



## Lake Jesup Basin Management Action Plan (BMAP) Annual Meeting

**Via Webinar**  
*July 9, 2024*  
*1:00 PM*

Webinar Registration Link:

<https://attendee.gotowebinar.com/register/4871138216340042591>

### **Agenda**

- Lake Jesup Basin Management Action Plan (BMAP) Overview.
- Annual Progress.
- St. Johns River Water Management District (SJRWMD) Update.
- Next Steps - BMAP Update.

Please note the FTP site for documents pertaining to the Lake Jesup BMAP:  
[https://publicfiles.dep.state.fl.us/DEAR/BMAP\MiddleStJohns\Lake\\_Jesup](https://publicfiles.dep.state.fl.us/DEAR/BMAP\MiddleStJohns\Lake_Jesup)  
For more information on the Lake Jesup BMAP, contact: Evelyn Becerra, 850-245-8547,  
[Evelyn.Becerra@FloridaDEP.gov](mailto:Evelyn.Becerra@FloridaDEP.gov)



# WEBINAR HOUSEKEEPING

## Attendee Participation

Open your control panel.

Join audio:

- Choose Computer Audio **or**
- Choose Phone Call and dial using the information provided with your registration.

Attendee audio will automatically be muted.

Submit questions and comments via the **Questions** panel.

If viewing this webinar as a group, please provide a list of attendees via the **Questions** panel.

**Note:** Today's presentation is being recorded and will be provided on the file transfer protocol (FTP) site after the webinar.

A screenshot of a webinar control panel. The top section is titled "Audio" and includes a "Sound Check" indicator. Below this, there are two radio button options: "Computer audio" (unselected) and "Phone call" (selected, indicated by a red arrow). A microphone icon is shown with the word "MUTED" in orange. Below the microphone, there are two dropdown menus for "Transmit" and "Receive", both set to "Plantronics Savi 7xx-M". A volume slider is visible. The bottom section is titled "Questions" and contains a text input field with the placeholder "[Enter a question for staff]". A red box highlights the "Questions" panel and the "Phone call" option. At the bottom of the control panel, it says "Webinar Housekeeping", "Webinar ID: 608-865-371", and the "GoToWebinar" logo.



# LAKE JESUP BASIN MANAGEMENT ACTION PLAN ANNUAL MEETING

**Evelyn Becerra**

Division of Environmental Assessment and Restoration  
Florida Department of Environmental Protection

GoToWebinar | July 9, 2024



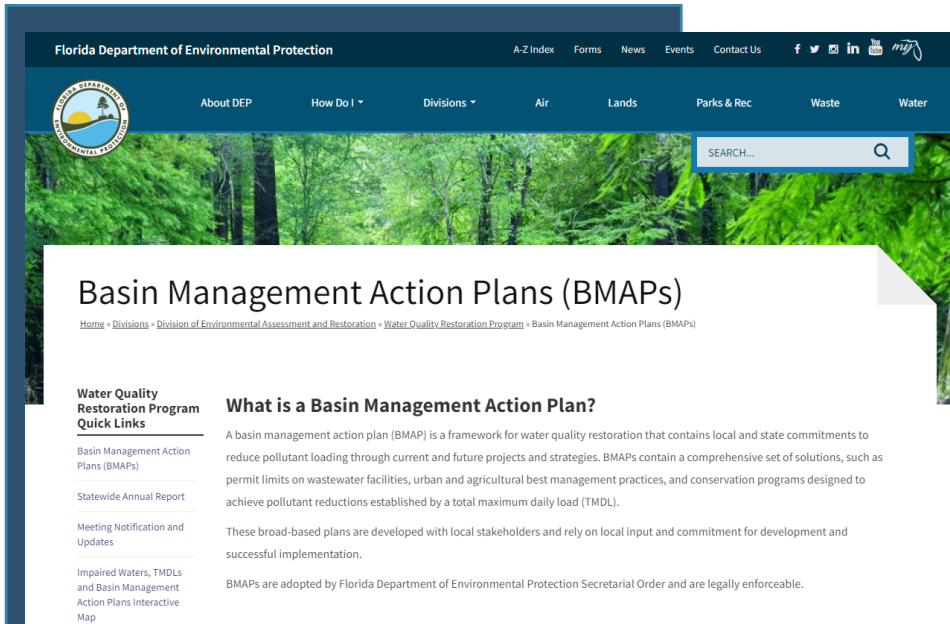
# AGENDA

- Basin Management Action Plan (BMAP) Overview.
- Statewide Annual Report (STAR).
- Annual progress.
- St. Johns River Water Management District (SJRWMD) Update.
- Next steps- BMAP update:
  - Milestones.
  - Hot Spot analysis.
  - SJR Model.





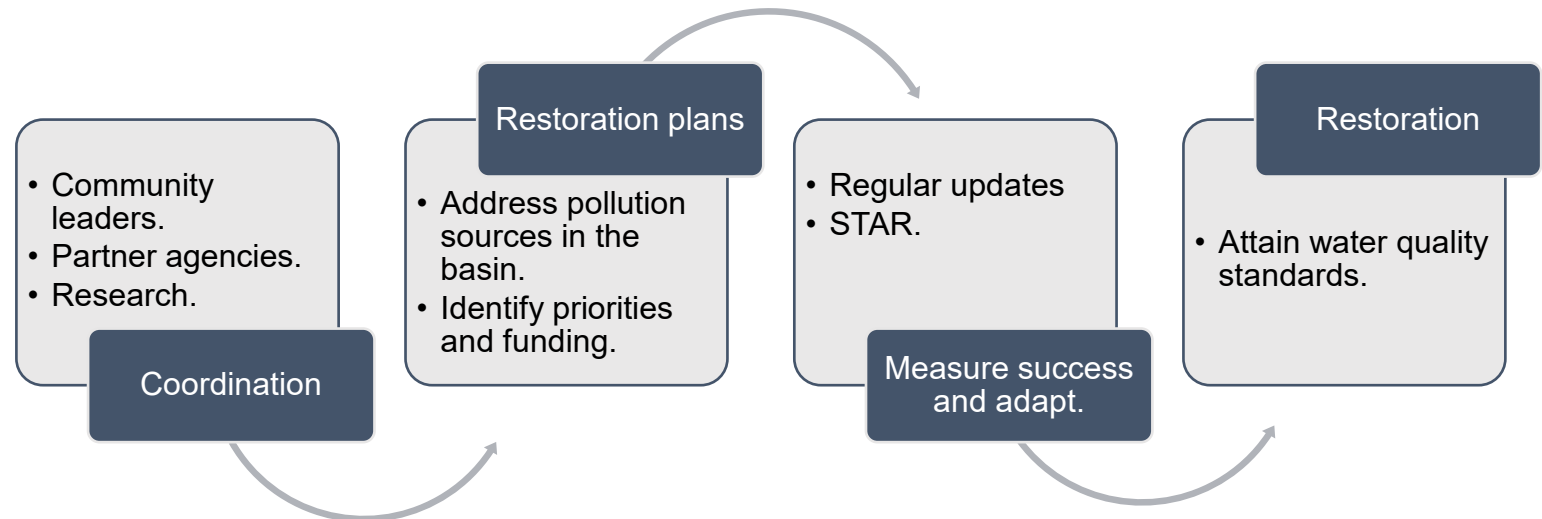
# BMAPS



One of DEP's methods for restoring water quality in an impaired waterbody.

## BMAPs are:

- Developed with stakeholder input.
- Adopted by the Florida Department of Environmental Protection's (DEP) Secretarial Order.
- Enforceable.
- Implemented through a phased approach.
- Reported on annually.
- Updated regularly.





# KEY BMAP COMPONENTS

- Total maximum daily loads (TMDLs) being addressed.
- Area addressed by the restoration plan.
- Identify sources.
- Phased implementation approach.
- Milestones.
- Projects and management strategies.
- Future growth impacts.

## **Projects to meet the TMDL:**

- Implementation timeline.
- Commitment to projects.
- Expected water quality improvement from projects and management strategies.

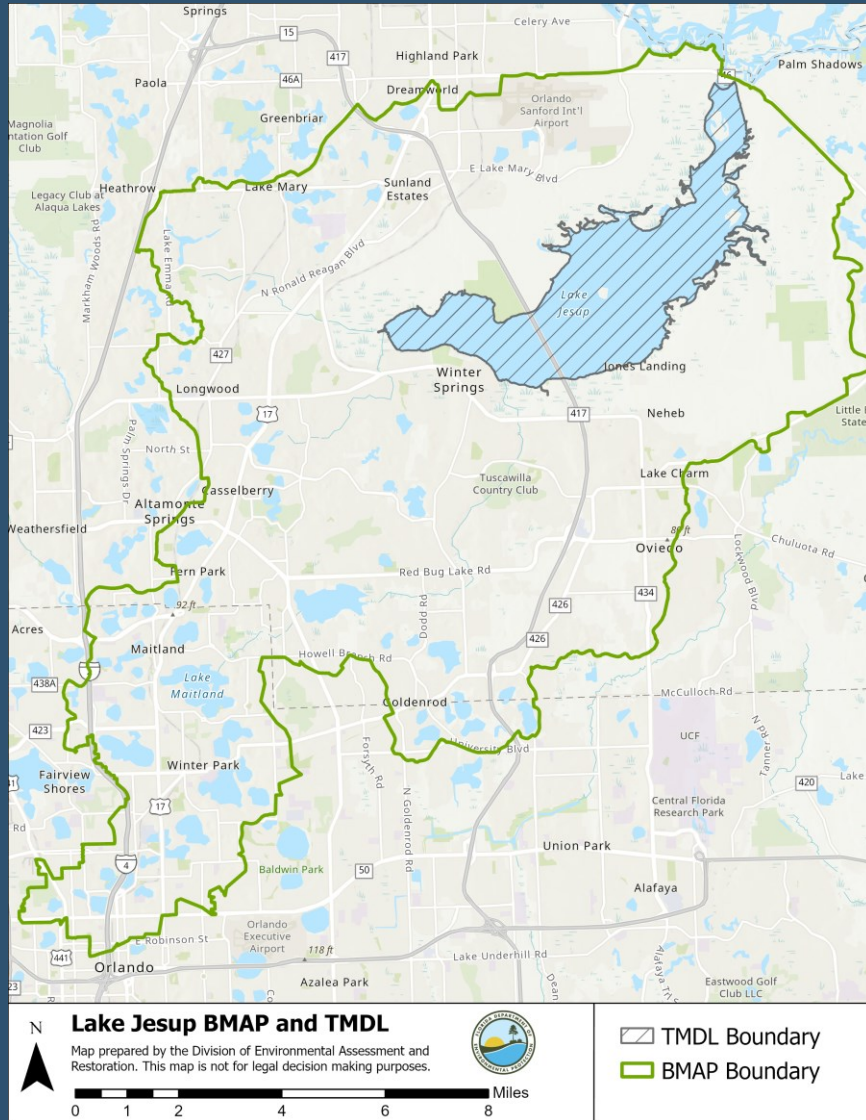
## **Process to assess progress toward achieving the TMDL:**

- Monitoring plan.
- Project reporting.
- Periodic follow-up meetings.
- Water quality analyses.



# BACKGROUND

## LAKE JESUP BMAP STAKEHOLDERS



### Stakeholders

City of Altamonte Springs

City of Casselberry

City of Lake Mary

City of Longwood

City of Maitland

City of Orlando

City of Oviedo

City of Sanford

City of Winter Park

City of Winter Springs

Orange County

Seminole County

Site 10

Town of Eatonville

Turnpike Enterprise

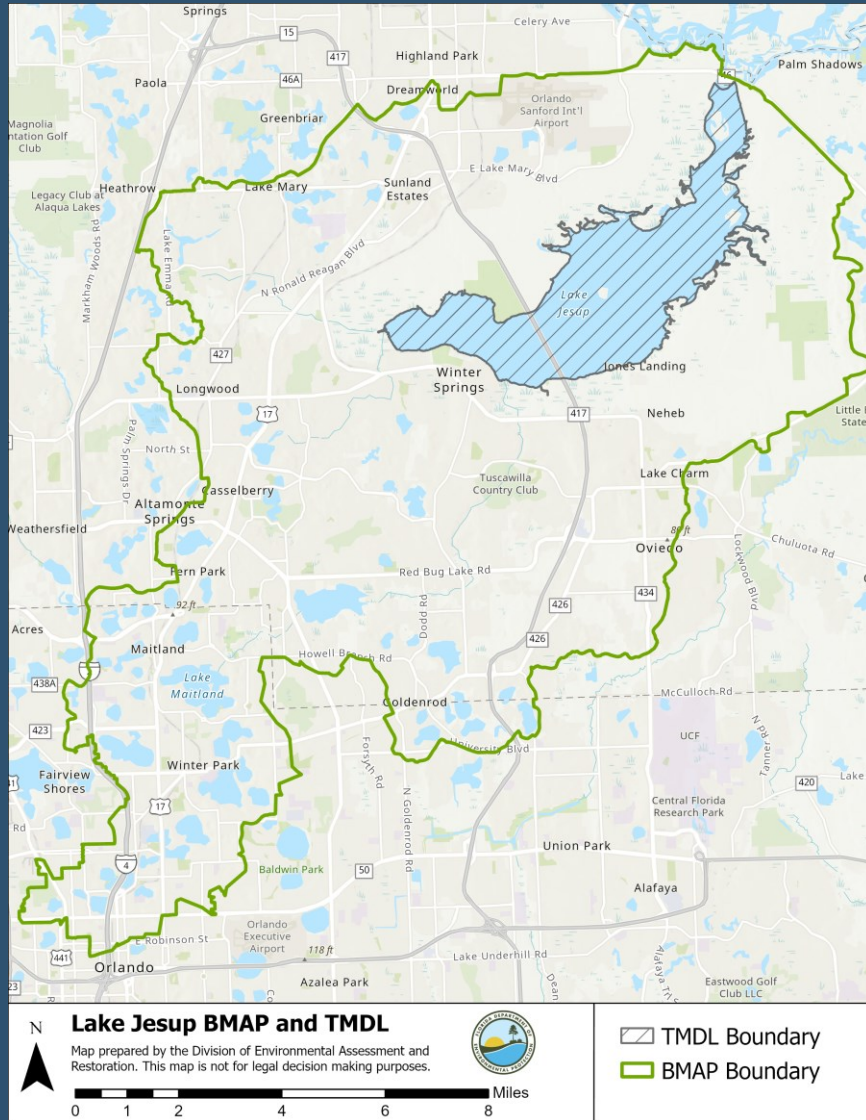
Florida Department of Transportation (DOT), District 5

Florida Department of Agriculture and Consumer Services (DACCS)

SJRWMD



# BACKGROUND LAKE JESUP BMAP



## Lake Jesup TMDL:

- Adopted 2006 for total phosphorus (TP) and total nitrogen (TN).

