserve study.

We recommend annual update reports (without site re-inspection) for the first three years following your 1st time reserve study. In performing these reports, we will take the information from your computer file and calculate current replacement cost values, asset lives and financial figures based on the latest available information.

Then in the fourth year we suggest making a brief site re-inspection to observe the present physical condition of your reserve components to determine if any adjustments should be made to the remaining life expectancies, or unit costs of each component. Once completed we can then repeat this four year cycle of your reserve program for as long as you wish. By following this recommended plan, your reserve program will have the most accurate information available each year from which you can make sound budget decisions.

To make this process easier, we can set you up on our three year automatic update service to make sure you do not miss an update. To get started just contact us at 800-866-9876 or update@dia-corp.com.

Terms and Conditions

Dreux Isaac & Associates, Inc. ("DIA") has no present or contemplated future interest in the property that is the subject of this report and no personal interest or bias with respect to the subject matter of this report or the parties involved. Neither the employment to prepare this study, nor the compensation, is contingent upon the findings and conclusions contained herein.

Information provided to DIA by the Client or their representative(s), such as but not limited to, historical records, financial documents, proposals, contracts, correspondence, and construction plans will be deemed reliable and will not be independently verified or audited.

DIA has not investigated, nor assumes any responsibility for the existence of hazardous materials, latent or hidden defects or hidden conditions. Unless expressly stated in our report disclosures, there are no material issues that that would cause a distortion of the Client's situation.

No testing, invasive or non-invasive, has been performed by DIA. No warranty is made and no liability is assumed for the soundness of the structure or its components. DIA has made no investigation of, offers no opinion of, and assumes no responsibility for the structural integrity of the property, code compliance requirements, or any physical defects, regardless of cause.

DIA uses various sources to arrive at its opinion of estimated cost. The information obtained from these sources is considered to be accurate and reasonable, but is not guaranteed. Factors such as inflation, availability of materials and qualified personnel and/or acts of nature as well as catastrophic conditions, could significantly affect current prices. No consideration has been given to labor bonuses; material premiums; additional costs to conform property replaced to building codes, ordinances or other legal restrictions; or the cost of demolition in connection with replacement or the removal of destroyed property. No value of land has been included. For update studies (Level II or III) prior quantities assumed to be accurate.

In the event that complete construction plans/blueprints were not available for use in the completion of this report, assumptions were made regarding unseen construction components, based on our experience with properties similar to the subject. In the event that these assumptions are in error, we reserve the right to modify this report, including value conclusions.

Estimates of useful life and remaining useful life used in this report assume proper installation and construction, adherence to recommended preventive maintenance guidelines and best practices. Natural disasters, catastrophic or severe condition changes could significantly affect the lives of any component. DIA does not warranty or guarantee the useful lives of any components.

Where feasible DIA may inspect and use a representative sampling of the Client's property to accurately replicate an entire group of similar components at the same property. This report data is not applicable to any other property regardless of similarity.

Client agrees to indemnify and hold harmless DIA, its officers, employees, affiliates, agents and independent contractors from any and all liabilities or claims made in connection with the preparation of this report. The liability of DIA its officers, employees, affiliates, agents and independent for errors and omissions, is limited in total to the amount collected for preparation of this report.

According to the best of our knowledge and belief, the statements of fact contained in this report which are used as the basis of the analysis, opinions and conclusions stated herein, are true and correct. Acceptance of, and/or use of, this report constitutes acceptance of the above conditions. Use of this report is limited to only the purpose stated herein.

Report Notes

1. The district is planning to implement the current reserve study beginning 10/1/2022.

2. Landscape plantings and trees along with the stormwater management systems were quantified by the Asset Manager and Calvin, Giordano & Associates.

3. Allowances established in the current reserve schedule are based on what is typically observed at other similar properties. These allowance lives and costs are subjective in nature and can be adjusted in a future update report to better reflect this particular property once a documented history and frequency of spending is better known for each of the asset allowances as currently shown in this reserve schedule.

4. On the straight line plan summary page the range of useful life and remaining life numbers shown on this "Reserve Schedule Summary" page reflect the minimum and maximum life expectancies of the individual items within each category.

Summary of Recommendations and Findings

1. General Information

Property Name:	**Miromar Lakes Community Development District**		
Property Location:	**Miromar Lakes, Florida**		
Property Number:	**10471**	Report Run Date:	**10/18/2021**
Property Type:	**Other**	Report No:	**7563 Version 2**
Total Units:	**1,675**	Budget Year Begins:	**10/01/2021**
Phase:	**CDD Drainage & Lakes (1 of 2)**	Budget Year Ends:	**09/30/2022**

2. Report Findings

Total number of categories set up in reserve schedule:	**6**
Total number of components scheduled for reserve funding:	**21**
Total current cost of all scheduled reserve components:	**$2,828,815**
Estimated Beginning Year Reserve Balance:	**$100,000**
Total number of components scheduled for replacement in the 2021-22 Budget Year:	**1**
Total cost of components scheduled for replacement in the 2021-22 Budget Year:	**$5,432**

3. Straight Line Reserve Funding Plan Analysis

Current Annual Reserve Funding Contribution Amount:	**$105,000**
Recommended Annual Reserve Funding Contribution Amount:	**$530,358**
Increase (decrease) between Current & Recommended Contribution Amounts:	**$425,358**
Increase (decrease) between Current & Recommended Contribution Amounts:	**405.10%**

4. 30 Year Pooled Cash Flow Funding Plan Analysis

Current Annual Reserve Funding Contribution Amount:	**$105,000**
Recommended 2021-22 Reserve Funding Contribution Amount:	**$196,266**
Recommended 2021-22 Planned Special Assessment Amount:	**$0**
Total 2021-22 Reserve Funding and Planned Special Assessment Amount:	**$196,266**
Increase (decrease) between Current & Recommended Contribution Amounts:	**$91,266**
Increase (decrease) between Current & Recommended Contribution Amounts:	**86.92%**

Chart A

2021-22 Current Reserve Component Costs

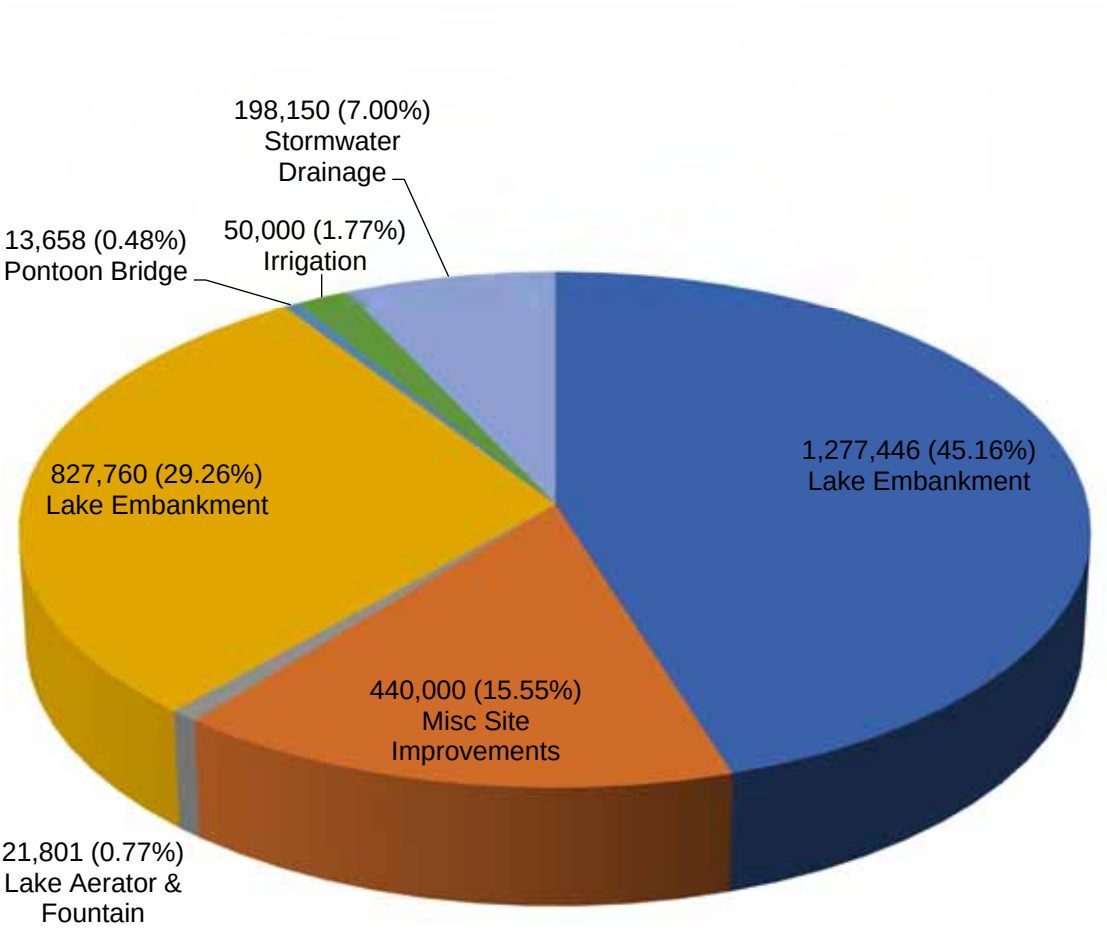
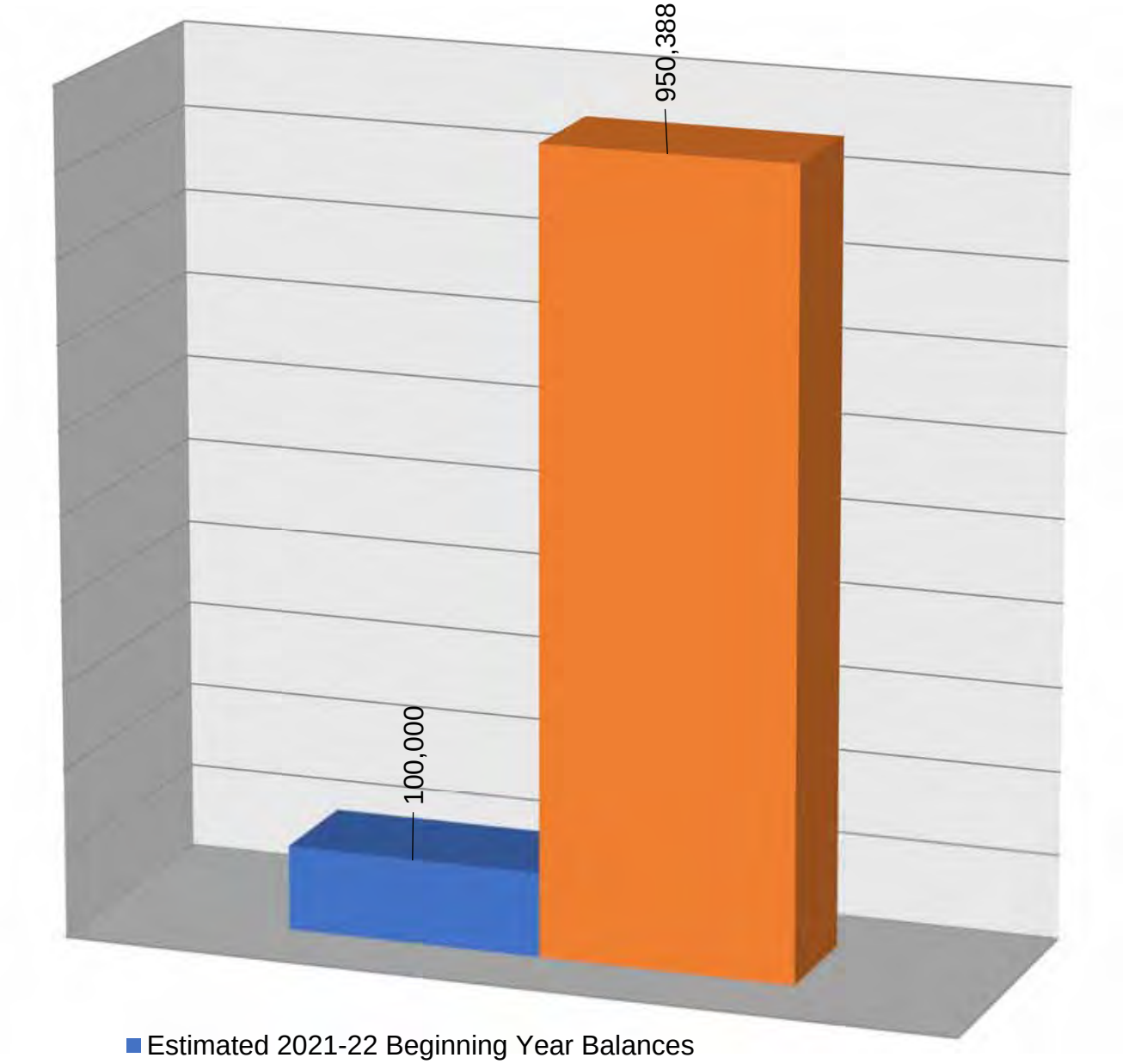


Chart B

2021-22 Actual vs. 100% Funded Straight Line Reserve Balances

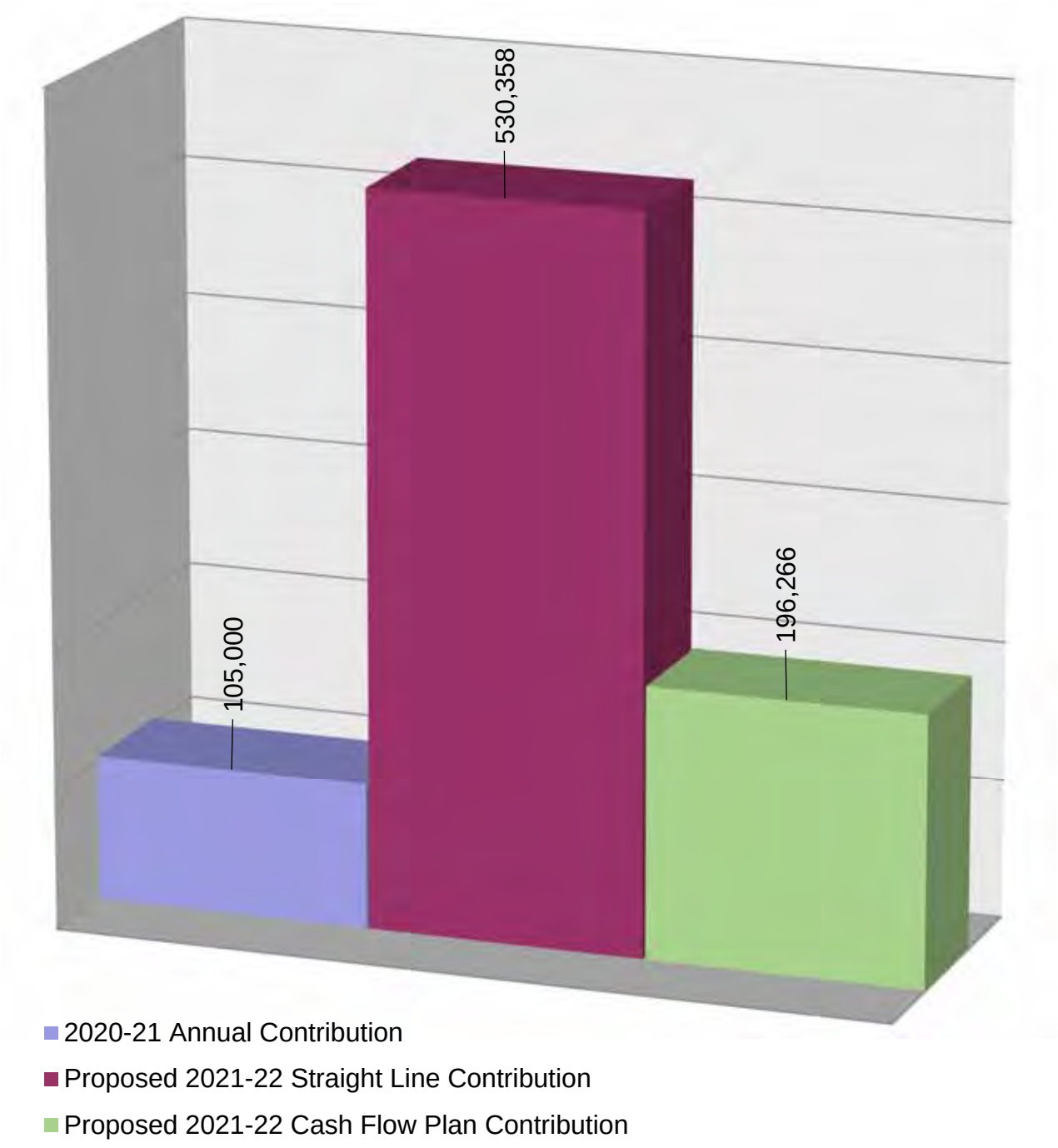


Actual beginning year balances are estimates only based on the latest financial information.

100% funded beginning year balances are based on straight line accounting formulas.

Chart C

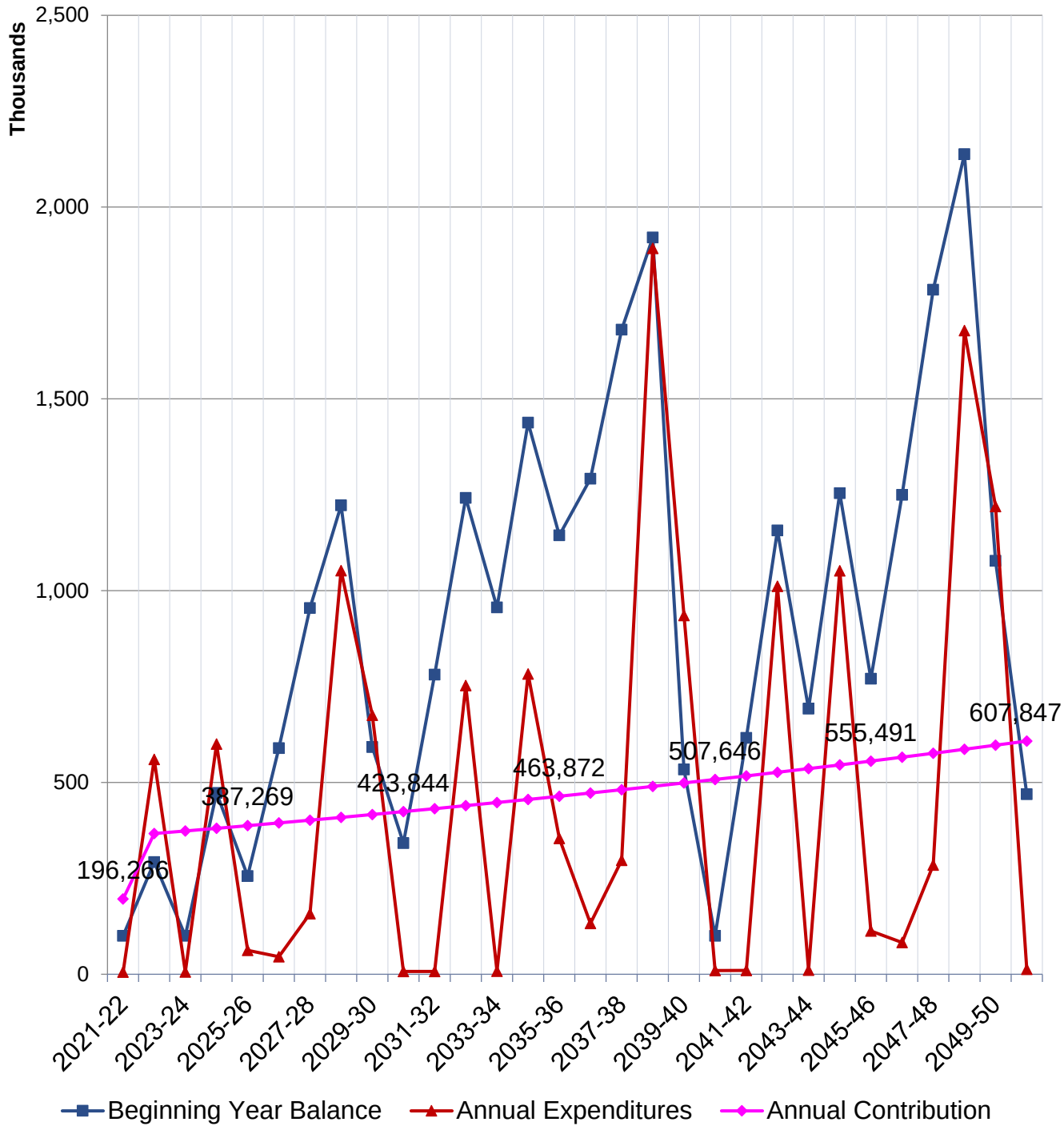
2021-22 Funding Contribution Comparisons



Proposed 2021-22 Straight Line Contribution = Unfunded Balance / Remaining Life

Chart D

30 Year Pooled Cash Flow Plan



Straight Line Plan Summary

Description	Current Cost	Useful Life	Remg Life	9/30/2021 Balance	Unfunded Balance	2021-22 Contribution
Misc Site Improvements	440,000	10	2	77,320	362,680	181,340
Lake Aerator & Fountain	21,801	1-15	1-4	5,432	16,369	4,092
Lake Embankment	2,105,206	5-20	4-18	0	2,105,206	281,121
Pontoon Bridge	13,658	20	16	0	13,658	854
Irrigation	50,000	20	5	0	50,000	10,000
Stormwater Drainage	198,150	5-25	2-8	17,248	180,902	52,951
Grand Total	**2,828,815**			**100,000**	**2,728,815**	**530,358**

Straight Line Plan Detail

Description	Quantity	Units	Cost Per Unit	Current Cost	Useful Life	Remg Life	9/30/21 Balance	Unfunded Balance	2021-22 Contribution
Misc Site Improvements									
Stormwater Drainage Piping Allowance	1	Total	440,000.00	440,000	10	2	77,320	362,680	181,340
Misc Site Improvements Total	1	Components		440,000	10	2	77,320	362,680	181,340
Lake Aerator & Fountain									
Lake Aerator, Pump/Motor/Electrical - Allowance	1	Each	5,432.00	5,432	1	1	5,432	0	0
Lake Fountain, Pump/Motor/Electrical - Lake 3A	1	Each	16,369.00	16,369	15	4	0	16,369	4,092
Lake Aerator & Fountain Total	2	Components		21,801	1-15	1-4	5,432	16,369	4,092
Lake Embankment									
Lake Embankment, Geo Tubes - Lake 1A	720	Ln Ft	51.50	37,080	20	18	0	37,080	2,060
Lake Embankment, Geo Tubes - Lake 1B	4,224	Ln Ft	51.50	217,536	20	18	0	217,536	12,085
Lake Embankment, Geo Tubes - Lake 1C	1,220	Ln Ft	51.50	62,830	20	18	0	62,830	3,491
Lake Embankment, Geo Tubes - Lake 3A	910	Ln Ft	51.50	46,865	20	18	0	46,865	2,604
Lake Embankment, Geo Tubes - Lake 5/6 North	2,860	Ln Ft	51.50	147,290	20	15	0	147,290	9,819
Lake Embankment, Geo Tubes - Lake 5/6 South	1,581	Ln Ft	51.50	81,422	20	15	0	81,422	5,428
Lake Embankment, Geo Tubes - Lake 6A	660	Ln Ft	51.50	33,990	20	6	0	33,990	5,665
Lake Embankment, Geo Tubes - Lake 6E	760	Ln Ft	51.50	39,140	20	16	0	39,140	2,446
Lake Embankment, Geo Tubes - Lake 6F	552	Ln Ft	51.50	28,428	20	7	0	28,428	4,061
Lake Embankment, Geo Tubes - Lake 6G	486	Ln Ft	51.50	25,029	20	18	0	25,029	1,390
Lake Embankment, Geo Tubes - Lake 6H	1,580	Ln Ft	51.50	81,370	20	17	0	81,370	4,786
Lake Embankment, Geo Tubes - Lake 6J	520	Ln Ft	51.50	26,780	20	16	0	26,780	1,674
Lake Embankment, Rip Rap - Disaster Event	1	Total	750,000.00	750,000	10	8	0	750,000	93,750
Lake Embankment, Rip Rap Allowance	1	Total	527,446.00	527,446	5	4	0	527,446	131,862
Lake Embankment Total	14	Components		2,105,206	5-20	4-18	0	2,105,206	281,121
Pontoon Bridge									
Pontoon Bridge, Framing & Decking - Lake 5/6 South	320	Sq Ft	42.68	13,658	20	16	0	13,658	854
Pontoon Bridge Total	1	Components		13,658	20	16	0	13,658	854
Irrigation									
Irrigation Pump Station - Ben Hill Griffin	2	Each	25,000.00	50,000	20	5	0	50,000	10,000
Irrigation Total	1	Components		50,000	20	5	0	50,000	10,000

Description	Quantity	Units	Cost Per Unit	Current Cost	Useful Life	Remg Life	9/30/21 Balance	Unfunded Balance	2021-22 Contribution
Stormwater Drainage									
Drainage, Concrete Weir & Fish Barrier - Lake 5/6 South	1	Total	100,000.00	100,000	25	8	0	100,000	12,500
Stormwater Drainage Outfall & Catch Basin Allowance	1	Total	98,150.00	98,150	5	2	17,248	80,902	40,451
Stormwater Drainage Total	2	Components		198,150	5-25	2-8	17,248	180,902	52,951
Grand Total	21	Components		2,828,815			100,000	2,728,815	530,358

Cash Flow Plan Summary

No	Year	Beginning Year Balance	Annual Reserve Contribution	Annual Increase	Planned Special Assessments	Expenses	Inflation Rate	Earned Interest	Interest Rate	Ending Year Balance
1	2021-22	100,000	196,266	86.92%	0	5,432	3.00%	1,454	0.50%	292,288
2	2022-23	292,288	366,857	86.92%	0	559,889	3.00%	744	0.75%	100,000
3	2023-24	100,000	373,539	1.82%	0	5,763	3.00%	4,678	1.00%	472,454
4	2024-25	472,454	380,342	1.82%	0	600,177	3.00%	3,158	1.25%	255,777
5	2025-26	255,777	387,269	1.82%	0	62,389	3.00%	8,710	1.50%	589,367
6	2026-27	589,367	394,322	1.82%	0	45,701	3.00%	16,415	1.75%	954,403
7	2027-28	954,403	401,504	1.82%	0	157,627	3.00%	23,966	2.00%	1,222,246
8	2028-29	1,222,246	408,817	1.82%	0	1,052,073	3.00%	13,027	2.25%	592,017
9	2029-30	592,017	416,263	1.82%	0	675,034	3.00%	8,331	2.50%	341,577
10	2030-31	341,577	423,844	1.82%	0	7,088	3.00%	22,750	3.00%	781,083
11	2031-32	781,083	431,563	1.82%	0	7,300	3.00%	36,160	3.00%	1,241,506
12	2032-33	1,241,506	439,423	1.82%	0	752,445	3.00%	27,855	3.00%	956,339
13	2033-34	956,339	447,426	1.82%	0	7,745	3.00%	41,881	3.00%	1,437,901
14	2034-35	1,437,901	455,575	1.82%	0	782,549	3.00%	33,328	3.00%	1,144,255
15	2035-36	1,144,255	463,872	1.82%	0	354,163	3.00%	37,619	3.00%	1,291,583
16	2036-37	1,291,583	472,321	1.82%	0	132,443	3.00%	48,944	3.00%	1,680,405
17	2037-38	1,680,405	480,923	1.82%	0	296,794	3.00%	55,936	3.00%	1,920,470
18	2038-39	1,920,470	489,682	1.82%	0	1,892,133	3.00%	15,541	3.00%	533,560
19	2039-40	533,560	498,583	1.82%	0	935,056	3.00%	2,913	3.00%	100,000
20	2040-41	100,000	507,646	1.82%	0	9,525	3.00%	17,944	3.00%	616,065
21	2041-42	616,065	516,873	1.82%	0	9,811	3.00%	33,694	3.00%	1,156,821
22	2042-43	1,156,821	526,268	1.82%	0	1,011,222	3.00%	20,156	3.00%	692,023
23	2043-44	692,023	535,834	1.82%	0	10,408	3.00%	36,523	3.00%	1,253,972
24	2044-45	1,253,972	545,574	1.82%	0	1,051,681	3.00%	22,436	3.00%	770,301
25	2045-46	770,301	555,491	1.82%	0	112,682	3.00%	36,393	3.00%	1,249,503
26	2046-47	1,249,503	565,588	1.82%	0	82,540	3.00%	51,977	3.00%	1,784,528
27	2047-48	1,784,528	575,869	1.82%	0	284,692	3.00%	62,271	3.00%	2,137,976
28	2048-49	2,137,976	586,337	1.82%	0	1,678,032	3.00%	31,388	3.00%	1,077,669
29	2049-50	1,077,669	596,995	1.82%	0	1,219,185	3.00%	13,664	3.00%	469,143
30	2050-51	469,143	607,847	1.82%	0	12,801	3.00%	31,926	3.00%	1,096,115
Grand Total			**14,048,713**		**0**	**13,814,380**		**761,782**		

Cash Flow Plan Details

Category	Description	Cost
Year 1: 2021-22		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	5,432
Year 1 Total		**5,432**
Year 2: 2022-23		
Misc Site Improvements	Stormwater Drainage Piping Allowance	453,200
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	5,595
Stormwater Drainage	Stormwater Drainage Outfall & Catch Basin Allowance	101,094
Year 2 Total		**559,889**
Year 3: 2023-24		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	5,763
Year 3 Total		**5,763**
Year 4: 2024-25		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	5,936
Lake Aerator & Fountain	Lake Fountain, Pump/Motor/Electrical - Lake 3A	17,887
Lake Embankment	Lake Embankment, Rip Rap Allowance	576,354
Year 4 Total		**600,177**
Year 5: 2025-26		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	6,114
Irrigation	Irrigation Pump Station - Ben Hill Griffin	56,275
Year 5 Total		**62,389**
Year 6: 2026-27		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	6,297
Lake Embankment	Lake Embankment, Geo Tubes - Lake 6A	39,404
Year 6 Total		**45,701**
Year 7: 2027-28		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	6,486
Lake Embankment	Lake Embankment, Geo Tubes - Lake 6F	33,945
Stormwater Drainage	Stormwater Drainage Outfall & Catch Basin Allowance	117,196
Year 7 Total		**157,627**
Year 8: 2028-29		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	6,681

Category	Description	Cost
Lake Embankment	Lake Embankment, Rip Rap - Disaster Event	922,405
Stormwater Drainage	Drainage, Concrete Weir & Fish Barrier - Lake 5/6 South	122,987
Year 8 Total		**1,052,073**
Year 9: 2029-30		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	6,881
Lake Embankment	Lake Embankment, Rip Rap Allowance	668,153
Year 9 Total		**675,034**
Year 10: 2030-31		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	7,088
Year 10 Total		**7,088**
Year 11: 2031-32		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	7,300
Year 11 Total		**7,300**
Year 12: 2032-33		
Misc Site Improvements	Stormwater Drainage Piping Allowance	609,063
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	7,519
Stormwater Drainage	Stormwater Drainage Outfall & Catch Basin Allowance	135,863
Year 12 Total		**752,445**
Year 13: 2033-34		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	7,745
Year 13 Total		**7,745**
Year 14: 2034-35		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	7,977
Lake Embankment	Lake Embankment, Rip Rap Allowance	774,572
Year 14 Total		**782,549**
Year 15: 2035-36		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	8,216
Lake Embankment	Lake Embankment, Geo Tubes - Lake 5/6 North	222,789
Lake Embankment	Lake Embankment, Geo Tubes - Lake 5/6 South	123,158
Year 15 Total		**354,163**
Year 16: 2036-37		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	8,463

Category	Description	Cost
Lake Embankment	Lake Embankment, Geo Tubes - Lake 6E	60,979
Lake Embankment	Lake Embankment, Geo Tubes - Lake 6J	41,722
Pontoon Bridge	Pontoon Bridge, Framing & Decking - Lake 5/6 South	21,279
Year 16 Total		**132,443**
Year 17: 2037-38		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	8,717
Lake Embankment	Lake Embankment, Geo Tubes - Lake 6H	130,575
Stormwater Drainage	Stormwater Drainage Outfall & Catch Basin Allowance	157,502
Year 17 Total		**296,794**
Year 18: 2038-39		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	8,978
Lake Embankment	Lake Embankment, Geo Tubes - Lake 1A	61,288
Lake Embankment	Lake Embankment, Geo Tubes - Lake 1B	359,554
Lake Embankment	Lake Embankment, Geo Tubes - Lake 1C	103,848
Lake Embankment	Lake Embankment, Geo Tubes - Lake 3A	77,461
Lake Embankment	Lake Embankment, Geo Tubes - Lake 6G	41,369
Lake Embankment	Lake Embankment, Rip Rap - Disaster Event	1,239,635
Year 18 Total		**1,892,133**
Year 19: 2039-40		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	9,248
Lake Aerator & Fountain	Lake Fountain, Pump/Motor/Electrical - Lake 3A	27,867
Lake Embankment	Lake Embankment, Rip Rap Allowance	897,941
Year 19 Total		**935,056**
Year 20: 2040-41		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	9,525
Year 20 Total		**9,525**
Year 21: 2041-42		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	9,811
Year 21 Total		**9,811**
Year 22: 2042-43		
Misc Site Improvements	Stormwater Drainage Piping Allowance	818,529
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	10,105
Stormwater Drainage	Stormwater Drainage Outfall & Catch Basin Allowance	182,588
Year 22 Total		**1,011,222**

Category	Description	Cost
Year 23: 2043-44		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	10,408
Year 23 Total		**10,408**
Year 24: 2044-45		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	10,721
Lake Embankment	Lake Embankment, Rip Rap Allowance	1,040,960
Year 24 Total		**1,051,681**
Year 25: 2045-46		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	11,042
Irrigation	Irrigation Pump Station - Ben Hill Griffin	101,640
Year 25 Total		**112,682**
Year 26: 2046-47		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	11,373
Lake Embankment	Lake Embankment, Geo Tubes - Lake 6A	71,167
Year 26 Total		**82,540**
Year 27: 2047-48		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	11,715
Lake Embankment	Lake Embankment, Geo Tubes - Lake 6F	61,308
Stormwater Drainage	Stormwater Drainage Outfall & Catch Basin Allowance	211,669
Year 27 Total		**284,692**
Year 28: 2048-49		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	12,066
Lake Embankment	Lake Embankment, Rip Rap - Disaster Event	1,665,966
Year 28 Total		**1,678,032**
Year 29: 2049-50		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	12,428
Lake Embankment	Lake Embankment, Rip Rap Allowance	1,206,757
Year 29 Total		**1,219,185**
Year 30: 2050-51		
Lake Aerator & Fountain	Lake Aerator, Pump/Motor/Electrical - Allowance	12,801
Year 30 Total		**12,801**

Summary of Recommendations and Findings

1. General Information

Property Name:	**Miromar Lakes Community Development District**		
Property Location:	**Miromar Lakes, Florida**		
Property Number:	**10471**	Report Run Date:	**10/18/2021**
Property Type:	**Other**	Report No:	**7563 Version 2**
Total Units:	**1,675**	Budget Year Begins:	**10/01/2021**
Phase:	**CDD Landscape & Monuments (2 of 2)**	Budget Year Ends:	**09/30/2022**

2. Report Findings

Total number of categories set up in reserve schedule:	**2**
Total number of components scheduled for reserve funding:	**16**
Total current cost of all scheduled reserve components:	**$4,913,614**
Estimated Beginning Year Reserve Balance:	**$0**
Total number of components scheduled for replacement in the 2021-22 Budget Year:	**3**
Total cost of components scheduled for replacement in the 2021-22 Budget Year:	**$25,084**

3. Straight Line Reserve Funding Plan Analysis

Current Annual Reserve Funding Contribution Amount:	**$0**
Recommended Annual Reserve Funding Contribution Amount:	**$1,004,414**
Increase (decrease) between Current & Recommended Contribution Amounts:	**$1,004,414**
Increase (decrease) between Current & Recommended Contribution Amounts:	**--**

4. 30 Year Pooled Cash Flow Funding Plan Analysis

Current Annual Reserve Funding Contribution Amount:	**$0**
Recommended 2021-22 Reserve Funding Contribution Amount:	**$478,880**
Recommended 2021-22 Planned Special Assessment Amount:	**$0**
Total 2021-22 Reserve Funding and Planned Special Assessment Amount:	**$478,880**
Increase (decrease) between Current & Recommended Contribution Amounts:	**$478,880**
Increase (decrease) between Current & Recommended Contribution Amounts:	**--**

