



Lakes & Waterways Board Regular Meeting

Agenda

May 14, 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 April 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. Seawall Application (SAP-2024-0006) 1218 Alabama Dr. 10 Minutes
- b. Boathouse/Dock Application (BLDR-2024-0304) 1218 Alabama Dr. 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. Hurricane Season Preparedness 5 Minutes
- Hurricane Guide: [Hurricane Preparedness Guide Link](#)
- d. Past and Upcoming Events 5 Minutes
- Great American Clean-Up - 4/6
 - Killarney Elementary Family Night - 4/17
 - Earth Day Block Party - 4/27 @ Ward Park
 - Lakes Event - 5/11 @ Lake Knowles & Wilbar
 - Lakes Event - 5/18 9am @ Lake Sylvan
 - Introduction to Composting Class - 5/16 6pm @ WP Library
 - Board Appreciation - 6/20 5pm @ WP 18
 - Introduction to Vericomposting Class - 6/27 6pm @ WP Library
- e. 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 2.a

item type

Consent Agenda

meeting date

May 14, 2024

prepared by

Bahiyyah Muhammad-Layton, Board Coordinator

approved by**subject**

Approve the minutes of April 9, 2024

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

1. LWB-min-2024-04-09 DRAFT



Lakes & Waterways Board Regular Meeting Minutes

April 9, 2024 at 12:00 PM

City Hall Commission Chambers
401 S. Park Avenue

Present

David F. March, Ed Webman, Justin J. Vermuth, Pamela L. Saffran, William H. Swartz Sr., Warren Bloom

Absent

George T. Vietor

Staff Present

Director of Natural Resources and Sustainability Gloria Eby, Assistant Director of Public Works Don Marcotte; Public Works Engineer Shannon Monahan, Administrative Assistant Victoria Tabor

Call to Order

Mr. Vermuth called the meeting to order at 12:01 p.m.

1. Consent Agenda

- a. Approve the minutes of March 12, 2024

Motion made by Ms. Saffran to approve the minutes; seconded by Mr. Webman. The motion carried unanimously with a 6-0 vote.

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

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

4. Action Items

5. Non-Action Items

6. Staff Updates

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

Winter Park Police Officer Gordon Shyy updated the Board virtually. WPPD began patrolling the chain of lakes at the commencement of boating season which started the

first weekend in March. They conducted 64 vessel stops, 63 safety inspections, 5 citations and 39 warnings.

Ms. Saffron asked what the citations were for. Officer Shyy did not have the statistics, but stated, citations are usually for safety violations.

Gloria Eby presented the update for Lakes Management. There are several projects under the NRCS (National Resource Conservation Services) grant funding umbrella. The most relevant project is the update of the Howell Creek Stabilization project.

The dedicated project webpage is kept up to date with reports from our consultant as well as documentation that was distributed to the residents at the community meeting in March. The community meeting was well attended.

The stream assessment report lists priorities ranging from 0 to 5. We are concentrating and dedicating funding to priorities 3 through 5 as priorities 0 through 2 are for minor erosion issues. The next step is permitting through St. John's River Water Management District and Army Corp of Engineers. Due to the stay at the State level, FDEP's (Florida Department of Environmental Protection) 404 permitting process is now conducted at the Federal level; Army Corps of Engineers. A time extension was submitted and approved by NRCS per permitting delays. It was emphasized that the city does not want to lose any grant funding. Mr. Marsh asked if a decision from the Army Corps is expected before hurricane season. Ms. Eby believes that a determination will be received within weeks.

Treatments for algae were conducted on Lake Forest and Lake Midget. Lake Sue has great results from the hydrilla treatment conducted in April of 2023. Inspections will continue to monitor the needs of the lake.

Eight lake level telemetry stations out of 24 lakes are left to install. We're hoping to have the stations installed within the next 3 weeks.

A section of Venetian seawall is being repaired during early mornings before the Winter Park Boat Tour begins and before daily herbicide treatments scheduled as to avoid canal closings.

Mr. Webman asked Ms. Monahan for the status of the Venetian canal bypass. Don Marcotte answered explaining that the survey was completed. When the geotechnical analysis report is received, a plan will be initiated. The decision was made to install one bypass halfway between the bridge at Palmer and Lake Maitland.

Ms. Eby presented the aquatic plant of the month - Pondweed, a native plant that can act like a nuisance. Ms. Eby stated that pondweed is present in various lakes throughout the City. It is a beneficial native, providing habitat for aquatic life and helps with water quality as the plant can aid in the uptake of excess nutrients. The nuisance aspect of pondweed is related to boating especially when the water level drops suddenly which occurred on Lake Sue (by approximately one foot).

Hurricane effects and recovery are being seen throughout the chain of lakes water

quality data. Lakes division and the Water/Wastewater department are coordinating a maintenance policy for private lift stations.

Mr. Vermuth asked Ms. Eby if there is any regulation or standard on irrigation systems that pump out of the lake? Ms. Eby explained no regulation for intake when withdrawing from lakes for small residential use. She stated that lake intake is preferred to using municipal water by the regulatory agencies per water conservation. The concern from Mr. Vermuth is with oversized and unsightly buoys.

Shannon Monahan presented the Stormwater update and provided the updated CIP. One of the more exciting projects the team is working on is the Summer Way Pipe Replacement. A pipe outfall had failed on private property in a very interesting location. Mr. Marcotte added, the work on the replacement / installation is being done by very capable, in-house crews.

The largest project being worked on is the city wide basin studies. The city was split into 3 sections. The western basin is being studied by Geosyntec Consultants, the central basin is being studied by Singhofen & Associates and the eastern basin, draining to the Little Econ Baxter & Woodman. Public Works Department is working through model calibration, making sure the that the models match what was observed with Hurricane Ian. The next step is to look into possible projects to address flooding areas.

Mr. March asked why Lake Minnehaha was not included in the analysis. Ms. Monahan explained that Lake Minnehaha was included in the central basin study.

Mr. Vermouth questioned the location of the outfalls from the eastern side. Ms. Monahan answered, the eastern outfalls are Lake Corrine, the second is Crane strand, and the third outfall goes north into Seminole County. Mr. Marcotte interjected that the second and third outfalls both go into Seminole County, join at the Interlachen Country Club and split off to the east. Mr. Vermouth asked if an exfiltration system will be set up at Winter Park 18 like the one at the Winter Park Pines Golf course. Mr. Marcotte stated the groundwater is too high. There will be improvements in the future working with Orange County.

Ms. Eby stated they received an invitation to a coordination meeting with St. John's River Water Management District, all the stakeholders, the municipalities and the counties, to discuss each of their individual projects for collaboration and future outlook with respect to folding resiliency.

Video was presented showing the stocking of ~1,300 catfish at the MLK park pond for the annual Get Hooked event. There were ~200 participants last year (October 2023). Ms. Eby invited the board to other city events: Earth Day & Run for the Trees 4/27; 3 lake events where native aquatic plants will be installed; Lake Knowles and Lake Wilbar 5/11 and Lake Sylvan 5/18. Mr. Swartz encouraged everyone to attend the Run for the Trees. This will be the 31st year for Run for the Trees, 3rd year for Earth Day. Staff updated ended to state that this weekend the Lakes Division's Duck Derby will be held at Mead Gardens.

7. Board Comments

- a. Discussion of Public Comments Received

8. Upcoming Agenda Items

- a. Discussion of Upcoming Agenda Items

9. Adjournment

The meeting adjourned at 12:38 p.m.

Approved by the board on _____
/s/ Bahiyyah Layton, Board Coordinator



Lakes & Waterways Board

agenda item 4.a

item type

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

meeting date

May 14, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Seawall Application (SAP-2024-0006) 1218 Alabama Dr.

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

1. SAP-2024-0006 - 1218 Alabama Dr

The background of the slide is a photograph of ocean waves. The water is a deep blue color, and the waves are small and frequent, creating a textured surface. The lighting is bright, causing some areas of the water to appear lighter blue or white where the waves are breaking.

SEAWALL APPLICATIONS

SAP-2024-0006

1218 Alabama Dr

- Applicant: Frank and Lori Naylor
- Contractor: Creative Remodeling Solutions
- Permitting Agent: Sheila Cichra
- Structure: Vertical Seawall
- New/Existing: Existing
- Waterbody: Venetian Canal

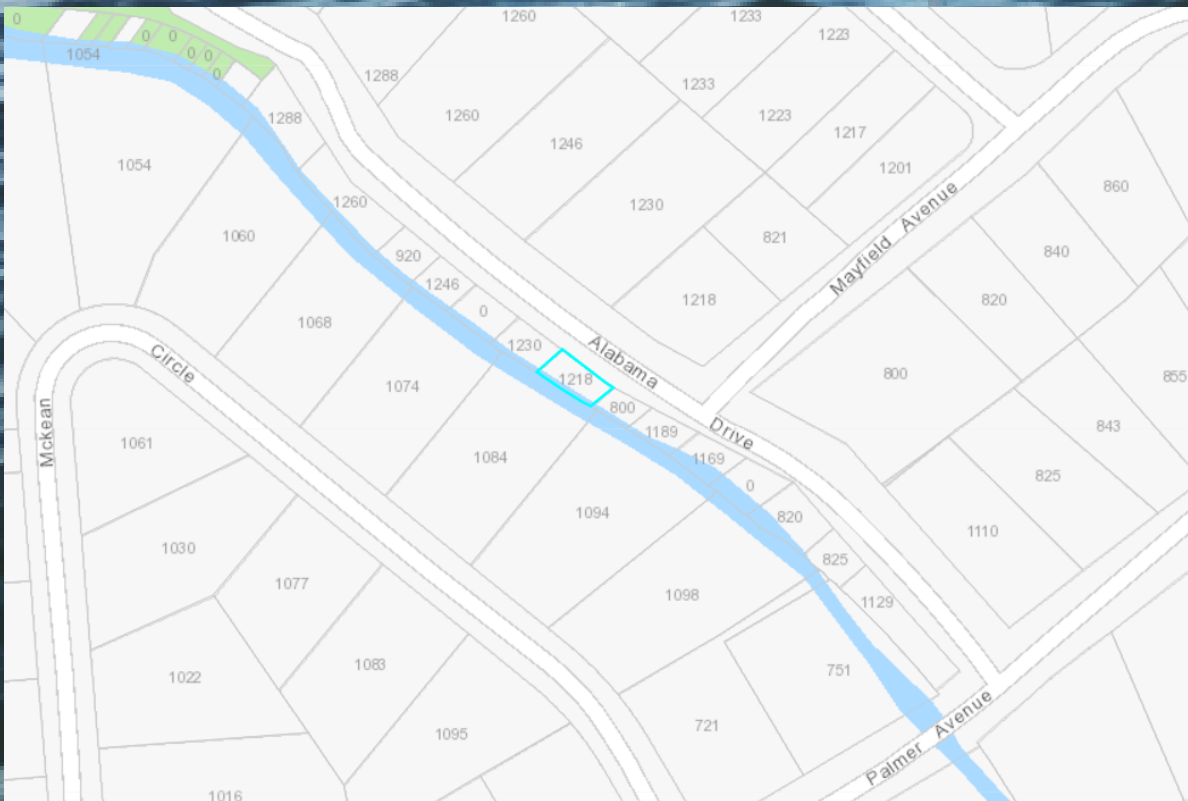
Parameters

Parameter	Proposed	Allowed	Variance Req.?
Length (ft)	63'	N/A	N/A
Slope (Horizontal:Vertical)	0:1	2:1 min *exempt in canal	No
Material	Pine	N/A	N/A
Existing Erosion Problem (Yes/No)	Yes	Must have existing erosion problem	N/A
Meet Vegetation Criteria?	N/a	50% may be cleared	N/A

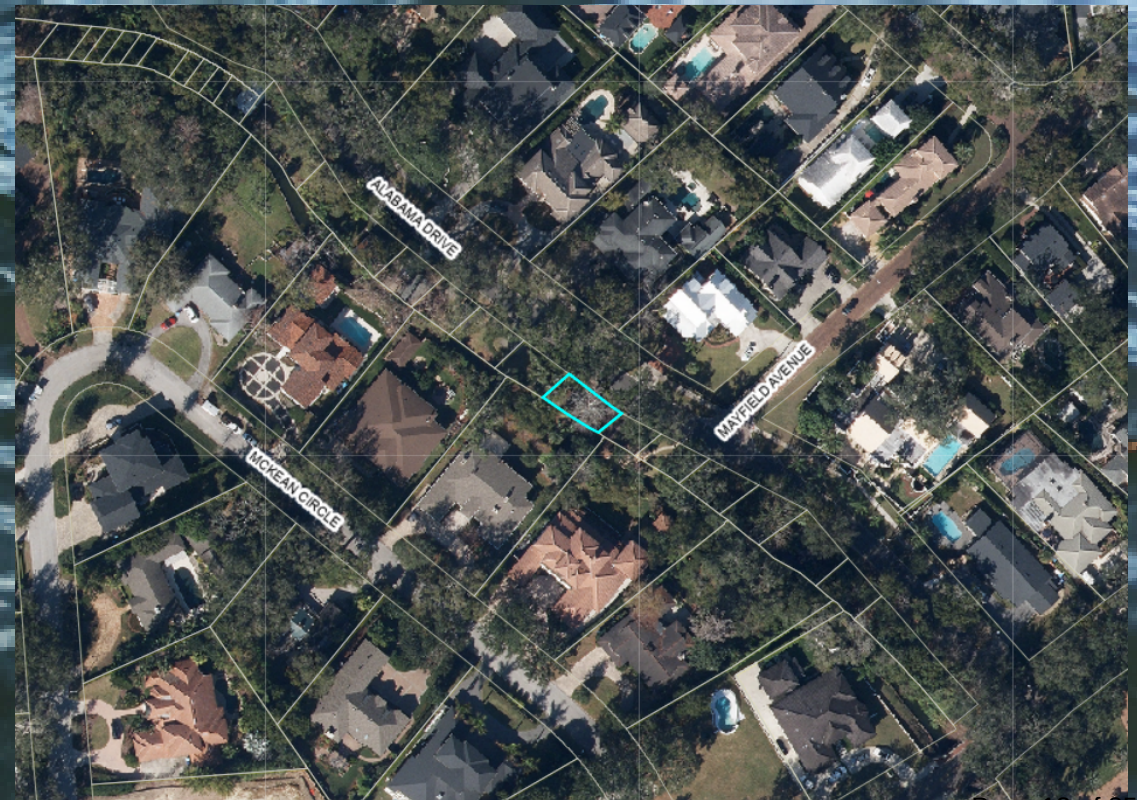
Staff Recommendation: **Approval**
Reviewed by: Joey Cordell

Map View

Basemap



Aerial View



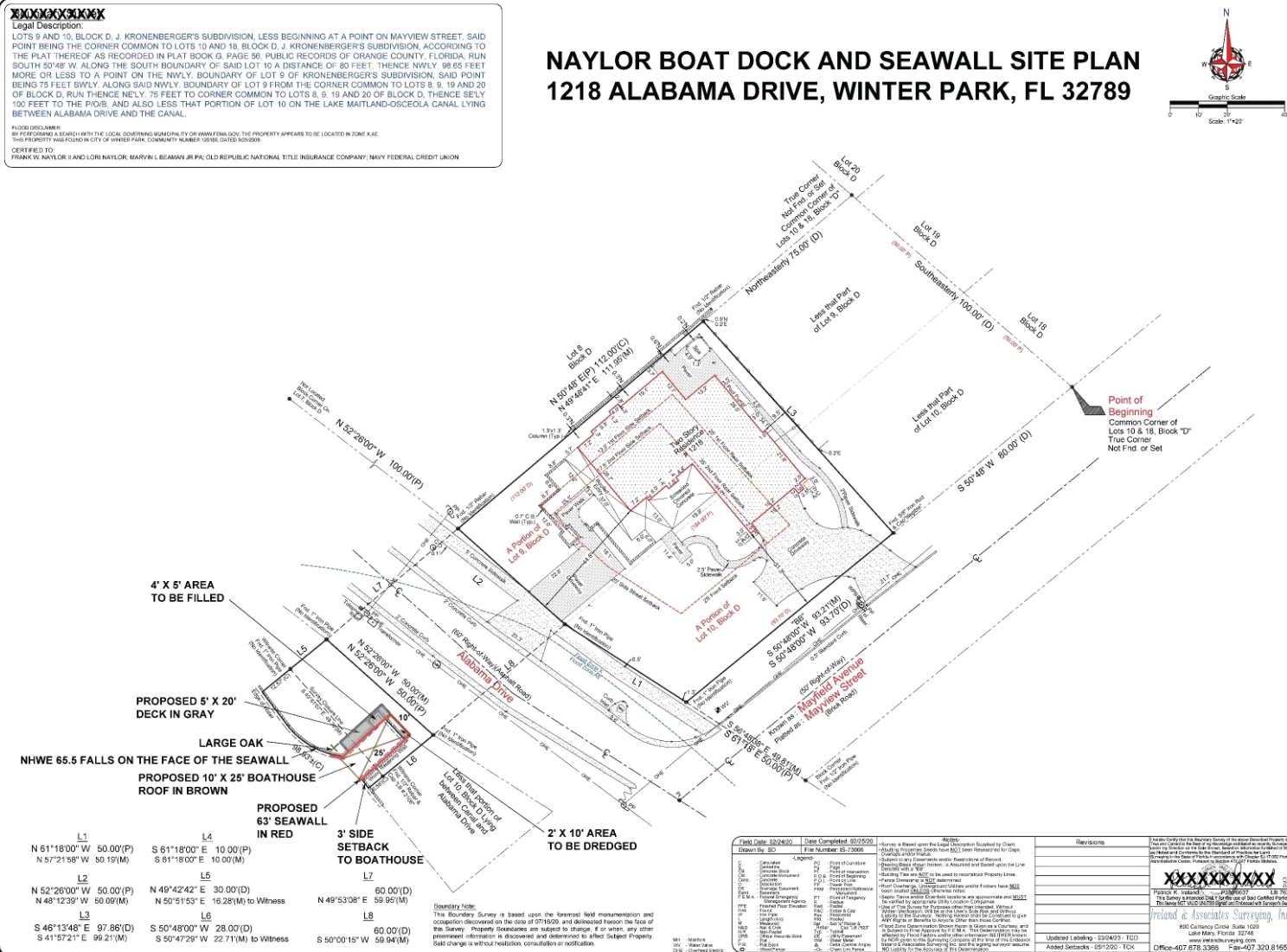
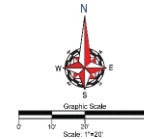
Photos



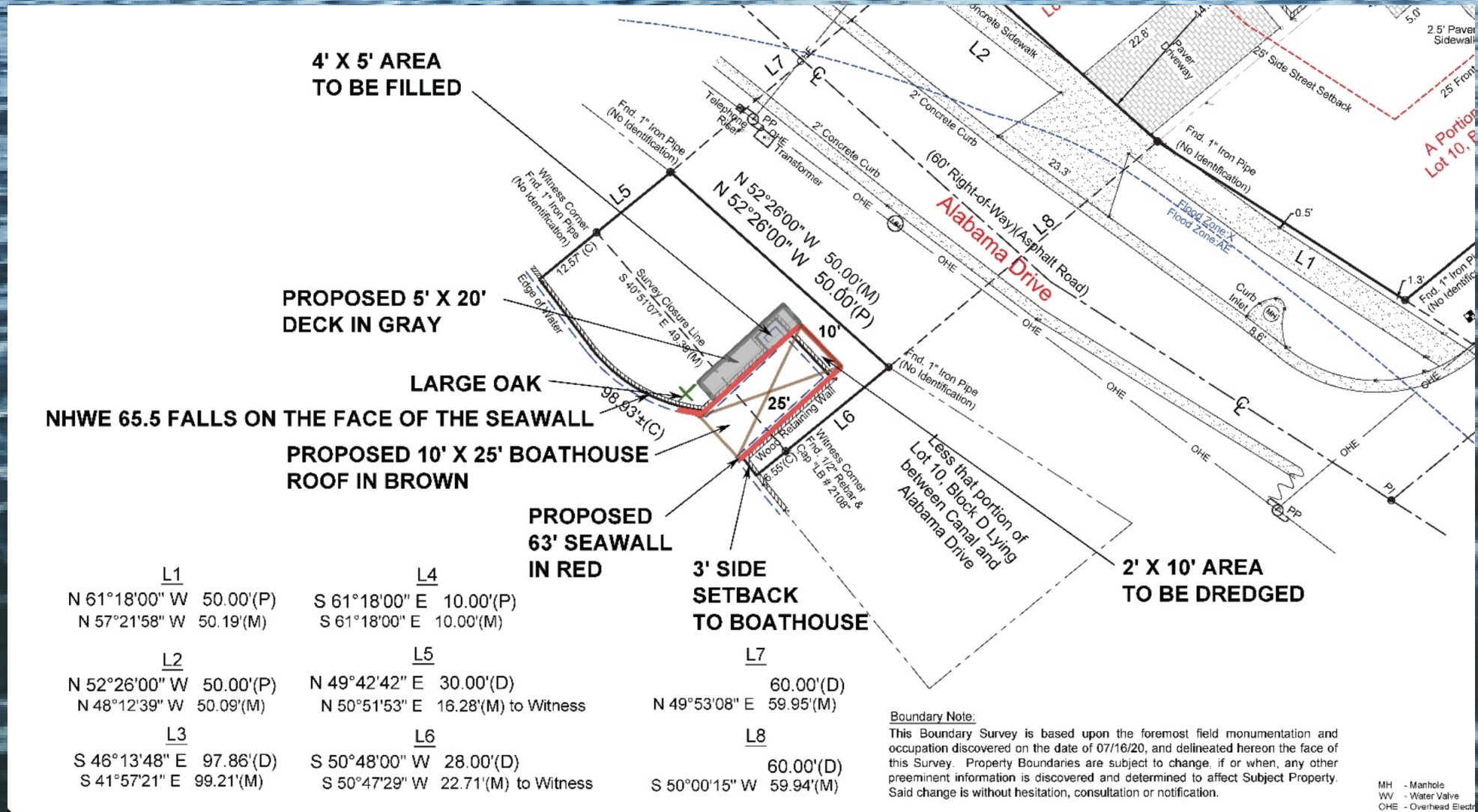
Photos



NAYLOR BOAT DOCK AND SEAWALL SITE PLAN
1218 ALABAMA DRIVE, WINTER PARK, FL 32789

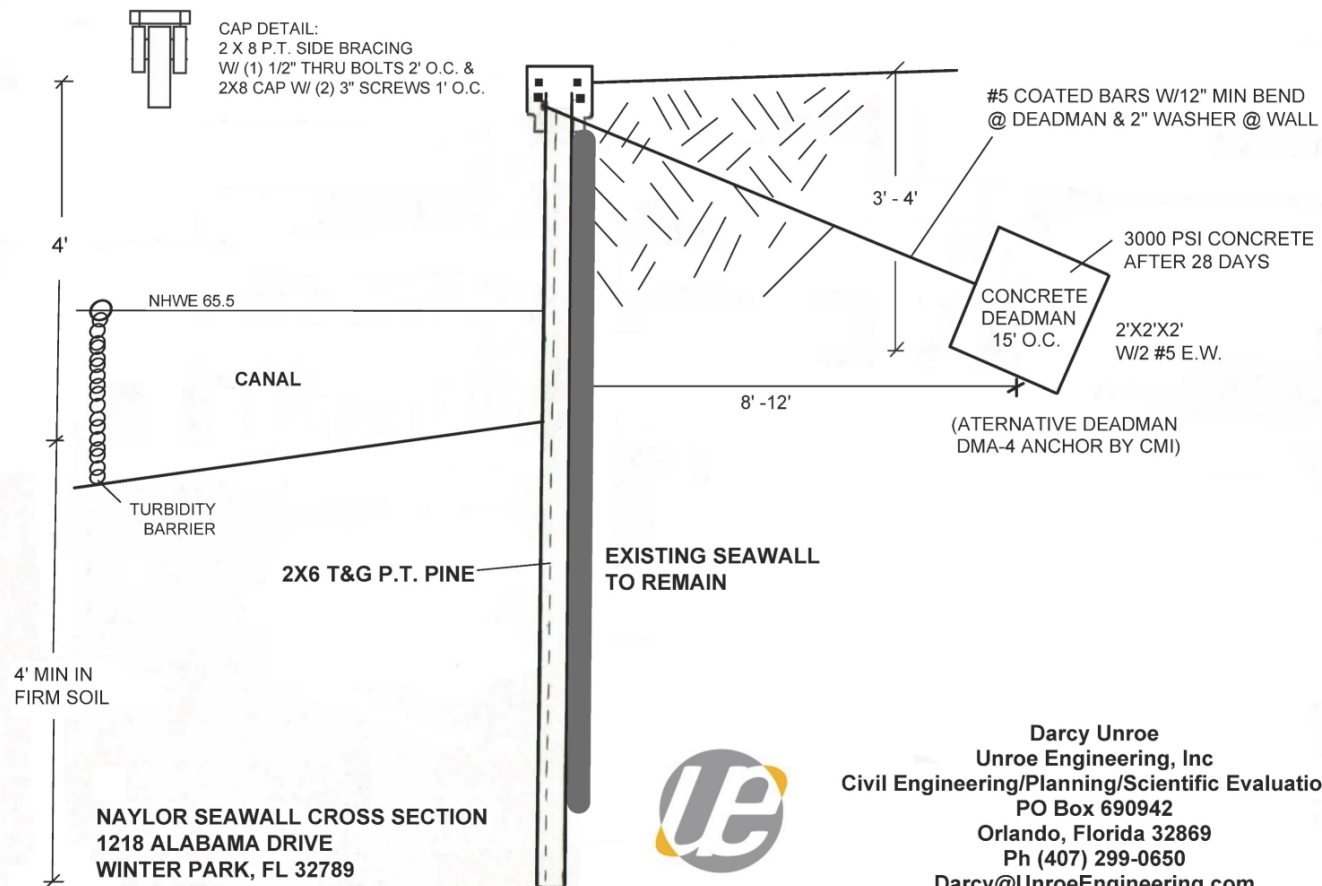


Aerial View



Side View

CONSTRUCT 63' SEAWALL DIRECTLY IN FRONT OF THE EXISTING SEAWALL





Lakes & Waterways Board

agenda item 4.b

item type

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

meeting date

May 14, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Boathouse/Dock Application (BLDR-2024-0304) 1218 Alabama Dr.