## Lake Jesup BMAP:

- Adopted April 2010 to implement the Lake Jesup TMDL.

## BMAP Amendment:

- Adopted July 2019.
- Provides information on changes since the 2010 BMAP was adopted.
- Total required reductions:
  - 11,019 lbs./yr. TP.
  - 55,013 lbs./yr. TN.





# CLEAN WATERWAYS ACT: TIMELINE

**June 12, 2023**

Final Order signed by the Secretary.



**July 12, 2023**

Deadline for written explanation of potential exemption to be submitted to the department.



**Feb. 1, 2024**

Deadline for submitting draft onsite sewage treatment and disposal systems (OSTDS) remediation and/or wastewater treatment plans for the department's review.



**Aug. 1, 2024**

Deadline for submitting complete OSTDS remediation and/or wastewater treatment plans to the department.

The nutrient BMAPs included in the Final Order require these plans.



# HB 1379: ENVIRONMENTAL PROTECTION

Increased protection for Outstanding Florida Springs (OFS).

Strengthens Water Quality Protections and BMAPs.

**HB 1379**

Improves Local Government Long-Term Comprehensive Planning.

Expands Funding Opportunities to Address Water Quality Impairments.

## Strengthen BMAPs:

- Requires a list of identified projects to achieve 5-year milestones.
- Requires a list of agricultural cooperative regional water quality improvement elements.

## Improve Comprehensive Planning:

- Requires BMAP projects to be included in comprehensive plans to prioritize implementation.

## Improve Domestic Wastewater:

- Requires more stringent wastewater treatment standards, if required to meet the TMDL.

**Expand Grant Opportunities.**



# 2024 DEP AGENCY BILL: HB 1557

**Advances the protection of our environmental resources by:**

## **Improving Treatment of Reclaimed Water**

Ensures that reclaimed water is treated to meet advanced waste treatment (AWT) or a more stringent treatment standard in certain BMAP areas, while still promoting its use to eliminate surface water discharges and meet water supply challenges.

## **Expanding Wastewater Facility Plans**

Supports the development of domestic wastewater treatment plans and OSTDS remediation plans within BMAP or other restoration areas by requiring facilities to provide information to the local entities developing these plans.

## **Investing in Innovative Technologies**

Creates a program to expeditiously review new and innovative enhanced nutrient-reducing OSTDS to reduce the nutrients entering Florida's waterways.



# STAR PROJECT REPORTING

## What is the STAR?

- Summarizes accomplishments in the BMAPs statewide.
- Reports on restoration projects and management strategies.
- Published July 1 of each year.
- STAR 2023 is now live.

Florida Department of Environmental Protection Statewide Annual Report 2023  
Basin Management Action Plans

Introduction	Total Maximum Daily Loads	Basin Management Action Plans	Alternative Restoration Plans	Minimum Flows & Water Levels	Recovery & Prevention Strategies	Contacts & Project Data
--------------	---------------------------	-------------------------------	-------------------------------	------------------------------	----------------------------------	-------------------------

How to Use This Report | What Is the STAR? | Reductions & Legislation | What Are Nutrients? | What Are FIB? | What Are BMAP Projects?

Nutrient BMAPs | Fecal Indicator Bacteria BMAPs | BMAP Projects | Project Table

Sorted by alphabetical order

- Jackson Blue Spring Basin
- Kings Bay and Crystal River Springs Basin
- Lake Harney, Lake Monroe, Middle St. Johns River, and Smith Canal Basin
- Lake Jesup Basin
- Lake Okeechobee Basin
- Lower St. Johns River Main Stem Basin
- Middle and Lower Suwannee River Basin

Click on a point to find out more information on a specific project. Or click on the Contacts and Project Data card above for a full project list.

STAR BMAP Projects 2023

- Stormwater
- Wastewater
- Agriculture
- In Waterbody

### Lake Jesup Basin TN Reductions Achieved by Completed and Ongoing Projects as of December 31, 2023

Units are in pounds per year.

Nitrogen Reduction | Phosphorus Reduction

<https://floridadep.gov/STAR>



# PROGRESS

## LAKE JESUP BMAP STATUS OF PROJECTS

### Projects through Dec. 31, 2023.

Lead Entity	Completed	Ongoing	Planned	Underway	Total
City of Altamonte Springs	2	3			5
City of Casselberry	10	4	5	2	21
City of Lake Mary	1	3			4
City of Longwood	15	6	2	2	25
City of Maitland	6	4	5	4	19
City of Orlando	7	4	3	1	15
City of Oviedo	5	4	11	1	21
City of Sanford	2	2	2		6
City of Winter Park	8	2	1	5	16
City of Winter Springs	7	8	1	2	18
DACS	1	1		1	3
DOT District 5	10	2		3	15
Orange County	4	4		1	9
Seminole County	10	4	2	4	20
Site 10	1				1
Town of Eatonville		2			2
Turnpike Enterprise	1	2			3
<b>Grand Total</b>	<b>90</b>	<b>55</b>	<b>32</b>	<b>26</b>	<b>203</b>

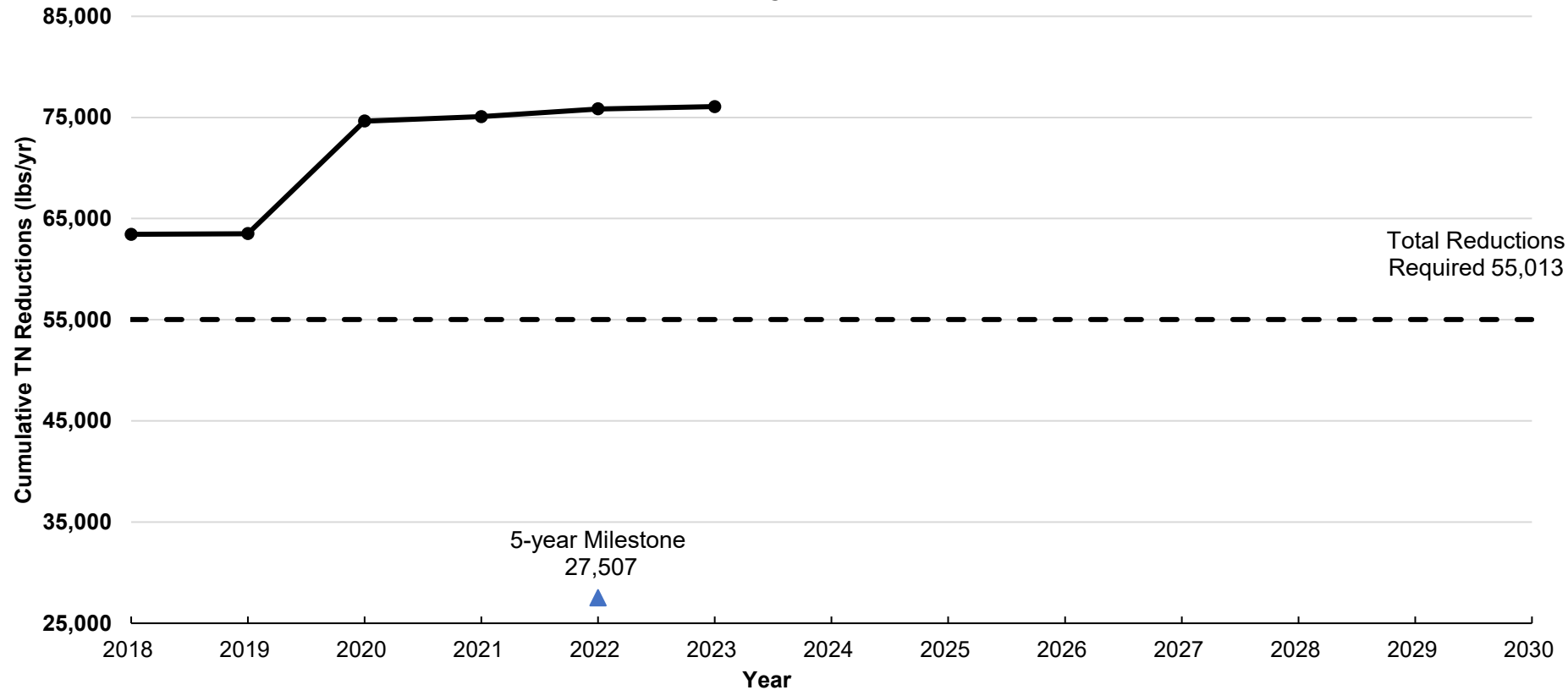
As of Dec. 31, 2023, verified projects in the Lake Jesup BMAP have reduced **76,067 lbs./yr. of TN** and **12,785 lbs./yr. of TP.**



# PROGRESS

## LAKE JESUP BMAP- TN

### Lake Jesup TN Project Reductions



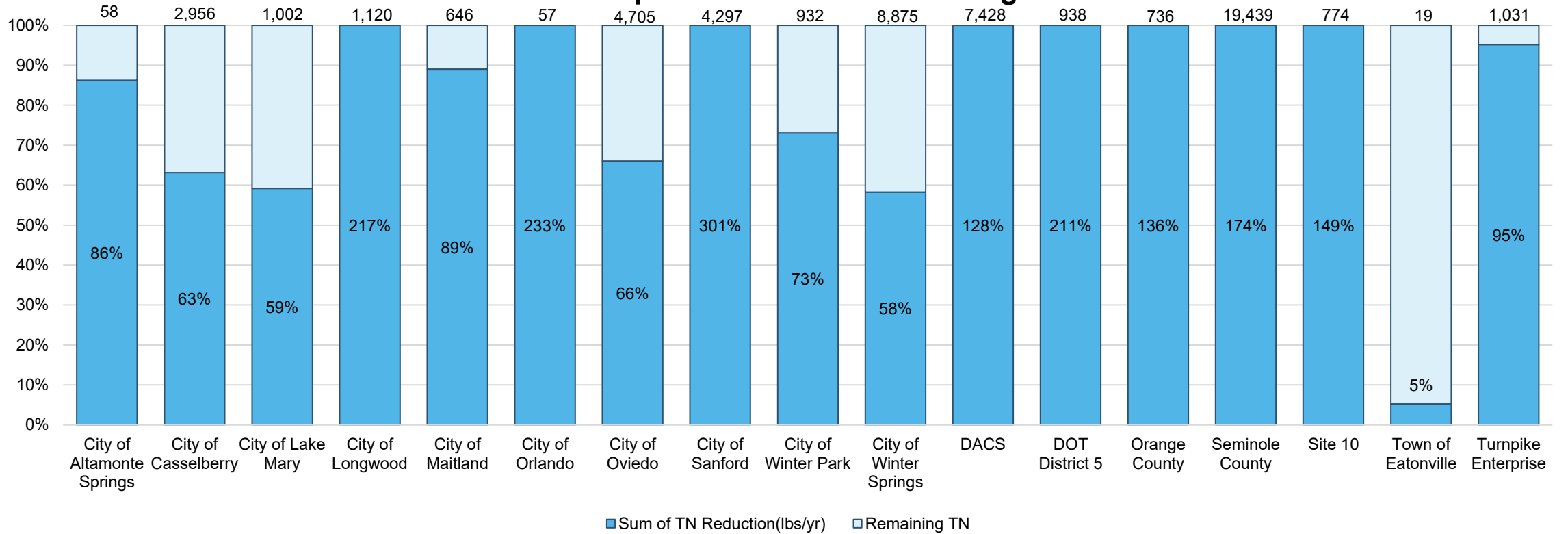
**\*Completed and ongoing projects only.\***



# PROGRESS

## ENTITY PROGRESS- TN

### Lake Jesup BMAP TN Reduction Progress



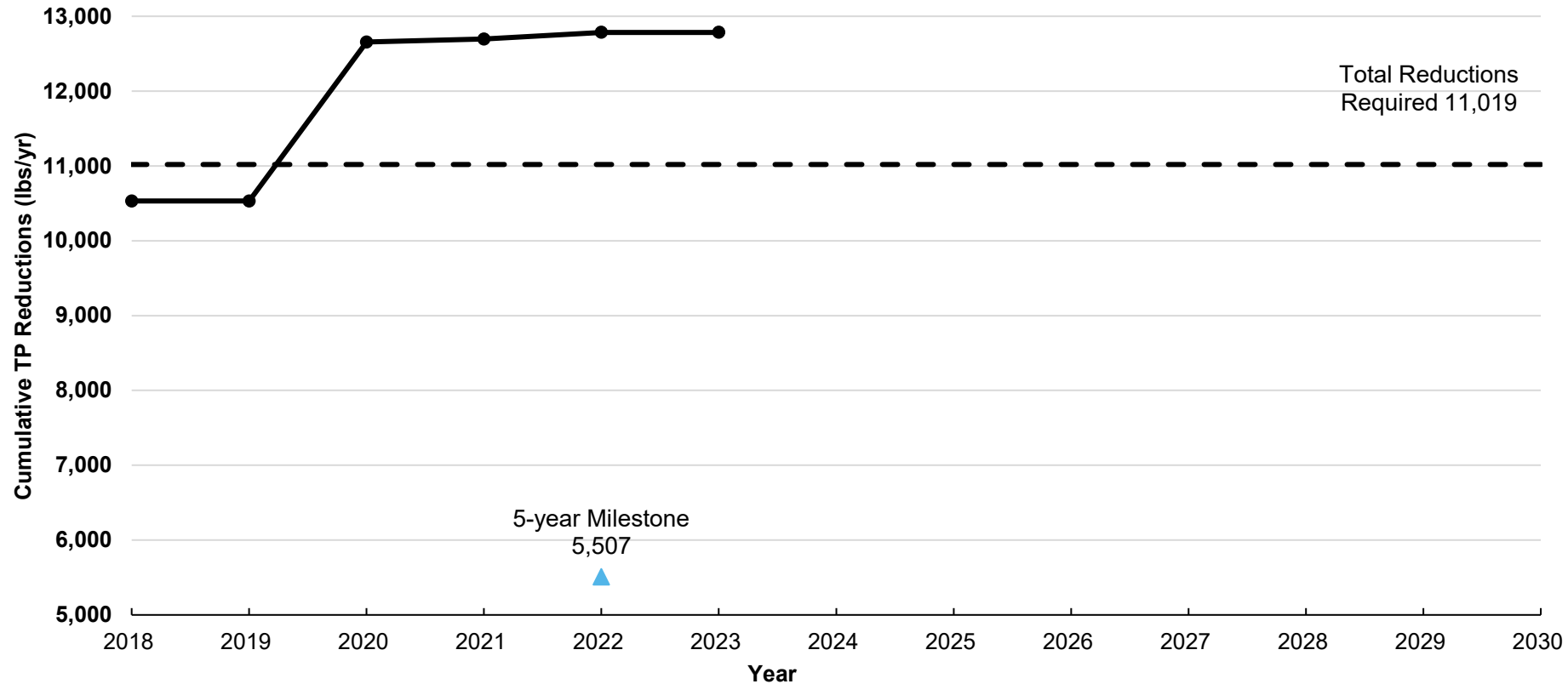
**\*Completed and ongoing projects only.\***