Chart A

2021-22 Current Reserve Component Costs

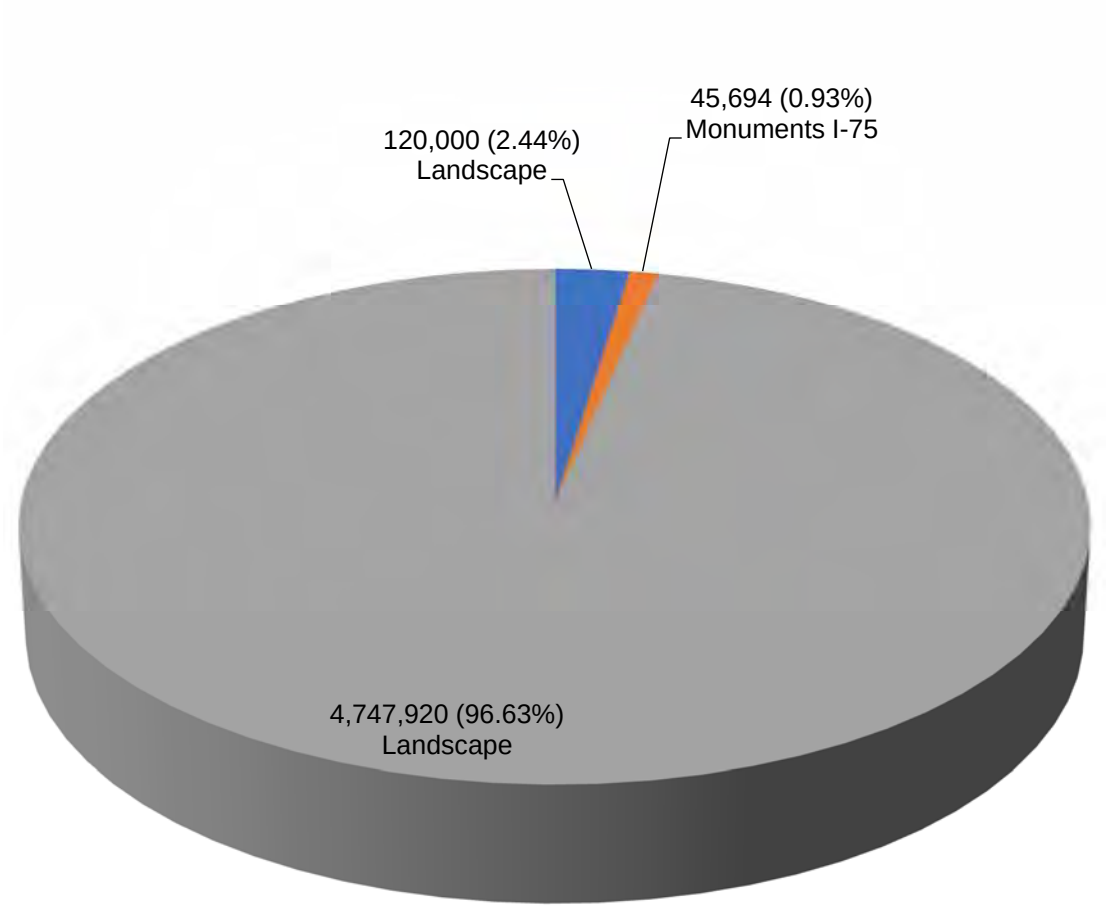
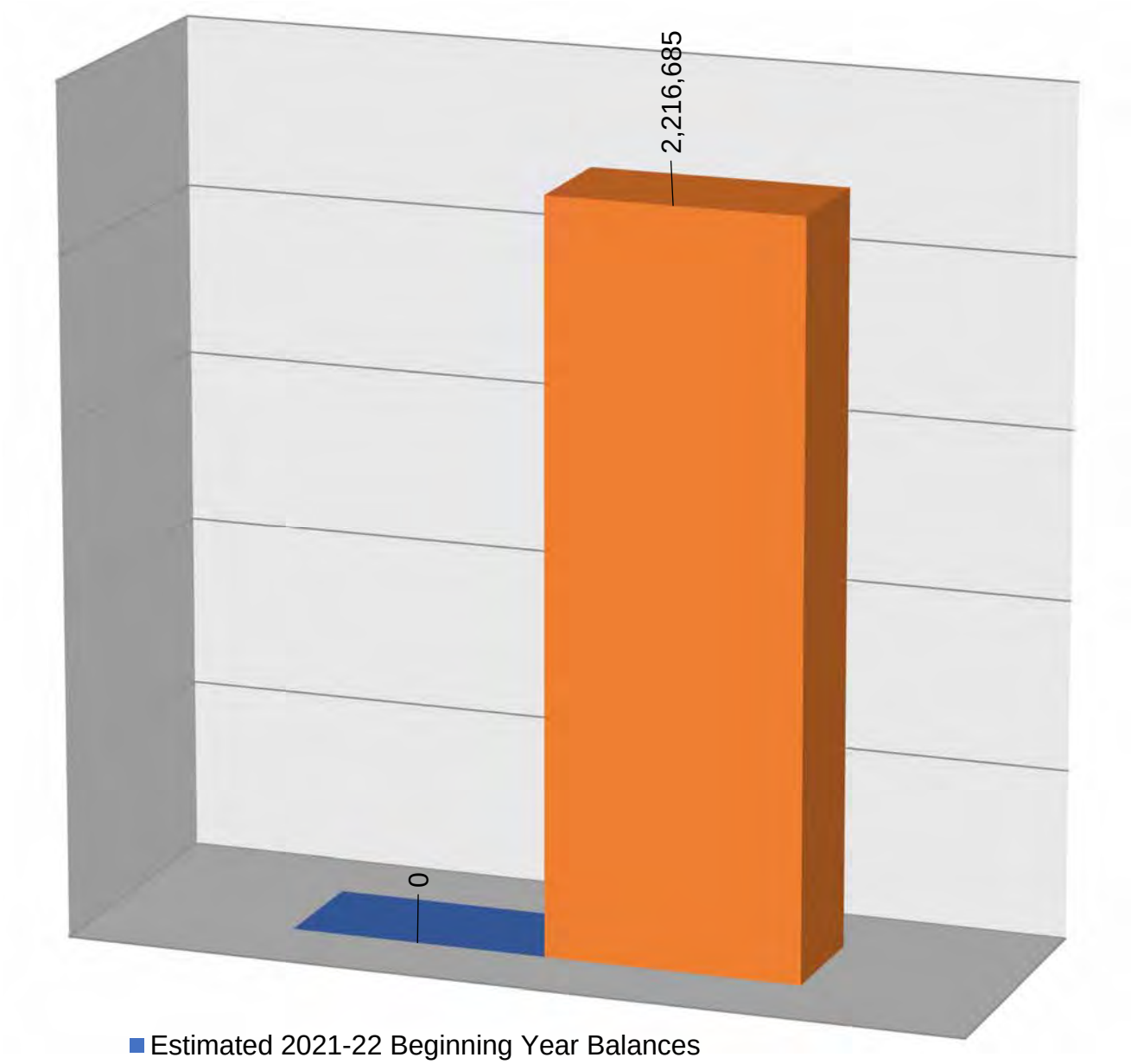


Chart B

2021-22 Actual vs. 100% Funded Straight Line Reserve Balances

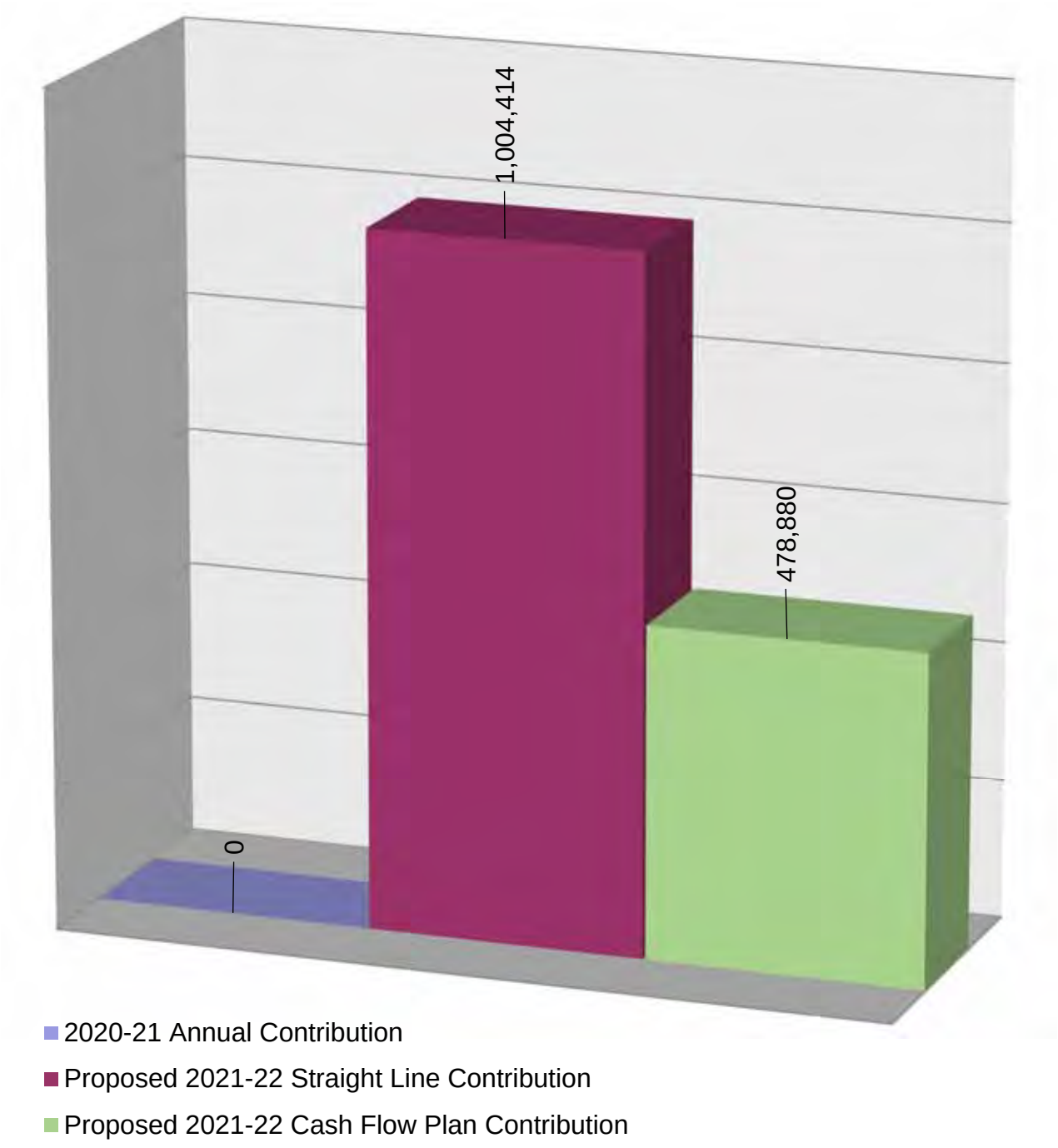


Actual beginning year balances are estimates only based on the latest financial information.

100% funded beginning year balances are based on straight line accounting formulas.

Chart C

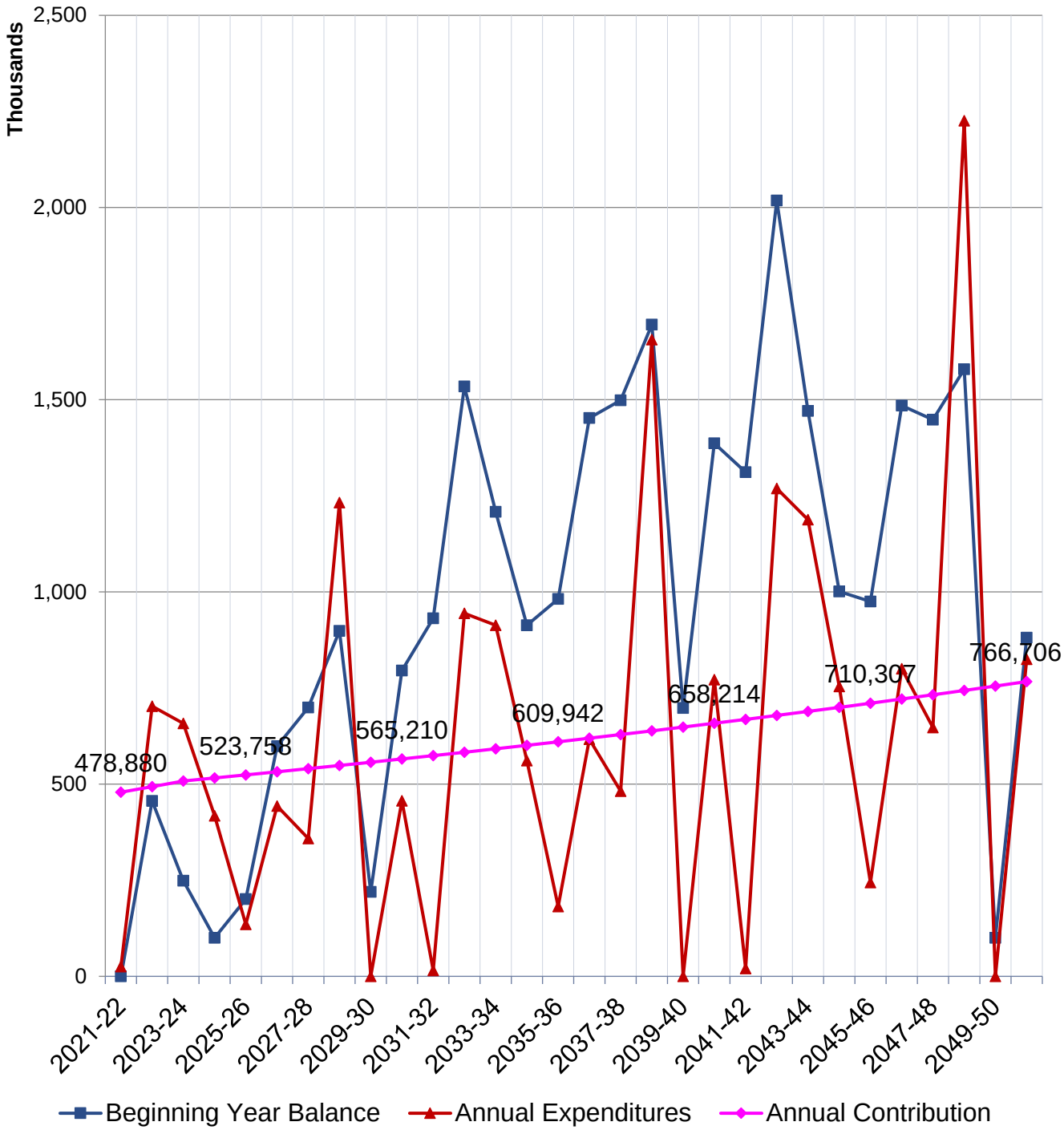
2021-22 Funding Contribution Comparisons



Proposed 2021-22 Straight Line Contribution = Unfunded Balance / Remaining Life

Chart D

30 Year Pooled Cash Flow Plan



Straight Line Plan Summary

Description	Current Cost	Useful Life	Remg Life	9/30/2021 Balance	Unfunded Balance	2021-22 Contribution
Monuments I-75	45,694	10-30	1-13	0	45,694	26,669
Landscape	4,867,920	5-20	2-20	0	4,867,920	977,745
Grand Total	**4,913,614**			**0**	**4,913,614**	**1,004,414**

Straight Line Plan Detail

Description	Quantity	Units	Cost Per Unit	Current Cost	Useful Life	Remg Life	9/30/21 Balance	Unfunded Balance	2021-22 Contribution
Monuments I-75									
Electrical, Solar Panel - Monument I75 (2 Total)	2	Each	3,000.00	6,000	10	1	0	6,000	6,000
Light Fixture, Landscape Uplight - Monument I75 (2 Total)	24	Each	576.00	13,824	15	1	0	13,824	13,824
Paint Exterior - Monument I75 (2 Total)	2	Total	2,630.00	5,260	10	1	0	5,260	5,260
Roof, Concrete Barrel Tile - Monument I75 (2 Total)	18	Squares	1,145.00	20,610	30	13	0	20,610	1,585
Monuments I-75 Total	4	Components		45,694	10-30	1-13	0	45,694	26,669
Landscape									
Landscape Allowance, Plantings - North Development	1	Total	350,000.00	350,000	10	10	0	350,000	35,000
Landscape Allowance, Plantings - Phase 1	1	Total	382,080.00	382,080	10	2	0	382,080	191,040
Landscape Allowance, Plantings - Phase 2	1	Total	382,080.00	382,080	10	4	0	382,080	95,520
Landscape Allowance, Plantings - Phase 3	1	Total	382,080.00	382,080	10	6	0	382,080	63,680
Landscape Allowance, Plantings - Phase 4	1	Total	382,080.00	382,080	10	8	0	382,080	47,760
Landscape Allowance, Trees - North Development	1	Total	90,000.00	90,000	20	20	0	90,000	4,500
Landscape Allowance, Trees - Phase 1	1	Total	619,900.00	619,900	20	3	0	619,900	206,633
Landscape Allowance, Trees - Phase 2	1	Total	619,900.00	619,900	20	8	0	619,900	77,488
Landscape Allowance, Trees - Phase 3	1	Total	619,900.00	619,900	20	13	0	619,900	47,685
Landscape Allowance, Trees - Phase 4	1	Total	619,900.00	619,900	20	18	0	619,900	34,439
Landscape Debris Removal Allowance - Storm Related	1	Total	300,000.00	300,000	5	2	0	300,000	150,000
Landscape Littoral Plantings	1	Total	120,000.00	120,000	10	5	0	120,000	24,000
Landscape Total	12	Components		4,867,920	5-20	2-20	0	4,867,920	977,745
Grand Total	16	Components		4,913,614			0	4,913,614	1,004,414

Cash Flow Plan Summary

No	Year	Beginning Year Balance	Annual Reserve Contribution	Annual Increase	Planned Special Assessments	Expenses	Inflation Rate	Earned Interest	Interest Rate	Ending Year Balance
1	2021-22	0	478,880	0.00%	0	25,084	3.00%	2,269	0.50%	456,065
2	2022-23	456,065	493,246	3.00%	0	702,542	3.00%	1,851	0.75%	248,620
3	2023-24	248,620	508,042	3.00%	0	657,652	3.00%	990	1.00%	100,000
4	2024-25	100,000	515,840	1.54%	0	417,509	3.00%	2,479	1.25%	200,810
5	2025-26	200,810	523,758	1.54%	0	135,061	3.00%	8,843	1.50%	598,350
6	2026-27	598,350	531,798	1.54%	0	442,935	3.00%	12,026	1.75%	699,239
7	2027-28	699,239	539,961	1.54%	0	358,216	3.00%	17,620	2.00%	898,604
8	2028-29	898,604	548,249	1.54%	0	1,232,309	3.00%	4,827	2.25%	219,371
9	2029-30	219,371	556,665	1.54%	0	0	3.00%	19,401	2.50%	795,437
10	2030-31	795,437	565,210	1.54%	0	456,671	3.00%	27,119	3.00%	931,095
11	2031-32	931,095	573,886	1.54%	0	15,132	3.00%	44,695	3.00%	1,534,544
12	2032-33	1,534,544	582,695	1.54%	0	944,158	3.00%	35,192	3.00%	1,208,273
13	2033-34	1,208,273	591,639	1.54%	0	913,214	3.00%	26,601	3.00%	913,299
14	2034-35	913,299	600,721	1.54%	0	561,097	3.00%	28,588	3.00%	981,511
15	2035-36	981,511	609,942	1.54%	0	181,511	3.00%	42,298	3.00%	1,452,240
16	2036-37	1,452,240	619,305	1.54%	0	616,805	3.00%	43,642	3.00%	1,498,382
17	2037-38	1,498,382	628,811	1.54%	0	481,412	3.00%	49,373	3.00%	1,695,154
18	2038-39	1,695,154	638,463	1.54%	0	1,656,120	3.00%	20,325	3.00%	697,822
19	2039-40	697,822	648,263	1.54%	0	0	3.00%	40,383	3.00%	1,386,468
20	2040-41	1,386,468	658,214	1.54%	0	771,542	3.00%	38,194	3.00%	1,311,334
21	2041-42	1,311,334	668,318	1.54%	0	20,337	3.00%	58,779	3.00%	2,018,094
22	2042-43	2,018,094	678,577	1.54%	0	1,268,869	3.00%	42,834	3.00%	1,470,636
23	2043-44	1,470,636	688,993	1.54%	0	1,187,792	3.00%	29,155	3.00%	1,000,992
24	2044-45	1,000,992	699,569	1.54%	0	754,067	3.00%	28,395	3.00%	974,889
25	2045-46	974,889	710,307	1.54%	0	243,935	3.00%	43,238	3.00%	1,484,499
26	2046-47	1,484,499	721,210	1.54%	0	799,990	3.00%	42,172	3.00%	1,447,891
27	2047-48	1,447,891	732,281	1.54%	0	646,977	3.00%	45,996	3.00%	1,579,191
28	2048-49	1,579,191	743,581	1.54%	0	2,225,685	3.00%	2,913	3.00%	100,000
29	2049-50	100,000	755,055	1.54%	0	0	3.00%	25,652	3.00%	880,707
30	2050-51	880,707	766,706	1.54%	0	824,797	3.00%	24,678	3.00%	847,294
Grand Total			**18,578,185**		**0**	**18,541,419**		**810,528**		

Cash Flow Plan Details

Category	Description	Cost
Year 1: 2021-22		
Monuments I-75	Electrical, Solar Panel - Monument I75 (2 Total)	6,000
Monuments I-75	Light Fixture, Landscape Uplight - Monument I75 (2 Total)	13,824
Monuments I-75	Paint Exterior - Monument I75 (2 Total)	5,260
Year 1 Total		**25,084**
Year 2: 2022-23		
Landscape	Landscape Allowance, Plantings - Phase 1	393,542
Landscape	Landscape Debris Removal Allowance - Storm Related	309,000
Year 2 Total		**702,542**
Year 3: 2023-24		
Landscape	Landscape Allowance, Trees - Phase 1	657,652
Year 3 Total		**657,652**
Year 4: 2024-25		
Landscape	Landscape Allowance, Plantings - Phase 2	417,509
Year 4 Total		**417,509**
Year 5: 2025-26		
Landscape	Landscape Littoral Plantings	135,061
Year 5 Total		**135,061**
Year 6: 2026-27		
Landscape	Landscape Allowance, Plantings - Phase 3	442,935
Year 6 Total		**442,935**
Year 7: 2027-28		
Landscape	Landscape Debris Removal Allowance - Storm Related	358,216
Year 7 Total		**358,216**
Year 8: 2028-29		
Landscape	Landscape Allowance, Plantings - Phase 4	469,910
Landscape	Landscape Allowance, Trees - Phase 2	762,399
Year 8 Total		**1,232,309**
Year 9: 2029-30	No Expenses	

Category	Description	Cost
Year 10: 2030-31		
Landscape	Landscape Allowance, Plantings - North Development	456,671
Year 10 Total		**456,671**
Year 11: 2031-32		
Monuments I-75	Electrical, Solar Panel - Monument I75 (2 Total)	8,063
Monuments I-75	Paint Exterior - Monument I75 (2 Total)	7,069
Year 11 Total		**15,132**
Year 12: 2032-33		
Landscape	Landscape Allowance, Plantings - Phase 1	528,888
Landscape	Landscape Debris Removal Allowance - Storm Related	415,270
Year 12 Total		**944,158**
Year 13: 2033-34		
Monuments I-75	Roof, Concrete Barrel Tile - Monument I75 (2 Total)	29,385
Landscape	Landscape Allowance, Trees - Phase 3	883,829
Year 13 Total		**913,214**
Year 14: 2034-35		
Landscape	Landscape Allowance, Plantings - Phase 2	561,097
Year 14 Total		**561,097**
Year 15: 2035-36		
Landscape	Landscape Littoral Plantings	181,511
Year 15 Total		**181,511**
Year 16: 2036-37		
Monuments I-75	Light Fixture, Landscape Uplight - Monument I75 (2 Total)	21,537
Landscape	Landscape Allowance, Plantings - Phase 3	595,268
Year 16 Total		**616,805**
Year 17: 2037-38		
Landscape	Landscape Debris Removal Allowance - Storm Related	481,412
Year 17 Total		**481,412**
Year 18: 2038-39		
Landscape	Landscape Allowance, Plantings - Phase 4	631,520

Category	Description	Cost
Landscape	Landscape Allowance, Trees - Phase 4	1,024,600
Year 18 Total		**1,656,120**
Year 19: 2039-40	No Expenses	
Year 20: 2040-41		
Landscape	Landscape Allowance, Plantings - North Development	613,727
Landscape	Landscape Allowance, Trees - North Development	157,815
Year 20 Total		**771,542**
Year 21: 2041-42		
Monuments I-75	Electrical, Solar Panel - Monument I75 (2 Total)	10,837
Monuments I-75	Paint Exterior - Monument I75 (2 Total)	9,500
Year 21 Total		**20,337**
Year 22: 2042-43		
Landscape	Landscape Allowance, Plantings - Phase 1	710,781
Landscape	Landscape Debris Removal Allowance - Storm Related	558,088
Year 22 Total		**1,268,869**
Year 23: 2043-44		
Landscape	Landscape Allowance, Trees - Phase 1	1,187,792
Year 23 Total		**1,187,792**
Year 24: 2044-45		
Landscape	Landscape Allowance, Plantings - Phase 2	754,067
Year 24 Total		**754,067**
Year 25: 2045-46		
Landscape	Landscape Littoral Plantings	243,935
Year 25 Total		**243,935**
Year 26: 2046-47		
Landscape	Landscape Allowance, Plantings - Phase 3	799,990
Year 26 Total		**799,990**
Year 27: 2047-48		
Landscape	Landscape Debris Removal Allowance - Storm Related	646,977
Year 27 Total		**646,977**

Category	Description	Cost
Year 28: 2048-49		
Landscape	Landscape Allowance, Plantings - Phase 4	848,709
Landscape	Landscape Allowance, Trees - Phase 2	1,376,976
Year 28 Total		**2,225,685**
Year 29: 2049-50	No Expenses	
Year 30: 2050-51		
Landscape	Landscape Allowance, Plantings - North Development	824,797
Year 30 Total		**824,797**

Landscape Area #2 (BHG Pkwy)

Landscape Area #2 (BHG Pkwy)

Landscape Area #3 (BHG Pkwy)

Landscape Area #5 (BHG Pkwy)

Landscape Area #5 (BHG Pkwy)

Pontoon Bridge

Pontoon Bridge

Landscape Area #6 (East)

Concrete Weir (FGCU)

Concrete Weir (FGCU)

Lake Embankment - 5/6 South

Landscape Area #7 (FGCU)

Landscape Area #7 (FGCU)

Landscape Area (Verona Lago Dr)

Landscape Area #1 (I-75)

Monument - I75 North

Lighting - Monument I75 North

Solar - Monument I75 North

Landscape Area #1 (I-75)

Landscape Area #1 (I-75)

Landscape Area #3 (BHG Pkwy)

Lake Aerator 6A

Lake 6A

Lake 6A

Lake Aerator 6G

Lake Embankment - 6G

Lake 6G

Drainage

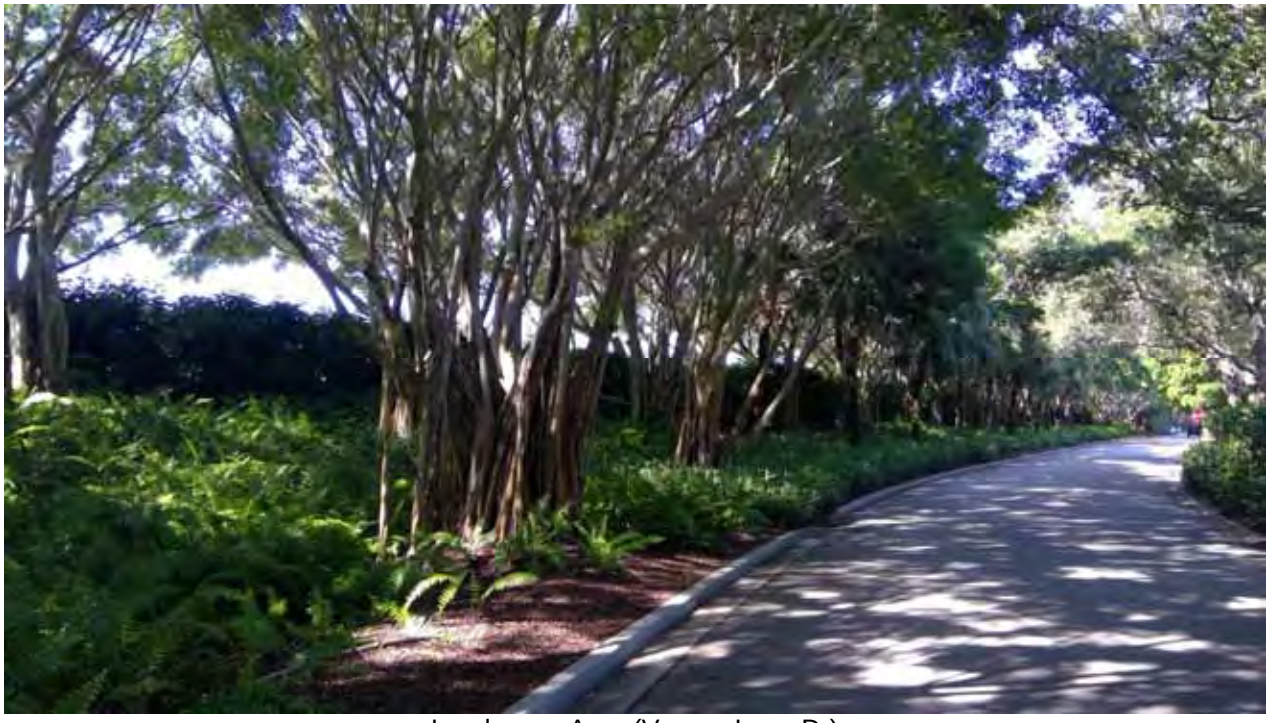
Lake Aerator 6G

Landscape Area #3 (BHG Pkwy)

Drainage

Drainage

Landscape Area (Verona Lago Dr)



Landscape Area (Verona Lago Dr)

Dry Detention Area #2

Dry Detention Area #1

Lake Embankment - 5/6 South

Lake Embankment - 5/6 South

Lake 5/6 South

Drainage

Lake 6C

Lake Aerator 6C

Lake 6B

Lake Aerator 6B & 6C

Lake Embankment - 6B

Landscape Area #3 (BHG Pkwy)

Landscape Area #3 (BHG Pkwy)

Drainage

Lake 6D

Lake Embankment - 6D

Lake Aerator 6D & 6E

Lake Aerator 1A

Lake 1A

Electrical - Lake Fountain

Lake Fountain 3A

Lake Aerator 3A

Landscape Area #1 (I-75)

Lake 3A

Lake 3C

Lake Embankment - 3C

Lake 3B

Lake Embankment - 3B

Lake 3D

Lake Embankment - 3D

Lake 3E

Lake 3E

Landscape Area #1 (I-75)

Monument - I75 South

Lighting - Monument I75 South

Solar - Monument I75 South

Lake 2A

Lake Embankment - 2A

Drainage

Landscape Area #1 (I-75)

Lake 3A

Drainage - Outfall Lake 3A

Lake 1B

Lake Embankment - 1B

Lake Aerator 1B North

Lake Embankment - 1B

Lake Embankment - 1B

Lake Aerator 1B South

Lake 1C

Lake Embankment - 1C

Lake Aerator 1C

Lake 1A

Lake Embankment - 1A

Lake Embankment - 1A

Lake 6E

Lake Embankment - 6E

Lake Aerator 6E

Lake 6F

Lake Embankment - 6F

Landscape Area #3 (BHG Pkwy)

Lake - Trevi Isle Lane

Lake Embankment - Trevi Isle Ln

Lake Embankment - 5/6 North

Lake Embankment - 5/6 North

Lake - Lake Maggoire/Via Torino

Lake Embankment - 5/6 North

Lake - Via Milano Dr

Lake Embankment - Via Milano Dr

Lake 6H

Lake Embankment - 6H

Lake - Via Bellamare Ln

Lake Embankment - Via Bellamare

Lake 6I

Lake Embankment - 6I

Lake - Via Lombardia Ct

Dry Detention Area #3

Dry Detention Area #4

Drainage

Lake Embankment - 5/6 North

Lake Embankment - 5/6 North

Lake 6Q

Lake Embankment - 5/6 South

Lake 6M

Lake Embankment - 6M

Lake 6N

Lake Embankment - 6N

Lake 6O

Lake Embankment - 6O

Dry Detention Area - Via Lugano

Landscape Area #7 (FGCU)

Lake 6P

Lake Embankment - 6P

Drainage

Landscape Area #6 (East)

Landscape Area #2 (BHG Pkwy)

Landscape Area #4 (BHG Pkwy)

Landscape Area #3 (BHG Pkwy)

Landscape Area #3 (BHG Pkwy)

Landscape Area North (New Gate)

Landscape Area North (New Gate)

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS™

Miromar Lakes CDD

Date: November 1, 2021

To: James P. Ward- District Manager

From: Bruce Bernard - Field Asset Manager

Subject: CDD Monthly Report – October 2021 Report

CGA P.N.: 13-5692

Lake Maintenance

The CDD's aquatic / lake maintenance vendor, Solitude Lake Management (Solitude), is applying for a permit, on the behalf of the CDD, from the Florida Fish and Wildlife Conservation (FWC) to add a limited number of carp fish to Lake 5/6 within the CDD's surface water management system. Solitude staff has also been shown locations in the Navona and Bergamo neighborhoods that need additional lake littoral area weed treatment.

CDD staff and a ML representative met with resident at 10240 Visconti Circle to discuss the condition of their existing rip-rap along the lake bank behind the residence. The lake bank (slope) has erosion issues and the existing rip-rap has areas that are comprised in multiple locations which do not meet CDD standards for sloping. This rip-rap slope location has not been accepted by the CDD as of this time. The resident has been made aware of the CDD's policy for lake bank slope and CDD acceptance. The resident will have the lake bank repaired and upon completion will call for inspection by CDD for acceptance.

Scott's Animal Control, and Wild Thing Wildlife Services (vendors) continued with the cane toad removal activities this past month within the community.

Stormwater

CDD staff had its drainage contractor (MRI) inspecting and cleaning two catch basins and piping along Lake Maggiore Way. MRI cleaned both catch basins and removed organic material buildup from within the drainage piping that had approx. 45% blockage.

1800 Eller Drive
Suite 600
Fort Lauderdale, FL
33316
954.921.7781 phone
954.921.8807 fax

www.cgasolutions.com

September 30, 2021 Reference No. 11225022-00

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

Dear Mr. Bernard:

Re: **Water Quality Sampling Report – August 2021**
Lakes 3 and 6 – Miromar Lakes
Fort Myers, Lee County, Florida

GHD Services Inc. (GHD) is pleased to present the results of our water quality sampling services for Lakes 3 and 6 – Miromar Lakes.

1. Water Quality Sampling - August 2021

The August 2021 sampling event consisted of the collection of surface water samples from a total of five (5) test locations (WQ #1 through #4 and #6) from Lake 6 – Miromar Lakes, and one (1) location (WQ #5) at the outfall of Lake 3 within the Miromar Lakes Golf Club as identified on **Figure 1**. As discussed in May 2019, due to limitations of the lake depth at the weir location (i.e. WQ #3) and the potential for disturbance of sediments impacting the sample results, the sample collected at a depth of 36 inches was moved to a deeper area of the lake, at the west entrance to the east-west canal that discharges at the weir, and renamed to WQ Location #6. The August 2021 sampling event represents the sixth sampling event for the new WQ Location #6.

The sampling plan includes sample collection at the following locations and depths:

Sample Identification	Sampling Location	Sample Depth
WQ Location #1	Rip Rap in front of the Miromar Lakes Pkwy Bridge	18 inches
WQ Location #2	Mouth of Canal (west of Via Portofino Way)	18 inches
WQ Location #3A	Back of Weir (southeast of Via Navona Way)	18 inches
WQ Location #4	Beach front (east of the Miromar Lakes Pkwy & Montelago Ct.)	18 inches
WQ Location #5	Lake 3 Outfall within the Miromar Lakes Golf Club	18 inches
WQ Location #6	Front of Weir (southeast of Via Navona Way)	36 inches

Conductivity, dissolved oxygen, pH, and temperature were measured in the field with a calibrated YSI Model 556 multi-parameter water quality meter. Turbidity and total water depth were measured. Water clarity/transparency (i.e. Secchi depth) was also observed using a Secchi disk. Surface Water Field Sheets are attached. Field data is summarized in **Table 1**.

Samples are collected using direct-dip sampling methods. The samples are capped, labeled, 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 analysis 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 August 2021 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 **Table 1**. The laboratory report and data compliance memorandum are also attached.

Trend graphs have been prepared for each monitor location for laboratory analytical results and select field measurements. The trend graphs include water quality action levels for select parameters as developed and presented in the Lake Management Plan for Miromar Lakes. GHD recommends that if a single measurement exceeds an action level the District notify their lake maintenance contractor to inspect the lake(s) for evidence of potential algal blooms and treat as needed. If a subsequent measurement exceeds an action level, it is recommended the District investigate potential reasons behind the change and take appropriate action(s) as applicable based on the findings.

2. Analytical Summary

It appears that between the prior sampling event in October 2020 and the recent sampling event conducted on August 5, 2021:

- BOD5 levels remained consistent except for at WQL #5 which slightly increased;
- Dissolved Oxygen and DO% results varied, but remained relatively constant according to historical trends;
- TKN and Total Nitrogen remained constant at all 6 sampling locations;
- Orthophosphorus and Total Phosphorous decreased slightly at all locations with all results around 0.02 mg/L and 0.015 mg/l, respectively;
- Total Suspended Solids and turbidity remained constant;
- Chlorophyll-a results remained constant except at WQL #5 which increased to 22.9 mg/L;
- pH at almost all locations decreased, except for WQL #5, which remained constant;

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 well above the action level for dissolved oxygen percent (%) of a minimum of 38%. Dissolved oxygen at WQL #3A shows a downward trend the last 3 sampling events, but still remain within their historical ranges. All other sample locations had relatively consistent dissolved oxygen levels as the last sampling event except for WQL #5, which increased. The dissolved oxygen fluctuates throughout the year with apparent lows

during the later part of the year (e.g. September to December months). GHD recommends the District notify their lake maintenance contractor to continue to watch for evidence of algal blooms during these time periods.

The pH at the monitoring locations generally remains consistent over time. Although the pH fluctuates, the pH typically remains within the upper and lower action levels. The pH during this month's sampling event decreased at all locations, except for WQL #5, which remained consistent with last month's level.

The concentrations of chlorophyll-a were below the action level at all sample locations except for WQL #5, which was 22.9 mg/m^3. It appears chlorophyll-a is elevated in Lake 3 during the monitor events conducted in warmer months of the year. Given the slight exceedance of chlorophyll-a at WQL #5, the lake maintenance contractor may need to inspect Lake 3 more often for evidence of potential algal blooms and treat as needed.

