



Lakes & Waterways Board Regular Meeting

Agenda

February 13, 2024 @ 12:00 PM

City Hall Commission Chambers
401 S. Park Avenue

welcome

Agendas and all backup material supporting each agenda item are accessible via the city's website at cityofwinterpark.org/meetings/ and include virtual meeting instructions.

assistance & appeals

Persons with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk's Office ([407-599-3277](tel:407-599-3277)) at least 48 hours in advance of the meeting.

"If a person decides to appeal any decision made by the Board with respect to any matter considered at this hearing, a record of the proceedings is needed to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based." (F.S. 286.0105).

please note

Times are projected and subject to change.

-
- 1. Call to Order**
 - 2. Consent Agenda**
 - a. Approve the minutes of the regular meeting, December 12, 2023 1 Minute
 - b. Approve the minutes of the regular meeting, January 9, 2024 1 Minute
 - 3. Public Comments (for items not on the agenda): Three minutes allowed for each speaker**
 - 4. Public Hearings (Public participation and comment on these matters must be in person.)**
 - a. Boathouse/Dock Application (BLDR-2024-0018) 1214 N Park Ave. 10 Minutes
 - 5. Action Items**
 - 6. Non-Action Items**
 - 7. Staff Updates**
 - a. Winter Park Police Department 10 Minutes
 - b. Lakes Management 10 Minutes
 - c. Stormwater Management 10 Minutes
 - 8. Board Comments**
 - a. Discussion of Public Comments Received 5 Minutes
 - 9. Upcoming Agenda Items**
 - a. Discussion of Upcoming Agenda Items 5 Minutes
 - 10. Adjournment**



Lakes & Waterways Board

agenda item

item type

Consent Agenda

meeting date

February 13, 2024

prepared by

Charisma Lowery, Board Coordinator

approved by

Charisma Lowery, Board Coordinator

subject

Approve the minutes of the regular meeting, December 12, 2023

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

1. LWB- MINS-2023-12-12 DRAFT



Lakes & Waterways Board Regular Meeting Minutes

December 12, 2023 at 12:00 PM

City Hall Commission Chambers
401 S. Park Avenue

Present

Ed Webman, Justin J. Vermuth, Warren Bloom, Pamela L. Saffran, David F. March

Absent

George T. Vietor, William H. Swartz Sr.

Staff Present

Director of Natural Resources & Sustainability Gloria Eby; Assistant Director of Public Works Don Marcotte; Division Manager Joseph Cordell; Natural Resources & Sustainability Administrative Coordinator Victoria Tabor; Virtually: Board Coordinator Charisma Lowery

1. Call to Order

The meeting was called to order at 12:13 p.m.

2. Consent Agenda

- a. Approve the minutes of the regular meeting November 14, 2023

Motion made by David March to approve the minutes; seconded by Pamela Saffran. Motion carried unanimously with a 5-0 vote.

3. Public Comments (for items not on the agenda)

4. Public Hearings (Public participation and comment on these matters must be in person.)

- a. Boathouse/Dock Application Revision (BLDC-2023-0135) 2111 Via Tuscany

Staff presented the revised application for the boathouse/ dock application at 2111 Via Tuscany, which was previously approved by the board. Photos of the structure were displayed, noting the dock meets parameters and vegetation requirements. Approval of the application is recommended by staff.

Motion made by Ed Webman to approve the application; seconded by Pamela Saffran. Motion carried unanimously with a 5-0 vote.

- b. Shoreline Alteration Permit (SAP-2023-0033) 1214 N Park Ave.

Staff presented the seawall application for 1214 N Park Ave. The existing seawall structure is 135 feet, it requires rip rap with natural stone, has significant erosion on the existing structure and needs more vegetation to meet criteria. Photos of the existing structure and seawall, site plan and cross-section requirements were displayed and staff recommended approval of the dock.

Sheila Cichra, of Streamline Permitting located at 1002 Fort Mason Drive, Eustis, Florida, clarified that part of the seawall will be removed and used as rip rap. Revisions were not made to the site plan, only to the engineering plans. The site plan reads two-tiered seawall, which was not allowed. The new plan displays a wall with rip rap in front of it.

Motion made by Justin Vermuth to approve the application; seconded by David March. Motion carried unanimously with a 5-0 vote.

5. Action Items

- a. Support Letter for the Appropriations Project Request for the Winter Park Chain of Lakes

Staff presented a draft support letter for the appropriations project request for the Winter Park Chain of Lakes written to the State Senator. Positive traction from the Senator's office has been received. Currently, community support related to legislative efforts is needed. The \$500,000 fund request would be used for the nutrient and hydrologic study that will assist in identifying nutrient sources and provide recommendations to improve water quality and quantity. Staff needs the board's approval to move forward with submitting the letter on their behalf. The board suggested a letter be sent to the Appropriation Chair, Thomas Leek however felt Senator's office was fine.

Motion made by Pamela Saffran to approve the letter to the State Senator; seconded by Warren Bloom. Motion carried unanimously with a 5-0 vote.

6. Non-Action Items

7. Staff Updates

- a. Winter Park Police Department

Sergeant Hofer gave a brief report. Currently, it is off season, resulting in a total of 4 patrols since November 1st. Due to cooler weather and less traffic, the Police Department is on an as-needed basis. A total of 10 safety

inspections were completed last month and, 10 citations and warnings for safety violations were given out. PD will be investigating large vessels coming close to the shoreline on Lake Maitland. No further complaints regarding Dog Island have been received at this time. The board asked a few questions and Sergeant Hofer responded explaining there is no rule for how close a vessel can get to the shoreline; a rule would have to be added to the boating operation ordinance for Winter Park. Staff intends to propose new ordinance for boater safety that has to be approved by Florida Fish &

Wildlife Conservation (FWC). Once the ordinance is approved by the city, it must go through FWC's lengthy process. Further discussion followed.

a. Lakes Management

The NRCS funding has allowed staff the opportunity to do various projects. Regarding the Howell Creek stabilization, a land survey and wetland delineation have been conducted. Residents were concerned about ribbons on trees, however, it was clarified this was for mapping purposes only, no trees are proposed for removal. A consulting firm will conduct a stream assessment in January. In March the community meeting on conceptual design will take place at Mead Gardens.

Staff's excavation contractor is currently working on Lake Killarney, tackling several outfalls and will mobilize to the canal/cove next. Also slated for work is for tree fall removal on the North portion of Howell creek to remove tree debris that can impact flow.

The 9th grade pond located near the 9th Grade Center had severe erosion, which served Lake Virginia area. In a few weeks, sediments will be removed.

Lake Bell weir is at geotechnical level and once the geo-tech survey is completed, a design and permit will follow.

A few herbicide treatments were conducted on the lakes. A pondweed treatment for navigation on Lake Sue has been completed in the Winter Park side. Treatment will be conducted on Orlando side to open current navigation blockage.

The biobase vegetative mapping results Lake Berry shows, 57% area vegetation coverage. The ideal vegetation is 30%-60%. The area coverage for Lake Killarney is 62% and the bio volume is 30%. Lake Sylvan has less coverage than other lakes.

The new sensors for the telemetry stations have been received and will be installed. Lake water elevation telemetry for Lake Killarney, MLK Park, Lake Virginia and Lake Bell have been installed. Staff anticipate receiving all collected data soon. There are 20 more sensors to be installed on the remaining lakes.

The last Dock Party concluded in November with a good response from residents. Lake Knowles and Lake Wilbar shoreline restoration will be held Saturday December 16th.

c. Stormwater Management

Staff have added capital improvement projects (CIPs) that have been approved by the board and commission. Stirling bridge and, Fawsett Road was funded. Curb implementation projects will be implemented in the upcoming year. The remaining \$750k goes back into the drainage improvement budget.

Currently staff is in the permitting process for various drainage improvement projects such as Palmer at Old England, replace outfall pipe at Killarney Drive, Nicolet pond and the Seminole County piping projects. Staff displayed photos of a continuous deflective

separation (CDS) unit being installed at Fawsett Road and discussed how this improves water quality.

Regarding the seawall at Meade Garden, pricing bids have been high and staff is waiting for more quotes to move forward with the project.

8. Board Comments

- a. Discussion of Public Comments Received

9. Upcoming Agenda Items

- a. Discussion of Upcoming Agenda Items

Starting in January, staff will give a presentation of violations within the community to the board.

One of the board members inquired about data pertaining to nutrient studies being published on the website for public access.

10. Adjournment

The meeting adjourned at 12:49 p.m.

Approved by the board on _____
/s/ Charisma Lowery, Board Coordinator



Lakes & Waterways Board

agenda item

item type

Consent Agenda

meeting date

February 13, 2024

prepared by

Charisma Lowery, Board Coordinator

approved by

Charisma Lowery, Board Coordinator

subject

Approve the minutes of the regular meeting, January 9, 2024

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

1. LWB-MINS-2024-01-09 DRAFT



Lakes & Waterways Board Regular Meeting Minutes

January 9, 2024 at 12:00 PM

City Hall Commission Chambers
401 S. Park Avenue

Present

David F. March, George T. Vietor, Pamela L. Saffran, William H. Swartz Sr.

Absent

Ed Webman, Justin J. Vermuth, Warren Bloom

Staff Present

Director of Natural Resources & Sustainability Gloria Eby; Assistant Director of Public Works Don Marcotte; Public Works Engineer Shannon Monahan; Lakes Division Manager Joseph Cordell; Natural Resources & Sustainability Administrative Coordinator Victoria Tabor; Virtually: Board Coordinator Charisma Lowery

1. Call to Order

The motion was called to order at 12:09 p.m.

2. Consent Agenda

- a. Approve the minutes of the regular meeting December 12, 2023

Motion made by David March to approve the minutes as presented; seconded by George Vietor. Motion carried unanimously with a 4-0 vote.

3. Public Comments (for items not on the agenda):

4. Public Hearings (Public participation and comment on these matters must be in person.)

- a. Boathouse/Dock Application (BLDR-2023-0512) 531 Virginia Dr.

Staff presented the boat dock application for Roman and Michelle Cornell located at 531 Virginia Drive. The contractor, Albert Cichra, is replacing an existing dock, which does meet criteria. Staff recommend approval with revegetation requirements, due to the parcel not meeting vegetation criteria at present state. Staff detailed parameters and

measurements for the boathouse/ dock application, which is located on the south side of Lake Virginia. Photos of the structure and the dock plans were displayed, and the board to asked clarifying questions.

Sheila Cichra of, Streamline Permitting located at 1002 Fort Mason Drive, Eustis, Florida, clarified questions for the board. Ms. Cichra Stated the permit was approved previously, however the Cornell's decided to move the dock to the other side of the property causing re-permitting. The dock application meets criteria but re-vegetation must be completed. A brief discussion followed.

Motion made by William Swartz Sr. to approve the application; seconded by David March. Motion carried unanimously with a 4-0 vote.

5. Action Items

6. Non-Action Items

7. Staff Updates

- a. Winter Park Police Department
- b. Lakes Management

Hydrilla treatment was conducted on Lake Baldwin, specifically on the Winter Park side of the lake where the plan was mostly present.

The Lake elevation dropped in Lake Sue due to a lack of rainfall, resulting in pondweed appearing more abundant at the surface. Herbicide treatments for pondweed were conducted to alleviate pondweed at the surface in navigational areas. Staff elaborated further on pondweed, for the board members that were unsure of the aquatic plant.

The Natural Resource Conservation Services (NRCS) is a grant staff received due to impacts from Hurricane Ian. A presentation was provided to the board with updates on current projects. Excavation of sediments was completed to remove sand that was imported from various outfalls which including sandbars creating navigational concerns. A floating excavator, a large piece of equipment was used to remove sediments from various lakes as well as a hydraulic suction pump operated by a diver. It is important to remove sediments near stormwater infrastructure because it can impede the flow and capacity of the stormwater system which can cause flooding. The outfall should be clear sedimentation buildup.

Photos of a nutrient reduction facility called 9th grade pond were shown to the board with existing sedimentation. Staff identified the 9th grade pond as the next project to service, which will begin in approximately two and a half weeks.

Photos of Lake Knowles leaf trap barrier surrounding the outfall were displayed. The sediment importation that came into the lake from the hurricane is still significant. The hydrologic pumping removal process will occur in the upcoming week.

A photo of the Howell Creek stabilization project was displayed. The board asked a few questions regarding Mead Garden. A brief conversation followed.

Staff provided water quality graphs containing information on the National Pollutant Discharge (NPDES) lakes which are monitored by the Lakes Division and required by the NPDES permitting process. NPDES lakes includes the Chain of Lakes and Lakes Sue, Killarney and Baldwin. The trophic state index (TSI) includes the parameters and levels for nitrogen, phosphorus and clarity for the lakes previously referenced. Staff explained there's an increase in nitrogen occurring in many lakes, the board asked for ways to reduce nitrogen. Staff explained nutrient sources need to be reduced to change what is occurring in the lakes. There is a mutual partnership with Lock Haven Chain of Lakes who have received legislation appropriation to conduct a nutrient/stormwater study which includes Lake Sue. The study where the nutrient sources are coming from and suggest projects to improve water quality and quantity.

Staff requested legislation appropriation for a nutrient study for the Winter Park Chain of Lakes. An update will be given at a later date.

Staff will present violations that are active in February so the board is aware of how many cases occur.

c. Stormwater Management

Staff gave an update on CIPs, there are a few projects in the design phase including Palmer Avenue and Old England Avenue for storm water outfall dredging. Lake Virginia and Lake Osceola are anticipated to begin in February.

The Lake Sue inlet on the east side is complete.

Inline baffle boxes were displayed, the board asked a few clarifying questions and staff explained the use and longevity of the baffle boxes. Current locations, functionality purpose, size and the number of baffle boxes in use were shared with the board. Staff will bring a map of all the CDS and baffle boxes to present to the board at the

upcoming meeting. Updates will be completed on the public service website. A brief conversation followed.

8. Board Comments

- a. Discussion of Public Comments Received

9. Upcoming Agenda Items

- b. Discussion of Upcoming Agenda Items

- Lakes division will present pictures of aquatic plants
- Lakes division will have a shoreline violation presentation
- Storm Water Division will present a map showing CDS and baffle box locations

10. Adjournment

The meeting adjourned at 12:48 p.m.

Approved by the board on _____
/s/ Charisma Lowery, Board Coordinator



Lakes & Waterways Board

agenda item

item type

Public Hearings (Public participation and comment on these matters must be in person.)

meeting date

February 13, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Boathouse/Dock Application (BLDR-2024-0018) 1214 N Park Ave.

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

1. BLDR-2024-0018 - 1214 N Park Ave



LAKE SHORELINE BOATHOUSE/DOCK APPLICATIONS

BLDR-2024-0018

1214 N Park Ave

- Applicant: Tyler Benzel for John Morgan
- Contractor: Albert Cichra Builders
- Permitting Agent: Sheila Cichra
- Structure: Boathouse
- New/Existing: New
- Waterbody: Lake Maitland

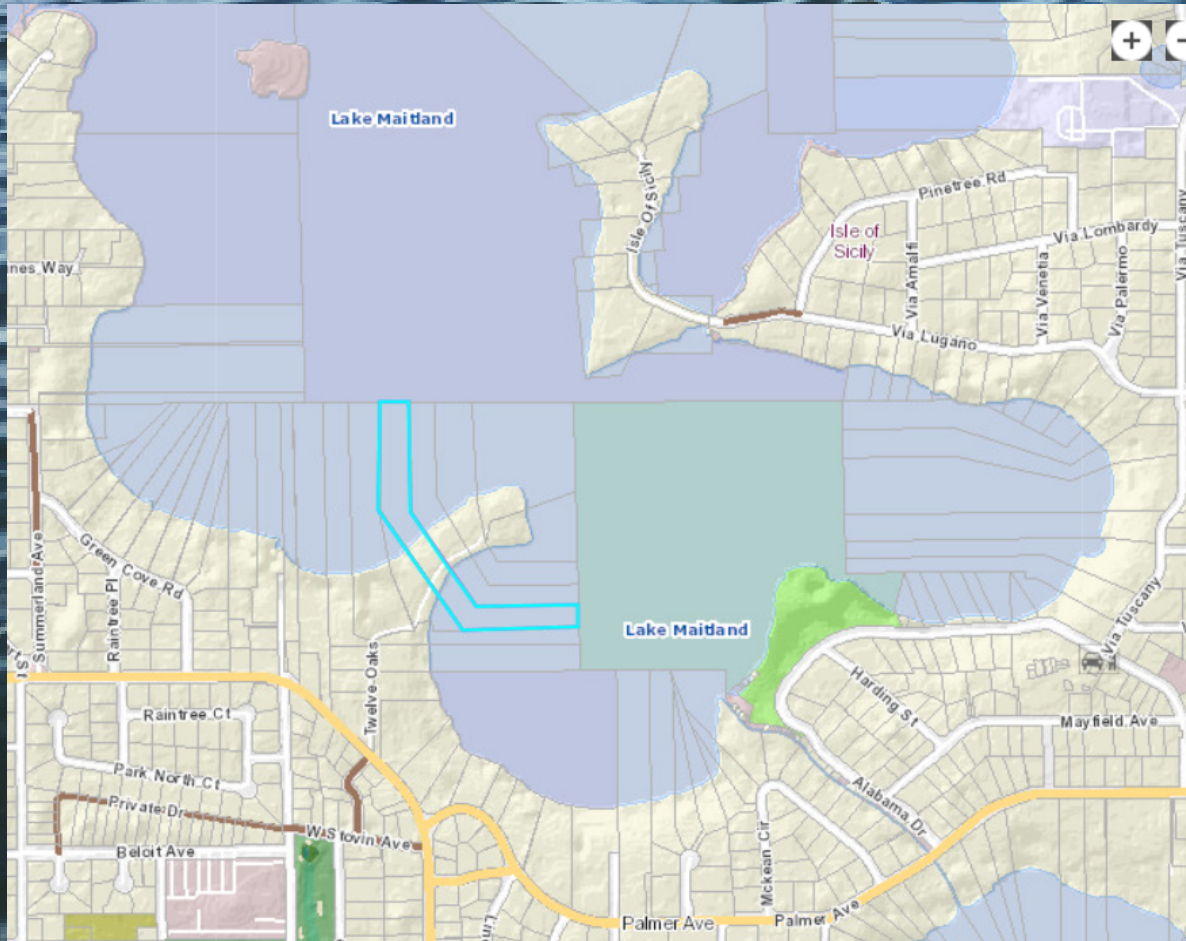
Parameters

Dock Parameter	Proposed	Allowed	Variance Req.?
Total Area (ft ²)	588	600 max	No
Length from OHW (ft)	28'	30'	No
Height of Roof (ft above deck)	11'	11 max	NA
Height of Deck (ft above OHW)	1' Min 2' Max	2 max	No
Enclosures?	44	80 ft ² max (no plumbing/water allowed)	NA
Side Yard Setback(s) (ft)	10'	10' min (5' with Letter of No Objection)	N/A
Meet Vegetation Criteria?	No	50% may be cleared	N/A

