



Upper Ocklawaha Basin Management Action Plan (BMAP) Annual Meeting

Jessica Fetgatter

Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection

GoTo Webinar| June 21,2023



Webinar Housekeeping

Attendee Participation

Open your control panel.

Join audio:

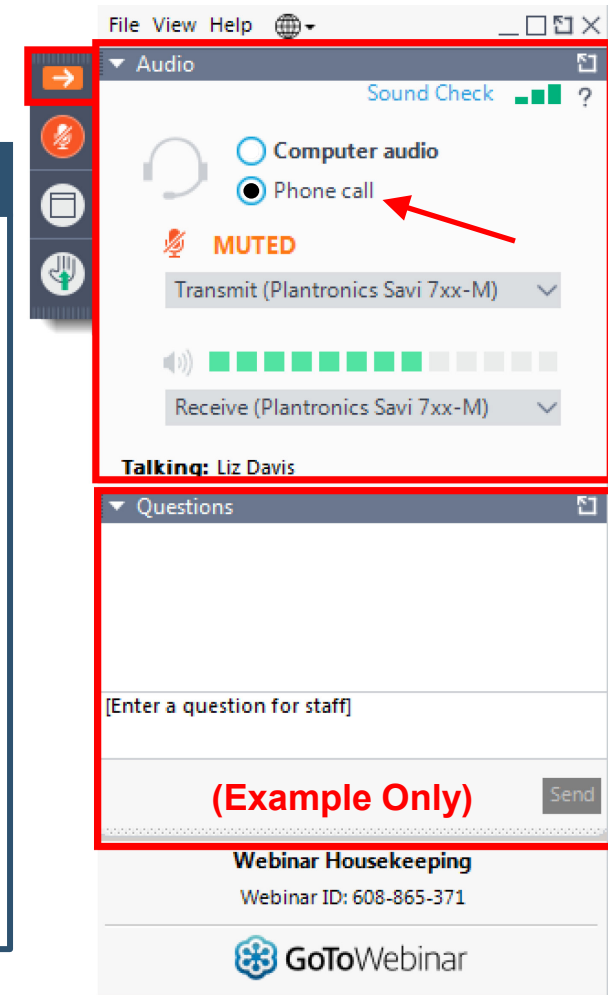
- Choose Computer Audio or
- Choose Phone Call and dial using the information provided with your registration

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.





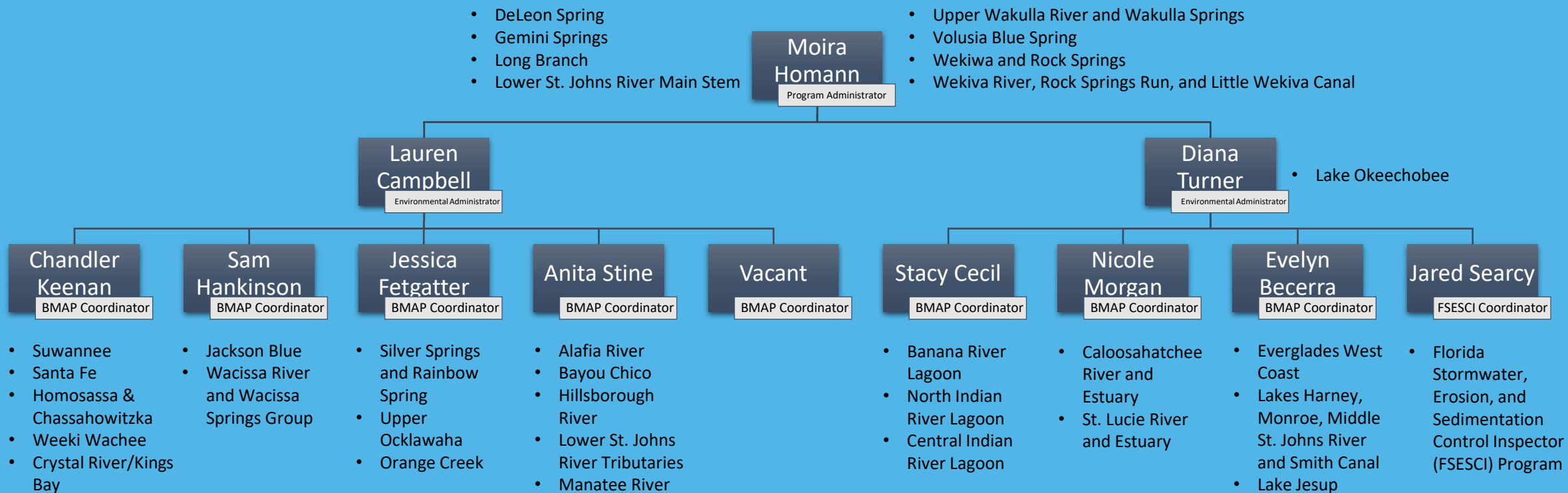
Annual Meeting Agenda

- Welcome
- BMAP Background and Updates
- St. Johns River Water Management District (SJRWMD) Updates
- Florida Department of Agriculture and Consumer Services (FDACS) Updates
- Unenrolled Agricultural Producer Enforcement
- Funding Opportunities



BMAP PROGRAM STAFF UPDATE

<https://floridadep.gov/dear/water-quality-restoration/content/basin-management-action-plans-bmaps>





The Florida Stormwater, Erosion, and Sedimentation Control Inspector (FSESCI) Program

To become qualified to conduct National Pollutant Discharge Elimination System (NPDES) Construction Generic Permit (CGP) Stormwater Inspections, take this class to learn:

- Construction Best Management Practices – Common Techniques and Technologies
- Proper compliance with the NPDES CGP
- Creating and reviewing a Stormwater Pollution Prevention Plan (SWPPP)
- Florida specific stormwater regulation
- How to conduct stormwater inspections

For more information and a list of public classes, visit:

- www.fsesci.com, or
- www.FDEPstormwaterclass.com.

Become an FSESCI Instructor for your organization:

- www.fsesci.com/newinstructor/

**DEP Statewide Training
Coordinator:**

Jared Searcy

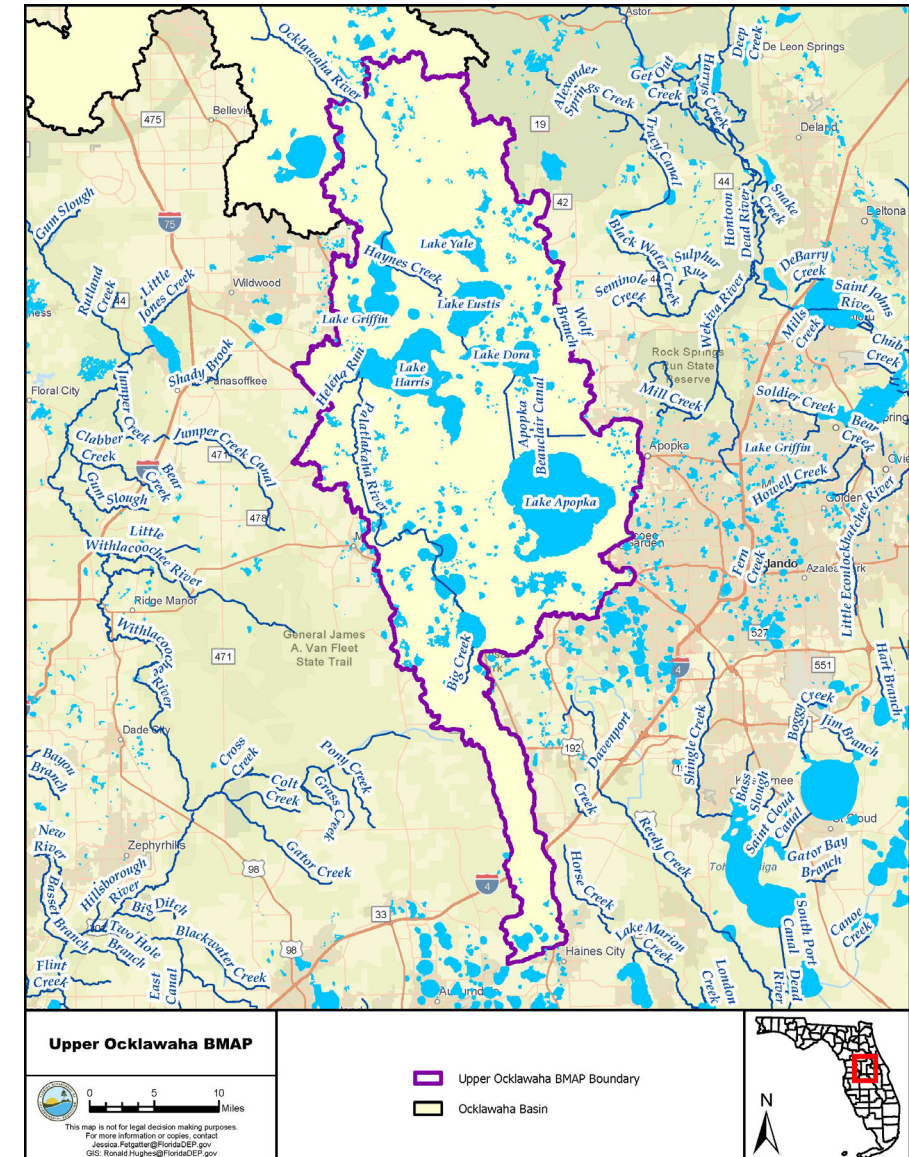
Jared.Searcy@floridadep.gov

850-245-8445



Upper Ocklawaha Background

- 2007: Initial adoption
- 2014: Phase 2
- 2019: Amendment adoption





Stakeholders

Local Governments

Lake County

Lake County Water Authority

Lake County Soil and Water Conservation District

Marion County

Orange County

Polk County

Apopka

Clermont

Eustis

Fruitland Park

Groveland

Howey-in-the-Hills

Lady Lake

Leesburg

Mascotte

Minneola

Montverde

Mount Dora

Tavares

Umatilla

Winter Garden

Ocoee

Wildwood

Regional & State Agencies

St. Johns River Water Management District

Florida Fish and Wildlife Conservation Commission

Florida Department of Agriculture and Consumer
Services

Florida Department of Transportation, District 5

Florida Department of Environmental Protection –
Central District & Tallahassee

Florida Department of Health in Lake County

Florida Turnpike Enterprise

Central Florida Expressway Authority



STAR

Statewide Annual Report

What is it and where can you find it?

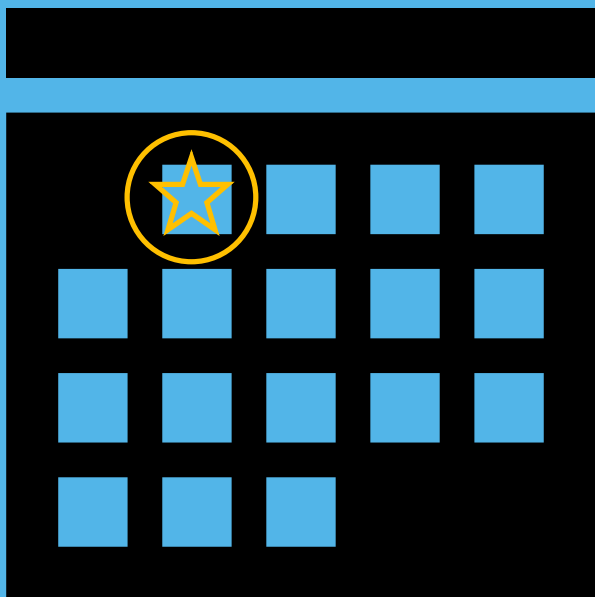
New interactive web application



STAR

STATEWIDE ANNUAL REPORT

**Report is submitted
by July 1, 2023**



<https://floridadep.gov/STAR>

- What's in the STAR?
 - Summarizes accomplishments in the BMAPs statewide.
 - Reports on restoration projects and management strategies.
- STAR got a digital makeover!
 - Moving to visual-driven experience.
 - Data download available.



Sneak Peek

Florida Department of Environmental Protection Statewide Annual Report 2022 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
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How to Use This Report

What is the STAR?

Reductions Summary

What Are Nutrients?

What Are FIB?

What Are BMAP Projects?

Nutrient BMAPs

Fecal Indicator Bacteria BMAPs

BMAP Projects

Project Table

Sorted by Alphabetical Order

Silver River Basin



Silver River and Springs Basin



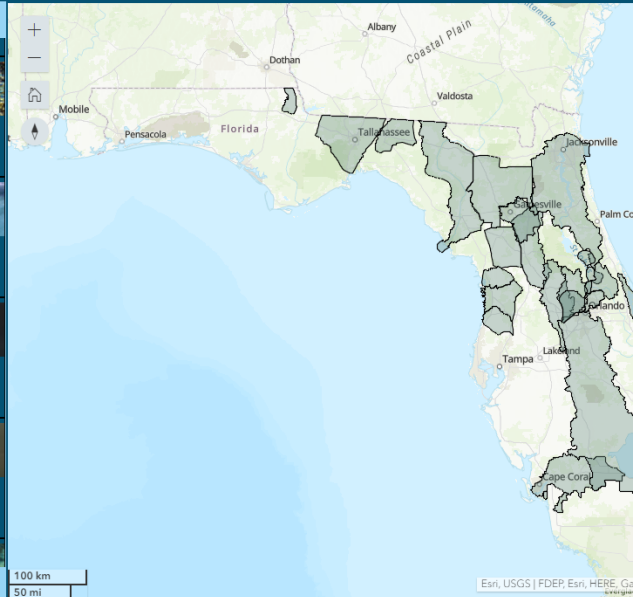
St. Lucie River and Estuary Basin



Upper Ocklawaha River Basin



Upper Wakulla River and Wakulla Spring Basin



Click on an image tile to the left or a watershed in the map to learn more about a BMAP.

The Statewide Annual Report 2022

The state of Florida is prioritizing the protection and restoration of our waterways by implementing sound, science-based solutions to current and future environmental challenges. Under the leadership of Governor Ron DeSantis, the Florida Department of Environmental Protection (DEP) is working with local, state and federal partners on short- and long-term strategies to protect water quality and quantity, including investment in long-term restoration projects. DEP has prepared the 2022 Statewide Annual Report (STAR) to detail the status of many of these strategies in an interactive application format, which is best viewed on a desktop computer screen using Google Chrome or Microsoft Edge.



Total Maximum
Daily Loads



Basin Management
Action Plans



Alternative
Restoration Plans



Minimum Flows and
Water Levels



Recovery and
Prevention Strategies



Contacts and
Project Data







STAR

BMAP PROJECT PORTAL IMPLEMENTATION

Pros

Timeliness

Portal keeps everyone on same timeline, which keeps us on time.

Consistency

Real-time error messages allow for more accurate information to be entered for projects.

Guided Data Entry

Drop-down menus allow for consistent categories and required information limits data gaps.

**All reporting
stakeholders
used the
portal this
year.**



Lessons Learned

Program Debugging

Development errors took more time fixing than anticipated.

Communication

Coordinators needed to do more outreach to ensure stakeholder participation.



Status of Projects

Through December 31, 2022

Lead Entity	Canceled	Completed	Ongoing	Planned	Underway	Total
City of Apopka		3	6			9
City of Clermont	1	8	3	4	1	17
City of Eustis	1	28	8	1	5	43
City of Fruitland Park		2	2		1	5
City of Groveland		4	2			6
City of Leesburg	3	16	6	2	2	29
City of Minneola		3	2			5
City of Mount Dora	1	24	3			28
City of Ocoee	1	9	1		1	12
City of Tavares		5	6			11
City of Umatilla	3	8	4		1	16
City of Wildwood			1			1
City of Winter Garden		7	2		1	10
DEP		1				1
FDACS	1	14	16			31
FDOT District 5	1	46	20			67
Howey-in-the Hills		2	1		1	4
Lake County	4	56	28	4		92
LCWA	1	7	1	1	2	12
Marion County		1	5		1	7
Orange County	2	18	11		5	36
SJRWMD		64	1		13	78
Town of Lady Lake		2	6			8
Town of Montverde			3			3
Central Florida Expressway		2				2
Total	19	330	138	12	34	533

Total Phosphorous: 176,140 pounds per year (lbs/yr)

Total Nitrogen (Trout, Denham, Roberts, Marshall, & Palatlakaha): 23,347 lbs/yr



Estimated Reductions Achieved Through December 31, 2022

Waterbodies	TP Reductions Achieved (lbs/yr)	TN Reductions Achieved (lbs/yr)
Lake Apopka	111,016	NA
Lake Beauclair	607	NA
Lake Dora	1,709	NA
Lake Carlton	217	NA
Lake Harris	8,492	NA
Lake Eustis	2,587	NA
Lake Yale	1,280	NA
Lake Griffin	44,147	NA
Trout Lake	3,316	16,106
Lake Denham	17	0
Lake Roberts	4	0
Marshall Lake	10	0
Palatlakaha River	2,738	7,241



Story Map

Upper Ocklawaha BMAP

Upper Ocklawaha Basin Management Action Plan

[Introduction](#)[Overview](#)[Location](#)[Monitoring](#)[Project Highlights](#)[Contacts & More Information](#)

INTRODUCTION

Welcome to the Upper Ocklawaha Basin Management Action Plan (BMAP) Story Map

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.

This Story Map reflects the status of BMAP projects as of the most recently published [Statewide Annual Report \(STAR\)](#). Please use the tabs above to navigate through this Story Map and learn more about the Upper Ocklawaha BMAP. Last updated June 2022.

* The story map will display differently depending on the screen size and resolution being used. Story map best viewed in Chrome or Firefox.

Opposite photo: BellaEatsBooks [CC BY-NC 2.0](#)

The Upper Ocklawaha Story Map will also be updated.

More details can be seen in the BMAP Story Map.

[Upper Ocklawaha Basin Management Action Plan \(arcgis.com\)](https://arcgis.com)



Coming Up

- New St. Johns River Modeling Efforts
- Trend/Hotspot Analysis
- SB 712: Clean Waterways Act Requirements
- HB 1379: Achieving Even More for Florida's Environment



Targeted Restoration Analysis

- **Methodology** is being developed.
 - Started with process in South Florida BMAPs.
 - Tailored to fit individual BMAPs.
- **Goal:** Find areas for project prioritization and opportunities to monitor progress.
 - Identify areas for regional projects and greatest impacts.
 - Prioritize funding.
- Trend/hotspot analysis.

First Steps

Concentration 5-yr
Average



Compare to BMAP
Target
Concentration(s)*



Priority 1: Greater than twice the benchmark.

Priority 2: Greater than the benchmark
but less than twice benchmark value.

Priority 3: Equal to or less than the benchmark

*Can use the Numeric Nutrient Criteria if a target concentration is not defined for the waterbody.



Clean Waterways Act (SB 712)

Wastewater Treatment Plans and Onsite Sewage Treatment and Disposal System Remediation Plans

Webinar on Monday, June 26th at 10 am
Please submit any questions to us by June 21st

- Written explanation of potential exemption must be submitted by
 - **July 12, 2023.**
- Draft plans must be submitted to the department by
 - **February 1, 2024.**
- Final plans must be submitted to the department by
 - **August 1, 2024.**
- These plans must be incorporated into the BMAPs by
 - **July 1, 2025.**

[Clean Waterways Act Requirements for Wastewater & Onsite Sewage Treatment and Disposal Systems Plans in Nutrient BMAPs | Florida Department of Environmental Protection](#)



Wastewater Treatment Plans

Summary of expected elements of the Wastewater Treatment Plans:

- Inventory of WWTFs within jurisdiction of local governments.
- Summary of each facility's current status, which may include:
 - Permitted capacity.
 - Average discharge.
 - Permitted nutrient limits.
 - Average nutrient concentration.
 - Estimated average nutrient load.
- Summary of capacity analysis for each facility.
 - Including plans for future growth.
- Ranking or list of facility upgrades needed to meet requirements.
- Timelines/milestones for all projects.
- Funding estimates for all projects.