During the August 2021 monitoring event, the concentrations of total phosphorus decreased slightly at all locations to about 0.015 mg/L, below the action level limit.

During the August 2021 sampling event, the concentrations of orthophosphorous decreased slightly at all locations to about 0.02 mg/L, below the action level limit.

While the total nitrogen has fluctuated in the past, it has remained below the action levels. Total nitrogen remained consistent at all sample locations during the August 2021 monitoring event.

While turbidity has fluctuated in the past, the observed turbidity generally has stayed well below the action level and remained consistent.

Of note for future months prior to the next sampling event, based on historical data, it appears the BOD tends to be elevated during April/May. While the BOD fluctuates, including detections above the action level, the BOD generally does not remain above its action level for more than one monitoring event.

During the months of April/May, particularly at Lake 3, the lake maintenance contractor may need to inspect the lakes more often for evidence of potential algal blooms and treat as needed.

The conductivity at the monitoring locations fluctuate throughout the year but generally remain similar to other monitoring locations with the exception of WQL #5. The WQL #5 location is at the weir of the Lake 3 on the golf course, whereas the other sample locations are from Lake 6 in the residential development area. Therefore, the variation from WQL #5 to the other locations is not unexpected. The conductivity at WQL #5 is generally higher than the conductivity at the other monitoring locations, but this month was well below the others at 82.9 umhos/cm. This may be caused by high levels of recent rain diluting the isolated water.

While the total suspended solids (TSS) have fluctuated, it generally remains below the action level. The results from August 2021 were consistent with historical trends and below the action level.

3. Conclusions and Recommendations

It appears water quality conditions have improved between October 2020 and August 2021, particularly at location WQ#3A (outlet weir location).

There do not appear to be water quality concerns at this time.

The next tri-annual sampling event is planned for October 2021.

Please call if you have questions or need additional information.

Sincerely,

GHD

Connor Haydon
Environmental Engineer

Lori Coolidge, P.G.
Principal Geologist

Encl: Attachments: Table 1
Figure 1
Trend Graphs
Laboratory Analytical Reports
Surface Water Field Sheets
Laboratory Data Compliance Memo

Table

Table 1

Analytical Results Summary
Surface Water Quality Monitoring
Miromar Lakes, Fort Myers, Florida
August 2021

Sample Location/Sample ID:		WQ Location #1 / WQL1																
Sample Date:		**04/27/16**	**08/03/16**	**10/31/16**	**01/31/17**	**05/04/17**	**08/02/17**	**12/06/17**	**04/26/18**	**08/22/18**	**12/11/18**	**04/16/19**	**10/24/2019**	**2/17/2020**	**06/03/2020**	**10/21/2020**	**03/03/2021**	**08/05/2021**
Field Parameters	**Units**																	
Total Water Depth	Feet	7.66	NS	6.1	5.83	3.5	6.2	4.89	2.90	5.7	4.95	6.83	7.2	4.2	3.9	6.5	5.4	6.0
Sample Depth	Feet	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Conductivity, field	umhos/cm	408	353	387	369.3	405	413.1	348.2	407.3	354.6	312.7	387.3	348.4	369	689	300	292	358
Dissolved oxygen (DO), field	mg/L	8.03	5.91	7.53	8.13	7.95	5.91	6.95	6.89	7.39	8.54	6.49	6.1	8.02	6.05	7.07	7.51	7.0
Dissolved oxygen (DO), field	%	100.9*	79.3	89.4	88.5	101.6	79.6	83.0	87.6	98.9	96.0	80.9	78.1	94.5	77.0	87.1	90.6	93.1
pH, field	s.u.	8.44	8.19	7.92	8.13	7.97	8.23	8.08	8.37	8.24	8.31	8.13	8.36	8.26	8.29	8.57	8.82	8.10
Temperature, field	Deg C	27.08	30.8	24	19.5	28.0	31	24.3	27.7	30.6	21.1	26.6	28.1	23.44	29.1	26.6	25.0	29.91
Turbidity, field	NTU	2.41	3.44	3.55	4.64	8.16	5.05	3.02	2.90	5.53	4.39	3.32	3.71	1.66	3.63	2.42	1.58	1.87
Secchi Disk	Depth	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4.80	4.20	3.90	6.0	5.4	6.0
Wet Parameters	**Units**																	
Ammonia-N	mg/L	U	0.026 I	U	0.035	0.008 U	0.008 U	0.026 I	0.008 U	0.022 I	0.008 U	0.008 U	0.017 I	0.008 U	0.008 U	0.008 U	0.008 U	0.008 I
TAN criteria calculation	mg/L	0.24	0.29	0.67	0.66	0.48	0.27	0.52	0.26	0.27	0.45	0.42	0.26	0.42	0.28	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.626	0.878	0.911	0.968	0.611	0.580	0.629	0.551	0.565	0.632	0.619	0.588	0.632	0.591	0.05 U	0.480	0.474
Total nitrogen	mg/L	0.626	0.878	0.911	0.974	0.616	0.592	0.629	0.565	0.574	0.639	0.619	0.588	0.639	0.591	0.05 U	0.480	0.474
Nitrite/Nitrate	mg/L	U	U	U	0.006 I	0.005 I	0.012 I	0.004 U	0.014 I	0.009 I	0.007 I	0.006 U	0.006 U	0.007 I	0.006 U	0.006 U	0.006 U	0.006 U
Ortho phosphorus (Field Filtered)	mg/L	0.074	0.071	0.030	0.012	0.027	0.038	0.026	0.014	0.017	0.014	0.024	0.026	0.028	0.051	0.0126	0.024	0.011
Total phosphorus	mg/L	0.087	0.091	0.068	0.038	0.027 I	0.041	0.121	0.017 I	0.018 I	0.026 I	0.034	0.063	0.035	0.053	0.011 I	0.059	0.022 I
Chlorophyll	mg/m3	5.91	7.32	7.86	11.1	8.42	9.27	5.25	10.1	10.1	6.92	3.72	7.81	3.71	3.96	5.76	3.55	7.44
Total suspended solids (TSS)	mg/L	2.35	3.49	4.80	7.00	7.80	6.15	3.67	3.67	4.00	4.20	1.20 I	2.20 I	3.50	3.20	2.40	2.00 I	2.80
Biochemical oxygen demand (total BOD5)	mg/L	0.706 I	U	U	1.06 I	1.40 I	1.05 I	1 U	1.16 I	2.72 I	1.85 I	1.24 I	1.03 I	1 U	1 U	1 U	1 U	1 U

Sample Location/Sample ID:		WQ Location #2 / WQL2																
Sample Date:		**04/27/16**	**08/03/16**	**10/31/16**	**01/31/17**	**05/04/17**	**08/02/17**	**12/06/17**	**04/26/18**	**08/22/18**	**12/11/18**	**04/16/19**	**10/24/2019**	**2/17/2020**	**06/03/2020**	**10/21/2020**	**03/03/2021**	**08/05/2021**
Field Parameters	**Units**																	
Total Water Depth	Feet	7.43	NS	9.2	8.56	6	6.2	8.01	6.00	10.2	8.65	8.31	10.4	7.8	6.35	9.0	8.8	10.25
Sample Depth	Feet	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Conductivity, field	umhos/cm	422	359	384	385.7	414	435.0	638.9	417.0	363.7	321.2	411.8	346.4	373	701	300	303	346
Dissolved oxygen (DO), field	mg/L	7.67	5.55	7.12	8.05	7.87	6.21	6.58	6.95	7.52	9.90	6.88	6.27	8.12	5.86	4.64	7.04	7.09
Dissolved oxygen (DO), field	%	97.4	74.0	84.7	87.6	101.8	82.9	77.7	88.0	100.2	110.0	85.9	81.0	96.2	77.2	51.1	86.9	93.7
pH, field	s.u.	8.37	8.07	7.68	7.97	8.21	8.11	7.89	8.31	8.03	8.06	8.25	8.27	8.49	8.31	8.26	8.72	8.0
Temperature, field	Deg C	27.62	30.4	24.1	19.5	28.7	30.5	23.7	27.5	30.4	20.5	26.7	28.5	23.9	30.1	27.1	25.5	29.87
Turbidity, field	NTU	3.97	31.71	4.38	4.66	7.15	3.12	3.20	8.22	3.75	5.76	3.37	3.55	2.18	3.49	2.40	3.41	2.44
Secchi Disk	Depth	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.30	NS	5.5	6.5	7.0	7.0
Wet Parameters	**Units**																	
Ammonia-N	mg/L	U	0.019 I	U	0.071	0.008 U	0.008 U	0.036	0.008 U	0.008 U	0.008 U	0.027	0.008 U	0.008 U	0.008 U	0.009 I	0.008 U	0.017 I
TAN criteria calculation	mg/L	0.26	0.36	0.90	0.84	0.32	0.34	0.71	0.30	0.38	0.69	0.34	0.30	0.28	0.25	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.745	1.15	0.888	1.04	0.507	0.641	0.710	0.675	0.613	0.693	0.606	0.605	0.403	0.556	0.500	0.450	0.469
Total nitrogen	mg/L	0.745	1.15	0.900	1.04	0.514	0.645	0.710	0.690	0.618	0.698	0.606	0.605	0.403	0.556	0.500	0.450	0.469
Nitrite/Nitrate	mg/L	U	U	0.012 I	U	0.007 I	0.004 I	0.004 U	0.015 I	0.005 I	0.006 I	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Ortho phosphorus (Field Filtered)	mg/L	0.077	0.070	0.064	0.015	0.028	0.050	0.025	0.015	0.020	0.008	0.002 U	0.055	0.035	0.053	0.0288	0.026	0.016
Total phosphorus	mg/L	0.079	0.087	0.066	0.031 I	0.054	0.065	0.042	0.023 I	0.008 U	0.009 I	0.008 U	0.073	0.069	0.062	0.012 I	0.032	0.017 I
Chlorophyll	mg/m3	6.59	7.28	8.08	11.7	7.76	7.13	5.42	8.35	9.06	8.80	5.28	9.11	4.34	5.11	6.13	2.04	5.95
Total suspended solids (TSS)	mg/L	4.21	3.90	4.60	7.20	6.60	2.60	3.60	8.00	1.00 I	4.67	3.80	2.40	3.00	2.40	2.40	2.80	2.80
Biochemical oxygen demand (total BOD5)	mg/L	0.778 I	U	U	1.33 I	1.13 I	1 U	1 U	1.36 I	1.89 I	1.10 I	1.40 I	1.50 I	1 U	1 U	1 U	1 U	1 U

Table 1

Analytical Results Summary
Surface Water Quality Monitoring
Miromar Lakes, Fort Myers, Florida
August 2021

Sample Location/Sample ID:		WQ Location #3A / WQL3A																
Sample Date:		**04/27/16**	**08/03/16**	**10/31/16**	**01/31/17**	**05/04/17**	**08/02/17**	**12/06/17**	**04/26/18**	**08/22/18**	**12/11/18**	**04/16/19**	**10/24/2019**	**2/17/2020**	**06/03/2020**	**10/21/2020**	**03/03/2021**	**08/05/2021**
Field Parameters	**Units**																	
Total Water Depth	Feet	3.78	3.64	3.52	2.81	1.5	4.6	3.35	3.2	3.6	5.87	2.95	4.5	3	1.5	4.0	3.0	3.33
Sample Depth	Feet	1.5	1.5	1.5	1.5	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1	1.5	1.5	1.5
Conductivity, field	umhos/cm	406	329	255	375.7	430	200.4	339	418.9	365.1	323	391.9	373.2	381	690	293	297	363
Dissolved oxygen (DO), field	mg/L	7.31	4.78	2.93	7.40	14.02	1.38	6.49	6.16	7.33	8.44	5.82	2.05	5.77	6.49	6.41	5.62	3.15
Dissolved oxygen (DO), field	%	91.8	62.9	34.3	81.5	198	17.42	76.4	78.2	97.9	94.3	72.7	25.7	68.5	85.4	80.5	70.2	39.0
pH, field	s.u.	8.44	8.0	6.99	7.96	9.32	6.91	7.97	8.15	8.13	7.53	8.21	7.34	7.93	8.44	8.38	8.49	7.16
Temperature, field	Deg C	27.0	29.7	23.2	20.1	33.7	27.3	23.5	27.6	30.5	20.8	26.7	26.8	23.77	29.3	27.0	25.4	26.24
Turbidity, field	NTU	7.64	78.77	3.48	5.42	86.9	2.99	3.05	3.94	3.63	4.20	2.20	2.79	1.31	3.49	2.76	4.13	1.77
Secchi Disk	Depth	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Lake Bottom	Lake Bottom	Lake Bottom	4.0	3.0	3.33
Wet Parameters	**Units**																	
Ammonia-N	mg/L	U	0.029 I	0.044	0.027 I	0.008 U	0.008 U	0.009 I	U	0.023 I	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.009 I	0.008 U	0.035
TAN criteria calculation	mg/L	0.25	0.42	1.54	0.82	0.04	1.22	0.65	0.38	0.32	1.29	0.37	1.02	0.67	0.21	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.581	0.949	1.11	1.06	3.73	0.642	0.634	0.645	0.621	0.949	0.598	0.635	0.451	0.510	0.216	0.526	0.546
Total nitrogen	mg/L	0.581	0.949	1.13	1.06	3.73	0.650	0.634	0.658	0.626	0.954	0.598	0.635	0.451	0.510	0.216	0.526	0.546
Nitrite/Nitrate	mg/L	U	U	0.021	U	0.008 I	0.008 I	0.004 U	0.013 I	0.005 I	0.006 I	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Ortho phosphorus (Field Filtered)	mg/L	0.073	0.012	0.051	0.012	0.018	0.029	0.031	0.016	0.020	0.025	0.014	0.060	0.043	0.048	0.0199	0.030	0.017
Total phosphorus	mg/L	0.088	0.026 I	0.052	0.033	0.090	0.039	0.048	0.024 I	0.008 U	0.019 I	0.018 I	0.066	0.069	0.064	0.012 I	0.046	0.021 I
Chlorophyll	mg/m3	5.76	8.71	10.1	10.4	249	10.1	4.83	7.85	10.6	8.15	4.60	7.88	3.79	5.10	5.52	4.00	7.06
Total suspended solids (TSS)	mg/L	7.06	6.42	5.11	7.20	95.0	3.80	4.00	3.60	6.00	4.33	2.60	2.40	1.50 I	4.80	2.40	4.20	2.00 I
Biochemical oxygen demand (total BOD5)	mg/L	U	U	U	1.11 I	10.6	1.39 I	1 U	1.12 I	1.66 I	1.19 I	2.32 I	1.27 I	1 U	1 U	1 U	1.30 I	1.32 I

Sample Location/Sample ID:		WQ Location #3B / WQL3B											WQL6	WQL6	WQL6	WQL6	WQL6	WQL6
Sample Date:		**04/27/16**	**08/03/16**	**10/31/16**	**01/31/17**	**05/04/17**	**08/02/17**	**12/06/17**	**04/26/18**	**08/22/18**	**12/11/18**	**04/16/19**	**10/24/2019**	**2/17/2020**	**06/03/2020**	**10/21/2020**	**03/03/2021**	**08/05/2021**
Field Parameters	**Units**																	
Total Water Depth	Feet	3.78	4	3.52	2.98	2	4.6	6.94	3.2	3.6	5.87	3.50	12.5	17.6	15.5	10.5	14.4	12.3
Sample Depth	Feet	3	3	3	2.5	1.5	3	3.0	NS	3	3	3	3	3	3	1.5	3	3
Conductivity, field	umhos/cm	405	341	369	313.1	406	384.1	338.6	NS	354.5	322.4	391.3	340.8	362	688	290	295	365
Dissolved oxygen (DO), field	mg/L	7.32	6.22	6.82	6.58	8.46	5.59	5.87	NS	7.39	6.32	5.7	5.63	8.44	6.49	6.66	7.43	6.82
Dissolved oxygen (DO), field	%	91.1	82.8	81.2	67.9	109.3	74.0	68.8	NS	98.8	70.6	71.2	72.4	99.2	85.7	83.4	90.4	90.3
pH, field	s.u.	8.46	8.14	7.68	7.77	8.12	8.10	8.00	NS	8.18	8.08	8.22	8.16	8.5	8.51	8.63	8.74	7.59
Temperature, field	Deg C	26.55	30.3	24.1	16.9	28.6	30.0	23.3	NS	30.6	20.8	26.7	28.3	23.28	29.4	29.3	25.2	30.07
Turbidity, field	NTU	7.98	10.03	3.15	21.38	3.93	4.15	2.84	NS	26.26	7.10	2.17	4.85	1.48	2.83	2.13	1.75	2.19
Secchi Disk	Depth	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.80	8.00	7.20	7.0	7.5	6.4
Wet Parameters	**Units**																	
Ammonia-N	mg/L	U	0.15 I	U	0.097	0.008 U	0.008 U	0.028 I	NS	0.015 I	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.009 I	0.008 U	0.012 I
TAN criteria calculation	mg/L	0.24	0.32	0.90	1.29	0.37	0.35	0.63	NS	0.30	0.66	0.36	0.36	0.28	0.19	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.736	0.880	1.04	2.90	0.462	0.715	0.731	NS	0.757	0.722	0.683	0.612	0.414	0.490	0.05 U	0.559	0.448
Total nitrogen	mg/L	0.744	0.880	1.05	2.90	0.472	0.715	0.731	NS	0.763	0.727	0.683	0.612	0.414	0.490	0.05 U	0.559	0.448
Nitrite/Nitrate	mg/L	0.008 I	U	0.012 I	U	0.010 I	0.004 U	0.004 U	NS	0.006 I	0.006 I	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Ortho phosphorus (Field Filtered)	mg/L	0.088	0.064	0.029	0.012	0.029	0.226	0.272	NS	0.020	0.022	0.027	0.063	0.032	0.059	0.0155	0.026	0.002 I
Total phosphorus	mg/L	0.092	0.098	0.031 I	0.168	0.054	1.08	0.501	NS	0.013 I	0.033	0.029 I	0.067	0.035	0.064	0.016 I	0.055	0.023 I
Chlorophyll	mg/m3	5.99	7.05	7.57	64.5	5.44	9.14	3.94	NS	10.8	7.61	5.38	8.86	3.18	4.95	4.80	2.48	7.62
Total suspended solids (TSS)	mg/L	7.11	5.78	3.80	44.7	4.20	4.80	3.20	NS	26.0	3.33	6.20	2.60	1.25 I	3.20	2.60	1.80 I	1.20 I
Biochemical oxygen demand (total BOD5)	mg/L	0.556 I	U	U	6.47	1 U	1.45 I	1 U	NS	2.01 I	1 U	1.16 I	1.04 I	1 U	1 U	1.39 I	1 U	1 U

Table 1

Analytical Results Summary
Surface Water Quality Monitoring
Miromar Lakes, Fort Myers, Florida
August 2021

Sample Location/Sample ID:		WQ Location #4 / WQL4																
Sample Date:		**04/27/16**	**08/03/16**	**10/31/16**	**01/31/17**	**05/04/17**	**08/02/17**	**12/06/17**	**04/26/18**	**08/22/18**	**12/11/18**	**04/16/19**	**10/24/2019**	**2/17/2020**	**06/03/2020**	**10/21/2020**	**03/03/2021**	**08/05/2021**
Field Parameters	**Units**																	
Total Water Depth	Feet	12	7.77	14.88	7.91	5.0	10.7	7.9	6.90	11.8	10.7	14.20	15.4	13.55	12.55	13.0	8.01	7.2
Sample Depth	Feet	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Conductivity, field	umhos/cm	403	340	373	361.8	405	404.8	342.0	399.7	342	310.3	382.1	337.0	363	682	286	291	349
Dissolved oxygen (DO), field	mg/L	7.72	6.55	7.14	8.06	8.33	5.02	5.73	7.13	6.96	7.84	7.28	6.42	8.45	6.42	1.41	7.75	7.31
Dissolved oxygen (DO), field	%	96.4	88.3	85.6	88.3	106.6	66.8	68.2	89.2	92.9	87.8	90.2	82.8	99.4	83.4	17.0	93.5	94.2
pH, field	s.u.	8.58	8.31	7.59	8.10	7.65	8.16	8.08	8.39	8.34	7.99	7.97	8.38	8.58	8.57	8.66	8.80	6.62
Temperature, field	Deg C	26.71	31.1	24.5	19.8	28.1	30.3	24.1	26.8	30.5	20.9	26.3	28.5	23.49	29.9	27.5	24.8	29.95
Turbidity, field	NTU	1.87	2.04	4.44	3.02	3.11	1.81	2.48	3.38	3.56	4.10	2.72	2.58	1.04	2.48	1.85	2.28	1.76
Secchi Disk	Depth	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.50	8.50	7.00	6.5	8.01	7.2
Wet Parameters	**Units**																	
Ammonia-N	mg/L	U	0.023 I	U	0.012 I	0.008 U	0.008 U	0.026 I	0.008 U	0.014 I	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.025 I
TAN criteria calculation	mg/L	0.20	0.23	0.96	0.68	0.72	0.31	0.53	0.27	0.23	0.74	0.54	0.25	0.24	0.16	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.868	0.887	0.780	0.976	0.518	0.570	0.612	0.610	0.640	0.885	0.615	0.126 I	0.371	0.633	0.05 U	0.538	0.469
Total nitrogen	mg/L	0.868	0.887	0.808	0.976	0.524	0.570	0.612	0.623	0.645	0.885	0.615	0.126	0.371	0.633	0.05 U	0.538	0.469
Nitrite/Nitrate	mg/L	U	U	0.028	U	0.006 I	0.004 U	0.004 U	0.013 I	0.005 I	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Ortho phosphorus (Field Filtered)	mg/L	0.094	0.017	0.024	0.017	0.030	0.044	0.027	0.019	0.017	0.022	0.026	0.065	0.037	0.042	0.0180	0.021	0.012
Total phosphorus	mg/L	0.101	0.021 I	0.027 I	0.038	0.048	0.067	0.038	0.030 I	0.044	0.043	0.038	0.070	0.064	0.064	0.014 I	0.043	0.032
Chlorophyll	mg/m3	4.92	7.11	7.78	9.09	3.94	9.31	4.62	8.66	10.5	8.43	3.43	7.38	2.75	3.78	5.05	1.74	5.39
Total suspended solids (TSS)	mg/L	2.33	2.84	3.60	5.20	3.26	2.60	1.60 I	2.00 I	5.50	2.33	3.40	3.20	1.25 I	3.40	1.80 I	0.570 U	3.60
Biochemical oxygen demand (total BOD5)	mg/L	U	U	U	1.09 I	1 U	1 U	1 U	1.16 I	1.47 I	1 U	1 U	1.07 I	1 U	1 U	1.51 I	1 U	1 U

Sample Location/Sample ID:		WQ Location #5 / WQL5																
Sample Date:		**04/27/16**	**08/03/16**	**10/31/16**	**01/31/17**	**05/04/17**	**08/02/17**	**12/06/17**	**04/26/18**	**08/22/18**	**12/11/18**	**04/16/19**	**10/24/2019**	**2/17/2020**	**06/03/2020**	**10/21/2020**	**03/03/2021**	**08/05/2021**
Field Parameters	**Units**																	
Total Water Depth	Feet	NS	2	2.03	1.42	2.5	4.32	2.84	S	2.7	1.10	1.50	1.98	1.72	<1	2.0	2.5	NM
Sample Depth	Feet	NS	1.5	1.5	0.5	1.5	1.5	1.5	S	1.5	0.5	0.75	1.0	1	<1	1.5	1.5	1.5
Conductivity, field	umhos/cm	NS	411	515	462.0	464	478.4	447.9	464.1	405.1	427.2	475.8	465.0	480	802	373	409	82.9
Dissolved oxygen (DO), field	mg/L	NS	4.84	6.22	6.88	8.50	8.03	4.21	5.47	6.09	4.21	5.00	3.20	7.6	5.18	7.65	3.05	6.07
Dissolved oxygen (DO), field	%	NS	64.7	77.2	72.2	111.1	109.1	49.6	68.2	81.2	46.1	61.0	41.3	89.3	69.0	96.5	37.5	80.6
pH, field	s.u.	NS	7.83	7.77	7.65	7.77	8.10	7.58	7.61	7.80	6.38	6.44	7.99	8.35	8.28	8.18	8.04	8.12
Temperature, field	Deg C	NS	30.6	26.4	17.7	29.3	31.5	23.6	26.6	30.4	19.8	25.4	28.4	23.42	30.3	27.4	25.3	30.19
Turbidity, field	NTU	NS	2.08	3.62	3.60	5.77	4.65	1.99	4.93	3.40	4.18	4.98	4.71	2.45	5.74	2.96	2.27	4.05
Secchi Disk	Depth	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Lake Bottom	Lake Bottom	Lake Bottom	NS	NS	NS
Wet Parameters	**Units**																	
Ammonia-N	mg/L	NS	0.033	U	0.008 I	0.008 U	0.008 U	0.034	0.008 U	0.010 I	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.023 I	0.008 U
TAN criteria calculation	mg/L	NS	0.49	0.70	1.40	0.58	0.32	1.03	0.82	0.52	2.19	1.51	0.46	0.36	0.26	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	NS	0.845	0.786	0.962	0.754	0.756	0.838	1.11	0.857	0.944	0.902	0.807	0.688	1.08	0.137 I	0.755	0.720
Total nitrogen	mg/L	NS	0.845	0.794	0.962	0.762	0.760	0.854	1.13	0.863	0.957	0.902	0.807	0.688	1.08	0.137	0.755	0.720
Nitrite/Nitrate	mg/L	NS	U	0.008 I	U	0.008 I	0.004 I	0.016	0.016	0.006 I	0.013 I	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Ortho phosphorus (Field Filtered)	mg/L	NS	0.022	0.042	0.017	0.027	0.019	0.022	0.016	0.015	0.019	0.023	0.050	0.038	0.055	0.075	0.029	0.014
Total phosphorus	mg/L	NS	0.065	0.042	0.036	0.035	0.067	0.046	0.027 I	0.025 I	0.024 I	0.028 I	0.081	0.049	0.102	0.084	0.067	0.035
Chlorophyll	mg/m3	NS	15.1	12.5	13.9	16.0	25.0	17.3	27.6	19.8	15.4	23.4	15.7	12.6	30.4	22.7	4.93	22.9
Total suspended solids (TSS)	mg/L	NS	4.10	4.80	5.00	8.11	11.0	0.570 U	6.20	4.00	3.00	7.60	2.40	3.25	9.00	4.20	3.00	5.40
Biochemical oxygen demand (total BOD5)	mg/L	NS	1.31 I	1.56 I	1.36 I	2.41 I	2.14 I	1.64 I	3.38 I	1.15 I	1.38 I	3.39 I	1.54 I	1.32 I	3.01 I	1.73 I	1 U	1.55 I

Notes:

S - Sample collected from edge of lake
U - Not detected at the associated reporting limit
NS - Not sampled during noted event
I - Reported value is between method detection limit and the practical quantitation limit
* DO values at or above 100% are possible super-saturation conditions due to high water temperatures and/or high volume of algae.

Figure 1

SITE:

Water Quality Sampling Report

March 2021 Lakes 3 and 6 Miromar Lakes, Lee County, Florida

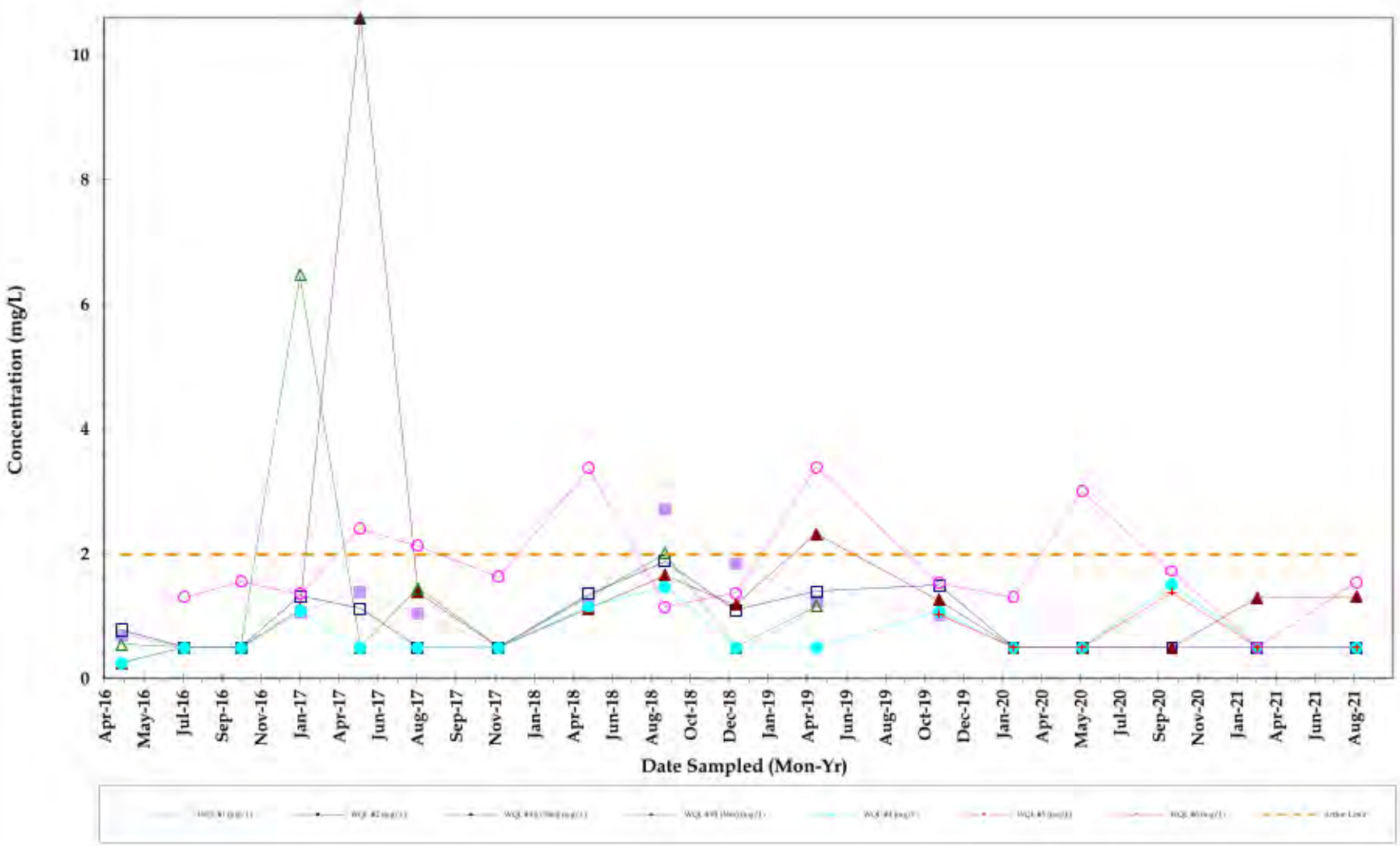
DESIGNED: AW	DRAWN: AW	PROJECT #: 11225022	DATE: March 2021
CHECKED:		CAD FILE:	

SHEET TITLE:

Location Map

FIGURE: 1

Trend Graphs

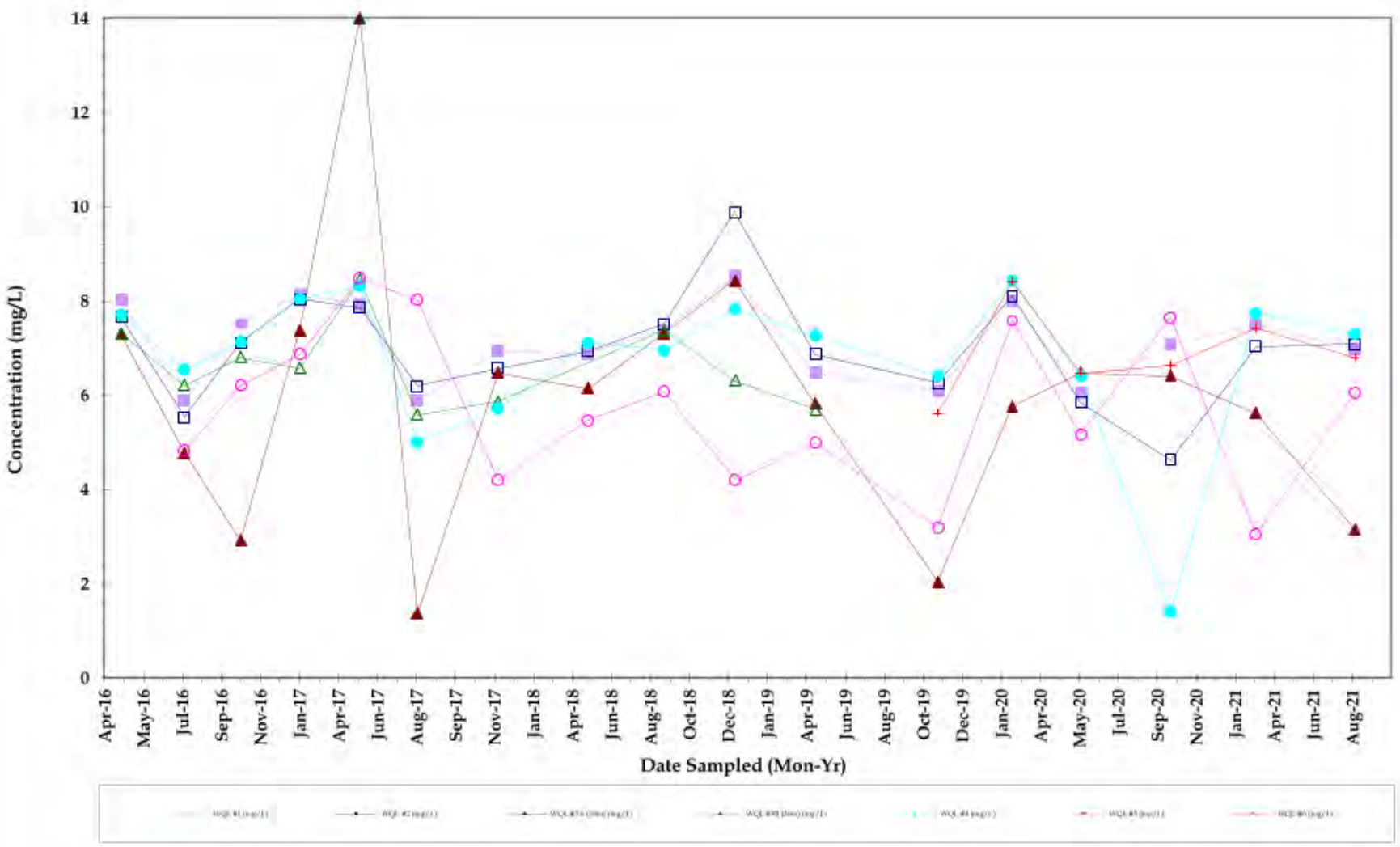


Biochemical Oxygen Demand

Miromar Lakes

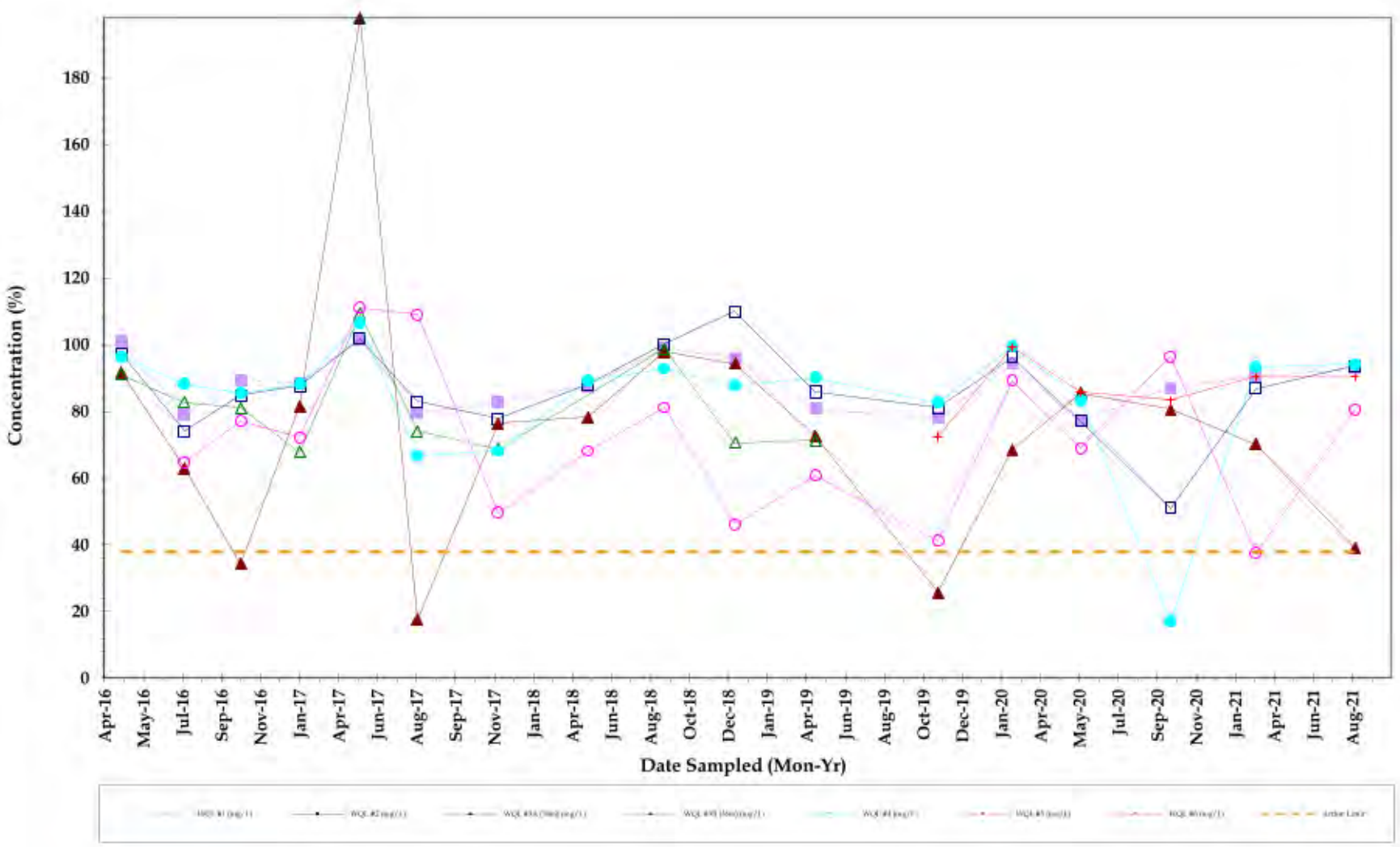
Water Quality Surface Water Sample results