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

1. BLDR-2024-0304 -1218 Alabama Dr



LAKE SHORELINE BOATHOUSE/DOCK APPLICATIONS

BLDR-2024-0304

1218 Alabama Dr

- Applicant: Frank and Lori Naylor
- Contractor: Creative Remodeling Solutions
- Permitting Agent: Sheila Cichra
- Structure: Boathouse & Dock
- New/Existing: New
- Waterbody: Venetian Canal

Parameters

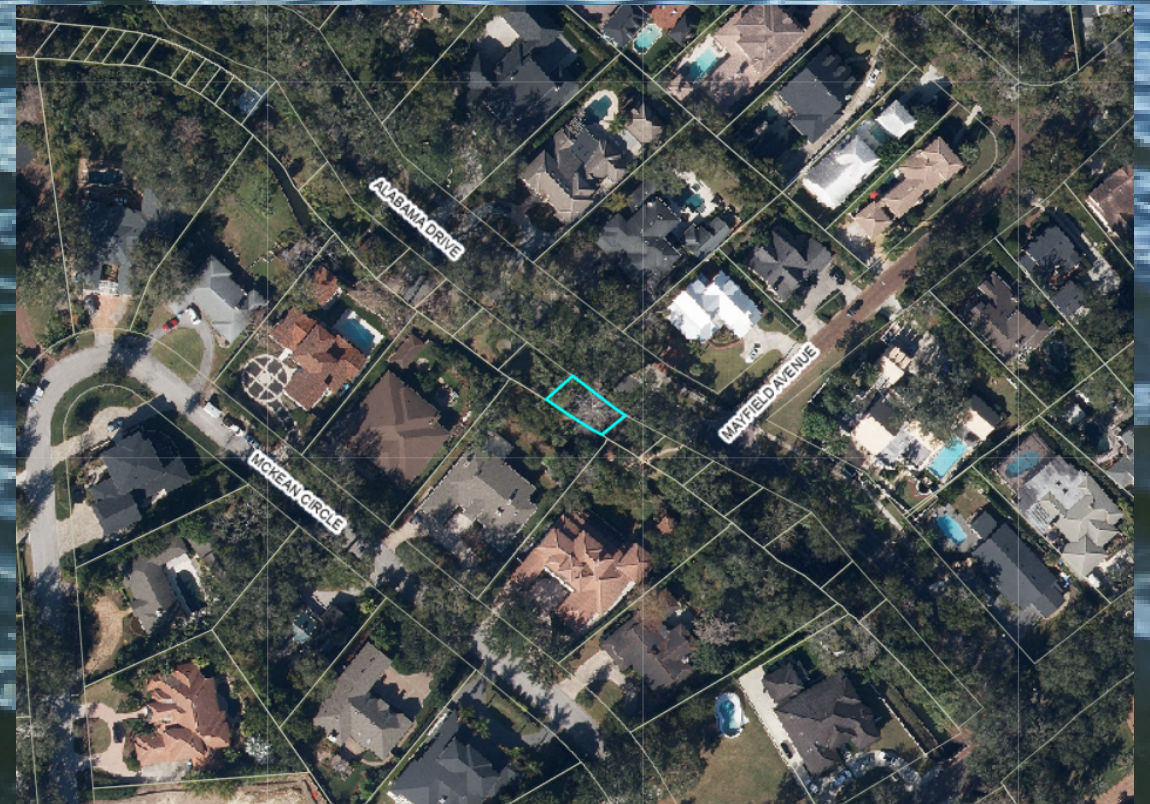
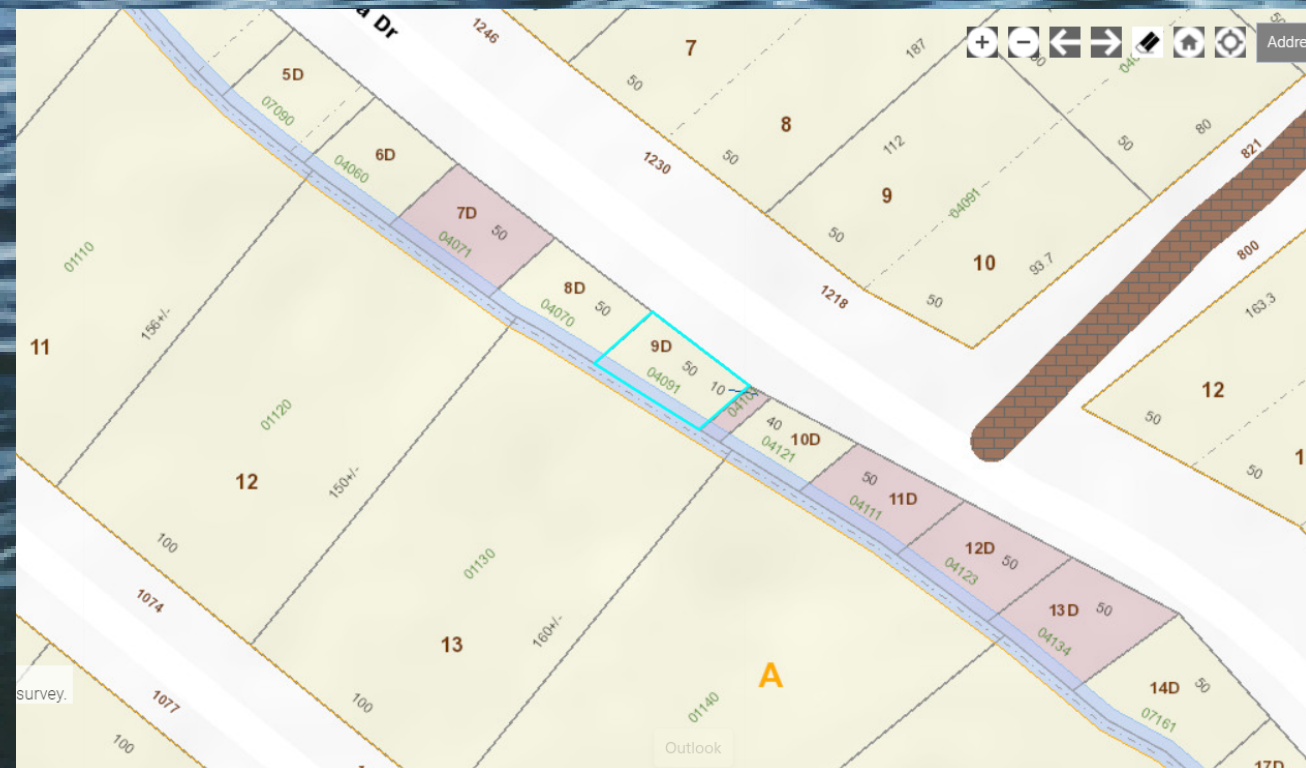
Dock Parameter	Proposed	Allowed	Variance Req.?
Total Area (ft ²)	350	max	No
Length from OHW (ft)	0'	30'	No
Height of Roof (ft above deck)	10'	11 max	NA
Height of Deck (ft above OHW)	1'	2 max	No
Enclosures?	No	80 ft ² max (no plumbing/water allowed)	NA
Side Yard Setback(s) (ft)	3'	10' min (5' with Letter of No Objection)	Yes
Meet Vegetation Criteria?	N/A	50% may be cleared	N/A

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

Map View

Basemap

Aerial View



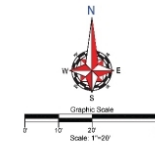
Photos



Photos



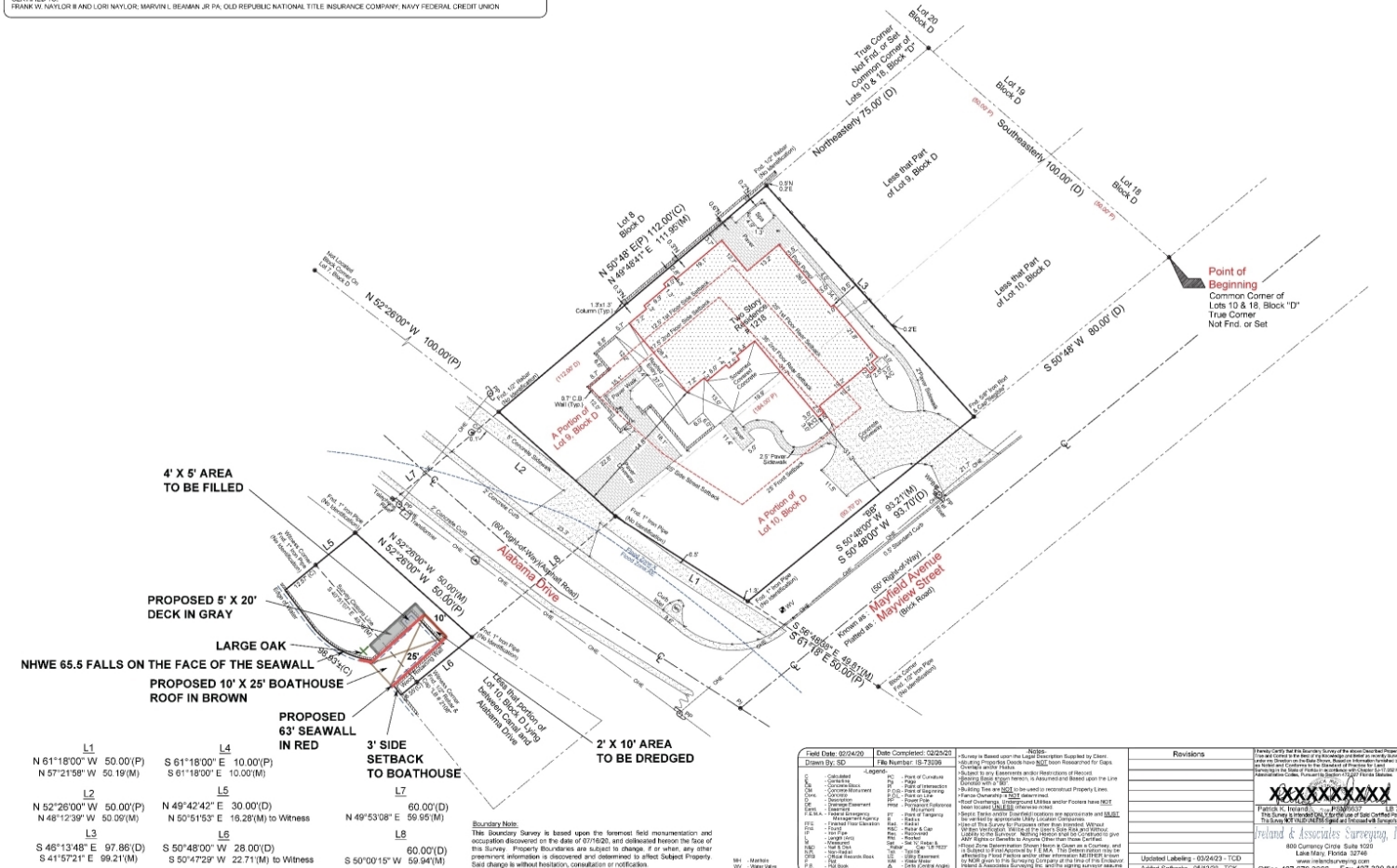
**NAYLOR BOAT DOCK AND SEAWALL SITE PLAN
1218 ALABAMA DRIVE, WINTER PARK, FL 32789**



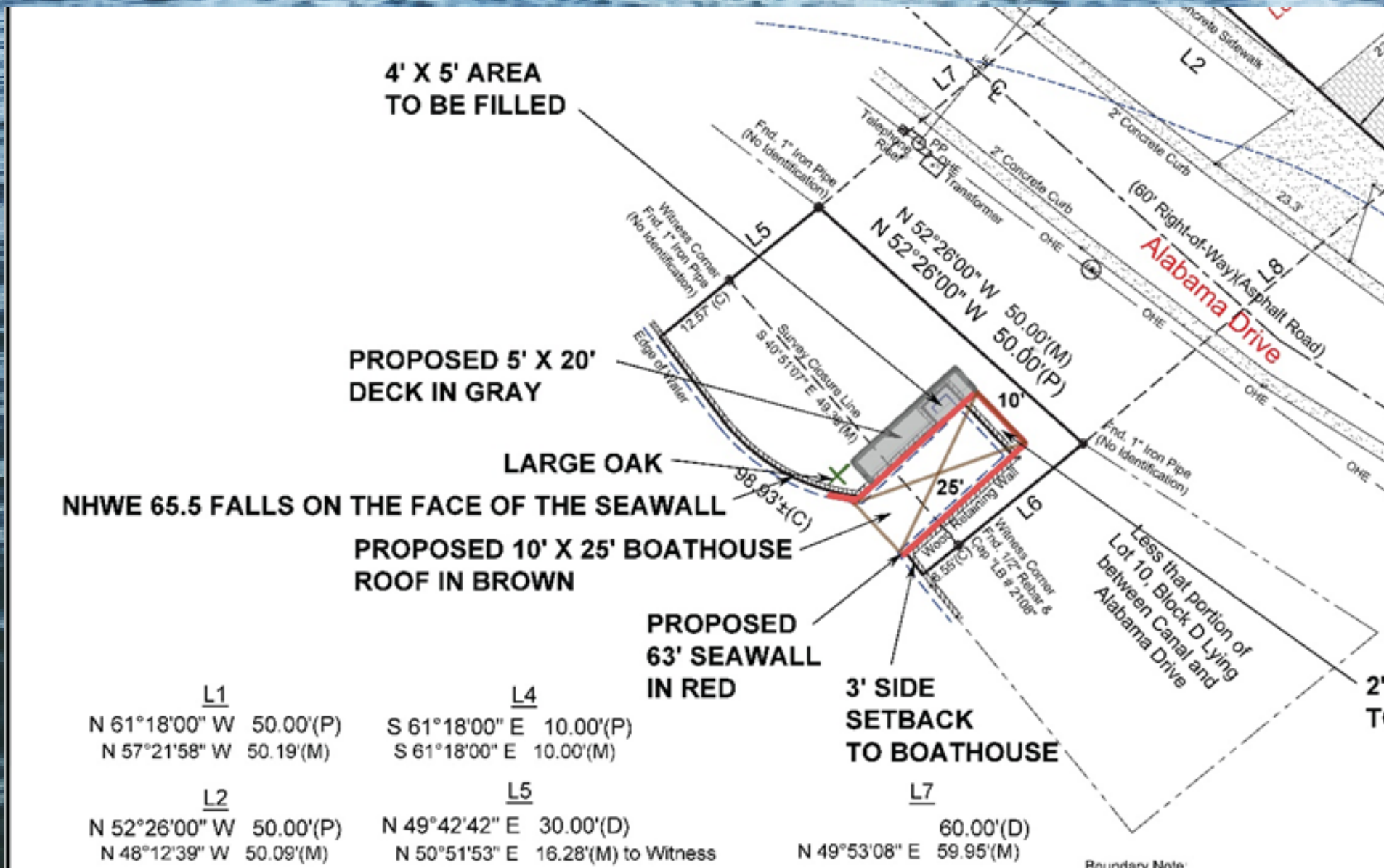
LOTS 9 AND 10, BLOCK D, J. KRONENBERGER'S SUBDIVISION, LESS BEGINNING AT A POINT ON MAYVIEW STREET, SAID POINT BEING THE CORNER COMMON TO LOTS 10 AND 18, BLOCK D, J. KRONENBERGER'S SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK G, PAGE 58, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, RUN SOUTH 50°48' W. ALONG THE SOUTH BOUNDARY OF SAID LOT 10 TO A DISTANCE OF 80 FEET, THENCE N10°W 36.85 FEET MORE OR LESS TO A POINT ON THE N10°W BOUNDARY OF LOT 9 OF KRONENBERGER'S SUBDIVISION, SAID POINT BEING THE CORNER COMMON TO LOTS 9 AND 10, BLOCK D, J. KRONENBERGER'S SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK G, PAGE 58, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, RUN THENCE S80°E 100 FEET TO THE POB, AND ALSO LESS THAT PORTION OF LOT 10 ON THE LAKE MAITLAND-OSCEOLA CANAL LYING BETWEEN ALABAMA DRIVE AND THE CANAL.

FLOOD DISCLAIMER:
BY PERFORMING A SEARCH WITH THE LOCAL GOVERNING MUNICIPALITY OR WWW.FEMA.GOV, THE PROPERTY APPEARS TO BE LOCATED IN ZONE XAE.
THIS PROPERTY WAS FOUND IN CITY OF WINTER PARK, COMMUNITY NUMBER 120188, DATED 9/25/2009.

CERTIFIED TO:
FRANK W. NAYLOR II AND LORI NAYLOR; MARVIN L. BEAMAN, JR. PA; OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY; NAVY FEDERAL CREDIT UNION

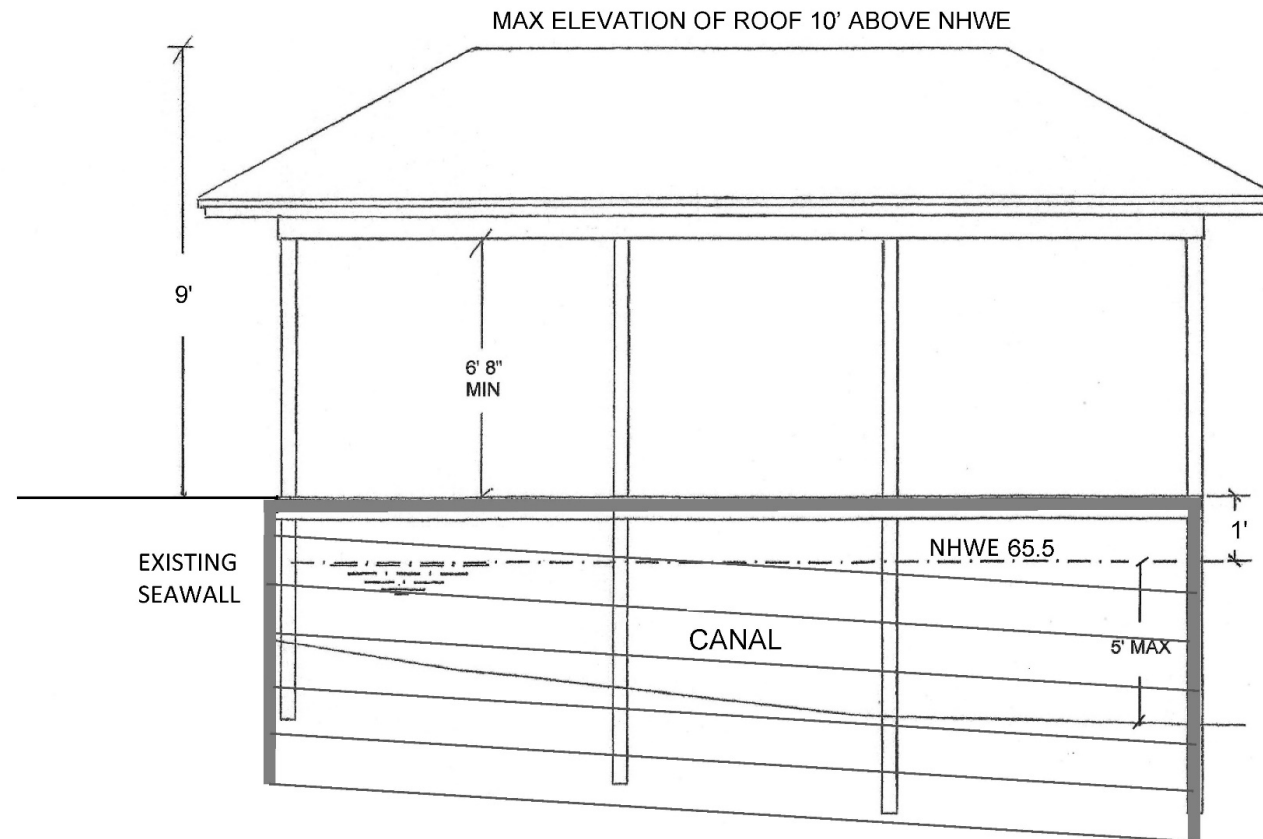


Plans



Plans

ELEVATION





Lakes & Waterways Board

agenda item 7.a

item type

Staff Updates

meeting date

May 14, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Winter Park Police Department

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

None



Lakes & Waterways Board

agenda item 7.b

item type

Staff Updates

meeting date

May 14, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Lakes Management

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

1. Lakes Update 2024.05
2. Quarterly WQ



Lakes and Waterways Advisory Board

May 2024

Lakes Updates

- Electrofishing Chain of Lakes
- Lake Midget Nanobubbles
- Treatments
 - Lake Sue
- Grass Carp Stocking: 142 Lake Sue, 10 Lake Sylvan
- Aquatic Plant of the Month
- Alligator Awareness in May
- Lake Restoration Events
- Hurricane Preparedness 2024
- Water Quality

Electrofishing Survey



Lake Midget Nanobubble Aeration



Lake Sue Hydrilla



Alligatorweed (*Alternanthera philoxeroides*)

INVASIVE

Smooth elliptical leaves on sprawling stems. Small white cluster of flowers. Hollow stems allow Alligatorweed to form floating mats along lake shores, streams, and ditches.