Staff Recommendation: **Approval with Revegetation**
Reviewed by: Joey Cordell

Map View

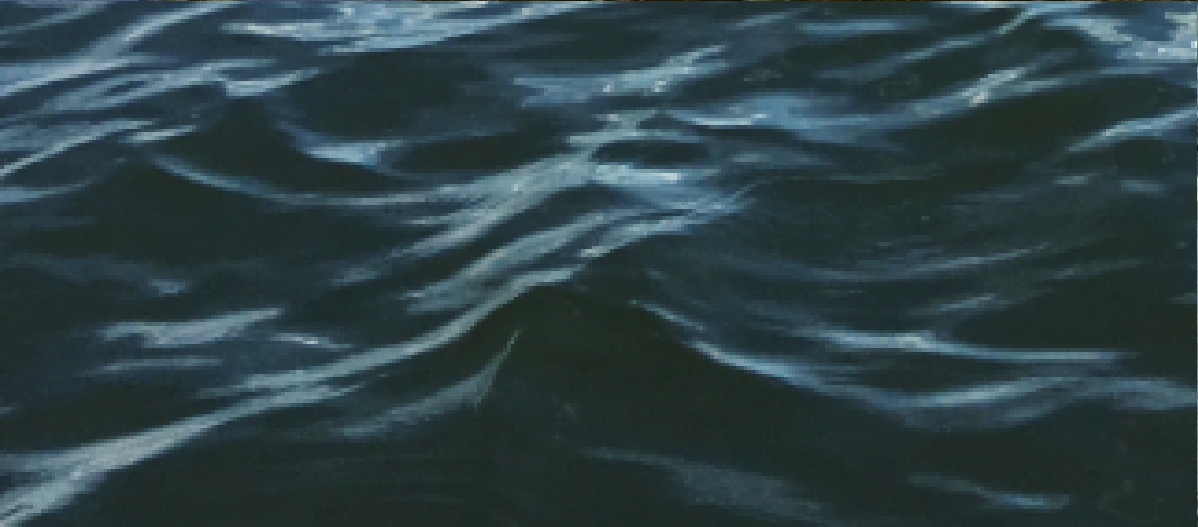
Basemap



Aerial View



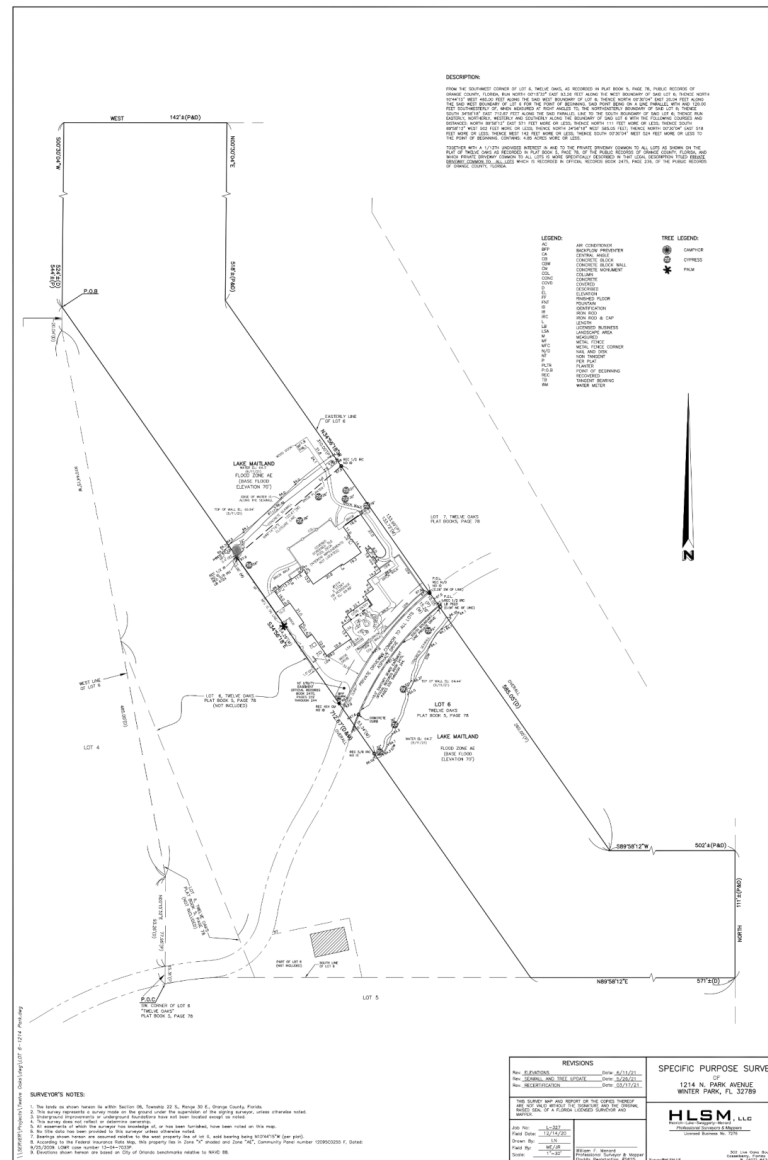
Photos



Photos

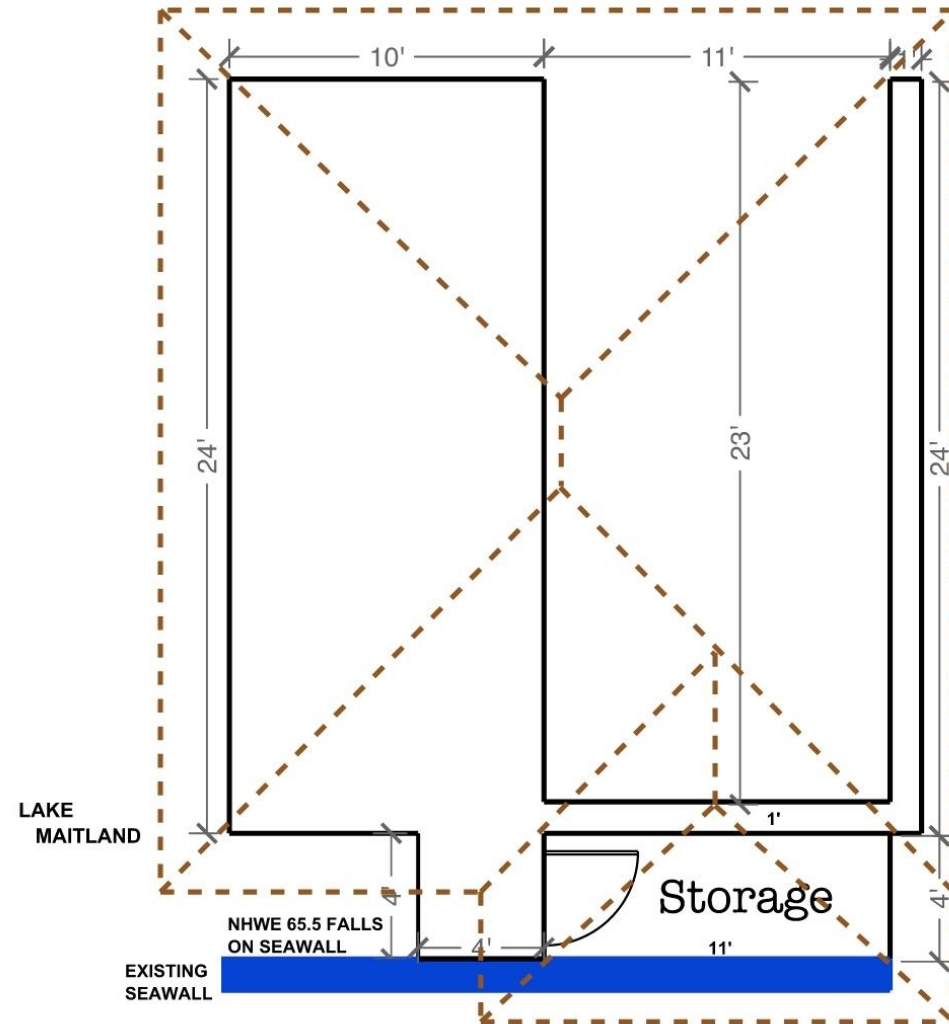


Survey



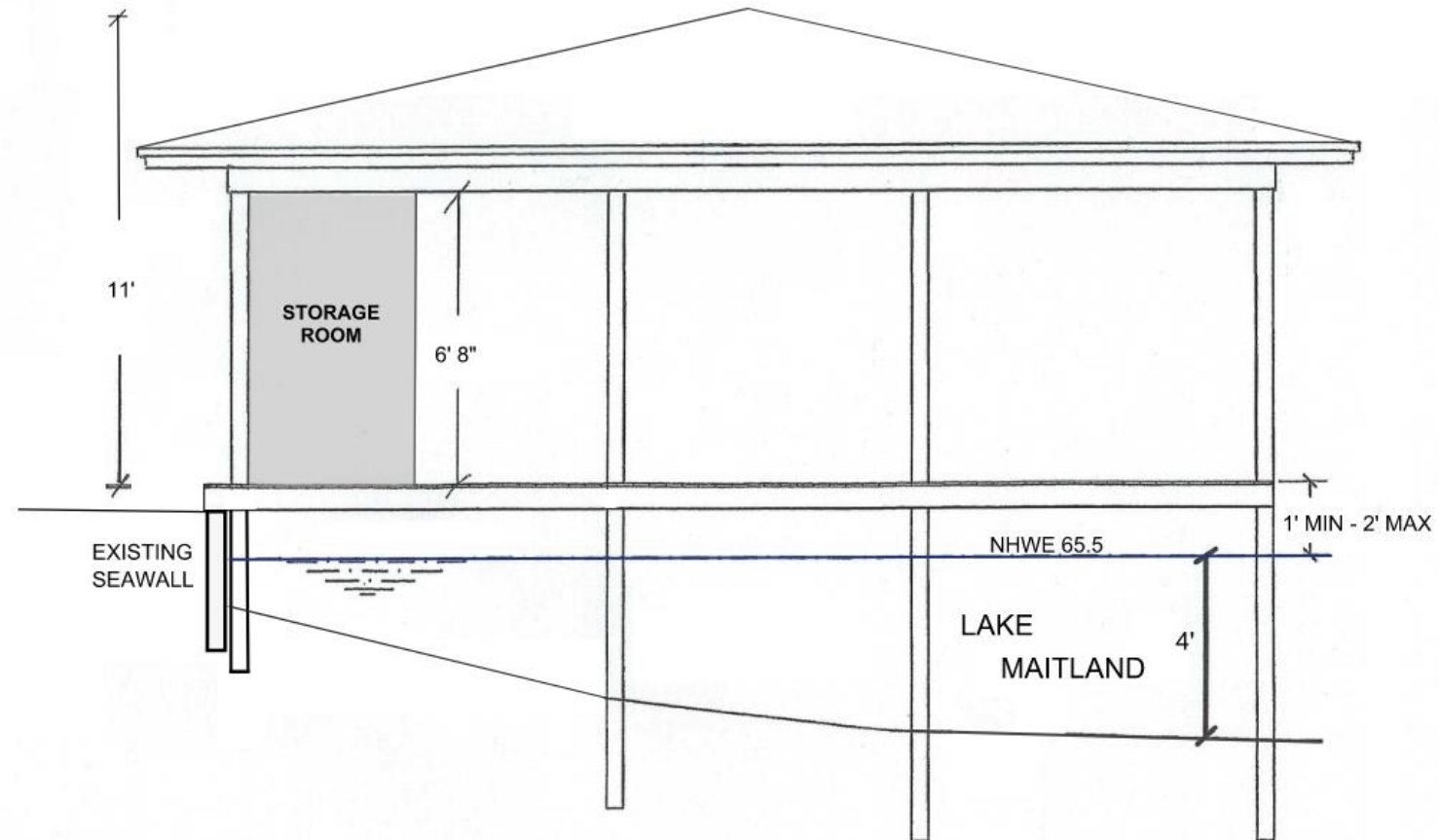
Plans

MORGAN BOATHOUSE PLAN VIEW
1214 NORTH PARK AVENUE
WINTER PARK, FL 32789

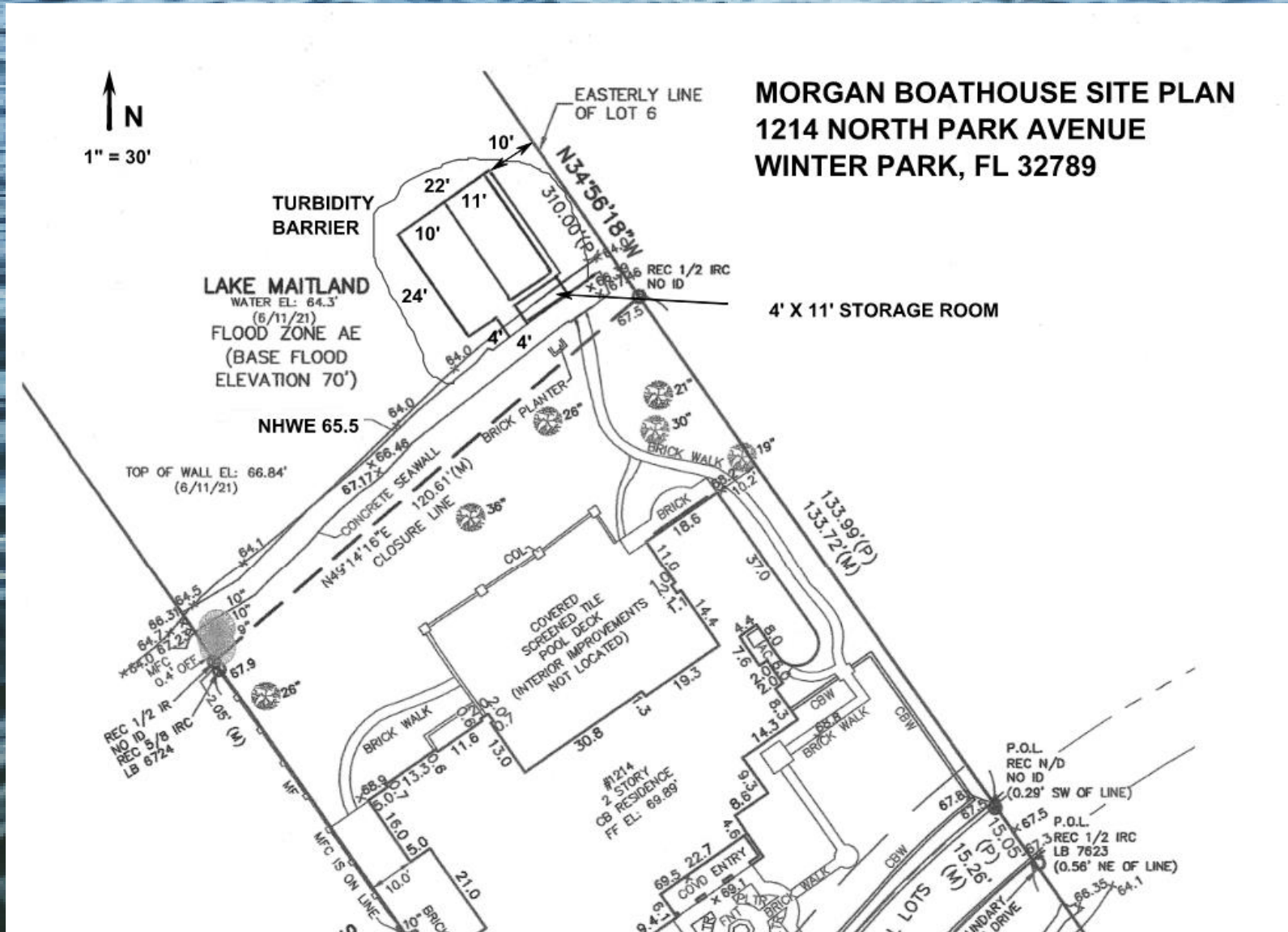


Plans

MORGAN BOATHOUSE ELEVATION
1214 NORTH PARK AVENUE
WINTER PARK, FL 32789



Plans





Lakes & Waterways Board

agenda item

item type

Staff Updates

meeting date

February 13, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Winter Park Police Department

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

None



Lakes & Waterways Board

agenda item

item type

Staff Updates

meeting date

February 13, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Lakes Management

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

1. Lakes Update 2024.02
2. Smaller Lakes Water Quality
3. Violations . Plant of the Month



Lakes and Waterways Advisory Board

February 2024

Lakes Updates

- Natural Resource Conservation Services (NRCS) – Update
 - Howell Creek Stabilization North & South Projects
 - Outfalls
 - 9th Grade Pond
 - Lake Bell Weir
- Treatments
- Water Quality
- Telemetry- 2 new lakes added: Berry & Spier
- Violation shoreline presentation
- Aquatic Plant of the Month



NRCS



NRCS



NRCS



NRCS



NRCS



NRCS

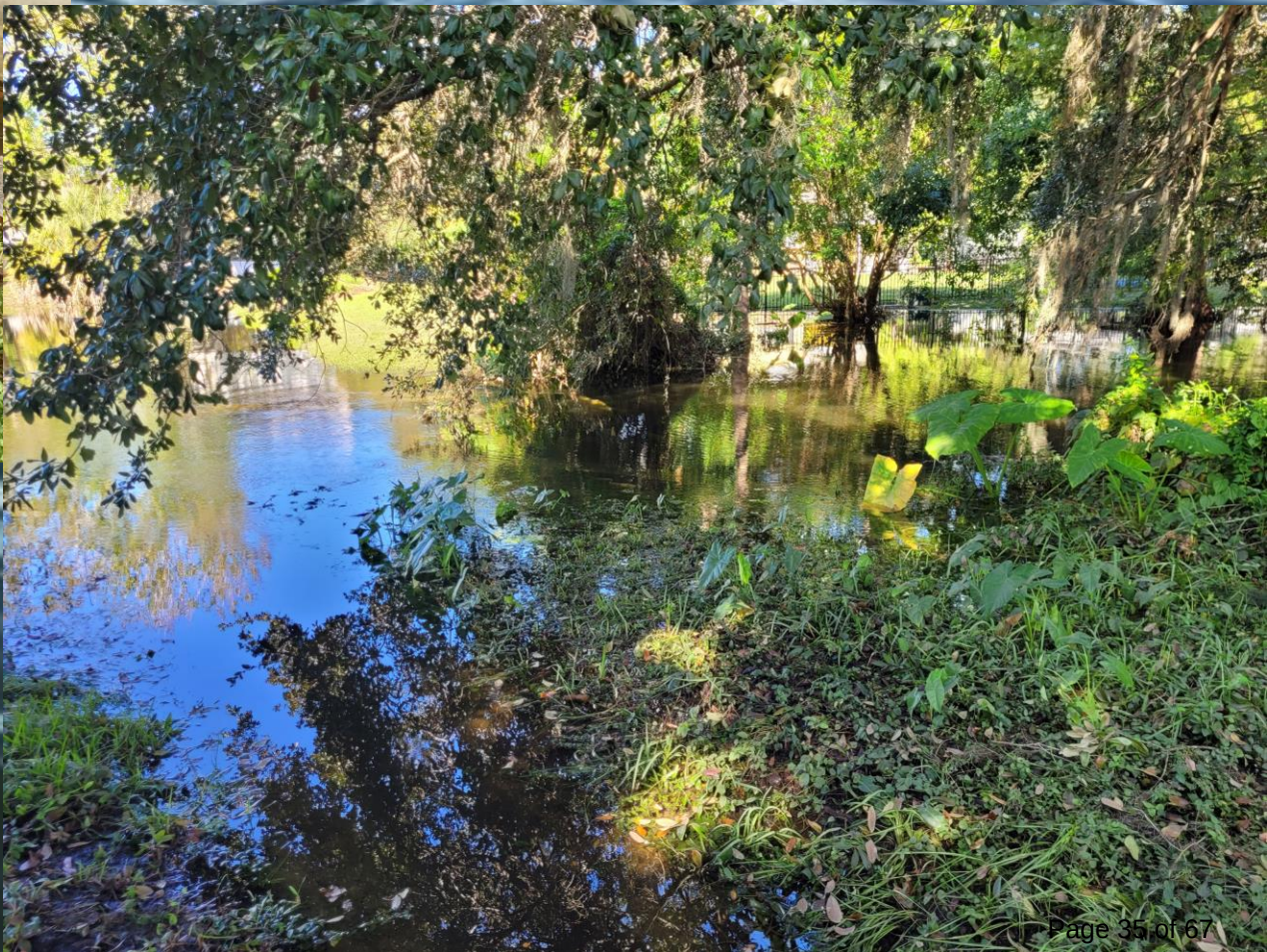
<https://cityofwinterpark.org/government/projects/howell-creek-stabilization-project/>