AUGUST 2021



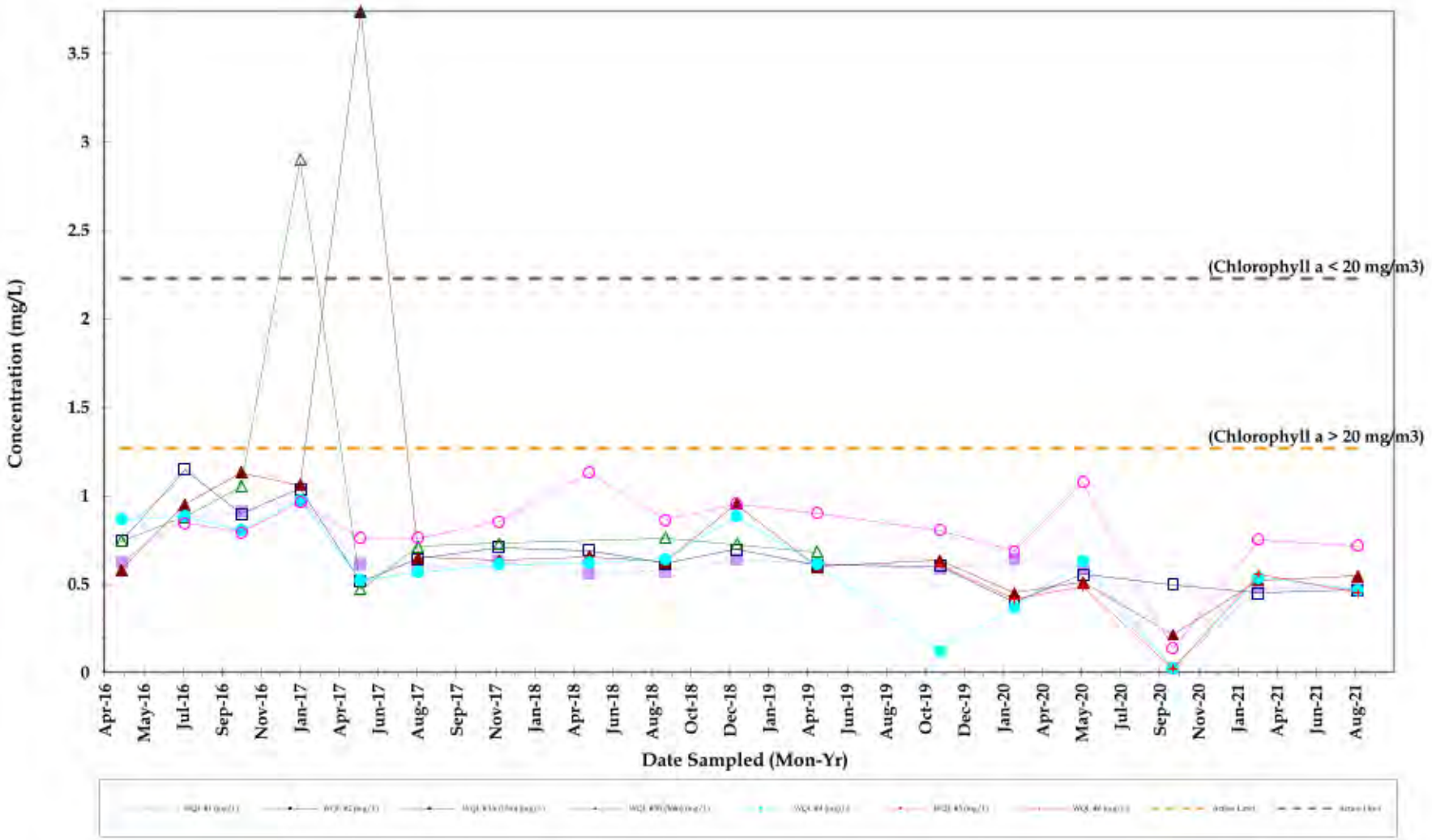
Dissolved Oxygen (mg/L)

Miromar Lakes
Water Quality Surface Water Sample results
AUGUST 2021



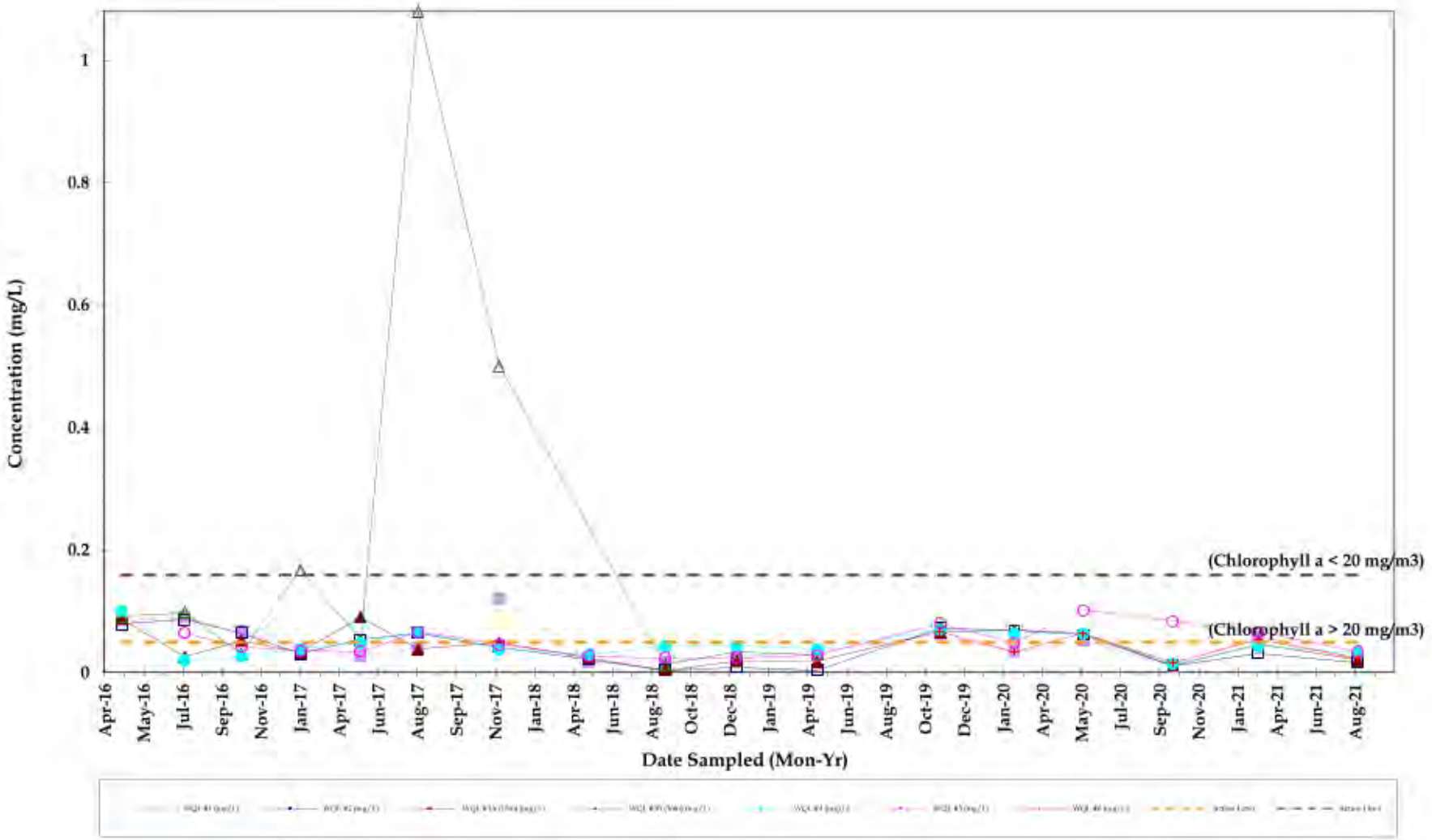
Dissolved Oxygen (%)

Miromar Lakes
Water Quality Surface Water Sample results
AUGUST 2021



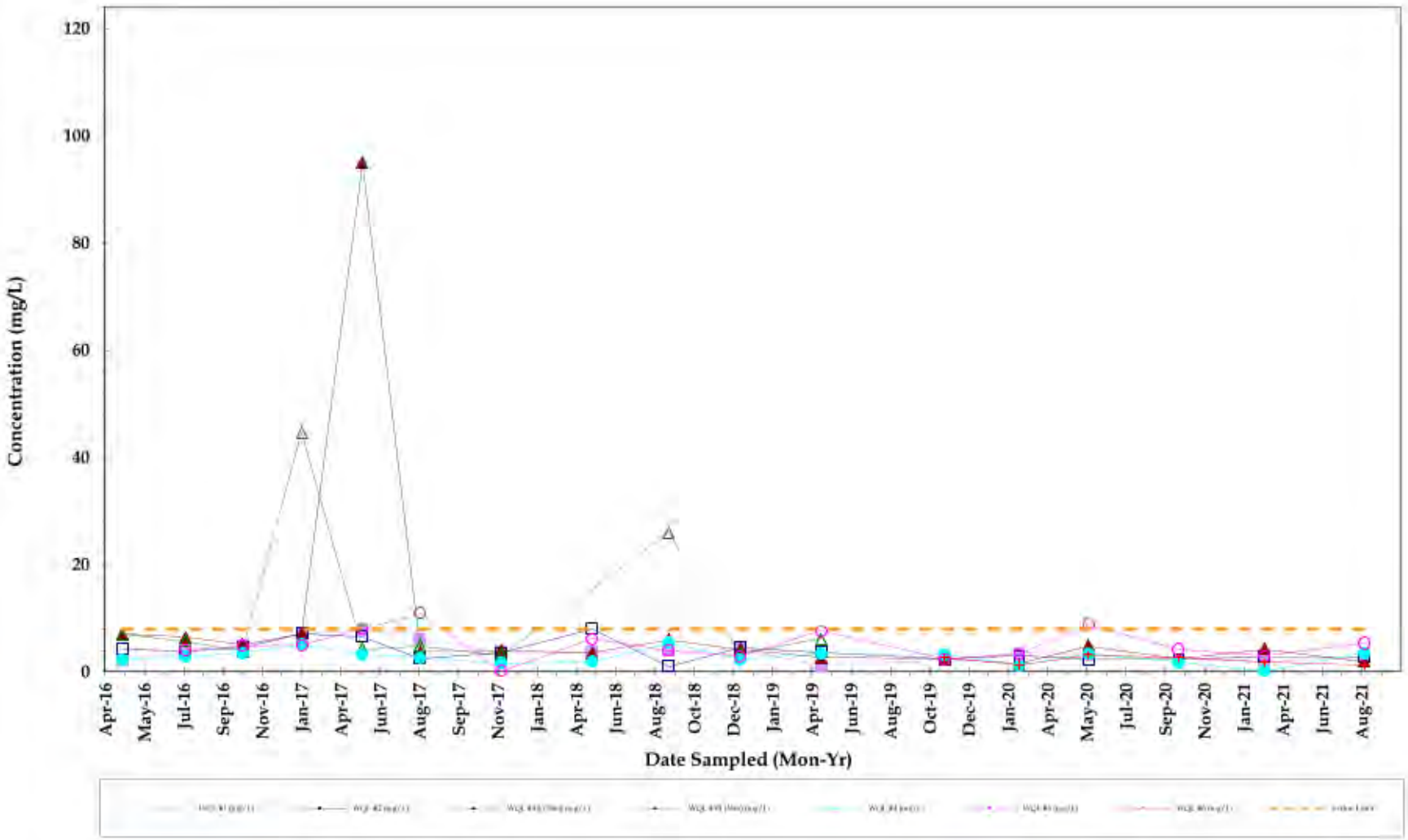
Total Nitrogen

Miromar Lakes
Water Quality Surface Water Sample results
AUGUST 2021



Total Phosphorus

Miromar Lakes
Water Quality Surface Water Sample results
AUGUST 2021

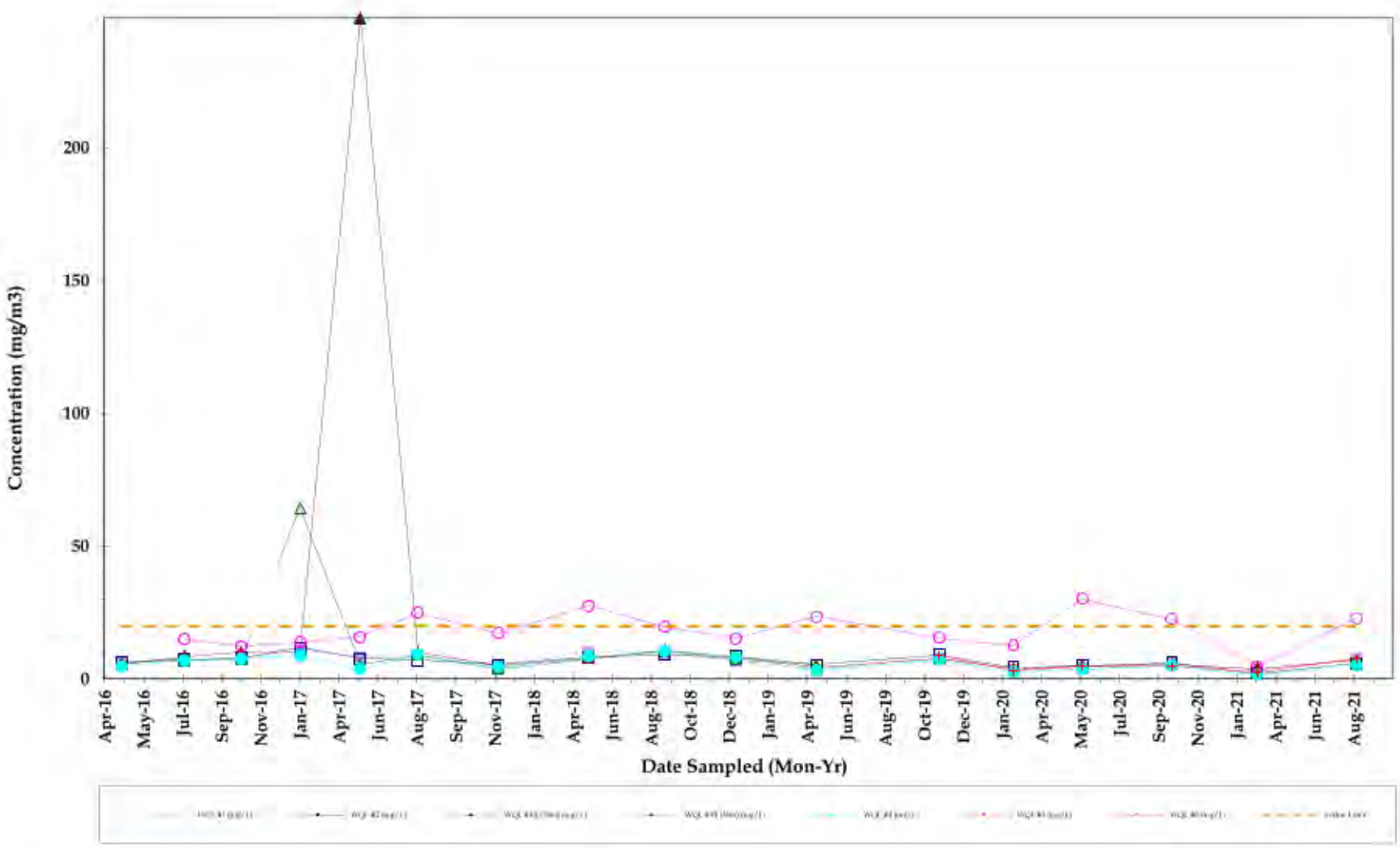


Total Suspended Solids

Miromar Lakes

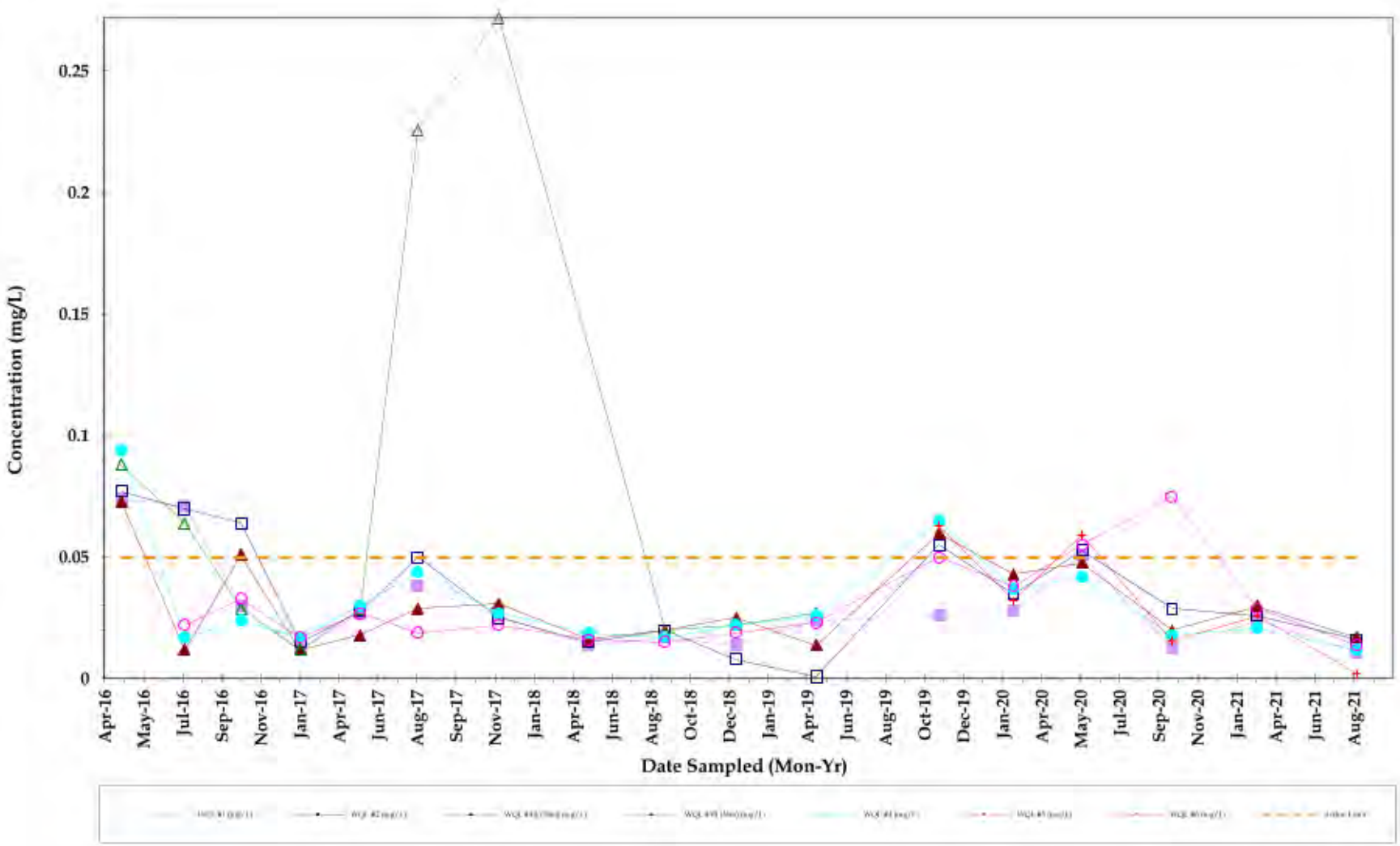
Water Quality Surface Water Sample results

AUGUST 2021



Chlorophyll *a*

Miromar Lakes
Water Quality Surface Water Sample results
AUGUST 2021

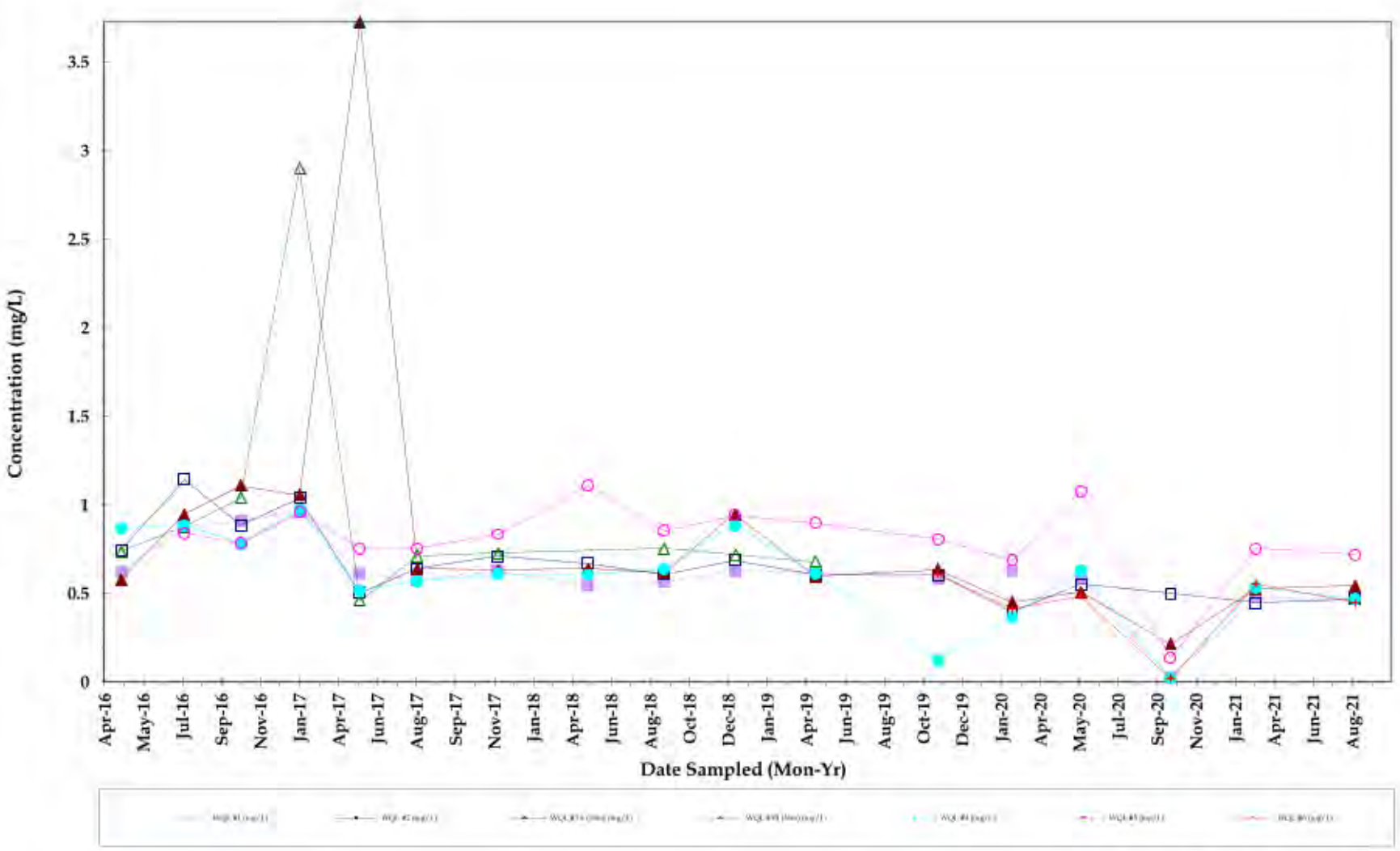


Orthophosphate

Miromar Lakes

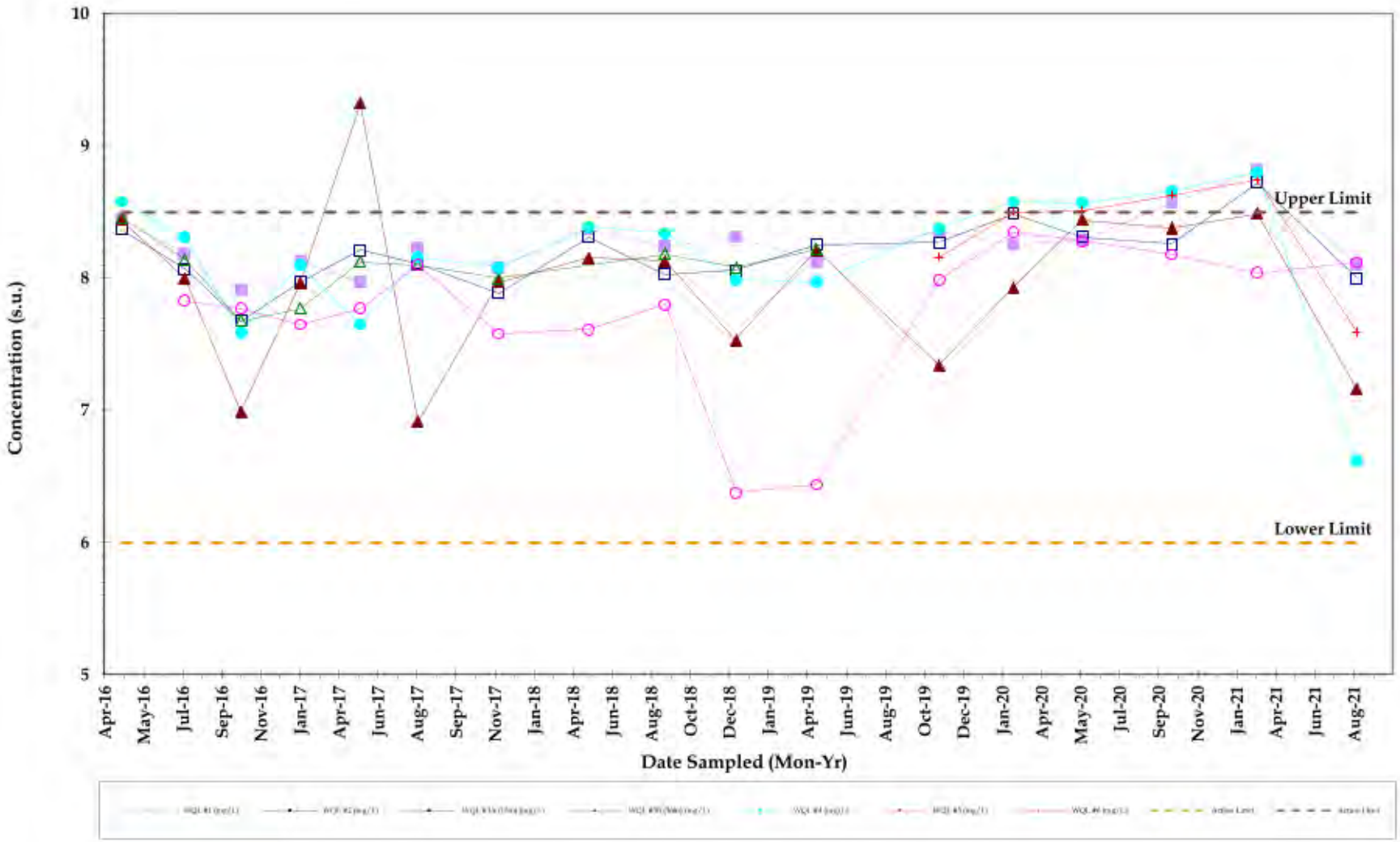
Water Quality Surface Water Sample results

AUGUST 2021



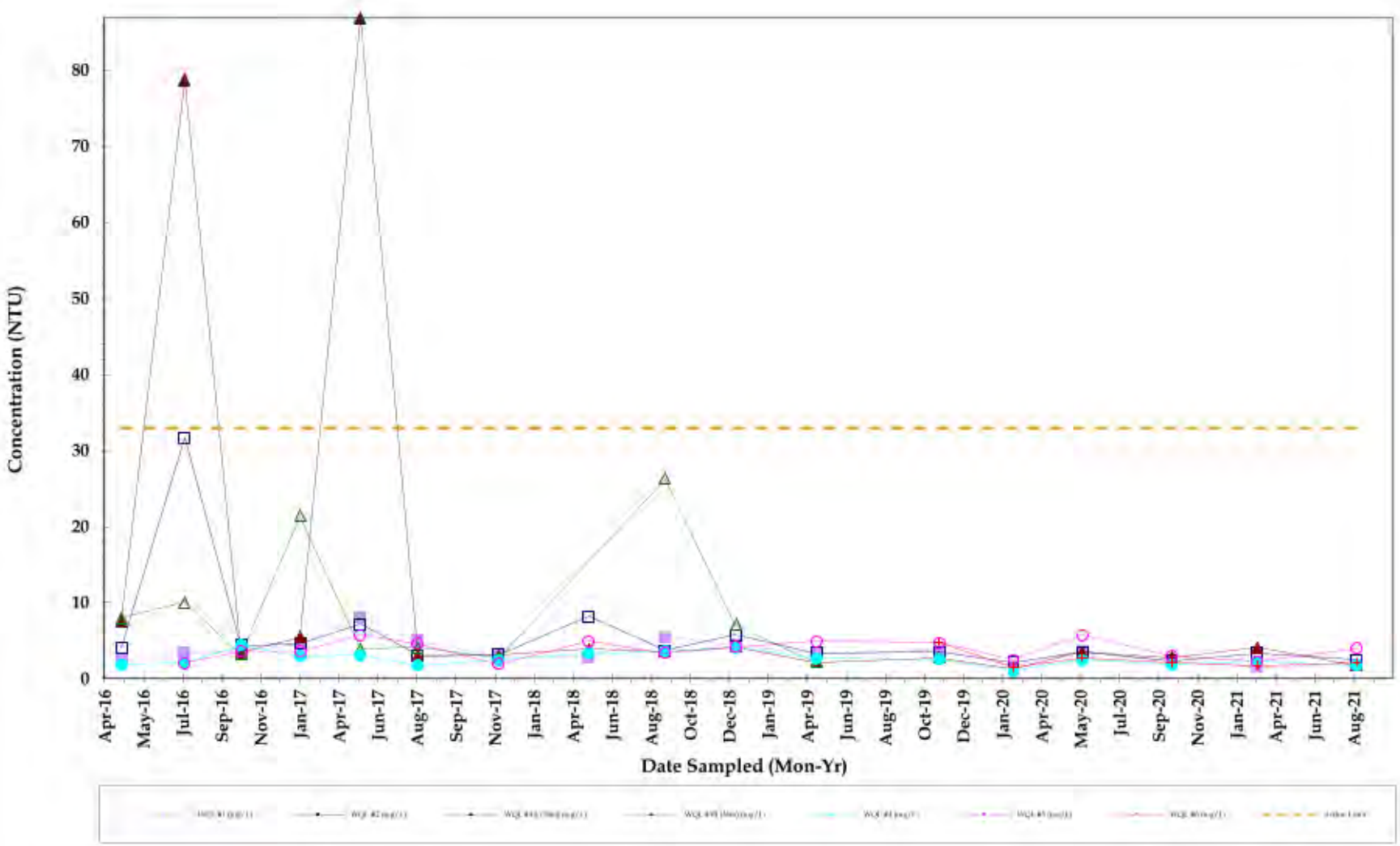
Total kjeldahl nitrogen (TKN)

Miromar Lakes
Water Quality Surface Water Sample results
AUGUST 2021



pH, Field

Miromar Lakes
Water Quality Surface Water Sample results
AUGUST 2021

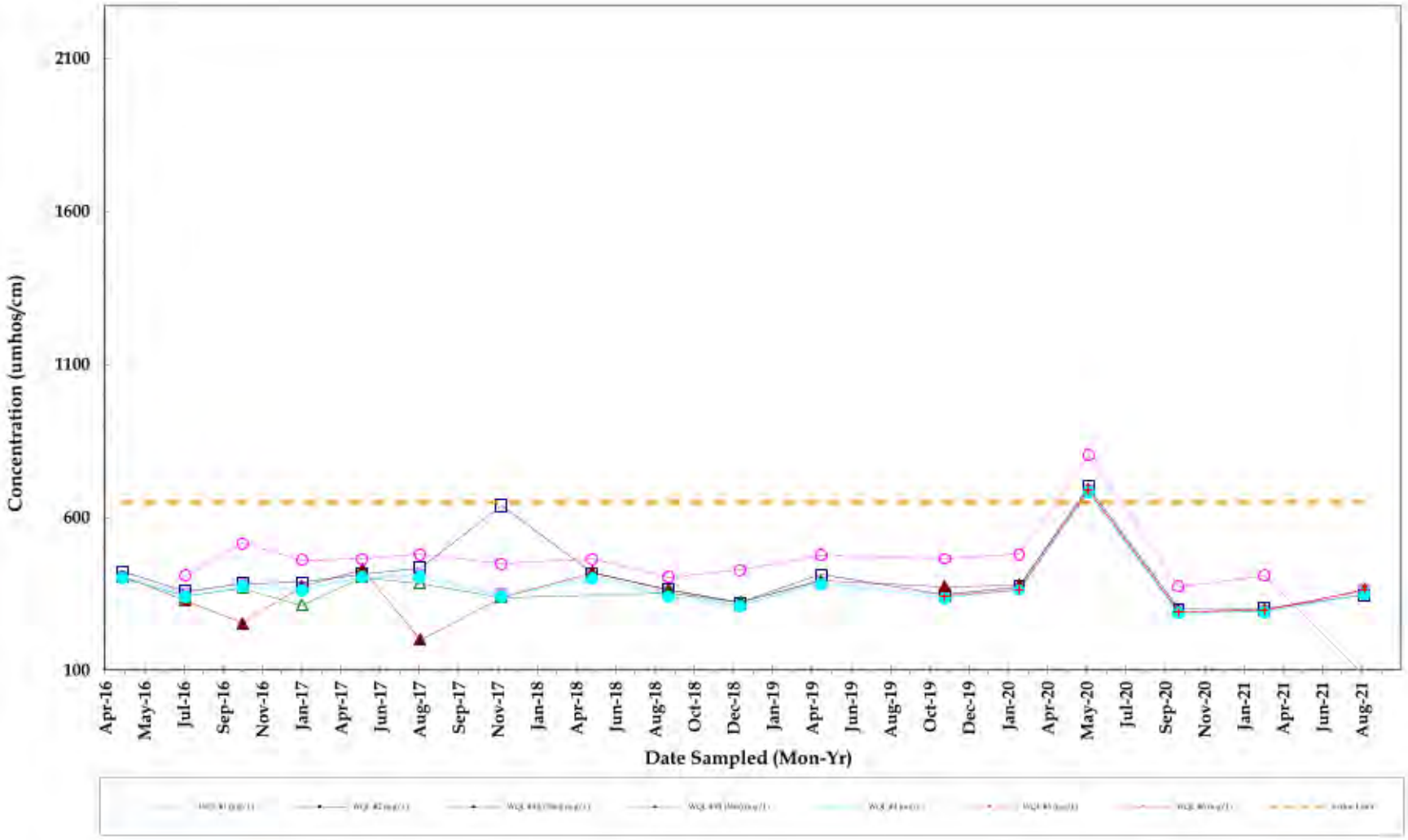


Turbidity

Miromar Lakes

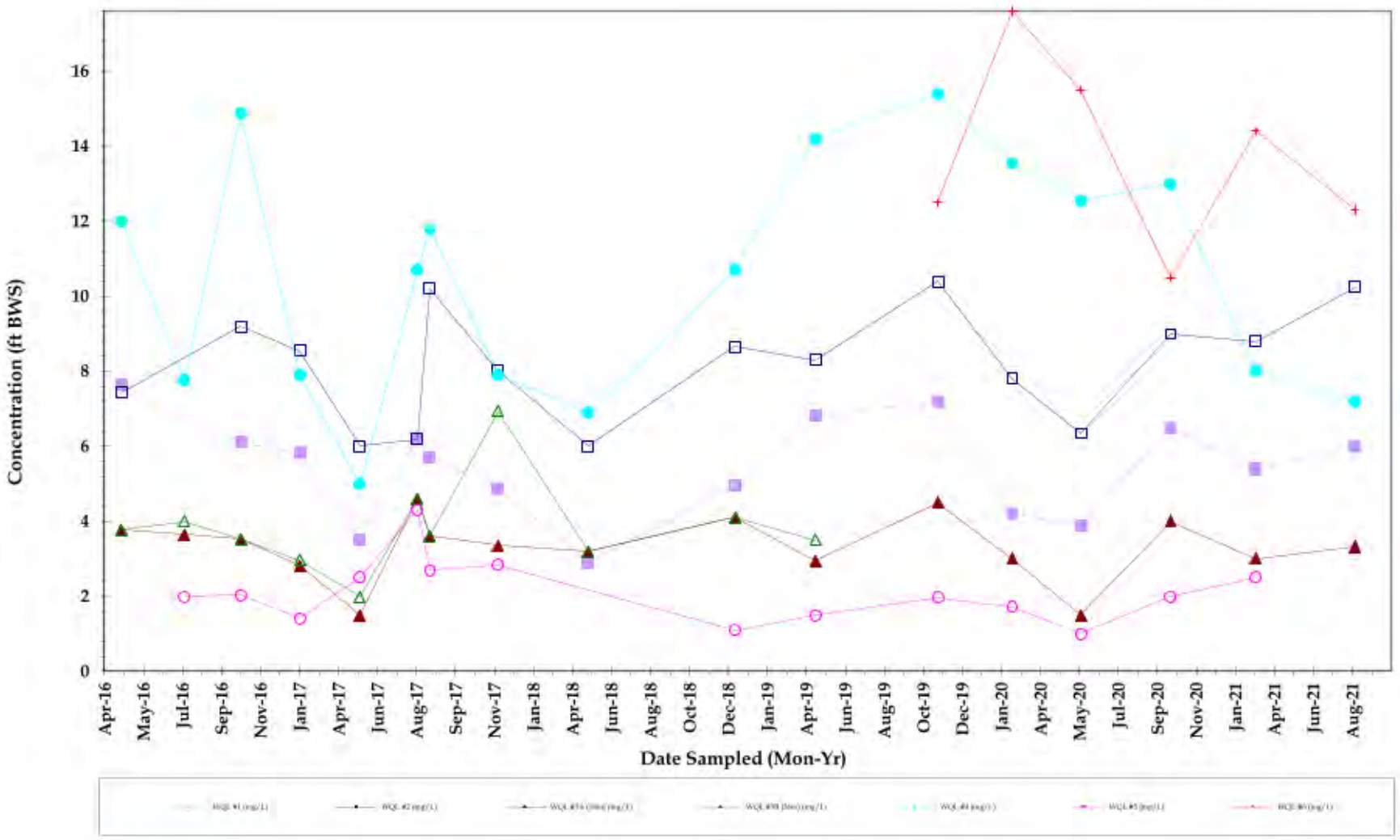
Water Quality Surface Water Sample results