# PROGRESS

## LAKE JESUP BMAP- TP

### Lake Jesup TP Project Reductions



**\*Completed  
and ongoing  
projects only.\***

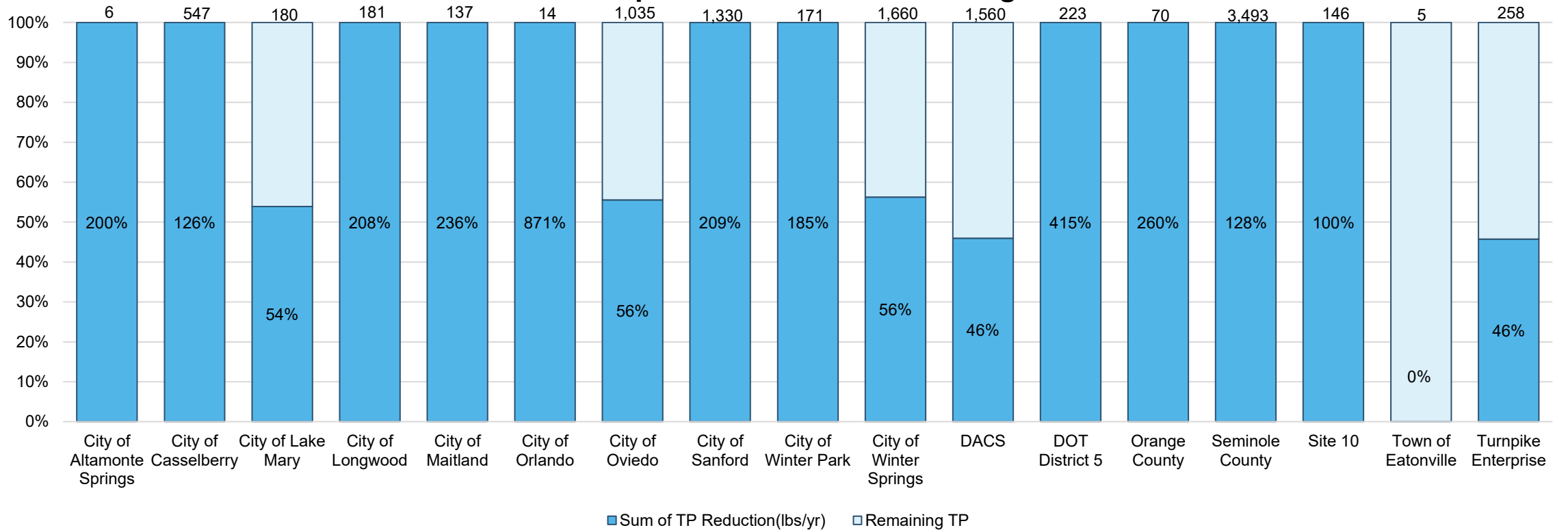




# PROGRESS

## ENTITY PROGRESS- TP

### Lake Jesup BMAP TP Reduction Progress



**\*Completed and ongoing projects only.\***



# DATA UPLOAD

## WATERSHED INFORMATION NETWORK (WIN)

- Through both the WIN and Florida STORET (STOrage and RETrieval) data repositories, DEP implements Florida statutory requirements, DEP rule requirements and U.S. Environmental Protection Agency (EPA) funding requirements for management of environmental (non-regulatory) data for the state.
- Data from WIN are used by DEP for standards development, Impaired Waters Rule assessments, TMDL development, reasonable assurance plans, alternative restoration plans, **BMAP development and assessment** and for providing data as required to EPA and to the public.
- WIN data can be retrieved through the WIN Reports and Extracts menu at <https://prodenv.dep.state.fl.us/DearWin/>.
- Data providers to WIN and STORET include DEP entities, water management districts (WMDs), cities, counties, other state agencies, universities, private and volunteer organizations.
- If your entity is collecting ambient water quality data, please upload it to WIN.



# WIN COORDINATORS

WIN Coordinator	DEP District Area or Role	Phone	Email
Justin Nelson	Northeast, Northwest, Southeast	850-245-8510	<a href="mailto:Justin.M.Nelson@FloridaDEP.gov">Justin.M.Nelson@FloridaDEP.gov</a>
Casey Marston	South, Southwest	850-245-8049	<a href="mailto:Casey.Marston@FloridaDEP.gov">Casey.Marston@FloridaDEP.gov</a>
Jason Storrs	Central, Statewide	850-245-8467	<a href="mailto:Jason.Storrs@FloridaDEP.gov">Jason.Storrs@FloridaDEP.gov</a>

# Lake Jesup BMAP Update

Shannon Salvatori, SJRWMD

Anne Elise Wester, P.E., Ph.D., SJRWMD

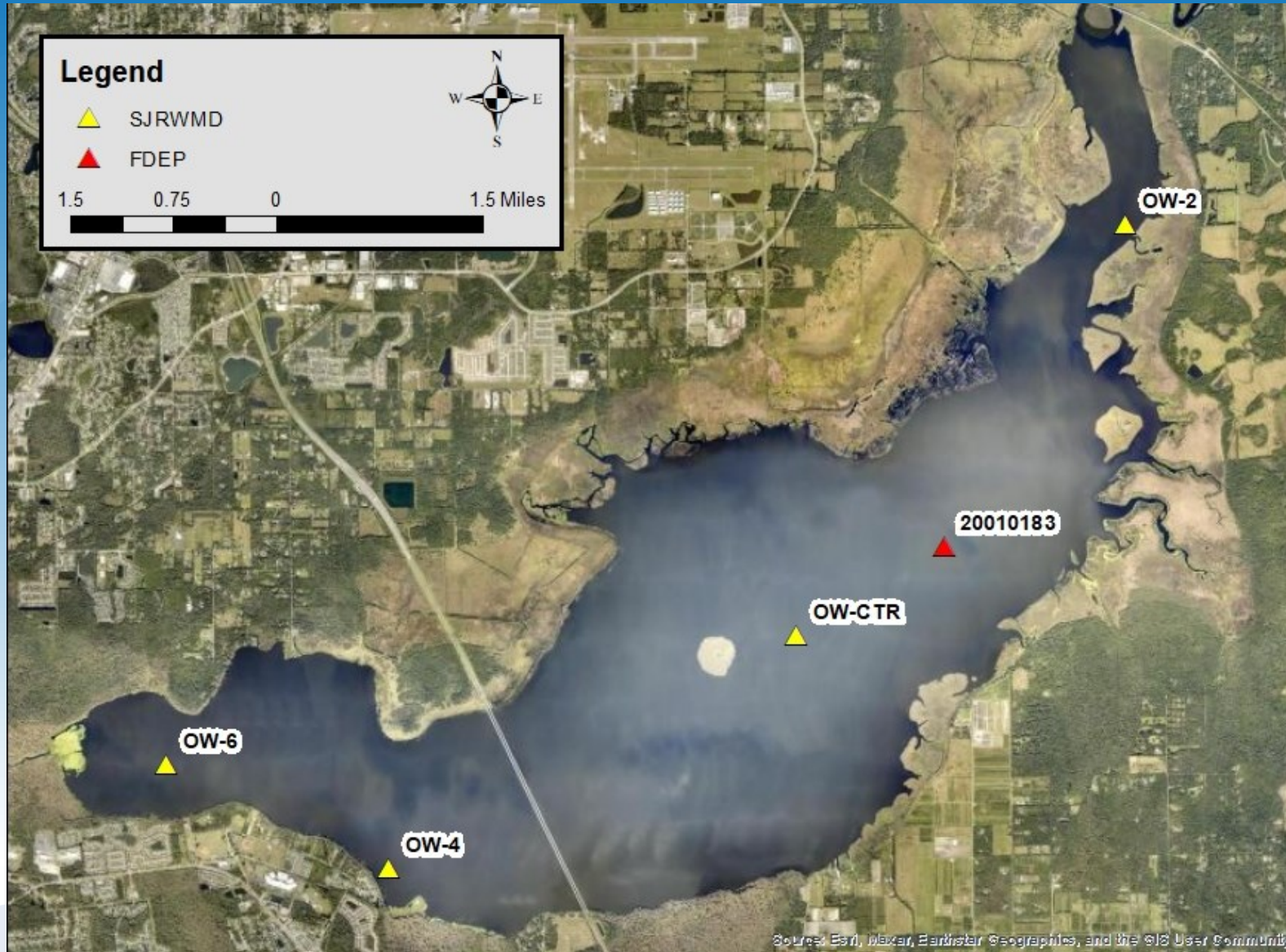


**St. Johns River**  
Water Management District

# Water Quality Update

- Jesup impaired for total nitrogen (TN), total phosphorus (TP), and chlorophyll-*a* (Chl-*a*)
  - Target TN: **1.27 mg/L**
  - Target TP: **0.096 mg/L**
  - Target Chl-*a*: **31.2 mg/m<sup>3</sup>**
- Water quality data obtained from St. Johns River Water Management District's Environmental database
- Harmful Algal Bloom (HAB) data obtained from Florida Department of Environmental Protection (DEP) HAB database

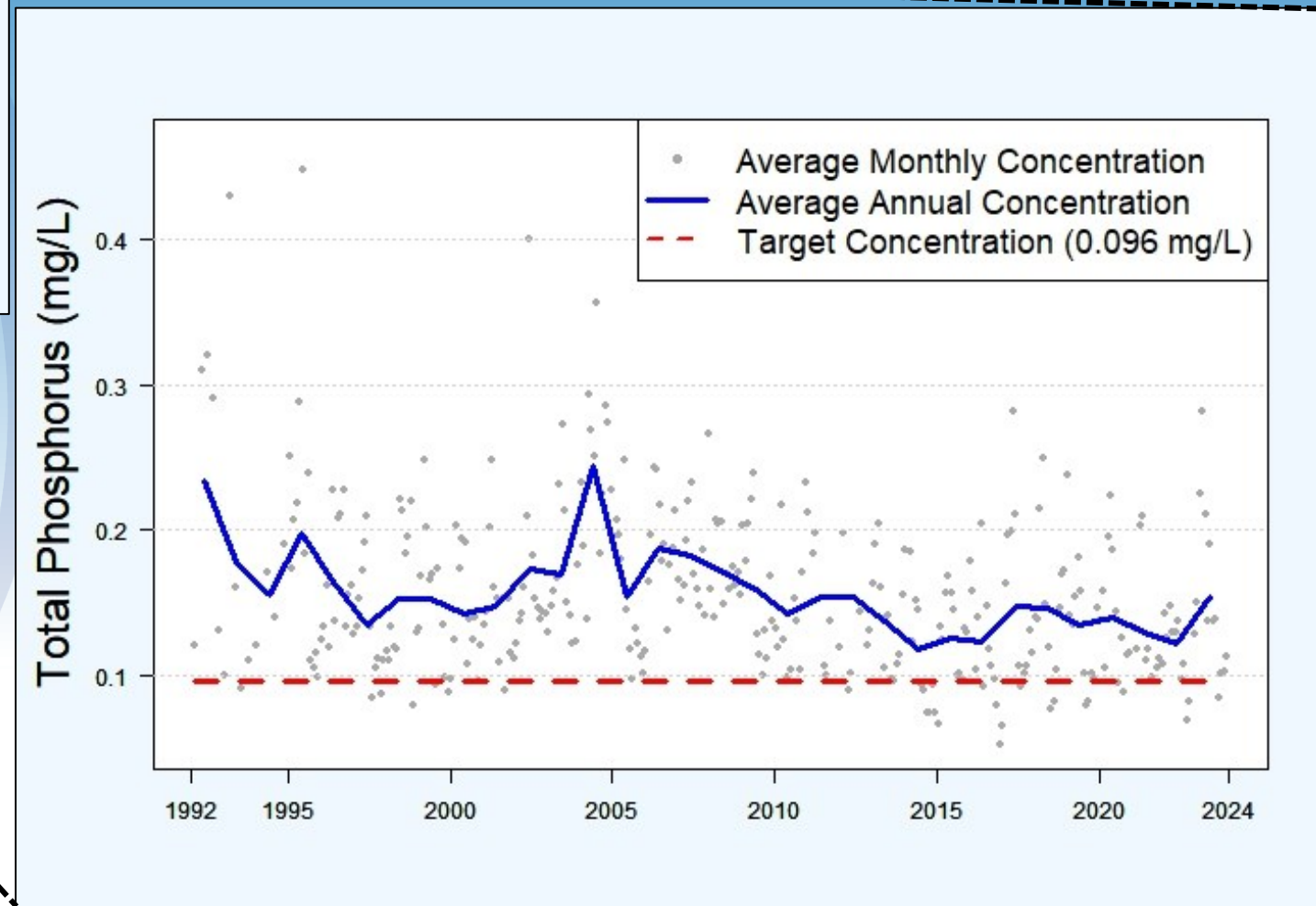
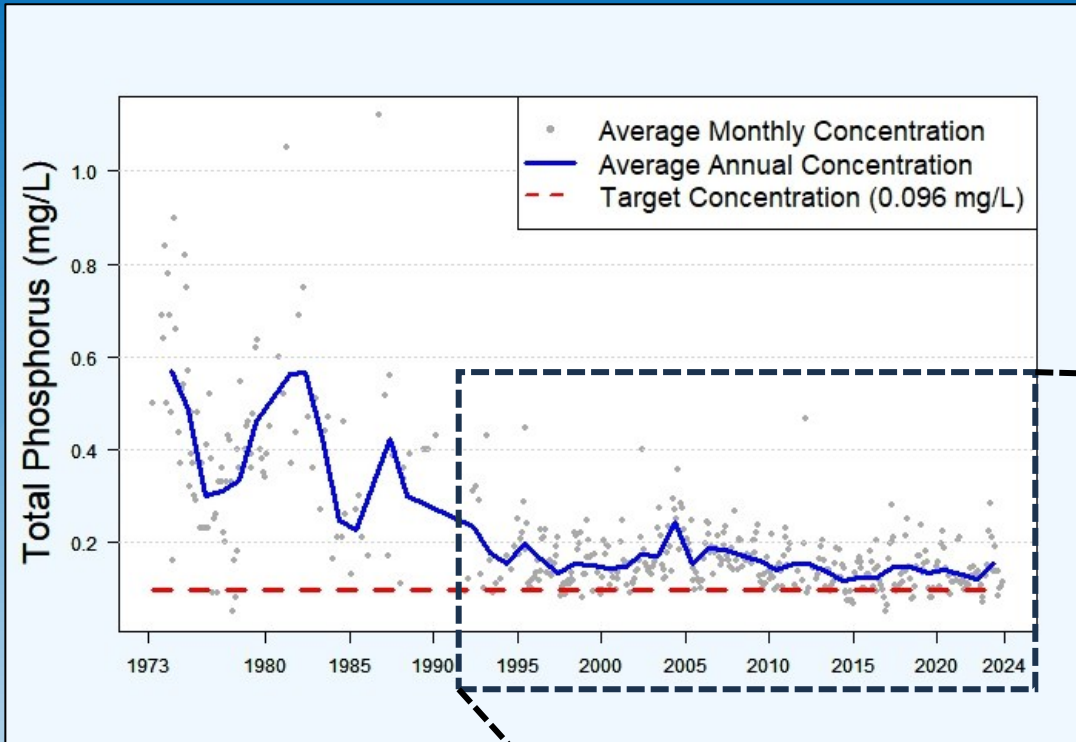