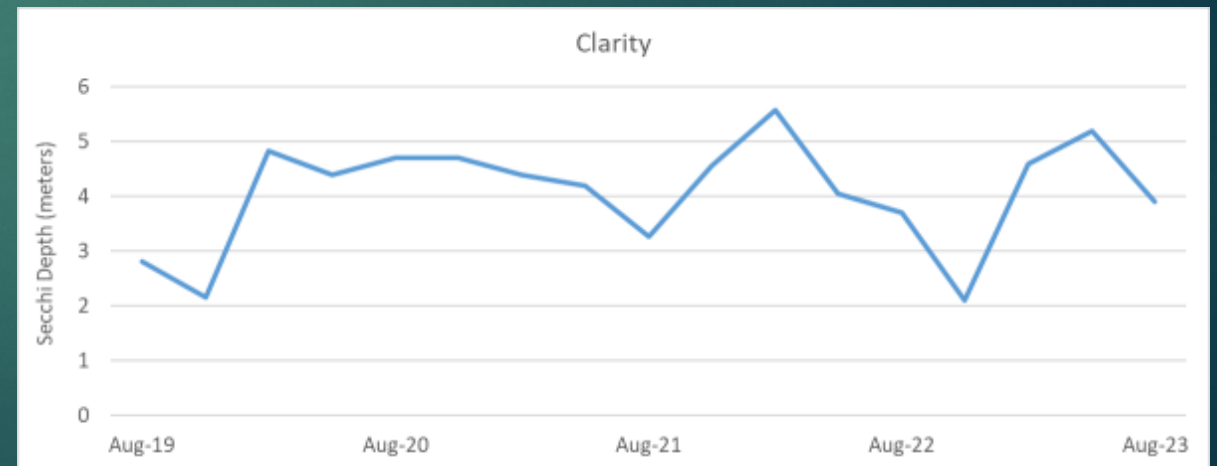
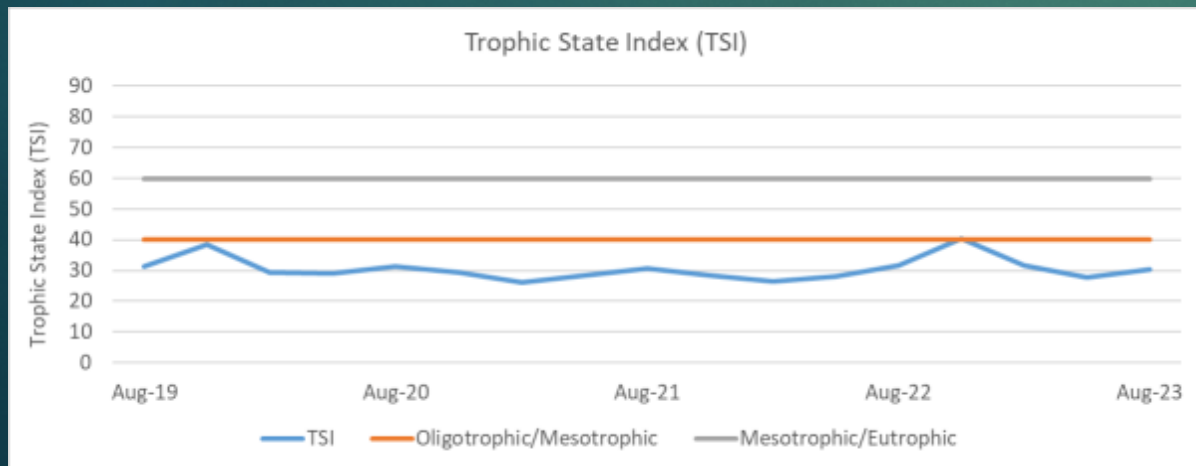
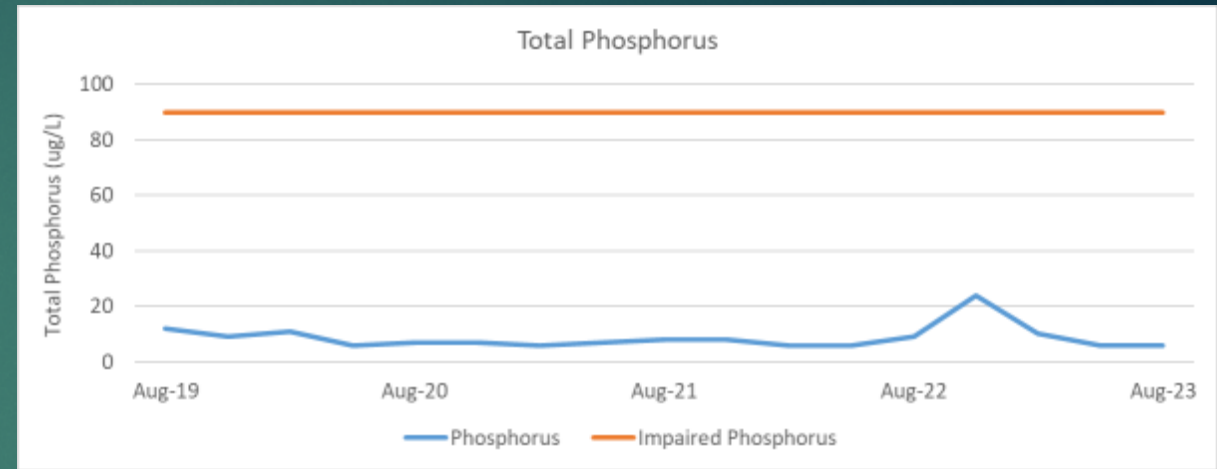
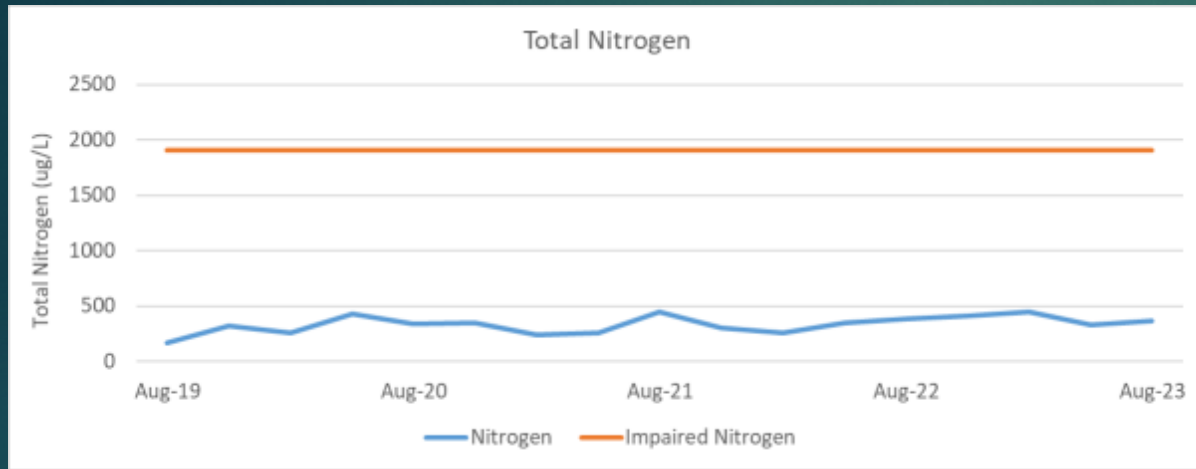
NRCS



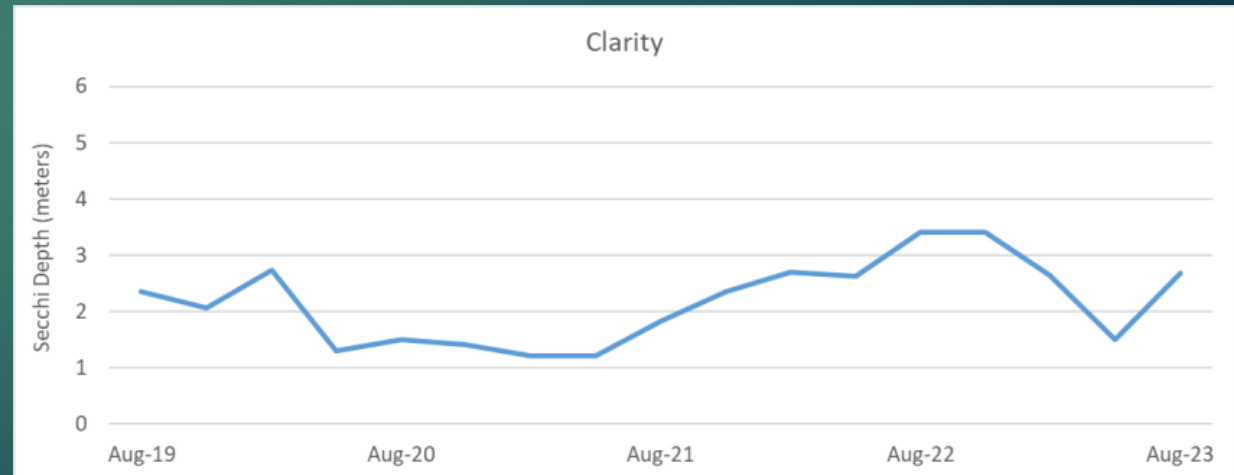
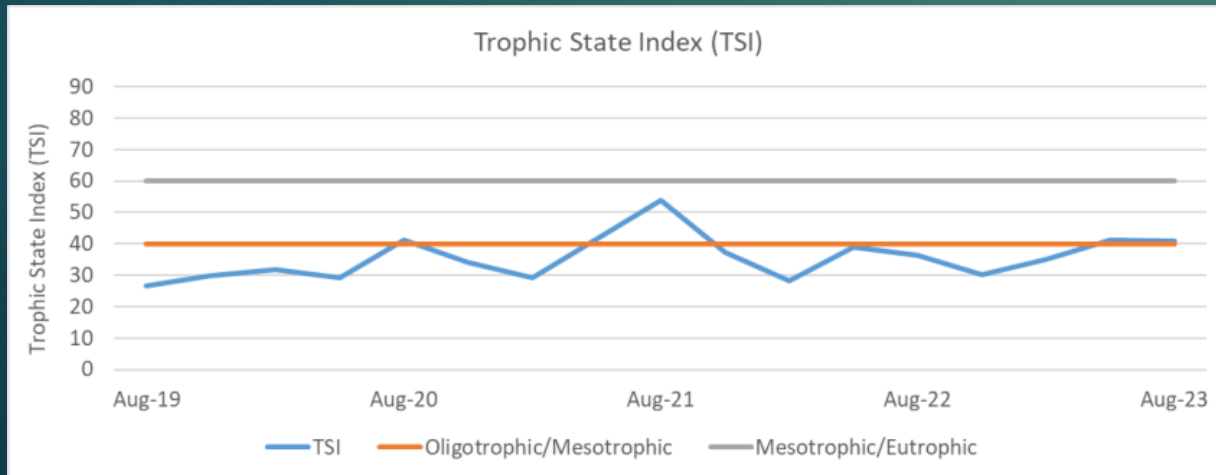
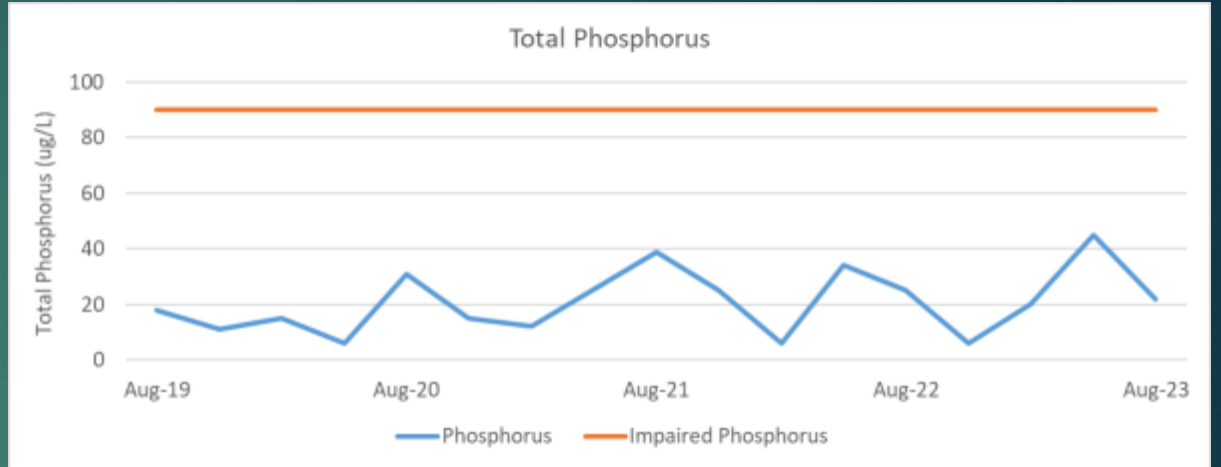
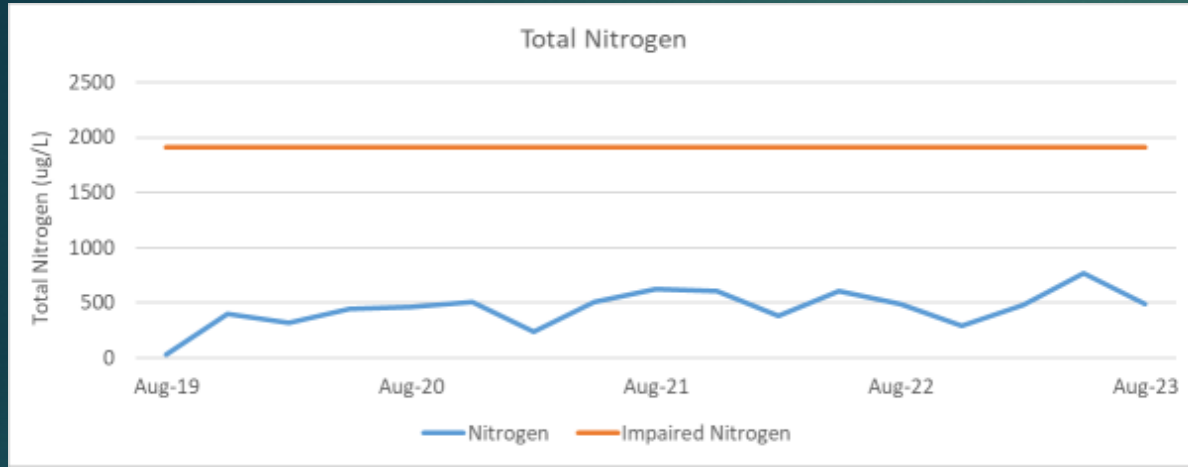
NRCS



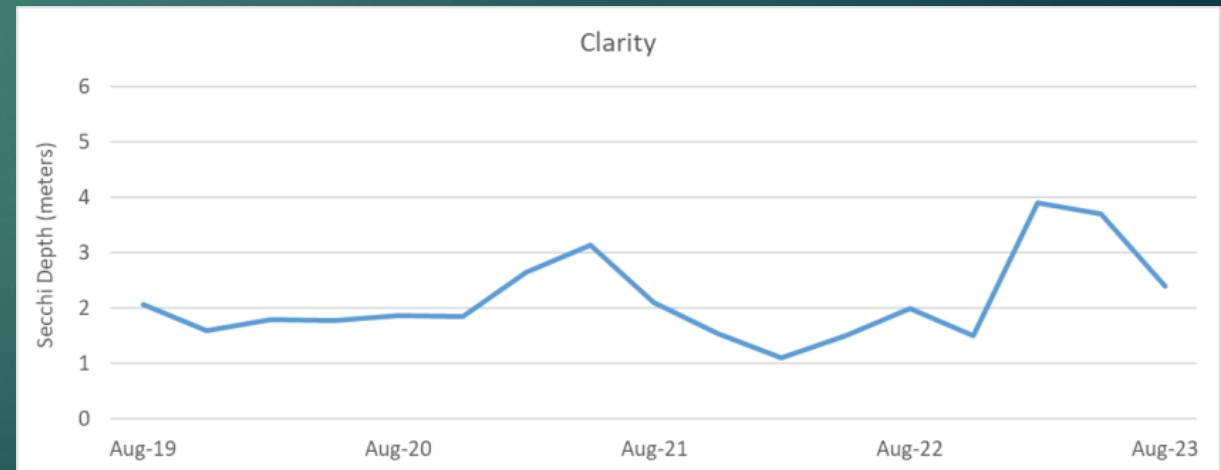
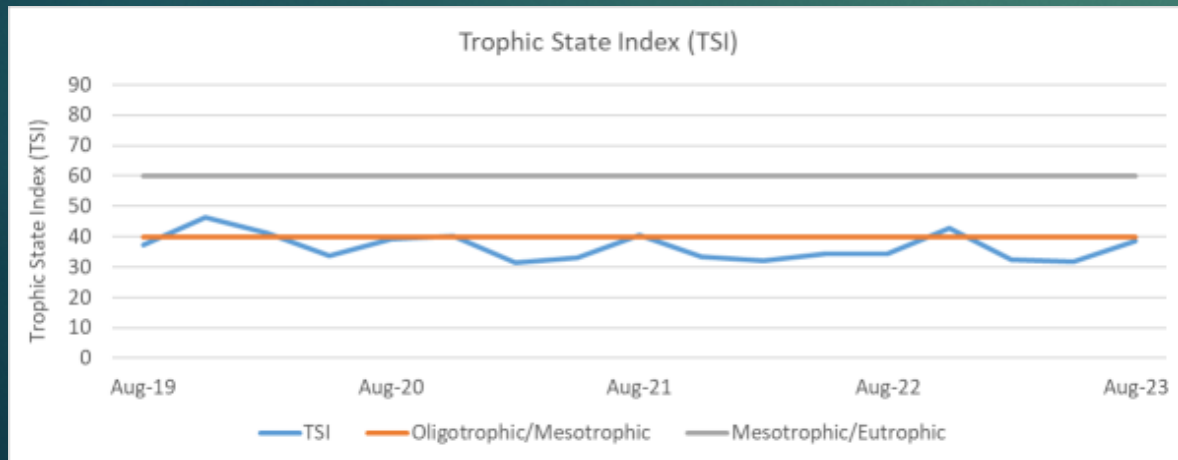
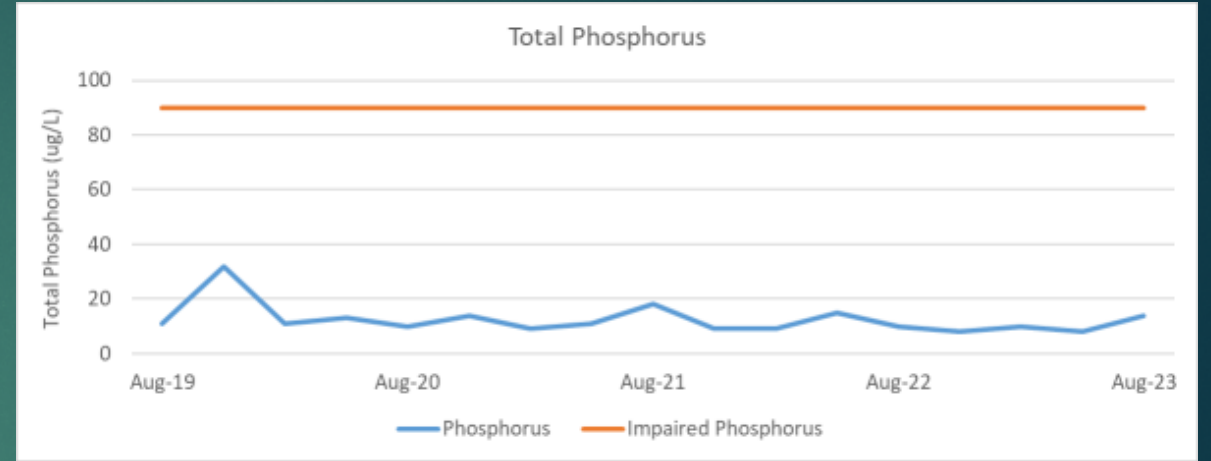
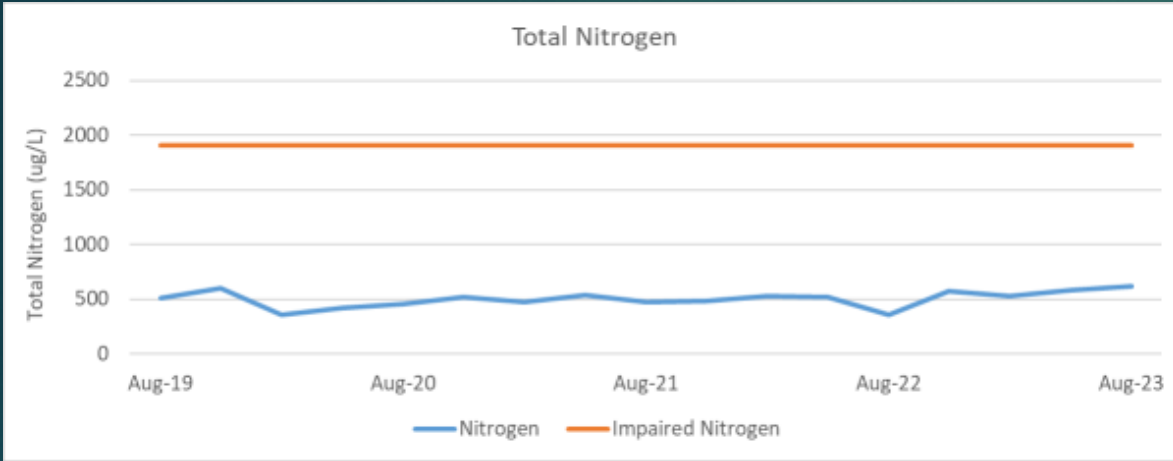
Lake Knowles