AUGUST 2021



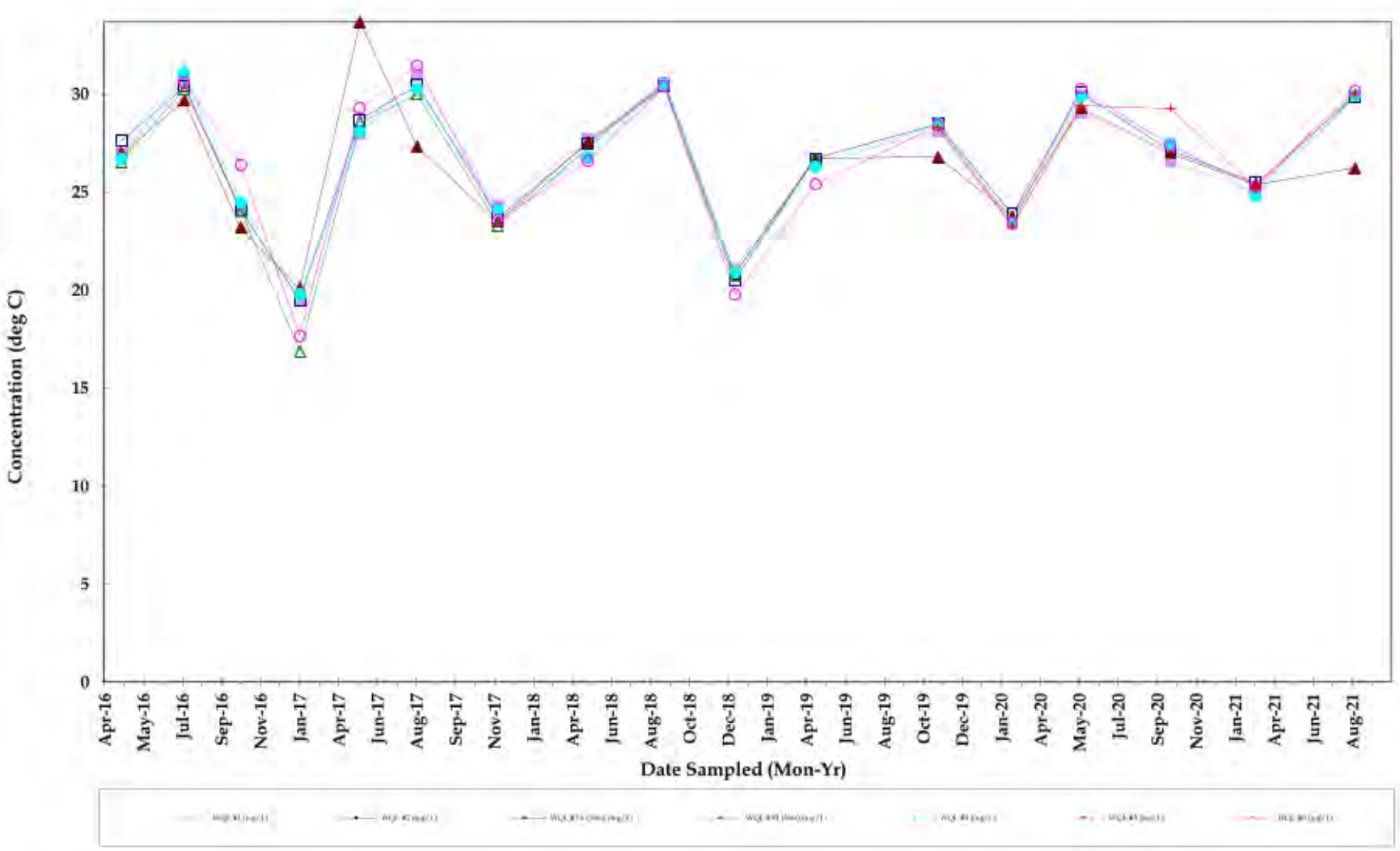
Conductivity

Miromar Lakes
Water Quality Surface Water Sample results
AUGUST 2021



Water Depth

Miromar Lakes
Water Quality Surface Water Sample results
AUGUST 2021



Temperature, sample

Miromar Lakes
Water Quality Surface Water Sample results
AUGUST 2021

Laboratory Analytical Report

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification #E84167

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

Submission Number : 21080318

G H D Services, Inc.
2675 Winkler Ave., Ste.180
Fort Myers, FL 33901

Project Name : MIROMAR LAKES WQM QTLY

Date Received : 08/05/2021
Time Received : 1500

Submission Number: 21080318
Sample Number: 001
Sample Description: WQL #4

Sample Date: 08/05/2021
Sample Time: 0810
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.025 I	MG/L	0.008	0.032	350.1	08/16/2021 10:35	CW
TOTAL KJELDAHL NITROGEN	0.469	MG/L	0.05	0.20	351.2	08/23/2021 11:15	JS
ORTHO PHOSPHORUS AS P	0.012	MG/L	0.002	0.008	365.3	08/05/2021 17:11	KA
TOTAL PHOSPHORUS AS P	0.032	MG/L	0.008	0.032	365.3	08/17/2021 15:37	KA
CHLOROPHYLL A	6.39	MG/M3	0.25	1.00	445.0	08/18/2021 09:08	PN
TOTAL SUSPENDED SOLIDS	3.60	MG/L	0.570	2.280	SM2540D	08/06/2021 11:24	CM
BIOCHEMICAL OXYGEN DEMAND	1 U	MG/L	1	4	SM5210B	08/08/2021 13:24	LD/LD
NITRATE+NITRITE AS N	0.006 U	MG/L	0.006	0.024	SYSTEA EASY	08/16/2021 14:09	CW
TOTAL NITROGEN	0.469	MG/L	0.05	0.20	SYSTEA+351	08/23/2021 11:15	JS/CW

Submission Number: 21080318
Sample Number: 002
Sample Description: WQL #5

Sample Date: 08/05/2021
Sample Time: 0945
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.008 U	MG/L	0.008	0.032	350.1	08/16/2021 10:39	CW
TOTAL KJELDAHL NITROGEN	0.720	MG/L	0.05	0.20	351.2	08/23/2021 11:16	JS
ORTHO PHOSPHORUS AS P	0.014	MG/L	0.002	0.008	365.3	08/05/2021 17:16	KA
TOTAL PHOSPHORUS AS P	0.035	MG/L	0.008	0.032	365.3	08/17/2021 15:38	KA
CHLOROPHYLL A	22.8	MG/M3	0.25	1.00	445.0	08/18/2021 09:08	PN
TOTAL SUSPENDED SOLIDS	5.40	MG/L	0.570	2.280	SM2540D	08/06/2021 11:24	CM
BIOCHEMICAL OXYGEN DEMAND	1.56 I	MG/L	1	4	SM5210B	08/08/2021 13:24	LD/LD
NITRATE-NITRITE AS N	0.006 U	MG/L	0.006	0.024	SYSTEA EASY	08/16/2021 14:10	CW
TOTAL NITROGEN	0.720	MG/L	0.05	0.20	SYSTEA+351	08/23/2021 11:16	JS/CW

BENCHMARK
EnviroAnalytical Inc.

NELAC Certification #E84167

Submission Number: 21080318 **Sample Date:** 08/05/2021
Sample Number: 003 **Sample Time:** 0830
Sample Description: WQL #6 **Sample Method:** Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.012 I	MG/L	0.008	0.032	350.1	08/16/2021 10:47	CW
TOTAL KJELDAHL NITROGEN	0.448	MG/L	0.05	0.20	351.2	08/23/2021 11:18	JS
ORTHO PHOSPHORUS AS P	0.002 I	MG/L	0.002	0.008	365.3	08/06/2021 17:56	KA
TOTAL PHOSPHORUS AS P	0.023 I	MG/L	0.008	0.032	365.3	08/17/2021 15:39	KA
CHLOROPHYLL A	7.62	MG/M3	0.25	1.00	445.0	08/18/2021 09:08	PN
TOTAL SUSPENDED SOLIDS	1.20 I	MG/L	0.570	2.280	SM2540D	08/06/2021 11:24	CM
BIOCHEMICAL OXYGEN DEMAND	1 U	MG/L	1	4	SM5210B	08/06/2021 13:24	LD/LD
NITRATE+NITRITE AS N	0.006 U	MG/L	0.006	0.024	SYSTEA EASY	08/16/2021 14:11	CW
TOTAL NITROGEN	0.448	MG/L	0.05	0.20	SYSTEA+351	08/23/2021 11:18	JS/CW

Submission Number: 21080318 **Sample Date:** 08/05/2021
Sample Number: 004 **Sample Time:** 0915
Sample Description: WQL #1 **Sample Method:** Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.008 I	MG/L	0.008	0.032	350.1	08/16/2021 10:48	CW
TOTAL KJELDAHL NITROGEN	0.474	MG/L	0.05	0.20	351.2	08/23/2021 11:19	JS
ORTHO PHOSPHORUS AS P	0.011	MG/L	0.002	0.008	365.3	08/06/2021 17:19	KA
TOTAL PHOSPHORUS AS P	0.022 I	MG/L	0.008	0.032	365.3	08/17/2021 15:40	KA
CHLOROPHYLL A	7.44	MG/M3	0.26	1.00	445.0	08/18/2021 09:08	PN
TOTAL SUSPENDED SOLIDS	2.80	MG/L	0.570	2.280	SM2540D	08/06/2021 11:24	CM
BIOCHEMICAL OXYGEN DEMAND	1 U	MG/L	1	4	SM5210B	08/06/2021 13:24	LD/LD
NITRATE+NITRITE AS N	0.006 U	MG/L	0.006	0.024	SYSTEA EASY	08/16/2021 14:12	CW
TOTAL NITROGEN	0.474	MG/L	0.05	0.20	SYSTEA+351	08/23/2021 11:19	JS/CW

Submission Number: 21080318 **Sample Date:** 08/05/2021
Sample Number: 005 **Sample Time:** 0900
Sample Description: WQL #2 **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	08/16/2021 10:45	CW
TOTAL KJELDAHL NITROGEN	0.469	MG/L	0.05	0.20	351.2	08/23/2021 11:29	JS
ORTHO PHOSPHORUS AS P	0.018	MG/L	0.002	0.008	365.3	08/06/2021 17:20	KA
TOTAL PHOSPHORUS AS P	0.017 I	MG/L	0.008	0.032	365.3	08/17/2021 15:41	KA
CHLOROPHYLL A	5.95	MG/M3	0.26	1.00	445.0	08/18/2021 09:08	PN

TOTAL SUSPENDED SOLIDS	2.80	MG/L	0.570	2.280	SM2540D	08/06/2021 11:24	CM
BIOCHEMICAL OXYGEN DEMAND	1 U	MG/L	1	4	SM5210B	08/06/2021 13:24	LD/LD
NITRATE+NITRITE AS N	0.006 U	MG/L	0.006	0.024	SYSTEA EASY	08/16/2021 14:13	CW
TOTAL NITROGEN	0.469	MG/L	0.05	0.20	SYSTEA+351	08/23/2021 11:29	JS/CW

Submission Number: 21080318
Sample Number: 006
Sample Description: WQL #3A

Sample Date: 08/05/2021
Sample Time: 0845
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
AMMONIA NITROGEN	0.035	MG/L	0.008	0.032	350.1	08/16/2021 10:47	CW
TOTAL KJELDAHL NITROGEN	0.546	MG/L	0.05	0.20	351.2	08/23/2021 11:30	JS
ORTHO PHOSPHORUS AS P	0.017	MG/L	0.002	0.008	365.3	08/05/2021 17:21	KA
TOTAL PHOSPHORUS AS P	0.021 I	MG/L	0.008	0.032	365.3	08/17/2021 15:42	KA
CHLOROPHYLL A	7.06	MG/M3	0.25	1.00	445.0	08/18/2021 09:08	PN
TOTAL SUSPENDED SOLIDS	2.00 I	MG/L	0.570	2.280	SM2540D	08/06/2021 11:24	CM
BIOCHEMICAL OXYGEN DEMAND	1.32 I	MG/L	1	4	SM5210B	08/06/2021 13:24	LD/LD
NITRATE+NITRITE AS N	0.006 U	MG/L	0.006	0.024	SYSTEA EASY	08/16/2021 14:14	CW
TOTAL NITROGEN	0.546	MG/L	0.05	0.20	SYSTEA+351	08/23/2021 11:30	JS/CW

08/24/2021

Dale D. Dixon / Laboratory Director — Date

Tülay Tanrisever - Technical Director/QC Officer

Kara Peterson - QA Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.
B = Results 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.
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 biased 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.
! = 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.
Oil & Grease - If client does not send sufficient sample quantity for spike evaluation surface water samples are supplied by the laboratory.

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.

COMMENTS:

Chlorophyll A lab filtered at 8:50:00 on 08/05/21 at 1228.

For questions or comments regarding these results, please contact us at (941) 723-9986.

Results relate only to the samples.

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

Benchmark EA, Inc.
1711 12th St. East
Palmetto, FL 34221
(941) 723-9986 / (800) 736-9986
(941) 723-6061-fax
Sample Temperature checked upon receipt at BEA with Temperature Gun ID #RAYL0005701777

Client: **GHD Services, Inc.** (BSA ENG)
2675 Winkler Ave. Suite 180
Ft. Myers Fl 33901
Erik Isern (239) 215-3914 Shannon Tucker 239-210-8653
Email EDD Reports to: Andrew Wyatt (Andrew.Wyatt@ghd.com)

Kit Shipped to client via UPS Standard in 1 large cooler

2020 PO# 34043123

Chain of Custody Form: Miromar Lakes WQM

Project Number: 11225022- 00

Profile: 840, QC Report

Laboratory Submission #: 21080318

Station ID	Sample Type[1]	Sample Matrix[2]	NO_3-NO_2 (353.2) TKN (351.2) NH_3 (350.1) TP (365.1) T-N (Calc.)	BOD5 (SM5210B)	Ortho-Phos (Laboratory Filtered) (365.1)	TSS (SM2540D)	Chlorophyll a (445.0) Filtered @ BEAS 8/5/21 1228	Laboratory Submission #
			1:1 H_2SO_4 pH<2	Plain	Plain	Plain	Plain	
			1 x ½ Pint Plastic	1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x 1 Quart Plastic	1 x 500mL Opaque Plastic	
WQ Location 4	Grab	SW	Date/Time: 8/5/21 0810					1
WQ Location 5	Grab	SW	Date/Time: 0945					2
WQ Location 6	Grab	SW	Date/Time: 0830					3
WQ Location 1	Grab	SW	Date/Time: 0915					4
WQ Location 2	Grab	SW	Date/Time: 0900					5
WQ Location 3A	Grab	SW	Date/Time: 0845					6

[1] "Sample Type" is used to indicate whether the sample was a grab (G) or whether it was a composite (C).
[2] "Sample Matrix" is used to indicate whether the sample is being collected in drinking water (DW), groundwater (GW), surface water (SW), soil, sediment (SOLMIX), or sludge (SLUDGE).
[3] "Container Type" is used to indicate whether the container is plastic (P) or glass (G).
[4] Samples must be chilled and stored in wet ice after collection. The maximum temperature during storage should be 6°C (10.4°C).
Under "Preservative" list any added preservatives that were added to the sample container.

Instructions:
1. Each bottle has a label identifying sample ID, preservative material (if any), sample origin, event ID, and parameters for analysis.
2. The following information should be added to each bottle label at collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
3. All bottles not containing preservative must be rinsed with sample prior to collection.
4. The client is responsible for documentation of the sampling event. Please note special sampling circumstances on this sample integrity form.

Laboratory Sample Acceptability: pH <2 ✓
BEAS Temperature: 1.9°C
BEA Temperature: 0.2°C

1	Collector: [signature]	Date & Time: 8-5-21/1140	2	Received By: Melinda Moreland	Date & Time: 8/5/21 1140
3	Relinquished By: [signature]	Date & Time:	4	Received By:	Date & Time:
5	Relinquished By: Melinda Moreland	Date & Time: 8/5/21 1150	6	Received By: [signature]	Date & Time: 8/5/21 1150
7	Relinquished By: [signature]	Date & Time: 8/6/21 1500	8	Received By: [signature]	Date & Time: 8/6/21 1500

BENCHMARK

EnviroAnalytical, Inc.

QC REPORT

NELAC CERTIFICATION #E84167

Submission Number: 21080318
Project Name: MIROMAR LAKES WQM QTLY

SUBMISSION	METHOD	ANALYTE	LAB SAMPLE	ANALYSIS DATE	QC FLAG	QC VALUE	SAMPLE RESULT	DUPLICATE RESULT	LR %RSD	SPK RESULT	STD-SPK RECOVERY
21080318 001	350.1	AMMONIA NITROGEN	590551	08/16/2021 10:35	LR		0.026	0.025	0.00		
21080670 002	350.1	AMMONIA NITROGEN	591074	08/16/2021 09:42	LR		0.217	0.216	0.33		
	350.1	AMMONIA NITROGEN		08/16/2021 09:30	MB	0.00	0.000				
	350.1	AMMONIA NITROGEN		08/16/2021 09:32	MB	0.00	0.000				
	350.1	AMMONIA NITROGEN		08/16/2021 10:01	MB	0.00	0.000				
	350.1	AMMONIA NITROGEN		08/16/2021 10:27	MB	0.00	0.000				
	350.1	AMMONIA NITROGEN		08/16/2021 10:55	MB	0.00	0.000				
	350.1	AMMONIA NITROGEN		08/16/2021 11:17	MB	0.00	0.000				
	350.1	AMMONIA NITROGEN		08/16/2021 09:36	PQL	0.03	0.030				100.0
21080251 01B	350.1	AMMONIA NITROGEN		08/16/2021 09:38	SPK	1.00	1.510			1.490	98.2
21080395 01B	350.1	AMMONIA NITROGEN	590768	08/16/2021 10:05	SPK	1.00	1.010			1.020	102.0
21080674 001	350.1	AMMONIA NITROGEN	591282	08/16/2021 10:31	SPK	1.00	1.060			1.030	97.7
21080674 002	350.1	AMMONIA NITROGEN	591283	08/16/2021 10:59	SPK	1.00	1.030			1.070	103.0
	350.1	AMMONIA NITROGEN		08/16/2021 09:34	STD	1.00	0.896				89.6
	350.1	AMMONIA NITROGEN		08/16/2021 10:03	STD	1.00	0.915				91.5
	350.1	AMMONIA NITROGEN		08/16/2021 10:29	STD	1.00	0.917				91.7
	350.1	AMMONIA NITROGEN		08/16/2021 10:57	STD	1.00	0.949				94.9
	350.1	AMMONIA NITROGEN		08/16/2021 11:18	STD	1.00	0.942				94.2
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 10:49	LCS	2.00	2.100				105.0
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 11:05	LCS	2.00	2.110				106.0
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 11:24	LCS	2.00	2.090				105.0
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 11:41	LCS	2.00	2.080				104.0
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 11:47	LCS	2.00	2.090				105.0

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

SUBMISSION	METHOD	ANALYTE	LAB SAMPLE	ANALYSIS DATE	QC FLAG	QC VALUE	SAMPLE RESULT	DUPLICATE RESULT	LR %RSD	SPK RESULT	STD-SPK RECOVERY
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 14:48	LCS	2.00	2.100				105.0
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 15:04	LCS	2.00	2.160				108.0
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 15:22	LCS	2.00	2.190				110.0
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 15:41	LCS	2.00	1.980				99.0
21071206 012	351.2	TOTAL KJELDAHL NITROGEN	589017	08/23/2021 11:12	LR		-0.093	-0.089	0.00		
21071864 004	351.2	TOTAL KJELDAHL NITROGEN	589953	08/23/2021 10:38	LR		-0.104	-0.077	0.00		
21080677 001	351.2	TOTAL KJELDAHL NITROGEN	591286	08/23/2021 15:11	LR		52.800	52.100	0.94		
21080998 001	351.2	TOTAL KJELDAHL NITROGEN	591841	08/23/2021 14:38	LR		55.400	52.900	3.26		
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 10:34	MB	0.00	0.000				
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 10:48	MB	0.00	0.000				
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 11:04	MB	0.00	0.000				
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 11:22	MB	0.00	0.000				
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 11:40	MB	0.00	0.000				
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 11:45	MB	0.00	0.000				
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 14:34	MB	0.00	0.000				
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 14:46	MB	0.00	0.000				
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 15:03	MB	0.00	0.000				
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 15:21	MB	0.00	0.000				
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 15:40	MB	0.00	0.000				
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 10:27	PQL	0.25	0.163				65.2
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 14:30	PQL	0.25	0.219				87.6
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 10:19	QCS	2.50	2.690				108.0
	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 14:15	QCS	2.50	2.540				102.0
21080392 002	351.2	TOTAL KJELDAHL NITROGEN	590763	08/23/2021 15:27	SPK	2.00	2.630			2.760	106.0
21080395 01B	351.2	TOTAL KJELDAHL NITROGEN	590768	08/23/2021 14:52	SPK	2.00	2.520			2.720	110.0
21080995 001	351.2	TOTAL KJELDAHL NITROGEN	591768	08/23/2021 11:09	SPK	2.00	2.770			2.720	97.4
21080998 002	351.2	TOTAL KJELDAHL NITROGEN		08/23/2021 14:36	SPK	2.00	3.330			3.390	103.0
21081063 002	351.2	TOTAL KJELDAHL NITROGEN	591945	08/23/2021 11:28	SPK	2.00	6.850			6.820	98.5
21081068 001	351.2	TOTAL KJELDAHL NITROGEN	591979	08/23/2021 10:36	SPK	2.00	2.980			3.180	110.0
21081068 C01	351.2	TOTAL KJELDAHL NITROGEN	591979	08/23/2021 10:53	SPK	2.00	2.860			2.990	107.0
21080318 001	365.3	ORTHO PHOSPHORUS AS P	590551	08/05/2021 17:11	LR		0.012	0.018	27.70		
	365.3	ORTHO PHOSPHORUS AS P		08/05/2021 17:05	MB	0.00	0.000				
	365.3	ORTHO PHOSPHORUS AS P		08/05/2021 17:52	MB	0.00	0.000				

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

SUBMISSION	METHOD	ANALYTE	LAB SAMPLE	ANALYSIS DATE	QC FLAG	QC VALUE	SAMPLE RESULT	DUPLICATE RESULT	LR %RSD	SPK RESULT	STD-SPK RECOVERY
	365.3	ORTHO PHOSPHORUS AS P		08/05/2021 17:22	MB	0.00	0.000				
	365.3	ORTHO PHOSPHORUS AS P		08/05/2021 17:10	PQL	0.01	0.007				66.0
	365.3	ORTHO PHOSPHORUS AS P		08/05/2021 17:55	SPK	0.20	0.299			0.312	107.0
21080264 001	365.3	ORTHO PHOSPHORUS AS P	590492	08/05/2021 17:06	STD	0.20	0.184				92.0
	365.3	ORTHO PHOSPHORUS AS P		08/05/2021 17:57	STD	0.20	0.187				93.4
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 15:06	LR		0.460	0.457	0.37		
21080469 001	365.3	TOTAL PHOSPHORUS AS P	590886	08/17/2021 13:32	LR		8.150	7.320	7.57		
21080484 001	365.3	TOTAL PHOSPHORUS AS P	590917	08/17/2021 13:28	MB	0.00	0.000				
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 13:29	MB	0.00	0.000				
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 13:43	MB	0.00	0.000				
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 14:09	MB	0.00	0.000				
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 14:22	MB	0.00	0.000				
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 14:33	MB	0.00	0.000				
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 10:18	PQL	0.02	0.017				87.0
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 16:05	PQL	0.02	0.011				55.5
21080469 002	365.3	TOTAL PHOSPHORUS AS P	590877	08/17/2021 15:08	SPK	0.20	0.316			0.290	87.2
21080674 002	365.3	TOTAL PHOSPHORUS AS P	591283	08/17/2021 09:03	SPK	0.20	0.398			0.395	98.7
21080771 002	365.3	TOTAL PHOSPHORUS AS P	591457	08/17/2021 08:52	SPK	0.20	0.396			0.377	91.0
21080871 002	365.3	TOTAL PHOSPHORUS AS P	591614	08/17/2021 14:49	SPK	0.20	0.364			0.326	81.0
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 08:50	STD	0.20	0.166				83.2
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 14:47	STD	0.20	0.161				80.4
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 13:44	STD	0.20	0.160				80.1
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 15:44	STD	0.20	0.161				80.4
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 15:45	STD	0.20	0.160				80.0
	365.3	TOTAL PHOSPHORUS AS P		08/17/2021 15:22	STD	0.20	0.166				83.0
21080318 005	445.0	CHLOROPHYLL A	590555	08/18/2021 09:08	LR		5.947	6.310	4.19		
21080323 01B	445.0	CHLOROPHYLL A	590565	08/18/2021 09:08	LR		6.280	6.200	0.90		
21080469 002	445.0	CHLOROPHYLL A, CORRECTED	590877	08/18/2021 09:08	LR		94.526	120.380	17.01		
	445.0	CHLOROPHYLL A, CORRECTED		08/18/2021 09:08	MB	0.00	-0.078				
	445.0	CHLOROPHYLL A, CORRECTED		08/18/2021 09:08	STD	42.93	40.721				94.9
21080469 002	445.0	PHEOPHYTIN	590877	08/18/2021 09:08	LR		-7.553	-22.640	0.00		
21080432 001	SM2540D	TOTAL SUSPENDED SOLIDS	590820	08/06/2021 11:24	LR		152.000	140.000	5.81		
	SM2540D	TOTAL SUSPENDED SOLIDS		08/06/2021 11:24	MB	0.00	0.000				

SUBMISSION	METHOD	ANALYTE	LAB SAMPLE	ANALYSIS DATE	QC FLAG	QC VALUE	SAMPLE RESULT	DUPLICATE RESULT	LR %RSD	SPK RESULT	STD-SPK RECOVERY
	SM2540D	TOTAL SUSPENDED SOLIDS		08/06/2021 11:24	STD	951.00	936.000				98.4
21080036 001	SM5210B	BIOCHEMICAL OXYGEN DEMAND	590650	08/06/2021 13:24	LR		54.300	55.700	1.80		
	SM5210B	BIOCHEMICAL OXYGEN DEMAND		08/06/2021 13:24	MB	0.00	0.020				
	SM5210B	BIOCHEMICAL OXYGEN DEMAND		08/06/2021 13:24	STD	198.00	281.050				141.9
	SM5210B	BIOCHEMICAL OXYGEN DEMAND		08/06/2021 13:24	STD	198.00	217.550				109.9
	SM5210B	BIOCHEMICAL OXYGEN DEMAND		08/06/2021 13:24	STD	198.00	228.550				115.4
	SM5210B	BIOCHEMICAL OXYGEN DEMAND		08/06/2021 13:24	STD	198.00	198.550				100.3
	SYSTEA EAS	NITRATE+NITRITE AS N		08/16/2021 14:00	MB	0.00	0.000				
	SYSTEA EAS	NITRATE+NITRITE AS N		08/16/2021 14:01	MB	0.00	0.000				
	SYSTEA EAS	NITRATE+NITRITE AS N		08/16/2021 14:15	MB	0.00	0.000				
	SYSTEA EAS	NITRATE+NITRITE AS N		08/16/2021 14:27	MB	0.00	0.000				
	SYSTEA EAS	NITRATE+NITRITE AS N		08/16/2021 14:39	MB	0.00	0.000				
	SYSTEA EAS	NITRATE+NITRITE AS N		08/16/2021 14:47	MB	0.00	0.000				
	SYSTEA EAS	NITRATE+NITRITE AS N		08/16/2021 14:58	PQL	0.01	0.005				54.0
21080577 001	SYSTEA EAS	NITRATE+NITRITE AS N	591083	08/16/2021 14:29	SPK	2.00	2.250			2.430	109.0
21080577 002	SYSTEA EAS	NITRATE+NITRITE AS N	591084	08/16/2021 14:41	SPK	2.00	2.210			2.680	123.0
21080771 001	SYSTEA EAS	NITRATE+NITRITE AS N	591456	08/16/2021 14:04	SPK	2.00	2.260			2.460	110.0
21080771 002	SYSTEA EAS	NITRATE+NITRITE AS N	591457	08/16/2021 14:16	SPK	2.00	2.160			2.210	102.0
	SYSTEA EAS	NITRATE+NITRITE AS N		08/16/2021 14:02	STD	0.25	0.255				102.0
	SYSTEA EAS	NITRATE+NITRITE AS N		08/16/2021 14:03	STD	0.25	0.259				104.0
	SYSTEA EAS	NITRATE+NITRITE AS N		08/16/2021 14:16	STD	0.25	0.256				103.0
	SYSTEA EAS	NITRATE+NITRITE AS N		08/16/2021 14:28	STD	0.25	0.255				102.0
	SYSTEA EAS	NITRATE+NITRITE AS N		08/16/2021 14:40	STD	0.25	0.247				98.8
	SYSTEA EAS	NITRATE+NITRITE AS N		08/16/2021 14:48	STD	0.25	0.262				105.0

NOTES:

Surface Water Field Sheets

SURFACE WATER FIELD SHEET
Station Information

STATION ID: **WQ Location #4** (~~#1~~)

LOCATION: Miromar Lakes Parkway Bridge – North Side Rip Rap

DATE/TIME: 8/5/21 0810

ALL TIMES ARE: (ETZ) or CTZ (circle one)

WATERBODY TYPE: (Circle One)
Small Lake (>4 and <10HA) (collect samples in middle of open water)
(Large Lake (>10HA) (collect samples at selected location point))
Small Stream (collect samples in representative area)
Large River (collect samples in representative area)

Water Characteristics

TOTAL WATER DEPTH: 7.2 (feet) (Average of 2 measurements) Sample Depth: 1.5 (feet)

STREAM FLOW: (Circle One if applicable) No Flow (Flow within Banks) Flood Conditions

WATER LEVEL: (Circle One) Low (Normal) High

WATER SAMPLE COLLECTION DEVICE (Circle One) Van Dorn (Direct Grab with Sample Bottle) Dipper Other _____

Field Measurements **Meter ID#** **Field Measurements Read By:** (initials)

Time (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
0810	1.5	6.62	7.31	94.2	29.95	349	1.76
Time (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: N/A

Samples immediately placed on ice? (Yes) No

WEATHER CONDITIONS: (circle) raining, (clear) partly cloudy, windy

PERSONNEL ON SITE: Connor Hayden, Bill McKinney

REMARKS: sample collected @ 1.5 ft depth near buoy. Clear water, no odor, Grey disc clear with 7.2 ft

SURFACE WATER FIELD SHEET
Station Information

STATION ID: **WQ Location #6**

LOCATION: West end of channel. SE corner of south lake @ **Depth of 36-inches**

DATE/TIME: 8/5/21 0830

ALL TIMES ARE: (ETZ) or CTZ (circle one)

WATERBODY TYPE: (Circle One)
Small Lake (>4 and <10HA) (collect samples in middle of open water)
(Large Lake (>10HA) (collect samples at selected location point)
Small Stream (collect samples in representative area)
Large River (collect samples in representative area)

Water Characteristics

TOTAL WATER DEPTH: 6.4 ~~6.4~~ 12.3 (feet) (Average of 2 measurements) Secchi disk

Sample Depth: 3.0 (feet)

STREAM FLOW: (Circle One if applicable) No Flow (Flow within Banks) Flood Conditions

WATER LEVEL: (Circle One) Low (Normal) High

WATER SAMPLE COLLECTION DEVICE (Circle One) Van Dorn (Direct Grab with Sample Bottle) Dipper Other _____

Field Measurements **Meter ID#** **Field Measurements Read By:** (initials)

Time (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
0830	3.0	7.59	6.82	90.3	30.07	345	2.19
Time (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: N/A

Samples immediately placed on ice? (Yes) No

WEATHER CONDITIONS: (circle) raining, (clear,) partly cloudy, windy

PERSONNEL ON SITE: Connor Hayden, Bill McKinney

REMARKS: Sample collected 3 ft below surface. clear water, no odor. Secchi disk "clear" until 6.4 ft

SURFACE WATER FIELD SHEET
Station Information

STATION ID: **WQ Location #3A**

LOCATION: Outlet Weir – South of Via Salerno Way @ **Depth of 18-inches**

DATE/TIME: 8/5/21 0845

ALL TIMES ARE: (ETZ) or CTZ (circle one)

WATERBODY TYPE: (Circle One)
Small Lake (>4 and <10HA) (collect samples in middle of open water)
(Large Lake (>10HA) (collect samples at selected location point))
Small Stream (collect samples in representative area)
Large River (collect samples in representative area)

Water Characteristics

TOTAL WATER DEPTH: 3.33 (feet) (Average of 2 measurements)
Sample Depth: 1.5 (feet)

STREAM FLOW: (Circle One if applicable) No Flow (Flow within Banks) Flood Conditions
WATER LEVEL: (Circle One) Low (Normal) High
WATER SAMPLE COLLECTION DEVICE (Circle One) Van Dorn (Direct Grab with Sample Bottle) Dipper Other _____

Field Measurements **Meter ID#** **Field Measurements Read By:** (initials)

Time (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
0845	1.5	7.16	3.15	39.0	26.24	363	1.77
Time (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: N/A
Samples immediately placed on ice? (Yes) No

WEATHER CONDITIONS: (circle) raining, (clear) partly cloudy, windy

PERSONNEL ON SITE: Connor Haydon, Bill McKinney

REMARKS: Sample collect 1.5 ft below surface, clear water, no odor. ~~water~~ secchy disk clear until 3.33 ft (total depth)

SURFACE WATER FIELD SHEET
Station Information

STATION ID:	**WQ Location #2**
LOCATION:	Mouth of Canal – Northeast of Via Portofino Way
DATE/TIME:	8/5/21 0900
ALL TIMES ARE:	(PTZ) or CTZ (circle one)

WATERBODY TYPE: (Circle One)
- Small Lake (>4 and <10HA) (collect samples in middle of open water)
- (Large Lake (>10HA) (collect samples at selected location point))
- Small Stream (collect samples in representative area)
- Large River (collect samples in representative area)

Water Characteristics

7.0ft

TOTAL WATER DEPTH: 10.25 (feet) (Average of 2 measurements) Sample Depth: 1.5 (feet)

STREAM FLOW: (Circle One if applicable) No Flow (Flow within Banks) Flood Conditions

WATER LEVEL: (Circle One) Low (Normal) High

WATER SAMPLE COLLECTION DEVICE (Circle One) Van Dorn (Direct Grab with Sample Bottle) Dipper Other _____

Field Measurements **Meter ID#** **Field Measurements Read By:** (initials)

Time (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
0900	1.5	8.0	7.09	93.7	29.87	346	2.44
Time (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: N/A

Samples immediately placed on ice? (Yes) No

WEATHER CONDITIONS: (circle) raining, (clear,) partly cloudy, windy

PERSONNEL ON SITE: Connor Hayden, Bill & McKinney

REMARKS: Sample collected 1.5 ft below surface. clear water no odor
Secchi disc clear until 7.0 ft

SURFACE WATER FIELD SHEET
Station Information

STATION ID:	**WQ Location #1**
LOCATION:	South End of Beach – East of Miromar Lakes Pkwy - Buoy
DATE/TIME:	8/5/21 0915
ALL TIMES ARE:	(ETZ) or CTZ (circle one)

WATERBODY TYPE: (Circle One)
Small Lake (>4 and <10HA) (collect samples in middle of open water)
(Large Lake (>10HA) (collect samples at selected location point))
Small Stream (collect samples in representative area)
Large River (collect samples in representative area)

Water Characteristics

TOTAL WATER DEPTH: 6.0 (feet) (Average of 2 measurements)
Sample Depth: 1.5 (feet)

STREAM FLOW: (Circle One if applicable) No Flow (Flow within Banks) Flood Conditions
WATER LEVEL: (Circle One) Low (Normal) High
WATER SAMPLE COLLECTION DEVICE (Circle One) Van Dorn (Direct Grab with Sample Bottle) Dipper Other

Field Measurements **Meter ID#** **Field Measurements Read By:** (initials)

Time (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
0915	1.5	8.10	7.0	93.1	29.91	358	1.87
Time (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: N/A

Samples immediately placed on ice? (Yes) No

WEATHER CONDITIONS: (circle) raining, (clear,) partly cloudy, windy

PERSONNEL ON SITE: Connor Hayden, Bill McKinney

REMARKS: Sample collected under bridge @ 1.5 ft below surface. water clear, no odor, secchi disc clear until 4.0 ft

SURFACE WATER FIELD SHEET
Station Information

STATION ID: **WQ Location #5**

LOCATION: Lake #30 Outfall

DATE/TIME: 8/5/21 0945

ALL TIMES ARE: (ETZ) or CTZ (circle one)

WATERBODY TYPE: (Circle One)
- (Small Lake (>4 and <10HA) (collect samples in middle of open water)
- Large Lake (>10HA) (collect samples at selected location point)
- Small Stream (collect samples in representative area)
- Large River (collect samples in representative area)

Water Characteristics

TOTAL WATER DEPTH: N/M (feet) (Average of 2 measurements)

Sample Depth: 1.5 (feet)

STREAM FLOW: (Circle One if applicable) No Flow (Flow within Banks) Flood Conditions

WATER LEVEL: (Circle One) Low (Normal) High

WATER SAMPLE COLLECTION DEVICE (Circle One) Van Dorn (Direct Grab with Sample Bottle) Dipper Other _____

Field Measurements **Meter ID#** **Field Measurements Read By:** (initials)

Time (24 hr.)	Surface Depth Collected (feet)	pH* (SU)	D.O.(mg./L)	D.O. (%)	Temp (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)
0945	1.5	8.12	6.07	80.6	30.19	82.9	4.05
Time (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: N/A

Samples immediately placed on ice? (Yes) No

WEATHER CONDITIONS: (circle) raining, (clear), partly cloudy, windy

PERSONNEL ON SITE: Connor Hayden, Bill McKinney

REMARKS: Sample collected 1.5 ft below surface @ outfall. no odor, clear water

Laboratory Data Compliance Memo

Memorandum

September 3, 2021

To:	Mr. Bruce Bernard Manager of Field Operations Calvin, Giordano & Associates, Inc. 1800 Eller Drive, Suite 600 Fort Lauderdale, FL 33316	Ref. No.:	11225022
From:	Ruth Mickle/eew-4	Tel:	612-524-6872
Subject:	**Analytical Results Compliance Report Surface Water Quality Monitoring Miromar Lakes Fort Myers, Florida August 2021**		

1. Compliance Review

Samples were collected in August 2021 in support of the Miromar Lakes 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.