OSTDS Remediation Plans

Summary of expected elements of the OSTDS Remediation Plans:

- Inventory of OSTDS within jurisdiction of local governments.
- Plan to address OSTDS in the future:
 - Areas for sewerage and/or enhancements & prioritization of those areas.
 - Summary of capacity analysis for wastewater facilities that would accept newly sewerage areas.
 - Timelines/milestones for projects.
 - Funding estimates for all projects.
 - Future growth considerations.



HB 1379: Environmental Protection

**Enhances Water Quality
Protection in the Indian River
Lagoon.**

**Strengthens Water Quality
Protections and Basin
Management Action Plans
(BMAPs).**

**Improves Local Government
Long-Term Comprehensive
Planning.**

**Expands Funding Opportunities
to Address Water Quality
Impairments.**



Improving Comprehensive Planning

BMAP Projects:

- Requires local governments to include BMAP projects in their comprehensive plans so that these projects can be prioritized to achieve restoration benefits.

Sanitary Sewer:

- Except for rural areas of opportunity (RAO), requires local governments to assess the feasibility of providing sanitary sewer for developments of 50 lots or more, on a 10-year planning horizon.
 - Deadline for updates with new sanitary sewer requirements is July 1, 2024.

Wastewater Facility Upgrades:

- Requires prioritization of advanced wastewater treatment (AWT) in comprehensive plans.





Strengthening BMAPs

List of Identified Projects:

- Requires a list of projects and strategies that will achieve the 5-year implementation milestones to meet total maximum daily loads (TMDLs).
- Requires each identified project to include an estimated amount of nutrient reduction, a planning-level cost estimate and an estimated date of completion.
- Requires DEP to increase coordination with local governments, water management districts and other stakeholders to identify projects.

Agricultural Nonpoint Sources:

- Where agricultural nonpoint sources contribute at least 20 percent of nonpoint source nutrient discharges, requires a list of cooperative agricultural regional water quality improvement element(s) submitted by the Department of Agriculture and Consumer Services which, in combination with the best management practices, additional measures, and other management strategies will achieve the needed pollutant load reductions established for agricultural nonpoint sources.





Improving Domestic Wastewater

Wastewater Facility Upgrades:

- By 2033 – requires all wastewater facilities discharging to an impaired water to upgrade to Advanced Wastewater Treatment (AWT).
- After July 1, 2023 – requires any facility discharging to a waterbody impaired for nutrients or subject to a BMAP or reasonable assurance plan (RAP) area to upgrade to AWT within 10 years.

More Stringent Wastewater Treatment Standards:

- Authorizes DEP to require a more stringent treatment standard (greater than AWT) if required to meet the total maximum daily load (TMDL) within a BMAP.

Onsite Sewage Treatment Disposal Systems (OSTDS):

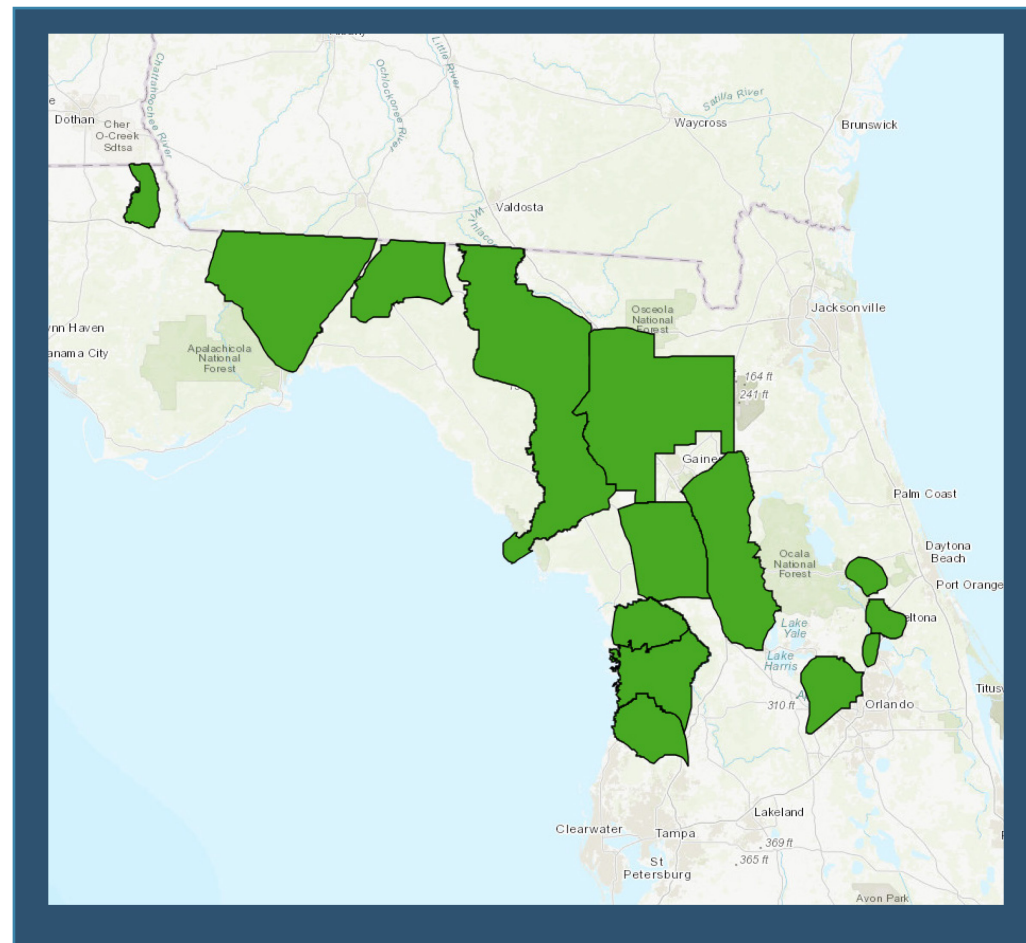
- Requires new OSTDS on lots 1 acre or less within a BMAP to connect to central sewer if available, or if unavailable, to upgrade to an enhanced nutrient-reducing system or other wastewater system that achieves 65 percent reduction.



Enhanced Protections For Outstanding Florida Springs

Expanding current prohibitions in priority focus areas to entire Outstanding Florida Spring (OFS) BMAP areas:

- New conventional OSTDS on lots one acre or less - Where connection to a sewer system is not available, all new OSTDS on lots one acre or less must be enhanced nutrient-reducing systems (at least 65% nitrogen reduction).
- New domestic wastewater disposal facilities with permitted capacities of 100,000 gallons per day or more unless they meet AWT standards.
- New HAZMAT disposal facilities.
- Land application of Class A or B biosolids not in accordance with a DEP-approved nutrient management plan.
- New agricultural operations not implementing best management practices (BMPs).





THANK YOU

Jessica Fetgatter

Florida Department of Environmental Protection
Division of Environmental Assessment and Restoration
Upper Ocklawaha BMAP Coordinator

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Nutrient loading and water quality in upper Ocklawaha basin lakes

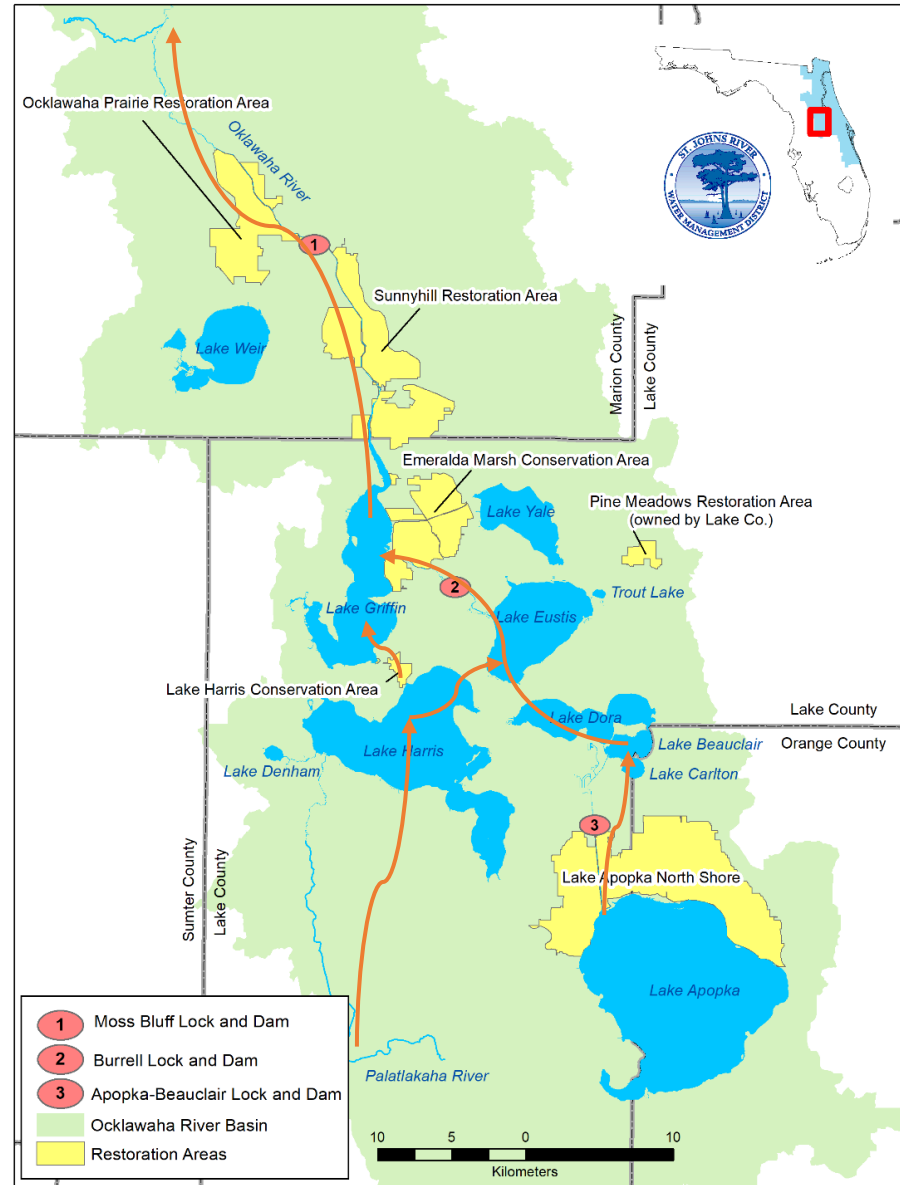
Jian Di

**Bureau of Environment Science
St. Johns River Water Management District
Palatka, Florida
June 20 2023**



St. Johns River
Water Management District

Upper Ocklawaha River Basin TMDL Lakes and Restoration Areas

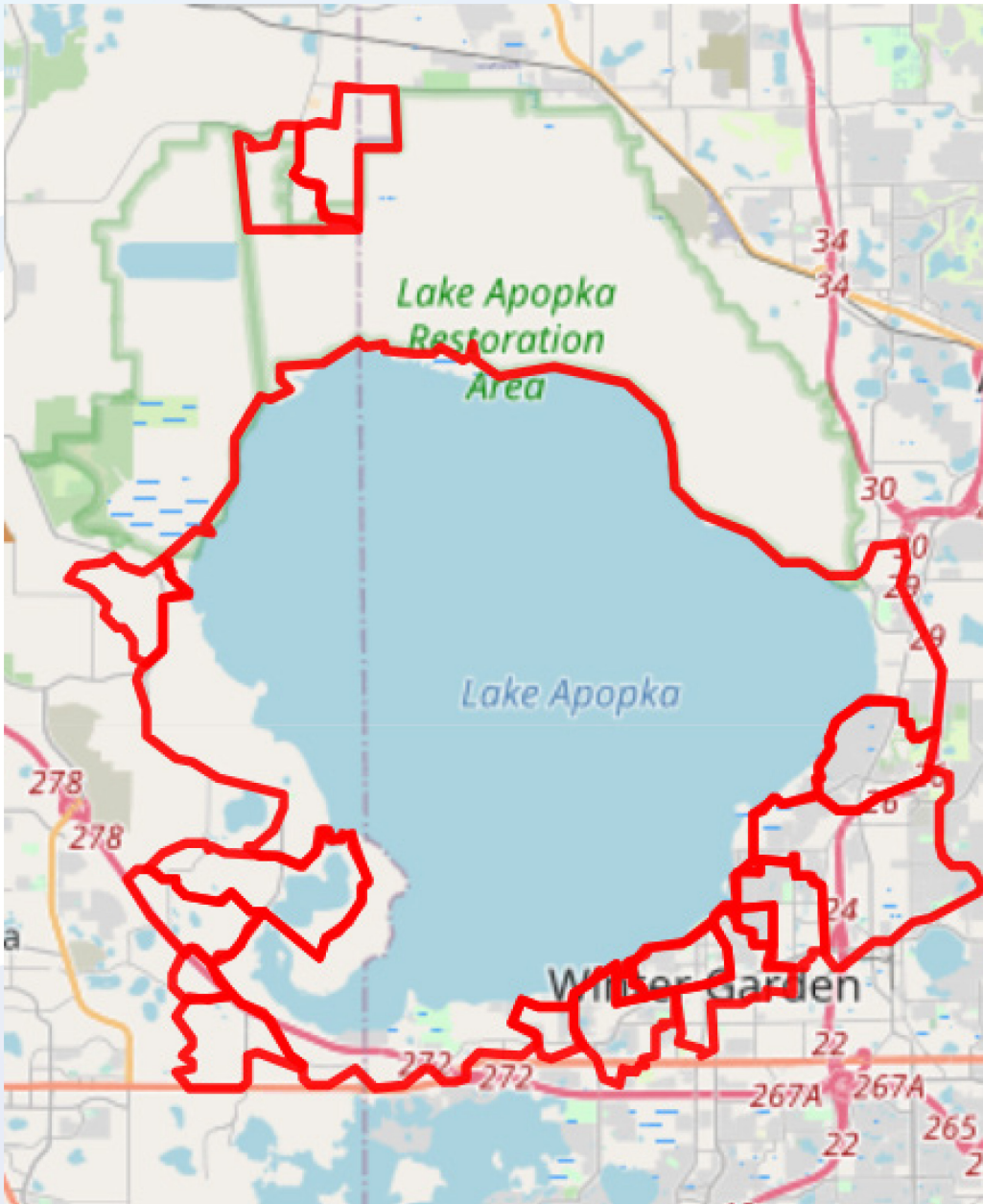


Apopka
Beauclair
Carlton
Dora
Eustis
Denham
Harris
Griffin
Trout
Yale
Weir



St. Johns River
Water Management District

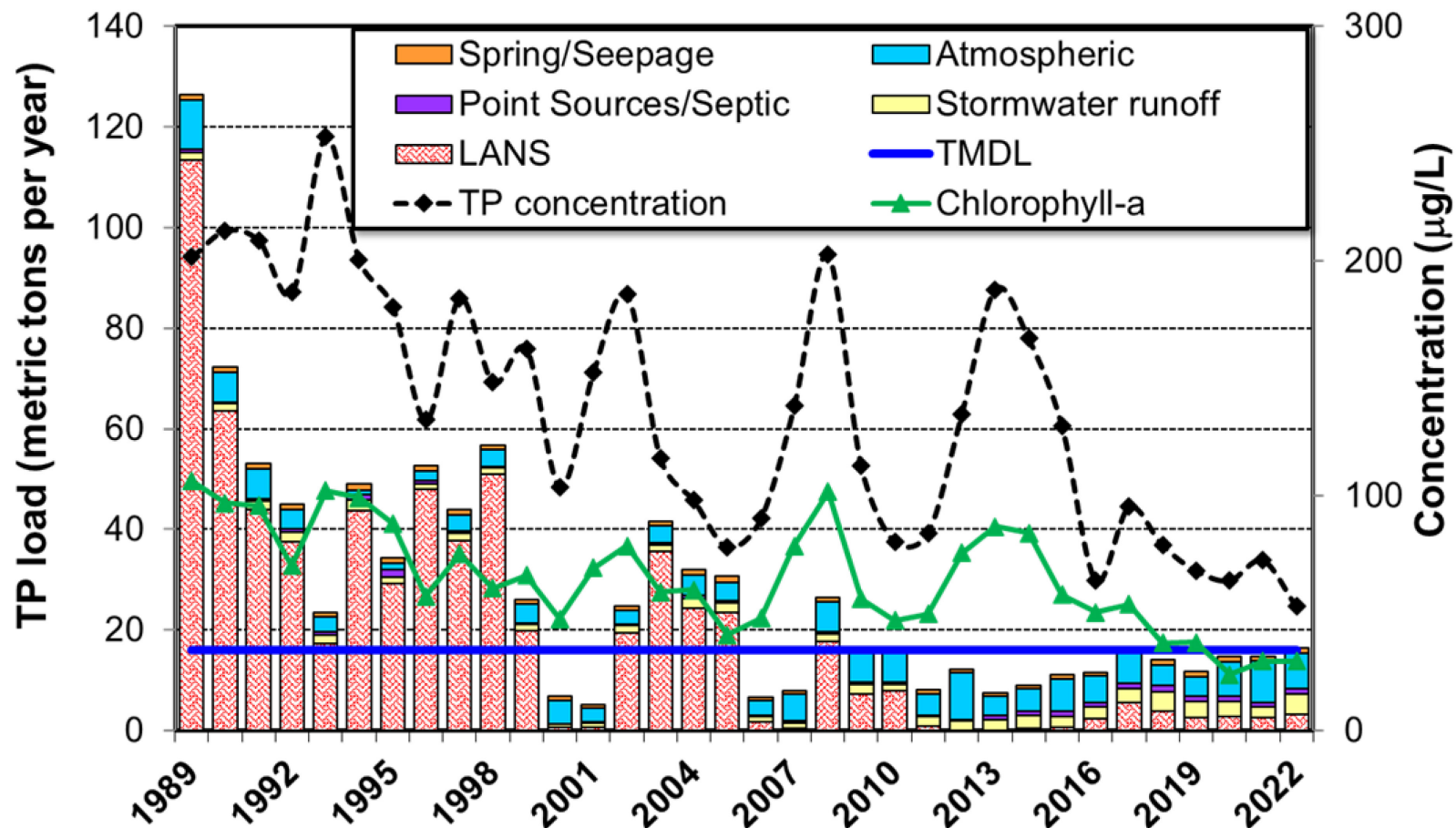
Lake Apopka watershed and nutrient loading sources



TMDL allowable and 2022 TP load
by loading sources (mt/year)

Source	TMDL	2022	Percent (%)
Atmospheric	5.0	7.1	43
Stormwater runoff + Johns lake	2.1	3.9	24
LANS	5.5	3.3	20
Spring/seepage	1.6	1.0	6
Point sources	1.2	1.1	7
Margin of Safety	0.5	0.0	0
Total	15.9	16.4	100

Lake Apopka estimated annual external total phosphorus loads, and concentrations of TP and chlorophyll-*a*