- Water quality stations in Lake Jesup from which data was used in time series plots in this presentation
- OW-CTR also is location of routine algal sampling



# Total Phosphorus

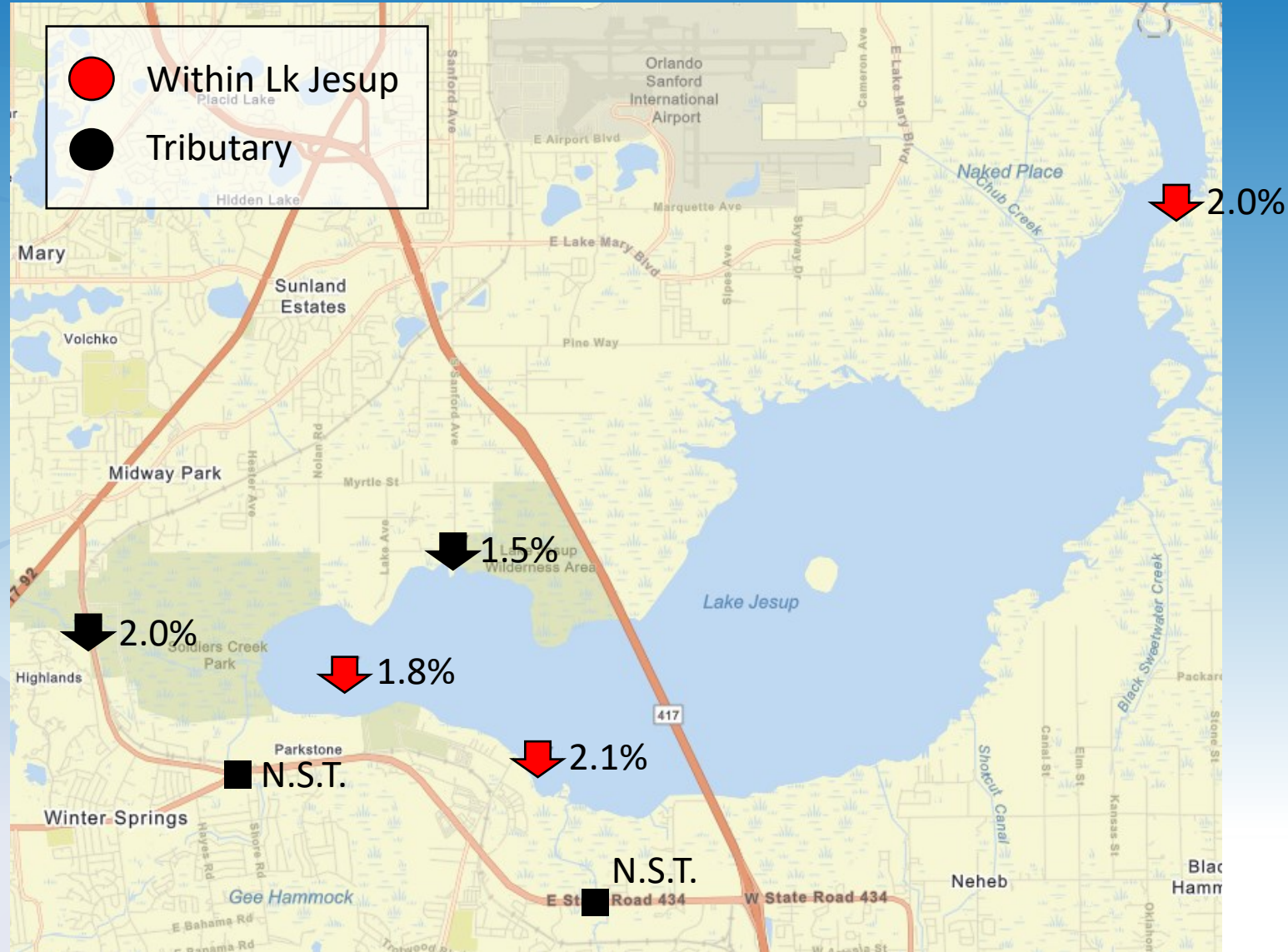


**St. Johns River**  
Water Management District

# SJRWMD's Long-Term Trend Report

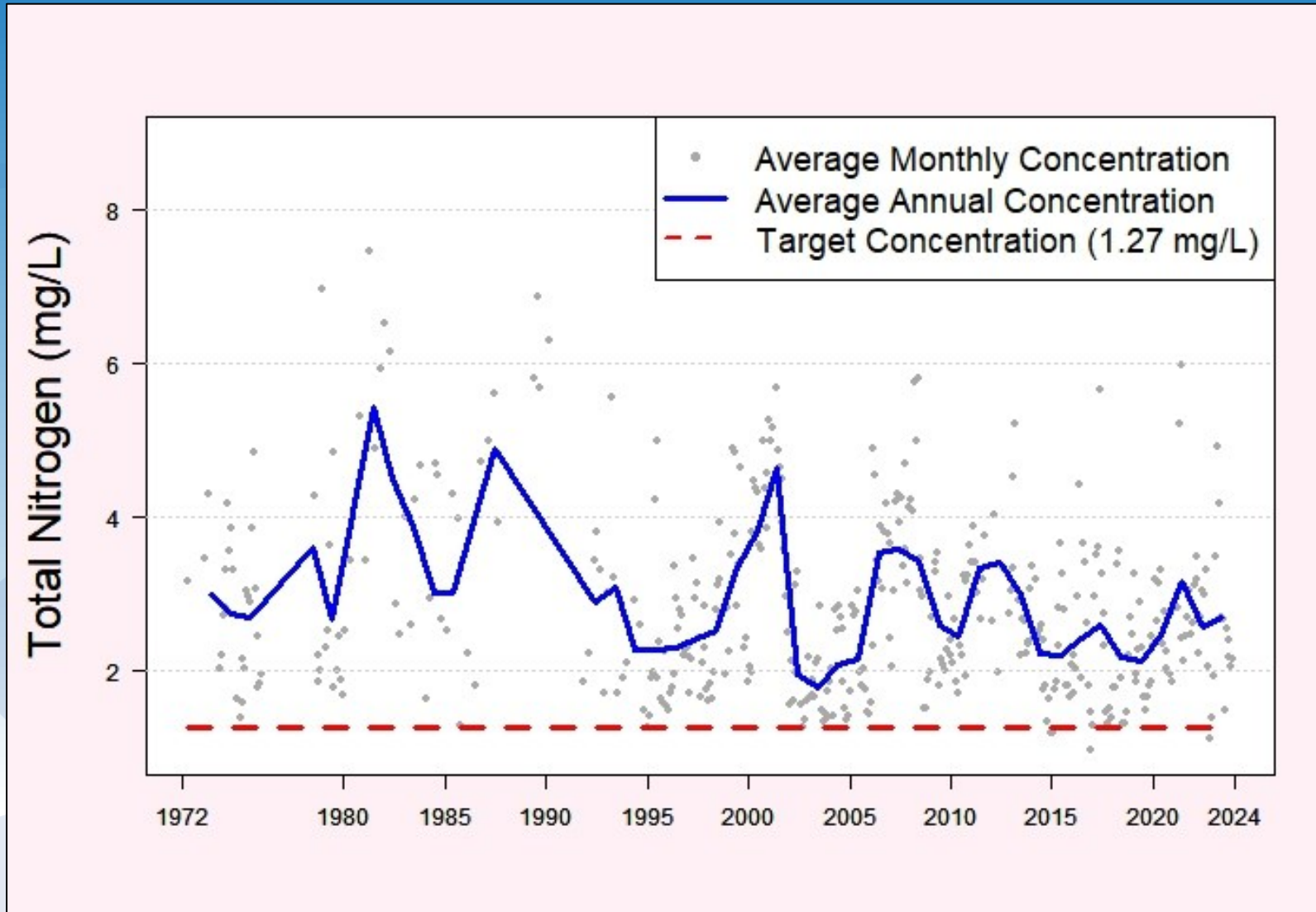
## Total Phosphorus

- 2008-2022 data
  - All SJRWMD sites
  - Report updated annually
- 
- **N.S.T. = NO STATISTICAL TREND**