Alligatorweed (*Alternanthera philoxeroides*)

INVASIVE

- Native to South America
- Introduced to US by ballast water
- Economic impact – mats can block water conveyance in ditches, streams and canals
- Biological control has been mostly successful.

Alligatorweed flea beetle
Alligatorweed thrips
Alligatorweed stem borer



Alligatorweed
Alternanthera philoxeroides
Photo by Raychel Rabon
UF/IFAS Center for Aquatic and Invasive Plants

Alligator Awareness

CO-EXISTING WITH



ALLIGATORS



Alligators occur throughout Florida in lakes, rivers, ponds, wetlands and other waterbodies. The following tips can help you and your pet stay safe during your outdoor adventures.



People should swim only during the day and in designated areas but pets should never swim.

Make sure pets are on a leash and a safe distance from water's edge.



Concerned about an alligator?
Call FWC's Nuisance Alligator
Hotline at 866-FWC-GATOR
(866-392-4286)

LEARN MORE AT [MYFWC.COM/ALLIGATOR](https://myfwc.com/alligator)



VOLUNTEER event

lake sylvan SHORELINE RESTORATION

volunteers needed

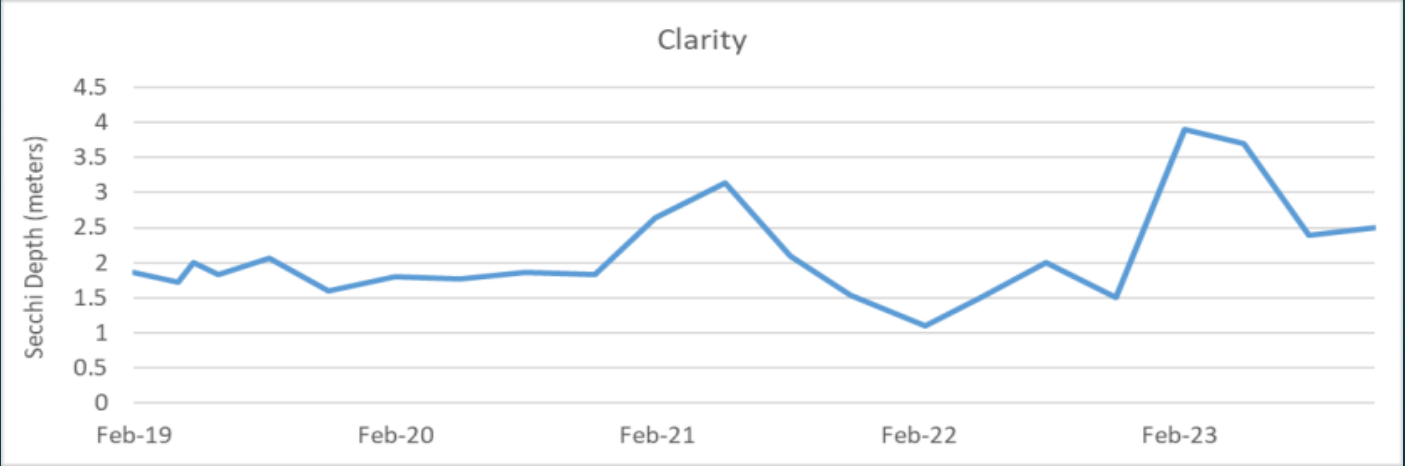
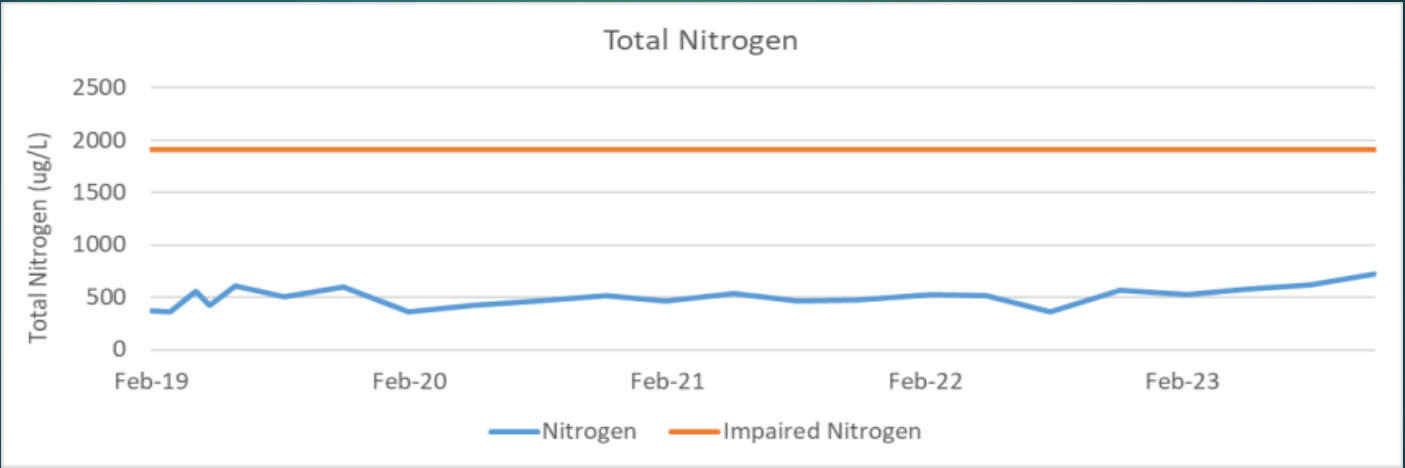
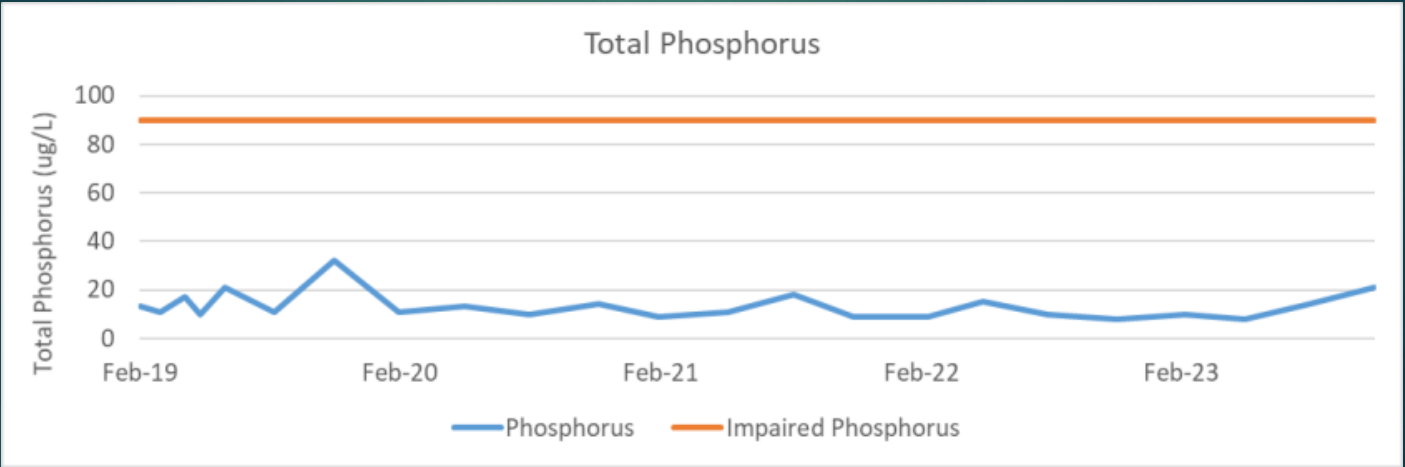
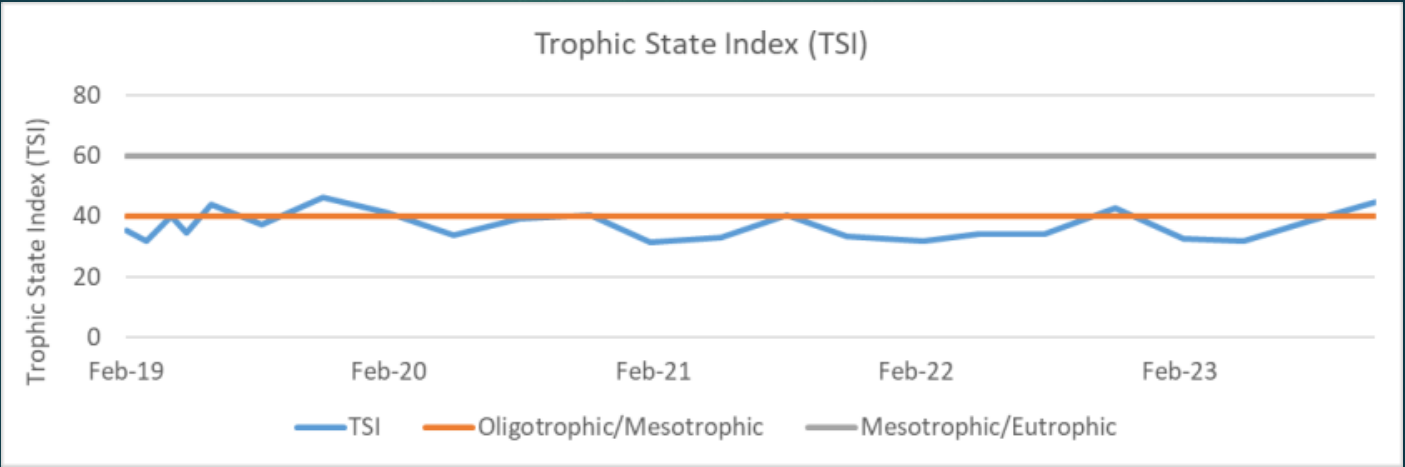
saturday **may 18** from **9-11 a.m.**
harris circle park @ 1575 harris circle

tools, gloves & water provided [pro tip: bring a bottle to refill]
please wear closed-toed shoes
be prepared to wade through knee-deep water

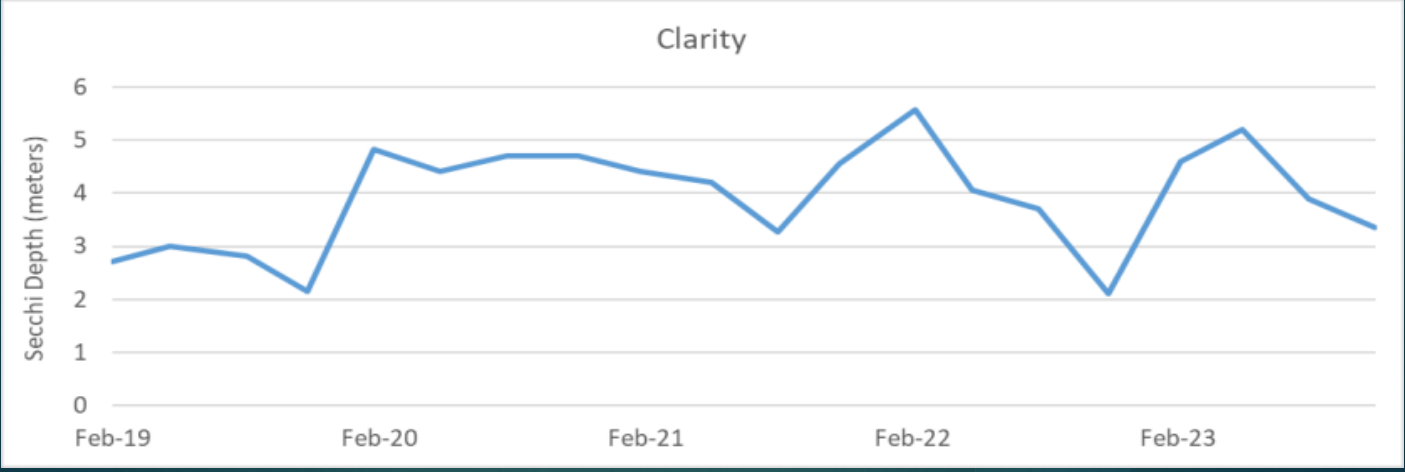
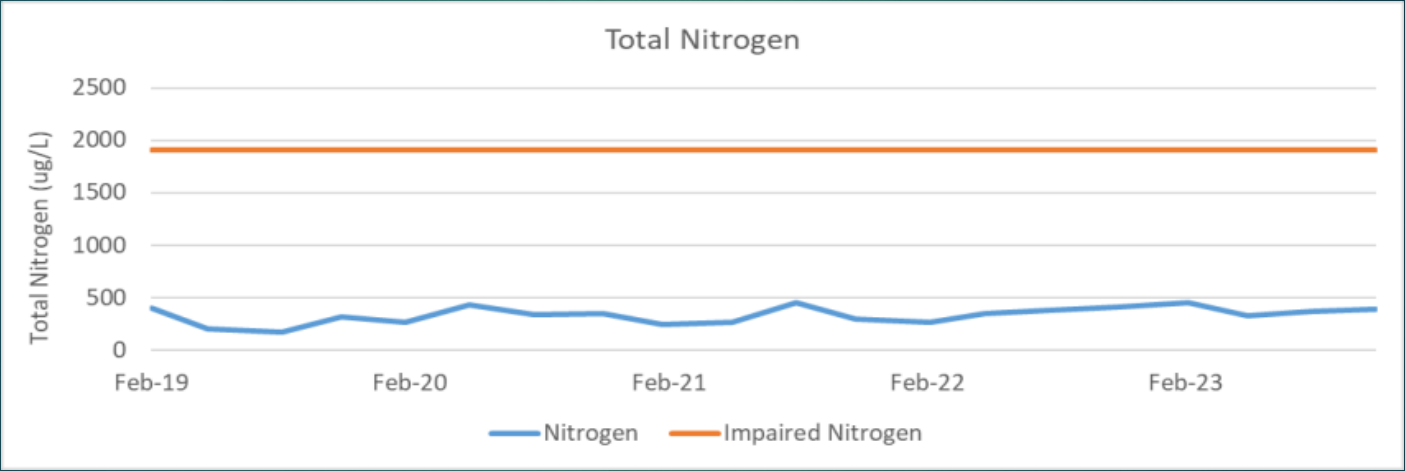
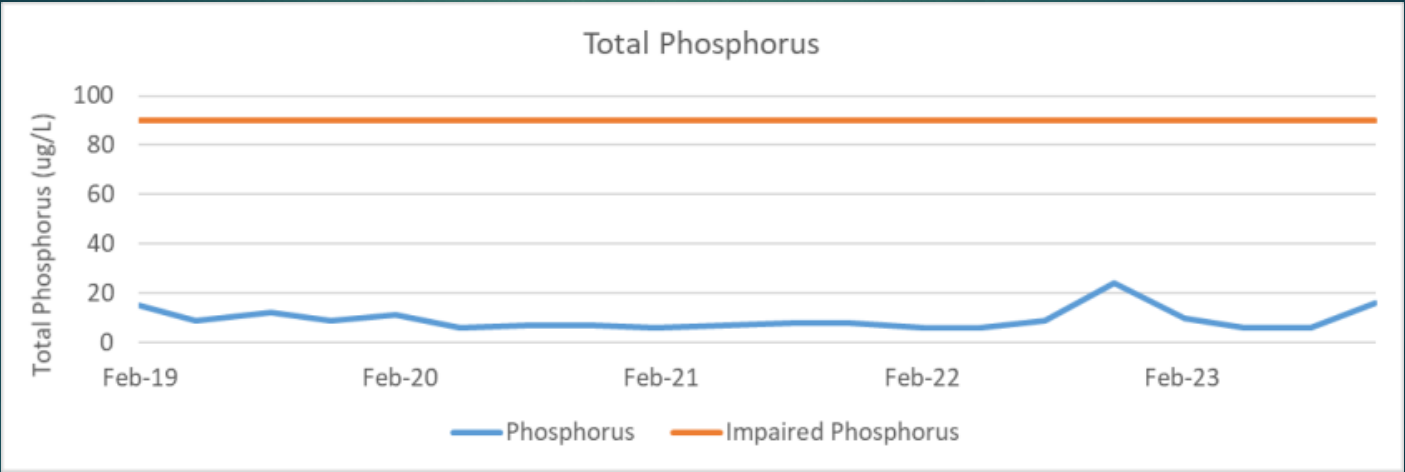
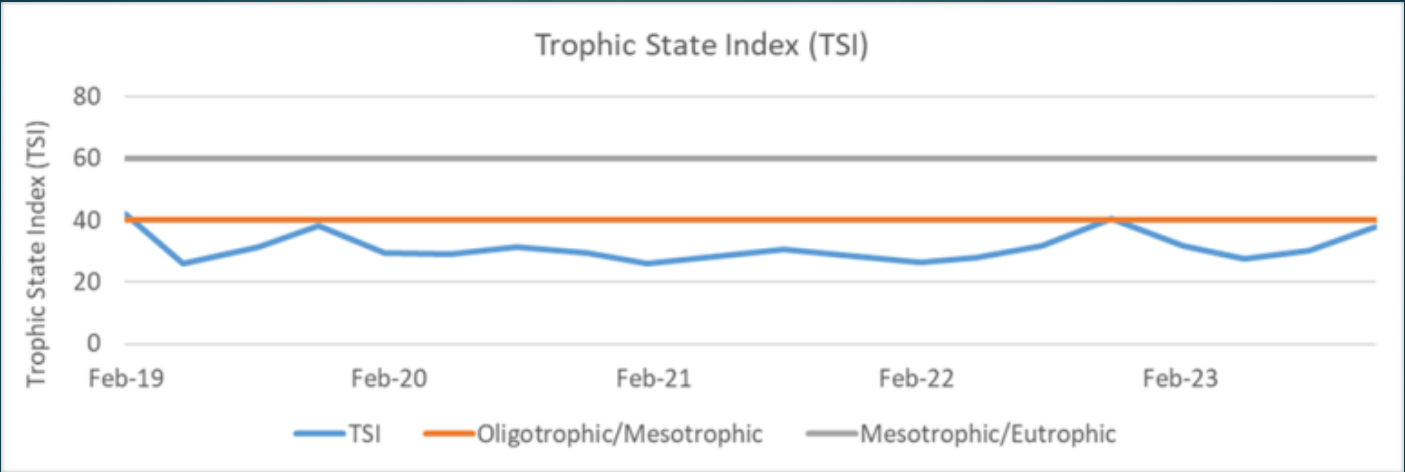


Lake Bell

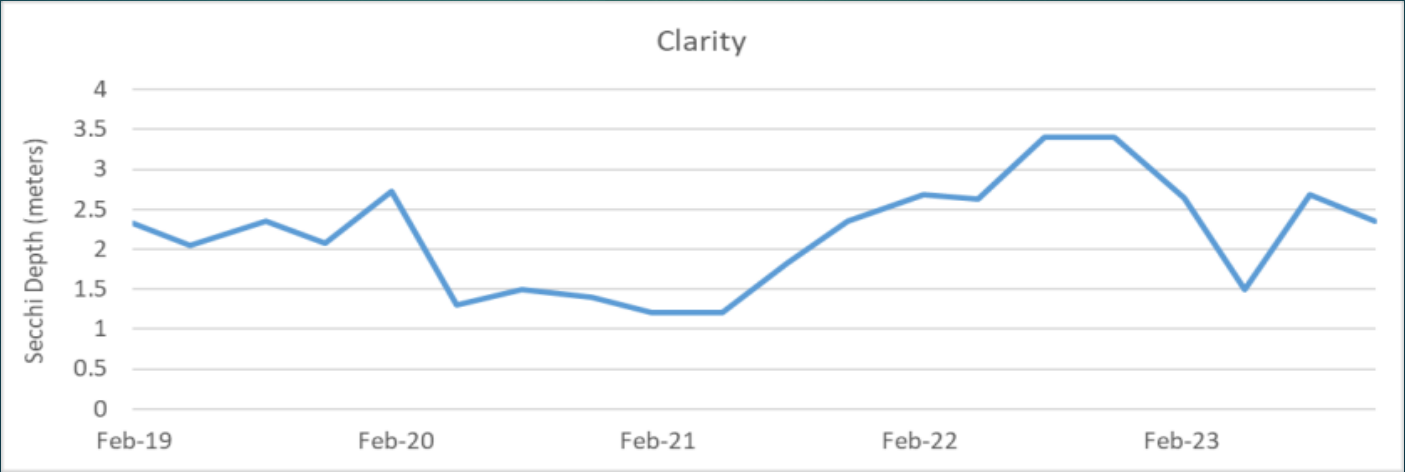
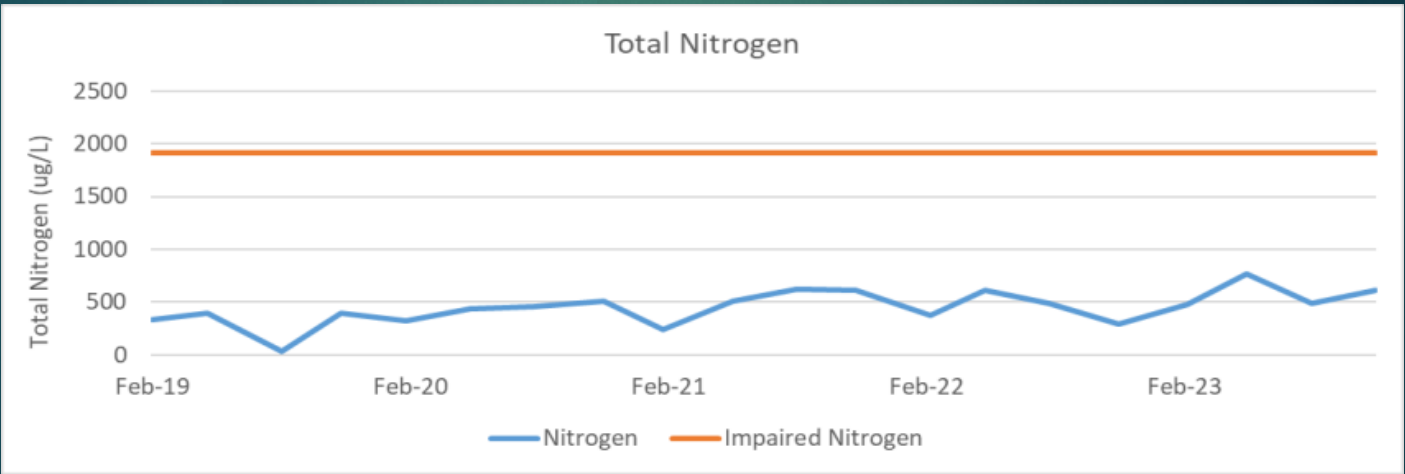
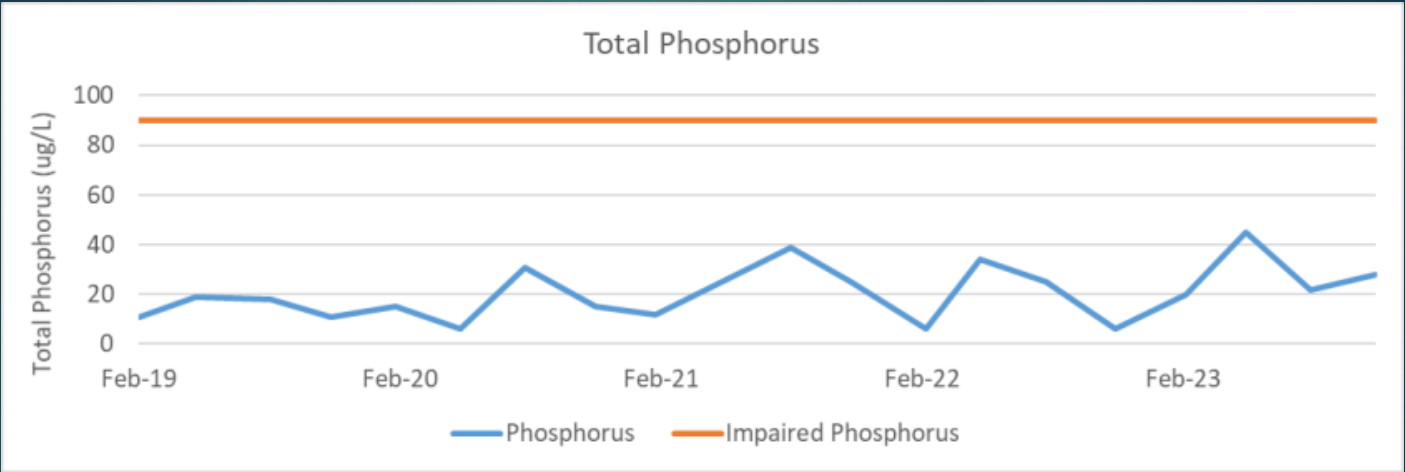
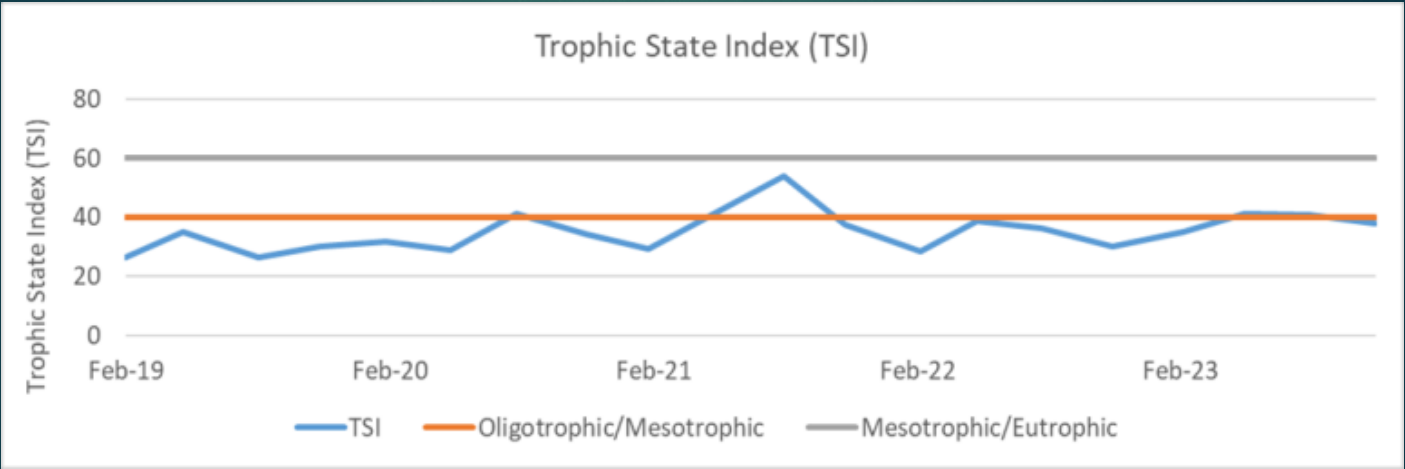
Water Quality