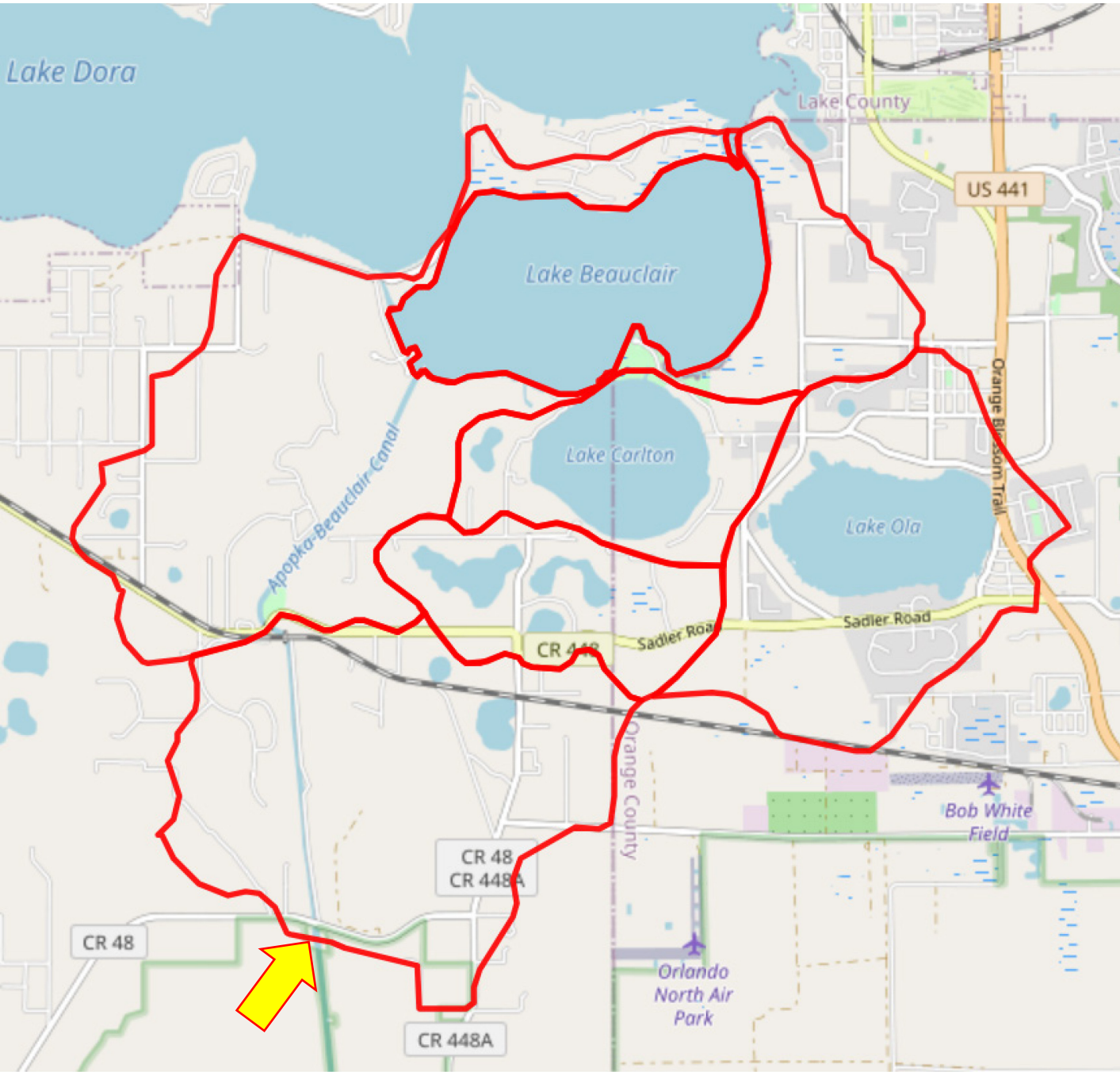


	TMDL target	2022	2013-2022 average
TP (µg/L)	55	53	98
TP loading (mt/year)	15.9	16.4	12.7



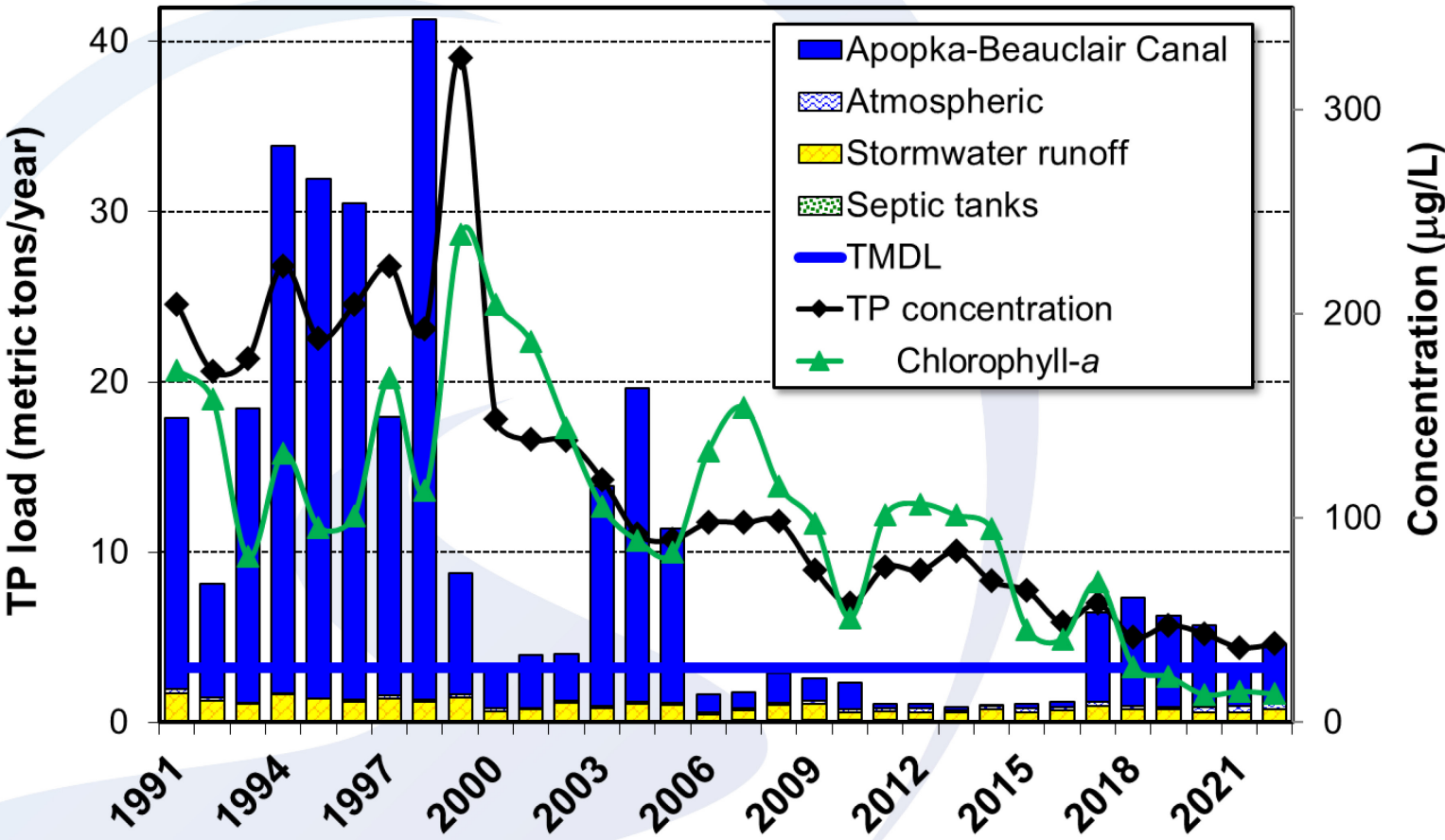
Lake Beauclair watershed and nutrient loading sources

Source	% of total loading (2013 -2022 average)
Apopka-Beauclair Canal	75
Stormwater	16
Atmospheric deposition	6
Septic tanks	3



Lake Beauclair

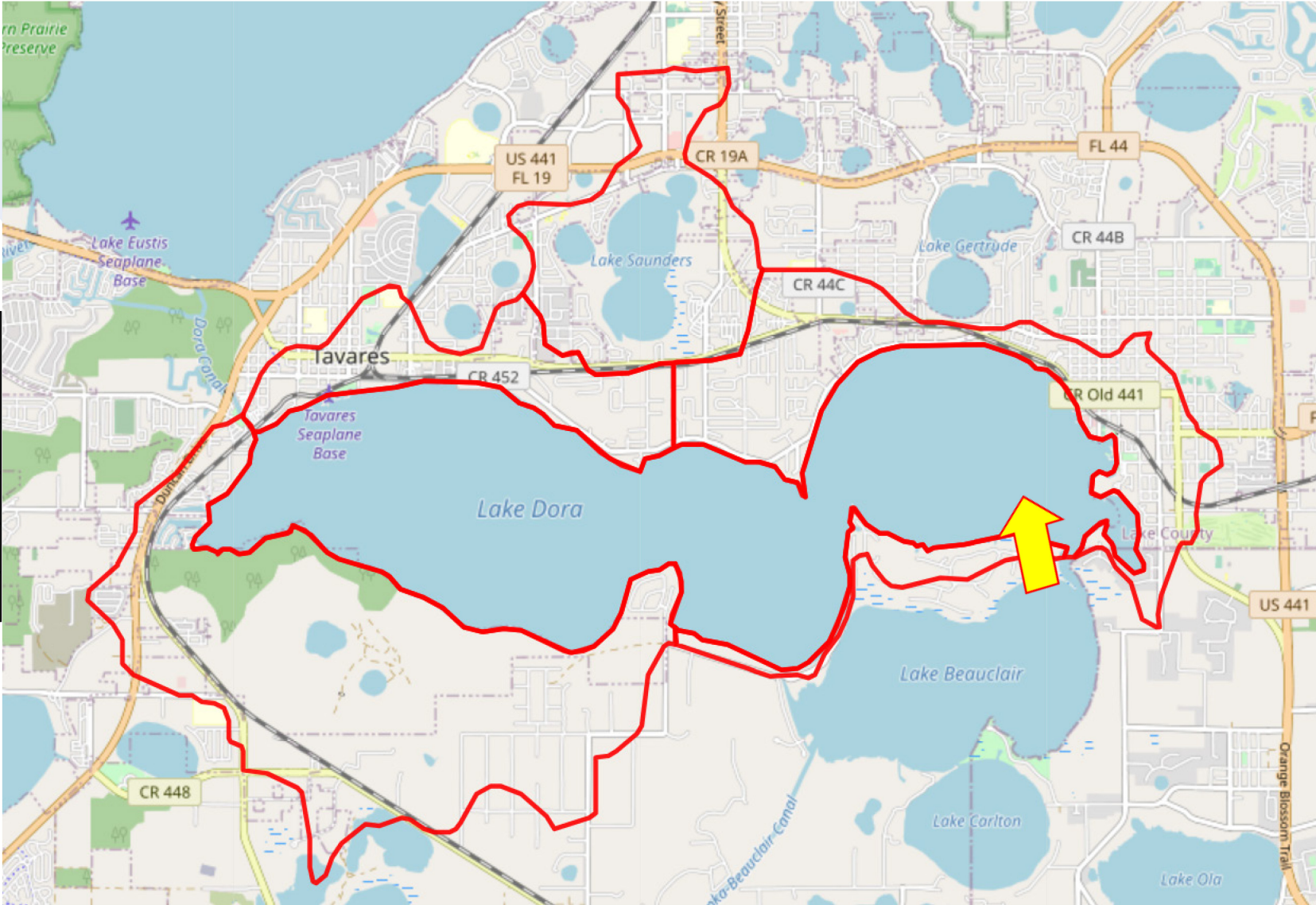
Lake Beauclair estimated annual external total phosphorus loads, and concentrations of TP and chlorophyll-a



	TMDL target	2022	2013-2022 average
TP (µg/L)	32	39	53
Chl-a (µg/L)	30	14	45
TP loading (mt/year)	3.2	4.6	3.8

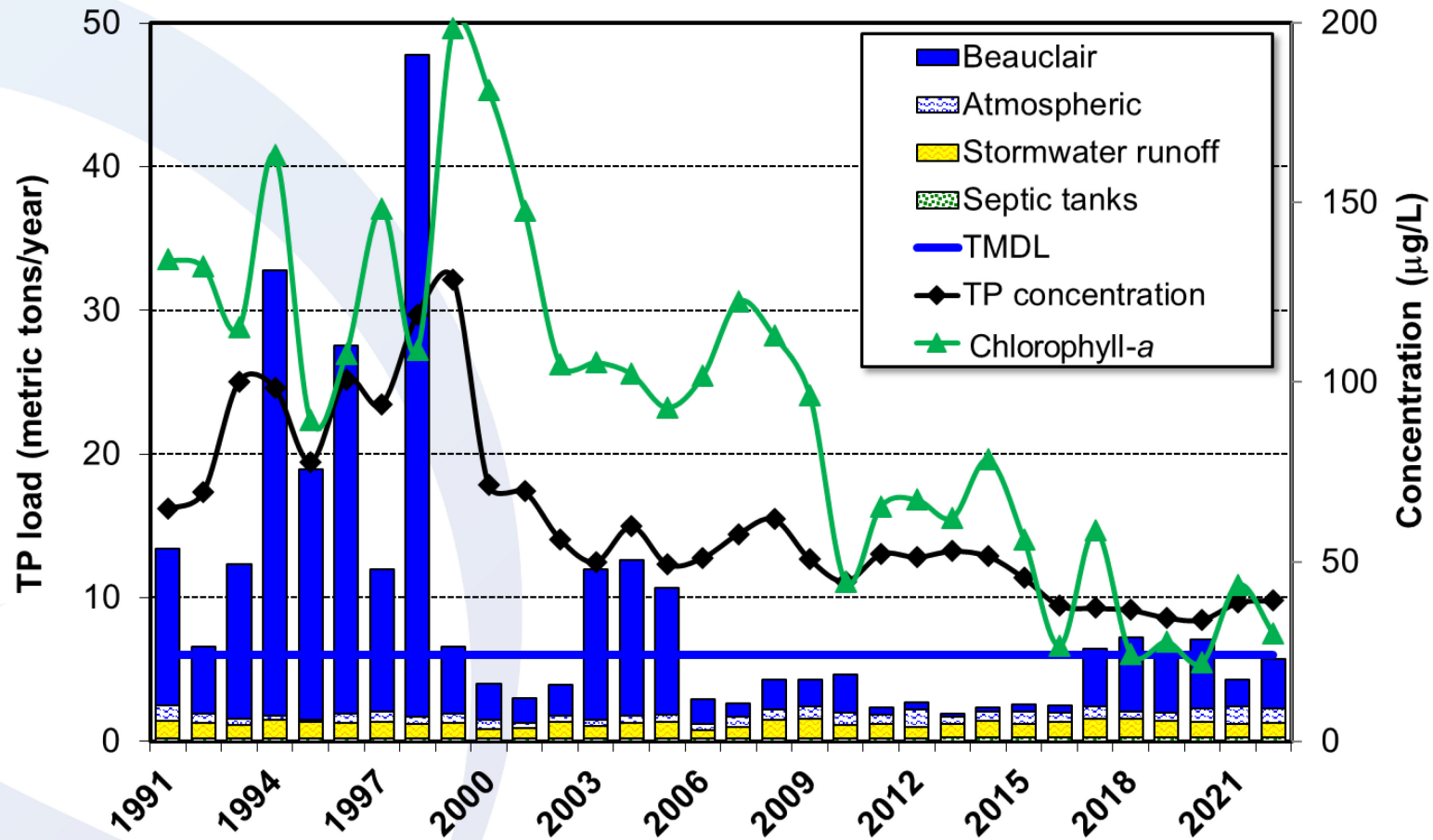
Lake Dora watershed and nutrient loading sources

Sources	% of total loading (2013 -2022 average)
Beauclair	54%
Stormwater runoff	23%
Atmospheric	17%
Septic tanks	6%



Lake Dora

Lake Dora estimated annual external total phosphorus loads, and concentrations of TP and chlorophyll-a



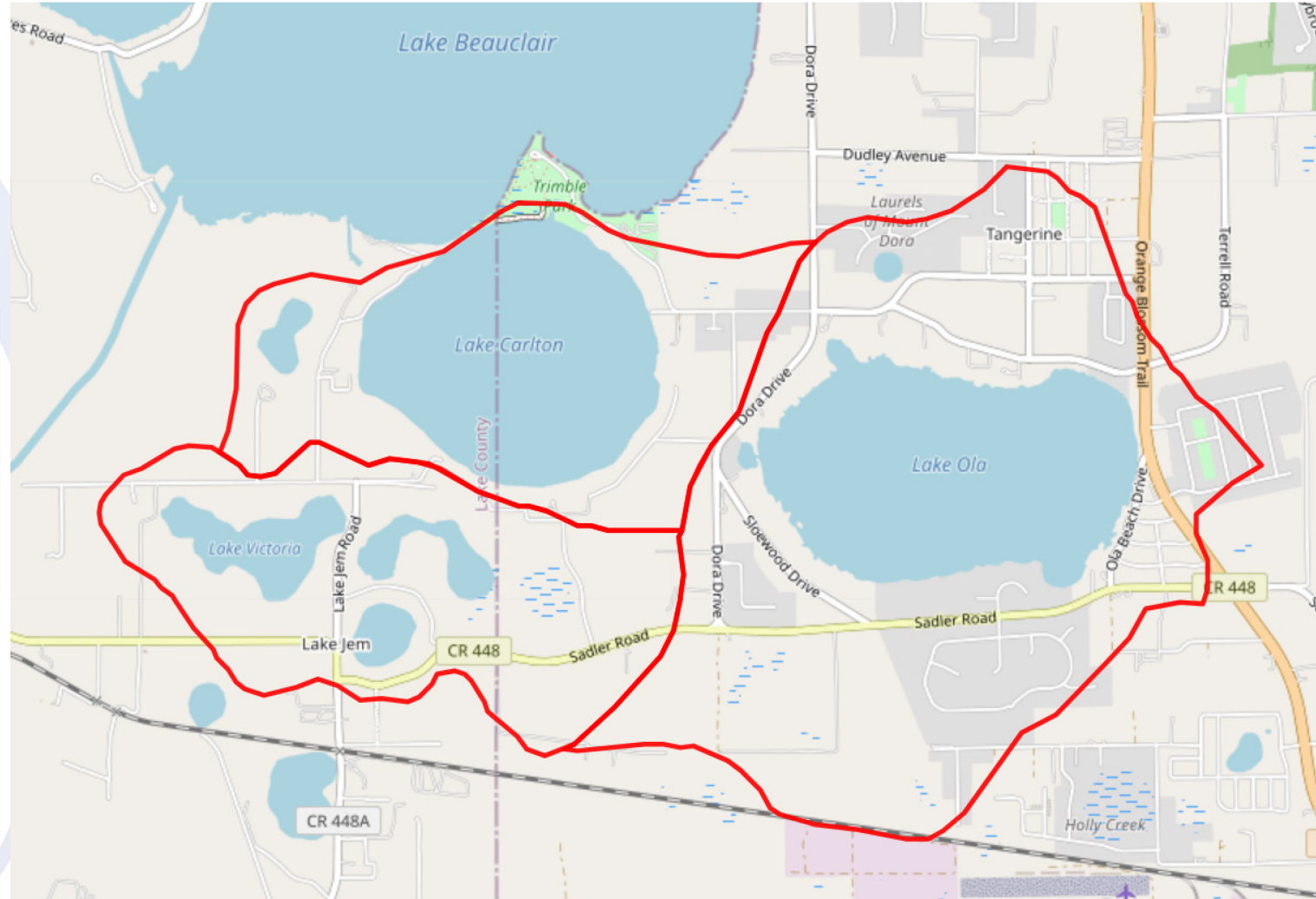
	TMDL target	2022	2013-2022 average
TP ($\mu\text{g/L}$)	31	39	41
Chl-a ($\mu\text{g/L}$)	29	30	43
TP loading (mt/year)	6.000	5.713	4.649