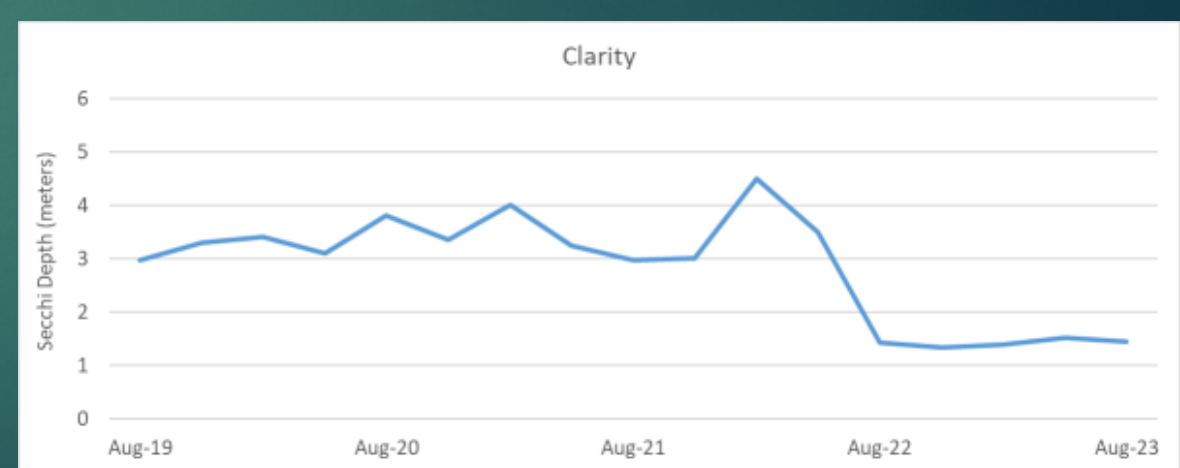
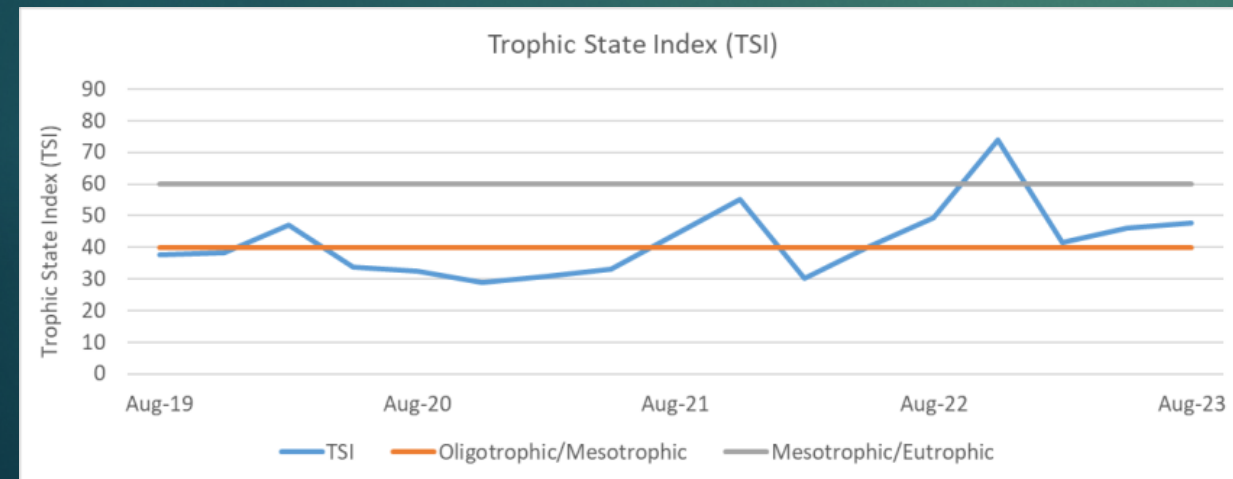
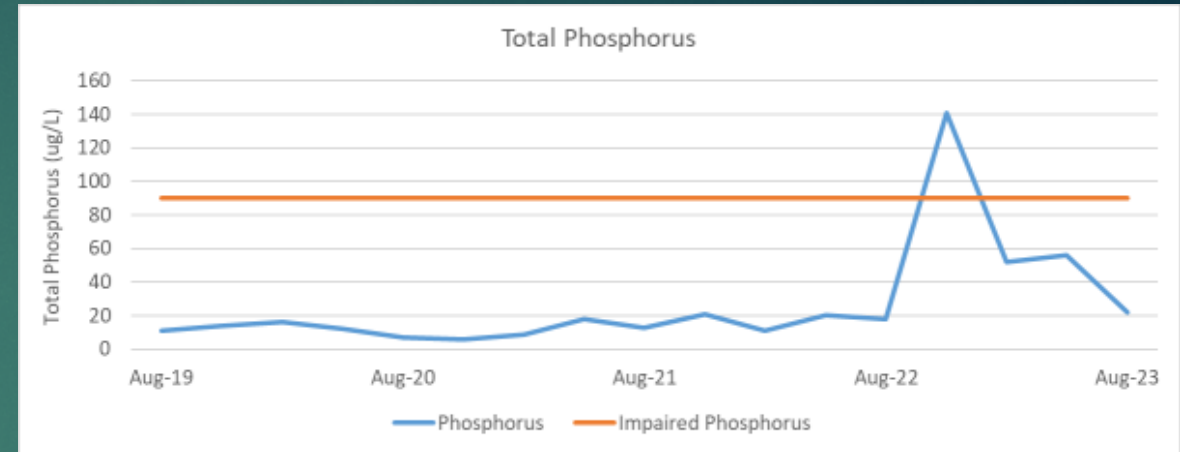
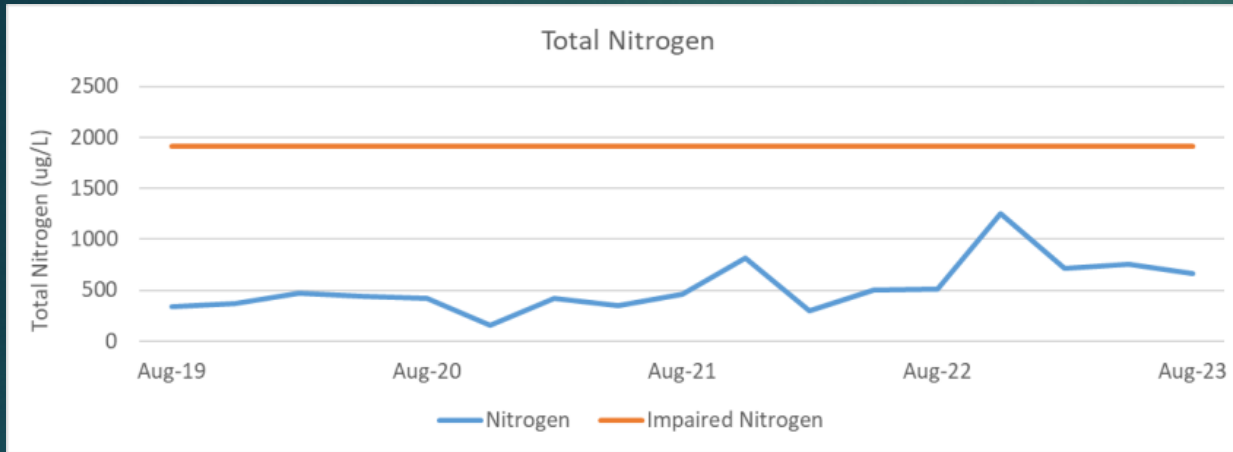
Lake Wilbar



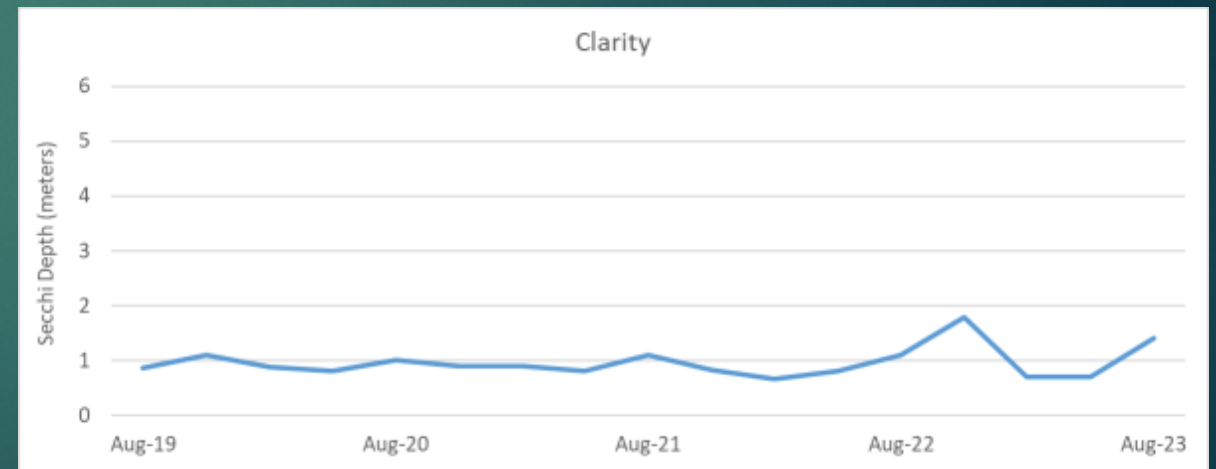
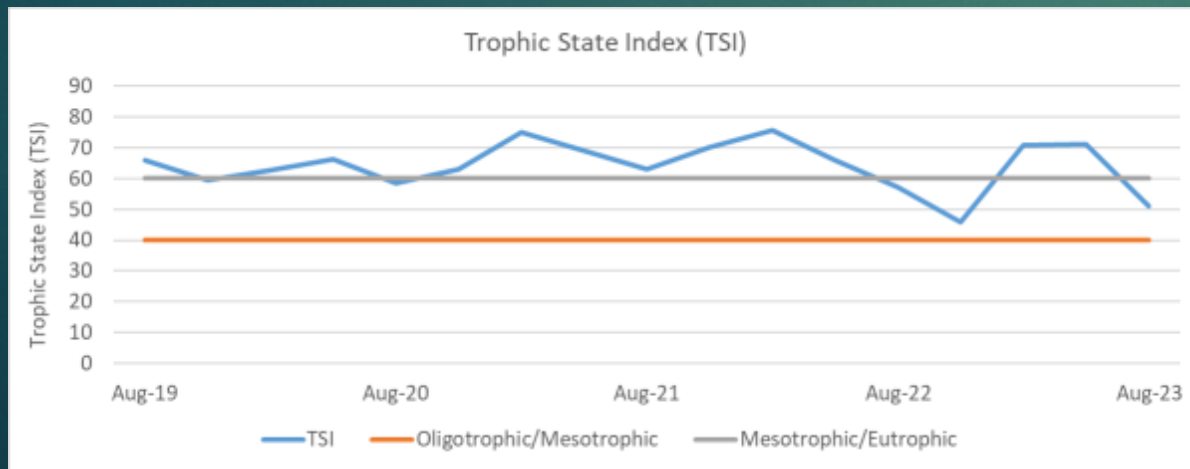
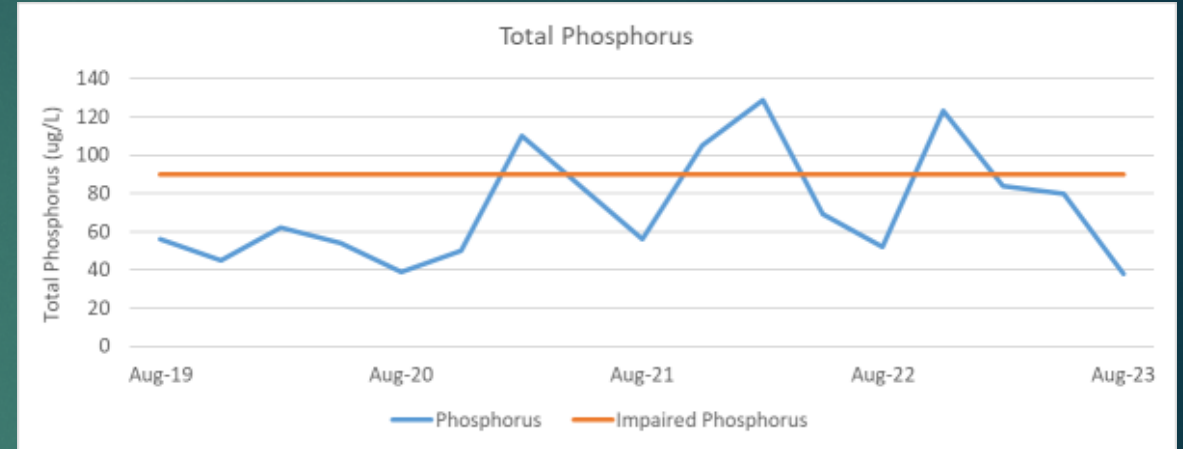
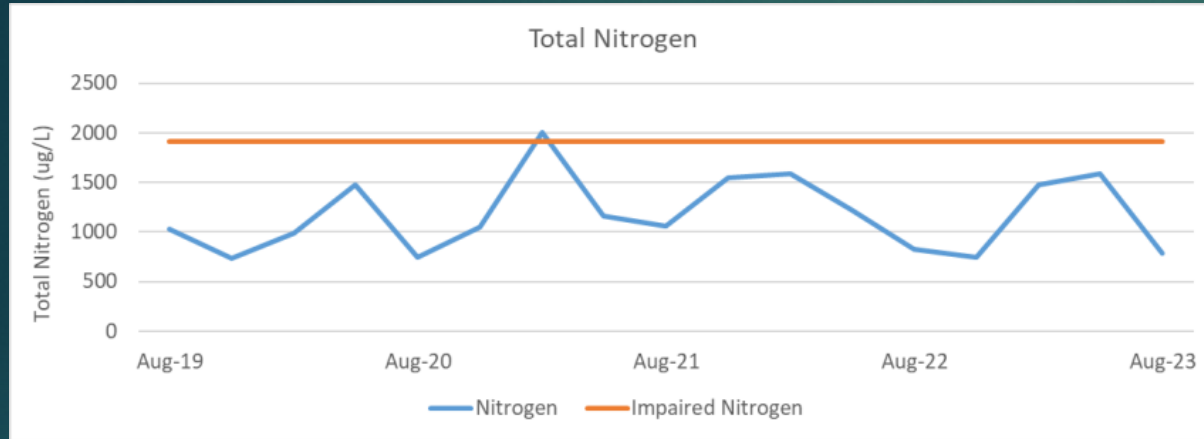
Lake Bell