Table 1

Analytical Results Summary
Surface Water Quality Monitoring
Miromar Lakes, Fort Myers, Florida
August 2021

Sample Location/Sample ID:		WQ Location #1 / WQL1																
Sample Date:		**04/27/16**	**08/03/16**	**10/31/16**	**01/31/17**	**05/04/17**	**08/02/17**	**12/06/17**	**04/26/18**	**08/22/18**	**12/11/18**	**04/16/19**	**10/24/2019**	**2/17/2020**	**06/03/2020**	**10/21/2020**	**03/03/2021**	**08/05/2021**
Field Parameters	**Units**																	
Total Water Depth	Feet	7.66	NS	6.1	5.83	3.5	6.2	4.89	2.90	5.7	4.95	6.83	7.2	4.2	3.9	6.5	5.4	6.0
Sample Depth	Feet	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Conductivity, field	umhos/cm	408	353	387	369.3	405	413.1	348.2	407.3	354.6	312.7	387.3	348.4	369	689	300	292	358
Dissolved oxygen (DO), field	mg/L	8.03	5.91	7.53	8.13	7.95	5.91	6.95	6.89	7.39	8.54	6.49	6.1	8.02	6.05	7.07	7.51	7.0
Dissolved oxygen (DO), field	%	100.9*	79.3	89.4	88.5	101.6	79.6	83.0	87.6	98.9	96.0	80.9	78.1	94.5	77.0	87.1	90.6	93.1
pH, field	s.u.	8.44	8.19	7.92	8.13	7.97	8.23	8.08	8.37	8.24	8.31	8.13	8.36	8.26	8.29	8.57	8.82	8.10
Temperature, field	Deg C	27.08	30.8	24	19.5	28.0	31	24.3	27.7	30.6	21.1	26.6	28.1	23.44	29.1	26.6	25.0	29.91
Turbidity, field	NTU	2.41	3.44	3.55	4.64	8.16	5.05	3.02	2.90	5.53	4.39	3.32	3.71	1.66	3.63	2.42	1.58	1.87
Secchi Disk	Depth	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4.80	4.20	3.90	6.0	5.4	6.0
Wet Parameters	**Units**																	
Ammonia-N	mg/L	U	0.026 I	U	0.035	0.008 U	0.008 U	0.026 I	0.008 U	0.022 I	0.008 U	0.008 U	0.017 I	0.008 U	0.008 U	0.008 U	0.008 U	0.008 I
TAN criteria calculation	mg/L	0.24	0.29	0.67	0.66	0.48	0.27	0.52	0.26	0.27	0.45	0.42	0.26	0.42	0.28	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.626	0.878	0.911	0.968	0.611	0.580	0.629	0.551	0.565	0.632	0.619	0.588	0.632	0.591	0.05 U	0.480	0.474
Total nitrogen	mg/L	0.626	0.878	0.911	0.974	0.616	0.592	0.629	0.565	0.574	0.639	0.619	0.588	0.639	0.591	0.05 U	0.480	0.474
Nitrite/Nitrate	mg/L	U	U	U	0.006 I	0.005 I	0.012 I	0.004 U	0.014 I	0.009 I	0.007 I	0.006 U	0.006 U	0.007 I	0.006 U	0.006 U	0.006 U	0.006 U
Ortho phosphorus (Field Filtered)	mg/L	0.074	0.071	0.030	0.012	0.027	0.038	0.026	0.014	0.017	0.014	0.024	0.026	0.028	0.051	0.0126	0.024	0.011
Total phosphorus	mg/L	0.087	0.091	0.068	0.038	0.027 I	0.041	0.121	0.017 I	0.018 I	0.026 I	0.034	0.063	0.035	0.053	0.011 I	0.059	0.022 I
Chlorophyll	mg/m3	5.91	7.32	7.86	11.1	8.42	9.27	5.25	10.1	10.1	6.92	3.72	7.81	3.71	3.96	5.76	3.55	7.44
Total suspended solids (TSS)	mg/L	2.35	3.49	4.80	7.00	7.80	6.15	3.67	3.67	4.00	4.20	1.20 I	2.20 I	3.50	3.20	2.40	2.00 I	2.80
Biochemical oxygen demand (total BOD5)	mg/L	0.706 I	U	U	1.06 I	1.40 I	1.05 I	1 U	1.16 I	2.72 I	1.85 I	1.24 I	1.03 I	1 U	1 U	1 U	1 U	1 U

Sample Location/Sample ID:		WQ Location #2 / WQL2																
Sample Date:		**04/27/16**	**08/03/16**	**10/31/16**	**01/31/17**	**05/04/17**	**08/02/17**	**12/06/17**	**04/26/18**	**08/22/18**	**12/11/18**	**04/16/19**	**10/24/2019**	**2/17/2020**	**06/03/2020**	**10/21/2020**	**03/03/2021**	**08/05/2021**
Field Parameters	**Units**																	
Total Water Depth	Feet	7.43	NS	9.2	8.56	6	6.2	8.01	6.00	10.2	8.65	8.31	10.4	7.8	6.35	9.0	8.8	10.25
Sample Depth	Feet	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Conductivity, field	umhos/cm	422	359	384	385.7	414	435.0	638.9	417.0	363.7	321.2	411.8	346.4	373	701	300	303	346
Dissolved oxygen (DO), field	mg/L	7.67	5.55	7.12	8.05	7.87	6.21	6.58	6.95	7.52	9.90	6.88	6.27	8.12	5.86	4.64	7.04	7.09
Dissolved oxygen (DO), field	%	97.4	74.0	84.7	87.6	101.8	82.9	77.7	88.0	100.2	110.0	85.9	81.0	96.2	77.2	51.1	86.9	93.7
pH, field	s.u.	8.37	8.07	7.68	7.97	8.21	8.11	7.89	8.31	8.03	8.06	8.25	8.27	8.49	8.31	8.26	8.72	8.0
Temperature, field	Deg C	27.62	30.4	24.1	19.5	28.7	30.5	23.7	27.5	30.4	20.5	26.7	28.5	23.9	30.1	27.1	25.5	29.87
Turbidity, field	NTU	3.97	31.71	4.38	4.66	7.15	3.12	3.20	8.22	3.75	5.76	3.37	3.55	2.18	3.49	2.40	3.41	2.44
Secchi Disk	Depth	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.30	NS	5.5	6.5	7.0	7.0
Wet Parameters	**Units**																	
Ammonia-N	mg/L	U	0.019 I	U	0.071	0.008 U	0.008 U	0.036	0.008 U	0.008 U	0.008 U	0.027	0.008 U	0.008 U	0.008 U	0.009 I	0.008 U	0.017 I
TAN criteria calculation	mg/L	0.26	0.36	0.90	0.84	0.32	0.34	0.71	0.30	0.38	0.69	0.34	0.30	0.28	0.25	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.745	1.15	0.888	1.04	0.507	0.641	0.710	0.675	0.613	0.693	0.606	0.605	0.403	0.556	0.500	0.450	0.469
Total nitrogen	mg/L	0.745	1.15	0.900	1.04	0.514	0.645	0.710	0.690	0.618	0.698	0.606	0.605	0.403	0.556	0.500	0.450	0.469
Nitrite/Nitrate	mg/L	U	U	0.012 I	U	0.007 I	0.004 I	0.004 U	0.015 I	0.005 I	0.006 I	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Ortho phosphorus (Field Filtered)	mg/L	0.077	0.070	0.064	0.015	0.028	0.050	0.025	0.015	0.020	0.008	0.002 U	0.055	0.035	0.053	0.0288	0.026	0.016
Total phosphorus	mg/L	0.079	0.087	0.066	0.031 I	0.054	0.065	0.042	0.023 I	0.008 U	0.009 I	0.008 U	0.073	0.069	0.062	0.012 I	0.032	0.017 I
Chlorophyll	mg/m3	6.59	7.28	8.08	11.7	7.76	7.13	5.42	8.35	9.06	8.80	5.28	9.11	4.34	5.11	6.13	2.04	5.95
Total suspended solids (TSS)	mg/L	4.21	3.90	4.60	7.20	6.60	2.60	3.60	8.00	1.00 I	4.67	3.80	2.40	3.00	2.40	2.40	2.80	2.80
Biochemical oxygen demand (total BOD5)	mg/L	0.778 I	U	U	1.33 I	1.13 I	1 U	1 U	1.36 I	1.89 I	1.10 I	1.40 I	1.50 I	1 U	1 U	1 U	1 U	1 U

Table 1

Analytical Results Summary
Surface Water Quality Monitoring
Miromar Lakes, Fort Myers, Florida
August 2021

Sample Location/Sample ID:		WQ Location #3A / WQL3A																
Sample Date:		**04/27/16**	**08/03/16**	**10/31/16**	**01/31/17**	**05/04/17**	**08/02/17**	**12/06/17**	**04/26/18**	**08/22/18**	**12/11/18**	**04/16/19**	**10/24/2019**	**2/17/2020**	**06/03/2020**	**10/21/2020**	**03/03/2021**	**08/05/2021**
Field Parameters	**Units**																	
Total Water Depth	Feet	3.78	3.64	3.52	2.81	1.5	4.6	3.35	3.2	3.6	5.87	2.95	4.5	3	1.5	4.0	3.0	3.33
Sample Depth	Feet	1.5	1.5	1.5	1.5	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1	1.5	1.5	1.5
Conductivity, field	umhos/cm	406	329	255	375.7	430	200.4	339	418.9	365.1	323	391.9	373.2	381	690	293	297	363
Dissolved oxygen (DO), field	mg/L	7.31	4.78	2.93	7.40	14.02	1.38	6.49	6.16	7.33	8.44	5.82	2.05	5.77	6.49	6.41	5.62	3.15
Dissolved oxygen (DO), field	%	91.8	62.9	34.3	81.5	198	17.42	76.4	78.2	97.9	94.3	72.7	25.7	68.5	85.4	80.5	70.2	39.0
pH, field	s.u.	8.44	8.0	6.99	7.96	9.32	6.91	7.97	8.15	8.13	7.53	8.21	7.34	7.93	8.44	8.38	8.49	7.16
Temperature, field	Deg C	27.0	29.7	23.2	20.1	33.7	27.3	23.5	27.6	30.5	20.8	26.7	26.8	23.77	29.3	27.0	25.4	26.24
Turbidity, field	NTU	7.64	78.77	3.48	5.42	86.9	2.99	3.05	3.94	3.63	4.20	2.20	2.79	1.31	3.49	2.76	4.13	1.77
Secchi Disk	Depth	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Lake Bottom	Lake Bottom	Lake Bottom	4.0	3.0	3.33
Wet Parameters	**Units**																	
Ammonia-N	mg/L	U	0.029 I	0.044	0.027 I	0.008 U	0.008 U	0.009 I	U	0.023 I	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.009 I	0.008 U	0.035
TAN criteria calculation	mg/L	0.25	0.42	1.54	0.82	0.04	1.22	0.65	0.38	0.32	1.29	0.37	1.02	0.67	0.21	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.581	0.949	1.11	1.06	3.73	0.642	0.634	0.645	0.621	0.949	0.598	0.635	0.451	0.510	0.216	0.526	0.546
Total nitrogen	mg/L	0.581	0.949	1.13	1.06	3.73	0.650	0.634	0.658	0.626	0.954	0.598	0.635	0.451	0.510	0.216	0.526	0.546
Nitrite/Nitrate	mg/L	U	U	0.021	U	0.008 I	0.008 I	0.004 U	0.013 I	0.005 I	0.006 I	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Ortho phosphorus (Field Filtered)	mg/L	0.073	0.012	0.051	0.012	0.018	0.029	0.031	0.016	0.020	0.025	0.014	0.060	0.043	0.048	0.0199	0.030	0.017
Total phosphorus	mg/L	0.088	0.026 I	0.052	0.033	0.090	0.039	0.048	0.024 I	0.008 U	0.019 I	0.018 I	0.066	0.069	0.064	0.012 I	0.046	0.021 I
Chlorophyll	mg/m3	5.76	8.71	10.1	10.4	249	10.1	4.83	7.85	10.6	8.15	4.60	7.88	3.79	5.10	5.52	4.00	7.06
Total suspended solids (TSS)	mg/L	7.06	6.42	5.11	7.20	95.0	3.80	4.00	3.60	6.00	4.33	2.60	2.40	1.50 I	4.80	2.40	4.20	2.00 I
Biochemical oxygen demand (total BOD5)	mg/L	U	U	U	1.11 I	10.6	1.39 I	1 U	1.12 I	1.66 I	1.19 I	2.32 I	1.27 I	1 U	1 U	1 U	1.30 I	1.32 I

Sample Location/Sample ID:		WQ Location #3B / WQL3B											WQL6	WQL6	WQL6	WQL6	WQL6	WQL6
Sample Date:		**04/27/16**	**08/03/16**	**10/31/16**	**01/31/17**	**05/04/17**	**08/02/17**	**12/06/17**	**04/26/18**	**08/22/18**	**12/11/18**	**04/16/19**	**10/24/2019**	**2/17/2020**	**06/03/2020**	**10/21/2020**	**03/03/2021**	**08/05/2021**
Field Parameters	**Units**																	
Total Water Depth	Feet	3.78	4	3.52	2.98	2	4.6	6.94	3.2	3.6	5.87	3.50	12.5	17.6	15.5	10.5	14.4	12.3
Sample Depth	Feet	3	3	3	2.5	1.5	3	3.0	NS	3	3	3	3	3	3	1.5	3	3
Conductivity, field	umhos/cm	405	341	369	313.1	406	384.1	338.6	NS	354.5	322.4	391.3	340.8	362	688	290	295	365
Dissolved oxygen (DO), field	mg/L	7.32	6.22	6.82	6.58	8.46	5.59	5.87	NS	7.39	6.32	5.7	5.63	8.44	6.49	6.66	7.43	6.82
Dissolved oxygen (DO), field	%	91.1	82.8	81.2	67.9	109.3	74.0	68.8	NS	98.8	70.6	71.2	72.4	99.2	85.7	83.4	90.4	90.3
pH, field	s.u.	8.46	8.14	7.68	7.77	8.12	8.10	8.00	NS	8.18	8.08	8.22	8.16	8.5	8.51	8.63	8.74	7.59
Temperature, field	Deg C	26.55	30.3	24.1	16.9	28.6	30.0	23.3	NS	30.6	20.8	26.7	28.3	23.28	29.4	29.3	25.2	30.07
Turbidity, field	NTU	7.98	10.03	3.15	21.38	3.93	4.15	2.84	NS	26.26	7.10	2.17	4.85	1.48	2.83	2.13	1.75	2.19
Secchi Disk	Depth	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.80	8.00	7.20	7.0	7.5	6.4
Wet Parameters	**Units**																	
Ammonia-N	mg/L	U	0.15 I	U	0.097	0.008 U	0.008 U	0.028 I	NS	0.015 I	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.009 I	0.008 U	0.012 I
TAN criteria calculation	mg/L	0.24	0.32	0.90	1.29	0.37	0.35	0.63	NS	0.30	0.66	0.36	0.36	0.28	0.19	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.736	0.880	1.04	2.90	0.462	0.715	0.731	NS	0.757	0.722	0.683	0.612	0.414	0.490	0.05 U	0.559	0.448
Total nitrogen	mg/L	0.744	0.880	1.05	2.90	0.472	0.715	0.731	NS	0.763	0.727	0.683	0.612	0.414	0.490	0.05 U	0.559	0.448
Nitrite/Nitrate	mg/L	0.008 I	U	0.012 I	U	0.010 I	0.004 U	0.004 U	NS	0.006 I	0.006 I	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Ortho phosphorus (Field Filtered)	mg/L	0.088	0.064	0.029	0.012	0.029	0.226	0.272	NS	0.020	0.022	0.027	0.063	0.032	0.059	0.0155	0.026	0.002 I
Total phosphorus	mg/L	0.092	0.098	0.031 I	0.168	0.054	1.08	0.501	NS	0.013 I	0.033	0.029 I	0.067	0.035	0.064	0.016 I	0.055	0.023 I
Chlorophyll	mg/m3	5.99	7.05	7.57	64.5	5.44	9.14	3.94	NS	10.8	7.61	5.38	8.86	3.18	4.95	4.80	2.48	7.62
Total suspended solids (TSS)	mg/L	7.11	5.78	3.80	44.7	4.20	4.80	3.20	NS	26.0	3.33	6.20	2.60	1.25 I	3.20	2.60	1.80 I	1.20 I
Biochemical oxygen demand (total BOD5)	mg/L	0.556 I	U	U	6.47	1 U	1.45 I	1 U	NS	2.01 I	1 U	1.16 I	1.04 I	1 U	1 U	1.39 I	1 U	1 U

Table 1

Analytical Results Summary
Surface Water Quality Monitoring
Miromar Lakes, Fort Myers, Florida
August 2021

Sample Location/Sample ID:		WQ Location #4 / WQL4																
Sample Date:		**04/27/16**	**08/03/16**	**10/31/16**	**01/31/17**	**05/04/17**	**08/02/17**	**12/06/17**	**04/26/18**	**08/22/18**	**12/11/18**	**04/16/19**	**10/24/2019**	**2/17/2020**	**06/03/2020**	**10/21/2020**	**03/03/2021**	**08/05/2021**
Field Parameters	**Units**																	
Total Water Depth	Feet	12	7.77	14.88	7.91	5.0	10.7	7.9	6.90	11.8	10.7	14.20	15.4	13.55	12.55	13.0	8.01	7.2
Sample Depth	Feet	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Conductivity, field	umhos/cm	403	340	373	361.8	405	404.8	342.0	399.7	342	310.3	382.1	337.0	363	682	286	291	349
Dissolved oxygen (DO), field	mg/L	7.72	6.55	7.14	8.06	8.33	5.02	5.73	7.13	6.96	7.84	7.28	6.42	8.45	6.42	1.41	7.75	7.31
Dissolved oxygen (DO), field	%	96.4	88.3	85.6	88.3	106.6	66.8	68.2	89.2	92.9	87.8	90.2	82.8	99.4	83.4	17.0	93.5	94.2
pH, field	s.u.	8.58	8.31	7.59	8.10	7.65	8.16	8.08	8.39	8.34	7.99	7.97	8.38	8.58	8.57	8.66	8.80	6.62
Temperature, field	Deg C	26.71	31.1	24.5	19.8	28.1	30.3	24.1	26.8	30.5	20.9	26.3	28.5	23.49	29.9	27.5	24.8	29.95
Turbidity, field	NTU	1.87	2.04	4.44	3.02	3.11	1.81	2.48	3.38	3.56	4.10	2.72	2.58	1.04	2.48	1.85	2.28	1.76
Secchi Disk	Depth	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.50	8.50	7.00	6.5	8.01	7.2
Wet Parameters	**Units**																	
Ammonia-N	mg/L	U	0.023 I	U	0.012 I	0.008 U	0.008 U	0.026 I	0.008 U	0.014 I	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.025 I
TAN criteria calculation	mg/L	0.20	0.23	0.96	0.68	0.72	0.31	0.53	0.27	0.23	0.74	0.54	0.25	0.24	0.16	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	0.868	0.887	0.780	0.976	0.518	0.570	0.612	0.610	0.640	0.885	0.615	0.126 I	0.371	0.633	0.05 U	0.538	0.469
Total nitrogen	mg/L	0.868	0.887	0.808	0.976	0.524	0.570	0.612	0.623	0.645	0.885	0.615	0.126	0.371	0.633	0.05 U	0.538	0.469
Nitrite/Nitrate	mg/L	U	U	0.028	U	0.006 I	0.004 U	0.004 U	0.013 I	0.005 I	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Ortho phosphorus (Field Filtered)	mg/L	0.094	0.017	0.024	0.017	0.030	0.044	0.027	0.019	0.017	0.022	0.026	0.065	0.037	0.042	0.0180	0.021	0.012
Total phosphorus	mg/L	0.101	0.021 I	0.027 I	0.038	0.048	0.067	0.038	0.030 I	0.044	0.043	0.038	0.070	0.064	0.064	0.014 I	0.043	0.032
Chlorophyll	mg/m3	4.92	7.11	7.78	9.09	3.94	9.31	4.62	8.66	10.5	8.43	3.43	7.38	2.75	3.78	5.05	1.74	5.39
Total suspended solids (TSS)	mg/L	2.33	2.84	3.60	5.20	3.26	2.60	1.60 I	2.00 I	5.50	2.33	3.40	3.20	1.25 I	3.40	1.80 I	0.570 U	3.60
Biochemical oxygen demand (total BOD5)	mg/L	U	U	U	1.09 I	1 U	1 U	1 U	1.16 I	1.47 I	1 U	1 U	1.07 I	1 U	1 U	1.51 I	1 U	1 U

Sample Location/Sample ID:		WQ Location #5 / WQL5																
Sample Date:		**04/27/16**	**08/03/16**	**10/31/16**	**01/31/17**	**05/04/17**	**08/02/17**	**12/06/17**	**04/26/18**	**08/22/18**	**12/11/18**	**04/16/19**	**10/24/2019**	**2/17/2020**	**06/03/2020**	**10/21/2020**	**03/03/2021**	**08/05/2021**
Field Parameters	**Units**																	
Total Water Depth	Feet	NS	2	2.03	1.42	2.5	4.32	2.84	S	2.7	1.10	1.50	1.98	1.72	<1	2.0	2.5	NM
Sample Depth	Feet	NS	1.5	1.5	0.5	1.5	1.5	1.5	S	1.5	0.5	0.75	1.0	1	<1	1.5	1.5	1.5
Conductivity, field	umhos/cm	NS	411	515	462.0	464	478.4	447.9	464.1	405.1	427.2	475.8	465.0	480	802	373	409	82.9
Dissolved oxygen (DO), field	mg/L	NS	4.84	6.22	6.88	8.50	8.03	4.21	5.47	6.09	4.21	5.00	3.20	7.6	5.18	7.65	3.05	6.07
Dissolved oxygen (DO), field	%	NS	64.7	77.2	72.2	111.1	109.1	49.6	68.2	81.2	46.1	61.0	41.3	89.3	69.0	96.5	37.5	80.6
pH, field	s.u.	NS	7.83	7.77	7.65	7.77	8.10	7.58	7.61	7.80	6.38	6.44	7.99	8.35	8.28	8.18	8.04	8.12
Temperature, field	Deg C	NS	30.6	26.4	17.7	29.3	31.5	23.6	26.6	30.4	19.8	25.4	28.4	23.42	30.3	27.4	25.3	30.19
Turbidity, field	NTU	NS	2.08	3.62	3.60	5.77	4.65	1.99	4.93	3.40	4.18	4.98	4.71	2.45	5.74	2.96	2.27	4.05
Secchi Disk	Depth	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Lake Bottom	Lake Bottom	Lake Bottom	NS	NS	NS
Wet Parameters	**Units**																	
Ammonia-N	mg/L	NS	0.033	U	0.008 I	0.008 U	0.008 U	0.034	0.008 U	0.010 I	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.023 I	0.008 U
TAN criteria calculation	mg/L	NS	0.49	0.70	1.40	0.58	0.32	1.03	0.82	0.52	2.19	1.51	0.46	0.36	0.26	NS	NS	NS
Total kjeldahl nitrogen (TKN)	mg/L	NS	0.845	0.786	0.962	0.754	0.756	0.838	1.11	0.857	0.944	0.902	0.807	0.688	1.08	0.137 I	0.755	0.720
Total nitrogen	mg/L	NS	0.845	0.794	0.962	0.762	0.760	0.854	1.13	0.863	0.957	0.902	0.807	0.688	1.08	0.137	0.755	0.720
Nitrite/Nitrate	mg/L	NS	U	0.008 I	U	0.008 I	0.004 I	0.016	0.016	0.006 I	0.013 I	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Ortho phosphorus (Field Filtered)	mg/L	NS	0.022	0.042	0.017	0.027	0.019	0.022	0.016	0.015	0.019	0.023	0.050	0.038	0.055	0.075	0.029	0.014
Total phosphorus	mg/L	NS	0.065	0.042	0.036	0.035	0.067	0.046	0.027 I	0.025 I	0.024 I	0.028 I	0.081	0.049	0.102	0.084	0.067	0.035
Chlorophyll	mg/m3	NS	15.1	12.5	13.9	16.0	25.0	17.3	27.6	19.8	15.4	23.4	15.7	12.6	30.4	22.7	4.93	22.9
Total suspended solids (TSS)	mg/L	NS	4.10	4.80	5.00	8.11	11.0	0.570 U	6.20	4.00	3.00	7.60	2.40	3.25	9.00	4.20	3.00	5.40
Biochemical oxygen demand (total BOD5)	mg/L	NS	1.31 I	1.56 I	1.36 I	2.41 I	2.14 I	1.64 I	3.38 I	1.15 I	1.38 I	3.39 I	1.54 I	1.32 I	3.01 I	1.73 I	1 U	1.55 I

Notes:

S - Sample collected from edge of lake
U - Not detected at the associated reporting limit
NS - Not sampled during noted event
I - Reported value is between method detection limit and the practical quantitation limit
* DO values at or above 100% are possible super-saturation conditions due to high water temperatures and/or high volume of algae.

MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT

MEMORANDUM

To:	District Engineer
From:	District Manager
Date:	November 4, 2021
Subject:	Stormwater Management Needs Analysis (Chapter 2021-194, Laws of Florida/HB53)

We are writing with an update regarding the new law requiring special districts that either own or operate stormwater management systems, stormwater management programs or wastewater services to create a 20-year needs analysis of such system(s).

The Office of Economic and Demographic Research ("OEDR") recently promulgated additional details and an excel template for reporting the stormwater needs analyses (attached hereto for reference). Similar documents for the wastewater needs analysis will be available soon at which time we will again supplement this memorandum.

A brief summary of the new law and its requirements are set forth another memorandum, attached to this memorandum for your reference in **Exhibit A**. Please feel free to contact us with anyquestions.

When is the deadline?

For both wastewater and stormwater, the first analysis must be submitted by **June 30, 2022**, and updated every five (5) years thereafter. The needs analysis, along with the methodology and any supporting data necessary to interpret the results, must be submitted to the county in which the largest portion of the service area or stormwater system is located.

What steps should the District take?

- District engineers should review the stormwater needs analysis excel workbook and submit a work authorization for approval by the District's Board prior to commencing work. We recommend presenting the work authorization to the Board as soon as is practical, but no later than the first quarter of 2022.

- District managers should review the stormwater needs analysis excel workbook and start entering information that is readily available. The district manager may be able to complete the "backgroundinformation" section and provide data on stormwater O&M expenditures, among

other assistance.

- Once the work authorization is approved, the district manager should work with the district engineer to complete the remainder of the stormwater needs analyses with the final version submitted to the District no later than May 15, 2022.

- In some cases, districts may require outside consulting or evaluation to complete the needs analyses. Since the necessity of this additional step may not be immediately apparent, we recommend that district managers begin coordinating with their engineers as soon as possible.

Stormwater Needs Analysis Resources from OEDR

- OEDR website http://edr.state.fl.us/Content/natural-resources/stormwaterwastewater.cfm

- Excel Workbook (stormwater needs analysis reporting template) http://edr.state.fl.us/Content/natural-resources/Stormwater_Needs_Analysis.xlsx (last updated October 8, 2021)

- PDF Version for (essentially the same as the Excel workbook) http://edr.state.fl.us/Content/natural-resources/Stormwater_Needs_Analysis.pdf (last updated October 8, 2021)

Wastewater Needs Analysis Resources from OEDR

- Forthcoming.

The full text of Florida House of Representatives House Bill 53 (2021) detailing the stormwater and wastewater analysis can be found here.

Exhibit A

MEMORANDUM

To: District Engineer

From: District Manager

Date: September 7, 2021

Subject: Wastewater Services and Stormwater Management Needs Analysis(Chapter 2021-194, Laws of Florida/HB53)

We are writing to inform you of a new law requiring special districts that either own or operate stormwatermanagement systems, stormwater management programs or wastewater services to create a 20-year needsanalysis of such system(s). The requirements relating to wastewater services are found in Section 4 of Chapter 2021-194, Laws of Florida, creating Section 403.9301, Florida Statutes, and the requirements relating to stormwater management programs and systems are found in Section 5 of Chapter 2021-194, Laws of Florida, creating Section 403.9302, Florida Statutes (attached hereto for reference).

A brief summary of the new law and its requirements is set forth below. Please feel free to contact us withany questions.

What is required?

The Office of Economic and Demographic Research ("OEDR") is expected to promulgate additional detailsabout the requirements of the needs analyses. However, certain general requirements are set forth in the new law.

For wastewater services, the needs analysis must include:

a) A detailed description of the facilities used to provide wastewater services.

b) The number of current and projected connections and residents served calculated in 5-year increments.

c) The current and projected service area for wastewater services.

d) The current and projected cost of providing wastewater services calculated in 5-year increments.

e) The estimated remaining useful life of each facility or its major components.

f) The most recent 5-year history of annual contributions to, expenditures from, and balances of any capital account for maintenance or expansion of any facility or its major

components.

g) The local government's plan to fund the maintenance or expansion of any facility or its major components. The plan must include historical and estimated future revenues and expenditures withan evaluation of how the local government expects to close any projected funding gap.

For stormwater management programs and stormwater management systems, the needs analysis must include:

a) A detailed description of the stormwater management program or stormwater management systemand its facilities and projects.

b) The number of current and projected residents served calculated in 5-year increments.

c) The current and projected service area for the stormwater management program or stormwater management system.

d) The current and projected cost of providing services calculated in 5-year increments.

e) The estimated remaining useful life of each facility or its major components.

f) The most recent 5-year history of annual contributions to, expenditures from, and balances of any capital account for maintenance or expansion of any facility or its major components.

g) The local government's plan to fund the maintenance or expansion of any facility or its major components. The plan must include historical and estimated future revenues and expenditures withan evaluation of how the local government expects to close any projected funding gap.

When is the deadline?

For both wastewater and stormwater, the first analysis must be created by **June 30, 2022**, and the analysismust be updated every five (5) years thereafter. The needs analysis, along with the methodology and any supporting data necessary to interpret the results, must be submitted to the county in which the largest portion of the service area or stormwater system is located.

What steps should districts take?

District engineers and district managers should begin by evaluating what information is already available to the district, and what new information may need to be gathered. Each district should approve a work authorization for their district engineer to create the needs analysis report and should consider proposals forany outside consulting or evaluation that may be necessary, though in most cases we expect this will not berequired. In order to provide ample time for completion of the necessary needs analysis reports, we recommend presenting these items for board consideration no later than the first quarter of 2022, or as soonthereafter as is practical. OEDR is anticipated to provide further guidelines for the reporting requirements,none of which we expect to be particularly burdensome, and which will likely

include information readilyavailable to districts' engineering and/or environmental professionals. Once we receive further guidance, we will supplement this informational memorandum.

The full text of Florida House of Representatives House Bill 53 (2021) detailing the stormwater and wastewater analysis can be found here.

TEMPLATE FOR LOCAL GOVERNMENTS AND SPECIAL DISTRICTS FOR PERFORMING A STORMWATER NEEDS ANALYSIS PURSUANT TO SECTION 5 OF SECTION 403.9302, FLORIDA STATUTES

INTRODUCTION

As part of the 2021 regular session, the Legislature recognized the need for a long-term planning process for stormwater and wastewater. Section 403.9302, Florida Statutes, requires a 20-year needs analysis from the local governments providing stormwater services. Because this planning document is forward-looking, it will necessarily include a large number of assumptions about future actions. These assumptions should be based on any available information coupled with best professional judgment of the individuals completing the document.

Completing this template by June 30, 2022, will fulfill the statutory requirements for the first round of 20-year needs analyses for stormwater. The template was generated by EDR in cooperation with local governments, Special Districts, the Florida Department of Environmental Protection (DEP), the Water Management Districts, the Florida Stormwater Association, private consultants, and others. Use of this tool will help ensure that information is compiled consistently for the Office of Economic & Demographic Research's (EDR) report to the Legislature.

For the purposes of this document, a stormwater management program and a stormwater management system are as defined in statute (s. 403.031(15) and (16), F.S., respectively; language provided here: https://www.flsenate.gov/Laws/Statutes/2021/403.031). Plainly speaking, the "program" is the institutional framework whereby stormwater management activities (MS4 NPDES permit activities, and other regulatory activities, construction, operation and maintenance, *etc.*) are carried out by the public authority. The "system" comprises the physical infrastructure that is owned and/or operated by the local government or special district that specifically is intended to control, convey or store stormwater runoff for treatment and flood protection purposes.

For the purposes of this document, the following guiding principles have been adopted:

- Stormwater systems or facilities owned and operated by any of the following are excluded from reporting requirements for local governments and special districts:
  - o Private entities or citizens
  - o Federal government
  - o State government, including the Florida Department of Transportation (FDOT)
  - o Water Management Districts
  - o School districts
  - o State universities or Florida colleges
- Local government expenditures associated with routine operation and maintenance are fully funded prior to commencing new projects and initiatives.
- Local government submissions will include the activities of dependent special districts. Only independent special districts report separately. For a list of all special districts in the state and their type (*i.e.,* dependent or independent), please see the Department of Economic Opportunity's Official List of Special Districts at the following link: http://specialdistrictreports.floridajobs.org/webreports/alphalist.aspx.
- With respect to federal and state statutes and rulemaking, current law and current administration prevails throughout the 20-year period. In other words, the state's present legal framework (*i.e.,* the status quo) continues throughout the period.

GENERAL INSTRUCTIONS FOR USING THE TEMPLATE

Instructions for submitting the template are still under development. Additional information regarding submission and answers to frequently asked questions will be posted on EDR's website, along with other useful materials, here: http://edr.state.fl.us/Content/natural-resources/stormwaterwastewater.cfm

The statutory language forms the titles for each part. This template asks that you group your recent and projected expenditures in prescribed categories. A detailed list of the categories is provided in part 5.0.

The same project should not appear on multiple tables in the jurisdiction's response unless the project's expenditures are allocated between those tables. All expenditures should be reported in $1,000s (*e.g.,* five hundred thousand dollars should be reported as $500).

For any jurisdiction that is contracting with another jurisdiction where both could be reporting the same expenditure, please contact EDR for additional guidance. In situations where a reporting jurisdiction contracts with a non-reporting jurisdiction, (*i.e.,* FDOT, the water management districts, the state or federal government), the reporting jurisdiction should include the expenditures.

When reporting cost information, please only include the expenditures that have flowed, are flowing, or will likely flow through your jurisdiction's budget. While necessary to comply with the statute, the concept of "future expenditures" should be viewed as an expression of identified needs.

These projections are necessarily speculative and do not represent a firm commitment to future budget actions by the jurisdiction.

This Excel workbook contains three worksheets for data entry. (Along the bottom of the screen, the three tabs are highlighted green.) Empty cells with visible borders are unlocked for data entry. In the first tab, titled "Background through Part 4," the information requested is either text, a dropdown list (*e.g.,* Yes or No), or a checkbox. The next tab, "Part 5 through Part 8," contains tables for expenditure or revenue data as well as some follow-up questions that may have checkboxes, lists, or space for text.

In Part 5 and Part 6, the expenditure tables have space for up to 5 projects. More projects can be listed in the "Additional Projects" tab. This tab contains a table with space for up to 200 additional projects. In order for these additional projects and expenditures to be correctly classified and included in the final totals, each project must be assigned a Project Type and Funding Source Type the from the dropdown lists in columns B and C.

Links to Template Parts:

Background Information

Please provide your contact and location information, then proceed to the template on the next sheet.

Name of Local Government:	
Name of stormwater utility, if applicable:	
Contact Person	
Name:	
Position/Title:	
Email Address:	
Phone Number:	

Indicate the Water Management District(s) in which your service area is located.