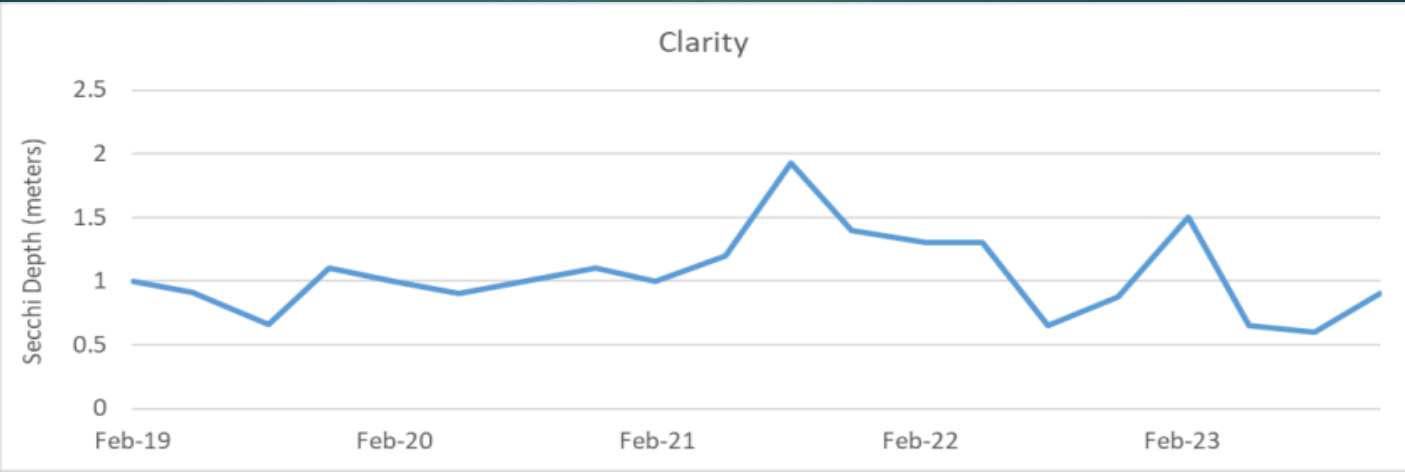
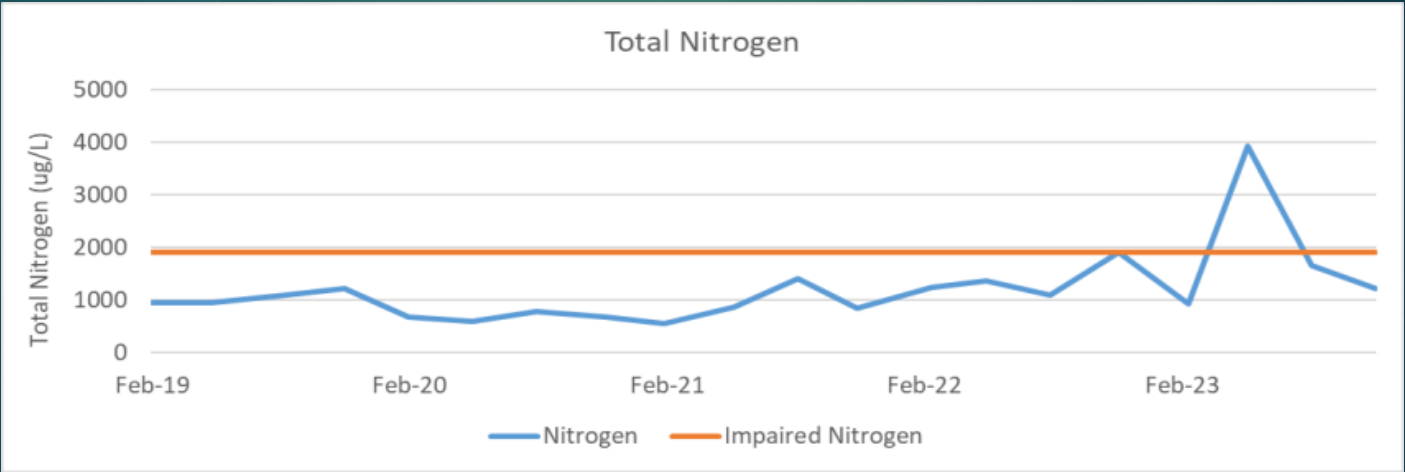
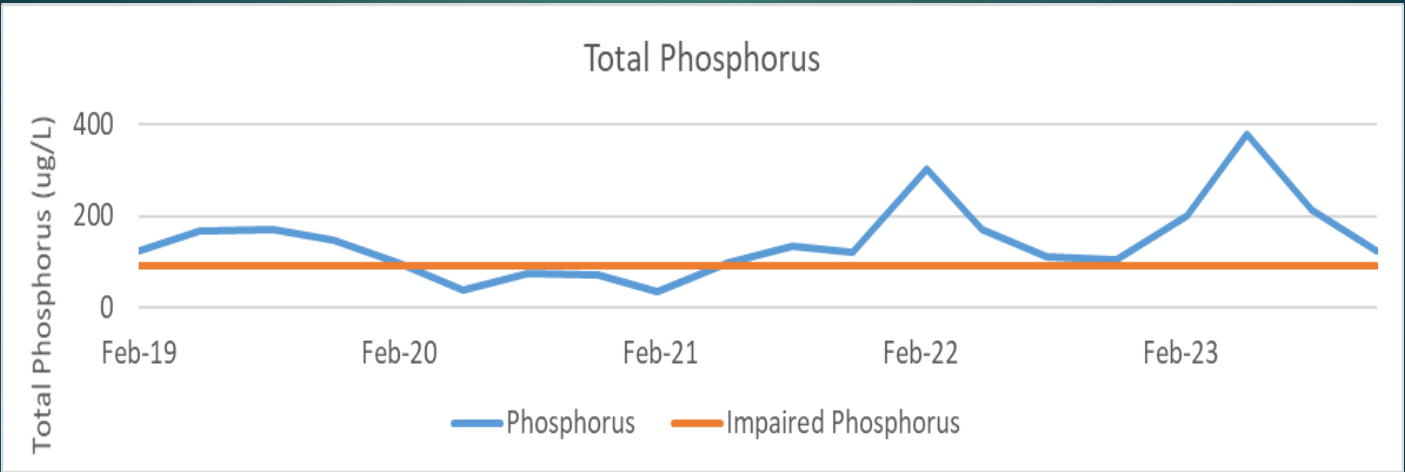
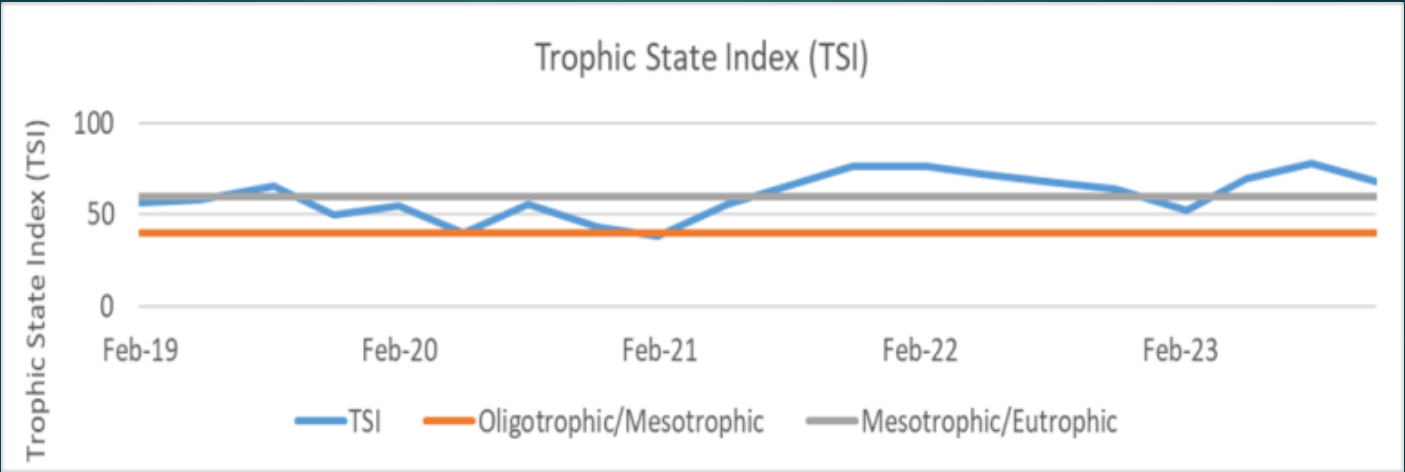
Lake Knowles Water Quality



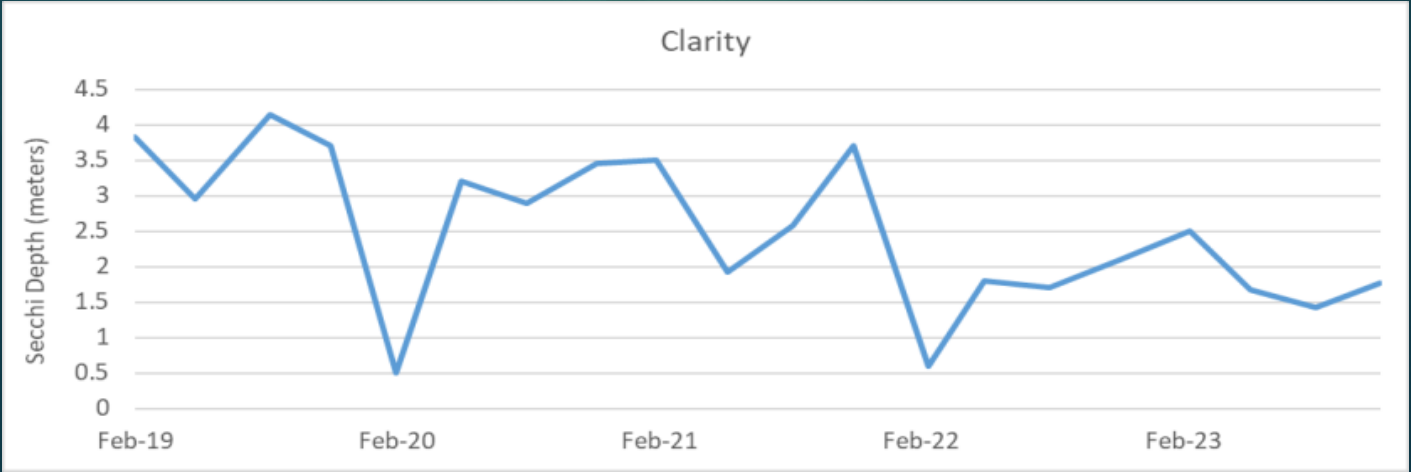
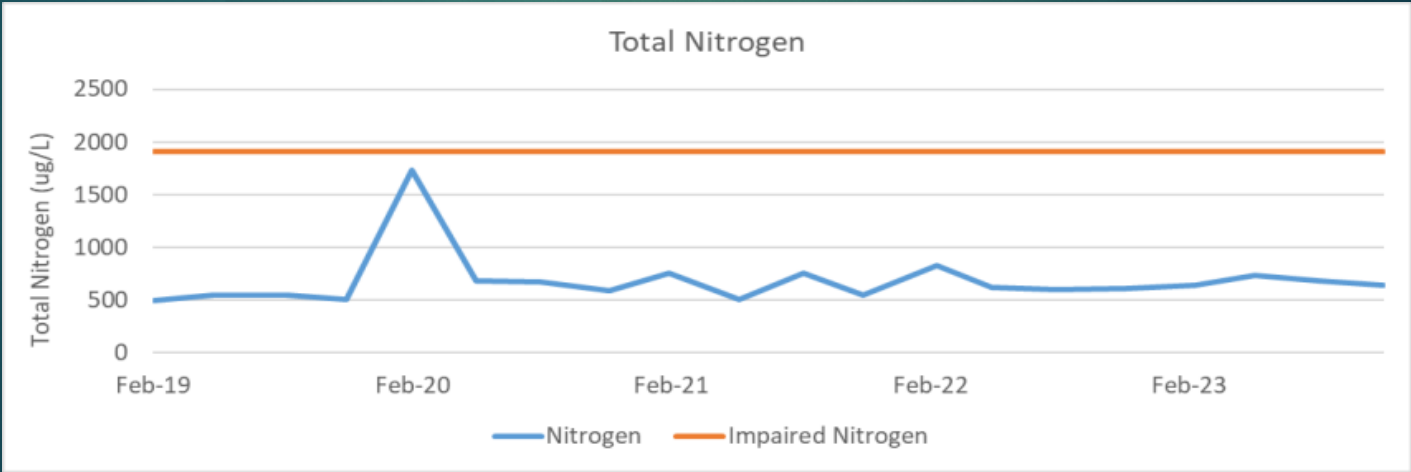
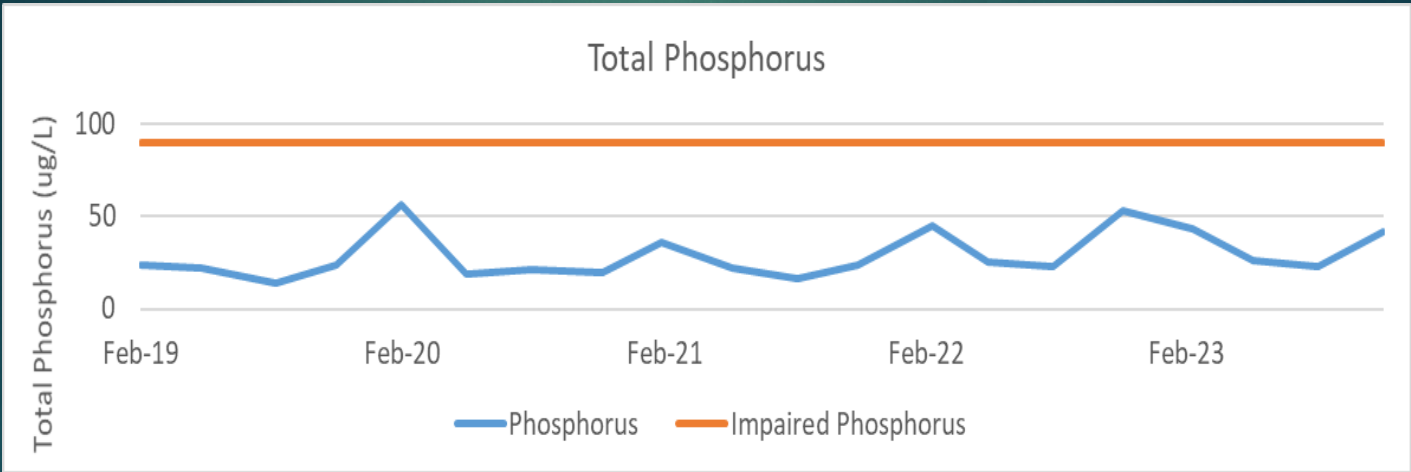
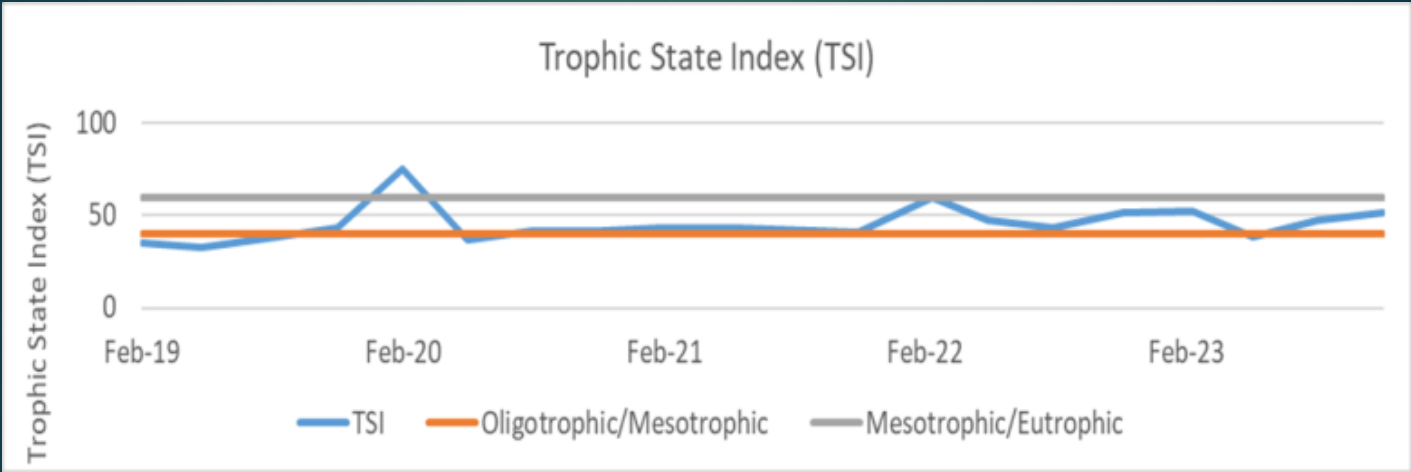
Lake Wilbar Water Quality