St. Johns River
Water Management District

Lake Carlton watershed and nutrient loading sources (Priority water body)

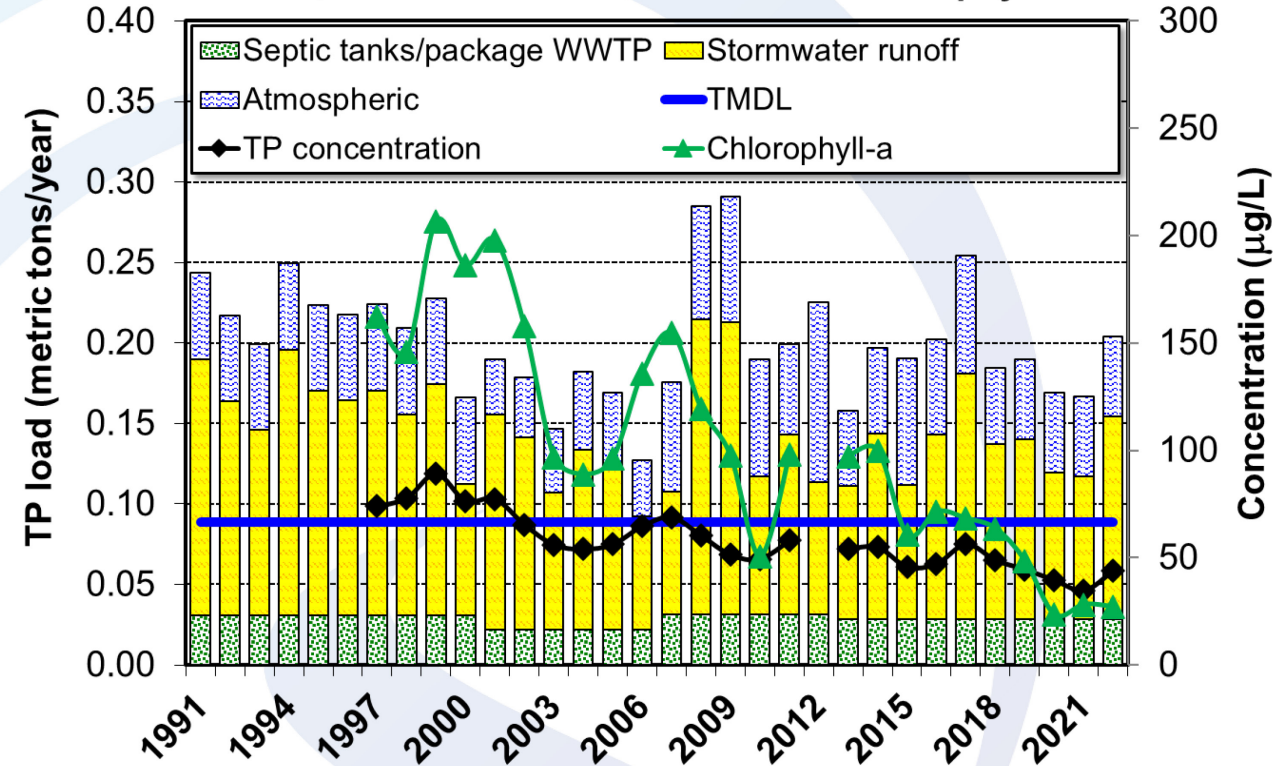
Loading Sources	% of total loading (2013 -2022 average)
Stormwater runoff	56%
Atmospheric	29%
Septic tanks/package WWTP	15%



St. Johns River
Water Management District

Lake Carlton

Lake Carlton estimated annual external total phosphorus loads, and concentrations of TP and chlorophyll-a



Comparison of Lake Carlton (CARL) and Lake Beauclair (BCL) annual average TP concentration



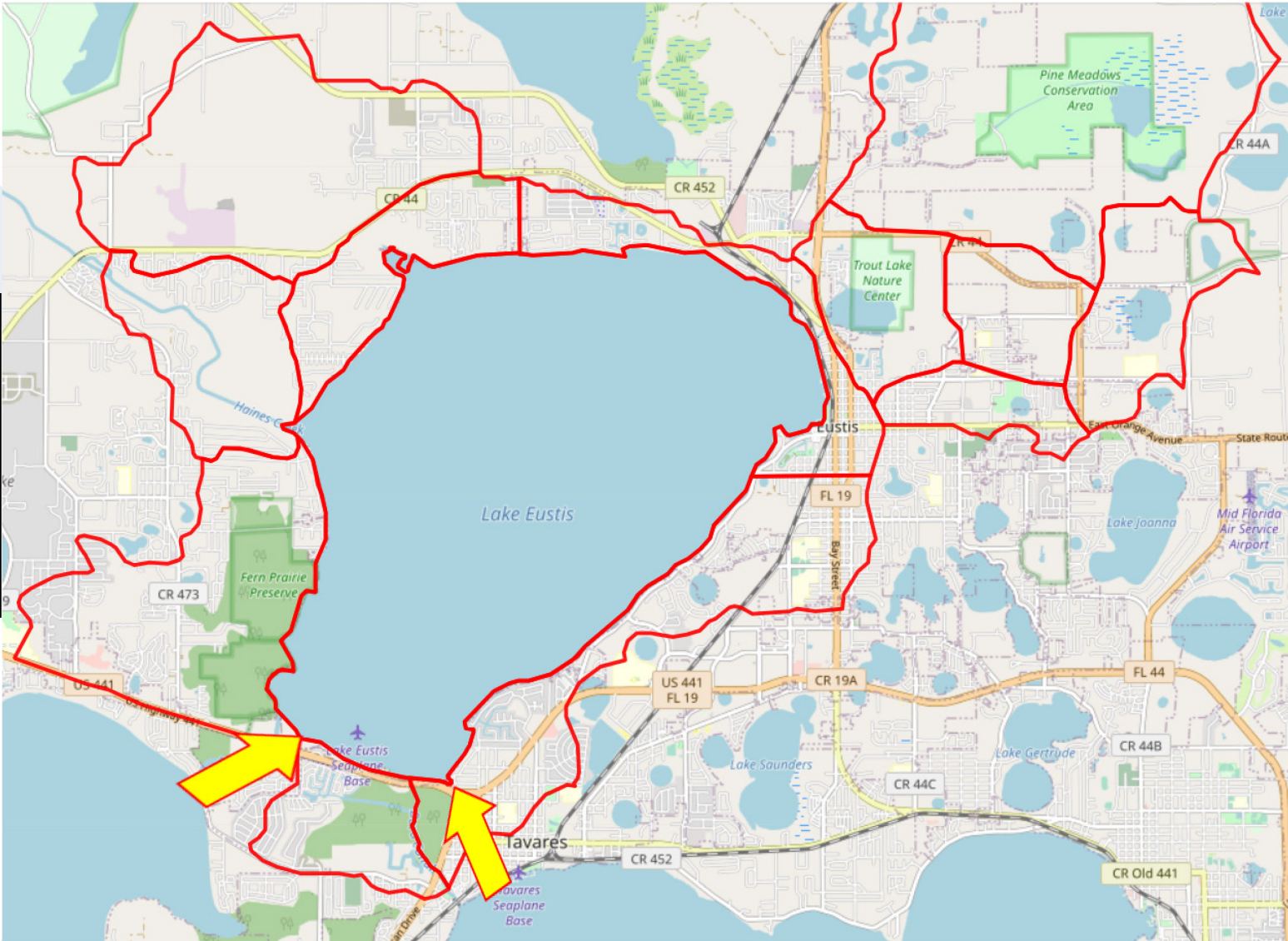
	TMDL target	2022	2013-2022 average
TP ($\mu\text{g/L}$)	32	44	47
Chl-a ($\mu\text{g/L}$)	30	27	59
TP loading (mt/year)	0.088	0.204	0.192



St. Johns River
Water Management District

Lake Eustis watershed and nutrient loading sources

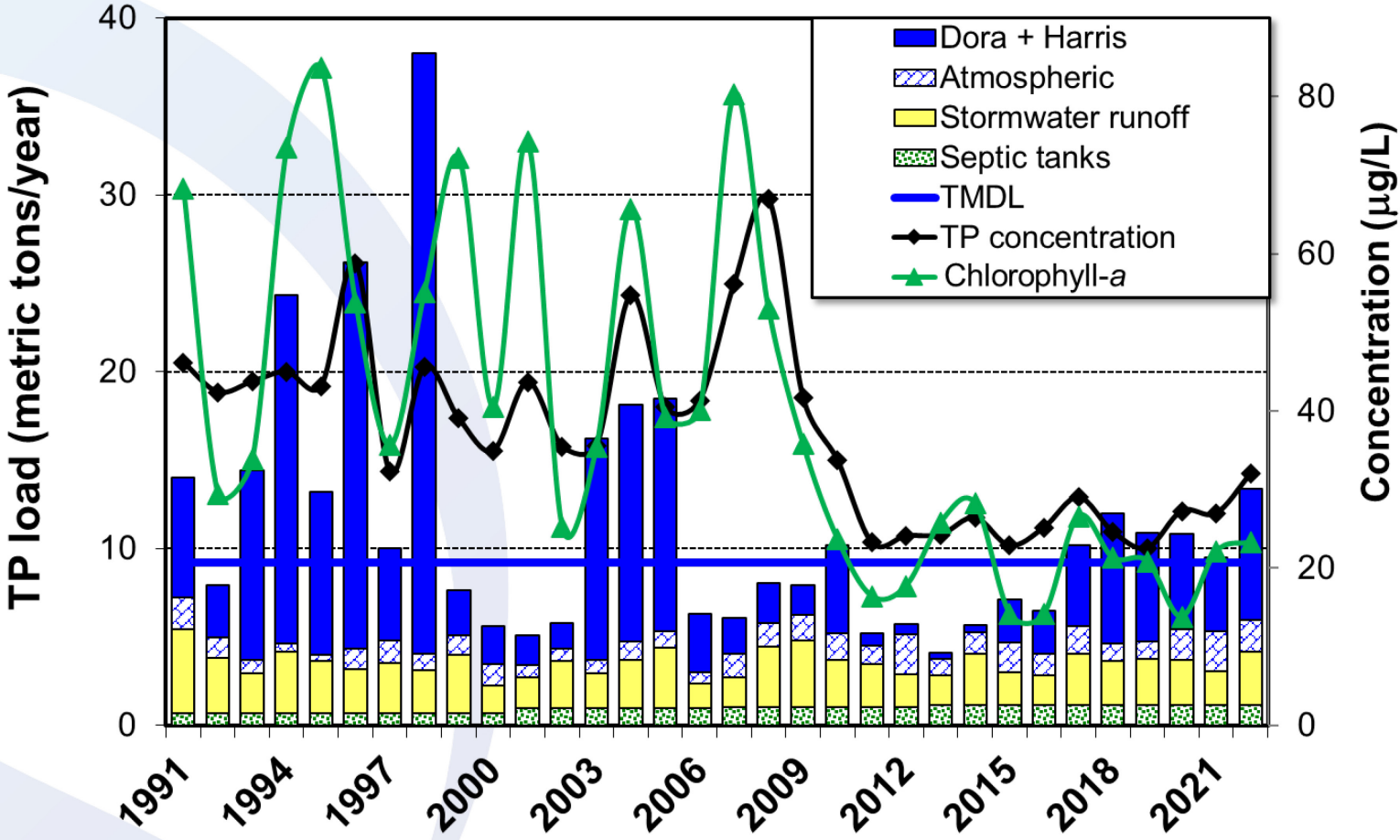
Sources	% of total loading (2013 -2022 average)
Dora +Harris	45%
Stormwater runoff	26%
Atmospheric	16%
Septic tanks	13%



St. Johns River
Water Management District

Lake Eustis

Lake Eustis estimated annual external total phosphorus loads, and concentrations of TP and chlorophyll-a

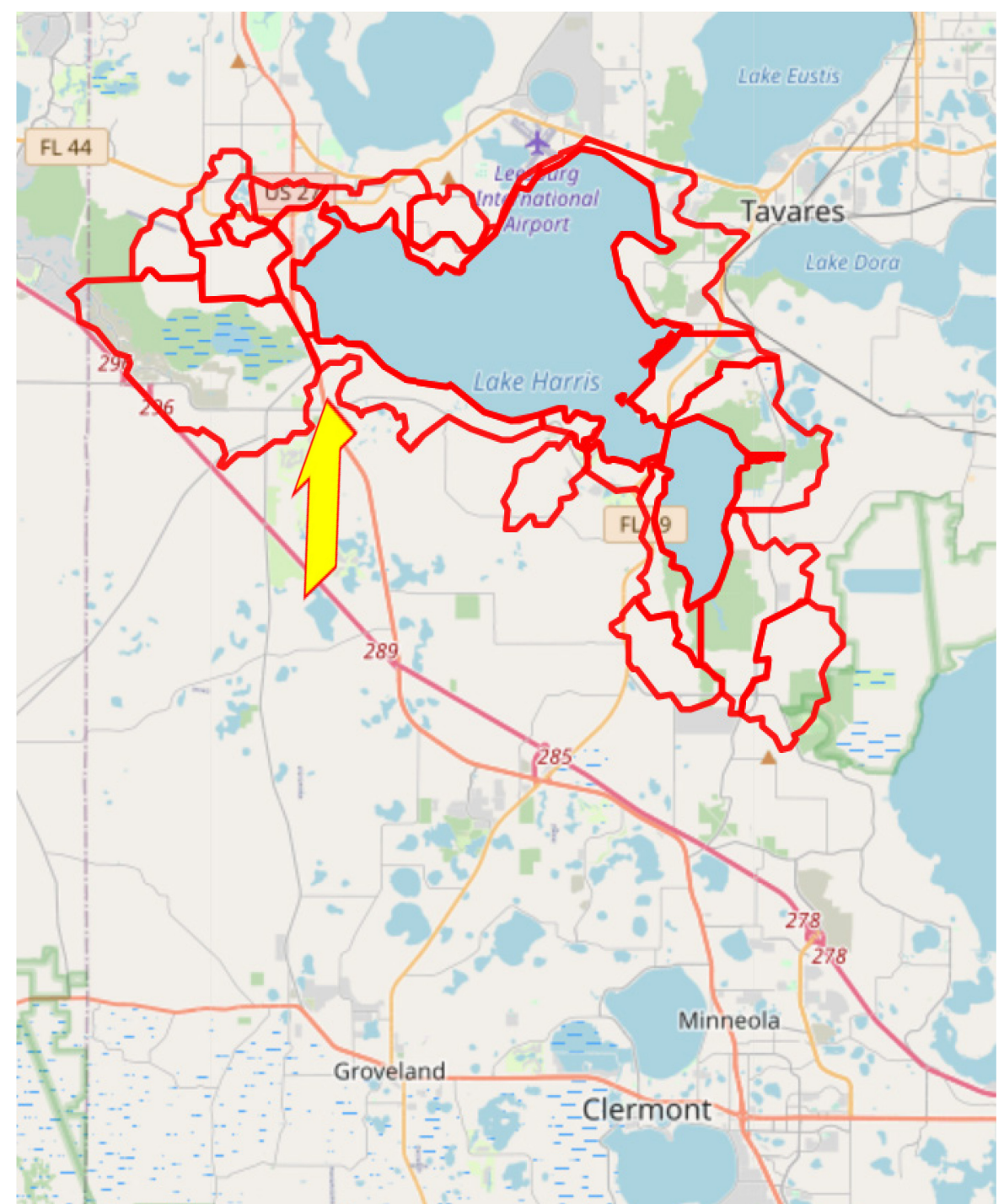


	TMDL target	2022	2013-2022 average
TP (µg/L)	25	32	26
Chl-a (µg/L)	20	23	21
TP loading (mt/year)	9.2	13.4	9.0



Lake Harris watershed and nutrient loading sources (Priority water body)

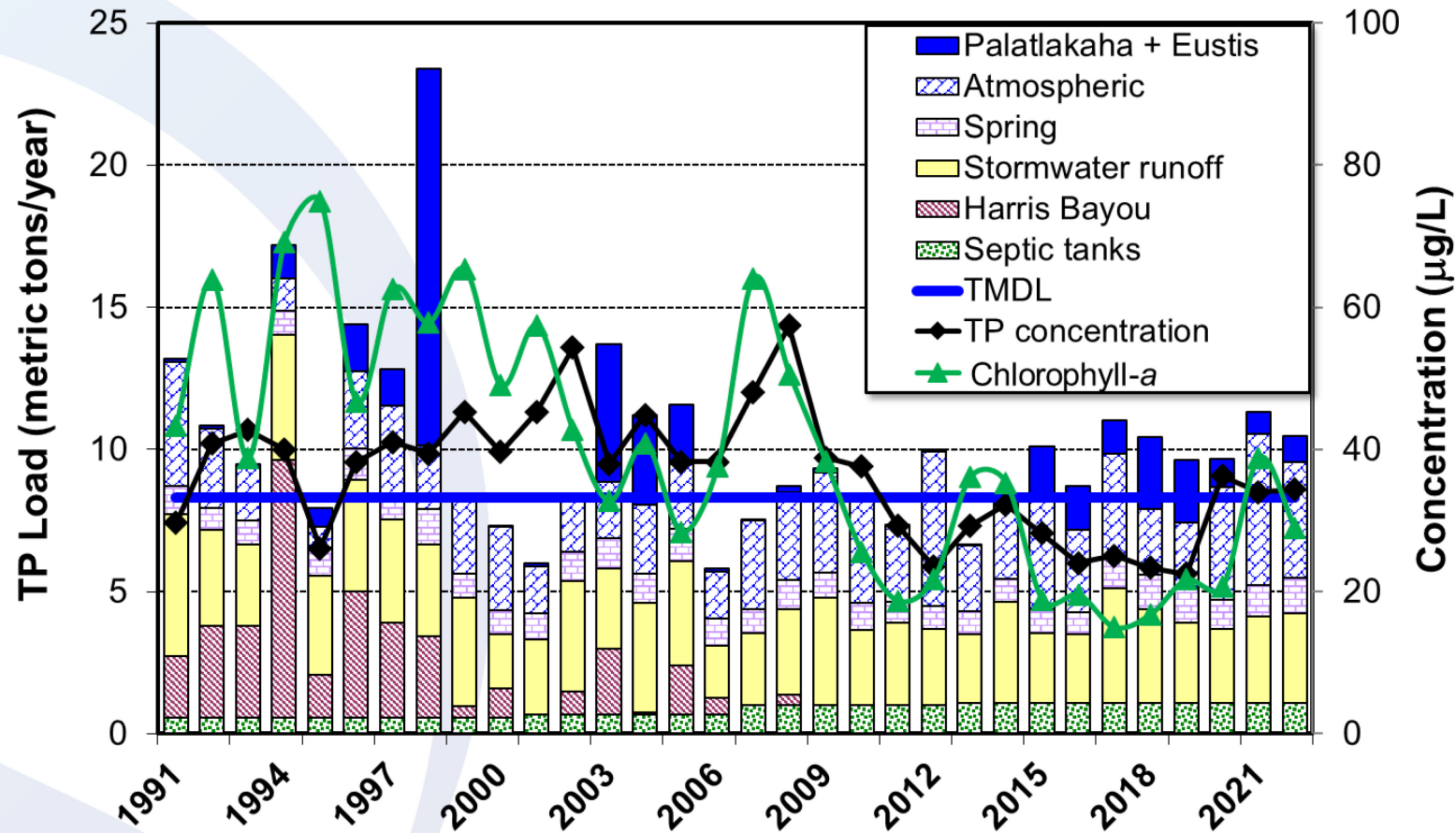
Sources	% of total loading (2013 -2022 average)
Atmospheric	34%
Stormwater runoff	31%
Palatlakaha + Eustis	13%
Spring	11%
Septic tanks	11%