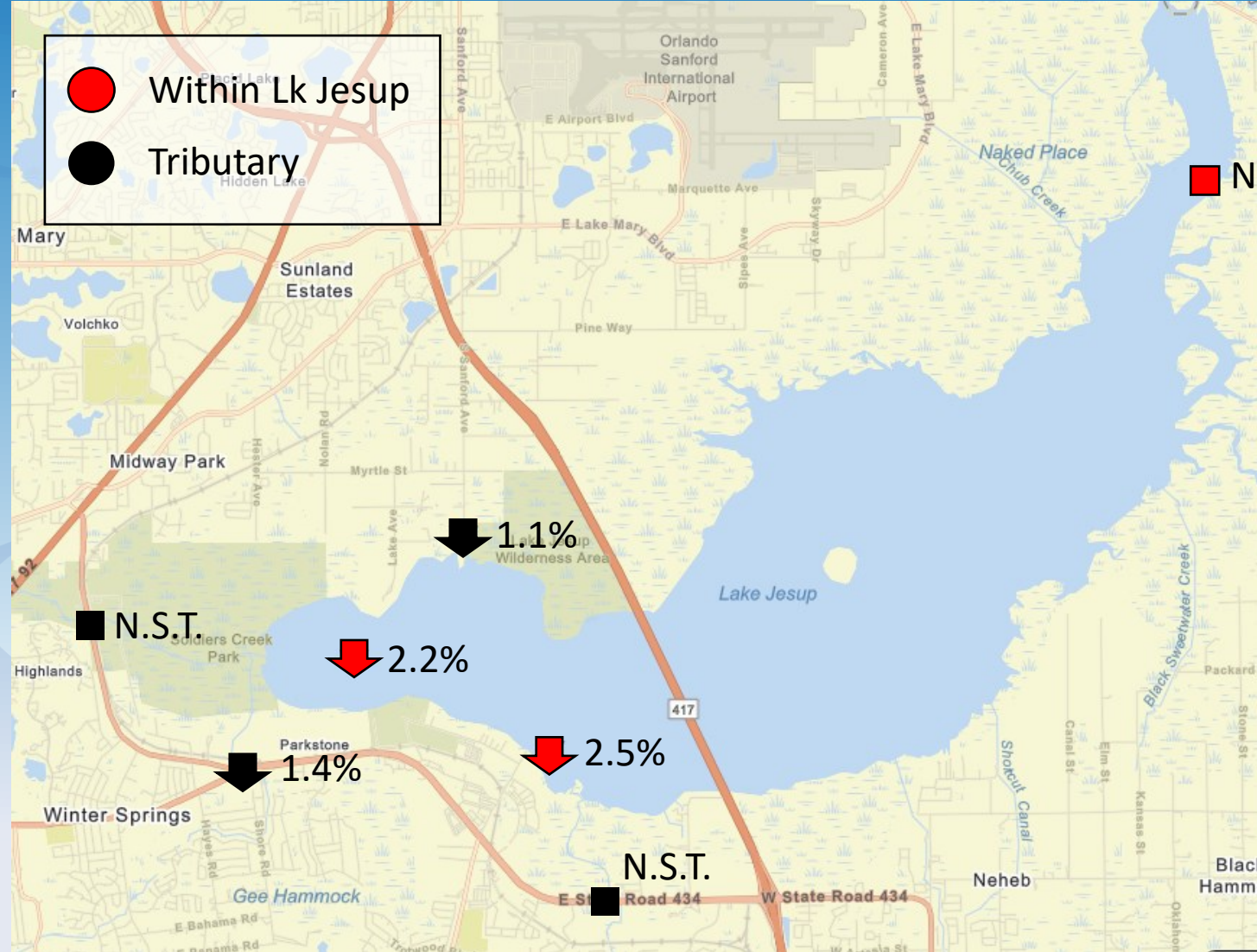
# Total Nitrogen



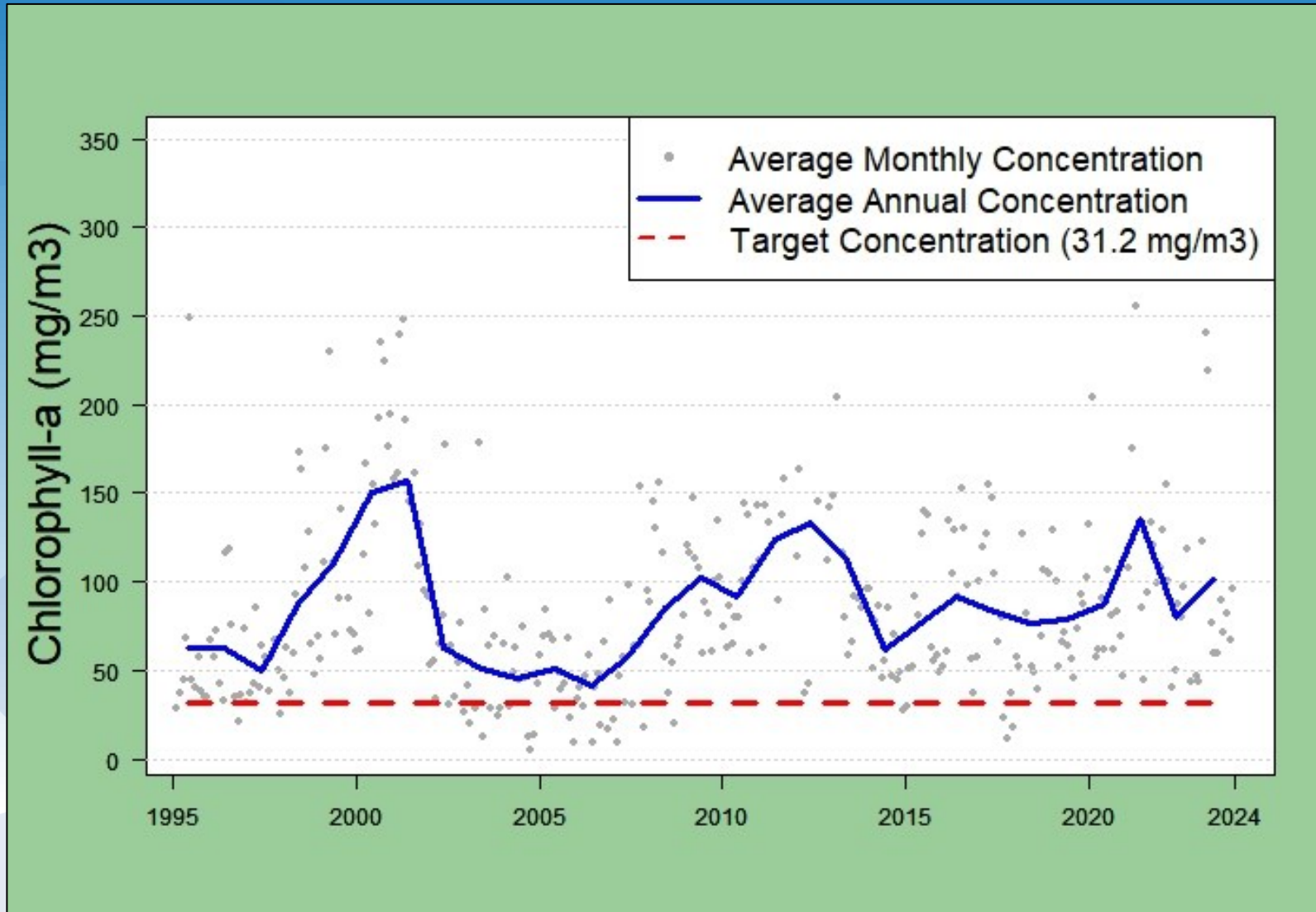
# SJRWMD's Long-Term Trend Report

## Total Nitrogen

- 2008-2022 data
- All SJRWMD sites
- Report updated annually
  
- **N.S.T. = NO STATISTICAL TREND**



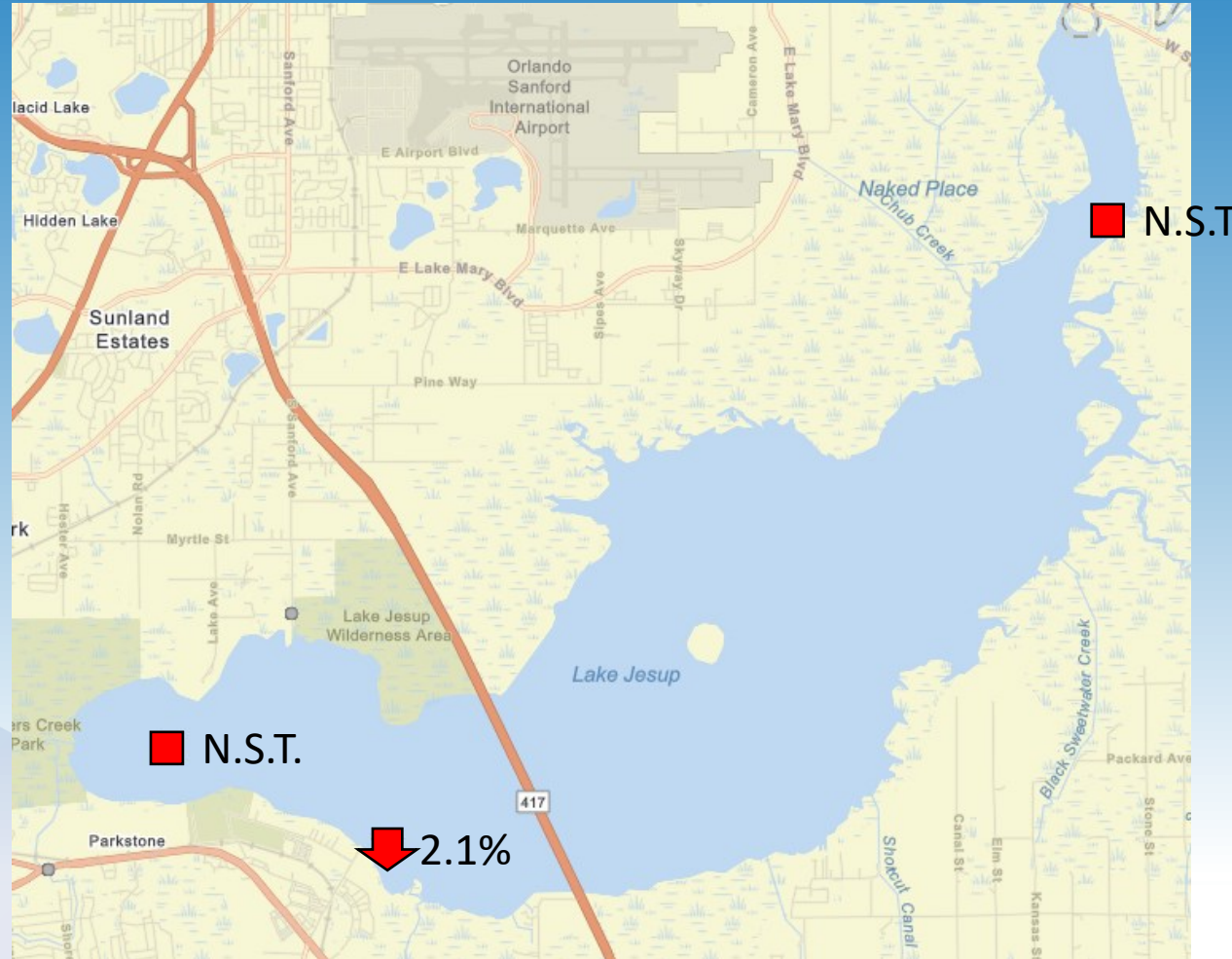
# Chlorophyll-a (Chl-a)



# SJRWMD's Long-Term Trend Report

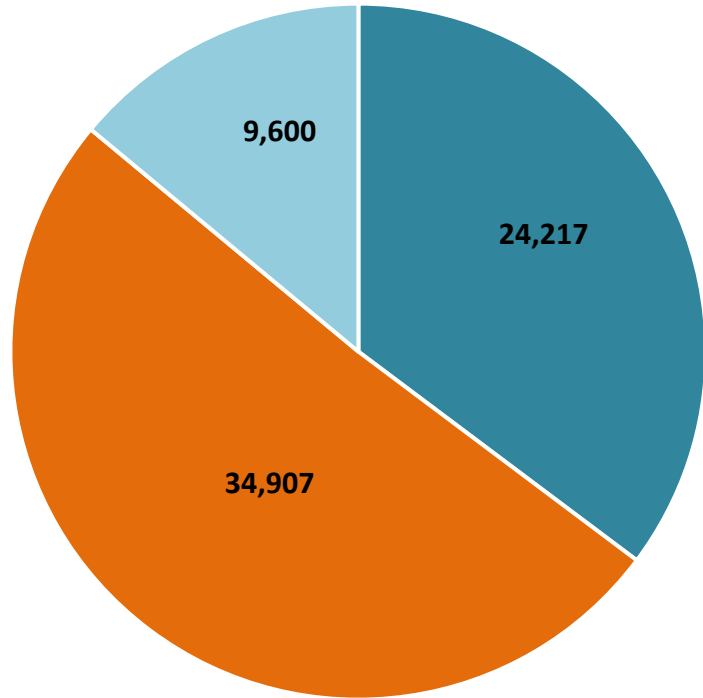
## Chlorophyll-*a*

- 2008-2022 data
  - All SJRWMD sites
  - Report updated annually
- 
- **N.S.T. = NO STATISTICAL TREND**



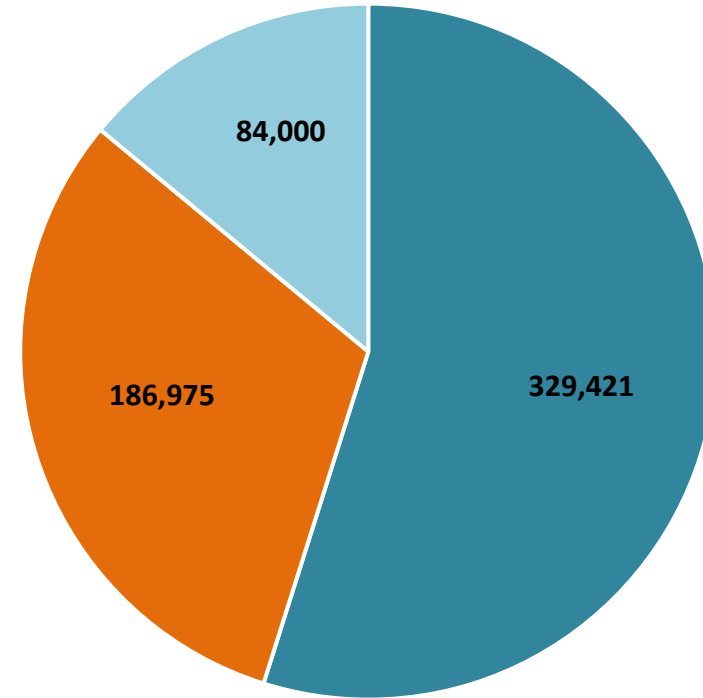
# Nutrient Load Sources

Phosphorus (lbs/year)



- Watershed Load
- Sediments and Seepage
- Atmospheric Deposition

Nitrogen (lbs/year)



- Watershed Load
- Sediments and Seepage
- Atmospheric Deposition



# Harmful Algal Blooms

- 18 samples taken in total on Jesup in 2023
- 13 samples with toxin detection
  - Max Cylindrospermopsin = 0.70 µg/L
  - Max Microcystin = 1.40 µg/L
  - 1 Anatoxin detection = 0.52 µg/L
  - No Nodularin detections
- All reported toxin detections were below EPA's recommended recreational limits:
  - 8 µg/L for Microcystins
  - 15 µg/L for Cylindrospermopsin
- Most common taxa
  - *Microcystis aeruginosa*
  - *Raphidiopsis (Cylindrospermopsis) raciborskii*
  - *Planktolyngbya limnetica*
- DEP Algal Bloom Dashboard:  
<https://floridadep.gov/AlgalBloom>