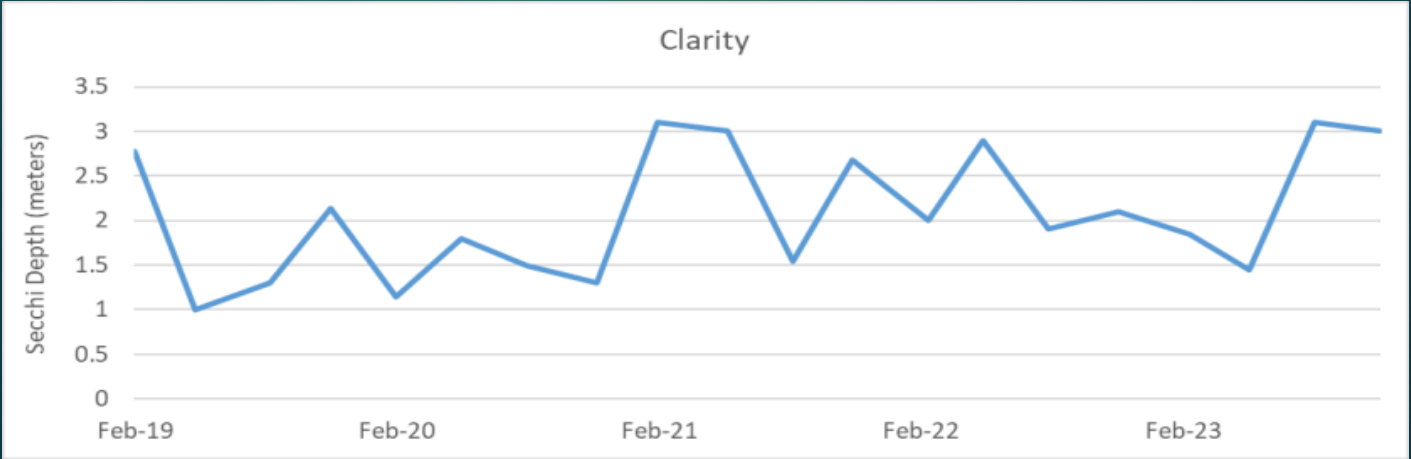
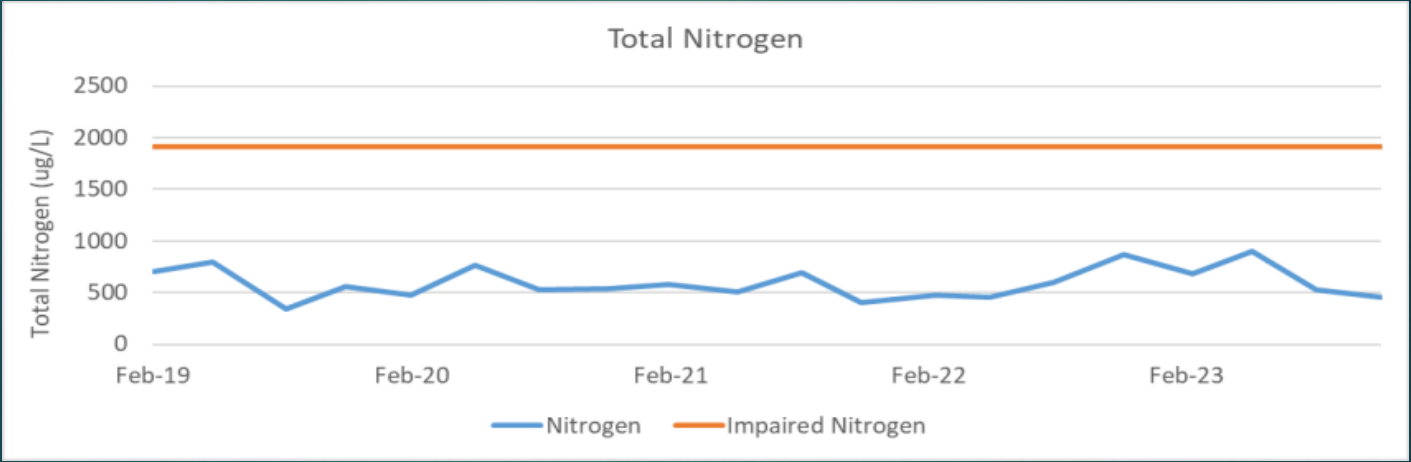
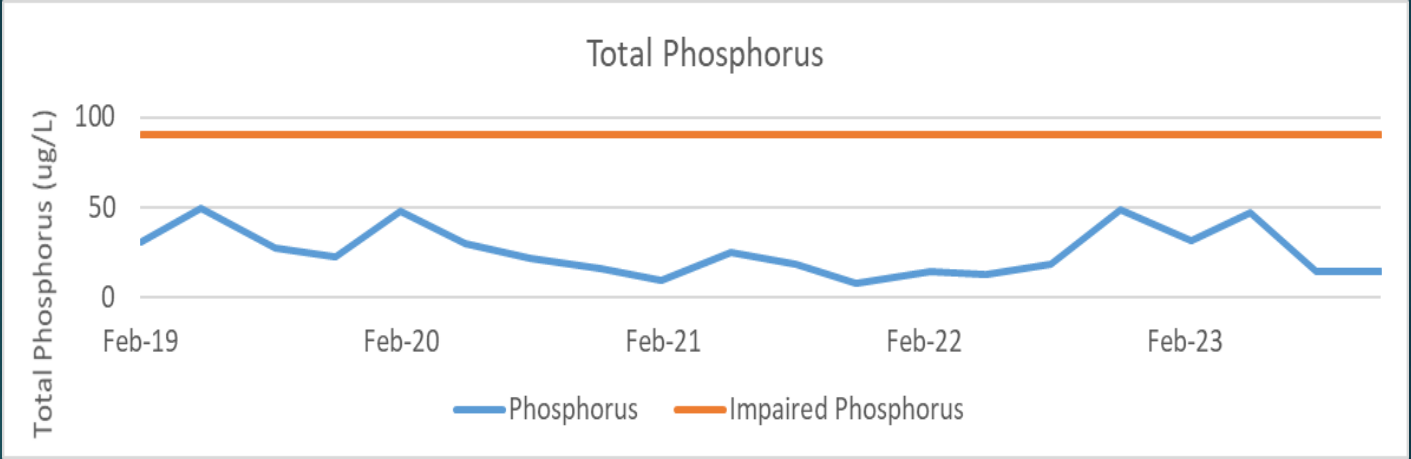
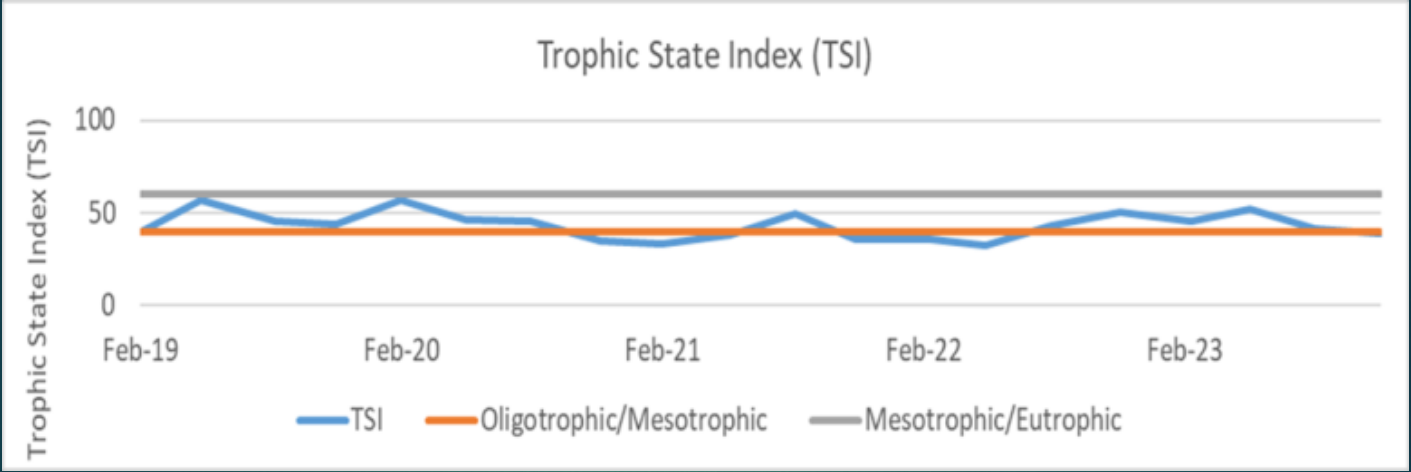
Lake Midget Water Quality



Lake Rose Water Quality

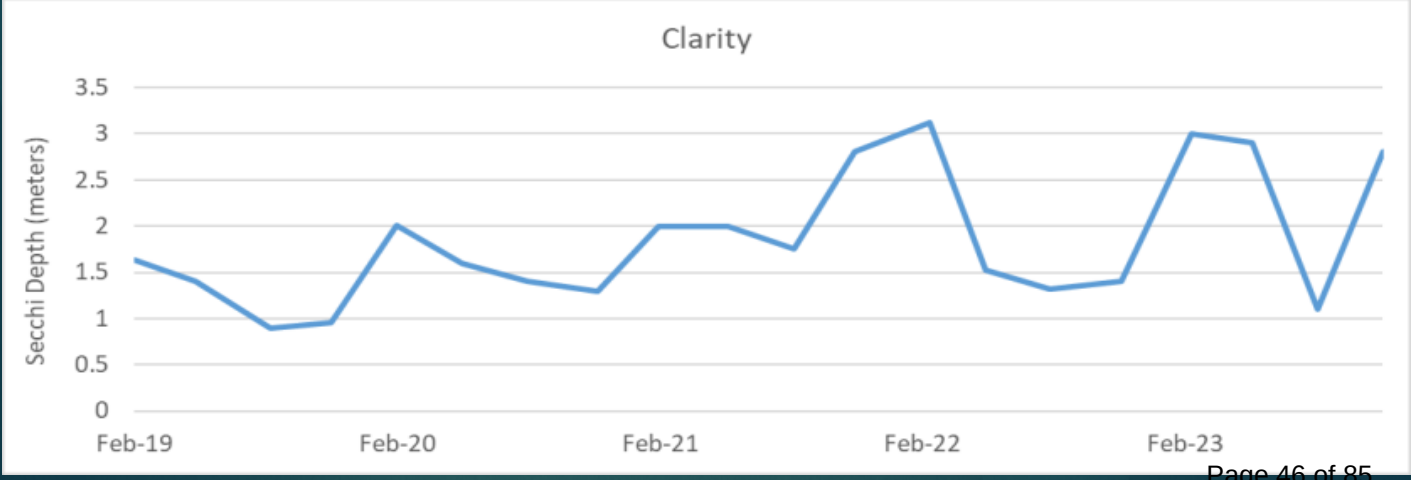
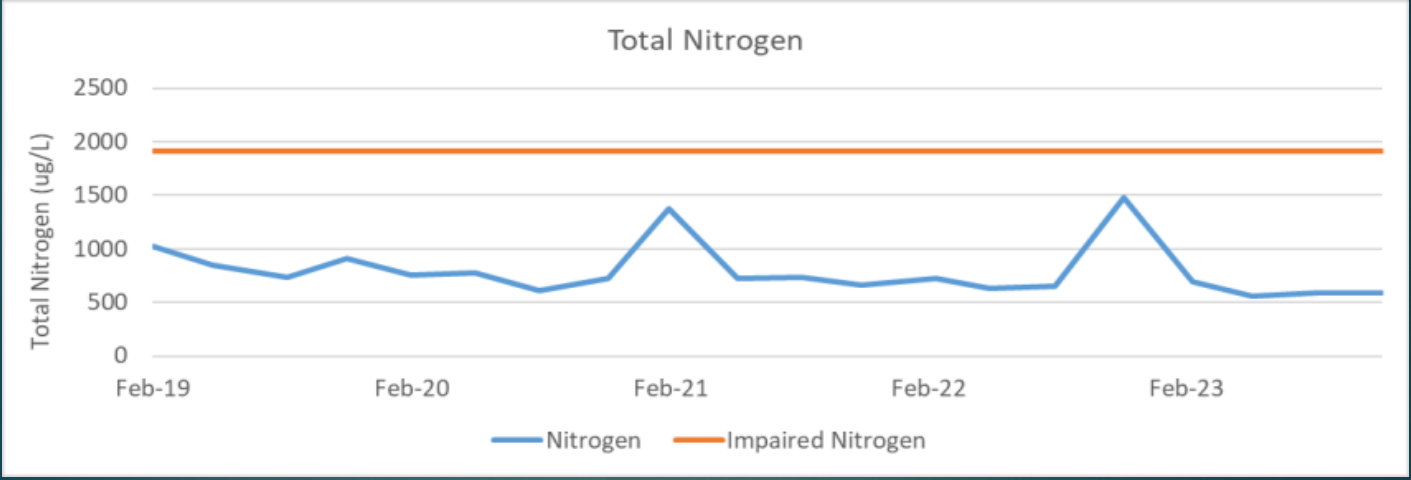
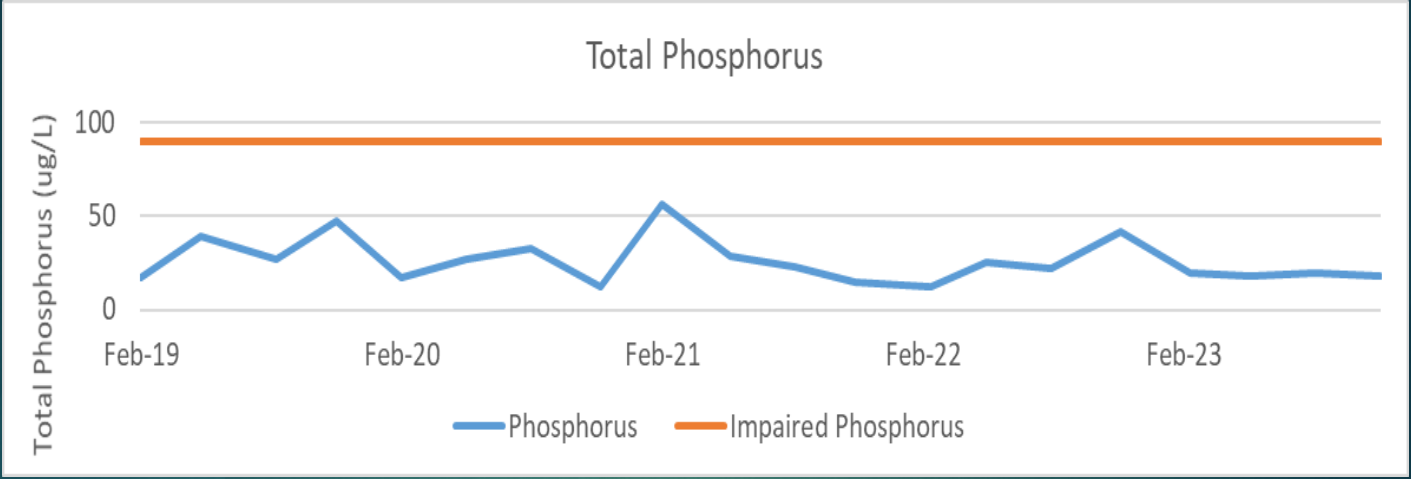
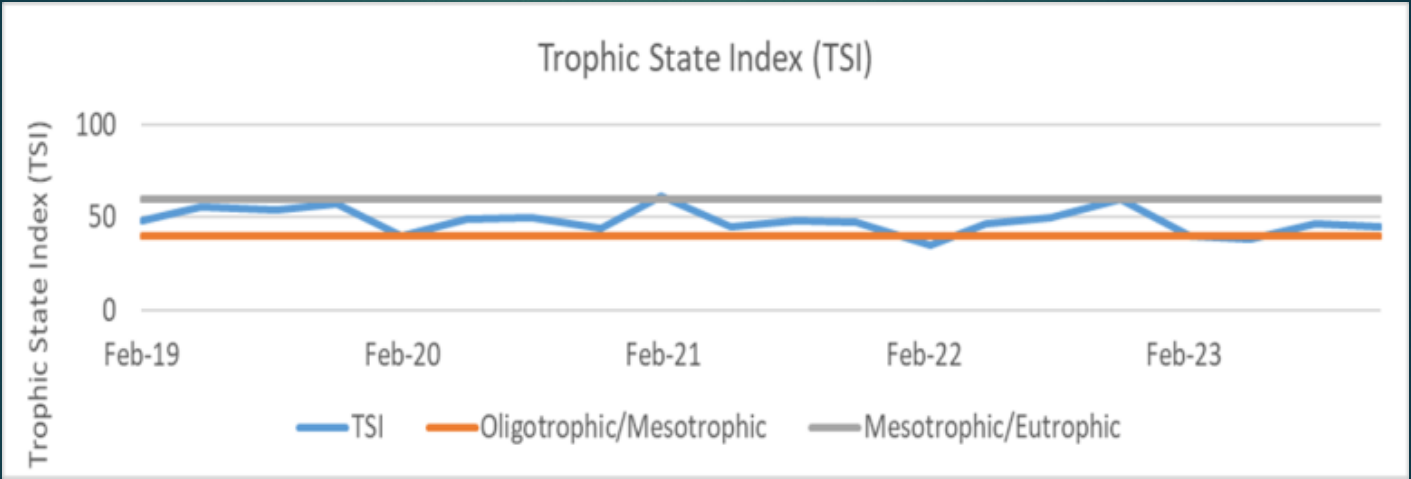


Lake Temple Water Quality

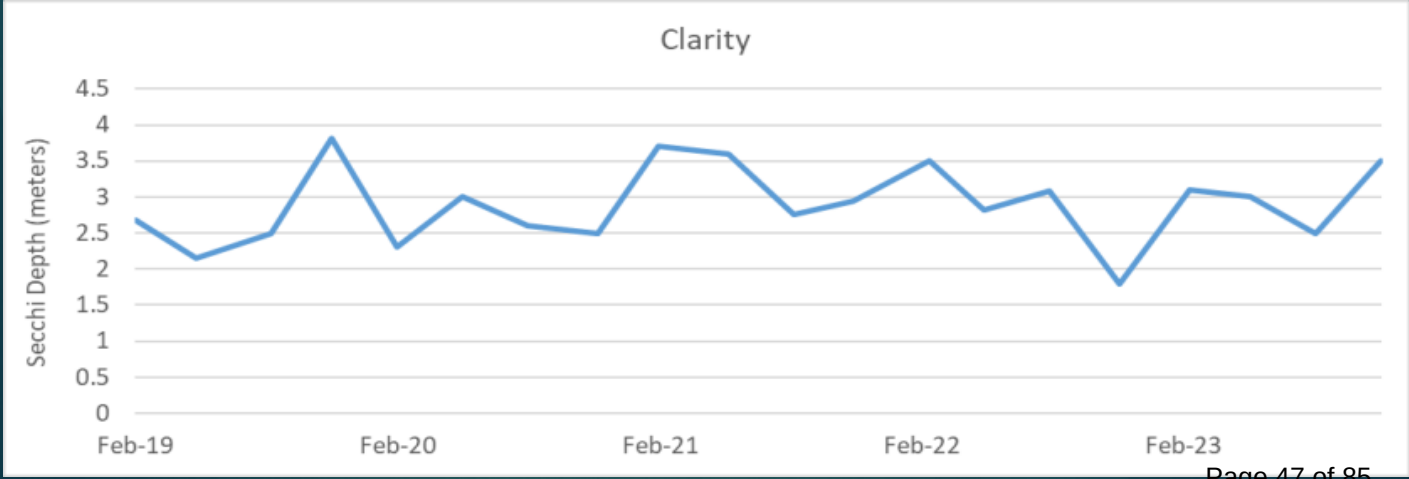
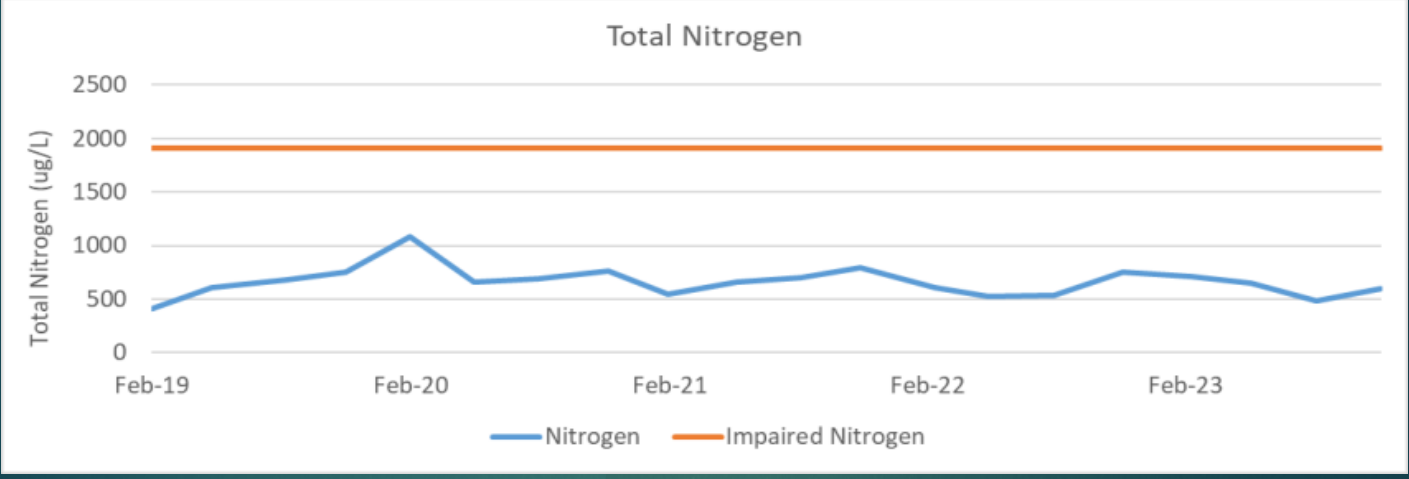
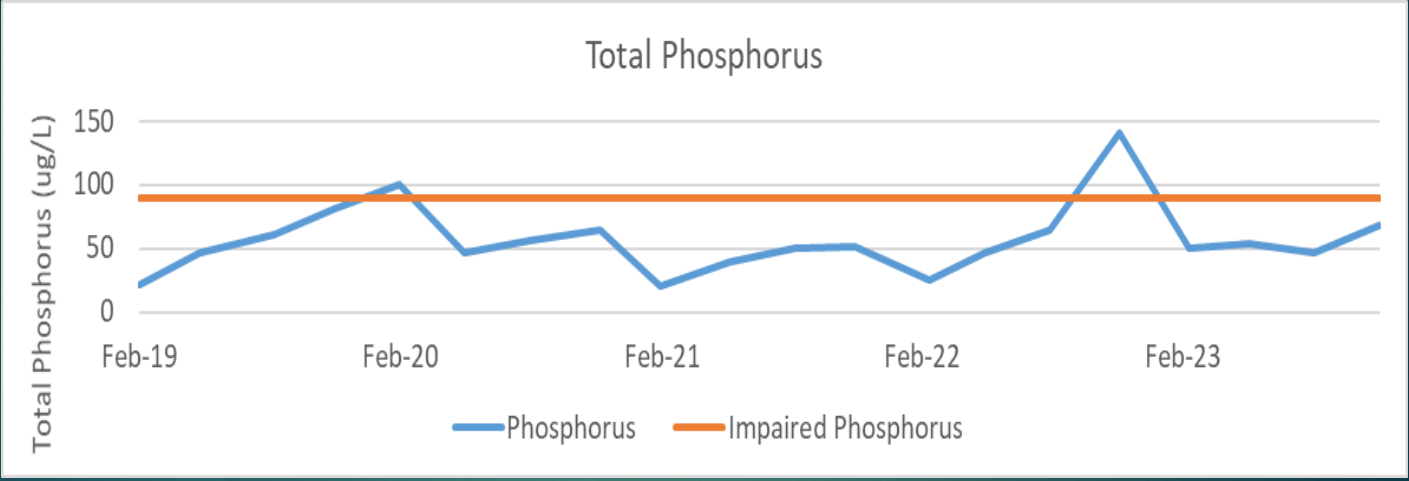
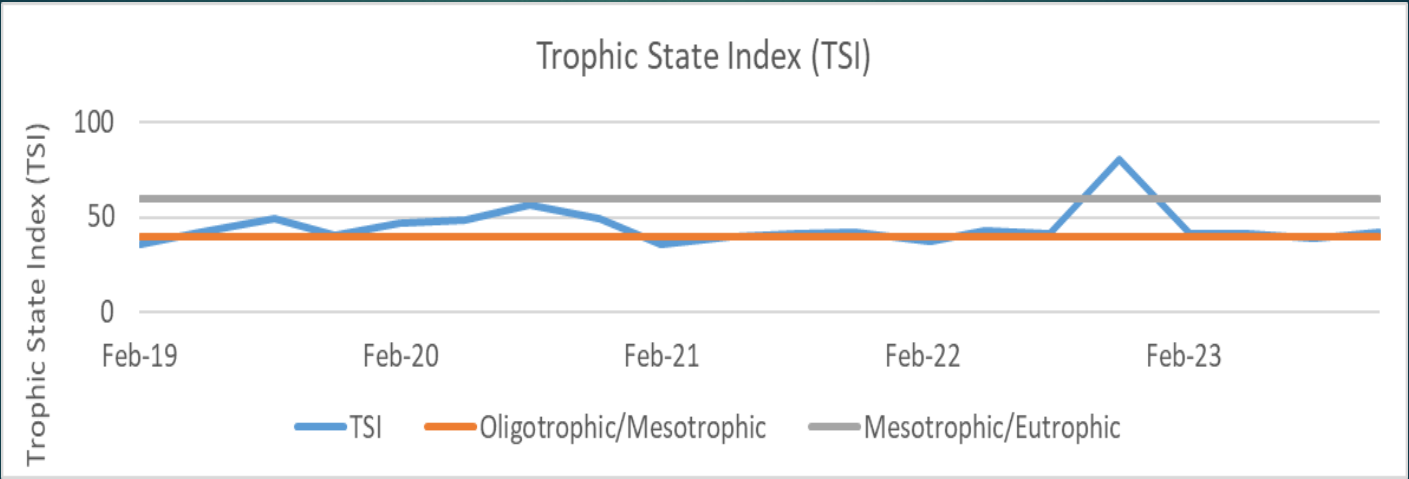