St. Johns River
Water Management District

Lake Harris

Lake Harris estimated annual external total phosphorus loads, and concentrations of TP and chlorophyll-a

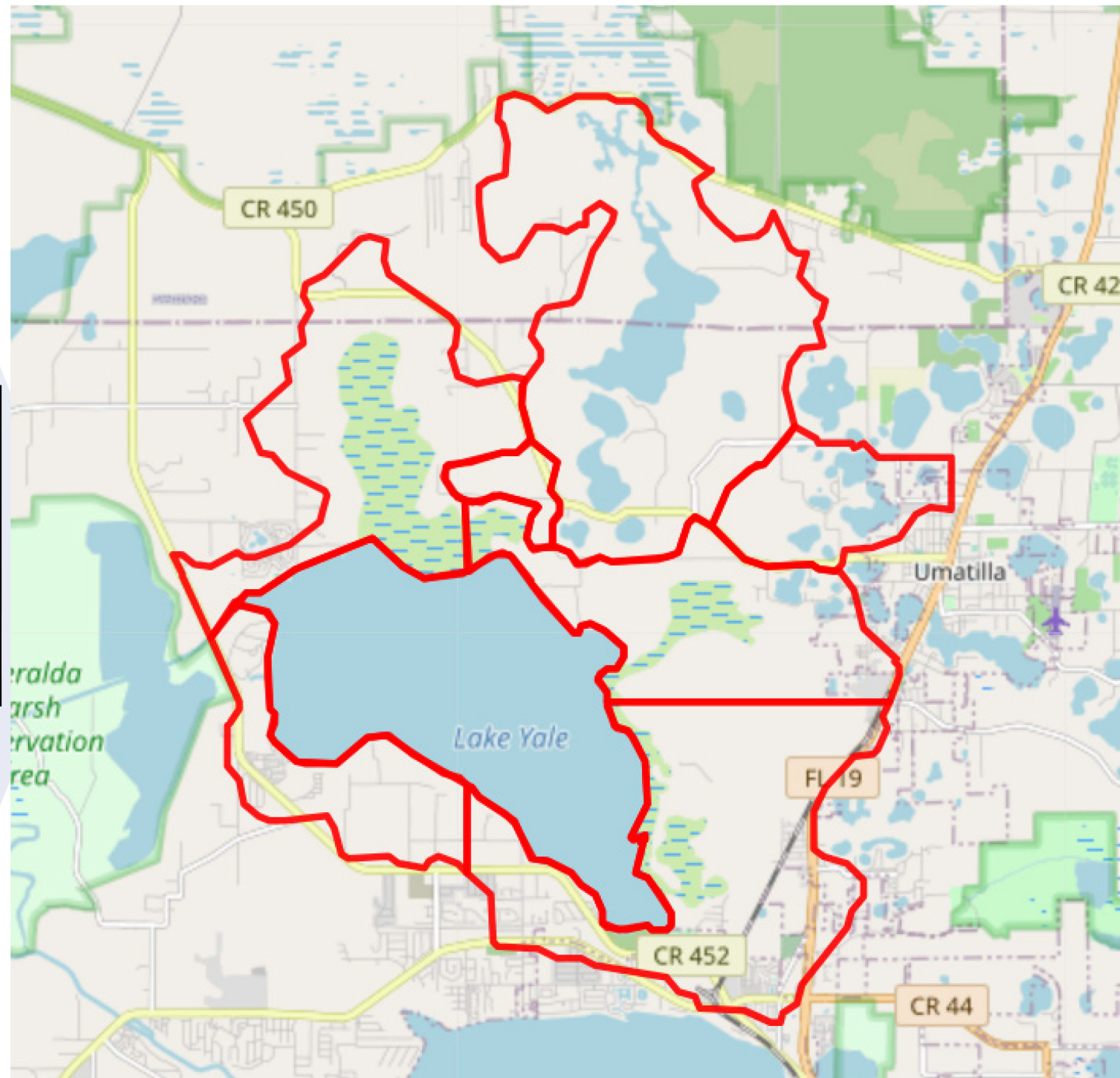


	TMDL	2022	2013-2022 average
TP (µg/L)	26	34	29
Chl-a (µg/L)	22	29	25
TP loading (mt/year)	8.3	10.5	9.6



Lake Yale watershed and nutrient loading sources (Priority water body)

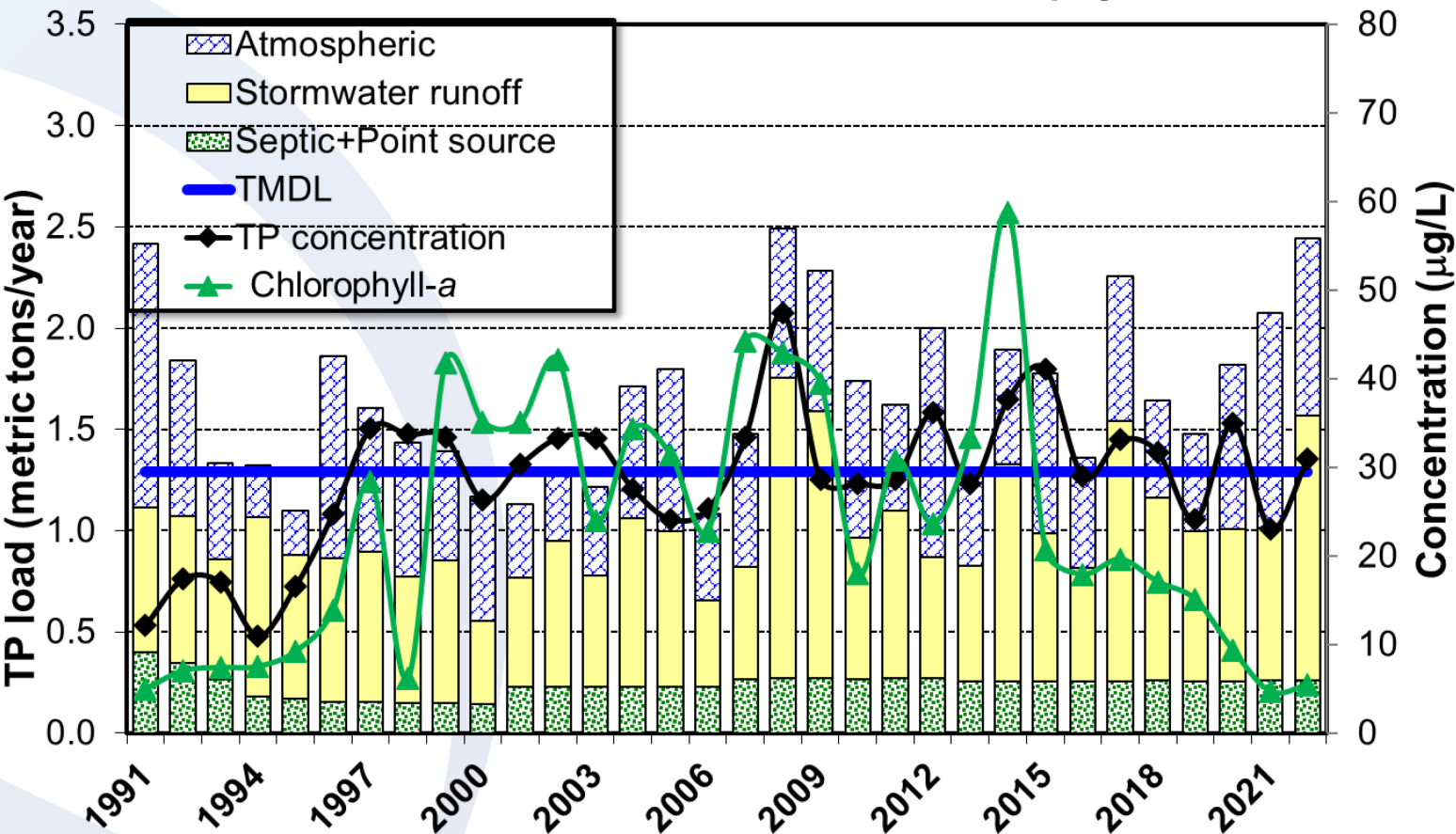
Sources	% of total loading (2013 -202 2 average)
Stormwater runoff	48%
Atmospheric	38%
Septic tanks	14%



St. Johns River
Water Management District

Lake Yale

Lake Yale estimated annual external total phosphorus loads, and concentrations of TP and chlorophyll-a



Yale	TMDL target	2022	2013-2022 average
TP ($\mu\text{g/L}$)	20	31	31
Chl-a ($\mu\text{g/L}$)	14	5	20
TP loading (mt/year)	1.29	2.44	1.80

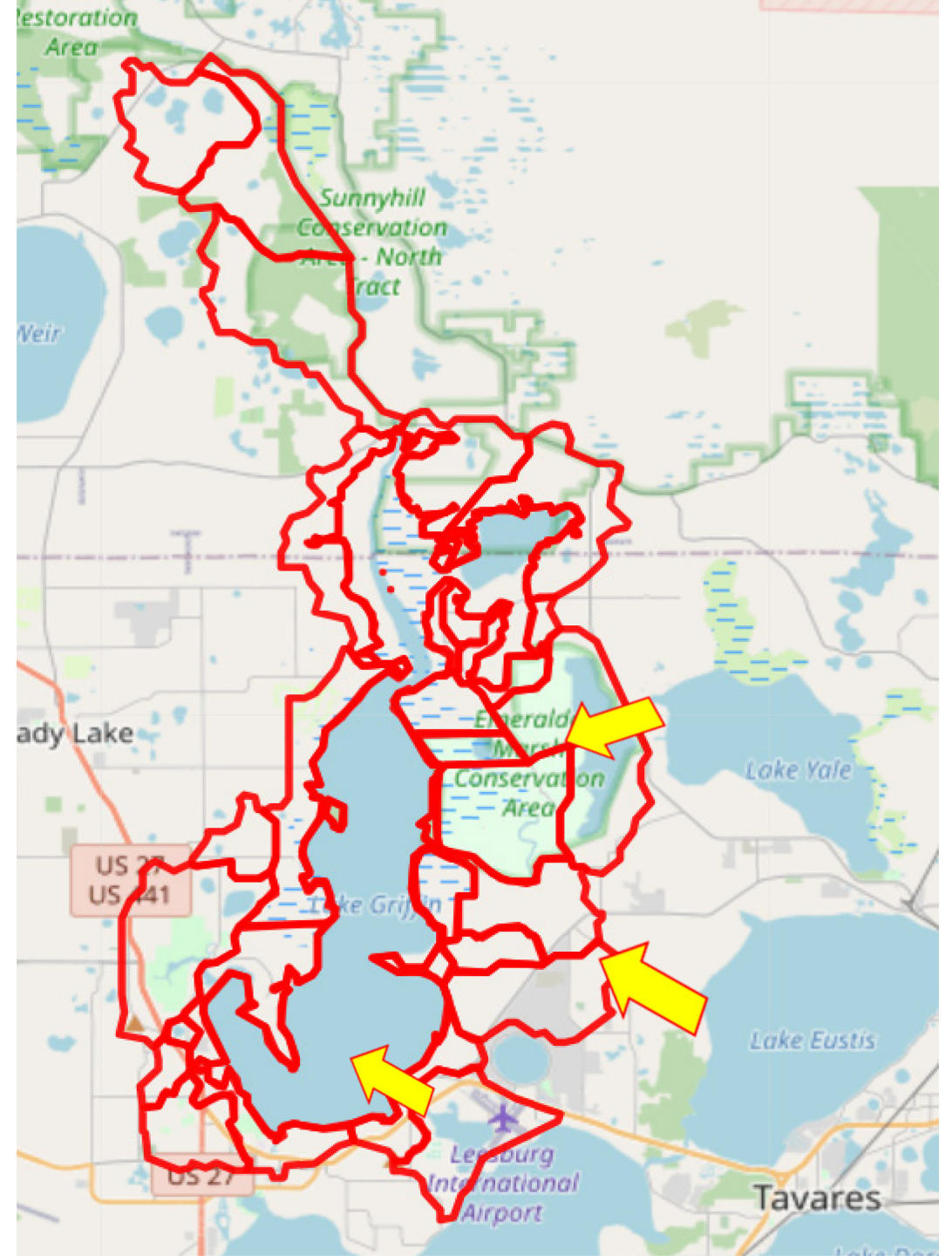


Lake Griffin watershed and nutrient loading sources

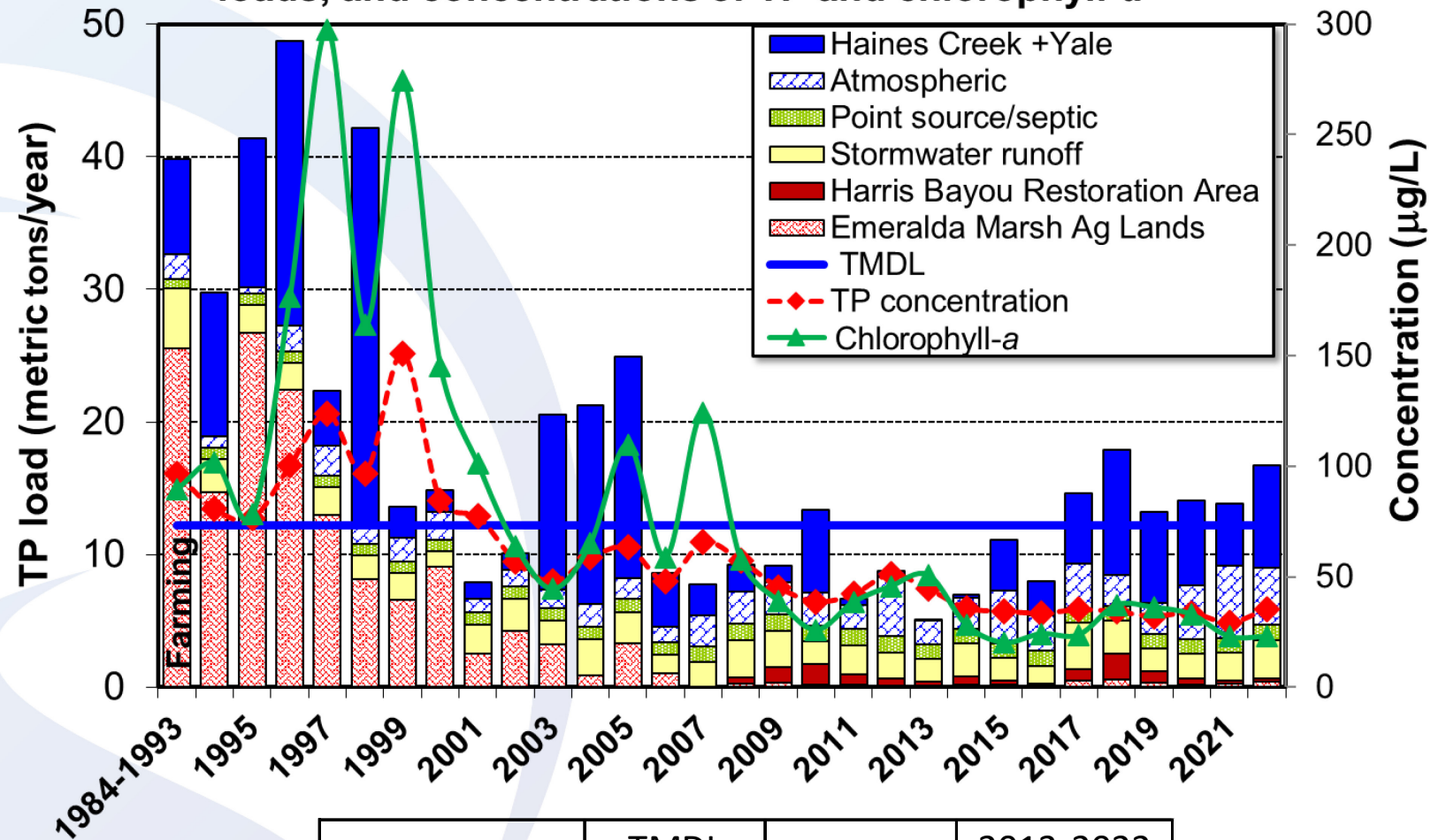
Sources	% of total loading (2013 -2022 average)
Haines Creek + Yale	39
Atmospheric	27
Stormwater runoff	18
Point source/septic	9
Harris Bayou	5
Emeralda Marsh Conservation Area	2



St. Johns River
Water Management District



Lake Griffin estimated annual external total phosphorus loads, and concentrations of TP and chlorophyll-a



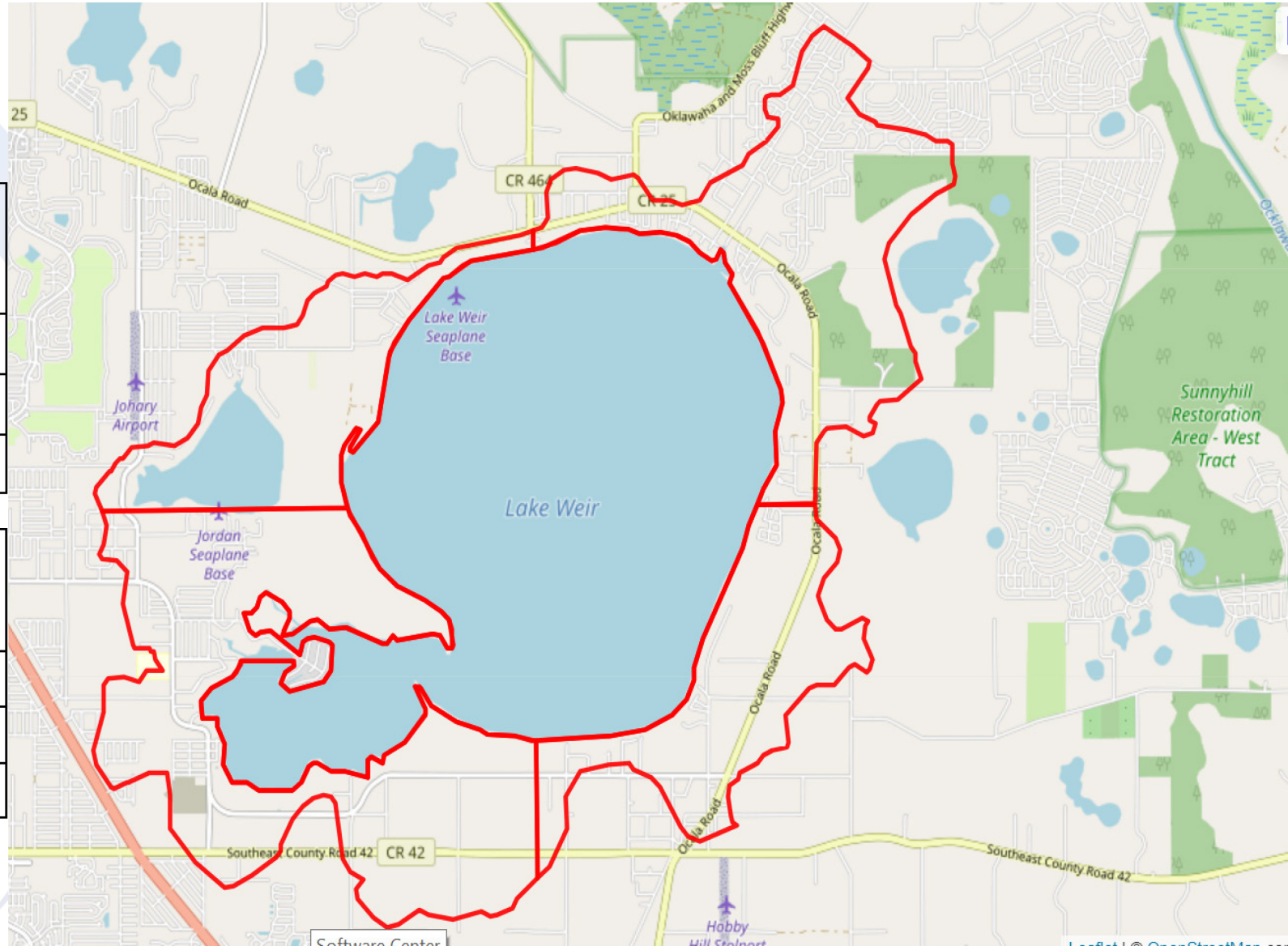
	TMDL target	2022	2013-2022 average
TP (µg/L)	32	35	35
Chl-a (µg/L)	30	23	30
TP loading (mt/year)	12.2	16.7	12.1