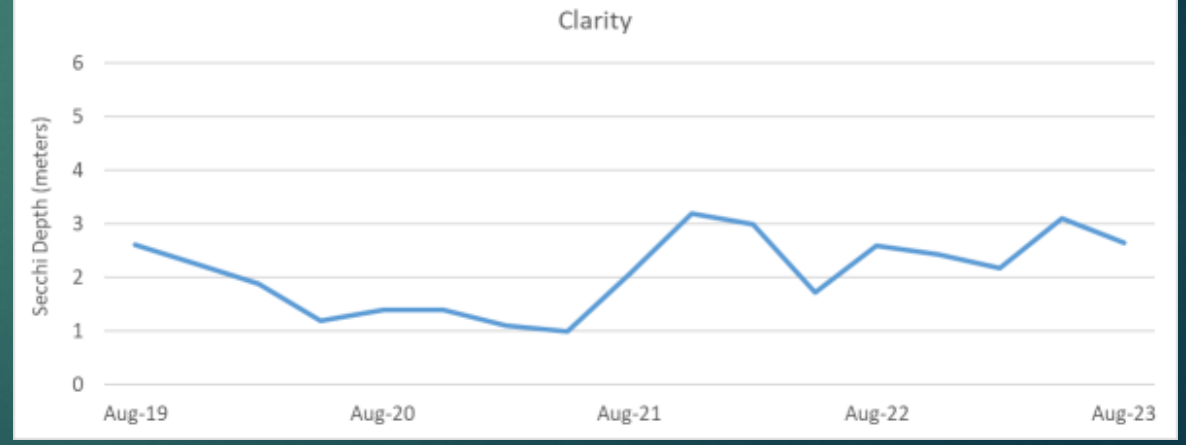
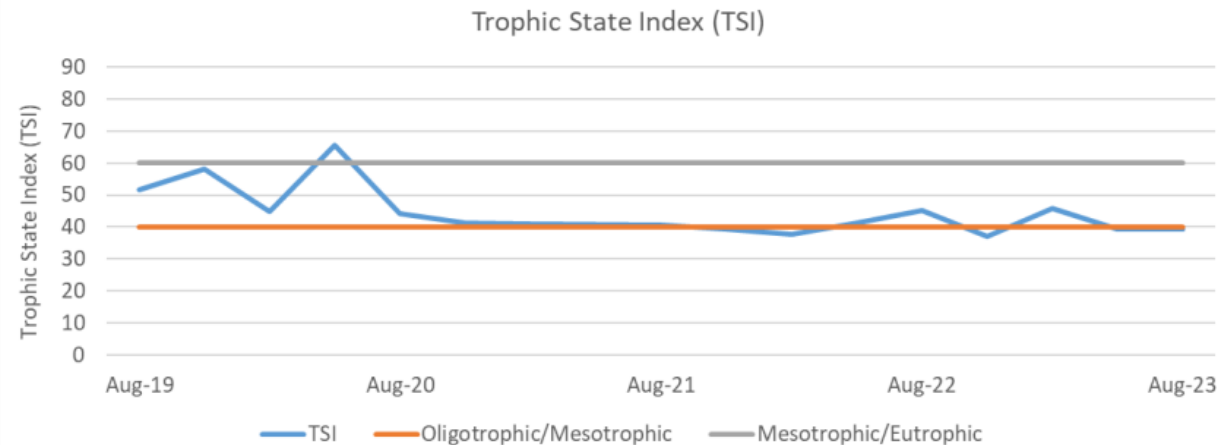
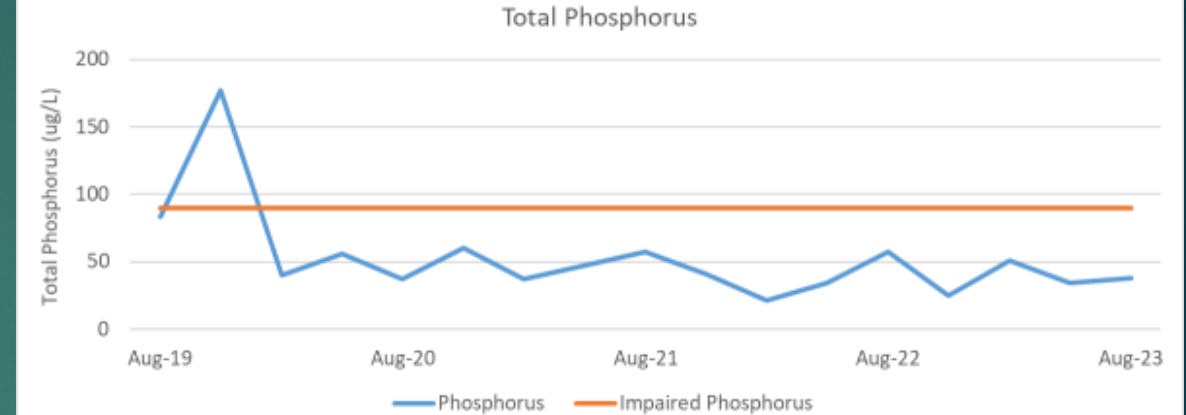
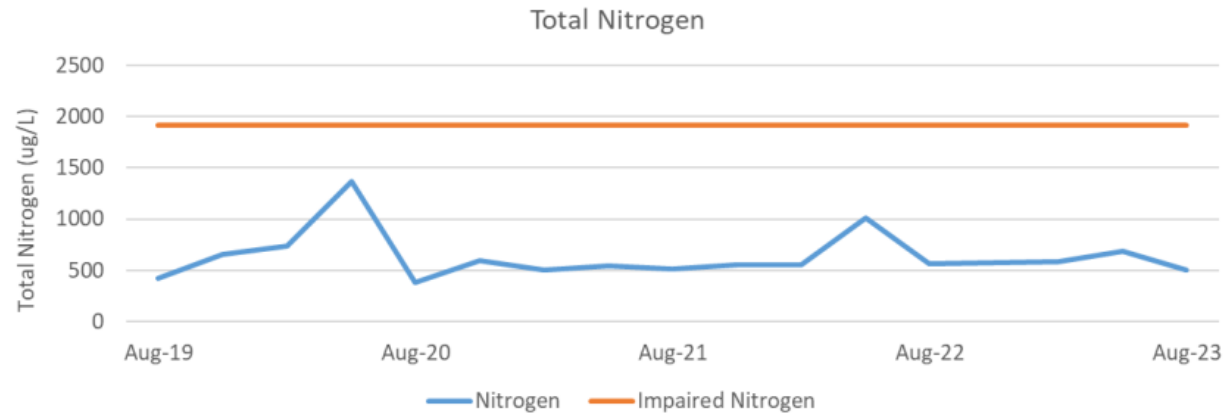
Lake Chelton



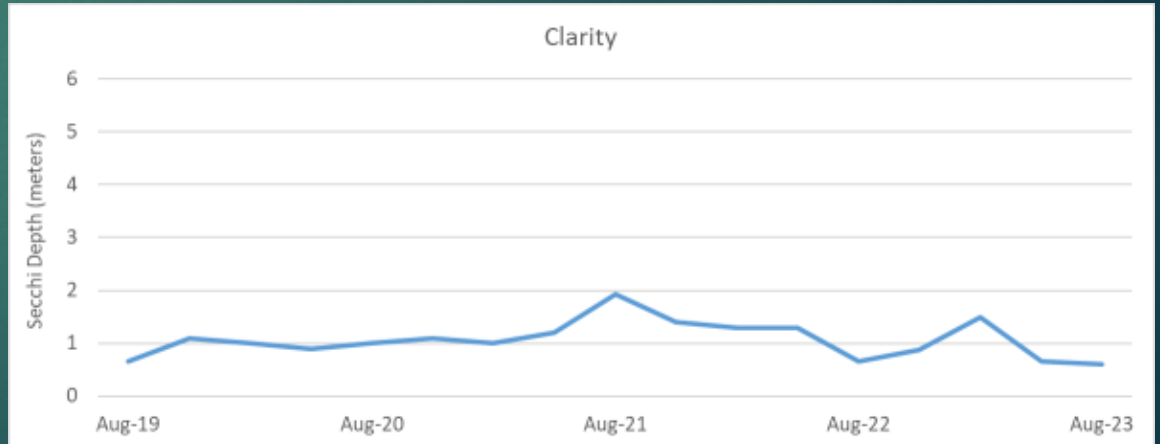
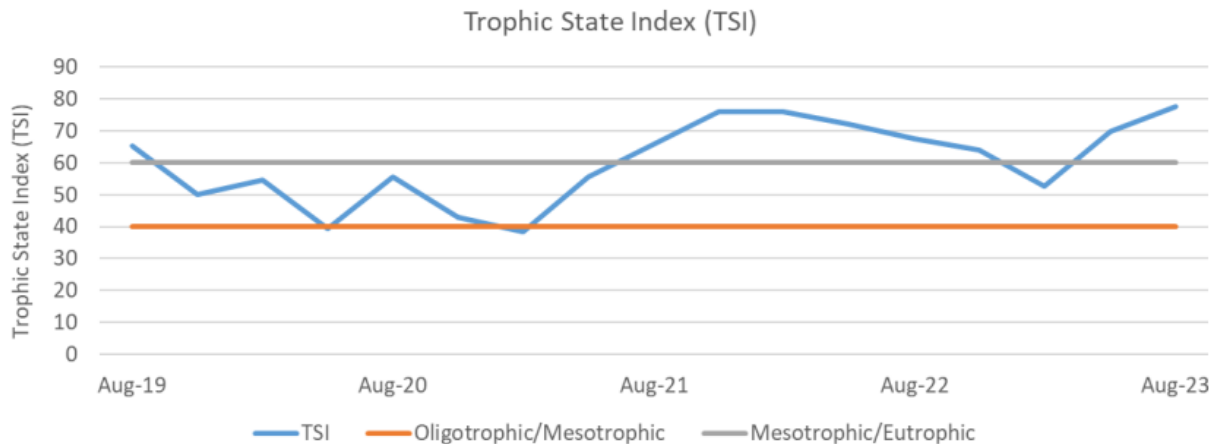
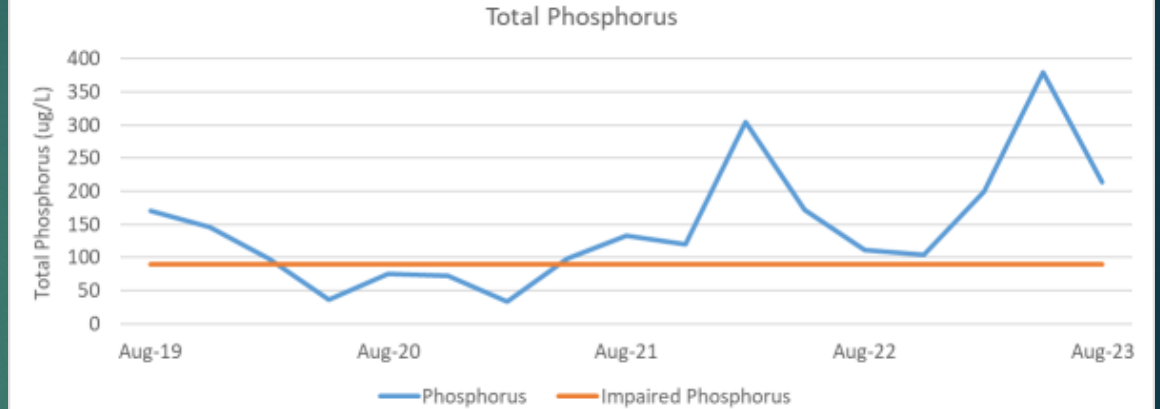
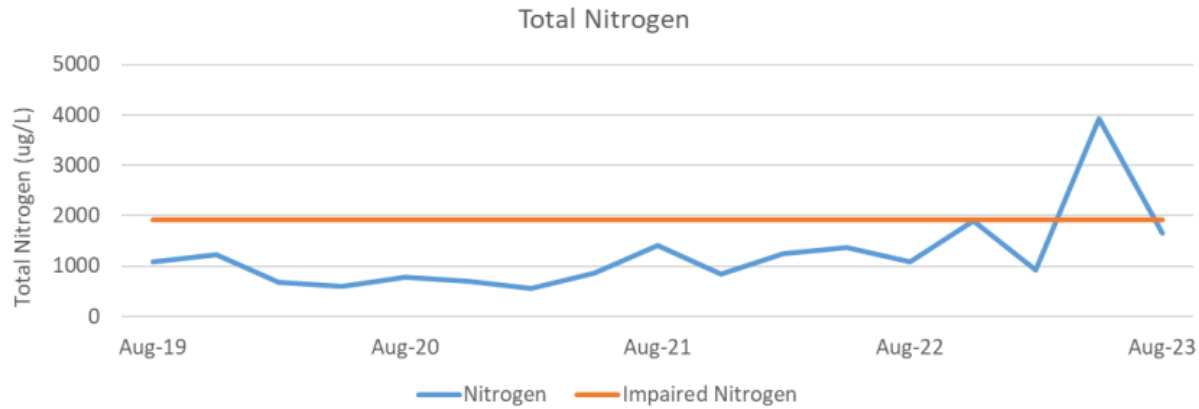
Lake Forest



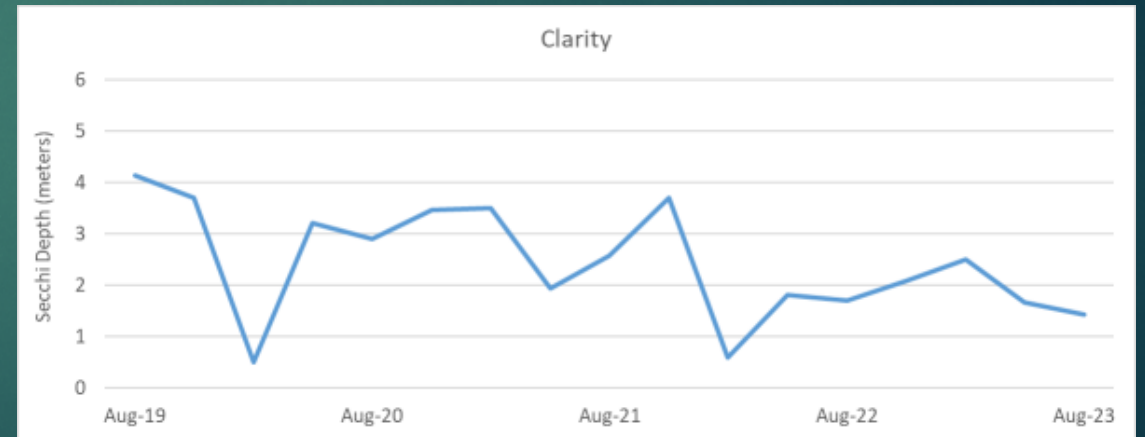
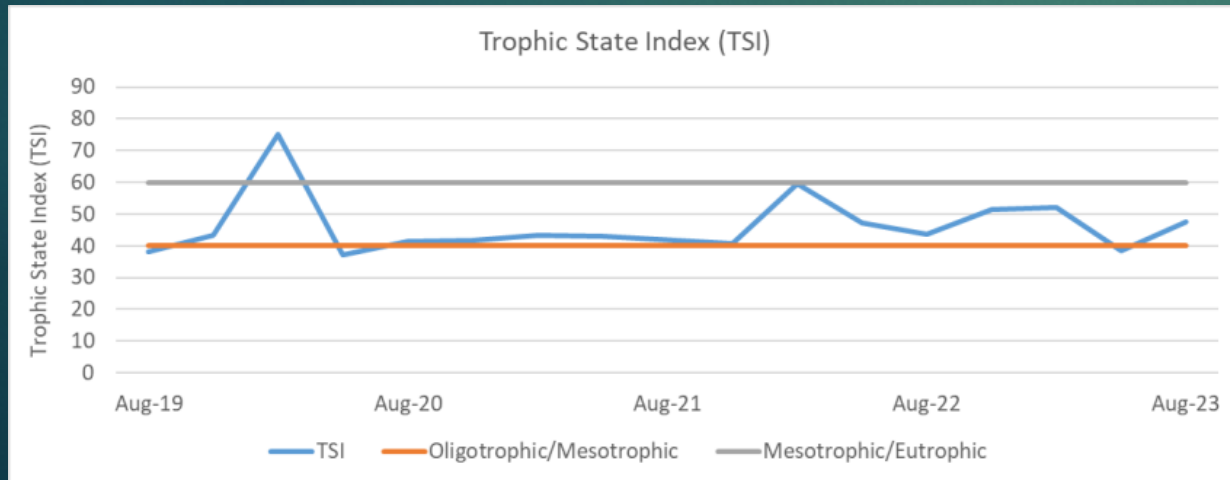
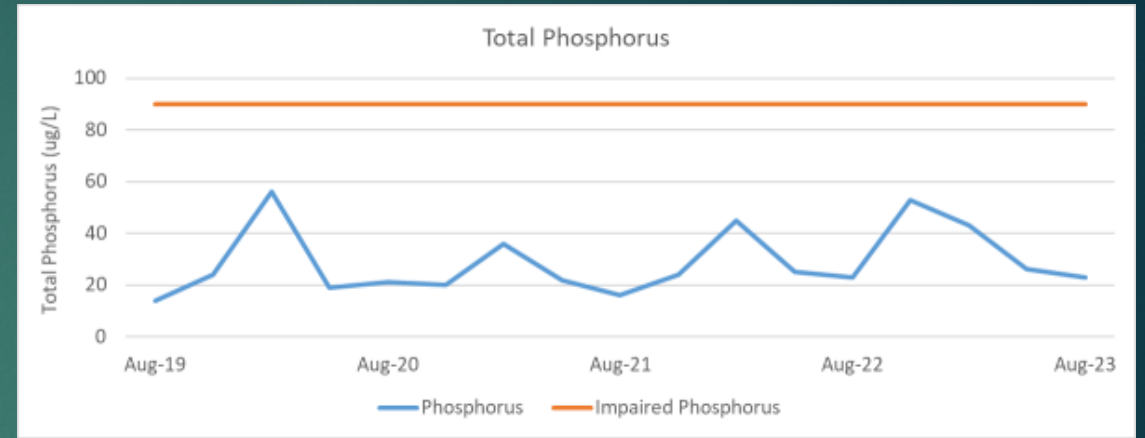
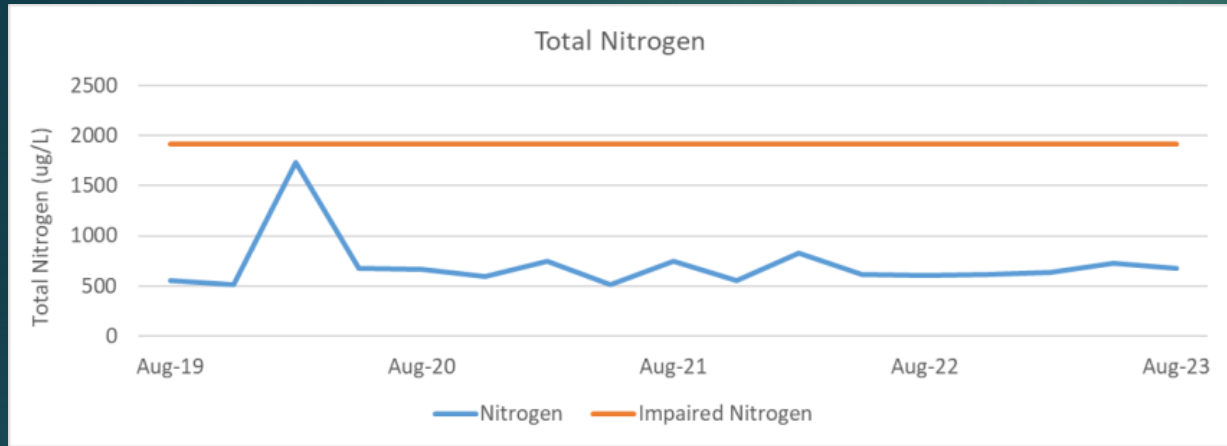
Lake Grace