Photo taken by samplers at OW-CTR on 4/27/2023



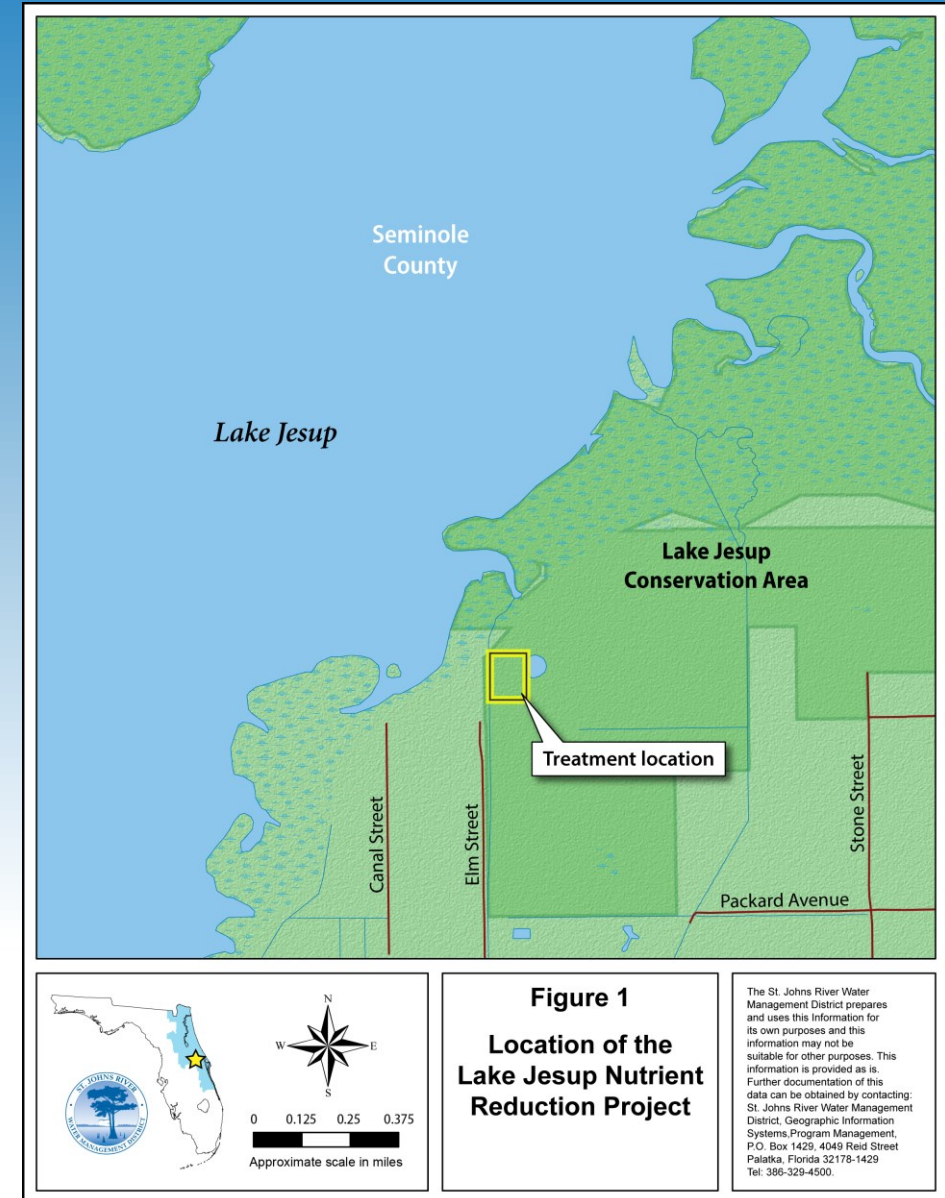
# Upcoming Projects

- Nutrient reduction system
- Acquisition of the adjacent floodplain



# Lake Jesup Nutrient Reduction System

- Development of a full-scale nutrient removal system
  - Pump raw water from Lake Jesup
  - Treat on the 9.7-acre upland District property
- Anticipated nutrient reduction from the lake
  - 50,000-80,000 lbs/year total nitrogen
  - 5,000-6,000 lbs/year total phosphorus
- In January 2024, the District went under contract with Tetra Tech for the design and permitting of the full-scale project.
  - Target completion date is September 2026
  - Includes a 12-month benchtop-scale pilot project





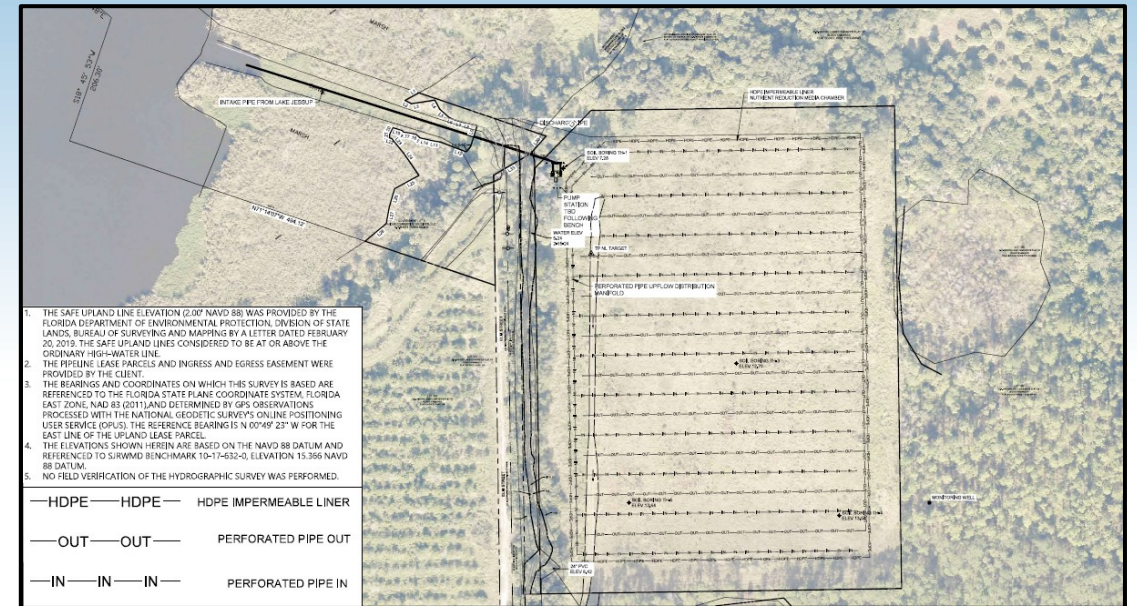
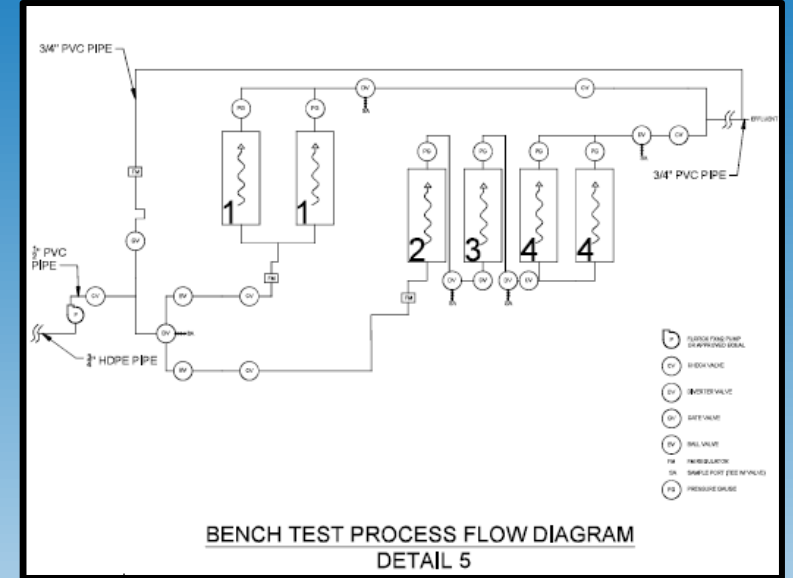
# Project Status

- Pilot Project Status

- Draft Benchttop-scale Design
- Draft Nutrient Reduction Media Tech Memo
- **12-month study is expected to begin in September**

- Full-scale Project Design Status

- Site Survey
- Wetland and Biological Survey
- Draft Conceptual Design
- Geotechnical Evaluation



Questions?



**St. Johns River**  
Water Management District



# UPCOMING

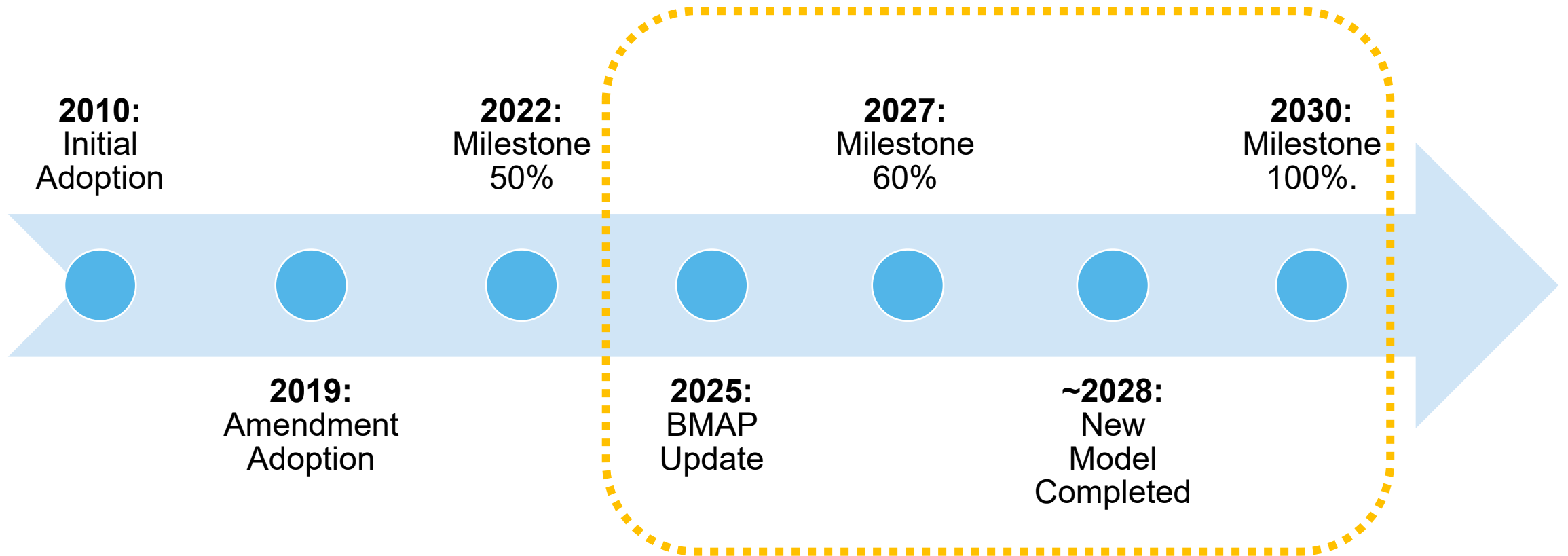
## 2025 BMAP UPDATE COMPONENTS

- Establish entity milestones.
- Wastewater effluent limits based on size of facility and effluent disposal method utilized.
- OSTDS requirements for new systems on lots one acre or less.
- Inclusion of a hot spot analysis.
- Evaluation of the monitoring network.
- Inclusion of regional projects.
- Addition of future growth estimates.
- Inclusion of the Clean Waterways Act requirements.



# BMAP TIMELINE AND MILESTONES

## Coming Up





# HOT SPOT ANALYSIS DEVELOPMENT OVERVIEW

## **Purpose:**

- To find more specific areas to focus restoration activities.
- To highlight areas where projects might have stronger results.
- To highlight areas where more investigation is needed.

**Analysis is NOT to determine BMAP or TMDL compliance.**



# HOT SPOT ANALYSIS DEVELOPMENT

## COMPONENTS OF THE HOT SPOT INDEX

**These four statistics calculated for the BMAP overall and used to compare against each station average:**

- TN or TP concentration average.
- TN or TP 90th percentile.
- TN or TP Standard Deviation (SD).
- TN or TP Percent Frequency of Samples over Threshold.

### **BMAP Threshold:**

- Lake Jesup Basin:
  - TN – 1.27 mg/L.
  - TP – 0.096 mg/L.



# HOT SPOT ANALYSIS DEVELOPMENT

## INDEX RANKING APPROACH

### Station Concentration Average Rank

Compare to BMAP Threshold and overall BMAP average.

- Rank 0:** Station average below BMAP threshold.
- Rank 1:** Station average above threshold but below BMAP average.
- Rank 2:** Station average 2x above BMAP average.

### Percentiles Rank

Compare to BMAP Threshold and 90<sup>th</sup> percentile for the whole BMAP.

- Rank 0:** Station average below BMAP threshold.
- Rank 1:** Station average above threshold but below 90<sup>th</sup> percentile.
- Rank 2:** Station average above 90<sup>th</sup> percentile.

### SD Rank

Compare to overall BMAP SD.

- Rank 0:** Station average below BMAP average + 0.5 SD.
- Rank 1:** Station average at or above average + 0.5 SD but less than BMAP average + 1 SD.
- Rank 2:** Station average at or above BMAP average + 1 SD.

### Frequency Rank

Compare to BMAP Threshold.

- Rank 0:** Station percent exceedance below 5% of samples.
- Rank 1:** Station exceedances between 5% and 49% of samples.
- Rank 2:** Station exceedances over 50% of samples.