Lake Weir watershed and nutrient loading sources

Sources (TP)	% of total loading (2013 -2022 average)
Atmospheric	62%
Septic tanks	20%
Stormwater runoff	18%

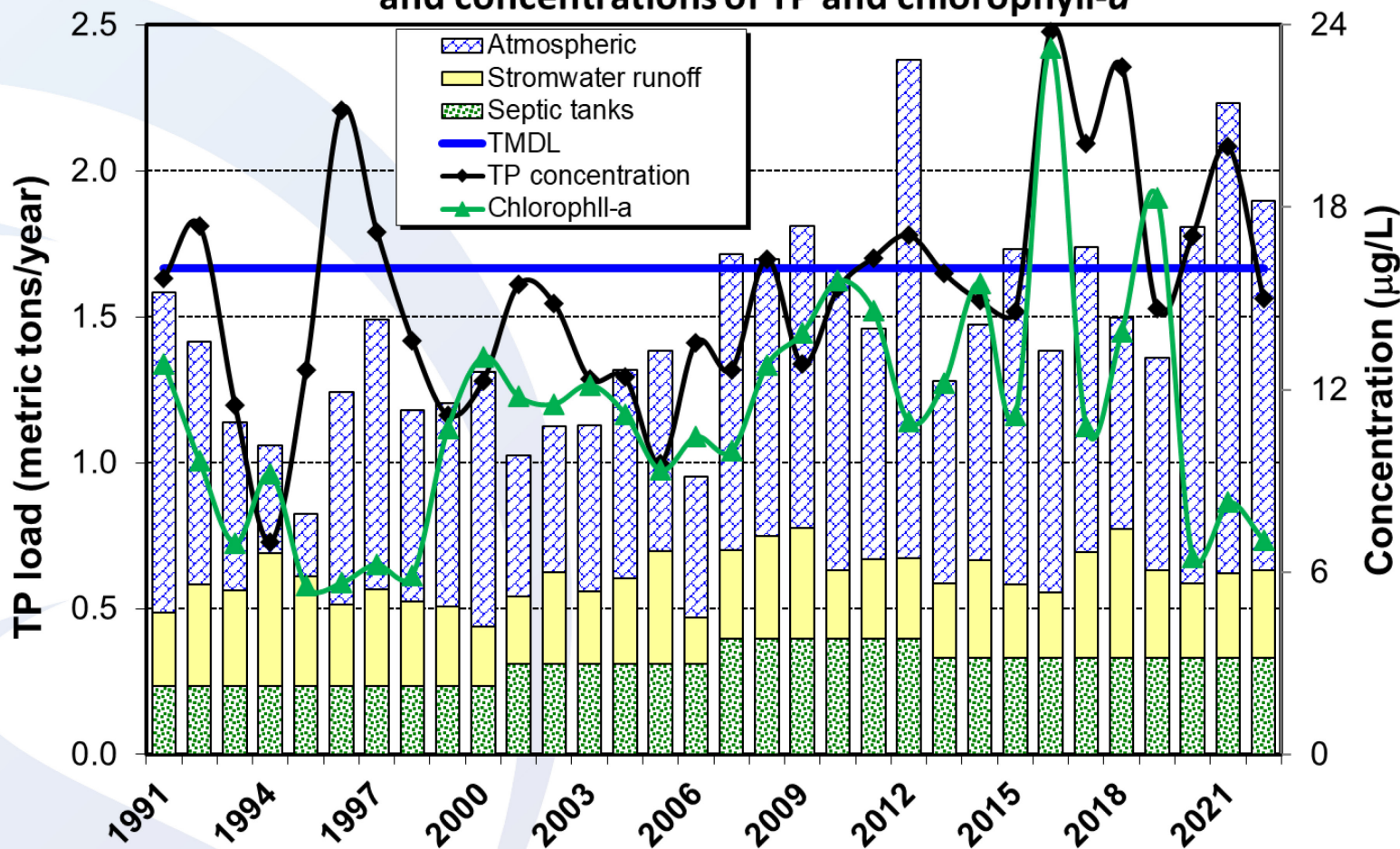
Sources (TN)	% of total loading (2013 -2022 average)
Atmospheric	57%
Stormwater runoff	22%
Septic tanks	21%



St. Johns River
Water Management District

Lake Weir -TP

Lake Weir estimated annual external total phosphorus loads and concentrations of TP and chlorophyll-*a*

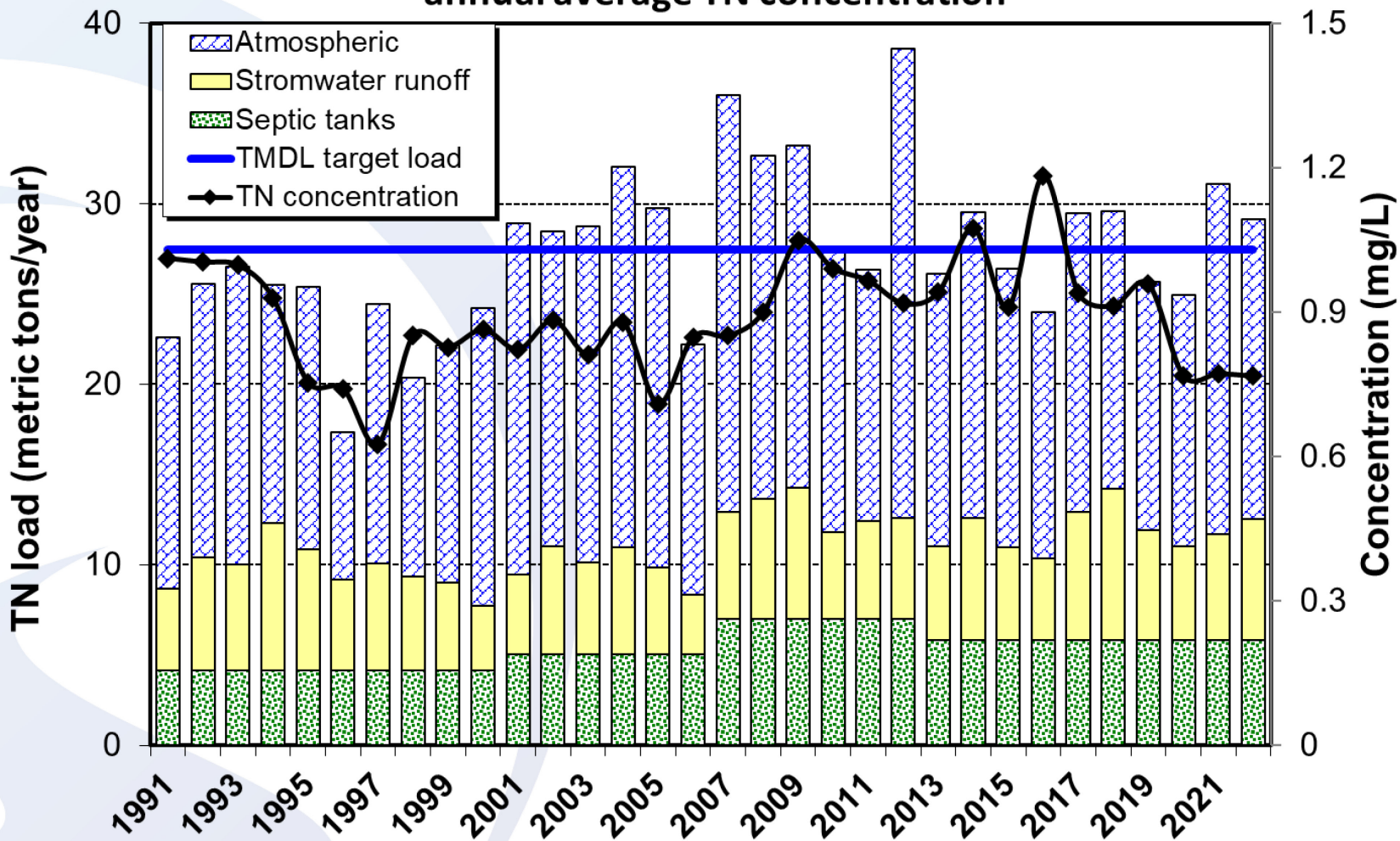


Weir	TMDL target	2022	2013-2022 average
TP (µg/L)	10	15	17
Chl-a (µg/L)	6	7	13
TP loading (mt/year)	1.667	1.897	1.640



Lake Weir -TN

Lake Weir estimated annual external total nitrogen loads and annual average TN concentration

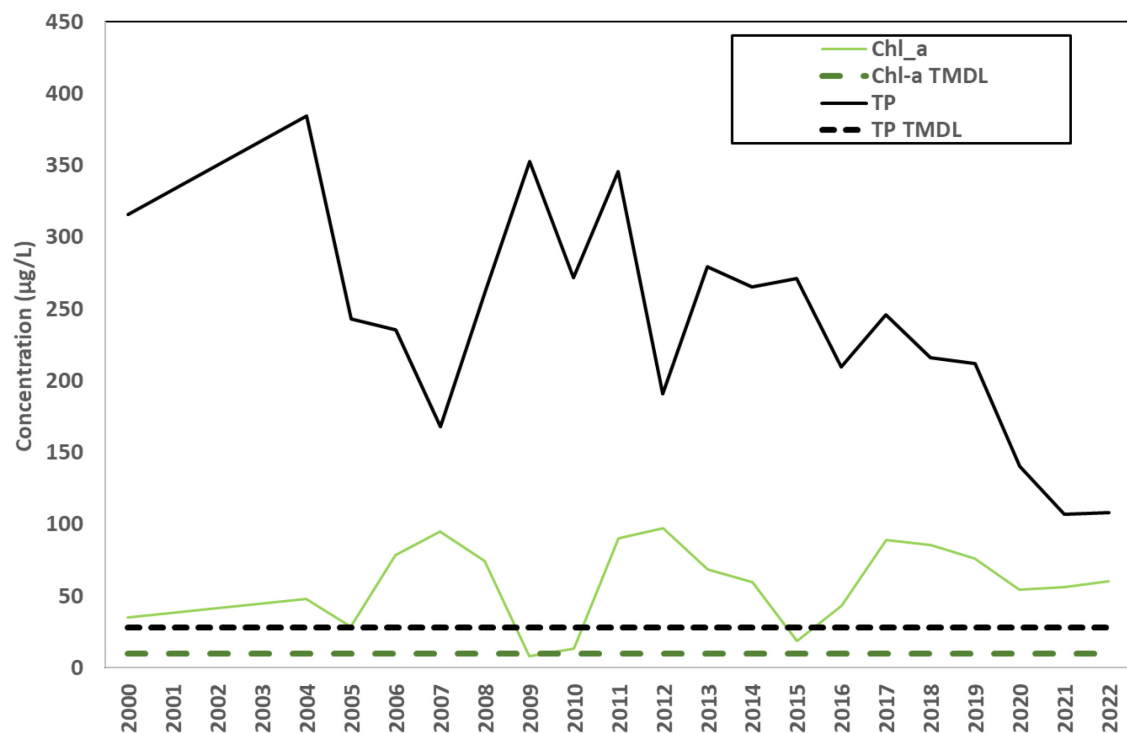


Weir	TMDL target	2022	2013-2022 average
TN (mg/L)	0.68	0.77	0.92
TN loading (mt/year)	27.432	29.12	27.594

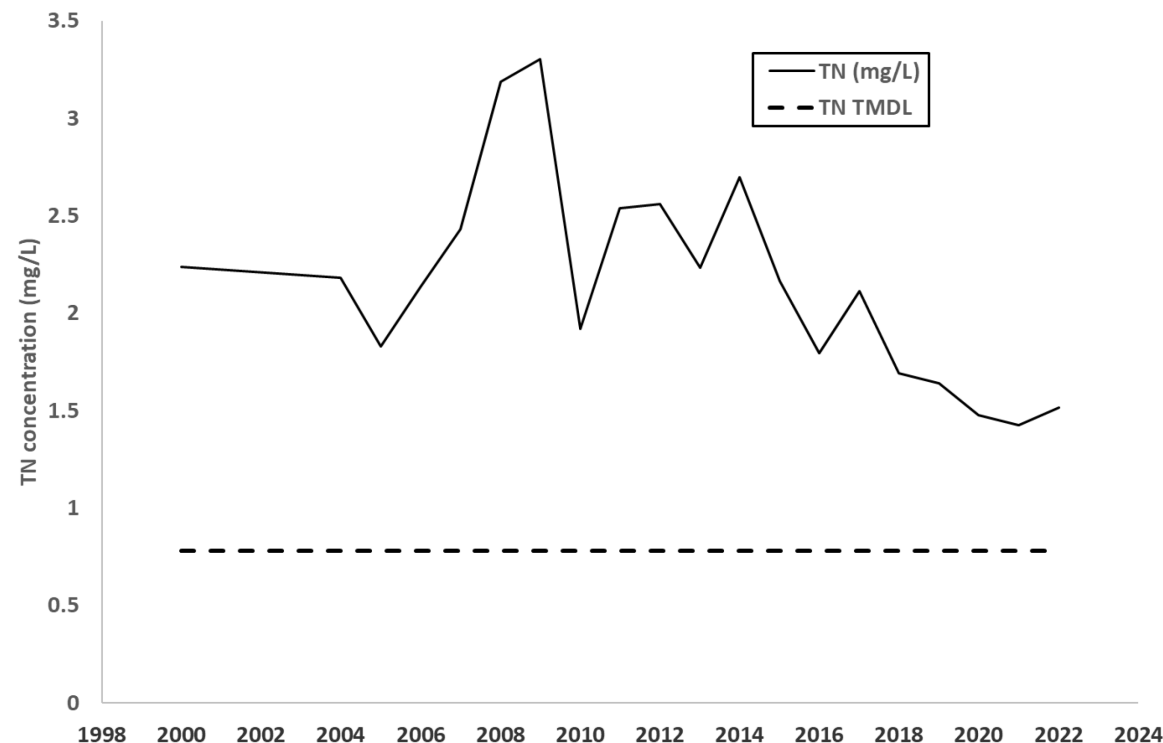


Water Quality Conditions in Trout Lake – priority water body

TP and Chl-a annual average concentration in Trout Lake



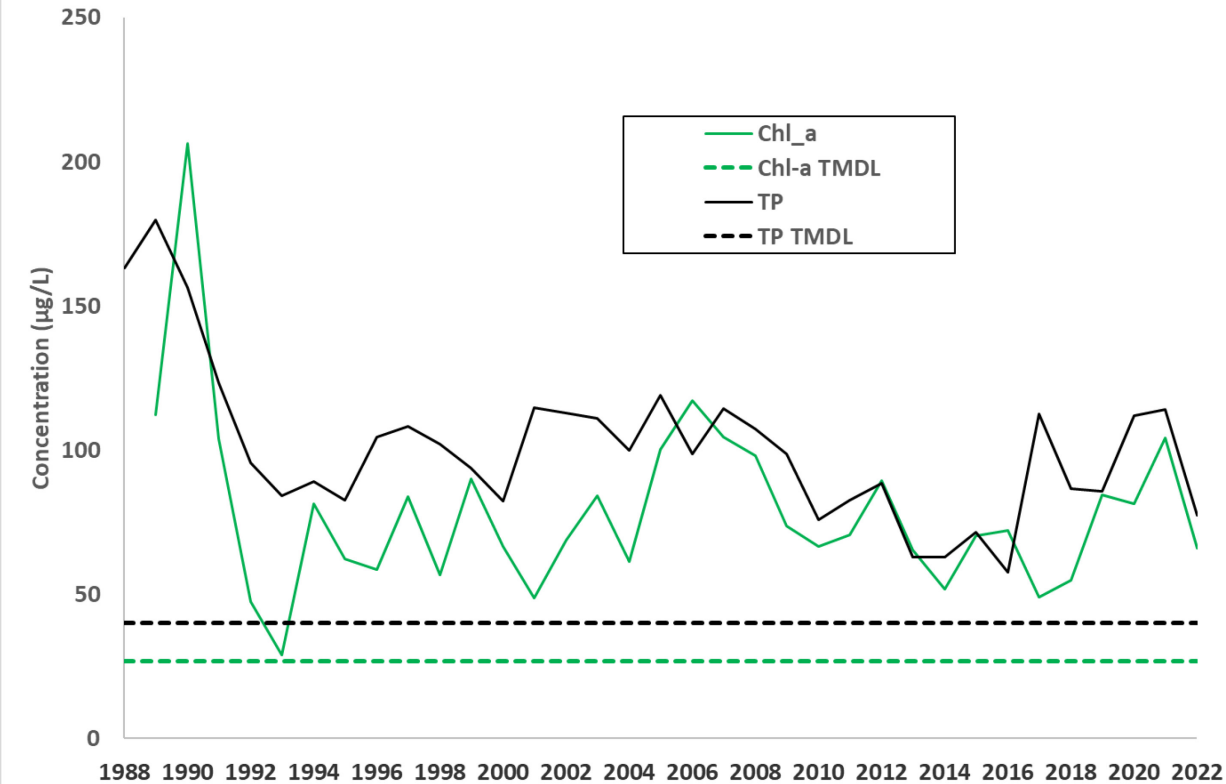
Annual TN concentration in Trout Lake



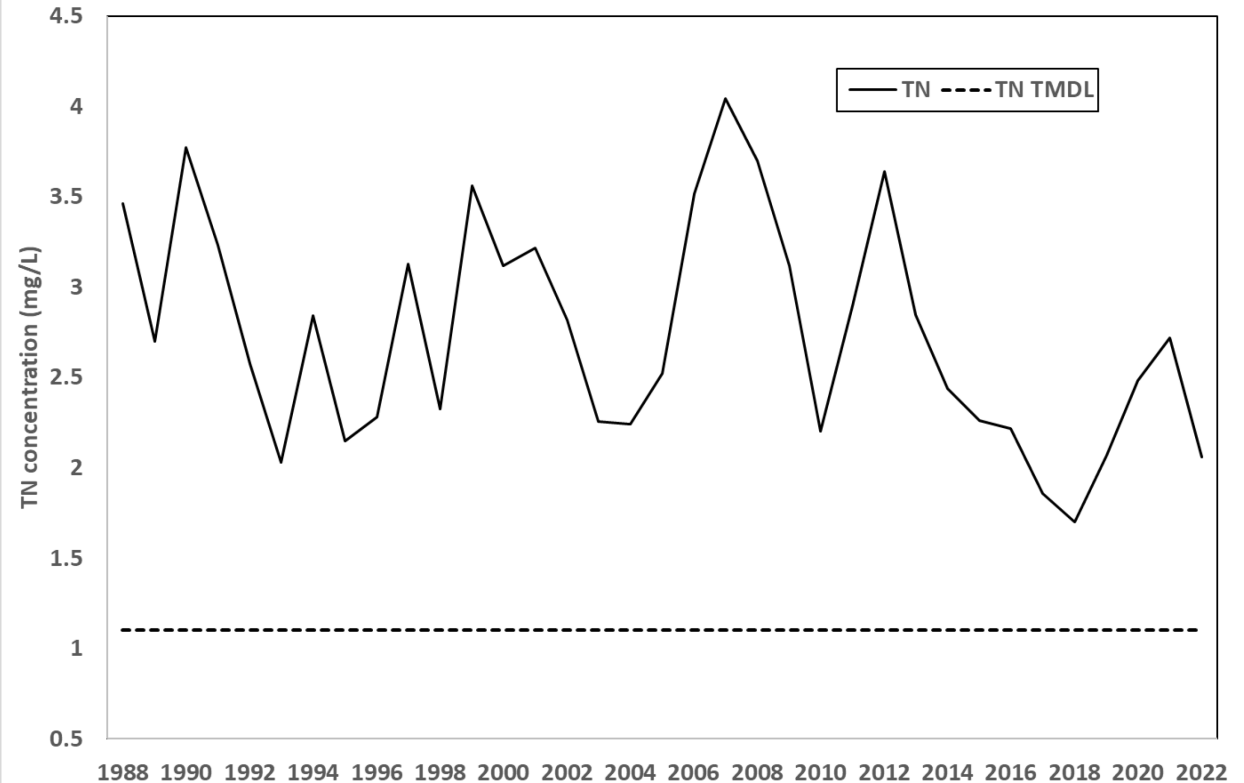
St. Johns River
Water Management District

Water Quality Condition in Lake Denham

Annual average TP and Chl-a concentration in Lake Denham



Annual average TN concentration in Lake Denham



Summary

Lake	Met TP TMDL concentratrion target in 2022	Met TMDL TP load in 2022	2013-2022 average annual load at or below TMDL	2013 - 2022 TP concentration trend
Apopka	Yes	No	Yes	Improving
Beaclair	No	No	No	Improving
Carlton	No	No	No	Improving
Dora	No	Yes	Yes	Improving
Griffin	No	No	Yes	Improving
Trout	No	N/A	N/A	Improving
Denham	No	N/A	N/A	No trend
Eustis	No	No	Yes	No trend
Harris	No	No	No	No trend
Yale	No	No	No	No trend
Weir	No	No	Yes	Deterioating



Summary

- Annual average external TP load to Apopka, Dora, Eustis, Griffin, and Weir, during 2013 -2022 period, met their respective TMDL.
- Lake Apopka met its TMDL restoration TP concentration target first time in 2022 since 1989.
- Watershed nutrient load reductions from wetland restoration areas are the primary driving force for water quality improvement of the receiving waterbodies in the basin (Apopka, Beauclair, Carlton, Dora, Eustis, Harris, and Griffin).