☐	Northwest Florida Water Management District (NWFWMD)
☐	Suwannee River Water Management District (SRWMD)
☐	St. Johns River Water Management District (SJRWMD)
☐	Southwest Florida Water Management District (SWFWMD)
☐	South Florida Water Management District (SFWMD)

Indicate the type of local government:

☐	Municipality
☐	County
☐	Independent Special District

Part 1.0 Detailed description of the stormwater management program (Section 403.9302(3)(a), F.S.)

The stormwater management program, as defined in the Introduction, includes those activities associated with the management, operation and maintenance, and control of stormwater and stormwater management systems, including activities required by state and federal law. The detailed program description is divided into multiple subparts consisting of narrative and data fields.

Part 1.1 Narrative Description:

Please provide a brief description of the current institutional strategy for managing stormwater in your jurisdiction. Please include any mission statement, divisions or departments dedicated solely or partly to managing stormwater, dedicated funding sources, and other information that best describes your approach to stormwater:

On a scale of 1 to 5, with 5 being the highest, please indicate the importance of each of the following goals for your program:

0	1	2	3	4	5	
☐	☐	☐	☐	☐	☐	Drainage & flood abatement (such as flooding events associated with rainfall and hurricanes)
☐	☐	☐	☐	☐	☐	Water quality improvement (TMDL Process/BMAPs/other)
☐	☐	☐	☐	☐	☐	Reduce vulnerability to adverse impacts from flooding related to increases in frequency and duration of rainfall events, storm surge and sea level rise
						Other:
☐	☐	☐	☐	☐	☐	
☐	☐	☐	☐	☐	☐	
☐	☐	☐	☐	☐	☐	
☐	☐	☐	☐	☐	☐	

Part 1.2 Current Stormwater Program Activities:

Please provide answers to the following questions regarding your stormwater management program.

- Does your jurisdiction have an NPDES Municipal Separate Storm Sewer System (MS4) Permit?
  - If yes, is your jurisdiction regulated under Phase I or Phase II of the NPDES Program:
- Does your jurisdiction have a dedicated stormwater utility?
  - If no, do you have another funding mechanism?
    - If yes, please describe your funding mechanism.
- Does your jurisdiction have a Stormwater Master Plan or Plans?
  - If Yes:
    - How many years does the plan(s) cover?
    - Are there any unique features or limitations that are necessary to understand what the plan does or does not address?
    - Please provide a link to the most recently adopted version of the document (if it is published online):
- Does your jurisdiction have an asset management (AM) system for stormwater infrastructure?
  - If Yes, does it include 100% of your facilities?
  - If your AM includes less than 100% of your facilities, approximately what percent of your facilities are included?

- Does your stormwater management program implement the following (answer Yes/No):

A construction sediment and erosion control program for new construction (plans review and/or inspection)?	
An illicit discharge inspection and elimination program?	
A public education program?	
A program to involve the public regarding stormwater issues?	
A "housekeeping" program for managing stormwater associated with vehicle maintenance yards, chemical storage, fertilizer management, *etc.* ?	
A stormwater ordinance compliance program (*i.e.,* for low phosphorus fertilizer)?	
Water quality or stream gage monitoring?	
A geospatial data or other mapping system to locate stormwater infrastructure (GIS, *etc.*)?	
A system for managing stormwater complaints?	

Other specific activities?

Notes or Comments on any of the above:

Part 1.3 Current Stormwater Program Operation and Maintenance Activities

Please provide answers to the following questions regarding the operation and maintenance activities undertaken by your stormwater management program.

- Does your jurisdiction typically assume maintenance responsibility for stormwater systems associated with new private development (*i.e.,* systems that are dedicated to public ownership and/or operation upon completion)?

Notes or Comments on the above:

- Does your stormwater operation and maintenance program implement any of the following (answer Yes/No)

Routine mowing of turf associated with stormwater ponds, swales, canal/lake banks, *etc.* ?	
Debris and trash removal from pond skimmers, inlet grates, ditches, *etc.* ?	
Invasive plant management associated with stormwater infrastructure?	
Ditch cleaning?	
Sediment removal from the stormwater system (vactor trucks, other)?	
Muck removal (dredging legacy pollutants from water bodies, canal, *etc.*)?	
Street sweeping?	
Pump and mechanical maintenance for trash pumps, flood pumps, alum injection, *etc.* ?	
Non-structural programs like public outreach and education?	
Other specific routine activities?	

Part 2. Detailed description of the stormwater management system and its facilities and projects (continued Section 403.9302(3)(a), F.S.)

A stormwater management system, as defined in the Introduction, includes the entire set of site design features and structural infrastructure for collection, conveyance, storage, infiltration, treatment, and disposal of stormwater. It may include drainage improvements and measures to prevent streambank channel erosion and habitat degradation. This section asks for a summary description of your stormwater management system. It is not necessary to provide geospatial asset data or a detailed inventory. For some, it may be possible to gather the required data from your Asset Management (AM) system. For others, data may be gathered from sources such as an MS4 permit application, aerial photos, past or ongoing budget investments, water quality projects, or any other system of data storage/management that is employed by the jurisdiction.

Please provide answers to the following questions regarding your stormwater system inventory. Enter zero (0) if your system does not include the component.

	Number	Unit of Measurement
Estimated feet or miles of buried culvert:		
Estimated feet or miles of open ditches/conveyances (lined and unlined) that are maintained by the stormwater program:		
Estimated number of storage or treatment basins (*i.e.,* wet or dry ponds):		
Estimated number of gross pollutant separators including engineered sediment traps such as baffle boxes, hydrodynamic separators, *etc.* :		
Number of chemical treatment systems (*e.g.,* alum or polymer injection):		
Number of stormwater pump stations:		
Number of dynamic water level control structures (*e.g.,* operable gates and weirs that control canal water levels):		
Number of stormwater treatment wetland systems:		
Other:		

Notes or Comments on any of the above:

Which of the following green infrastructure best management practices do you use to manage water flow and/or improve water quality (answer Yes/No):

Best Management Practice	Current	Planned
Tree boxes		
Rain gardens		
Green roofs		
Pervious pavement/pavers		
Littoral zone plantings		
Living shorelines		
Other Best Management Practices:		

Please indicate which resources or documents you used when answering these questions (check all that apply).

- ☐ Asset management system
- ☐ GIS program
- ☐ MS4 permit application
- ☐ Aerial photos
- ☐ Past or ongoing budget investments
- ☐ Water quality projects

Other(s):

Part 3. The number of current and projected residents served calculated in 5-year increments (Section 403.9302(3)(b), F.S.)

Counties and municipalities: Instead of requiring separate population projections, EDR will calculate the appropriate population estimates for each municipality or the unincorporated area of the county. If your service area is less than or more than your local government's population, please describe in the first text box provided below for part 4.0.

Independent Special Districts:

If an independent special district's boundaries are completely aligned with a county or a municipality, identify that jurisdiction here:

Any independent special district whose boundaries do not coincide with a county or municipality must submit a GIS shapefile with the current and projected service area. EDR will calculate the appropriate population estimates based on that map. Submission of this shapefile also serves to complete Part 4.0 of this template.

Part 4.0 The current and projected service area for the stormwater management program or stormwater management system (Section 403.9302(3)(c), F.S.)

Rather than providing detailed legal descriptions or maps, this part of the template is exception-based. In this regard, if the stormwater service area is less than or extends beyond the geographic limits of your jurisdiction, please explain.

Similarly, if your service area is expected to change within the 20-year horizon, please describe the changes (*e.g.,* the expiration of an interlocal agreement, introduction of an independent special district, *etc.*).

Proceed to Part 5

Part 5.0 The current and projected cost of providing services calculated in 5-year increments (Section 403.9302(3)(d), F.S.)

Given the volume of services, jurisdictions should use the template's service groupings rather than reporting the current and projected cost of each individual service. Therefore, for the purposes of this document, "services" means:

1. Routine operation and maintenance (inclusive of the items listed in Part 1.3 of this document, ongoing administration, and non-structural programs)
2. Expansion (that is, improvement) of a stormwater management system.

Expansion means new work, new projects, retrofitting, and significant upgrades. Within the template, there are four categories of expansion projects

1. Flood protection, addressed in parts 5.2 and 5.3… this includes capital projects intended for flood protection/flood abatement
2. Water quality, addressed in part 5.2 and 5.3… this includes stormwater projects related to water quality improvement, such as BMAPs; projects to benefit natural systems through restoration or enhancement; and stormwater initiatives that are part of aquifer recharge projects
3. Resiliency, addressed in part 5.4… this includes all major stormwater initiatives that are developed specifically to address the effects of climate change, such as sea level rise and increased flood events
4. End of useful life replacement projects, addressed in part 6.0… this includes major expenses associated with the replacement of aging infrastructure

While numbers 3 and 4 have components that would otherwise fit into the first two categories, they are separately treated given their overall importance to the Legislature and other policymakers.

Expansion projects are further characterized as currently having either a committed funding source or no identified funding source. Examples of a committed funding source include the capacity to absorb the project's capital cost within current budget levels or forecasted revenue growth; financing that is underway or anticipated (bond or loan); known state or federal funding (appropriation or grant); special assessment; or dedicated cash reserves for future expenditure.

All answers should be based on local fiscal years (LFY, beginning October 1 and running through September 30). Please use nominal dollars for each year, but include any expected cost increases for inflation or population growth. Please check the EDR website for optional growth rate schedules that may be helpful.

If you have more than 5 projects in a particular category, please use the "Additional Projects" tab. There, you can use dropdown lists to choose the project category and whether there is a committed funding source, then enter the project name and expenditure amounts.

Part 5.1 Routine Operation and Maintenance

Please complete the table below, indicating the cost of operation and maintenance activities for the current year and subsequent five-year increments throughout the 20-year horizon. Your response to this part should exclude future initiatives associated with resiliency or major expenses associated with the replacement of aging infrastructure; these activities are addressed in subparts 5.4 and 6.0. However, do include non-structural programs like public outreach and education in this category.

If specific cost data is not yet available for the current year, the most recent (2020-21) O&M value can be input into the optional growth rate schedules (available on EDR's website as an Excel workbook). The most recent O&M value can be grown using the provided options for inflation, population growth, or some other metric of your choosing. If the growth in your projected total O&M costs is more than 15% over any five-year increment, please provide a brief explanation of the major drivers.

Routine Operation and Maintenance

	Expenditures (in $thousands)				
	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Operation and Maintenance Costs					
Brief description of growth greater than 15% over any 5-year period:					

Part 5.2 Future Expansion (Committed Funding Source)

Please list expansion projects and their associated costs for the current year and subsequent five-year increments throughout the 20-year planning horizon. In this section, include stormwater system expansion projects or portions of projects with a committed funding source. If you include a portion of a project that is not fully funded, the project's remaining cost must be included in part 5.3, Expansion Projects with No Identified Funding Source.

Though many, if not most, stormwater projects benefit both flood protection and water quality, please use your best judgment to either allocate costs or simply select the primary purpose from the two categories below.

5.2.1 Flood Protection (Committed Funding Source): Provide a list of all scheduled new work, retrofitting and upgrades related to flood protection/flood abatement. Include infrastructure such as storage basins, piping and other conveyances, land purchases for stormwater projects, *etc* . Also include major hardware purchases such as vactor/jet trucks.

5.2.2 Water Quality Projects (Committed Funding Source): Please provide a list of scheduled water quality projects in your jurisdiction, such as treatment basins, alum injection systems, green infrastructure, water quality retrofits, *etc.,* that have a direct stormwater component. The projected expenditures should reflect only those costs.

- If you are party to an adopted BMAP, please include the capital projects associated with stormwater in this table. Include BMAP project number, cost to your jurisdiction, and year(s) that capital improvement costs are to be incurred. For reference, DEP publishes a complete list of adopted BMAP projects as an appendix in their Annual STAR Report.

Expansion Projects with a Committed Funding Source

5.2.1 Flood Protection Expenditures (in $thousands)

Project Name	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

5.2.2 Water Quality Expenditures (in $thousands)

Project Name (or, if applicable, BMAP Project Number or ProjID)	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

Part 5.3 Future Expansion with No Identified Funding Source

Please provide a list of known expansion projects or anticipated need(s) without formal funding commitments(s), formal pledges, or obligations. If you included a portion of a project that was partially covered by a committed source in part 5.2 above, list the projects and their remaining costs below.

5.3.1 Future Flood Protection with No Identified Funding Source: Please provide a list of future flood protection/flood abatement projects, associated land purchases, or major hardware purchases that are needed in your jurisdiction over the next 20 years. Future needs may be based on Master Plans, Comprehensive Plan Elements, Water Control Plans, areas of frequent flooding, hydrologic and hydraulic modeling, public safety, increased frequency of maintenance, desired level of service, flooding complaints, *etc.*

5.3.2 Future Water Quality Projects with no Identified Funding Source: Please provide a list of future stormwater projects needed in your jurisdiction over the next 20 years that are primarily related to water quality issues. Future needs may be based on proximity to impaired waters or waters with total maximum daily loads (TMDLs), BMAPs, state adopted Restoration Plans, Alternative Restoration Plans, or other local water quality needs.

- If you are party to an adopted BMAP, please list capital projects associated with stormwater. Include BMAP project number, cost to your jurisdiction, and year(s) that capital improvement costs are to be incurred.
- List other future water quality projects, including those in support of local water quality goals as well as those identified in proposed (but not yet adopted) BMAPs.

Expansion Projects with No Identified Funding Source

5.3.1 Flood Protection Expenditures (in $thousands)

Project Name	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

5.3.2 Water Quality Expenditures (in $thousands)

Project Name (or, if applicable, BMAP Project Number or ProjID)	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

Please indicate which resources or documents you used to complete table 5.3 (check all that apply).

☐	Stormwater Master Plan
☐	Basin Studies or Engineering Reports
☐	Adopted BMAP
☐	Adopted Total Maximum Daily Load
☐	Regional or Basin-specific Water Quality Improvement Plan or Restoration Plan
	Specify:
☐	Other(s):

Part 5.4 Stormwater projects that are part of resiliency initiatives related to climate change

Please list any stormwater infrastructure relocation or modification projects and new capital investments specifically needed due to sea level rise, increased flood events, or other adverse effects of climate change. When aggregating, include O&M costs for these future resiliency projects and investments in this table (not in part 5.1). If your jurisdiction participates in a Local Mitigation Strategy (LMS), also include the expenditures associated with your stormwater management system in this category (for example, costs identified on an LMS project list).

Resiliency Projects with a Committed Funding Source Expenditures (in $thousands)

Project Name	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

Resiliency Projects with No Identified Funding Source Expenditures (in $thousands)

Project Name	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

- Has a vulnerability assessment been completed for your jurisdiction's storm water system?
  - If no, how many facilities have been assessed?
- Does your jurisdiction have a long-range resiliency plan of 20 years or more?
  - If yes, please provide a link if available:
  - If no, is a planning effort currently underway?

Part 6.0 The estimated remaining useful life of each facility or its major components (Section 403.9302(3)(e), F.S.)

Rather than reporting the exact number of useful years remaining for individual components, this section is constructed to focus on infrastructure components that are targeted for replacement and will be major expenses within the 20-year time horizon. Major replacements include culverts and pipe networks, control structures, pump stations, physical/biological filter media, *etc* . Further, the costs of retrofitting when used in lieu of replacement (such as slip lining) should be included in this part. Finally, for the purposes of this document, it is assumed that open storage and conveyance systems are maintained (as opposed to replaced) and have an unlimited service life.

In order to distinguish between routine maintenance projects and the replacement projects to be included in this part, only major expenses are included here. A major expense is defined as any single replacement project greater than 5% of the jurisdiction's total O&M expenditures over the most recent five-year period (such as a project in late 2021 costing more than 5% of the O&M expenditures for fiscal years 2016-2017 to 2020-2021).

If you have more than 5 projects in a particular category, please use the "Additional Projects" tab. There, you can use dropdown lists to choose the project category and whether there is a committed funding source, then enter the project name and expenditure amounts.

End of Useful Life Replacement Projects with a Committed Funding Source

	Expenditures (in $thousands)				
Project Name	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

End of Useful Life Replacement Projects with No Identified Funding Source

	Expenditures (in $thousands)				
Project Name	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

Part 7.0 The most recent 5-year history of annual contributions to, expenditures from, and balances of any capital account for maintenance or expansion of any facility or its major components. (Section 403.9302(3)(f), F.S.)

This part of the template also addresses a portion of s. 403.9302(3)(g), F.S., by including historical expenditures. Many local governments refer to these as “actual” expenditures.

Consistent with expenditure projections, the jurisdiction’s actual expenditures are categorized into routine O&M, expansion, resiliency projects, and replacement of aging infrastructure. Additionally, the table includes space for reserve accounts. EDR’s interpretation of subparagraph 403.9302(3)(f), F.S., is that “capital account” refers to any reserve account developed specifically to cover future expenditures.

Note that for this table:

- Expenditures for local fiscal year 2020-21 can be estimated based on the most current information if final data is not yet available.
- Current Year Revenues include tax and fee collections budgeted for that fiscal year as well as unexpended balances from the prior year (balance forward or carry-over) unless they are earmarked for the rainy day or a dedicated reserve as explained in the following bullets.
- Bond proceeds should reflect only the amount expended in the given year.
- A reserve is a dedicated account to accumulate funds for a specific future expenditure.
- An all-purpose rainy day fund is a type of working capital fund typically used to address costs associated with emergencies or unplanned events.

The sum of the values reported in the "Funding Sources for Actual Expenditures" columns should equal the total "Actual Expenditures" amount. The cells in the "Funding Sources for Actual Expenditures" section will be highlighted red if their sum does not equal the "Actual Expenditures" total.

If you do not have a formal reserve dedicated to your stormwater system, please enter zero for the final two reserve columns.

Routine O&M

	Total	Funding Sources for Actual Expenditures					
	Actual Expenditures	Amount Drawn from Current Year Revenues	Amount Drawn from Bond Proceeds	Amount Drawn from Dedicated Reserve	Amount Drawn from All-Purpose Rainy Day Fund	Contributions to Reserve Account	Balance of Reserve Account
2016-17							
2017-18							
2018-19							
2019-20							
2020-21							

Expansion

	Total	Funding Sources for Actual Expenditures					
	Actual Expenditures	Amount Drawn from Current Year Revenues	Amount Drawn from Bond Proceeds	Amount Drawn from Dedicated Reserve	Amount Drawn from All-Purpose Rainy Day Fund	Contributions to Reserve Account	Balance of Reserve Account
2016-17							
2017-18							
2018-19							
2019-20							
2020-21							

Resiliency

	Total	Funding Sources for Actual Expenditures					
	Actual Expenditures	Amount Drawn from Current Year Revenues	Amount Drawn from Bond Proceeds	Amount Drawn from Dedicated Reserve	Amount Drawn from All-Purpose Rainy Day Fund	Contributions to Reserve Account	Balance of Reserve Account
2016-17							
2017-18							
2018-19							
2019-20							
2020-21							

Replacement of Aging Infrastructure

	Total	Funding Sources for Actual Expenditures					
	Actual Expenditures	Amount Drawn from Current Year Revenues	Amount Drawn from Bond Proceeds	Amount Drawn from Dedicated Reserve	Amount Drawn from All-Purpose Rainy Day Fund	Contributions to Reserve Account	Balance of Reserve Account
2016-17							
2017-18							
2018-19							
2019-20							
2020-21							

Part 8.0 The local government's plan to fund the maintenance or expansion of any facility or its major components. The plan must include historical and estimated future revenues and expenditures with an evaluation of how the local government expects to close any projected funding gap (Section 403.9302(3)(g), F.S.)

In this template, the historical data deemed necessary to comply with s. 403.9302(3)(g), F.S., was included in part 7.0. This part is forward looking and includes a funding gap calculation. The first two tables will be auto-filled from the data you reported in prior tables. To do this, EDR will rely on this template's working definition of projects with committed funding sources, *i.e.,* EDR assumes that all committed projects have committed revenues. Those projects with no identified funding source are considered to be unfunded. EDR has automated the calculation of projected funding gaps based on these assumptions.

Committed Funding Source	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Maintenance	0	0	0	0
Expansion	0	0	0	0
Resiliency	0	0	0	0
Replacement/Aging Infrastructure	0	0	0	0
Total Committed Revenues (=Total Committed Projects)	0	0	0	0

No Identified Funding Source	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Maintenance	0	0	0	0
Expansion	0	0	0	0
Resiliency	0	0	0	0
Replacement/Aging Infrastructure	0	0	0	0
Projected Funding Gap (=Total Non-Committed Needs)	0	0	0	0

For any specific strategies that will close or lessen a projected funding gap, please list them in the table below. For each strategy, also include the expected new revenue within the five-year increments.

Strategies for New Funding Sources	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Total	0	0	0	0

Remaining Unfunded Needs	0	0	0	0

Additional Table Rows

Choose from the drop-down lists for Project Type and Funding Source Type, then fill in the project name and expenditure estimates.

Rows that are highlighted RED are either missing information in a "Project & Type Information" column or have zero expenditures.

Link to aggregated table to crosscheck category totals and uncategorized projects.

Project & Type Information			Expenditures (in $thousands)				
Project Type (Choose from dropdown list)	Funding Source Type (Choose from dropdown list)	Project Name	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

Project & Type Information			Expenditures (in $thousands)				
Project Type (Choose from dropdown list)	Funding Source Type (Choose from dropdown list)	Project Name	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

Project & Type Information			Expenditures (in $thousands)				
Project Type (Choose from dropdown list)	Funding Source Type (Choose from dropdown list)	Project Name	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

Project & Type Information			Expenditures (in $thousands)				
Project Type (Choose from dropdown list)	Funding Source Type (Choose from dropdown list)	Project Name	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

Project & Type Information			Expenditures (in $thousands)				
Project Type (Choose from dropdown list)	Funding Source Type (Choose from dropdown list)	Project Name	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

Project & Type Information			Expenditures (in $thousands)				
Project Type (Choose from dropdown list)	Funding Source Type (Choose from dropdown list)	Project Name	LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42

Project & Type Information			Expenditures				
Project Type	Funding Source Type		LFY 2021-2022	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Expansion Projects, Flood Protection	Committed Funding Source	Aggregated Total	0	0	0	0	0
Expansion Projects, Water Quality	Committed Funding Source	Aggregated Total	0	0	0	0	0
Resiliency Projects	Committed Funding Source	Aggregated Total	0	0	0	0	0
End of Useful Life Replacement Projects	Committed Funding Source	Aggregated Total	0	0	0	0	0
Expansion Projects, Flood Protection	No Identified Funding Source	Aggregated Total	0	0	0	0	0
Expansion Projects, Water Quality	No Identified Funding Source	Aggregated Total	0	0	0	0	0
Resiliency Projects	No Identified Funding Source	Aggregated Total	0	0	0	0	0
End of Useful Life Replacement Projects	No Identified Funding Source	Aggregated Total	0	0	0	0	0

Total of Projects without Project Type and/or Funding Source Type	**0**	**0**	**0**	**0**	**0**

TEMPLATE FOR LOCAL GOVERNMENTS AND SPECIAL DISTRICTS FOR PERFORMING A STORMWATER NEEDS ANALYSIS PURSUANT TO SECTION 5 OF SECTION 403.9302, FLORIDA STATUTES

INTRODUCTION

As part of the 2021 regular session, the Legislature recognized the need for a long-term planning process for stormwater and wastewater. Section 403.9302, Florida Statutes, requires a 20-year needs analysis from the local governments providing stormwater services. Because this planning document is forward-looking, it will necessarily include a large number of assumptions about future actions. These assumptions should be based on any available information coupled with best professional judgment of the individuals completing the document.

Completing this template by June 30, 2022, will fulfill the statutory requirements for the first round of 20-year needs analyses for stormwater. The template was generated by EDR in cooperation with local governments, Special Districts, the Florida Department of Environmental Protection (DEP), the Water Management Districts, the Florida Stormwater Association, private consultants, and others. Use of this tool will help ensure that information is compiled consistently for the Office of Economic & Demographic Research's (EDR) report to the Legislature.

For the purposes of this document, a stormwater management program and a stormwater management system are as defined in statute (s. 403.031(15) and (16), F.S., respectively; language provided here: https://www.flsenate.gov/Laws/Statutes/2021/403.031). Plainly speaking, the "program" is the institutional framework whereby stormwater management activities (MS4 NPDES permit activities, and other regulatory activities, construction, operation and maintenance, *etc.*) are carried out by the public authority. The "system" comprises the physical infrastructure that is owned and/or operated by the local government or special district that specifically is intended to control, convey or store stormwater runoff for treatment and flood protection purposes.

For the purposes of this document, the following guiding principles have been adopted:

- Stormwater systems or facilities owned and operated by any of the following are excluded from reporting requirements for local governments and special districts:
  - Private entities or citizens
  - Federal government
  - State government, including the Florida Department of Transportation (FDOT)
  - Water Management Districts
  - School districts
  - State universities or Florida colleges
- Local government expenditures associated with routine operation and maintenance are fully funded prior to commencing new projects and initiatives.
- Local government submissions will include the activities of dependent special districts. Only independent special districts report separately. For a list of all special districts in the state and their type (*i.e.,* dependent or independent), please see the Department of Economic Opportunity's Official List of Special Districts at the following link: http://specialdistrictreports.floridajobs.org/webreports/alphalist.aspx.
- With respect to federal and state statutes and rulemaking, current law and current administration prevails throughout the 20-year period. In other words, the state's present legal framework (*i.e.,* the status quo) continues throughout the period.

GENERAL INSTRUCTIONS FOR USING THE TEMPLATE

Instructions for submitting the template are still under development. Additional information regarding submission and answers to frequently asked questions will be posted on EDR's website, along with other useful materials, here: http://edr.state.fl.us/Content/natural-resources/stormwaterwastewater.cfm

The statutory language forms the titles for each part. This template asks that you group your recent and projected expenditures in prescribed categories. A detailed list of the categories is provided in part 5.0.

The same project should not appear on multiple tables in the jurisdiction's response unless the project's expenditures are allocated between those tables. All expenditures should be reported in $1,000s (*e.g.,* five hundred thousand dollars should be reported as $500).

For any jurisdiction that is contracting with another jurisdiction where both could be reporting the same expenditure, please contact EDR for additional guidance. In situations where a reporting jurisdiction contracts with a non-reporting jurisdiction, (*i.e.,* FDOT, the water management districts, the state or federal government), the reporting jurisdiction should include the expenditures.

When reporting cost information, please only include the expenditures that have flowed, are flowing, or will likely flow through your jurisdiction's budget. While necessary to comply with the statute, the concept of "future expenditures" should be viewed as an expression of identified needs.

These projections are necessarily speculative and do not represent a firm commitment to future budget actions by the jurisdiction.

This Excel workbook contains three worksheets for data entry. (Along the bottom of the screen, the three tabs are highlighted green.) Empty cells with visible borders are unlocked for data entry. In the first tab, titled "Background through Part 4," the information requested is either text, a dropdown list (*e.g.,* Yes or No), or a checkbox. The next tab, "Part 5 through Part 8," contains tables for expenditure or revenue data as well as some follow-up questions that may have checkboxes, lists, or space for text.

In Part 5 and Part 6, the expenditure tables have space for up to 5 projects. More projects can be listed in the "Additional Projects" tab. This tab contains a table with space for up to 200 additional projects. In order for these additional projects and expenditures to be correctly classified and included in the final totals, each project must be assigned a Project Type and Funding Source Type the from the dropdown lists in columns B and C.

Links to Template Parts:

RESOLUTION NO. 2022-1

A RESOLUTION OF THE BOARD OF SUPERVISORS OF MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT ESTABLISHING POLICIES AND PROCEDURES RELATING TO THE REVIEW OF REQUESTS FOR ENCROACHMENTS INTO DRAINAGE OR LAKE MAINTENANCE EASEMENTS DEDICATED TO THE DISTRICT; AND PROVIDING FOR SEVERABILITY, CONFLICTS AND AN EFFECTIVE DATE.

WHEREAS, Miromar Lakes Community Development District (the "District") is organized for purposes which include ownership and operation of certain public infrastructure within or benefiting the residential development known generally as Miromar Lakes; and

WHEREAS, throughout the year, the District receives various requests by certain property owners seeking to install improvements within a drainage or landscape maintenance easement dedicated or granted to the District ("Encroachment Application"); and

WHEREAS, it is not practical, expeditious or economical to arrange and hold meetings of the Board of Supervisors (the "Board") each time an Encroachment Application is received from a property owner; and

WHEREAS, the Board desires to approve policies and procedures for the review and approval (if applicable) of an Encroachment Application. And, further, with respect to any Encroachment Application approved pursuant to the policies and procedures by the Chairman or the Vice Chairman (in the Chairman's absence), such individual shall have the authority to execute necessary documentation in connection with the approval of such Encroachment Application.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT:

Section 1. **Recitals**. The foregoing recitals are true and correct and incorporated herein as if written into the body of this Resolution.

Section 2. **Encroachment Policies and Procedures**. The Encroachment Policies and Procedures attached hereto and made a part of this Resolution as Exhibit "A" are hereby approved for use by the District.

Section 3. **Form of Application Submittal Guide for CDD Encroachments**. The Application Submittal Guide for CDD Encroachments attached hereto and made a part of this Resolution as Exhibit "B" is hereby approved for use by the District in substantially the form attached.

Section 4. **Form of Encroachment Agreement**. The form of the Encroachment Agreement attached hereto and made a part of this Resolution as Exhibit "C" is hereby approved for use by the District in substantially the form attached.

Section 5. Authorized Officer. The Chairman or the Vice Chairman (in the Chairman's absence) is hereby designated by the District and authorized by the District to carry out the policies and procedures set forth herein with regard to Encroachment Agreement Requests.

Section 6. Continuing Effect. The policies and procedures attached to this Resolution as Exhibit "A", the Application Submittal Guide for CDD Encroachments attached to this Resolution as Exhibit "B", and the form of the agreement attached to this Resolution as Exhibit "C" shall stay in full force and effect until such time as the Board may amend or rescind said policies, procedures, application instructions or agreement form(s), as applicable.

Section 7. Subsequent Presentation to the Board. A copy of any approved Encroachment Agreement Request and any corresponding documents required pursuant to this Resolution shall be made available to the Board for informational purposes only at its next regularly scheduled meeting following approval; provided, however, that any failure to present said approved Encroachment Agreement Request shall not affect the validity or implementation of this Resolution.

Section 8. Severability. Should any sentence, section, clause, part or provision of this Resolution be declared by a court of competent jurisdiction to be invalid, the same shall not affect the validity of this Resolution as a whole, or any part thereof, other than the part declared invalid.

Section 9. Conflicts. All Sections or parts of Sections of any Resolutions or actions of the Board in conflict are hereby repealed to the extent of such conflict.

Section 10. Effective Date. This Resolution shall take effect immediately upon adoption.

PASSED AND ADOPTED this 14th day of October, 2021.

Attest:

MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT

James P. Ward, Secretary

Alan Refkin

Alan Refkin, Chairman

Exhibit "A"
Encroachment Policies and Procedures

A. Generally

1. For purposes of these Encroachment Policies and Procedures, an "Encroachment" shall mean any proposed encroachment of any improvement of a property owner, including but not limited to, fences, air conditioning equipment/concrete pads, pool equipment/concrete pads, generators, pavers, and sidewalks, into a drainage or lake maintenance easement dedicated or granted to the District.

2. Attached as Exhibit "B" are the Application Submittal Guide of CDD Encroachments for a property owner that desires to submit an application to the District ("Encroachment Application Instructions") for the District to approve an Encroachment. The District Manager may develop and establish an application form consistent with the Encroachment Application Instructions to facilitate the intake of requests for Encroachments.

3. The Encroachment Application shall be sent by the District Manager to the District Attorney, District Asset Manager and the District Engineer. The District Manager, the District Engineer, District Asset Manager and District Attorney (collectively "District Staff"), shall initially review the Encroachment Application materials. For Encroachment Applications involving Minor Encroachments (as defined herein), District Staff in conjunction with the Chairman (or the Vice Chairman in the Chairman's absence) will determine whether to approve, approve with conditions or deny the Encroachment Application. For all other Encroachment Applications (i.e. other than Minor Encroachments), the Encroachment Application shall be presented to the Board of Supervisors for to determine whether to approve, approve with conditions or deny the Encroachment Application. For purposes of this Resolution, a "Minor Encroachment" shall mean an Encroachment involving minor landscape installation, fencing or an after-the-fact encroachment by existing improvements of 6 inches or less.

4. The District reserves the right to deny any Encroachment Application or impose any conditions on an Encroachment Application based on considerations that the District deems necessary or appropriate including, without limitation, impacts on the District's lake, lake bank and shoreline maintenance and repair, stormwater management system, access to stormwater management facilities, potential damage to stormwater management improvements and safety.

5. To the extent the Encroachment Application is to be approved, the property owner will be required to enter into an Encroachment Agreement with the District, which agreement will specify the terms of Encroachment being permitted. The form Encroachment Agreement attached as Exhibit "C" to these Encroachment Policies and Procedures is hereby approved for use as a form by the District as appropriate. If after applicable review, an Encroachment Application is set to be approved, the Encroachment Agreement will be finalized by the District Attorney. Further, because it is recognized that circumstances may arise where property conditions necessitate certain modifications to the form Encroachment Agreement or where a property owner may request certain modifications to the form Encroachment Agreement, the Chairman (or the Vice Chairman

in the Chairman's absence) shall be permitted, after consultation and approval by District Attorney and District Manager, to make modifications to the form Encroachment Agreement, provided such modifications do not materially and unreasonably alter the intent, purpose and protection provided to the District by the form Encroachment Agreement. The Chairman (or Vice Chairman in the Chairman's absence) is hereby designated by the District and authorized by the District to execute, when appropriate, the Encroachment Agreement in connection with any approved Encroachment.

Exhibit "B"
Application Submittal Guide of CDD Encroachments

EXHIBIT “B”

10/14/2021

Miromar Lakes CDD

Application Submittal Guide for CDD Encroachments

PREPARED FOR:
MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT
JPWARD AND ASSOCIATES, LLC
2301 NORTHEAST 37 STREET
FORT LAUDERDALE, FL 33308

TABLE OF CONTENTS

General Submittal Requirements

1. **General Instructions**.

Miromar Lakes Community Development District ("**District**") has established this Application Submittal Guide (this "**Policy**") for situations when a landowner ("**Landowner**") desires to build, place, or construct improvements that would encroach into or onto a Drainage Easement ("**DE**") or Lake Maintenance Easement ("**LME**") (a DE or LME are sometimes referred to herein generally as an "**Easement**") dedicated or granted to the District (each an "**Encroachment**"). The general policy of the District is that a property owner is not permitted to install any improvements within an Easement without the prior approval of the District, which the District may withhold in the District's discretion. Any improvements so installed without the approval of the District will be deemed by the District a non-approved Encroachment and the District may require removal and restoration of the Easement at the owner's sole cost and expense. Except as otherwise approved, only grass and accompanying irrigation are permitted within an Easement. All potential Encroachments to be approved pursuant to this Policy including, but not limited to, fences, air conditioning equipment/concrete pads, pool equipment/concrete pads, generators, pavers, and sidewalks, are reviewed on a case-by-case basis and may be approved, approved with conditions or denied by the District in its discretion. No encroachments of residential structures, pools, air conditioning equipment/concrete pads, pool equipment/concrete pads or generators into LMEs will be permitted. Attached to this Policy is a template of the Encroachment Agreement used by the District for an approved Encroachment. If approved, the Landowner will be required to enter into an Encroachment Agreement with the District that will permit the Encroachment subject to the terms and condition in the Encroachment Agreement. Please familiarize yourself with the terms and conditions of the form agreement prior to submitting the application for an Encroachment.

2. **Policy of the District in Considering and Allowing Encroachments.**

a. An Encroachment will only be considered in situations involving a showing of hardship by the Landowner.

b. No Encroachment will be approved that will adversely affect Works (defined below) of the District, or interfere with or impose hardships upon the District's operations, maintenance or construction activities, or degrade the quality of District waters.

c. No Encroachment will be granted for any use of the Works when granting such use would be inconsistent with any master stormwater management system control plans of the District.

d. The District reserves the right to amend or change this Policy or any other policies, practices, procedures or regulations regarding Encroachments, and in no event shall any such action constitute any claim for damages nor become the basis of a legal suit by any Landowner.

e. For purposes of these "**Works**" is defined to include, without limitation, all District water management facilities, lakes, canals, catch basins, outfall structures, Easements and lake interconnect piping.

3. **Encroachment Agreements**.

a. Permanent Encroachments. An Encroachment Agreement, as approved by the District, is a consent to the proposed, specific and limited entry upon District land, as requested by the Landowner, subject to the conditions in the Encroachment Agreement. An Encroachment Agreement conveys no

property rights nor any other rights or privileges other than those specifically set forth in the Encroachment Agreement.

b. Temporary Encroachments. A temporary Encroachment may be approved for a limited duration upon application by a Landowner when necessary to accomplish a specific task or as a preliminary measure in conjunction with a future permanent Encroachment Agreement. A Temporary Encroachment Agreement will be issued only upon specific approval of the Board of Supervisors of the District (the "**Board**"). The terms of all temporary Encroachment Agreement will be specifically drafted to meet the situation involved and for the type of installation for which said authorization is requested. A Temporary Encroachment Agreement become effective upon execution of the agreement and is valid for the period stated in the Temporary Encroachment Agreement, unless terminated sooner by the District.

c. Emergency Encroachments. An emergency Encroachment may be obtained and authorized by the District Manager if a Landowner demonstrates that undertaking the normal Encroachment Agreement process through the Board would adversely impact public health or safety or endanger lives or property. All authorization for emergency Encroachments will be presented to the Board its next regular meeting following the authorization for review, and may be subject to revocation by the Board. The emergency Encroachment may remain for the duration of the emergency or until otherwise directed by the District to be removed.