Lake Tuscany

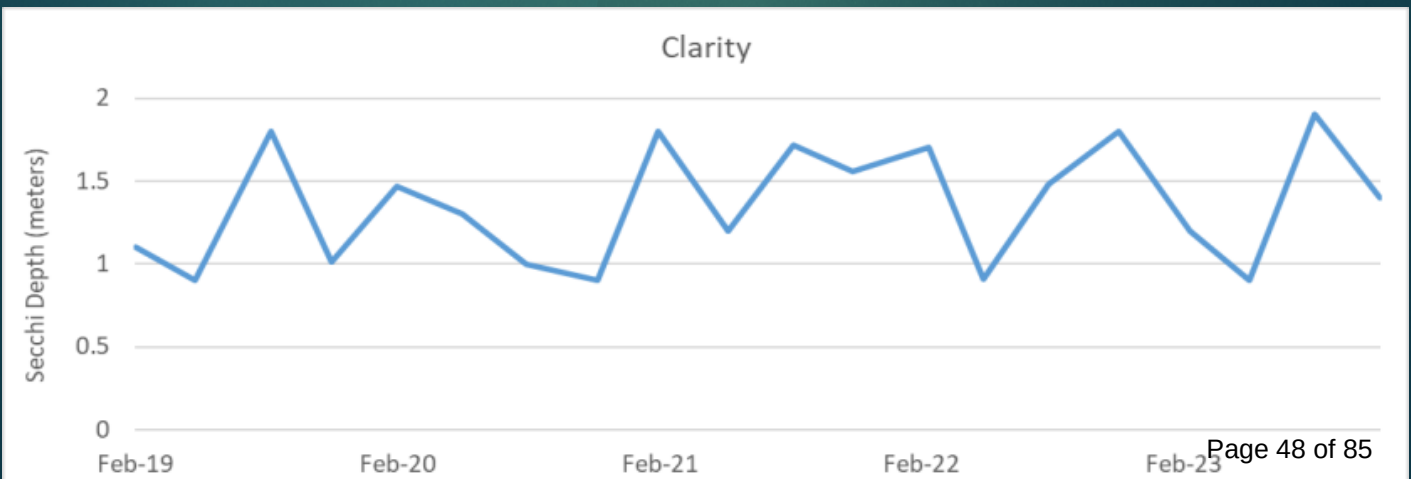
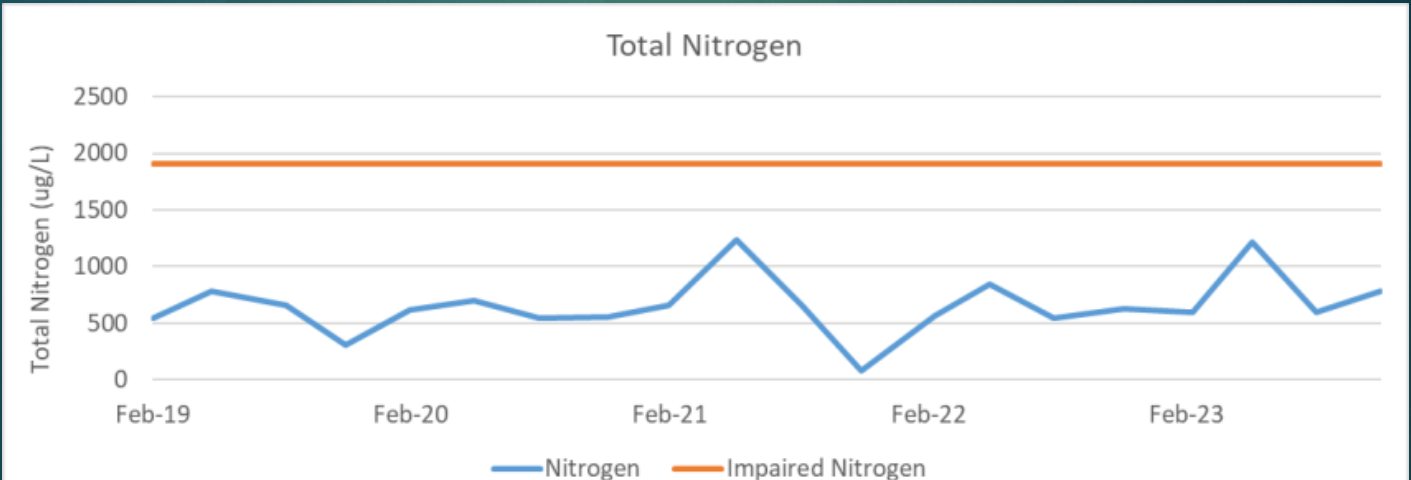
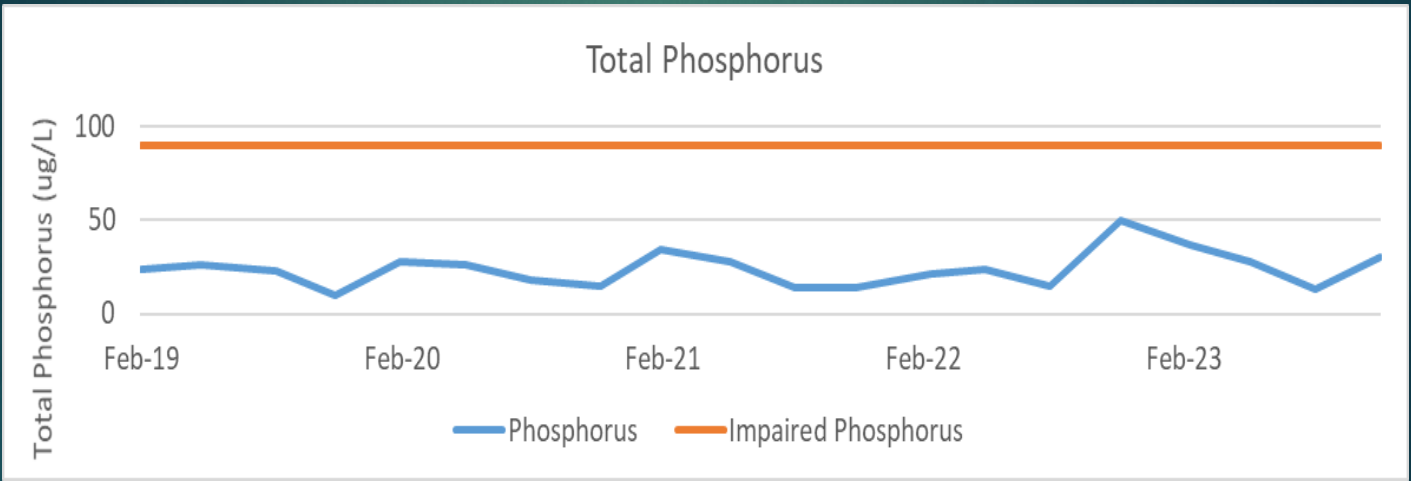
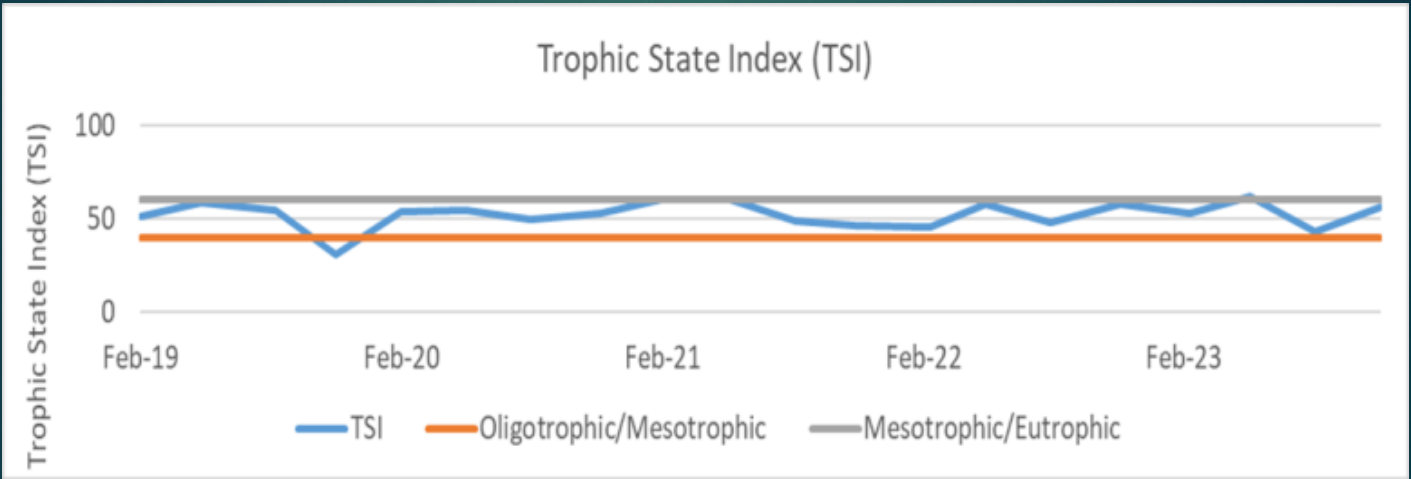
Water Quality



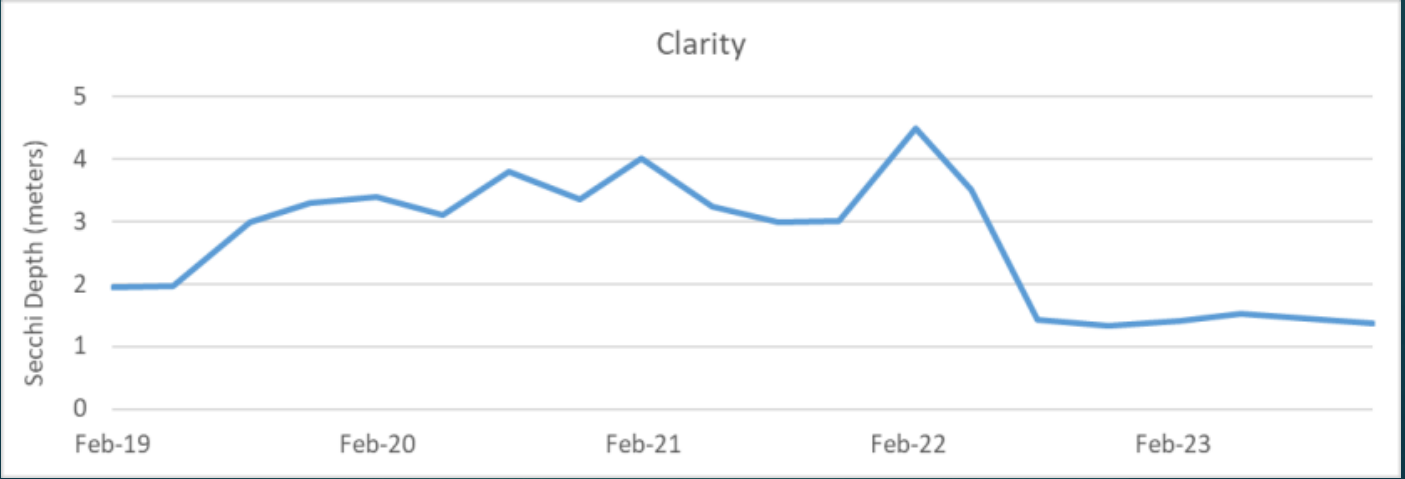
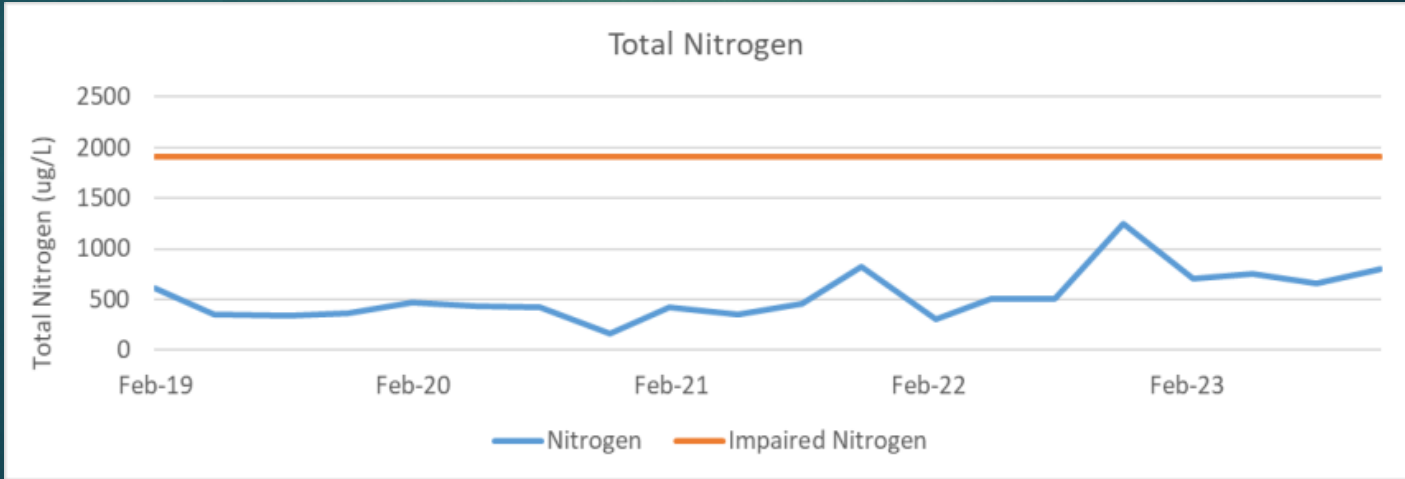
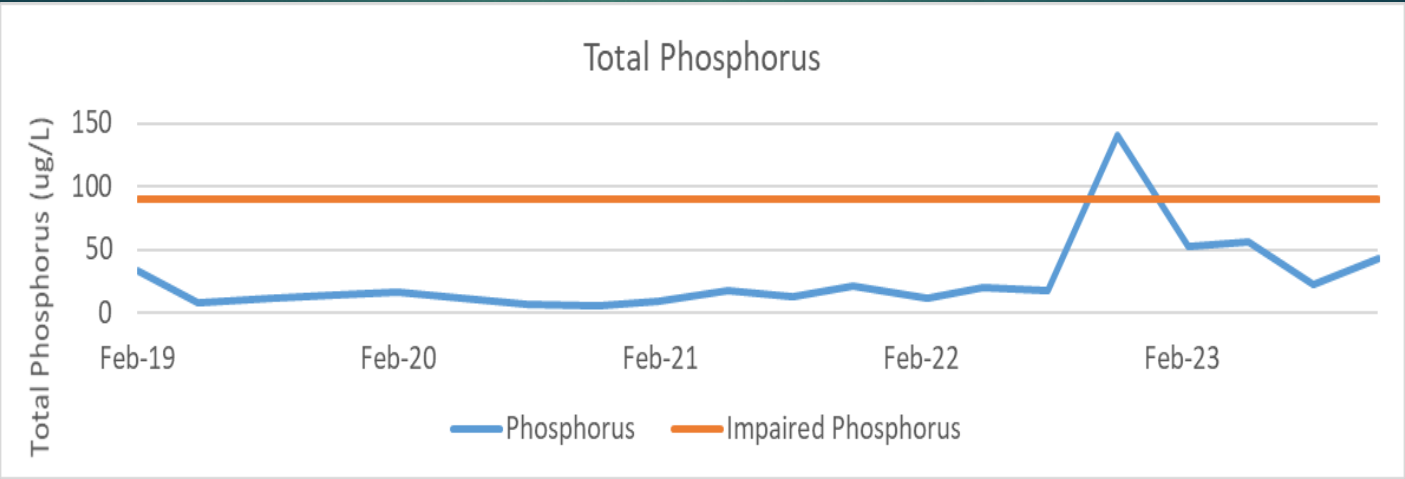
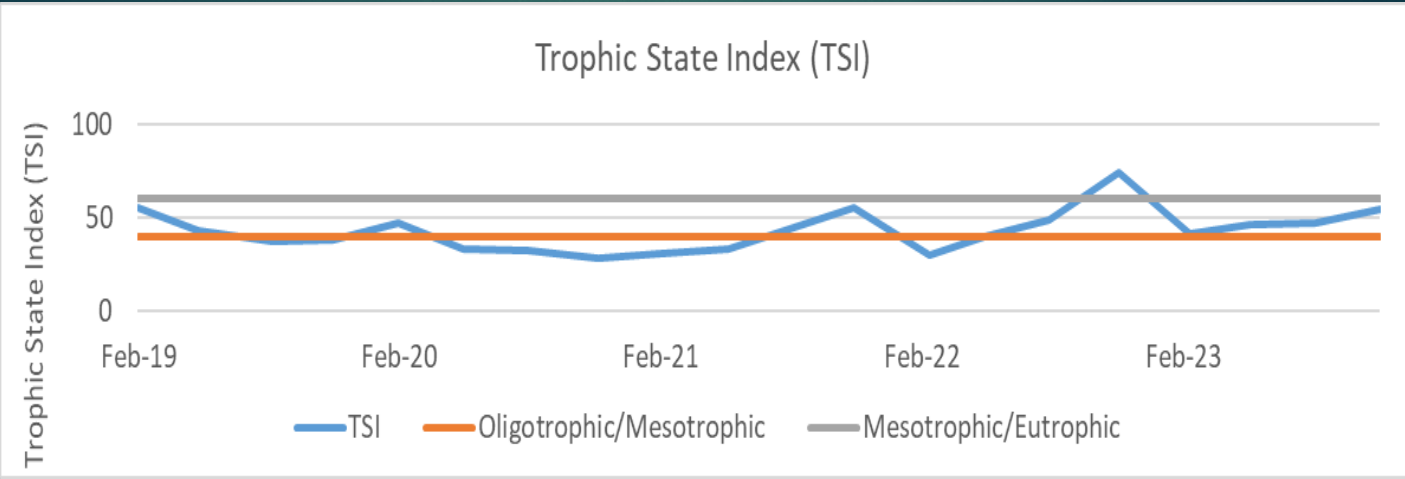
WPRC Water Quality



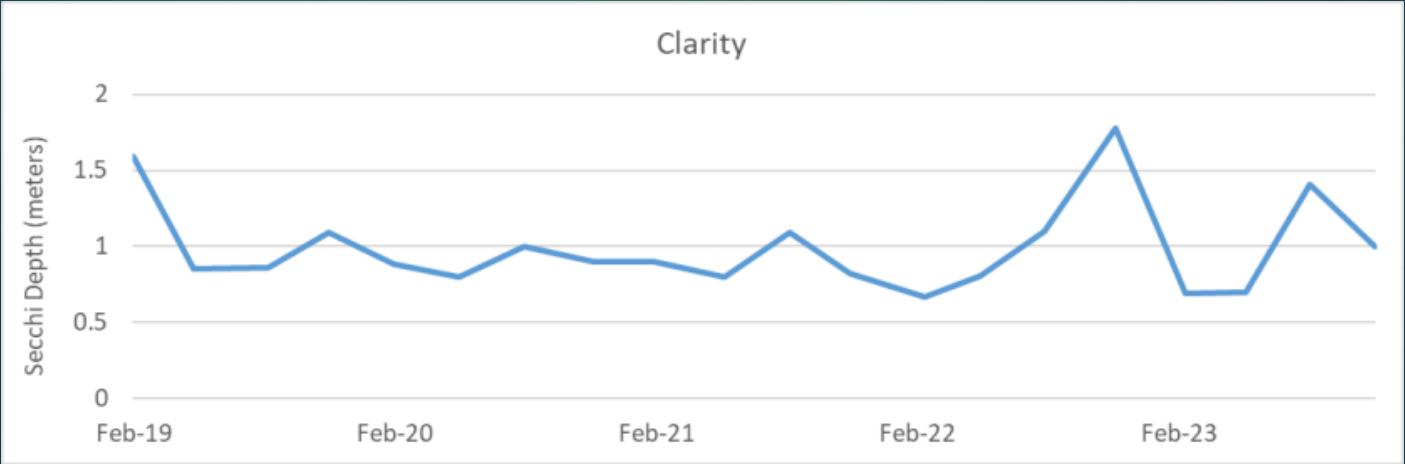
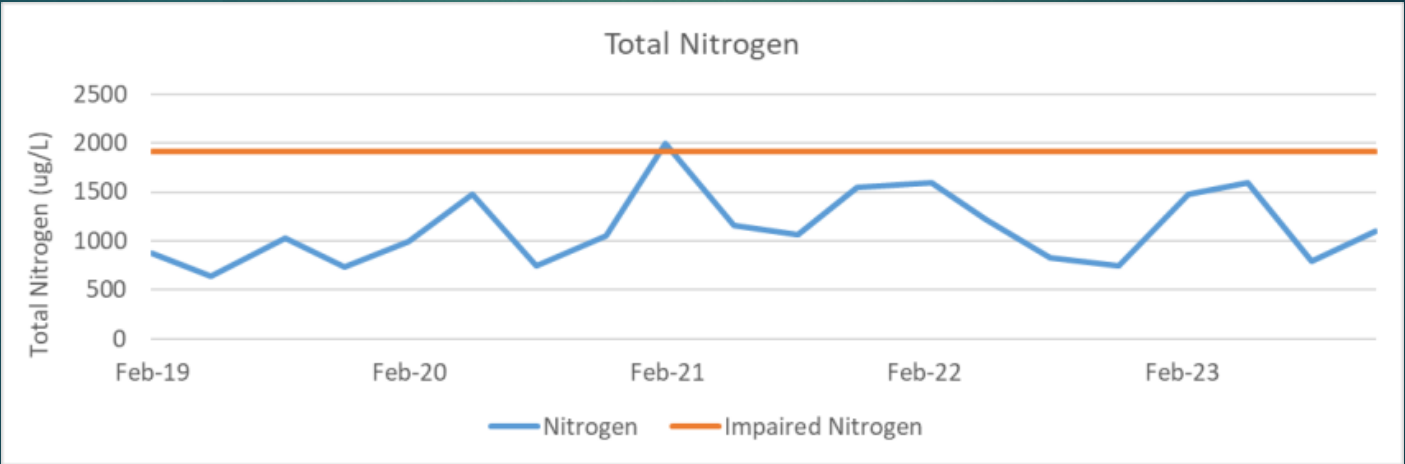
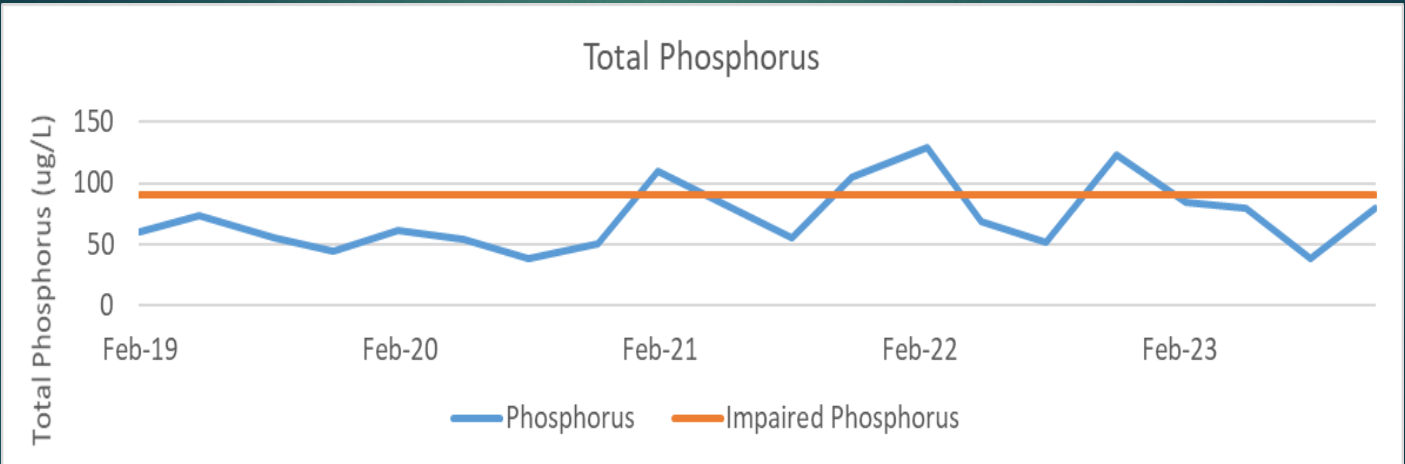
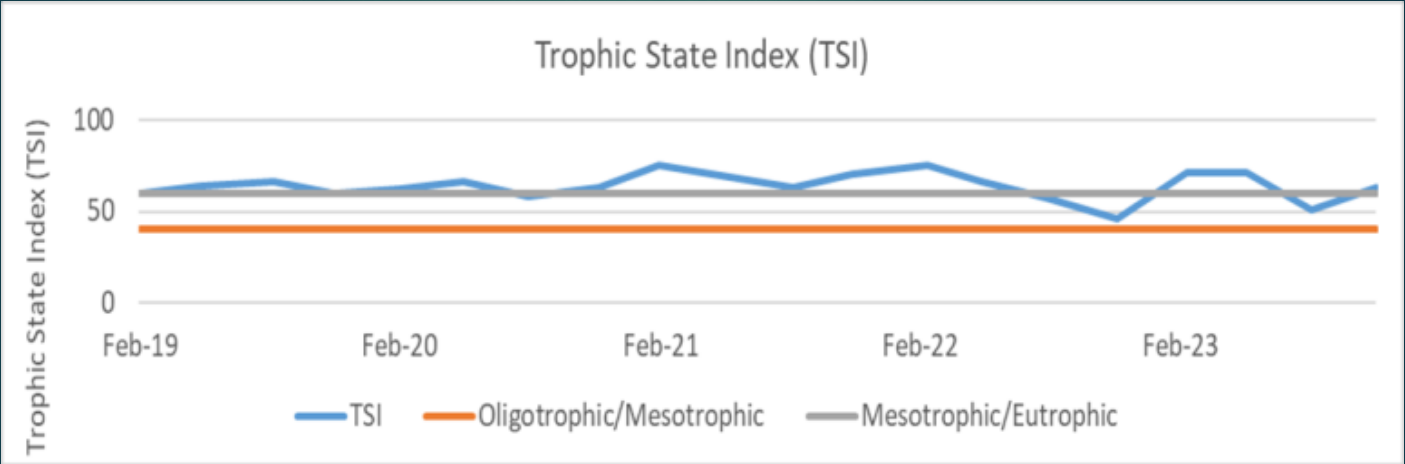
Lake Sylvan Water Quality