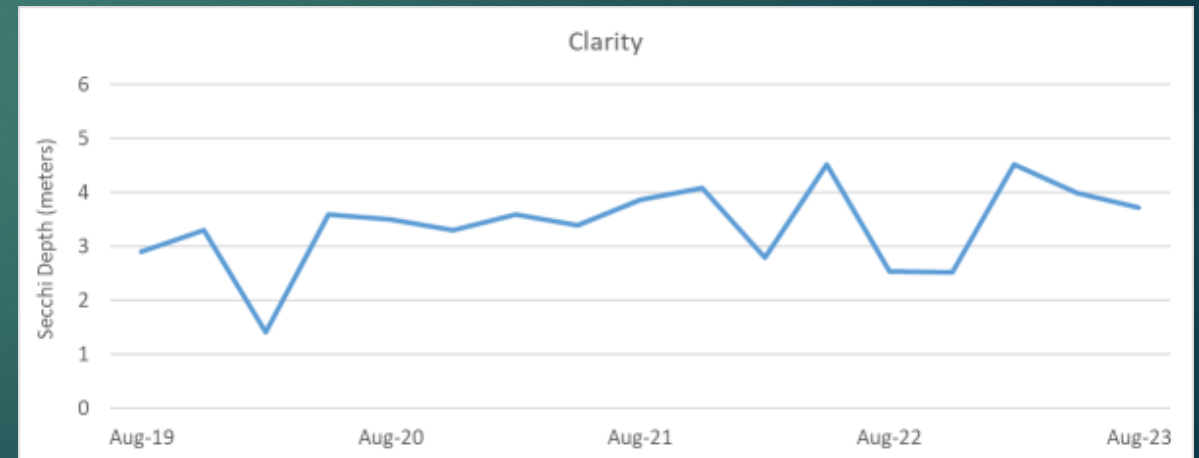
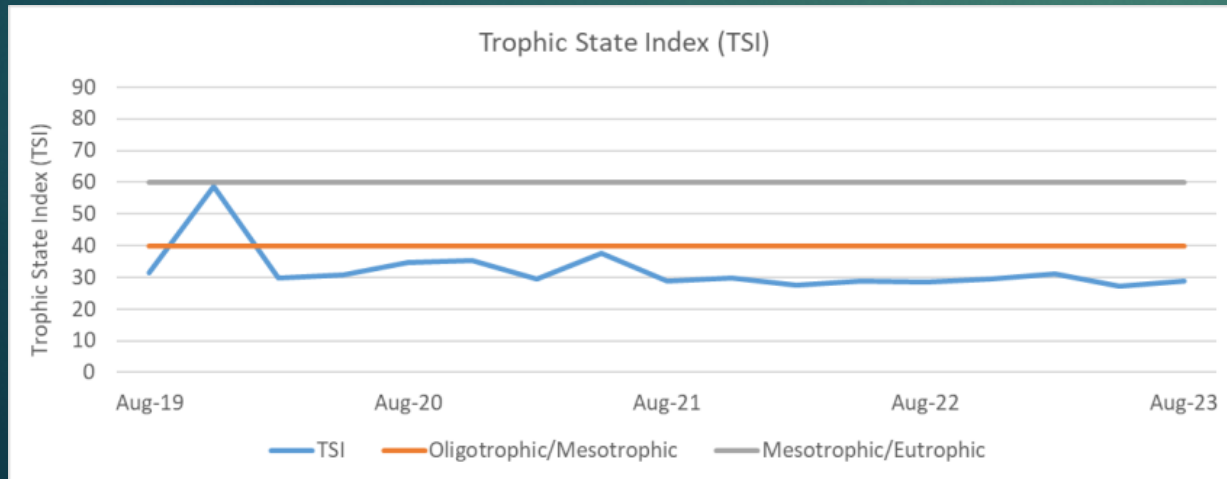
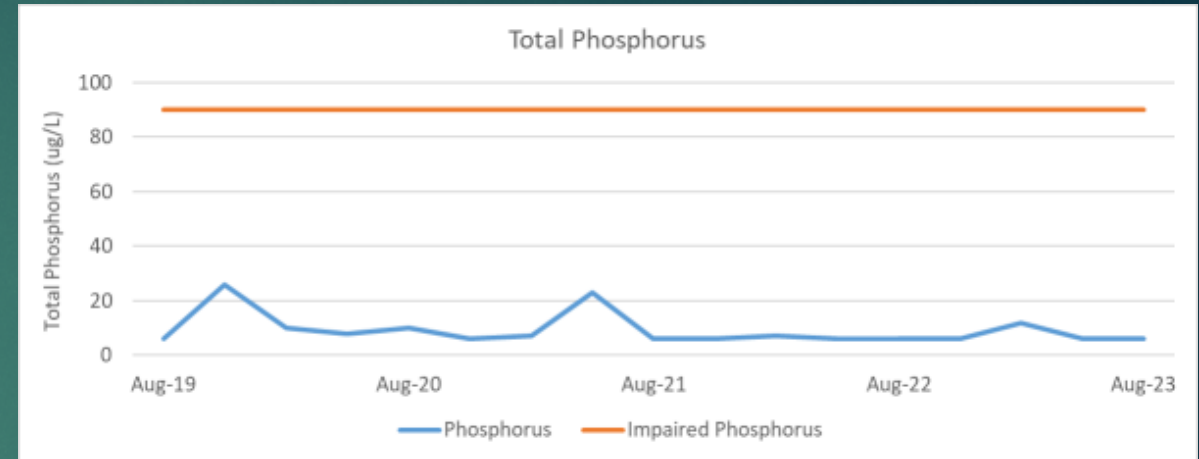
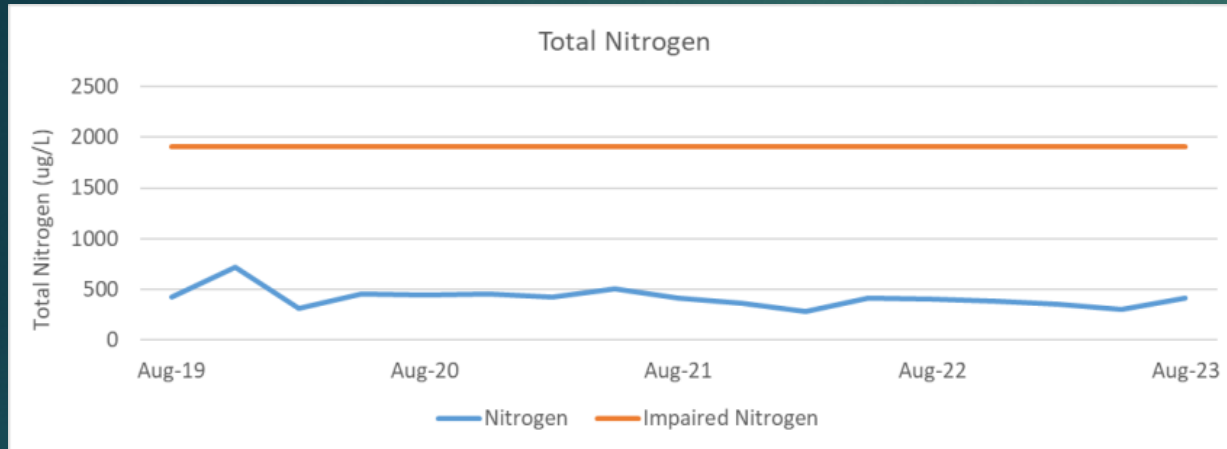
Lake Midget



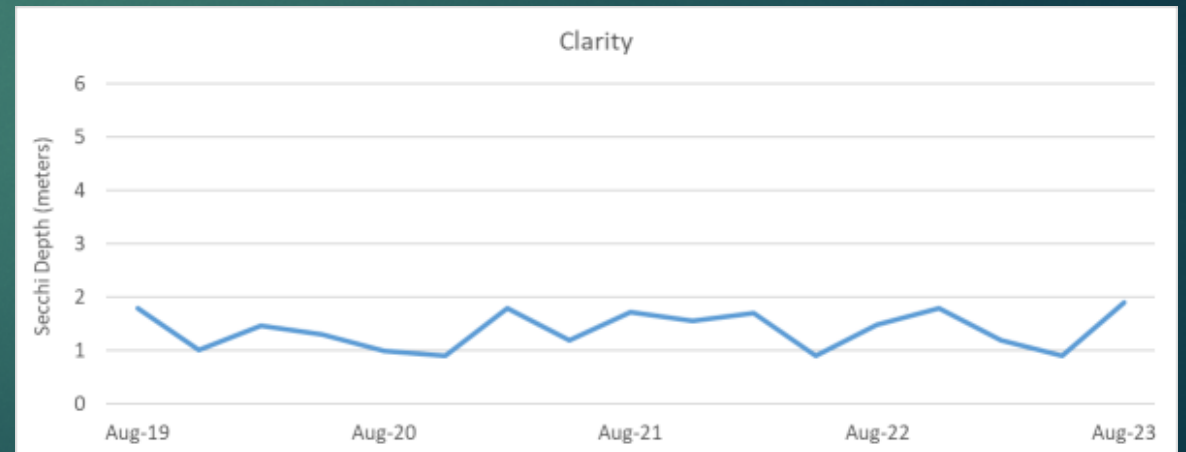
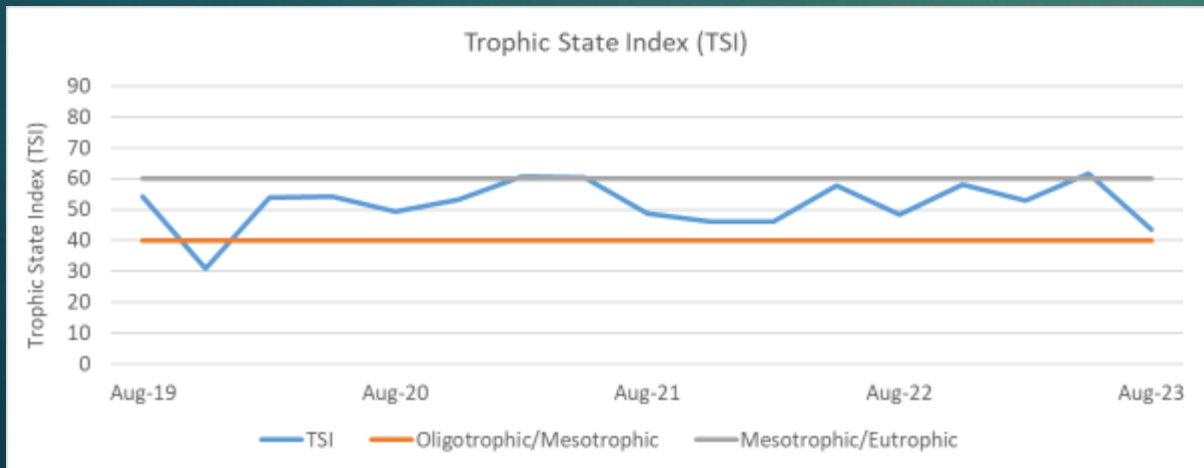
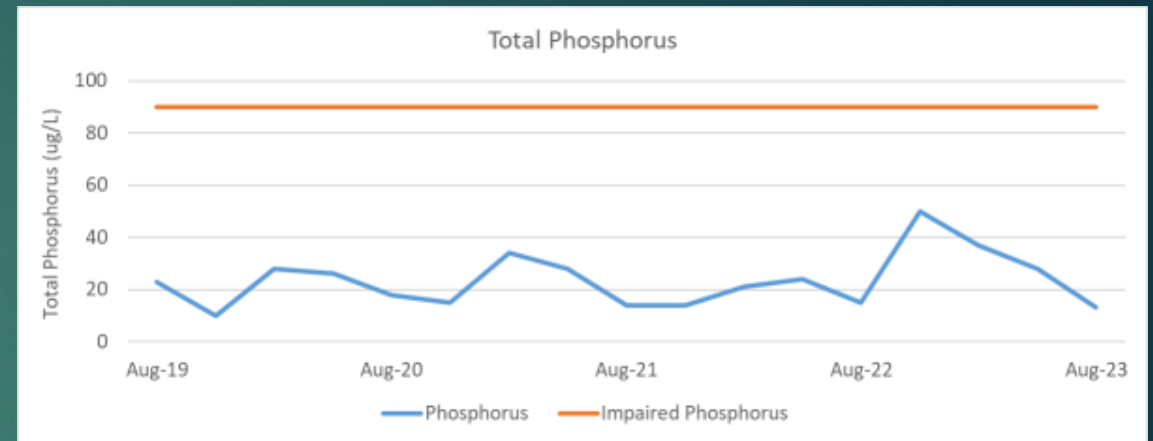
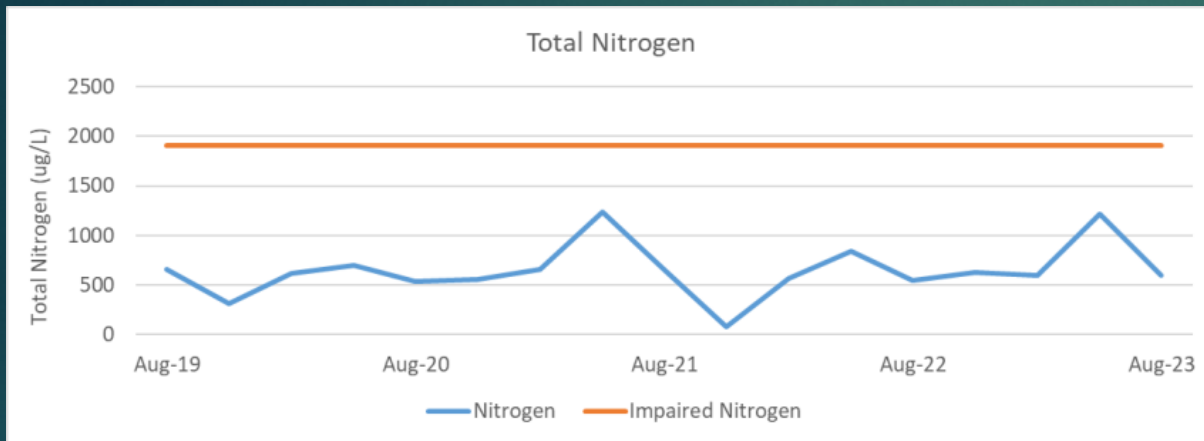
Lake Rose



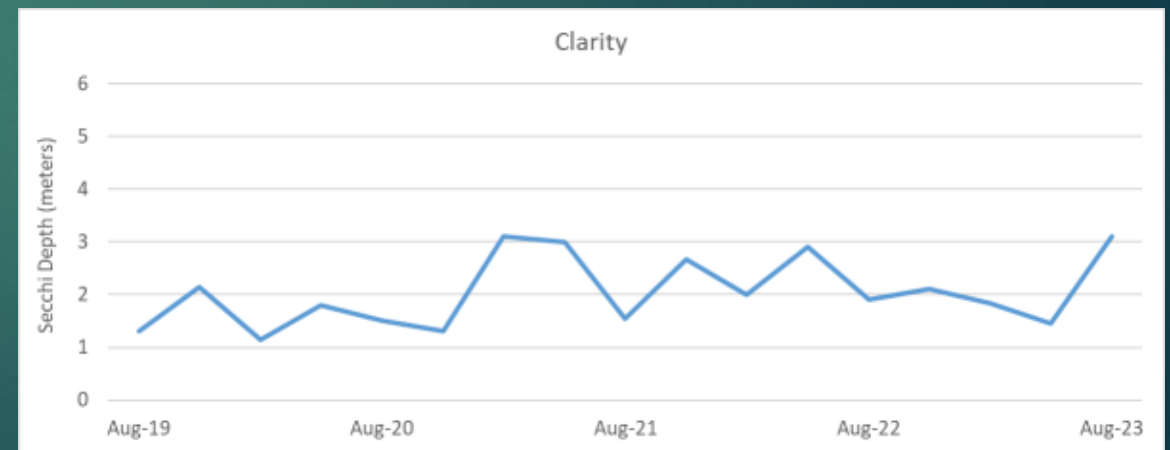
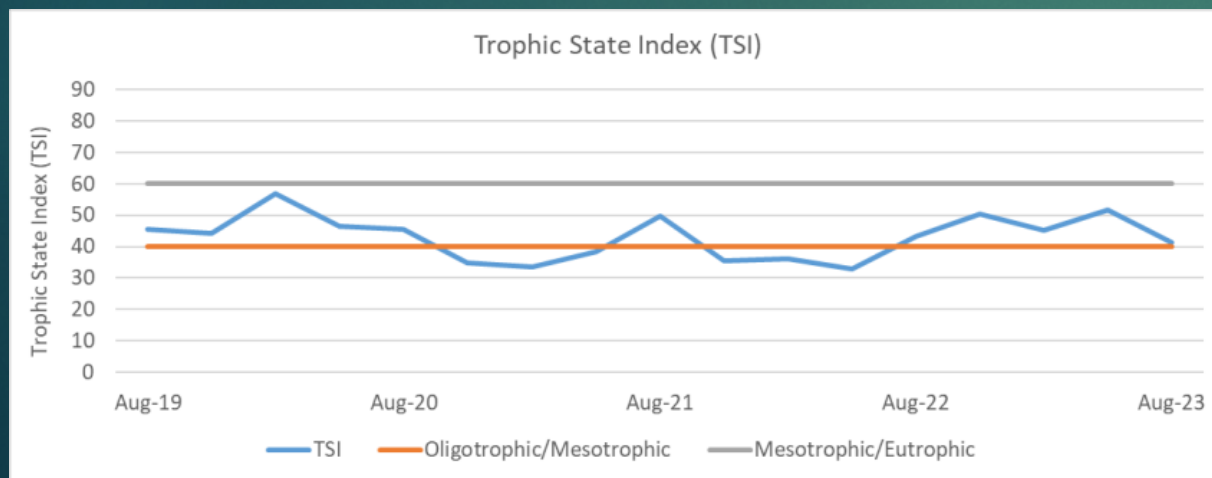
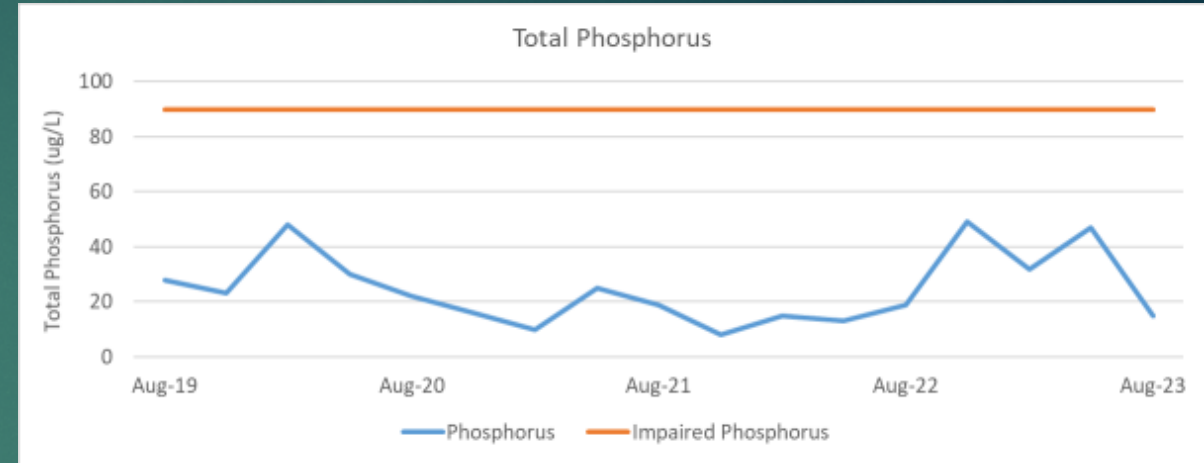
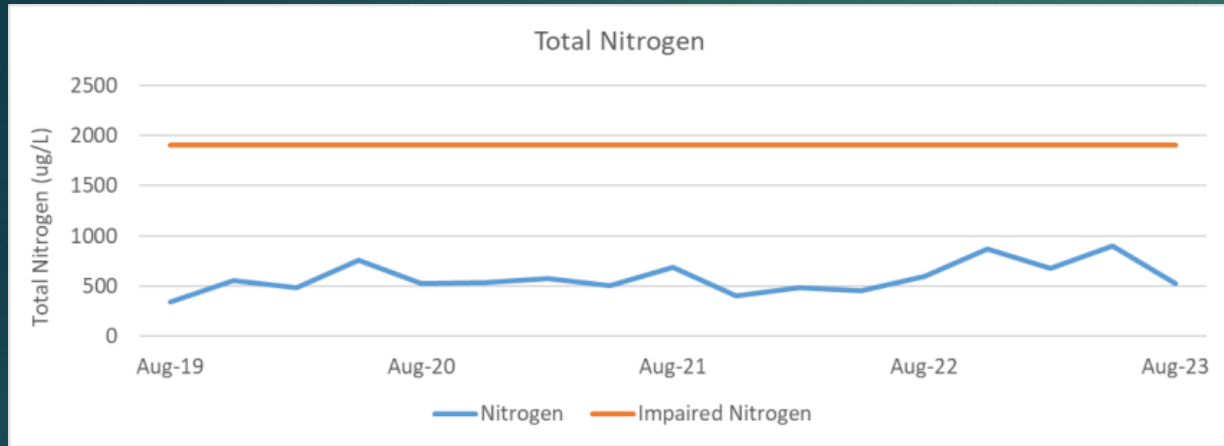
Lake Spier