Thank You!

Questions?



St. Johns River
Water Management District

Upper Ocklawaha BMAP Annual Meeting

June 21, 2023

Cori Hermle

**Florida Department of Agriculture and Consumer Services
Office of Agricultural Water Policy**



Overview

- Agricultural Best Management Practices (BMP)
- FDACS Role in BMP Implementation
- Enrollments within the Lake Okeechobee Basin
 - Unenrolled Agricultural Lands Classification
- BMP Implementation Verification (IVs)
- Producer Outreach
- Legislative Report



Office of Agricultural Water Policy (OAWP) Staff Update

- **N. West Gregory;** Director West.Gregory@fdacs.gov
- **Bret Prater;** Asst. Director Bret.Prater@fdacs.gov
- **Angela Chelette;** Chief of Policy Planning and Coordination (PPC) Section Angela.Chelette@fdacs.gov
- **Yesenia Escibano;** Environmental Administrator-BMAPs Yesenia.Escibano@fdacs.gov
- **Cori Hermle;** Environmental Consultant, SJRWMD liaison Cori.Hermle@fdacs.gov



Agricultural Best Management Practices

- Management strategies, tools and practices that improve water quality, conserve water, enhance soil health and protect water resources
- Based on the best available science and technology
 - Work closely with FDEP staff
- Must balance production and water resource protection



Benefits of Agricultural Best Management Practices

- Increase efficiencies in nutrient, irrigation and water management
- Conservation and protection of water and environmental resources
- Improve soil health
- Promote groundwater recharge
- Enhance wildlife habitat

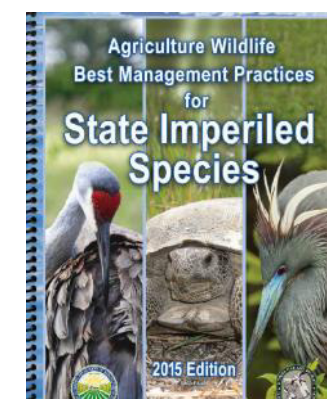
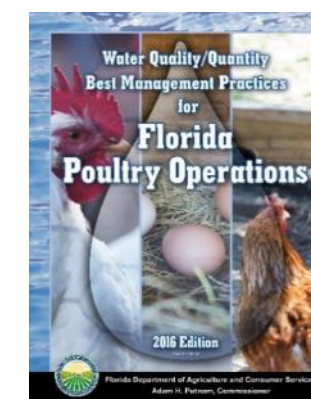
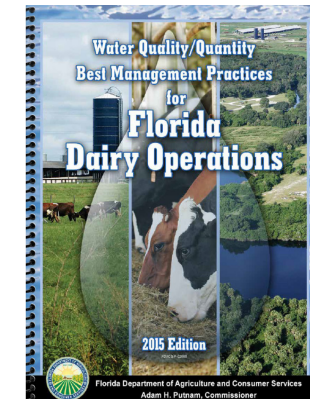
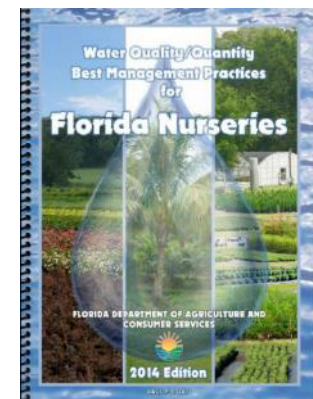
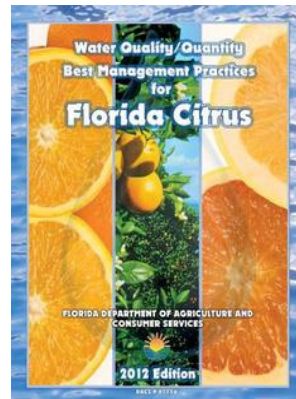
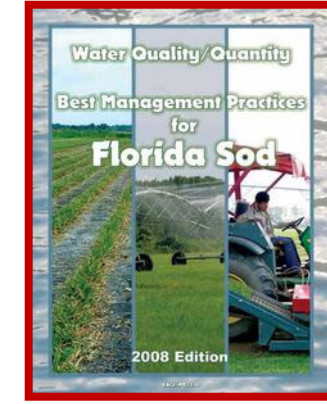
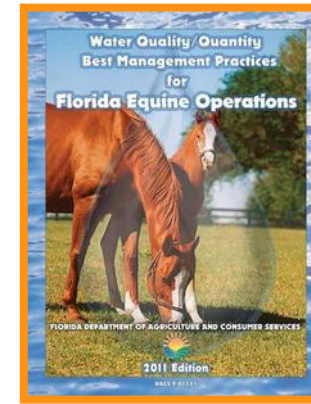
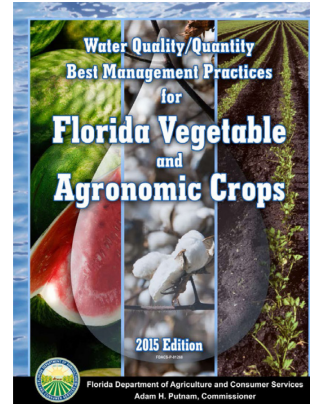
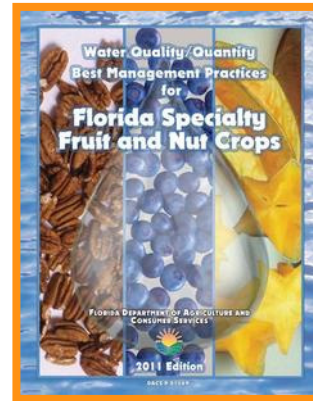
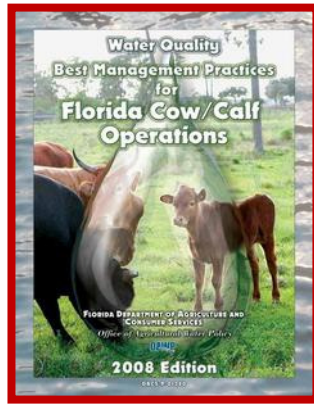


FDACS Role in BMP Implementation

- Develop BMPs in Manuals and adopt BMPs by Rule
- Assist Producers with BMP Enrollment
- Identify and support targeted cost-share of select BMPs
- Fund research to develop new, innovative BMPs that improve nutrient and irrigation use efficiencies
- Verify proper implementation through site visits and record review



Adopted BMP Manuals



Producer Options in BMAP Areas

1. Sign a Notice of Intent (NOI) and properly implement applicable BMPs for presumption of compliance, OR
2. Follow an FDEP or WMD-prescribed water quality monitoring plan at a Producer's expense



Enrollments within the Upper Ocklawaha BMAP

- 20% of all agricultural acres are enrolled in the BMP program
 - Total Ag Acres = 99,104
 - Enrolled Ag Acres = 20,150
- 56% of all irrigated agricultural acres are enrolled in the BMP program
 - Total Irrigated Ag Acres = 12,137
 - Enrolled Irrigated Ag Acres = 6,856
- Majority of enrollments are Cow/Calf and Citrus



BMP enrollment as of Dec 2022 and the 9th Florida Statewide Agricultural Irrigation Demand ([FSAID](#)) Geodatabase

Agricultural Acres Enrolled within Upper Ocklawaha BMAP

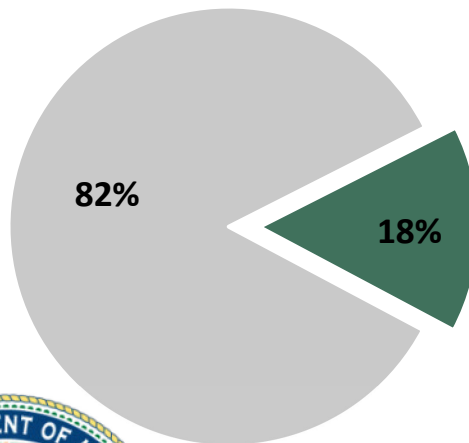
BMP Manual	Acres
Citrus	4,257
Cow/Calf	9,284
Equine	144
Fruit & Nut	788
Multiple Commodities	2,590
Nursery	1,879
Row/Field Crop	822
Sod	386
Total	20,150



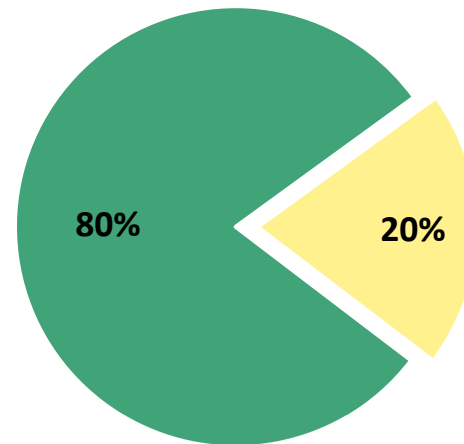
Agricultural Lands within Upper Ocklawaha BMAP

Non-Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres	Unlikely Enrollable Acres	Potentially Enrollable Acres
462,894	99,104	20,150	78,836	33,719	40,759

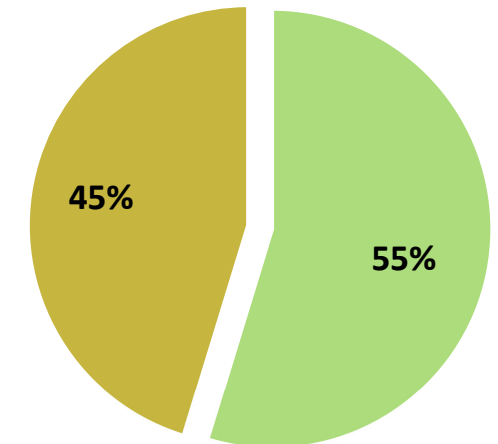
Non-Ag Acres vs.
Ag Acres



Enrolled Ag Acres vs.
Remaining Ag Acres



Unlikely Enrollable Acres vs.
Potentially Enrollable Acres

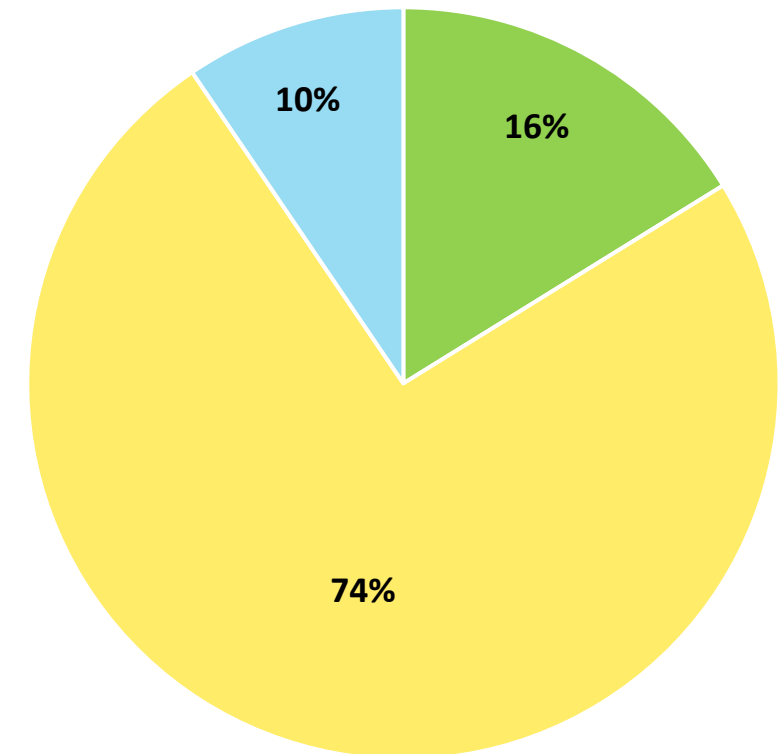


Unlikely Enrollable Agricultural Lands within Upper Ocklawaha BMAP

Category	Acres
State Lands	5,387
Timberland and Aquaculture	5,455
Not Agriculture [e.g., DOR Use Code 70-99 (industrial or institutional use, acreage not zoned agricultural), Non-Ag Entity]	25,062
Not Enrollable [e.g., Missing Parcel Information, Slivers, Tribal Lands]	3,201

Unlikely Enrollable Acres: 33,719

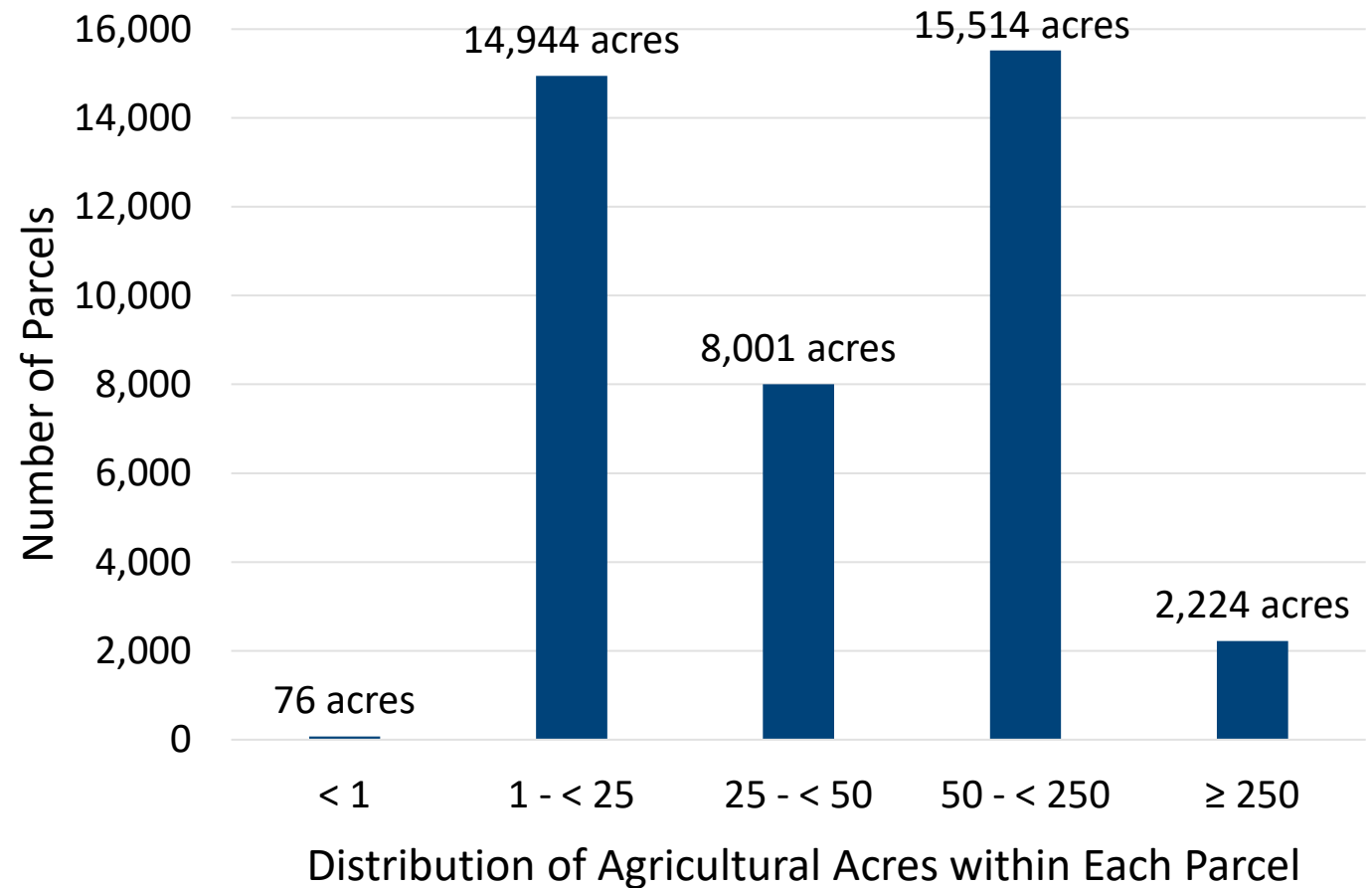
**Remaining Acreage:
Unlikely Ag Breakdown**



Potentially Enrollable Agricultural Lands within Upper Ocklawaha BMAP

Ag Acres within Parcel	Parcel Count	Total Ag Acres
< 1	131	76
1 - < 25	1,805	14,944
25 - < 50	228	8,001
50 - < 250	170	15,514
≥ 250	6	2,224

Potentially Enrollable Acres: 40,759



BMP Implementation Verification (IV)

- Process to verify the status of implementation of BMPs
- **Clean Waterways Act - SB 712 (July 2020)**
 - Requires IV site visits every 2 years
 - 95% completed
 - Requires collection, review, and retention of N and P fertilizer records
 - Nutrient Application Record Form (NARF)
 - FDACS reports total N and P applications to FDEP for utilization in BMAP assessments

** IVs completed as of Dec 31, 2022



Producer Outreach: Coming Soon....