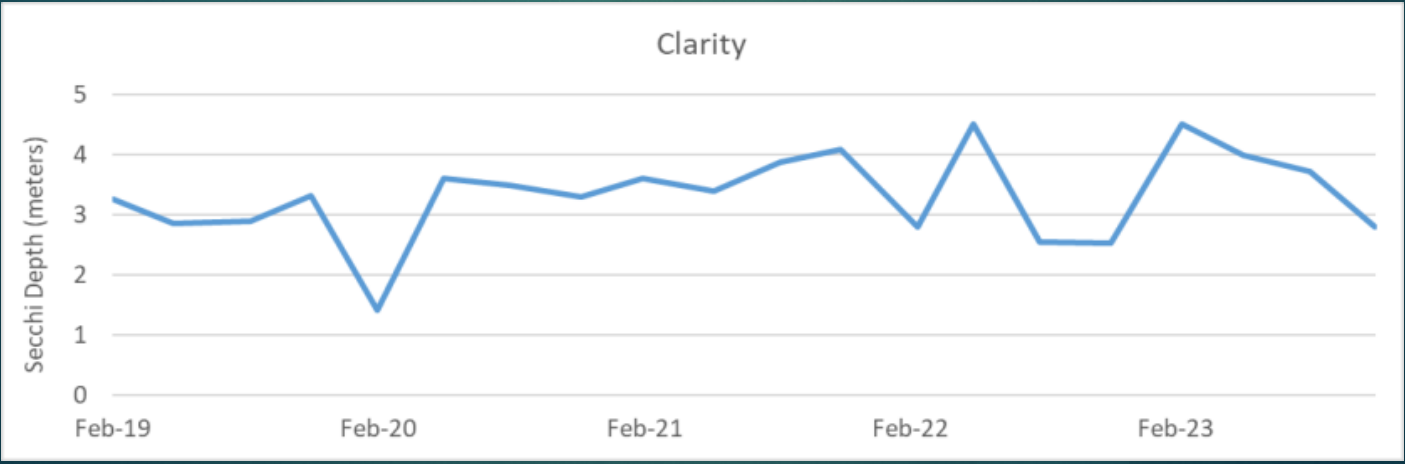
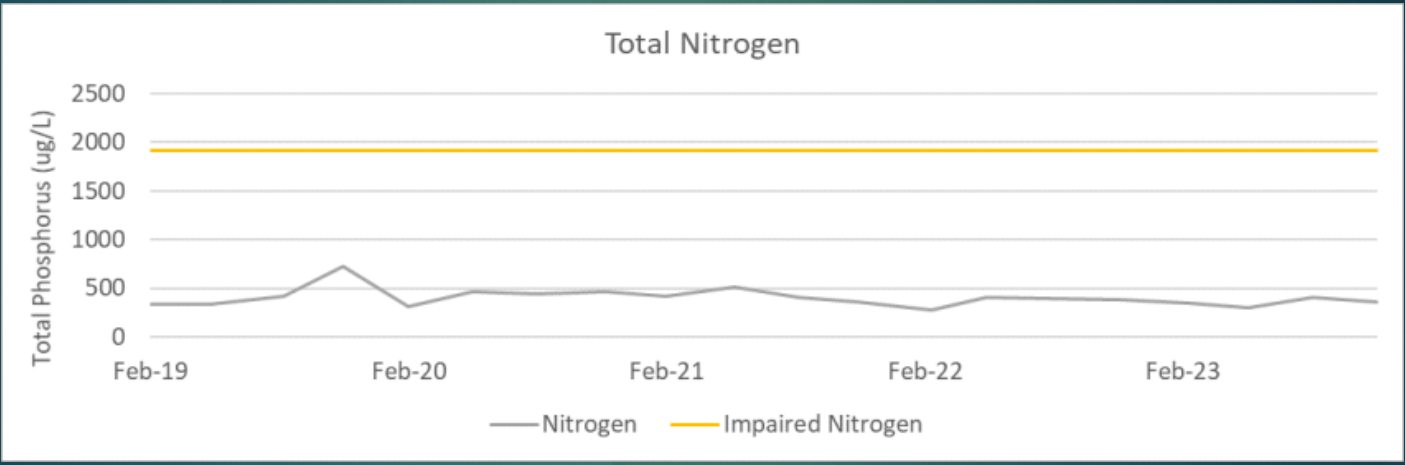
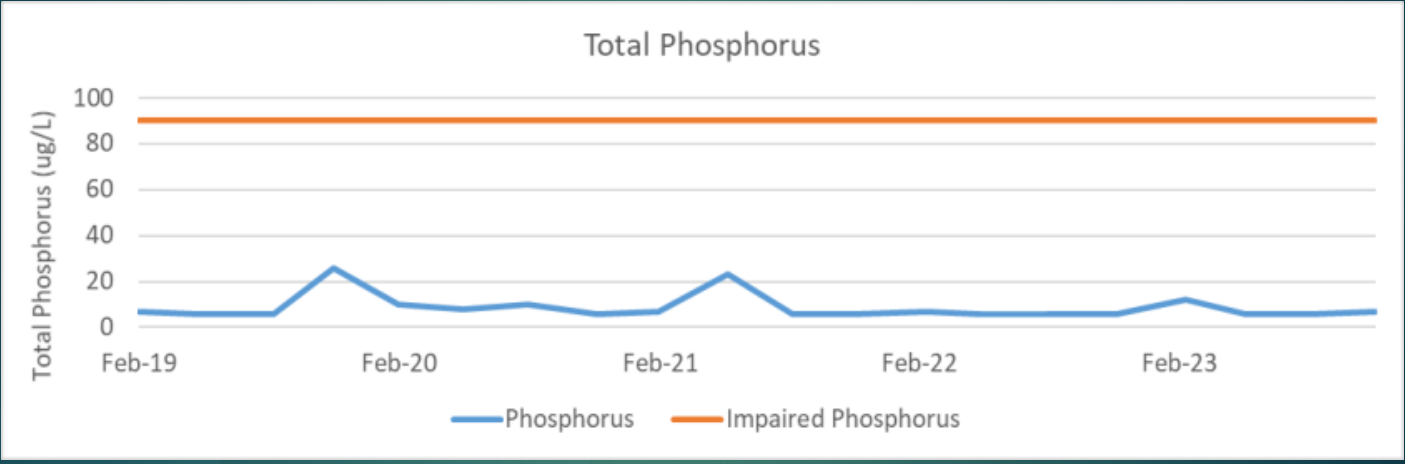
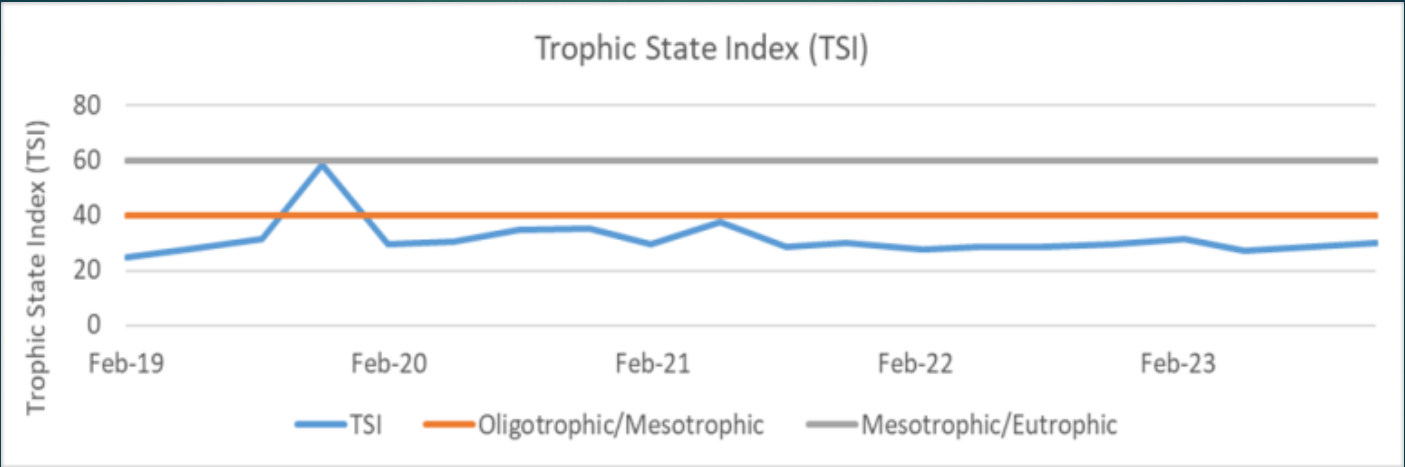
Lake Chelton Water Quality



Lake Forest Water Quality



Lake Spier Water Quality





Lakes & Waterways Board

agenda item 7.c

item type

Staff Updates

meeting date

May 14, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Hurricane Season Preparedness

- Hurricane Guide: [Hurricane Preparedness Guide Link](#)

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

1. Hurricane Preparedness 2024
2. FLOOD MGMT 3.00

Hurricane Preparedness 2024



Hurricane Preparedness: 2024 Season

Dept of Natural Resources & Sustainability

- Multiple labs on standby-by ready to receive lake samples. (Completed)
- Coordinate with Water/Waste Water lab to ensure coverage in the event of scheduled PTO
- High water elevation closure: >66.1 ft (NAVD 88) (Established Elevation)
- Installed closure gates to ramp and parking at Dinky Dot Park

Hardening for Future Storms

- Provide advance alert notifications for potential impacts to high-risk areas (i.e. flooded areas, Special Flood Hazard Areas)
- Vulnerability Assessment Study: Provides modeling for 100/500 year storms identifying vulnerable critical infrastructure
- Assist Public Works with stormwater modeling efforts city-wide

Hurricane Preparedness 2024



CITY OF WINTER PARK *INTERIM PLAN* ADAPTIVE FLOOD MANAGEMENT GUIDE OCTOBER 2023

In May of 2023, the National Hurricane Center (NHC) changed its Tropical Weather Outlook notification from five-days to seven-days. The NHC extended the outlook due to technological advancements with satellites and modeling stating that seven-day forecasts are just as reliable as the five-day forecasts.

With this technological development, daily active management of lake levels within the City of Winter Park will occur upon issuance by the National Hurricane Center (NHC) that tropical activity has been identified for the new Seven-Day Outlook. Protocols and procedures will further be enacted when the NHC's projected cone touches the Central Florida Region as defined below, whereby the active management of lowering lake levels will occur according to the spi guide. In addition, annual notification to the Florida Department of Environment in writing, is required for implementing drain well activities. City Manager override flood management policy if circumstances dictate doing so. Any the reasoning, shall be documented in writing.

This guide was developed in collaboration with the Lakes & Waterways and Boards to empower the City's professional staff on adaptive lake management.

Seven-Day Outlook:



Example of Storm Activating Central Florida



NATURAL RESOURCES & SUSTAINABILITY DEPARTMENT CHECKLIST

During National Hurricane Season, June 1st to November 30th, the Lake Bell top weir board will be removed.

168 hours (7 days) prior to storm at any time of the year

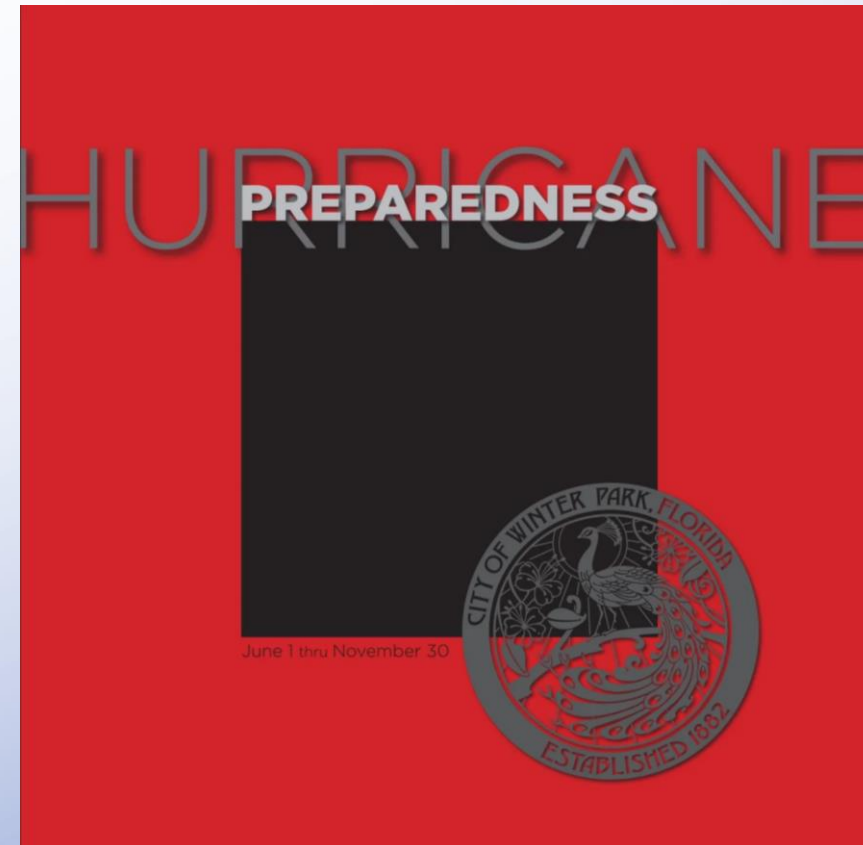
- Monitor storm models via National Hurricane Center's (NHC) Seven-Day Tropical Weather Outlook.
- Refer to established protocol under City of Winter Park's Flood Management Guide.
 - Lower lake elevations, where permissible.
 - Lake Killarney's six drain well risers and Lake Bell top weir board will all be removed in advance whereby the track issued by the National Hurricane Center cone touches the Central Florida region and replace when storm is no longer a threat.

120 hours (5 days) prior to storm

- Monitor storm models.
- Provide staff with tracking sheets for manpower hours and equipment usage for Federal Emergency Management Agency (FEMA) records.
- Notify laboratory of potential lake sample submittals. Coordinate with water & wastewater laboratory manager.
- Inspect control and outflow structures located on the lakes, including leaf trap devices; maintain free and clear of debris.

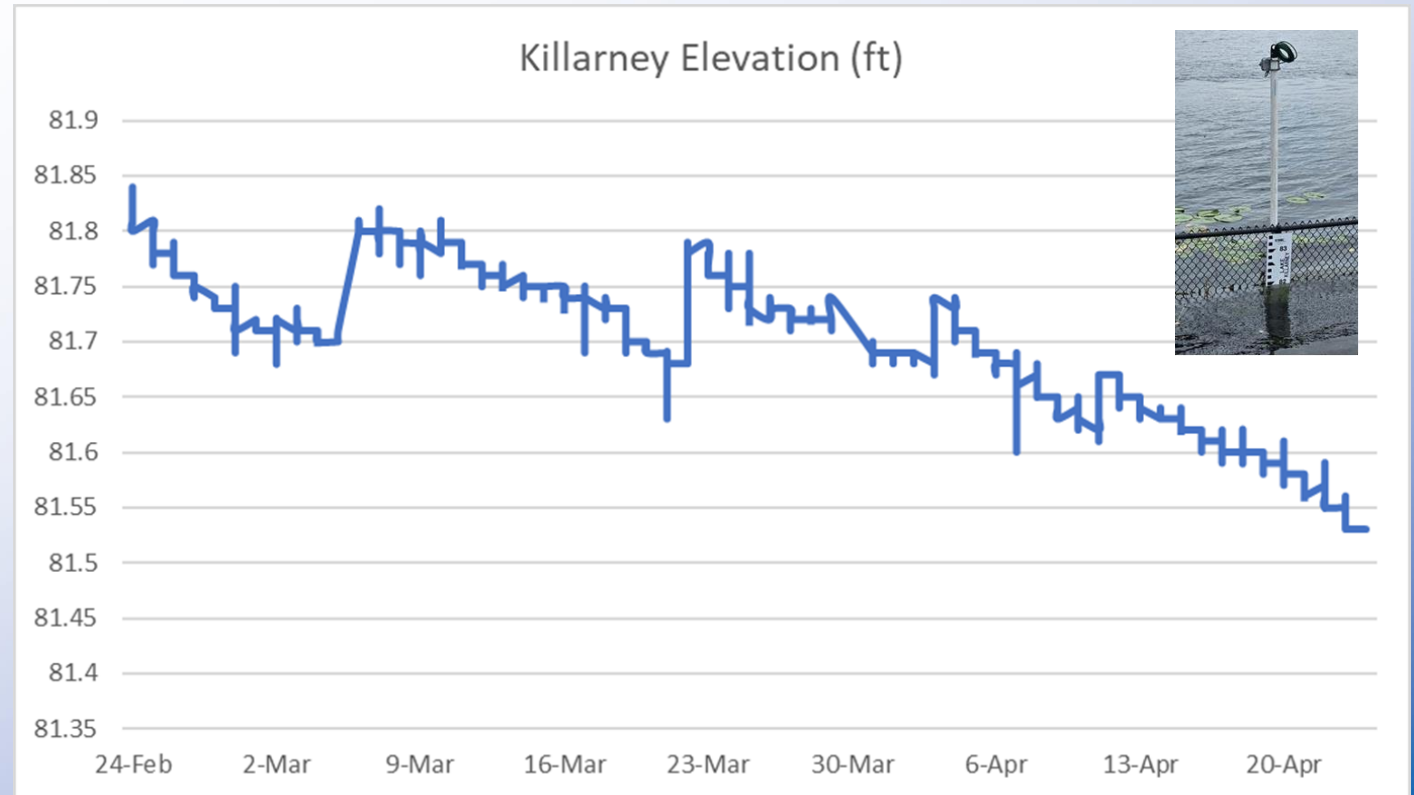
72 hours (3 days) prior to storm

- Inspect all weirs and grass carp barriers including the ones located downstream of lakes Bell, Killarney, Berry and Maitland; maintain free and clear of debris.
- Inspect culvert box under bridges at Temple, Sterling and Pennsylvania to ensure free and clear of debris.

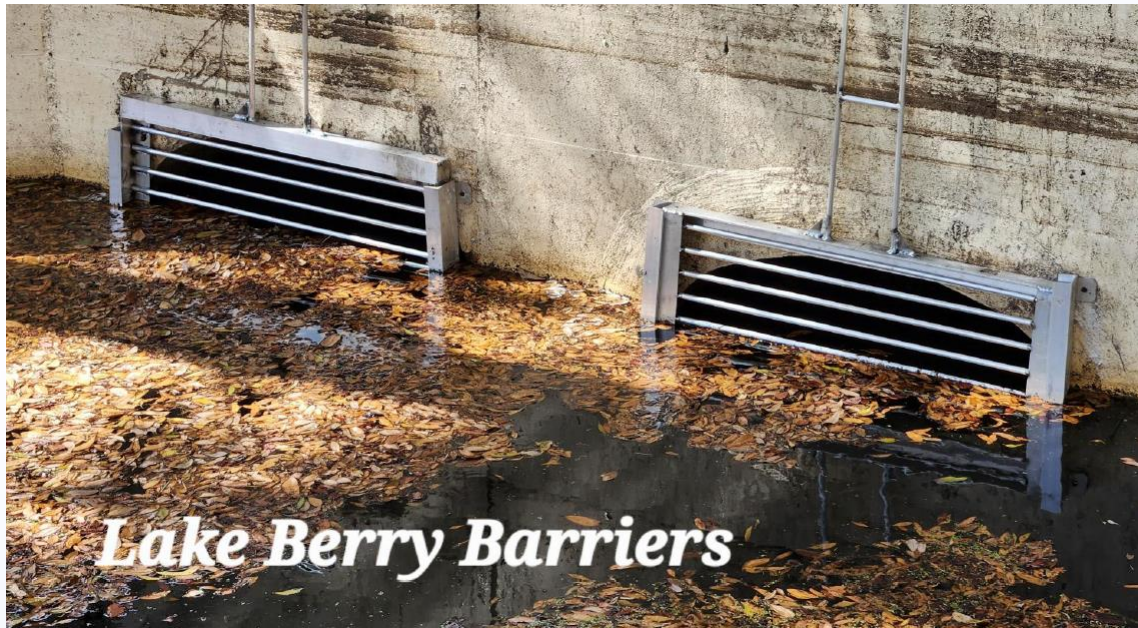


https://issuu.com/cityofwinterpark/docs/hurricane_preparedness_guide?e=7314878/63055860