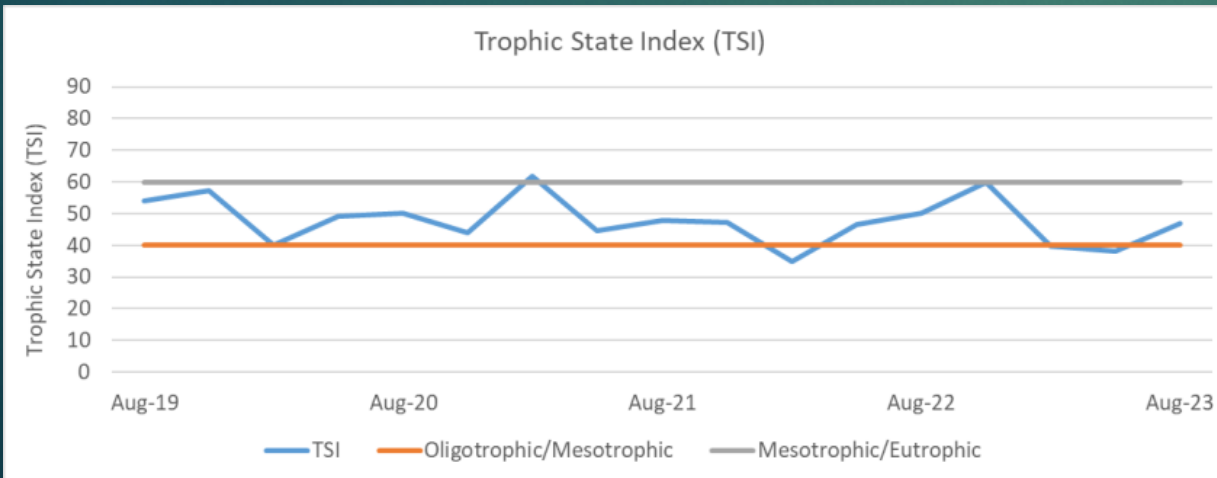
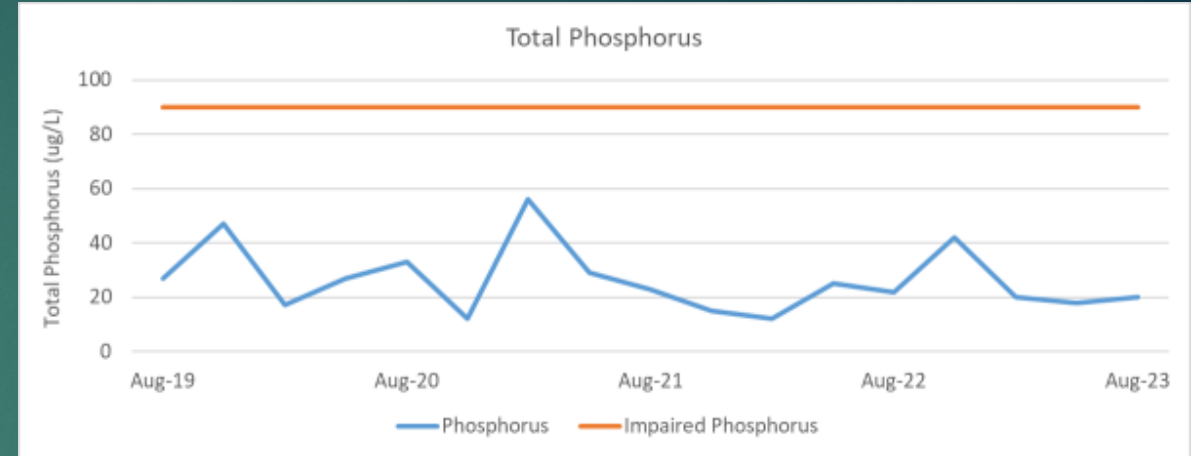
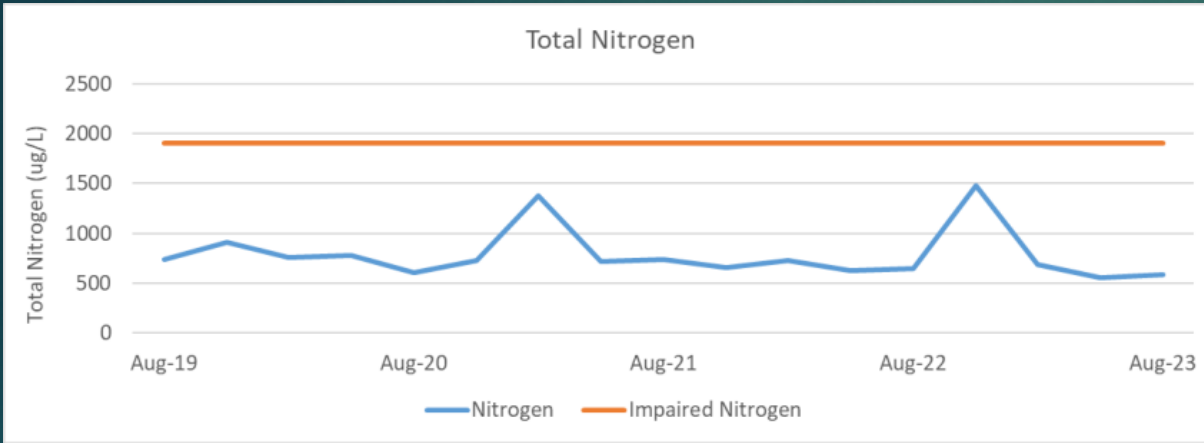
Lake Sylvan



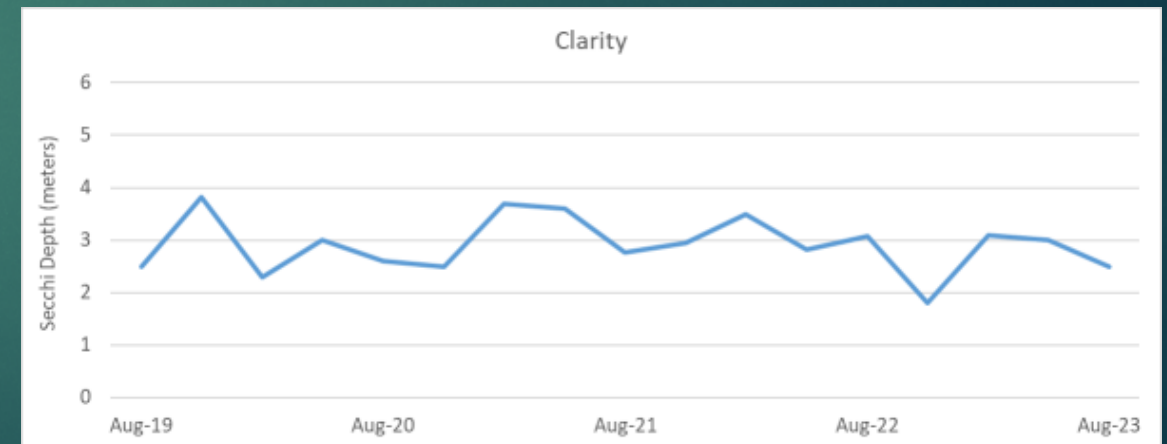
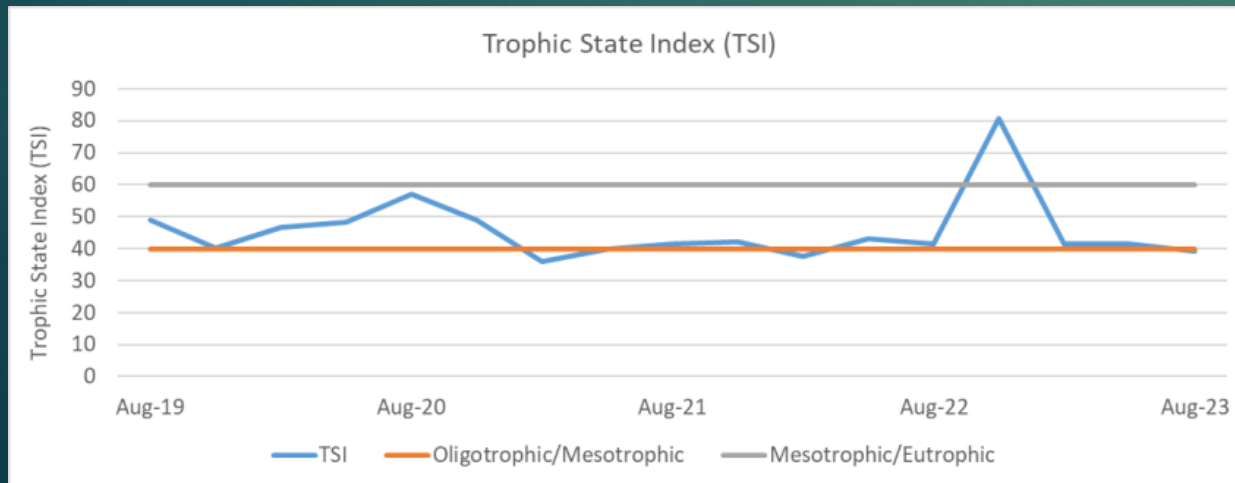
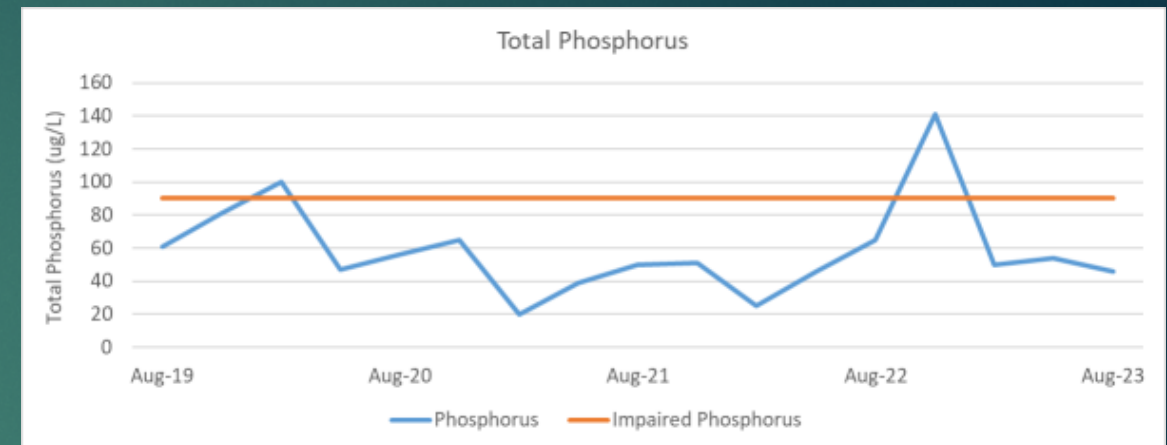
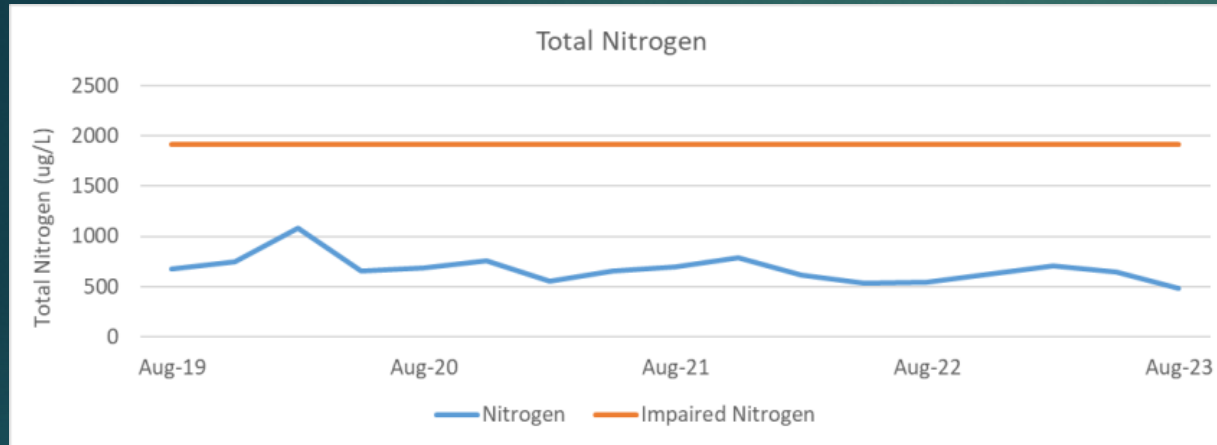
Lake Temple



Lake Tuscany



Winter Park Racquet Club



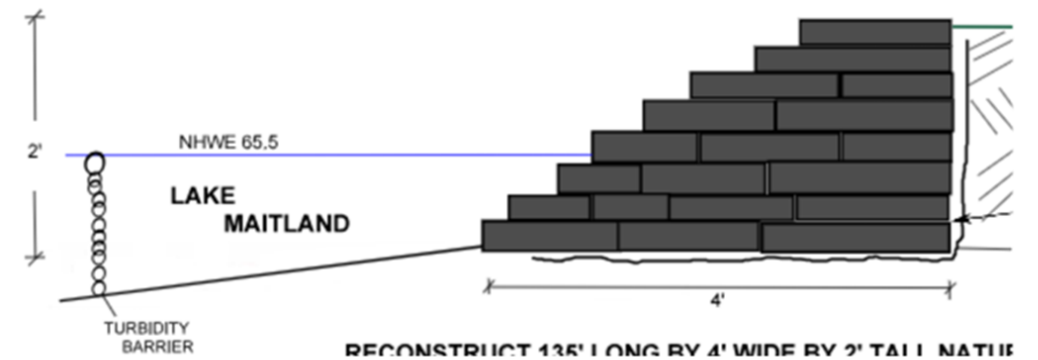
VEGETATION VIOLATION



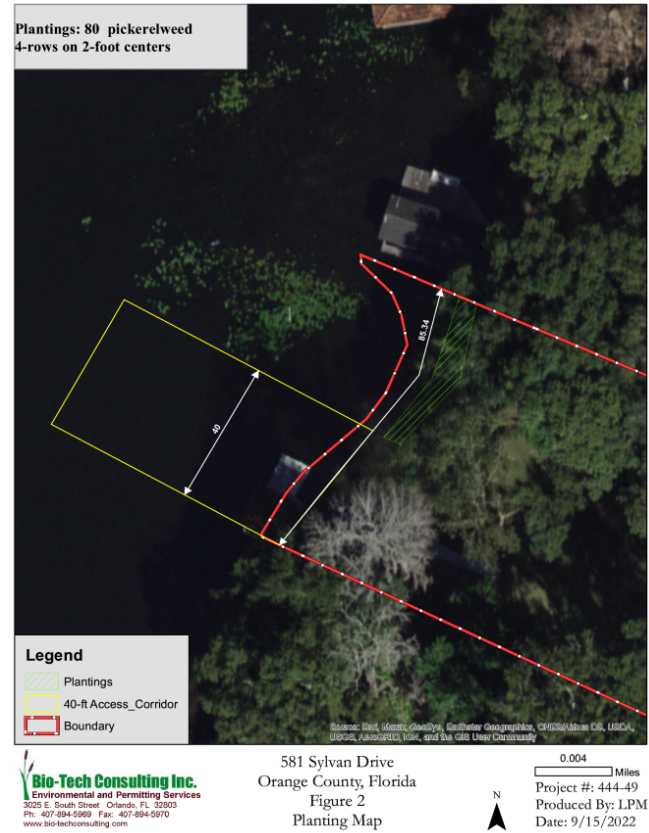
SEA WALL VIOLATION



**BROWN NATURAL STONE SEAWALL CROSS SECTION
1212 N PARK AVENUE, WINTER PARK, FL 32789**



SHORELINE VIOLATION



PLANT OF THE MONTH: CANNA FLACCIDA

- Common name: Golden canna
- Characteristics: This native grows in marshes, wetlands, and around the edges of lakes and ponds. It is an emergent plant, meaning it is rooted in the lake bottom, but its leaves and stem extend out of the water. It can grow to be 4 feet tall, and its yellow, orchid-like flowers can grow up to 3 inches. The plant has large vertical leaves that are 1-2 feet long and taper to a point at the tip.