# HOT SPOT ANALYSIS DEVELOPMENT

## FINAL OVERALL RANK

$$\begin{aligned} &\text{Average Rank} \\ &+ \\ &\text{Percentile Rank} \\ &+ \\ &\text{SD Rank} \\ &+ \\ &\text{Frequency Rank} \end{aligned} =$$

**Total Index Rank**

Rank 0 = Least Concern  
Rank 8 = High Concern

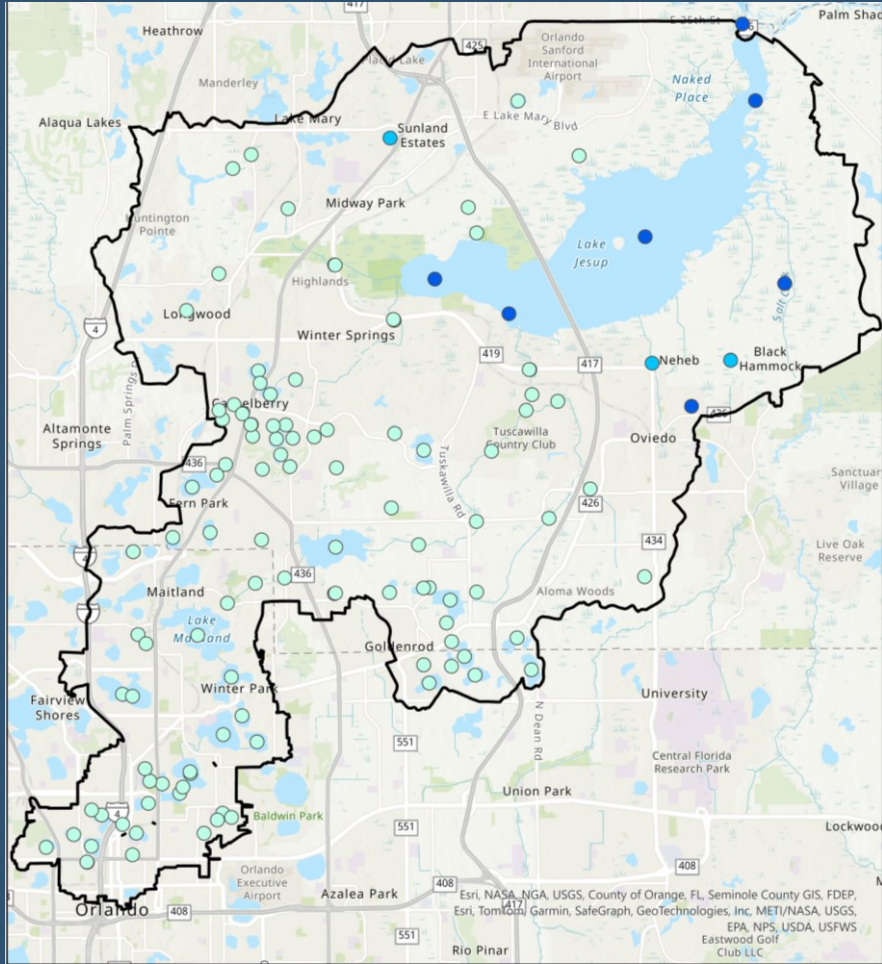




# HOTSPOT ANALYSIS RESULTS DRAFT

## LAKE JESUP BMAP

TN:



### Lake Jesup BMAP

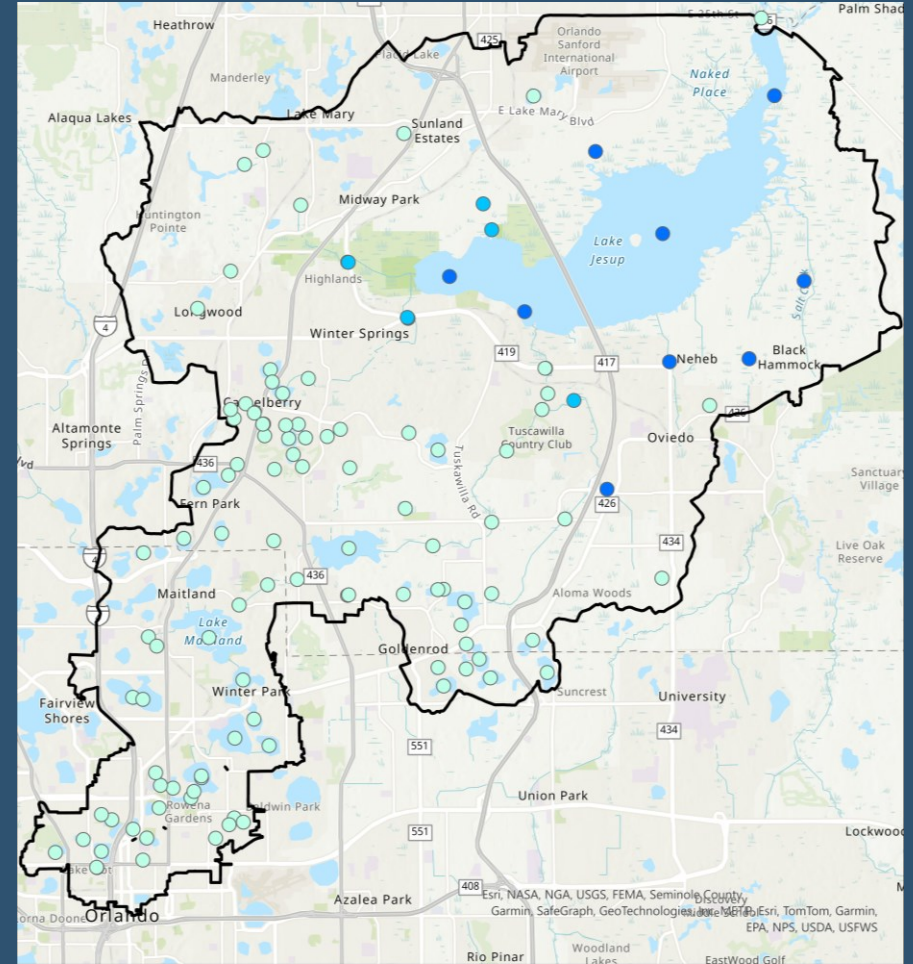
Map prepared by the Division of Environmental Assessment and Restoration.  
This map is not for legal decisions making purposes.  
Created: 05-25-2024



TN Total Rank  
● Low  
● Medium  
● High

▭ Lake Jesup BMAP Boundary

TP:



### Lake Jesup BMAP

Map prepared by the Division of Environmental Assessment and Restoration.  
This map is not for legal decisions making purposes.  
Created: 05-25-2024



TP Total Rank  
● Low  
● Medium  
● High

▭ Lake Jesup BMAP Boundary



# AGRICULTURAL COOPERATIVE ELEMENT (ACE)

- Cooperative Agricultural Regional Water Quality Improvement elements will establish a collaborative framework for identifying, prioritizing, and implementing regional projects that address nutrient loading from agricultural operations in Florida's waterways.
- These elements establish a structured framework efforts among key stakeholders, including:
  - DEP.
  - DACS.
  - Water management districts (WMDs).
  - Agricultural producers.
  - Local communities.



# AGRICULTURAL COOPERATIVE ELEMENT (ACE)

- Engaging producers in the decision-making process is key to this element and ensures that projects are practical, feasible and tailored to the needs and realities of agricultural operations.
- Partner agencies work in annual cycles to provide technical support, regulatory guidance and funding opportunities, enhancing the implementation and success of regional water quality improvement initiatives.



# FUTURE GROWTH

## **Domestic Wastewater Projections:**

- Use wastewater to estimate future growth projections.
- Start with population growth for each county from Bureau of Economic and Business Research:
  - 2040 Medium Growth Projections.
- Proportion growth for each entity based on land area.
- Distinguish the future population expected to be served by sewer versus those with OSTDS based on the most recent Florida Water Management Inventory for each BMAP county.
- Use per person calculations to estimate future loads from wastewater treatment facility (WWTF) and OSTDS.

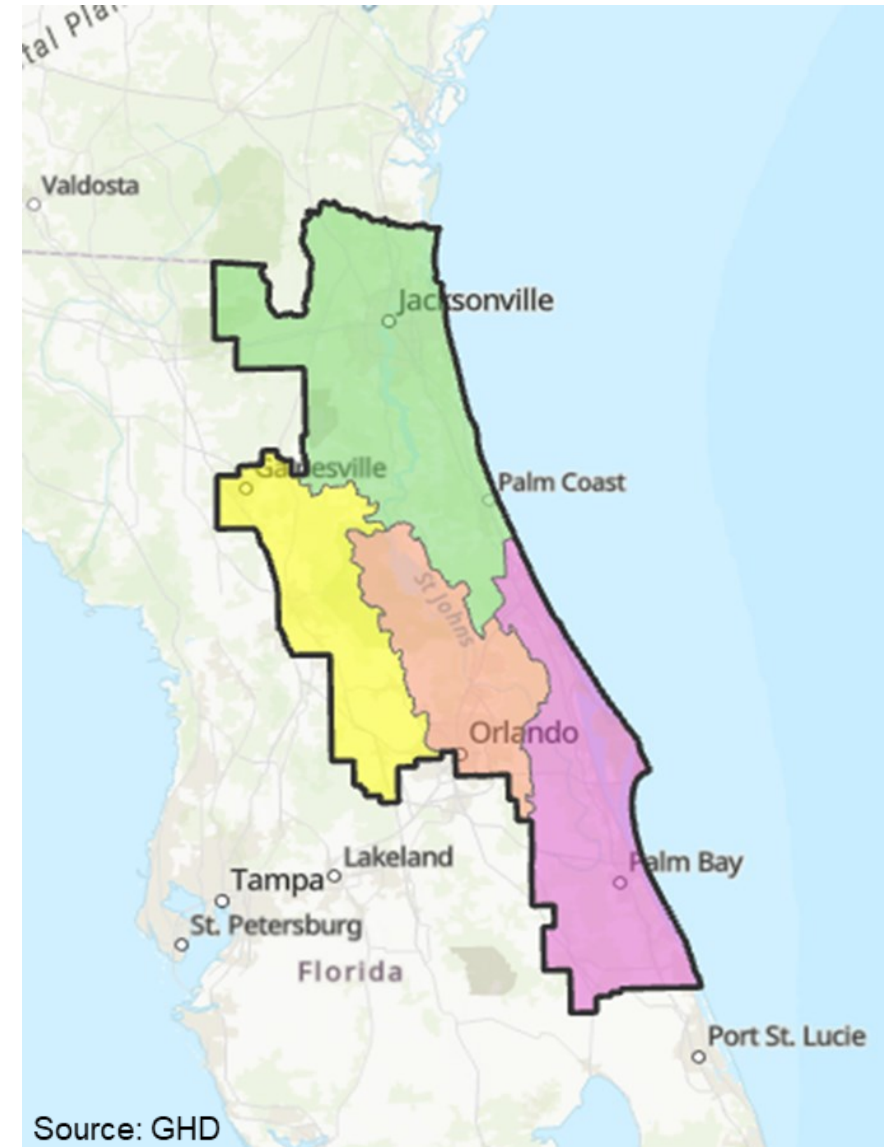
## **Agriculture Projections:**

- Exploring different tools to estimate future changes in agricultural acreage in the BMAPs to estimate changes in agricultural loading.



# SJR MODEL UPDATE

- Public meeting was held on March 12, 2024.
- Meeting materials are available at this [link](#) or the QR code below.





# SJR MODEL UPDATE PROJECT SCHEDULE

**April 2024:**  
Modeling  
Document/Quality  
Assessment (QA)  
Plan

**July 2025:**  
EFDC Model

**March 2025:**  
HSPF Model

**June 2026:**  
WASP Model

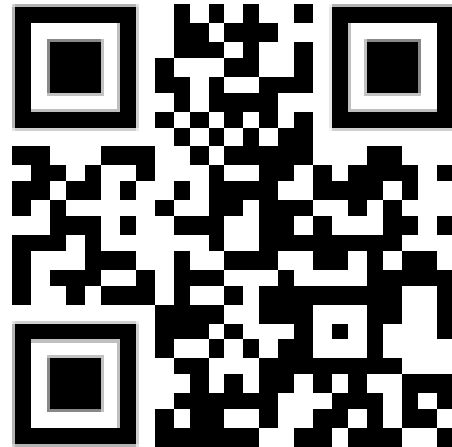
**HSPF:** Hydrologic Simulation Program FORTRAN  
**EFDC:** Environmental Fluid Dynamics Code  
**WASP:** Water Quality Analysis Simulation Program



# SJR MODEL UPDATE

## STAKEHOLDER COORDINATION

- Periodic project updates will be sent via email.
- The project email list will be used for sending updates.
- To be added to the project email list, send your contact information:
  - [Admin@WildwoodConsulting.net](mailto:Admin@WildwoodConsulting.net).
  - Or visit the [website](#) (QR code below), go to the “Contact” tab and enter your contact information.





# SJR MODEL UPDATE

## DATA SHARING: OPPORTUNITIES TO ENGAGE



Source: Pexels

- Provide additional data for the EFDC Model by Aug. 1, 2024.
- To share data, questions or concerns, please contact [StJohnsRiverData@ghd.com](mailto:StJohnsRiverData@ghd.com)
- Data must:
  - Meet the requirements of DEP's Standard Operating Procedures (SOP).
  - When sharing data, please include:
    - Name.
    - Organization/Company.
    - Role.

\*We will make every effort to include data which meet these standards. However, due to necessary consistency across districts and/or other concerns, not all provided data may be utilized.\*





# SJR MODEL UPDATE

## DATA INVENTORY

Land Cover	Florida Land Cover Classification System (FLUCCS) 2014
Meteorological	NCDC, NEXRAD, Rain Gages and other local data from SJRWMD
Boundaries (Planning Units, Subbasins, etc.)	SJRWMD Geospatial Open Data
Water Quality Ambient Data	Impaired Waters Rule (IWR) Database, Run 63
Flow Data	USGS, DEP and SJRWMD

NCDC: National Climatic Data Center

NEXRAD: Next Generation Weather Radar

USGS: U.S. Geological Survey



# UPCOMING SCHEDULE

Feb.  
2024

Draft wastewater and OSTDS plans due from stakeholders.

Feb. -  
Dec. 2024

Stakeholder meetings/draft document.

June –  
July  
2024

Individual meetings on allocations and milestones with stakeholders.

Final wastewater and OSTDS plans due from stakeholders.