Telemetry Lake Elevation



Retractable Grass Carp Barriers



Lake Berry Barriers



Lake Bell Barrier

NRCS- Major Outfalls



NRCS- Major Outfalls



NRCS- Major Outfalls



NRCS- Minor Outfalls



NRCS- Weir Repairs



Lk Bell



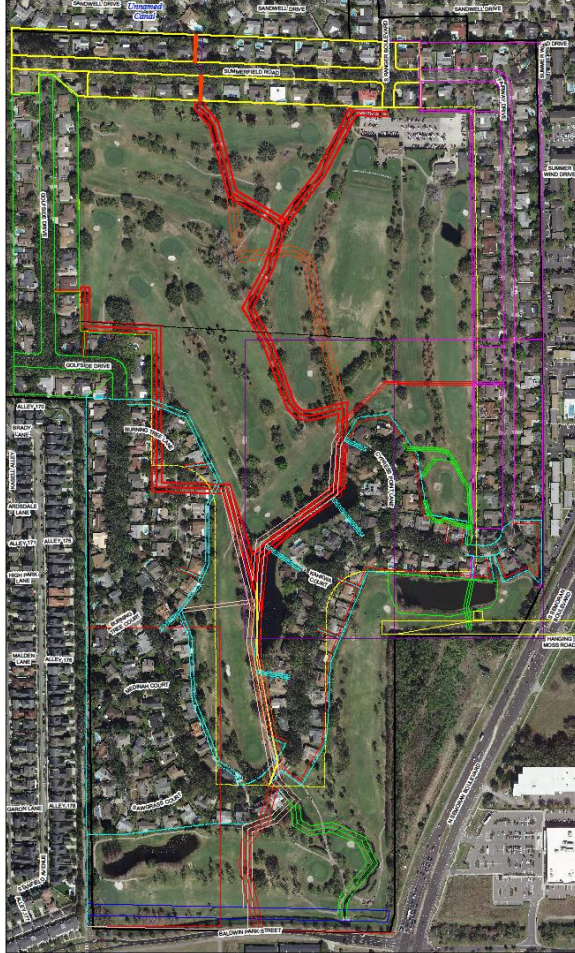
Howell Creek



NRCS- Regional Stormwater Pond



NRCS- WP18 Flood Mitigation



NRCS – Howell Creek Stabilization

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



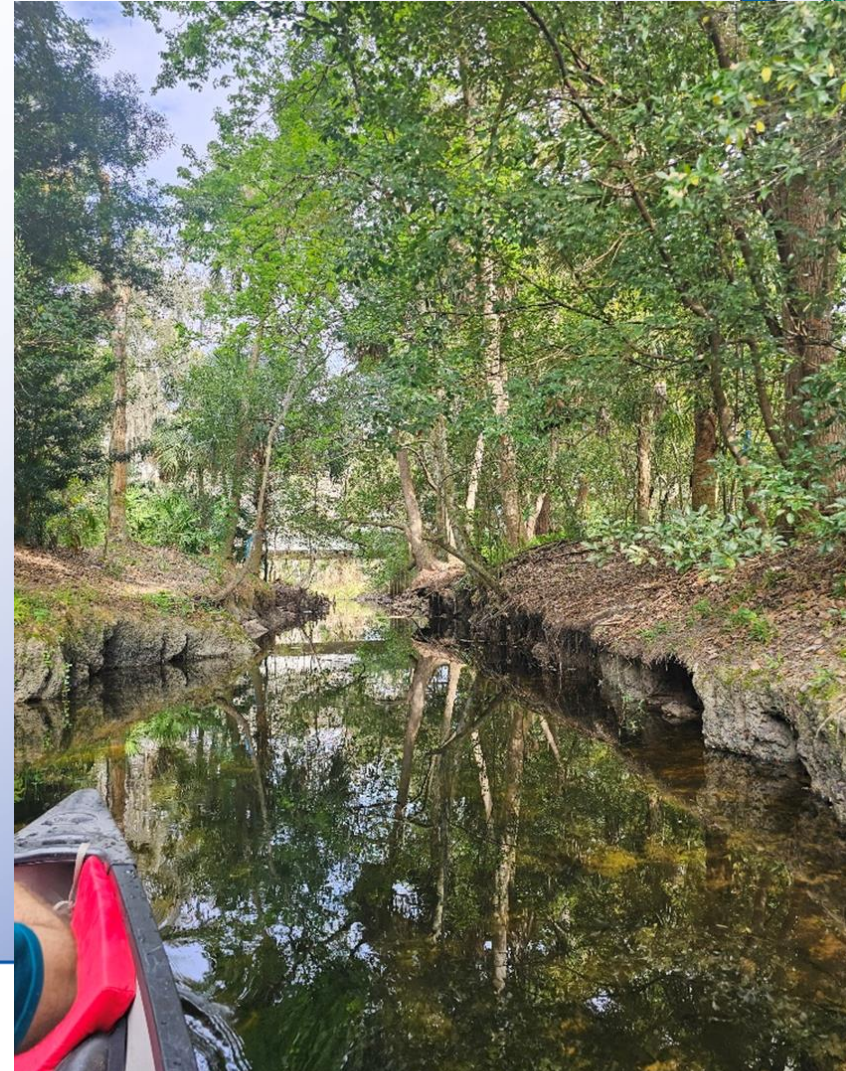
NRCS – Howell Creek Stabilization

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NRCS – Howell Creek Stabilization

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



SJRWMD- Basin Coordination



Basin Management Program Coordination



 **St. Johns River**
Water Management District



CITY OF WINTER PARK

INTERIM PLAN

ADAPTIVE FLOOD MANAGEMENT GUIDE

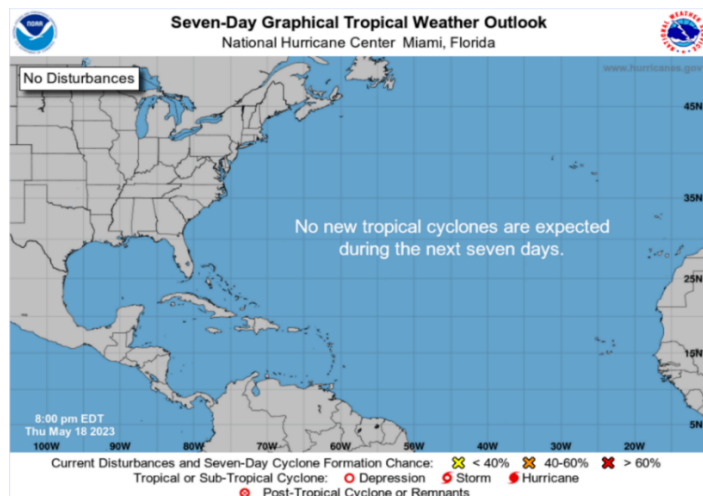
OCTOBER 2023

In May of 2023, the National Hurricane Center (NHC) changed its Tropical Weather Outlook notification from five-days to seven-days. The NHC extended the outlook due to technological advancements with satellites and modeling stating that seven-day forecasts are just as reliable as the five-day forecasts.

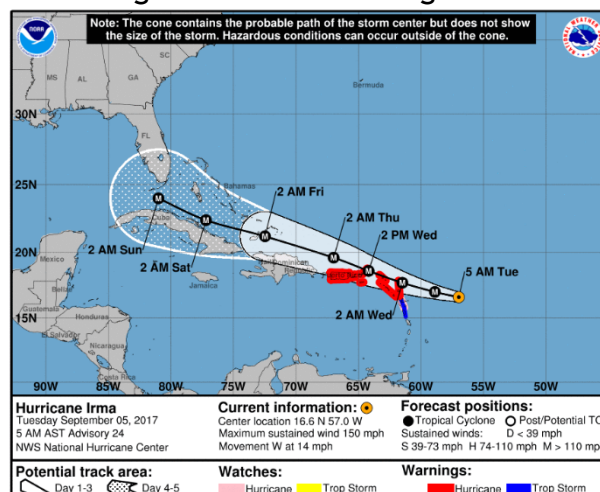
With this technological development, daily active management of lake levels within the City of Winter Park will occur upon issuance by the National Hurricane Center (NHC) that tropical activity has been identified for the new Seven-Day Outlook. Protocols and procedures will further be enacted when the NHC's projected cone touches the Central Florida Region as defined below, whereby the active management of lowering lake levels will occur according to the specifics found within this guide. In addition, annual notification to the Florida Department of Environmental Protection (FDEP), in writing, is required for implementing drain well activities. City Manager has the authority to override flood management policy if circumstances dictate doing so. Any such override, including the reasoning, shall be documented in writing.

This guide was developed in collaboration with the Lakes & Waterways and Lake Killarney Advisory Boards to empower the City's professional staff on adaptive lake management decisions.

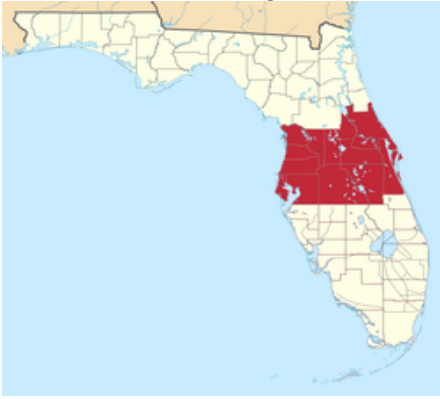
Seven-Day Outlook:



Example of Storm Cone, Containing Path Activating Central Florida Region:



Central Florida Region Defined:



The Central Florida Region includes the Orlando metropolitan area (Orange, Lake, Osceola, and Seminole Counties), and Sumter, Polk counties in the interior, Citrus, Hernando, Hillsborough, Pasco, and Pinellas counties on the west coast and Volusia and Brevard Counties on the east coast.

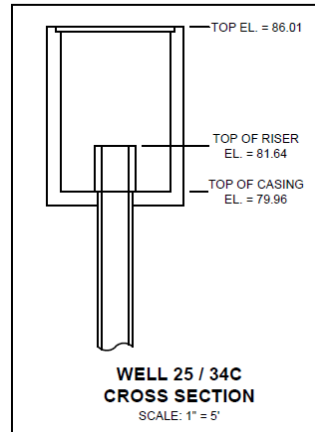
Active Lake Level Alteration Activities- City Wide Specifics

- Remove the six risers from the drain wells on Lake Killarney
- Open valve to the MLK Pond drain well
- Remove top weir board on Lake Bell
- Open gate on the Winter Park Racquet Club Pond outfall
- Check valves (2) are operational at WP18 golf course
- Remove all retractable grass carp fence barriers
- Inspect all drain well intakes maintaining free and clear of debris
- Issue lake closure protocol for the Chain of Lakes at elevation of 66.1 ft.

Active and Adaptive Management of Lake Levels- Lakes Killarney and Lake Bell Interim Plan (Until the West Basin Study is Complete)

1. City will monitor lake elevation levels on Lake Killarney and Lake Bell on a daily basis, during hurricane season, June 1st to November 30th, via Smart Technology utilizing telemetry elevation gauges. These gauges can be accessed remotely and provide an alert notification should the elevation stage higher than desired due to an intermittent storm. Staff will not solely rely on the device but will routinely inspect and log field data.
2. During hurricane season, June 1st to November 30th, the top weir board for Lake Bell will be removed and be replaced after hurricane season. Desired lake elevation management requires analysis through a basin drainage study.
3. Removal of the six drain well risers will be enacted when the NHC projected storm cone touches the Central Florida Region (defined above). If the approaching storm turns, the risers will be reinstalled as soon as the storm threat is over.
4. City will maintain and clean drain well intakes, collection boxes and traps, and manage street cleaning services especially during hurricane season.
5. A secured email will be provided to the Lake Killarney Board to report **non-emergency** related activities. Otherwise, follow standard emergency response by dialing 911.

Lake Killarney Drain Well Specifications:



- Without risers on the drain wells, Lake Killarney lowers 0.1-0.2 ft per day.
- The top of each riser is on average 81.66 ft, the top of each drain well casing is on average 80.0 ft, the weir to Lake Gem discharges at 82.7 ft.



NATURAL RESOURCES & SUSTAINABILITY DEPARTMENT CHECKLIST

During National Hurricane Season, June 1st to November 30th, the Lake Bell top weir board will be removed.

168 hours (7 days) prior to storm at any time of the year

- ☐ Monitor storm models via National Hurricane Center's (NHC) Seven-Day Tropical Weather Outlook.
- ☐ Refer to established protocol under City of Winter Park's Flood Management Guide.
 - ☐ Lower lake elevations, where permissible.
 - ☐ Lake Killarney's six drain well risers and Lake Bell top weir board will all be removed in advance whereby the track issued by the National Hurricane Center cone touches the Central Florida region and replace when storm is no longer a threat.

120 hours (5 days) prior to storm

- ☐ Monitor storm models.
- ☐ Provide staff with tracking sheets for manpower hours and equipment usage for Federal Emergency Management Agency (FEMA) records.
- ☐ Notify laboratory of potential lake sample submittals. Coordinate with water & wastewater laboratory manager.
- ☐ Inspect control and outflow structures located on the lakes, including leaf trap devices; maintain free and clear of debris.

72 hours (3 days) prior to storm

- ☐ Inspect all weirs and grass carp barriers including the ones located downstream of lakes Bell, Killarney, Berry and Maitland; maintain free and clear of debris.
- ☐ Inspect culvert box under bridges at Temple, Sterling and Pennsylvania to ensure free and clear of debris.
- ☐ Inspect drain well intake structures on Lake Killarney and all land locked lakes (Knowles, Spier, Forest, Midget, as well as the Seminole County drain well on N. Lakemont Avenue); maintain free and clear of debris.
- ☐ Inspect canals within the Chain of Lakes and Howell Creek, upstream of Lake Virginia, and downstream of the Howell Branch weir.
- ☐ Coordinate solid waste services messaging with Communications Department and Assistant City Manager.
- ☐ Coordinate with Urban Forestry on contracted vendor for felled tree services in creeks/conveyances.

48 hours (2 days) prior to storm

- Meet with staff to go over responsibilities and verify contact information.
- Prioritize every day departmental functions.
- Remove MLK, Jr. Park drain well and Winter Park Racquet Club pond outfall board.
- Prepare and secure equipment and PPE:
 - All boats, vehicles, and gas cans filled
 - Clean and remove all debris from work vehicles
 - Clamshell ready and operational
 - Secure barges at Kraft Gardens
 - Move all Lakes Division supplies into boathouse or break room area (buoys, etc.)
 - Test all chainsaws and make sure that PPE is in good condition
 - Each driver with PPE in work vehicle

24 hours (1 day) prior to storm

- Remove retractable grass carp barriers at lakes Bell and Berry.
- Meet with staff to go over final details data assessment.
- Prioritize every day departmental functions.

During the storm

- Natural Resources & Sustainability is not classified as a first responder and does not have a role at EOC. Staff to remain in a safe location.
- All Lakes Division staff and department director will commence damage assessment when deemed safe. Office staff to service phone lines and emails. Sustainability Division staff to service phone lines and emails, assisting in solid waste communications or be assigned as required.
- Establish communication with damage assessment team with deployment time and locations.

Immediately after the storm when conditions are safe

- Damage assessment team deployed to inspect all conveyances, outfalls, weirs, drain wells and high-risk areas (i.e. Special Flood Hazard Area- SFHA). Clear immediate hazards.
- Collector app utilized to document environmental damages. Include photos.
- Track manpower hours and equipment usage for FEMA records.
- Implement lake closures: Chain of Lake elevation closure at >66.1 ft (NAVD 88).
- Monitor and record lake elevations. Report anomalies to Public Works Department.

Days/weeks after the storm

- Post-storm environmental/water quality monitoring including environmental assets.
- Report damage assessment for state assistance and grant submittals; such as Natural Resources Conservation Service (NRCS).
- Grass carp barriers re-installed when conditions are favorable.
- Coordinate teams with Urban Forestry to recover fallen trees in waterways noted in damage assessments.
- Perform continual monitoring and messaging related to lake hazards:

- Recreational use of lakes will be allowed once it is determined that safe boating activities can resume without potential damage to private property or the danger of colliding with submerged storm debris.
- Effective communications with lake patrons, both residential and commercial, related to lake closures; dock safety warnings with submerged electrical components; submerged hazards warning; and lake contamination warnings.
- Perform continual monitoring and messaging related to lake elevations-reinstate drain wells and weir closures, when appropriate.
- Refer to established policy: Flood Management Guide.



PUBLIC WORKS DEPARTMENT STREETS DIVISION CHECKLIST

Off season preparations

- Conduct quarterly meetings with directors, supervisors, crew chiefs, and all staff to review the following:
 - Written hurricane preparedness procedures and where to locate the document.
 - Team members list including updated phone numbers to be activated during Emergency Operations Center (EOC) operations. There must be two separate teams listed for relief following the initial 24-hour period.
 - Equipment list to be used during EOC operation. Equipment list to include but limited to trucks, loaders, generators, barricades and sand bagger.
 - Coordinate with the city's procurement division to secure vendors for additional bypass pumps, vacuum trucks, loaders and generators on an as-needed basis.
- Be sure to have all proper and updated forms for reporting staff's storm response activities.
 - All streets infrastructure to be inspected and maintained on predetermined schedules. The following items must be maintained year-round in proper functioning condition.
 - Storm sewer inlets, pipes, treatment structures, and outfalls
 - Traffic signals and signs
 - Street sweeping

168 hours (7 days) prior to storm

- Monitor storm models via National Hurricane Center's (NHC) Seven-Day Tropical Weather Outlook.
- Refer to established protocol under City of Winter Park's Flood Management Guide.
 - Lower lake elevations, where permissible.
 - Lake Killarney drain well riser and Lake Bell top weir board will be removed in advance whereby the track issued by the National Hurricane Center cone touches the Central Florida region and replace when storm is no longer a threat.

72 hours to 48 hours (3-2 days) prior to storm

- Test all equipment for proper working order.
 - Make sure all equipment gas tanks are filled and batteries are charged.
 - Generators used for supplying power to traffic signals to be tested and filled with gas.
 - Have additional gas cans filled.
- Prepare sandbagging operations site.
 - Decide with city management on an appropriate location and coordinate with the Communication Department to prepare a map, distribution schedules and notifications.
 - Mobilize sand, bags and equipment to the location.
 - Each household will be provided eight bags with proper proof of residency unless otherwise directed by city management.
 - Prepare coordination with the police department for ID verification and traffic control.

- Increase levels of storm sewer cleaning and street sweeping operations.
- Verify schedules for both teams to begin the overnight and relief shifts.
- Hold a procedure and general safety meeting with both teams before the EOC activation.

24 hours (1 day) prior to storm

- Stop all city and private construction activities and secure sites from any potential erosion and/or wind damage.
- Mobilize and stage all heavy equipment to strategic location to be used throughout the city.
 - NW Area - Public Safety Facility (500 N. Virginia Ave.)
 - SE Area - Fire Station #62 (300 S. Lakemont Ave.)
 - SW Area - City Lot (1210 Palmetto Ave.)
 - NE Area - City Operations Center (1409 Howell Branch Road)
- Share both teams' member's names and contact numbers with the Public Works Director and Assistant Director.
- Prepare sleeping arrangements and purchase food for the overnight shift team.
- Verify all equipment is ready in place with full tanks of gas.
- Load and secure barricades on trucks to be dispatched.

During the storm

- Stay safe inside until EOC managers clear the city staff for response activities.

Immediately after the storm when conditions are safe

- Assist police and fire departments to clear streets for emergency response.
- Assist the electric and water & wastewater departments clearing streets to perform their response and repair activities.
- Setup closures and barricade off flooded and obstructed streets and roadways.
- Inspect all signalized intersections for functionality and perform repairs as needed. Repairs requiring a bucket truck can only take place when winds diminish to 30mph or less.
- Clear all storm drains from obstructions to ensure proper drainage.
- Assist the city's Urban Forestry Division with downed tree removals.
- Begin assisting the Natural Resources & Sustainability Department with monitoring of the water levels in the city's lakes and ponds.
- Setup bypass pumping operations on lakes and/or ponds reaching higher levels which potentially could flood surrounding structures/homes.
- Barricade or cone off any potholes which could cause damage to vehicles.

Days/weeks after the storm

- Continue streets clearing and debris removal and storm drain clearing for proper drainage.
- Assess any potholes locations for storm pipe failures and schedule necessary repairs.
- Continue monitoring water levels in lakes and ponds and add or relocate bypass pumping activities accordingly.



CIP PROJECT CONSIDERATIONS & STUDIES FOR STORM RESILIENCY

The flood elevation in the Winter Park Chain of Lakes is control by a weir located on the north side of Lake Maitland at Howell Branch Road. The control elevation for the chain of lakes was studied for a Letter of Map Revision (LOMR) in 2009. The SJRWMD confirmed that the current control elevation of 66.18 ft was best for all communities upstream and downstream and it was not to be adjusted.

The following is a suggested list that should be updated regularly and as funding allows:

- Consider increasing the volume of the MLK Pond and lowering the surrounding neighborhood flood stage
 - a. A flood study was performed in 2020 for the Community Redevelopment Agency (CRA) watershed basin by Geosyntec. This study provided four alternatives for increasing volume in the MLK Pond
 - i. Alt 1 - Exfiltration Basin
 - 1. Decrease in peak stage: 0.26 ft
 - 2. Estimated cost: \$6,516,021
 - ii. Alt 2 - New interconnect to Lake Rose
 - 1. Decrease in peak stage: 0.05 ft
 - 2. Estimated cost: \$172,378
 - iii. Alt 3 - Exfiltration basin and interconnect to Lake Rose
 - 1. Decrease in peak stage: 0.2 ft
 - 2. Estimated cost: \$2,065,776
 - iv. Alt 4 - (COMPLETED) Relocating Killarney interconnect from Beachview Ave to intersection of Morse Blvd and Harper St
 - 1. Decrease in peak stage: 0.02 ft
 - 2. Estimated cost: \$35,830
 - b. Perform study to expand the overall footprint of the pond for more stormwater storage by strategically selecting park areas of lower usage
 - c. Consider partnering with private property owners near MLK to expand
- Develop 5-10 year CIPs for lake interconnections- perform hydraulic studies to determine feasibility and associated cost.
 - a. Lake Sylvan to Lake Mizell
 - b. Lake Grace to Lake Forest
 - c. Lake Chelton to Lake Sue
 - d. Lake Tuscany to Lake Temple to Howell Branch Pond
 - e. Lake Compton to Lake Spier
- Develop drainage study for Lake Killarney, Lake Bell and Lake Wilderness to address feasibility and cost for rerouting emergency stormwater overflow and evaluate weir elevations.

- Develop drainage study for Howell Creek Basin of Winter Park that includes the Chain of Lakes, Lake Sue, and Lake Berry.
- Develop drainage study for Little Econ Basin of Winter Park that includes Interlachen and WP18 (formally Winter Park Pines).
- Following FS 252.363 provision allowing to adjust/pump lake down during declared state of emergency, establish Memorandum of Understanding with SJRWMD for all potential drawdowns:

Section 252.363 of the Florida Statutes provides that upon the declaration of a state of emergency, permits and other authorizations are tolled for the duration of the declaration, and that they may be extended automatically upon the exercise of the notice requirements of Section 252.363(1)(a) for an additional six months. The tolling and extension provisions apply to the expiration of:

- a. Development orders issued by a local government*
 - b. Building permits*
 - c. Florida Department of Environmental Protection or water management district permits issued pursuant to Part IV of Chapter 373, Florida Statutes*
- Consider purchase of bypass pump(s) including floating intake attachment and suction and discharge hoses.
 - Perform a survey to record lowest Finished Floor Elevation (FFE) for all City lakes.
 - Consider installing auto-read lake level gauges with telemetry services for major City lakes.
 - Consider installing additional weather stations with telemetry services within City limits.



Lakes & Waterways Board

agenda item 7.d

item type

Staff Updates

meeting date

May 14, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Past and Upcoming Events

- Great American Clean-Up - 4/6
- Killarney Elementary Family Night - 4/17
- Earth Day Block Party - 4/27 @ Ward Park
- Lakes Event - 5/11 @ Lake Knowles & Wilbar
- Lakes Event - 5/18 9am @ Lake Sylvan
- Introduction to Composting Class - 5/16 6pm @ WP Library
- Board Appreciation - 6/20 5pm @ WP 18
- Introduction to Vericomposting Class - 6/27 6pm @ WP Library

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

None



Lakes & Waterways Board

agenda item 7.e

item type

Staff Updates

meeting date

May 14, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Stormwater Management

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

1. SW Update - Lakes Board

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	\$57,164	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 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 40% complete, survey is now complete. Phase 1 permit application with SJRWMD to be submitted April 2024.
				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 spring 2024 by Cathcart.
				4) <u>Pipe Repair at Summer Way</u> - Corrugated metal pipe replacement. COMPLETE.
				5) <u>Killarney Dr Outfall & Street Repairs Phase 1</u> - New outfall to replace two existing outfalls. Permit with SJRWMD to be submitted April 2024. Anticipated Construction August 2024.
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 improvement plan to be completed April 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 Phase 1 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. General permit application has been submitted. Waiting on response from District.
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		\$1,559,781.97	BALANCE TOTAL

Seven Oaks Park – Stormwater Maintenance System



Seven Oaks Park – Stormwater Maintenance System





Lakes & Waterways Board

agenda item 8.a

item type

Board Comments

meeting date

May 14, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Victoria Tabor, Administrative Coordinator II

subject

Discussion of Public Comments Received

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

None



Lakes & Waterways Board

agenda item 9.a

item type

Upcoming Agenda Items

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Discussion of Upcoming Agenda Items

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

None