Lakes & Waterways Board

agenda item

item type

Staff Updates

meeting date

February 13, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Stormwater Management

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

1. SW Update
2. NPDES Presentation

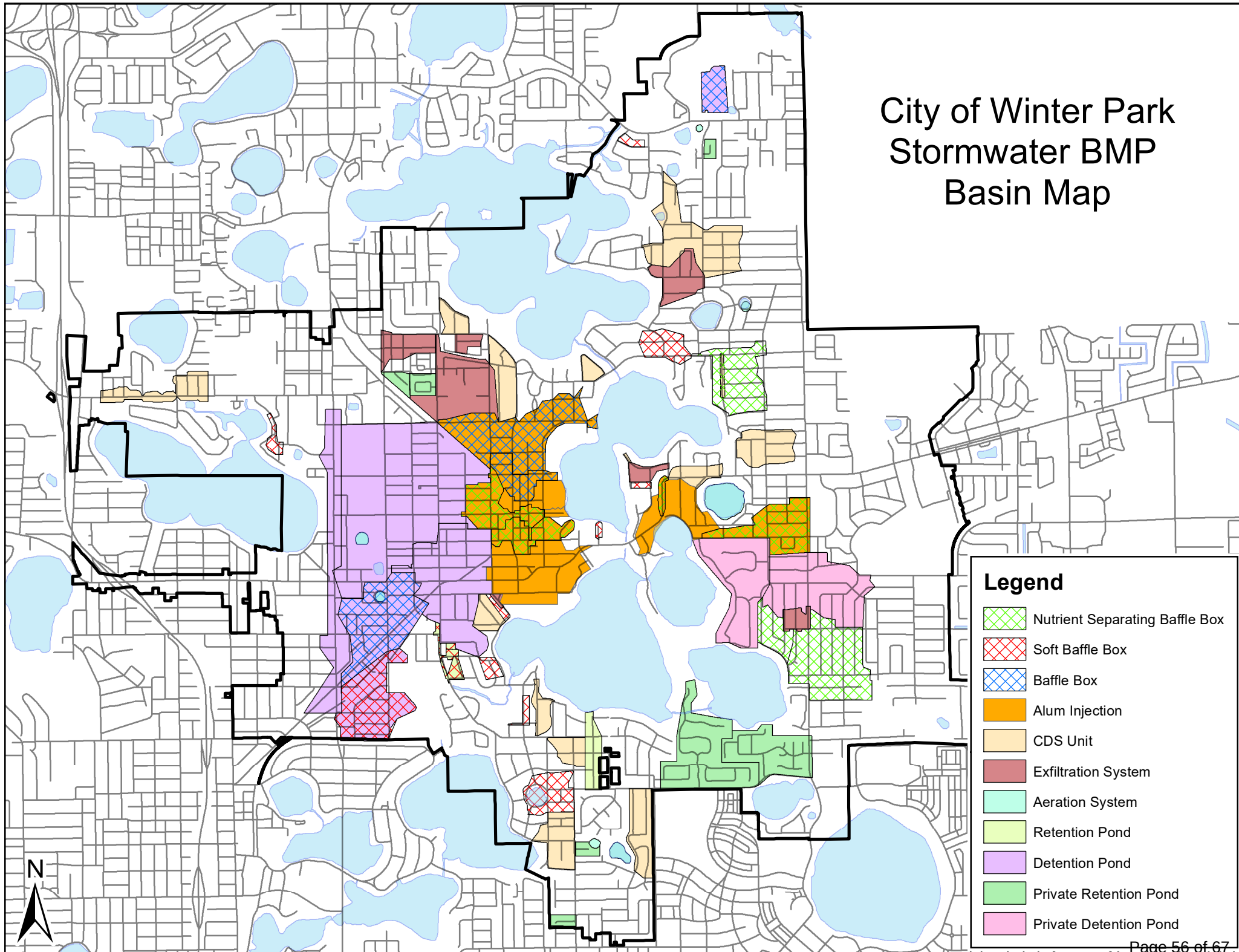
Staff Update

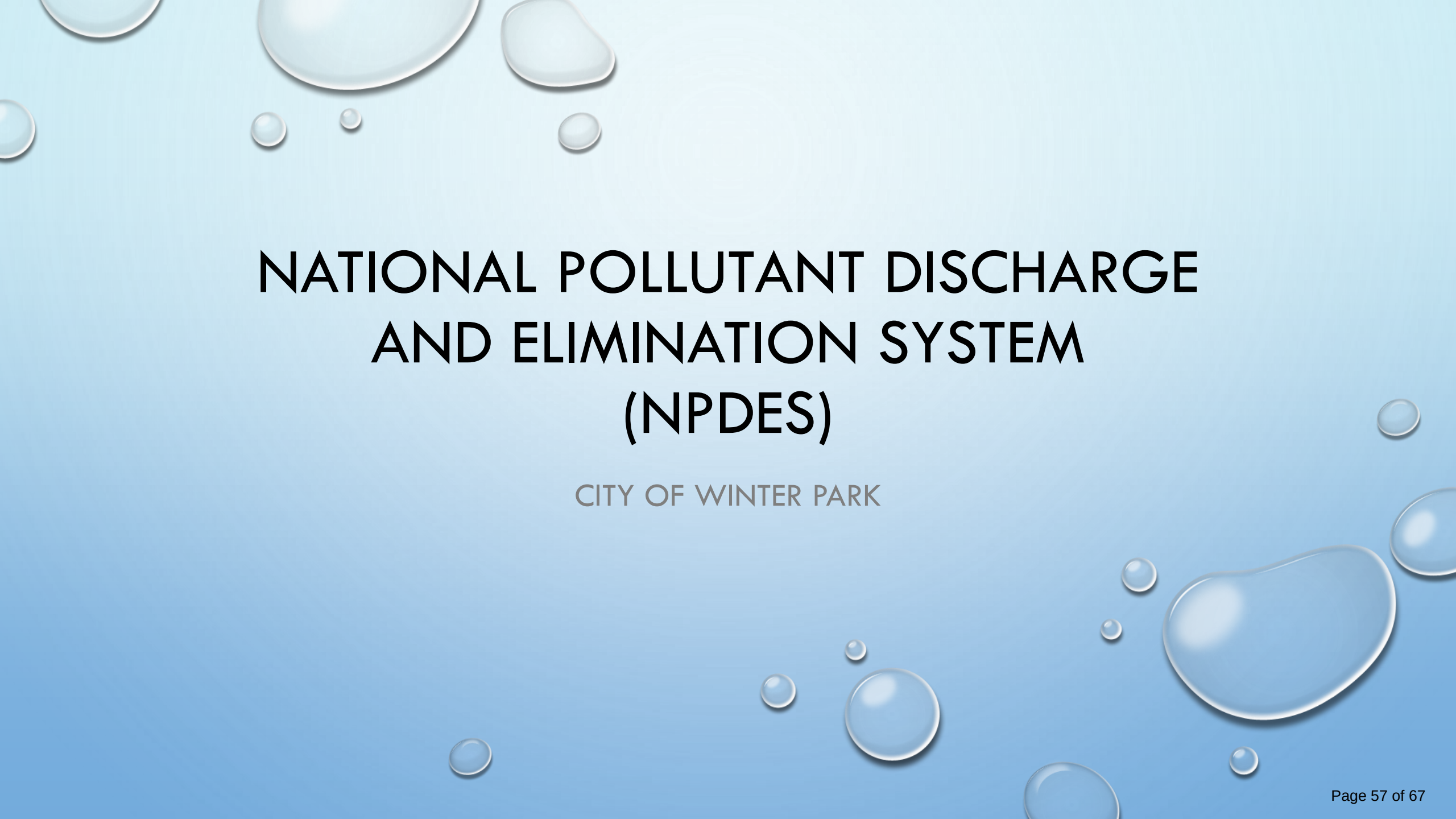
Stormwater Management

Stormwater Management – CIP

ACCT #	CIP Title & Description	Original Year Funded	Current Balance	Status/Comments
565200	Drainage Improvements - Recent years of unusually heavy rainfall events have revealed several substandard drainage conditions in various locations throughout the City.	Annually Funded	\$172,400	Several in-house drainage improvements projects for 2023-24 - Completed replacement of 70ft of 24 inch RCP crossing Joeline Court, and 120ft of 18 inch HDPE at the north end of Laurel Road. Upcoming - add another inlet and outfall pipe at 1622 Arbor Park Drive, increase pipe size at 1642 Arbor Park Drive, storm pipe replacement/relocate at 2601 & 2631 Temple Drive.
				1) <u>Palmer at Old England outfall repair</u> - Stormwater outfall pipe replacement required. Design is 30% complete, survey is now complete.
				2) <u>Stormwater Outfall Dredging</u> - The City recently entered a new contract, dredging on several stormwater outfalls started in Aug 2023, and will continue as needed.
				3) <u>Ward Park ponds construction</u> - Estimated cost \$150k. NE and NW Pond excavation and sodding is complete. The piping to be installed early 2024.
				4) <u>357 E Lake Sue Ave</u> - Increase storm sewer inlet capacity at the low point in Lake Sue Ave. Expected completion date Dec 2023. COMPLETE.
565203	Lk. Bell Weir Outfall Improvements -	2009	\$69,223	Repairs may be required on the Lake Bell outfall weir. Met with consultant on 6/30/23, kick-off meeting with consultant 10/24/23, preliminary improvent plan to be developed Feb 2024.
565221	Seminole County Ditch Piping (along Arbor Park Dr) – Drainage ditch behind the homes along Arbor Park Drive has a shared drainage basin with Seminole County. Funding is provided for the design and construction to pipe the ditch.	2016	\$733,395	The Interlocal Agreement was approved by the City Commission and by the Seminole County Commission. 60% plans completed and submitted to Seminole County. Process to permit with SJRWMD currently underway.
565205	Nicolet Ave Stormwater Pond – complete the design and construction of a stormwater treatment pond on City purchased properties located at 796 & 808 Nicolet Avenue	2023	\$200,000	Commission approved \$200,000 in the City's FY'23 budget. Application for general permit in progress.
565217	Stirling Bridge Replacement	2024	\$250,000	Updates required for price estimate.
565210	Fawsett Road CDS Unit	2024	\$200,000	Seeking permit exemption with SJRWMD.
	Curb Implementation	2024	\$50,000	
	TOTALS			
3023406	ACTIVE STORMWATER CIP's		\$1,675,018.00	BALANCE TOTAL

City of Winter Park Stormwater BMP Basin Map



The background is a light blue gradient with several realistic water droplets of various sizes scattered across the surface. The droplets have highlights and shadows, giving them a three-dimensional appearance.

NATIONAL POLLUTANT DISCHARGE AND ELIMINATION SYSTEM (NPDES)

CITY OF WINTER PARK

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

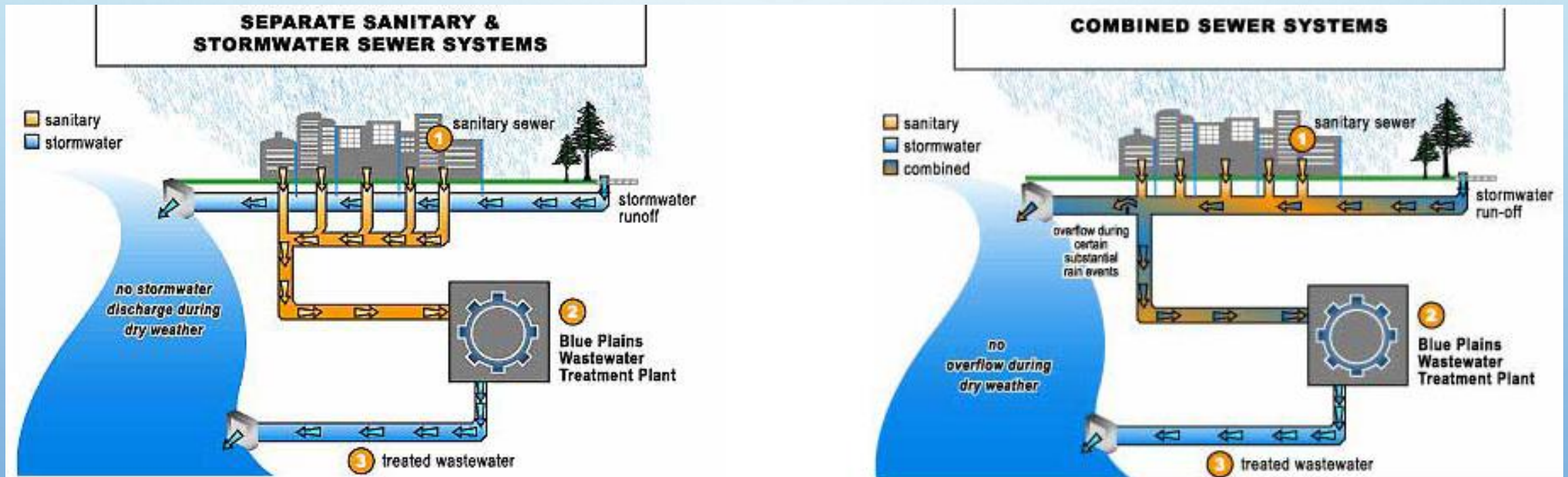


Image: NOAA

WHAT IS NPDES?

- CREATED IN 1972 BY THE CLEAN WATER ACT
- NATIONAL PROGRAM ADDRESSING WATER POLLUTION
- ENSURES STATE WATER QUALITY STANDARDS FOR CLEAN WATER ARE MET
- REGULATES POINT SOURCE POLLUTION FROM MS4



If it goes in here...

It ends up here!



POINT VS. NONPOINT POLLUTION SOURCES

POINT SOURCES

- PIPE
- DITCH
- CHANNEL
- WELL
- FLOATING CRAFT

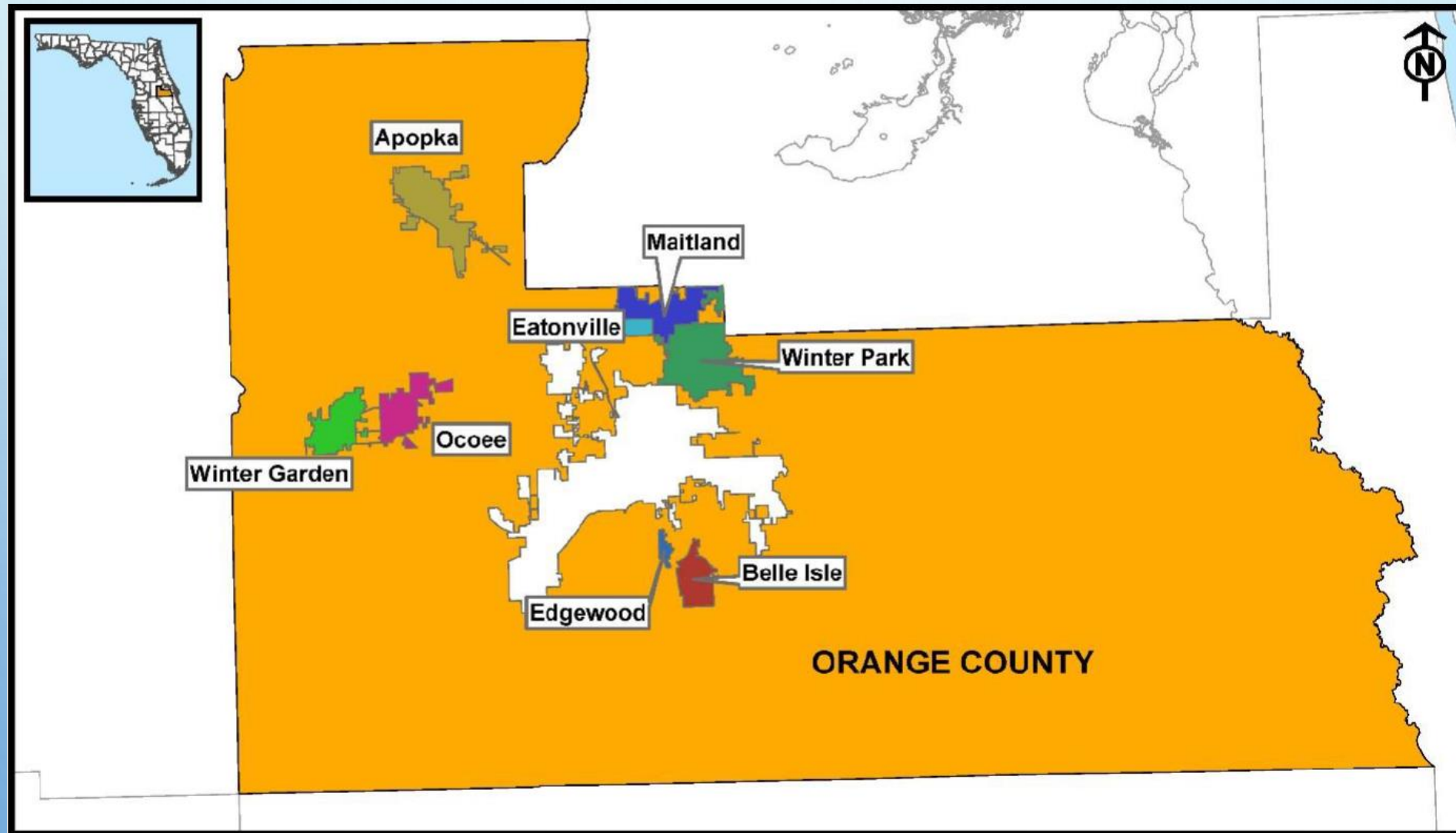


NONPOINT SOURCES

- EXCESS FERTILIZERS, HERBICIDES AND INSECTICIDES
- OIL AND GREASE FROM URBAN RUNOFF
- SEDIMENT FROM CONSTRUCTION SITES
- BACTERIA FROM PET WASTES
- FAULTY SEPTIC SYSTEMS



ORANGE COUNTY NPDES PERMIT CO-PERMITTEES



CITY PROGRAMS TO PREVENT POLLUTANT DISCHARGE VIA MS4

- STORM SEWER INSPECTIONS AND MAINTENANCE
 - 2,814 INSPECTIONS IN YEAR 7
- INSTALLATION OF POLLUTION CONTROL BOXES (BMPS)
 - CDS UNITS, BAFFLE BOXES, LEAF TRAPS, RETENTION PONDS
 - 809 INSPECTIONS IN YEAR 7
- PROACTIVE ILLICIT DISCHARGE INSPECTIONS
- PROPER LAKES MANAGEMENT



CITY PROGRAMS TO PREVENT POLLUTANT DISCHARGE VIA MS4

- SANITARY SEWER LINING
- CONSTRUCTION SITE BEST MANAGEMENT PRACTICES
 - INSPECTIONS AND ENFORCEMENT
- STREET SWEEPING
 - 1,738 LBS OF PHOSPHOROUS AND 2,711 LBS OF NITROGEN REMOVED FROM MS4
- PUBLIC INVOLVEMENT
 - LAKE CLEANUPS, LITTER CONTROL, EDUCATIONAL INFORMATION



CITY OF WINTER PARK

NUMERIC NUTRIENT CRITERIA (NNC)

Table 1. Average Alkalinity, Color, Secchi Disk, E. Coli, and Fecal Coliform Values for W.P. Lakes

	Virginia	Mizell	Osceola	Maitland	Sue	Berry	Killarney	Baldwin
Alkalinity (mg/L as CaCO ₃)	58.1	38.2	53.8	51.6	57.4	38.5	63.1	60.4
Color (PT-CO)	7.4	8.1	8.2	7.0	8.1	10.2	5.4	13.1
Secchi Disk (m)	2.0	3.8	1.8	2.3	2.0	2.4	3.2	2.8
E. Coli (mpn)*	2.5	31.2	2.1	1.6	3.0	2.8	1.7	1.4
Lake Type**	clear/alk.	clear/alk.	clear/alk.	clear/alk.	clear/alk.	clear/alk.	clear/alk.	clear/alk.

Table 2. Annual Geometric Mean Chlorophyll a Values for Large (>60 acres) Winter Park Lakes (mg/L)

	Virginia	Mizell	Osceola	Maitland	Sue	Berry	Killarney	Baldwin
2020	0.007	0.006	0.009	0.005	0.013	0.006	0.004	0.008
2021	0.006	0.003	0.009	0.004	0.016	0.007	0.003	0.006
2022	0.006	0.003	0.010	0.005	0.012	0.006	0.003	0.005
Meets standard?†	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CITY OF WINTER PARK

NUMERIC NUTRIENT CRITERIA (NNC)

Table 3. Annual Geometric Mean Total Phosphorus Values for Large (>60 acres) Winter Park Lakes (mg/L)

	Virginia	Mizell	Osceola	Maitland	Sue	Berry	Killarney	Baldwin
2020	0.012	0.011	0.010	0.011	0.017	0.012	0.008	0.011
2021	0.013	0.009	0.011	0.010	0.016	0.014	0.008	0.011
2022	0.014	0.008	0.011	0.010	0.018	0.013	0.008	0.013
Meets standard?†	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 4. Annual Geometric Mean Total Nitrogen Values for Large (> 60 acres) Winter Park Lakes (mg/L)

	Virginia	Mizell	Osceola	Maitland	Sue	Berry	Killarney	Baldwin
2020	0.475	0.494	0.516	0.492	0.553	0.463	0.410	0.579
2021	0.523	0.475	0.544	0.528	0.777	0.564	0.528	0.598
2022	0.542	0.404	0.561	0.426	0.678	0.546	0.468	0.553
Meets standard?†	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes



QUESTIONS?



Lakes & Waterways Board

agenda item

item type

Upcoming Agenda Items

meeting date

February 13, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Discussion of Upcoming Agenda Items

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

None