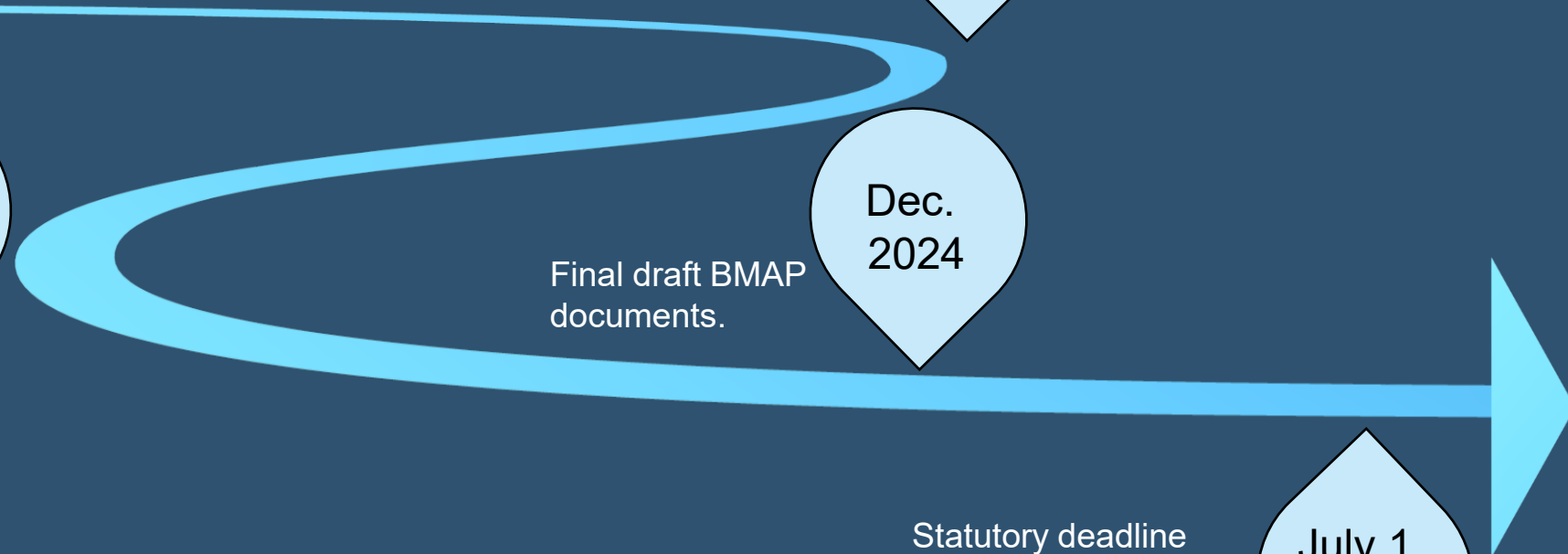
Aug. 1,  
2024

Final draft BMAP documents.

Dec.  
2024

Statutory deadline for updated nutrient BMAPs.

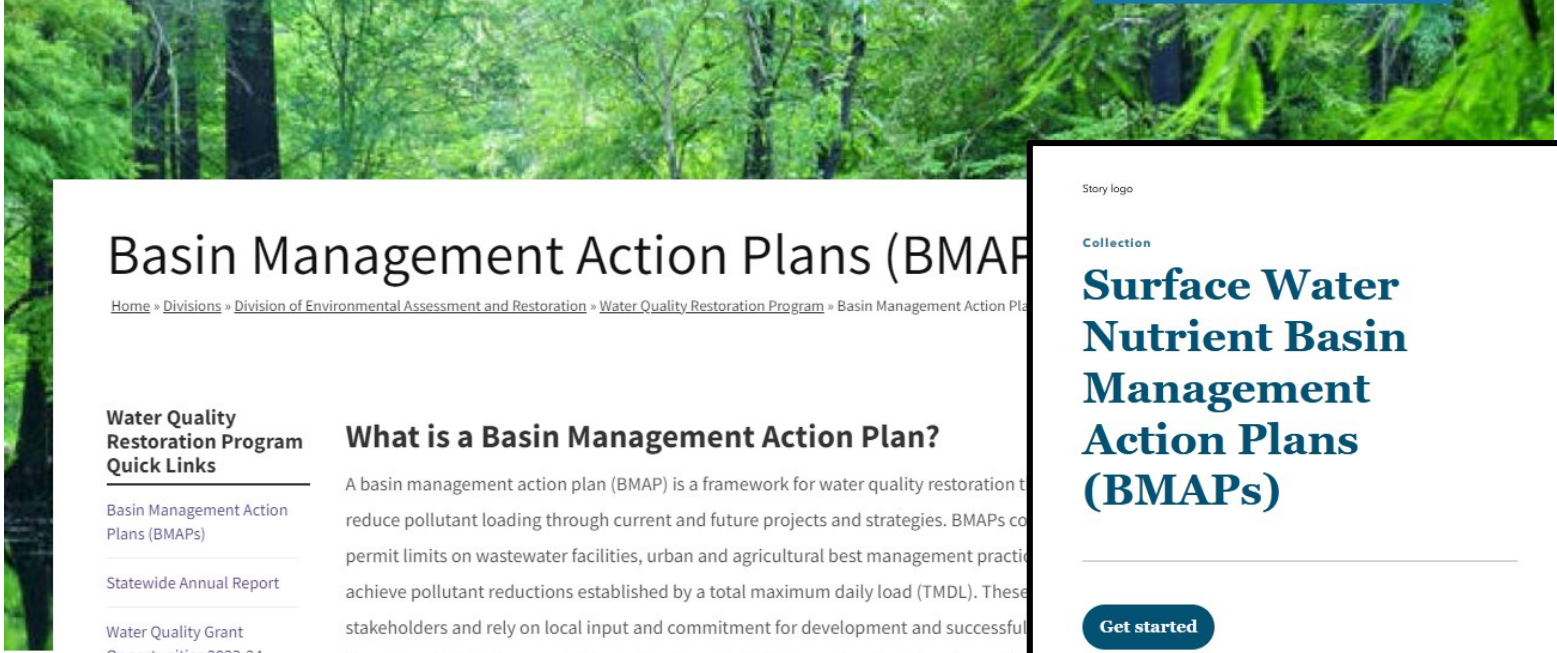
July 1,  
2025





# RESOURCES

## BMAP WEBSITE AND STORYMAP



### Basin Management Action Plans (BMAP)

[Home](#) » [Divisions](#) » [Division of Environmental Assessment and Restoration](#) » [Water Quality Restoration Program](#) » Basin Management Action Plans

#### Water Quality Restoration Program Quick Links

[Basin Management Action Plans \(BMAPs\)](#)

[Statewide Annual Report](#)

[Water Quality Grant Opportunities 2023-24](#)

[BMAP Public Meetings](#)

[Impaired Waters, TMDLs and Basin Management Action Plans Interactive Map](#)

[Tools and Guidance for](#)

### What is a Basin Management Action Plan?

A basin management action plan (BMAP) is a framework for water quality restoration to reduce pollutant loading through current and future projects and strategies. BMAPs contain permit limits on wastewater facilities, urban and agricultural best management practices to achieve pollutant reductions established by a total maximum daily load (TMDL). These plans are developed with local stakeholders and rely on local input and commitment for development and successful implementation. BMAPs are adopted by Department of Environmental Protection Secretarial Order and are legally enforceable.

### Water Quality Protection Grant Portal for Fisheries

DEP has launched an [online grant portal](#) to provide eligible entities the opportunity to apply for funding. Eligible entities include local governments, academic institutions, and non-profit organizations. The [application portal](#) opened July 5, 2023. Closing dates for individual grant programs vary by the posted date for each grant program. Applicants are encouraged to submit proposals by the deadline.



Story logo

Collection

## Surface Water Nutrient Basin Management Action Plans (BMAPs)

Get started

A basin management action plan (BMAP) is a framework for water quality restoration, containing local and state commitments to reduce pollutant loading through current and future projects and strategies. BMAPs contain a comprehensive set of solutions, such as permit limits on wastewater facilities, urban and agricultural best management practices, and conservation programs designed to achieve pollutant reduction established by a Total Maximum Daily Load (TMDL).

These broad-based plans are developed with local stakeholders and rely on local input and commitment for development and successful implementation. BMAPs are adopted by DEP Secretarial Order and are legally enforceable.



1 Legislative Requirements



2 Lake Harney, Lake Monroe, Middle St. Johns River and...



3 Everglades West Coast Basin Management Action Plan



4 Lake Jesup Basin Management Action Plan



5 Orange Creek Basin Management Action Plan



6 Lower St. Johns Main Stem Basin Management Action Plan



7 Wekiva River, Rock Springs Run, and Little Wekiva Canal...



8 Upper Ocklawaha Basin Management Action Plan



9 Long Branch Basin Management Action Plan



# RESOURCES

## FUNDING OPPORTUNITIES



Florida Department of Environmental Protection  
Funding Opportunities  
[FloridaDEP.gov/Funding](https://www.floridadep.gov/Funding)





# SUBSCRIBER PAGE

## HOW TO CONTACT US



[BMAPProgram@FloridaDEP.gov](mailto:BMAPProgram@FloridaDEP.gov)

[Subscribe](#)



# THANK YOU

**Evelyn Becerra and Lauren Campbell, Ph.D.**  
Division of Environmental Assessment and Restoration  
Florida Department of Environmental Protection

Contact Information:

Evelyn Becerra  
850-425-4587

[Evelyn.Becerra@FloridaDEP.gov](mailto:Evelyn.Becerra@FloridaDEP.gov)

Lauren Campbell  
850-245-8083

[Lauren.Campbell@FloridaDEP.gov](mailto:Lauren.Campbell@FloridaDEP.gov)



# Lake Jesup Basin Management Action Plan (BMAP) Annual Meeting

July 9, 2024, via GoToWebinar

1:00 pm – 2:08 pm

## Attendees

Jim Ailes, City of Deland  
Suzanne Archer, SJRWMD  
Lisa Bally, ATM  
Evelyn Becerra, DEP  
Connie Becker, DEP  
Joel Bostic, BCC Engineering  
Tiffany Busby, Wildwood Consulting  
Thomas Calhoun, Seminole County  
Lauren Campbell, DEP  
Andy Canion, SJRWMD  
Michael Cannon, City of Sanford  
Jennifer Cappelletti, FDOT  
Jiovani Charres, City of Casselberry  
Steve Collins, Johnson, Mirmiran & Thompson  
Miguel Conde, City of Lake Mary  
Nick Cooper, City of Casselberry  
Pete Coultas, A. Duda & Sons  
Jane Dai, City of Casselberry  
April Davis, City of Altamonte Springs  
Susan Davis, SJRWMD  
Cammie Dewey, SJRWMD  
Dean Dobberfuhl, SJRWMD  
Alyssa Eide-Cadle, City of Maitland  
Yesenia Escribano, FDACS  
Austin Evora, City of Maitland  
Amanda Exposito-Ferree, AtkinsRealis  
Eka Febrina, Seminole County  
Jessica Fetgatter, DEP  
James Fike, BCC Engineering  
Randy Fink, SJRWMD  
Jessica Frost, BlueGreen Water Technologies  
Fred Gaines, FDOT  
Samuel Hankinson, DEP  
Kira Hansen, Kimley-Horn  
Moirra Homann, DEP  
Laila Hudda, EPA  
Julie Hughes, City of Deltona  
Wei Jin, SJRWMD  
Chandler Keenan, DEP  
Danielle Koury, City of Lake Mary  
Tara Lamoureux, City of Winter Park  
Charles Legros, DEP  
Heather Lindell, Orange County  
Lisa Lotti, City of Orlando  
Todd Lundell, BlueGreen Water Technologies  
Celeste Lyon, RES  
Erich Marzolf, SJRWMD  
Hayden McCandless, Carollo Engineers  
Lori McCloud, SJRWMD  
Karen McCullen, City of Maitland  
Gabrielle Milch, St Johns Riverkeeper  
Jennifer Mitchell, SJRWMD  
Shannon Monahan, City of Winter Park  
Jessica Mostyn, DEP  
Rocco Nasso, CPH  
Joe Parish, Seminole County  
Wayland Paxman, City of Winter Park  
Timothy Perry, Gardner Bist  
Nicolas Pisarello, ATM  
Ray Pribble, ESA



Ellen Rogers, Florida Senate Committee on  
Environmental Preservation and  
Conservation  
Terrilyn Rolle, City of Winter Springs  
Leylah Saavedra, Pegasus Engineering  
Shannon Salvatori, SJRWMD  
Matt Scriptor, Ecological Associates  
Michelle Shelton, Seminole County  
Stacey Simmons, FDACS  
Tiffany Simpson, DEP  
Victoria Steinnecker, Carollo Engineers  
Connor Steven, City of Maitland

Unknown, The Florida Channel  
Riley Timbs, SJRWMD  
Scott A. Towler, Anser Advisory  
Diana Turner, DEP  
Jessica Vaccare, DB Environmental  
Tim Waln, SJRWMD  
Anne Elise Wester, SJRWMD  
Shannon Wetzel, Seminole County  
Erin Yao, FDOT  
Paul Yeargain, City of Oviedo  
Kelly Young, Volusia County  
Hannah Yucht, City of Orlando

## Questions and Answers (Q&A)

Q: The total nitrogen (TN) and total phosphorus (TP) reductions shown were annual amounts. How many years to the total maximum daily load (TMDL) endpoint? Reductions cannot be infinite.

A: In the current BMAP, the last milestone to meet the reductions outlined in the TMDL is the year 2032. The BMAPs are usually on a 20-year implementation timeframe and are updated regularly. The goal is to complete the reductions by 2032 but note that the TMDL and BMAP will continue beyond 2032. Through the adaptive management process, BMAP adjustments will be made, including possible changes to the allocations, based on the status of water quality restoration and changes in the sources and their loading over time.

Q: Will a list of participants be published with the webinar materials? This could facilitate local partnering.

A: The list of participants will be included in the meeting summary document. If you are a lead entity in the Lake Jesup BMAP and need more information about the point of contact at another lead entity organization, please contact Evelyn Becerra at [Evelyn.Becerra@FloridaDEP.gov](mailto:Evelyn.Becerra@FloridaDEP.gov).

Q: Where can we access the project documents for Lake Jesup Nutrient Reduction Pilot Project?

A: There is a place on the St. Johns River Water Management District [website where project information is posted](#). The district scientists will update the project information every few months over the course of the project to keep everyone apprised of progress. If anyone would like more specific details on the project, please contact Anne Elise Wester at [awester@sjrwmd.com](mailto:awester@sjrwmd.com).

Q: The TN and TP thresholds used in the hotspot analysis, are they applied to each stakeholder or are the values average numbers?

A: The nutrient concentrations used in the hotspot analysis were compared to the measured water quality concentrations at the various monitoring stations. The hotspot analysis included selecting

monitoring stations with sufficient years of data and adequate monitoring frequency. So, the nutrient thresholds were compared to measured water quality data over time at various locations to compare the sites.