- BMP Program Videos

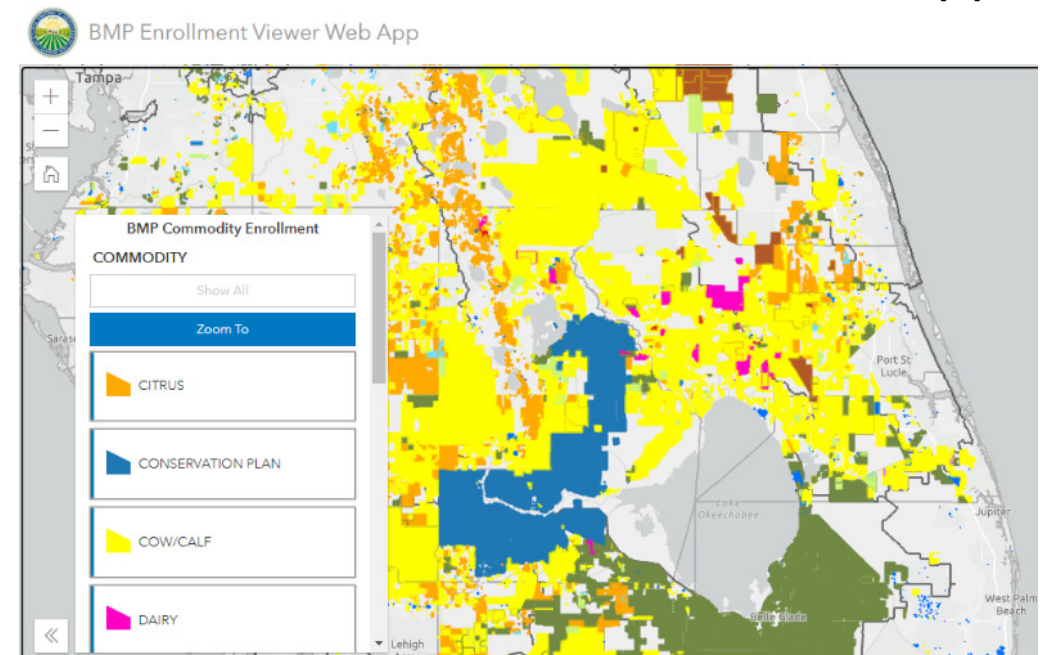
[Agricultural Water Policy - About BMPs – YouTube](#)



- New Online Features

- Are you in a BMAP?

- BMP Enrollment Viewer Web App



[Agricultural Best Management Practices / Water / Agriculture Industry / Home - Florida Department of Agriculture & Consumer Services \(fdacs.gov\)](#)

2023 FDACS Legislative Report

Florida Department of Agriculture and Consumer Services Office of Agricultural Water Policy



Status of Implementation of Agricultural Nonpoint Source Best Management Practices

July 1, 2022

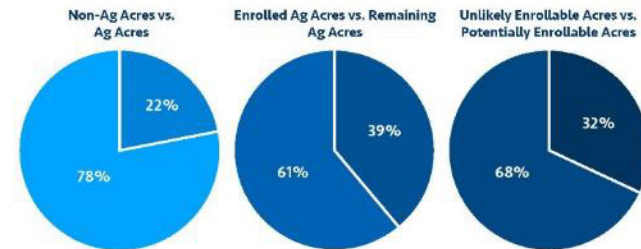
Report to the Governor, the President of the Senate, and the Speaker of the House
Pursuant to Section 403.0675(2), F.S.

Publication No: FDACS-P-01924 Rev. 07/22



Status of Implementation of Agricultural Best Management Practices (BMPs) Statewide

Non-Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
26,723,359	7,596,641	4,628,627	2,968,014	884,291	1,851,559



Enrollment and IV Site Summary	2021	2021 Percent Enrolled
Total agricultural acres in the state	7,596,641	61%
Total agricultural acres enrolled	4,628,627	
Total irrigated acres	1,862,717	82%
Total irrigated acres enrolled	1,526,689	
Number of NOIs statewide	13,269	
Completed IV site visits	3,938	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
< 1	2,984	1,610
1 - 25	52,005	468,885
25 - < 50	8,580	298,416
50 - < 250	6,187	596,906
≥ 250	971	485,742
TOTAL	70,727	1,851,559

Agricultural Acres Enrolled

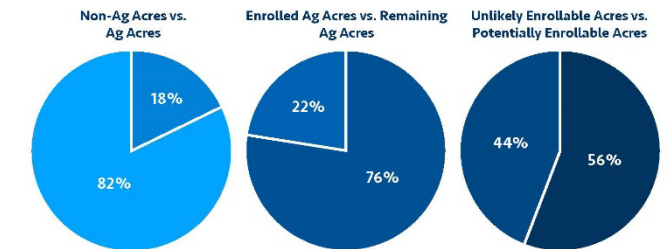
BMP Manual	Acres
Citrus	445,006
Conservation Plan	182,280
Cow/Calf	1,634,597
Dairy	13,227
Equine	20,071
Fruit & Nut	16,615
Lake Okechobee PP	2,476
Multiple Commodities	1,172,097
Nursery	32,266
Poultry	1,024
Row/Field Crops	1,080,521
Sod	26,321
Wildlife	13,346
TOTAL	4,628,627

* This value includes acres within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.

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Status of Implementation of Agricultural Best Management Practices (BMPs) Upper Ocklawaha River BMAP

Non-Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
461,907	100,094	21,668	78,426	32,661	41,069



Enrollment and IV Site Summary	2021	2021 Percent Enrolled
Total agricultural acres in the BMAP	100,094	22%
Total agricultural acres enrolled	21,668	
Total irrigated acres	14,270	53%
Total irrigated acres enrolled	7,493	
Number of NOIs within BMAP	293	
Completed IV site visits	67	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
< 1	123	69
1 - 25	1,866	15,286
25 - < 50	234	8,213
50 - < 250	169	15,276
≥ 250	6	2,224
TOTAL	2,398	41,069

Agricultural Acres Enrolled

BMP Manual	Acres
Citrus	4,910
Cow/Calf	10,179
Equine	165
Fruit & Nut	885
Multiple Commodities	2,366
Nursery	2,056
Row/Field Crop	783
Sod	324
TOTAL	21,668

* This value includes acres within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.

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<https://www.fdacs.gov/Divisions-Offices/Agricultural-Water-Policy>

Thank You!

<http://www.fdacs.gov/Divisions-Offices/Agricultural-Water-Policy>

Cori Hermle, Environmental Consultant
Corinne.Hermle@fdacs.gov (850) 688-6156





Unenrolled Agricultural Producer Enforcement

David Frady, Ph.D.

Program Administrator

Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection



Clean Waterways Act

- The Clean Waterways Act (SB 712) was signed into law by Governor DeSantis in 2020
 - The law requires a wide range of water quality protection provisions aimed at minimizing impacts from known nutrient pollution sources
 - Agricultural landowners and producers within a Basin management Action Plan (BMAP) must enroll in one of two programs:
 - FDACS' Best Management Practices (BMP) program
 - Water Quality Monitoring approved by DEP
- The law also requires FDACS to:
 - conduct on-site implementation verification (IV) site visits on properties enrolled in the BMP program every two years
 - Collect fertilizer data via the Nutrient Application Record Form (NARF)
 - **identify agricultural parcels within a BMAP that are out of compliance and refer them to DEP for enforcement**



Unenrolled Agricultural Producer Enforcement

FDACS Identifies non-compliant producers

- The Florida Department of Agriculture and Consumer Services (FDACS) uses various database to identify parcels within a BMAP that may be agricultural operations

FDACS refers non-compliant producers to FDEP for enforcement

- After confirming agricultural activity and attempting to enroll the producer in the BMP program, FDACS refers non-compliant producers to FDEP for enforcement

FDEP conducts outreach and engagement to bring producers into compliance

- It saves taxpayers money and is better for the environment to bring producers into compliance quickly through education and outreach efforts prior to taking formal enforcement action against small farmers

FDEP Initiates enforcement action

- If an agricultural producer fails to come into compliance, DEP initiates a civil suit to compel them to come into compliance
- FDEP is prioritizing enforcement actions based on parcel size and impact to the environment



Outreach and Engagement Has Been Successful

- DEP takes immediate action when a producer is referred for enforcement
 - More than 96% of the unenrolled agricultural parcels identified by FDACS and referred to FDEP have been brought into compliance
- There are no parcels greater than 100 acres out of compliance and the majority are smaller than 10 acres
- FDEP is engaged in an ongoing campaign to educate landowners of their requirements and bring them into compliance quickly through additional outreach and on-site visits



THANK YOU

David Frady

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Florida Department of Environmental Protection

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Water Restoration Assistance Grant Funding

Michael Barr

Division of Water Restoration Assistance /
Springs and Watershed Restoration Program
Florida Department of Environmental Protection

Upper Ocklawaha BMAP Annual Meeting| 6.21.2023



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



About The Springs Grant

Annual state appropriation. Typically \$50M

Eligible projects are land acquisition and capital projects that protect the quality and/or quantity of water from springs:

- **Agricultural Best Management Practices**
- **Wastewater**
- **Water Conservation**
- **Hydrologic Restoration**
- **Stormwater**
- **Other types of Water Quality and Quantity**



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Springs Grant Submittal Process

Project proposals are submitted to the corresponding jurisdictional Water Management District

- WMDs begin solicitation in late fall to early winter
- Projects are evaluated by the WMD and reviewed by the Governing Board at a public meeting
- Project proposals sent to DEP in May





FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Springs Grant Evaluation

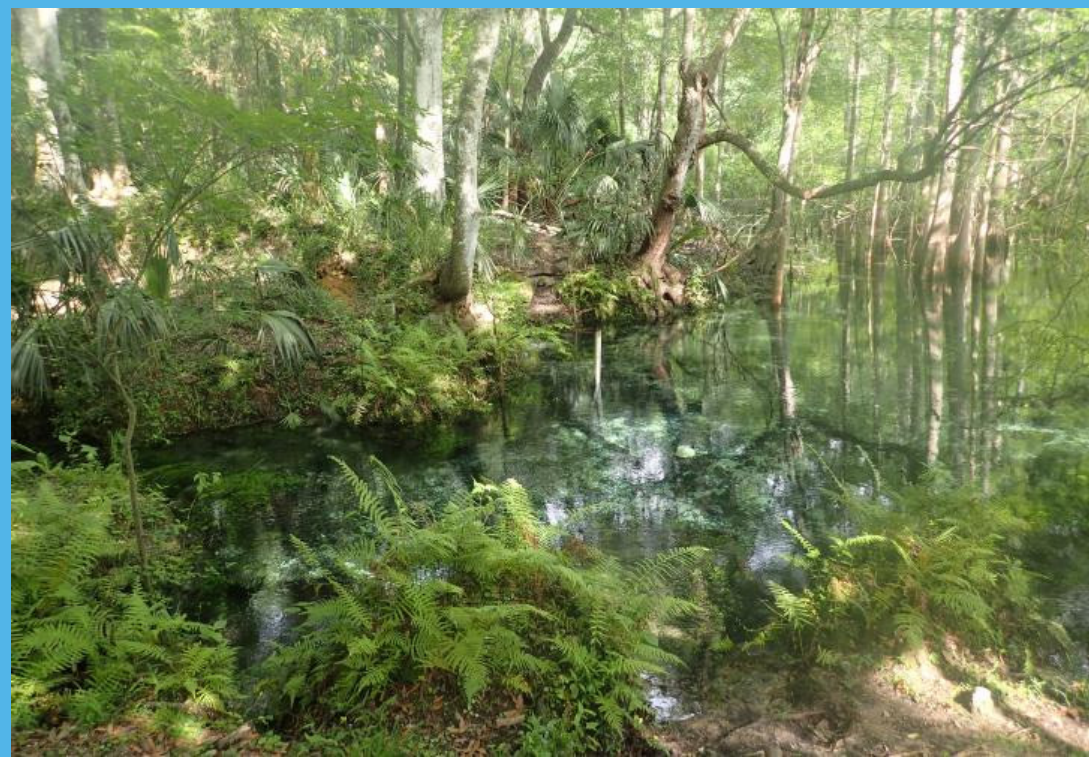
- DEP consolidates list of proposed projects and posts for public comment
- DEP will review and make recommendations
- Factors considered in evaluating projects:
 - Nutrient reductions
 - Water savings
 - Cost sharing
 - Readiness to proceed
 - Whether project is in BMAP area
 - Whether project impacts spring that has an MFL
- Springs awards were announced in early December 2022



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Water Quality Improvement Grant

- Will be established under 403.0673, F.S. (Formerly the Wastewater Grant)
- To be eligible for funding, a project must improve the quality of waters that:
 - Are not attaining nutrient or nutrient-related standards;
 - Have an established total maximum daily load; or,
 - Are located within a BMAP or a reasonable assurance plan area adopted by final order, an accepted alternative restoration plan area, or located within a rural area of opportunity.
- Project proposals may be submitted through the Protecting Florida Together portal (opening this summer)





Water Quality Improvement Grant

Eligible projects include:

- Septic to sewer projects
- Wastewater treatment facility improvements that result in improvements to surface water or groundwater quality
- Stormwater treatment projects
- Projects that qualify as a cooperative agricultural regional water quality improvement element as part of a basin management action
- Where central sewerage is not available, retrofitting OSTDS to upgrade such systems to enhanced nutrient-reducing onsite sewage treatment and disposal systems or other equivalent wastewater system that achieves 65% reduction in total nitrogen
- BMAP projects



NONPOINT SOURCE MANAGEMENT: EPA 319(H) NONPOINT SOURCE GRANT

Federal Grant through the U.S. EPA

- Construction, education and monitoring.
- 40% match requirement, may use state grant/loans towards match.
- Planning and design may be eligible for match.
- May take two years to receive grant award.

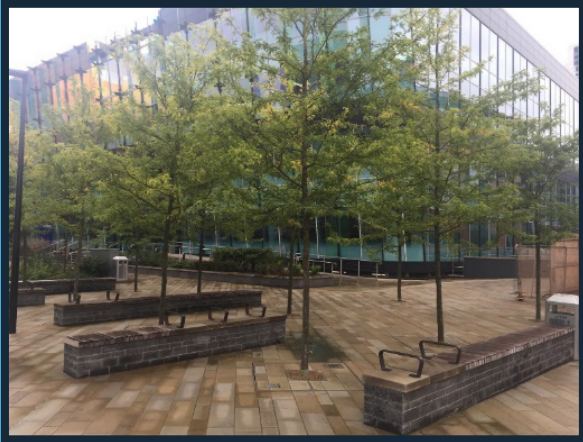
Eligibility

- Water quality improvement/restoration
- Groundwater protection
- Stormwater BMPs
- Agricultural BMPs
- Nonpoint source education
- Septic to sewer connections





NONPOINT SOURCE MANAGEMENT: STATE WATER QUALITY ASSISTANCE GRANT (SWAG)



- State grant for projects that reduce stormwater pollutant loadings in impaired waterbodies.
- “Shovel ready” construction projects.
- No required Match.
- No required water quality monitoring.
- Fast application to grant award date.



NONPOINT SOURCE MANAGEMENT: HOW TO SUBMIT A PROPOSAL?

Grant proposals for 319 and SWAG grants are accepted throughout the year:

- Contact Nonpoint Source Program grant coordinator for a copy of the latest grant proposal form.
- Department review and evaluation periods are expected to occur in September/October and March/April of each year.
- If funding is available, grant awards may be awarded out of cycle.



STATE REVOLVING FUND (SRF)

Florida's largest financial assistance program for water infrastructure, capitalized by federal grants through EPA.

- Low-interest loans to local governments to plan, design, and build or upgrade water, wastewater and stormwater facilities.
- Interest rates on loans are below market rates and vary based on the economic wherewithal of the community.
- Discounted assistance (e.g., very low interest rates, grants, etc.) for small communities is available.
- Federal requirements for fair wages, American Iron and Steel, asset management plans.
- Eligible as match to the 319(h) and SWAG grants.





THANK YOU

Michael Barr

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Springs and Watershed Restoration Program

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Protecting Florida Together

<https://protectingfloridatogether.gov/state-action/grants-submissions>

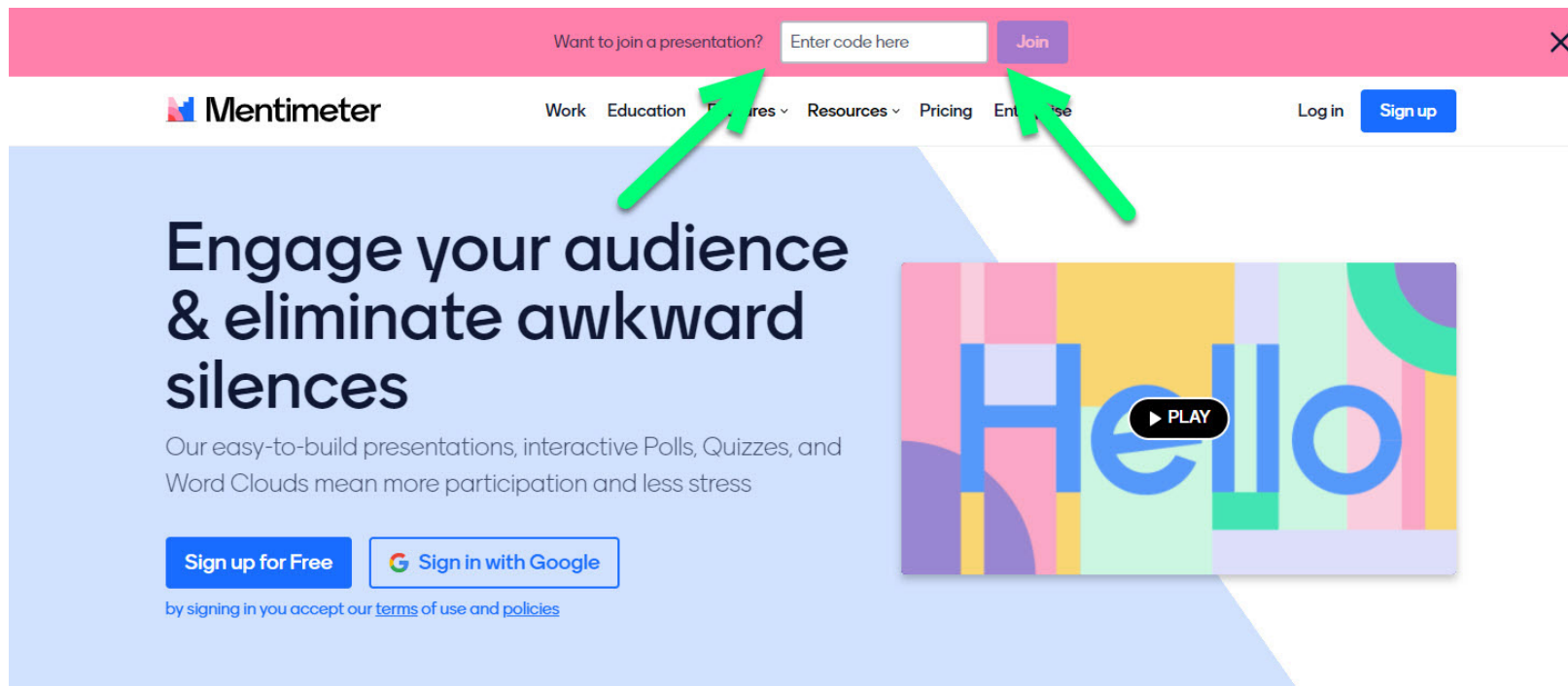
Division of Water Restoration Assistance

<https://floridadep.gov/wra>



MENTIMETER SURVEY

To participate in the opening survey, please go to **menti.com** and use code **8370 4195**





THANK YOU

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