4. **Obligations of the Landowner for an Approved Encroachment**.

a. To abide by the terms and conditions of the approved Encroachment Agreement.

b. To maintain any improvements that are part of an approved Encroachment, title to which remain with the Landowner, in a good and safe condition.

c. To indemnify and hold harmless the District, District Manager, District employees, District Consultants and its successors from any and all losses, damages, claims, or liabilities, which may arise by reason of the construction, operation, maintenance or use of any Encroachment.

d. To allow inspection at any time by the District of any permitted Encroachment.

e. To prevent the discharge of debris or substances from entering into any Works due to the Encroachment or approval of the Encroachment.

e. To maintain the water quality of all waters discharging into District Works by following all state and local required and recommended Best Management Practices (BMP's).

f. To conform with any alterations of or amendments to this Policy that may be deemed necessary by the District, pursuant to the terms of the approved Encroachment Agreement.

5. **Application Instructions**.

a. No Encroachments may be made or allowed to exist without obtaining written approval from the District pursuant to this Policy. All applications for Encroachments must be made to the District Manager. The applicant seeking an Encroachment must provide to the District the following information:

i. Landowner's name (exactly as shown on title to the property), physical address, folio number, and contact information.

ii. Applicant's name, if different than the Landowner.

iii. A description of the proposed Encroachment, including copies of applicable plans and specifications and copies of any associated permits and approvals applied for or received by the applicant. The plans should include details regarding any construction and improvements proposed to be made within the Easement.

iv. A letter of acknowledgement or approval of the improvements, as described in the plans and specifications, from any applicable homeowners' association(s).

v. A description of the hardship upon the Landowner as the basis of the Encroachment.

vi. Proof of ownership of Landowner's property (i.e. copy of deed to landowner's property).

vii. A copy of a land survey depicting the proposed Encroachment into the Easement. The survey shall show existing structures and facilities in an around the encroachment area.

viii. Any other information reasonably requested by the District and pertaining to the proposed Encroachment including, but not limited to, proof of insurance in type and extent of coverage acceptable to the District from all contractors that are proposed to work on the construction or installation of the Improvements constituting the Encroachment.

b. The applicant is responsible for paying all costs incurred by the District with respect to the request for an Encroachment, including all legal, engineering and professional fees and any other fees and costs incurred by the District. Owner shall include a nonrefundable Application Fee in the amount of $350.00 with the application materials. The application fee must be paid by check to "Miromar Lakes Community Development District." In the event that the actual costs for legal and professional fees and any other fees and costs incurred by the District in connection with the Encroachment Agreement exceed $350.00, then landowner will be required to pay such costs prior to the District's approval and execution of the Encroachment Agreement. To the extent the District approves allowing the encroachment, the landowner and the District will sign an Encroachment Agreement and the landowner will be responsible for the recording fee associated with recording the document in the Public Records of Lee County, Florida. The recording fee is estimated to be $61.00, but will depend upon the number of pages to be recorded.

c. The application information and documentation listed above and the application fee must be delivered to the District, c/o the District Manager, 2301 Northeast 37th Street, Fort Lauderdale, FL 33308.

d. Following receipt of the above, the District will review the application and make a determination whether to approve, approve with conditions or deny the application.

e. Any changes to the Encroachment Agreement or any provision thereof, must be approved by District Counsel prior to execution and recording by the District.

f. The applicant is solely responsible for obtaining permits and approvals of government agencies, homeowners' associations, or any other person or entity having jurisdiction over the property or the encroaching improvements, including all costs thereof. Nothing in the Encroachment Agreement shall constitute any acknowledgement, approval or waiver by the District of any requirement, permit, or approval of any applicable government agency, homeowners' association, or any other person or entity having jurisdiction over the property or the encroaching improvements.

g. The Applicant shall be required to pay for, and obtain, all applicable permits from governmental entities necessary to construct the requested encroaching improvements. The applicant must provide copies of all approved permits prior to commencing construction on an Encroachment.

6. **Requests to Modify or Vacate Encroachments**.

An Applicant seeking to modify, vacate or improve an Encroachment shall submit a new Application to the District Manager. Requests include a detailed description along with necessary exhibits to represent the request. The request shall include all of the items set forth in Section 5, above and shall describe the modification or vacation.

7. **Transfers and Maintenance**.

An Applicant seeking to transfer encroaching improvements to the District for ongoing ownership and maintenance shall submit a written request to the District Manager. Requests shall include a detailed description along with the following list of documents:

- Cover Letter / Description.
- Record Drawings.
- Transfer / Dedication of Easements.
- Exhibit detailing the Improvements to be transferred to the District.
- Agency Permit Approvals / Certifications.
- Permit Transfers (if applicable).
- Warranty (if applicable).
- Legal Descriptions of easements to be transferred (if applicable).
- Landscaping to be transferred shall include invoices for material installed.

All maintenance and costs required for Encroachments owned by the Landowner shall be borne by the Landowner. After an Applicant requests and is approved for an Encroachment to be transferred to the District, the District shall take ownership and provide on-going maintenance, as set forth in any supplemental agreements.

8. **Construction**.

Construction activities performed with District owned lands or Improvements will require 48-hour notification to the District before construction activities are to begin. District staff will be notified of any pre-construction meetings with local, state or federal agencies and given the opportunity to attend. District staff will be granted access to observe/inspect construction activities and when required provide guidance and advice. Applicants shall remain responsible for all means and methods of construction activities and provide the District with written indemnification from such activities.

EXHIBIT "C"

This instrument was prepared
without an opinion of title and
after recording return to:
Gregory L. Urbancic, Esq.
Coleman, Yovanovich & Koester, P.A.
4001 Tamiami Trail North, Suite 300
Naples, Florida 34103
(239) 435-3535

ENCROACHMENT AGREEMENT

THIS ENCROACHMENT AGREEMENT (this "**Agreement**") is made this _____ day of _____, 2021, by and between **MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT** ("**District**") and _____ ("**Owner**").

RECITALS

A. Owner is the owner in fee simple of that certain real property located at _____, Miromar Lakes, FL 33913, which real property is legally described as follows (the "**Owner's Property**"):

> Lot ____, Block ____, _____, according to the plat thereof as recorded as Instrument Number _____ of the Public Records of Lee County, Florida.

B. Pursuant to the terms of the plat of _____, a subdivision according to the plat thereof, as recorded as Instrument Number _____, of the Public Records of Lee County, Florida (the "**Plat**"), the _____ side of the Owner's Property is subject to and encumbered by a _____' _____ easement (the "**Easement**"). District is the owner and holder of rights in the Easement.

C. Owner intends to construct and maintain certain improvements (collectively, the "**Improvements**") that will partially encroach into the Easement (the "**Encroachment**") as shown on the site plan attached as **Exhibit "A"** and made a part of this Agreement (the "**Site Plan**").

D. The parties to this Agreement have reached certain understandings with regard to the Encroachment and now desire to set forth their understandings in writing for recordation.

AGREEMENT

NOW, THEREFORE, the parties agree as follows:

1. **Recitals**. The foregoing recitals are true and correct and incorporated by reference into this Agreement.

2. **Consent to the Encroachment and Covenant not to Construct**. Subject to the terms of this Agreement, District hereby expressly consents to the Encroachment and Owner, for itself and on behalf of all of its heirs, successors and/or assigns agrees and covenants that, in consideration for such consent by District, no portion of the Improvements encroaching into the Easement shall ever be expanded or increased beyond that which is permitted herein. In the event District determines that, notwithstanding Owner's agreement to the restrictive covenant set forth herein, any portion of the Improvements within the Easement has been expanded or increased or Owner has otherwise constructed or installed improvements beyond or in addition to the permitted Improvements in the Easement in violation of the terms hereof, and gives written notice to Owner of such determination, Owner or its successors and/or assigns shall have thirty (30) calendar days to correct such violation at its sole cost and expense after such written notice is actually received or deemed to have been received, whichever is earlier. In the event such violation is not corrected within such thirty (30) day period, Owner expressly agrees District may, and hereby further authorizes District to, take all steps necessary to remove such violating improvements, including, but not limited to, the right to enter onto the Owner's Property. Owner acknowledges that the Encroachment into the Easement is by consent of District and not by any claim of some other right.

3. **Owner's Responsibilities**. Owner agrees to, and acknowledges the following responsibilities as a condition to District's consent to the Encroachment:

a. Owner shall be fully responsible, at Owner's sole cost and expense, for the installation, operation, and maintenance of the Improvements, including any permits or approvals required for the work;

b. Owner shall use a licensed and insured contractor to perform any installation and maintenance work pursuant to this Agreement;

c. Owner shall ensure the installation, operation, and maintenance of the Improvements are conducted in compliance with all applicable laws;

c. Owner shall ensure the installation, operation, and maintenance of the Improvements does not damage any property of District, or any third-party's property, and in the event of any such damage, Owner shall immediately repair the damage at Owner's sole cost and expense;

d. Owner shall continue to operate, maintain, and repair the Improvements, in good and proper working condition and repair;

e. Except as to the approved Encroachment approved herein, Owner shall ensure that District has access through the Easement to and from components of District's stormwater management system to allow District to operate, maintain and repair the same, as needed; and

f. Owner shall maintain the Easement free from any construction, materialmen's or mechanic's liens and claims or notices with respect to such liens and claims, which arise by reason of Owner's exercise of rights under this Agreement, and Owner shall immediately discharge any such claim of lien at Owner's sole cost and expense.

g. Owner shall comply will all rules and polices of the District relating to encroachments as promulgated by the District from time to time.

4. **Additional Costs**. In the event that at any time subsequent to the execution of this Agreement the Encroachment encumbers or inconveniences District's use of the Easement (including, without limitation, the maintenance, repair, and/or replacement of improvements within or adjacent to the Easement such as buried pipes or other drainage lines), District will make reasonable efforts to work around the Encroachment; provided, however, that Owner shall pay for all of District's costs associated with working around the Encroachment to the extent that such costs would not have been incurred but for the Encroachment. Said additional costs are, at the election of District, to be paid to District in advance of any work to be performed by District. District shall be the sole judge of such incremental costs. Only if District, in its sole judgment, is not able to work around the Encroachment, will District mandate that the Encroachment be moved or removed, at no cost to District, as then may be needed to allow District the needed use of the Easement. If Owner fails to remove the Encroachment after written request of District, District may remove the Encroachment and charge Owner for the cost thereof. Removal of the Encroachment will be the last alternative solution of any such use problem(s) unless the incremental cost of the least expensive and viable alternative solution exceeds the cost of removal.

5. **Indemnification**. In order to induce District to consent to the Encroachment, as evidenced by this Agreement, Owner hereby agrees to fully protect, indemnify, defend, save and hold District, and its supervisors, officers, employees, agents, administrators, and all of their respective heirs, successors and assigns (collectively, the "**Indemnified Parties**"), harmless from and against any and all claims, damages, expenses, costs, charges, obligations, liabilities, fees, penalties, assessments, taxes, losses, etc. of any kind or nature whatsoever, whether mature or not, in law or in equity, whether as a result of settlement, litigation or arbitration which may be incurred or suffered by one or more of the Indemnified Parties arising out of, relating to or resulting from the construction, use, maintenance and occupation of the Encroachment and any removal of any improvements within the Encroachment, and in all events including, but not limited to, any and all attorneys' fees, court costs, and including costs incurred in any appellate proceedings, or costs of arbitration and all expenses in defending same, in connection with any and all of the above.

6. **Other Approvals**. Owner shall be responsible for obtaining any and all approvals of any other entity having an interest in the Easement, including, without limitation, Lee County and the Miromar Lakes Master Association, Inc.

7. **Binding Effect**. This Agreement shall be binding upon and shall inure to the benefit of the parties, their respective heirs, successor and assigns forever. This Agreement, the rights and privileges herein granted and the burdens imposed hereby shall be perpetual and shall run with and bind Owner's Property.

8. **Governing Law / Venue**. This Agreement shall be construed in accordance with Florida law (exclusive of choice of law rules). Venue for any action arising hereunder shall lie exclusively in Lee County, Florida.

9. **Prevailing Party**. The prevailing party in any litigation arising out of this Agreement shall be entitled to recover from the non-prevailing party all attorneys' fees, paralegal fees, and costs incurred in connection with such litigation, whether pre-trial, at trial, in arbitration, on appeal, or otherwise.

10. **Partial Invalidity**. If any term or provision of this Agreement or the application thereof to any person or circumstances shall, to any extent, be declared invalid or unenforceable by a court of competent jurisdiction, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, such term or provision shall be modified to the minimum extent necessary to make it or its application valid and enforceable, and the validity and enforceability of all other provisions of this Agreement and all other applications of any such term or

provision shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

11. **Modifications**. This Agreement may not be modified in any respect whatsoever or rescinded, in whole or in part, except by written instrument duly executed and acknowledged by both of the Parties.

12. **Severability**. In the event any term or provision of this Agreement is determined by appropriate judicial authority to be illegal or otherwise invalid, such provision shall be construed or deleted as such authority determines, and the remainder of this Agreement shall be construed to be in full force and effect.

13. **Integration**. This Agreement embodies the entire understanding of the parties with respect to the subject matter contemplated herein, and the terms hereof control over and supersede all prior and contemporaneous understandings pertaining to the subject matter hereof.

14. **Interpretation**. This Agreement has been negotiated fully between the parties as an arms' length transaction. Both parties participated fully in the preparation of this Agreement. In the case of a dispute concerning the interpretation of any provision of this Agreement, both parties are deemed to have drafted, chosen, and selected the language, and the doubtful language will not be interpreted or construed against any party.

15. **Counterparts**. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original as against any party who signature appears thereon and all of which shall together constitute one and the same instrument.

16. **Termination.** This Agreement shall continue in full force and effect until terminated by recording an instrument in the Public Records of Lee County, Florida, signed by the parties or their successors and assigns to this Agreement or upon the removal by Owner of the Encroachment.

(Remainder of Page Intentionally Left Blank. Signatures Begin on Next Page.)

The parties have executed this Agreement as of the date first written above.

DISTRICT:

MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT

ATTEST:

_____ By:_____

James P. Ward, Secretary Alan Refkin, Chairman

STATE OF FLORIDA)
) ss.
COUNTY OF LEE)

The foregoing instrument was acknowledged before me by means of (__) physical presence or (__) online notarization this _____ day of _____, 2021, by Alan Refkin, as Chairman of Miromar Lakes Community Development District, on behalf of said community development district, who is (__) personally known to me or (__) has produced _____ as evidence of identification.

(SEAL)

_____
NOTARY PUBLIC
Name:_____
(Type or Print)
My Commission Expires:

OWNER:

_____
Print Name: _____

_____
Print Name: _____

STATE OF FLORIDA)
) ss.
COUNTY OF LEE)

The foregoing instrument was acknowledged before me by means of (__) physical presence or (__) online notarization this _____ day of _____, 2021, by _____ _____, who (__) is/are personally known to me or (__) have/has produced _____ as evidence of identification.

(SEAL)

_____
NOTARY PUBLIC
Name:_____
(Type or Print)
My Commission Expires:

Exhibit "C"
Encroachment Agreement

This instrument was prepared
without an opinion of title and
after recording return to:
Gregory L. Urbancic, Esq.
Coleman, Yovanovich & Koester, P.A.
4001 Tamiami Trail North, Suite 300
Naples, Florida 34103
(239) 435-3535

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NOW, THEREFORE, the parties agree as follows:

1. **Recitals**. The foregoing recitals are true and correct and incorporated by reference into this Agreement.

2. **Consent to the Encroachment and Covenant not to Construct**. Subject to the terms of this Agreement, District hereby expressly consents to the Encroachment and Owner, for itself and on behalf of all of its heirs, successors and/or assigns agrees and covenants that, in consideration for such consent by District, no portion of the Improvements encroaching into the Easement shall ever be expanded or increased beyond that which is permitted herein. In the event District determines that, notwithstanding Owner's agreement to the restrictive covenant set forth herein, any portion of the Improvements within the Easement has been expanded or increased or Owner has otherwise constructed or installed improvements beyond or in addition to the permitted Improvements in the Easement in violation of the terms hereof, and gives written notice to Owner of such determination, Owner or its successors and/or assigns shall have thirty (30) calendar days to correct such violation at its sole cost and expense after such written notice is actually received or deemed to have been received, whichever is earlier. In the event such violation is not corrected within such thirty (30) day period, Owner expressly agrees District may, and hereby further authorizes District to, take all steps necessary to remove such violating improvements, including, but not limited to, the right to enter onto the Owner's Property. Owner acknowledges that the Encroachment into the Easement is by consent of District and not by any claim of some other right.

3. **Owner's Responsibilities**. Owner agrees to, and acknowledges the following responsibilities as a condition to District's consent to the Encroachment:

a. Owner shall be fully responsible, at Owner's sole cost and expense, for the installation, operation, and maintenance of the Improvements, including any permits or approvals required for the work;

b. Owner shall use a licensed and insured contractor to perform any installation and maintenance work pursuant to this Agreement;

c. Owner shall ensure the installation, operation, and maintenance of the Improvements are conducted in compliance with all applicable laws;

c. Owner shall ensure the installation, operation, and maintenance of the Improvements does not damage any property of District, or any third-party's property, and in the event of any such damage, Owner shall immediately repair the damage at Owner's sole cost and expense;

d. Owner shall continue to operate, maintain, and repair the Improvements, in good and proper working condition and repair;

e. Except as to the approved Encroachment approved herein, Owner shall ensure that District has access through the Easement to and from components of District's stormwater management system to allow District to operate, maintain and repair the same, as needed; and

f. Owner shall maintain the Easement free from any construction, materialmen's or mechanic's liens and claims or notices with respect to such liens and claims, which arise by reason of Owner's exercise of rights under this Agreement, and Owner shall immediately discharge any such claim of lien at Owner's sole cost and expense.

g. Owner shall comply will all rules and polices of the District relating to encroachments as promulgated by the District from time to time.

4. **Additional Costs**. In the event that at any time subsequent to the execution of this Agreement the Encroachment encumbers or inconveniences District's use of the Easement (including, without limitation, the maintenance, repair, and/or replacement of improvements within or adjacent to the

Easement such as buried pipes or other drainage lines), District will make reasonable efforts to work around the Encroachment; provided, however, that Owner shall pay for all of District's costs associated with working around the Encroachment to the extent that such costs would not have been incurred but for the Encroachment. Said additional costs are, at the election of District, to be paid to District in advance of any work to be performed by District. District shall be the sole judge of such incremental costs. Only if District, in its sole judgment, is not able to work around the Encroachment, will District mandate that the Encroachment be moved or removed, at no cost to District, as then may be needed to allow District the needed use of the Easement. If Owner fails to remove the Encroachment after written request of District, District may remove the Encroachment and charge Owner for the cost thereof. Removal of the Encroachment will be the last alternative solution of any such use problem(s) unless the incremental cost of the least expensive and viable alternative solution exceeds the cost of removal.

5. **Indemnification**. In order to induce District to consent to the Encroachment, as evidenced by this Agreement, Owner hereby agrees to fully protect, indemnify, defend, save and hold District, and its supervisors, officers, employees, agents, administrators, and all of their respective heirs, successors and assigns (collectively, the "**Indemnified Parties**"), harmless from and against any and all claims, damages, expenses, costs, charges, obligations, liabilities, fees, penalties, assessments, taxes, losses, etc. of any kind or nature whatsoever, whether mature or not, in law or in equity, whether as a result of settlement, litigation or arbitration which may be incurred or suffered by one or more of the Indemnified Parties arising out of, relating to or resulting from the construction, use, maintenance and occupation of the Encroachment and any removal of any improvements within the Encroachment, and in all events including, but not limited to, any and all attorneys' fees, court costs, and including costs incurred in any appellate proceedings, or costs of arbitration and all expenses in defending same, in connection with any and all of the above.

6. **Other Approvals**. Owner shall be responsible for obtaining any and all approvals of any other entity having an interest in the Easement, including, without limitation, Lee County and the Miromar Lakes Master Association, Inc.

7. **Binding Effect**. This Agreement shall be binding upon and shall inure to the benefit of the parties, their respective heirs, successor and assigns forever. This Agreement, the rights and privileges herein granted and the burdens imposed hereby shall be perpetual and shall run with and bind Owner's Property.

8. **Governing Law / Venue**. This Agreement shall be construed in accordance with Florida law (exclusive of choice of law rules). Venue for any action arising hereunder shall lie exclusively in Lee County, Florida.

9. **Prevailing Party**. The prevailing party in any litigation arising out of this Agreement shall be entitled to recover from the non-prevailing party all attorneys' fees, paralegal fees, and costs incurred in connection with such litigation, whether pre-trial, at trial, in arbitration, on appeal, or otherwise.

10. **Partial Invalidity**. If any term or provision of this Agreement or the application thereof to any person or circumstances shall, to any extent, be declared invalid or unenforceable by a court of competent jurisdiction, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, such term or provision shall be modified to the minimum extent necessary to make it or its application valid and enforceable, and the validity and enforceability of all other provisions of this Agreement and all other applications of any such term or provision shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

11. **Modifications**. This Agreement may not be modified in any respect whatsoever or rescinded, in whole or in part, except by written instrument duly executed and acknowledged by both of the Parties.

12. **Severability**. In the event any term or provision of this Agreement is determined by appropriate judicial authority to be illegal or otherwise invalid, such provision shall be construed or deleted as such authority determines, and the remainder of this Agreement shall be construed to be in full force and effect.

13. **Integration**. This Agreement embodies the entire understanding of the parties with respect to the subject matter contemplated herein, and the terms hereof control over and supersede all prior and contemporaneous understandings pertaining to the subject matter hereof.

14. **Interpretation**. This Agreement has been negotiated fully between the parties as an arms' length transaction. Both parties participated fully in the preparation of this Agreement. In the case of a dispute concerning the interpretation of any provision of this Agreement, both parties are deemed to have drafted, chosen, and selected the language, and the doubtful language will not be interpreted or construed against any party.

15. **Counterparts**. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original as against any party who signature appears thereon and all of which shall together constitute one and the same instrument.

16. **Termination.** This Agreement shall continue in full force and effect until terminated by recording an instrument in the Public Records of Lee County, Florida, signed by the parties or their successors and assigns to this Agreement or upon the removal by Owner of the Encroachment.

(Remainder of Page Intentionally Left Blank. Signatures Begin on Next Page.)

The parties have executed this Agreement as of the date first written above.

DISTRICT:

MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT

ATTEST:

_____
James P. Ward, Secretary

By:_____
Alan Refkin, Chairman

STATE OF FLORIDA)
) ss.
COUNTY OF LEE)

The foregoing instrument was acknowledged before me by means of (__) physical presence or (__) online notarization this _____ day of _____, 2021, by Alan Refkin, as Chairman of Miromar Lakes Community Development District, on behalf of said community development district, who is (__) personally known to me or (__) has produced _____ as evidence of identification.

(SEAL)

_____
NOTARY PUBLIC
Name:_____
(Type or Print)
My Commission Expires:

OWNER:

_____
Print Name: _____

_____
Print Name: _____

STATE OF FLORIDA)
) ss.
COUNTY OF LEE)

The foregoing instrument was acknowledged before me by means of (__) physical presence or (__) online notarization this _____ day of _____, 2021, by _____ _____, who (__) is/are personally known to me or (__) have/has produced _____ as evidence of identification.

(SEAL)

_____
NOTARY PUBLIC
Name:_____
(Type or Print)

Signature: Alan Refkin
Alan Refkin (Oct 20, 2021 13:38 EDT)

Email: arefkin@aol.com

ML - Resolution 2022-1 - Relating to DE LME Encroachments - Executed (Needs Refkin Sig)

Final Audit Report 2021-10-20

Created:	2021-10-20
By:	Cori Dissinger (coridissinger@jpwardassociates.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAcFOM467lml-d4FPiBIDgRbgbBIbS42ba

"ML - Resolution 2022-1 - Relating to DE LME Encroachments - Executed (Needs Refkin Sig)" History

Document created by Cori Dissinger (coridissinger@jpwardassociates.com)
2021-10-20 - 4:29:52 PM GMT- IP address: 35.153.123.180

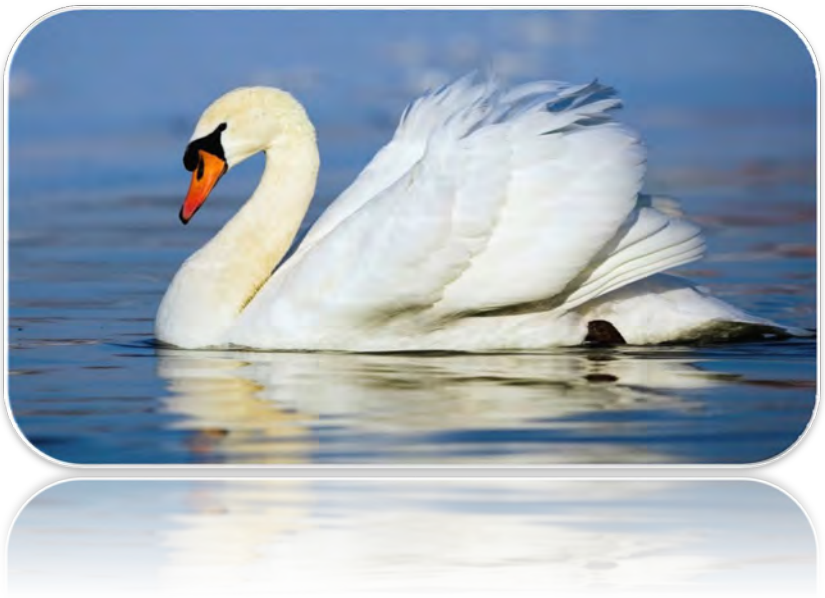
Document emailed to Alan Refkin (arefkin@aol.com) for signature
2021-10-20 - 4:30:17 PM GMT

Email viewed by Alan Refkin (arefkin@aol.com)
2021-10-20 - 5:38:25 PM GMT- IP address: 69.147.93.95

Document e-signed by Alan Refkin (arefkin@aol.com)
Signature Date: 2021-10-20 - 5:38:59 PM GMT - Time Source: server- IP address: 96.47.151.23

Agreement completed.
2021-10-20 - 5:38:59 PM GMT

MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT



FINANCIAL STATEMENTS – OCTOBER 2021

FISCAL YEAR 2022

PREPARED BY:

JPWARD & ASSOCIATES, LLC, 2301 NORTHEAST 37TH STREET, FORT LAUDERDALE, FL 33308

T: 954-658-4900 **E:** JimWard@JPWardAssociates.com

Miromar Lakes Community Development District

Table of Contents

JPWard & Associates, LLC
2301 Northeast 37th Street
Fort Lauderdale, Florida 33308
(954) 658-4900

Miromar Lakes Community Development District
Balance Sheet
for the Period Ending October 31, 2021

	Governmental Funds			Account Groups		Totals (Memorandum Only)
		Debt Service Funds				
	General Fund	Series 2012	Series 2015	General Long Term Debt	General Fixed Assets	
Assets						
Cash and Investments						
General Fund - Invested Cash	$ 351,093	$ -	$ -	$ -	$ -	$ 351,093
Debt Service Fund						
Interest Account	-	-	-	-	-	-
Sinking Account	-	-	-	-	-	-
Reserve Account	-	366,651	448,865	-	-	815,516
Revenue	-	224,901	521,386	-	-	746,288
Prepayment Account	-	89,010	155,171	-	-	244,180
Due from Other Funds						
General Fund	-	306	180	-	-	487
Debt Service Fund(s)			-	-	-	-
Market Valuation Adjustments	-			-	-	-
Accrued Interest Receivable	-	-	-	-	-	-
Assessments Receivable	-	-	-	-	-	-
Accounts Receivable	-	-	-	-	-	-
Amount Available in Debt Service Funds	-	-	-	1,806,471	-	1,806,471
Amount to be Provided by Debt Service Funds	-	-	-	15,203,529	-	15,203,529
Investment in General Fixed Assets (net of depreciation)	-	-	-	-	36,514,917	36,514,917
Total Assets	**$ 351,093**	**$ 680,868**	**$ 1,125,602**	**$ 17,010,000**	**$ 36,514,917**	**$ 55,682,480**

Miromar Lakes Community Development District
Balance Sheet
for the Period Ending October 31, 2021

	Governmental Funds			Account Groups		Totals (Memorandum Only)
		Debt Service Funds				
	General Fund	Series 2012	Series 2015	General Long Term Debt	General Fixed Assets	
Liabilities						
Accounts Payable & Payroll Liabilities	$ -	$ -	$ -	$ -	$ -	$ -
Due to Other Funds						-
General Fund		-	-	-	-	-
Debt Service Fund(s)	487	-	-	-	-	487
Other Developer	-	-				-
Bonds Payable	-					-
Current Portion	-	-	-	1,270,000	-	1,270,000
Long Term	-	-	-	15,740,000	-	15,740,000
Total Liabilities	**$ 487**	**$ -**	**$ -**	**$ 17,010,000**	**$ -**	**$ 17,010,487**
Fund Equity and Other Credits						
Investment in General Fixed Assets	-			-	36,514,917	36,514,917
Fund Balance						
Restricted						
Beginning: October 1, 2021 (Unaudited)	-	677,036	1,121,538	-	-	1,798,573
Results from Current Operations	-	3,833	4,065	-	-	7,898
Unassigned						
Beginning: October 1, 2021 (Unaudited)	340,196			-	-	340,196
Reserve for Water Management System	50,000					50,000
Reserve for Disaster Relief Reserve	45,000					45,000
Results from Current Operations	(84,590)			-	-	(84,590)
Total Fund Equity and Other Credits	**$ 350,606**	**$ 680,868**	**$ 1,125,602**	**$ -**	**$ 36,514,917**	**$ 38,671,994**
Total Liabilities, Fund Equity and Other Credits	**$ 351,093**	**$ 680,868**	**$ 1,125,602**	**$ 17,010,000**	**$ 36,514,917**	**$ 55,682,480**

Miromar Lakes Community Development District
General Fund
Statement of Revenues, Expenditures and Changes in Fund Balance
Through October 31, 2021

Description	October	Year to Date	Total Annual Budget	% of Budget
Revenue and Other Sources				
Carryforward	$ -	-	-	N/A
Interest				
Interest - General Checking	3	3	100	3%
Special Assessment Revenue				
Special Assessments - On-Roll	239	239	725,565	0%
Special Assessments - Off-Roll	34,164	34,164	136,655	25%
Miscellaneous Revenue	-	-	-	N/A
State Revenue Sharing-Emergency Mgmt Assis	-	-	-	N/A
Intragovernmental Transfer In	-	-	-	N/A
Total Revenue and Other Sources:	**$ 34,406**	**34,406**	**$ 862,320**	**4%**
Expenditures and Other Uses				
Legislative				
Board of Supervisor's - Fees	1,000	1,000	12,000	8%
Board of Supervisor's - Taxes	77	77	918	8%
Executive				
Professional Management	3,333	3,333	40,000	8%
Financial and Administrative				
Audit Services	-	-	4,100	0%
Accounting Services	-	-	-	N/A
Assessment Roll Services	-	-	18,000	0%
Arbitrage/Bond Reamortization	-	-	2,000	0%
Other Contractual Services				
Legal Advertising	-	-	1,200	0%
Trustee Services	-	-	9,300	0%
Property Appraiser/Tax Collector Fees	-	-	1,300	0%
Bank Services	36	36	500	7%
Travel and Per Diem	-	-	-	N/A
Communications & Freight Services				

Miromar Lakes Community Development District
General Fund
Statement of Revenues, Expenditures and Changes in Fund Balance
Through October 31, 2021

Description	October	Year to Date	Total Annual Budget	% of Budget
Postage, Freight & Messenger	-	-	800	0%
Insurance	-	-	7,000	0%
Printing & Binding	-	-	2,200	0%
Website Maintenance	50	50	1,200	4%
Office Supplies	-	-	-	N/A
Subscription & Memberships	-	-	175	0%
Legal Services				
Legal - General Counsel	-	-	15,000	0%
Other General Government Services				
Engineering Services - General Fund	-	-	5,000	0%
Asset Maps/Cost Estimates	-	-	2,500	0%
Asset Administrative Services	-	-	10,000	0%
Reserve Analysis	-	-	-	N/A
Contingencies	-	-	-	N/A
Sub-Total:	**4,496**	**4,496**	**133,193**	**3%**
Stormwater Management Services				
Professional Services				
Asset Management	-	-	35,800	0%
NPDES	-	-	3,000	0%
Mitigation Monitoring	-	-	-	N/A
Utility Services				
Electric - Aeration Systems	-	-	4,800	0%
Repairs & Maintenance				
Lake System				
Aquatic Weed Control	-	-	76,000	0%
Lake Bank Maintenance	-	-	3,000	0%
Water Quality Testing	-	-	14,300	0%
Water Control Structures	19,500	19,500	25,000	78%
Grass Carp Installation	-	-	-	N/A
Litoral Shelf Barrier/Replanting	-	-	-	N/A

Miromar Lakes Community Development District
General Fund
Statement of Revenues, Expenditures and Changes in Fund Balance
Through October 31, 2021

Description	October	Year to Date	Total Annual Budget	% of Budget
Cane Toad Removal	-	-	36,000	0%
Midge Fly Control	-	-	19,600	0%
Aeration System	-	-	12,000	0%
Fish Re-Stocking	-	-	-	N/A
Wetland System				
Routine Maintenance	-	-	48,100	0%
Water Quality Testing	-	-	-	N/A
Capital Outlay				
Aeration Systems	-	-	16,000	0%
Littortal Shelf Replanting/Barrier	-	-	-	N/A
Lake Bank Restoration	-	-	-	N/A
Turbidity Screens	-	-	-	N/A
Erosion Restoration	-	-	118,800	0%
Contingencies	-	-	108,000	0%
Sub-Total:	**19,500**	**19,500**	**520,400**	**4%**
Other Current Charges				
Hendry County - Panther Habitat Taxes	-	-	500	0%
Reserves for General Fund				
Water Management System	-	-	105,000	0%
Disaster Relief Reserve	-	-	95,000	0%
Sub-Total:	**-**	**-**	**200,500**	**0%**
Total Expenditures and Other Uses:	**$ 23,996**	**$ 23,996**	**$ 854,093**	**3%**
Net Increase/ (Decrease) in Fund Balance	10,410	10,410	8,227	
Fund Balance - Beginning	340,196	340,196	340,196	
Fund Balance - Ending	**$ 350,606**	**350,606**	**$ 348,423**	

Miromar Lakes Community Development District
Debt Service Fund - Series 2012 Bonds
Statement of Revenues, Expenditures and Changes in Fund Balance
Through October 31, 2021

Description	October	Year to Date	Total Annual Budget	% of Budget
Revenue and Other Sources				
Carryforward	$ -	-	$ 79,641	0%
Interest Income				
Reserve Account	3,525	3,525	7,200	49%
Prepayment Account	-	-	-	N/A
Revenue Account	1	1	100	1%
Interest Account	-	-	-	N/A
Special Assessment Revenue	-			
Special Assessments - On-Roll	306	306	929,731	0%
Special Assessments - Off-Roll	-	-	-	N/A
Special Assessments - Prepayments	-	-	-	N/A
Net Inc (Dec) Fair Value Investments	-	-	-	N/A
Operating Transfers In (From Other Funds)	-	-	-	N/A
Total Revenue and Other Sources:	**$ 3,833**	**3,833**	**$ 1,016,672**	N/A
Expenditures and Other Uses				
Debt Service				
Principal Debt Service - Mandatory				
Series 2012 Bonds	-	-	$ 525,000	0%
Principal Debt Service - Early Redemptions				
Series 2012 Bonds	-	-	85,000	0%
Interest Expense				
Series 2012 Bonds	-	-	412,031	0%
Operating Transfers Out (To Other Funds)	-	-	-	N/A
Total Expenditures and Other Uses:	**$ -**	**-**	**$ 1,022,031**	N/A
Net Increase/ (Decrease) in Fund Balance	3,833	3,833	(5,359)	
Fund Balance - Beginning	677,036	677,036	870,552	
Fund Balance - Ending	**$ 680,868**	**680,868**	**$ 865,193**	

Miromar Lakes Community Development District
Debt Service Fund - Series 2015 Bonds
Statement of Revenues, Expenditures and Changes in Fund Balance
Through October 31, 2021

Description	October	Year to Date	Total Annual Budget	% of Budget
Revenue and Other Sources				
Carryforward	$ -	-	$ 193,689	0%
Interest Income				
Reserve Account	3,881	3,881	12,000	32%
Interest Account	-	-	-	N/A
Sinking Fund Account	-	-	-	N/A
Prepayment Account	1	1	-	N/A
Revenue Account	3	3	20	13%
Special Assessment Revenue				
Special Assessments - On-Roll	180	180	546,703	0%
Special Assessments - Off-Roll	-	-	352,264	0%
Special Assessments - Prepayments	-	-	-	N/A
Net Inc (Dec) Fair Value Investments	-	-	-	N/A
Operating Transfers In (From Other Funds)	-	-	-	N/A
Bond Proceeds	-	-	-	N/A
Total Revenue and Other Sources:	**$ 4,065**	**$ 4,065**	**$ 1,104,676**	N/A
Expenditures and Other Uses				
Debt Service				
Principal Debt Service - Mandatory				
Series 2015 Bonds	-	-	$ 460,000	0%
Principal Debt Service - Early Redemptions				
Series 2015 Bonds	-	-	200,000	0%
Interest Expense				
Series 2015 Bonds	-	-	453,000	0%
Original Issue Discount	-	-	-	N/A
Operating Transfers Out (To Other Funds)	-	-	-	N/A
Total Expenditures and Other Uses:	**$ -**	**-**	**$ 1,113,000**	N/A
Net Increase/ (Decrease) in Fund Balance	4,065	4,065	(8,324)	
Fund Balance - Beginning	1,121,538	1,121,538	-	
Fund Balance - Ending	**$ 1,125,602**	**1,125,602**	**$ (8,324)**	