St. Lucie River and Estuary Basin Management Action Plan (BMAP) Annual Meeting

Via Webinar
April 3, 2024
1:00 PM

Webinar Registration Link:
https://attendee.gotowebinar.com/register/3155166701010665047

Agenda

- Background
- South Florida Water Management District (SFWMD) Updates
- Statewide Annual Report (STAR)
- Progress
- Upcoming BMAP Update
- Florida Department of Agriculture and Consumer Services (FDACS) Updates

Please note the FTP site for documents pertaining to the various BMAPs:
http://publicfiles.dep.state.fl.us/DEAR/BMAP/
For more information, contact: Diana Turner, 850-245-8825, Diana.M.Turner@FloridaDEP.gov

WEBINAR HOUSEKEEPING

Attendee Participation

Open your control panel.

Join audio:

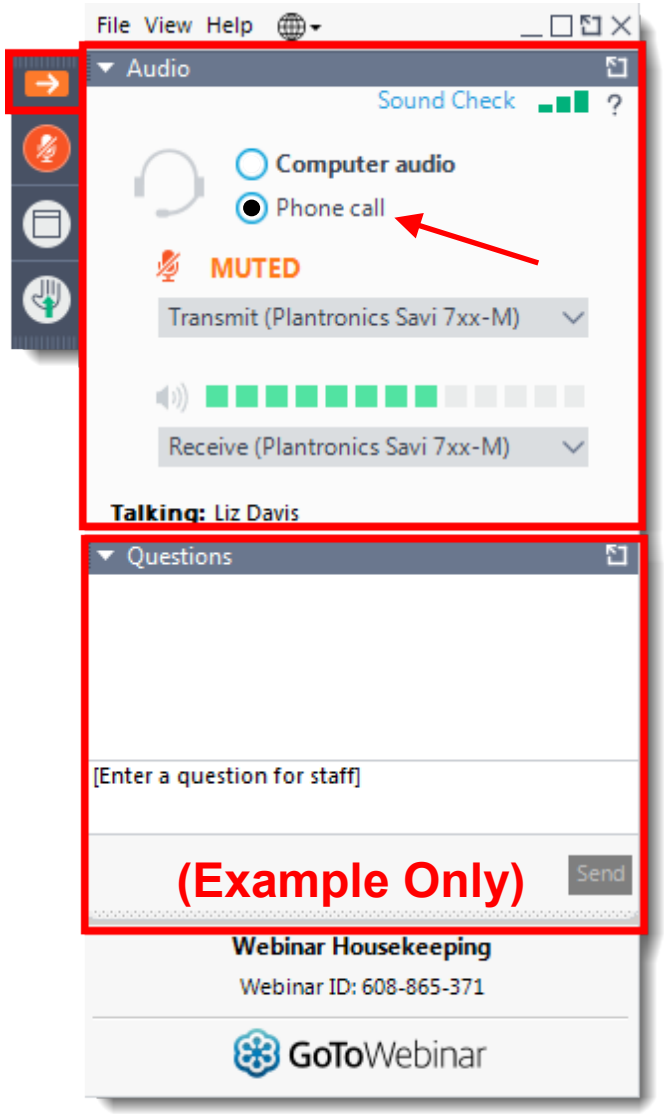
- Choose Computer Audio **or**
- Choose Phone Call and dial using the information provided with your registration.

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.



ST. LUCIE RIVER AND ESTUARY BASIN MANAGEMENT ACTION PLAN (BMAP) ANNUAL MEETING

Diana Turner
Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection

GoToWebinar | April 3, 2024

Photo Credit: SFWMD

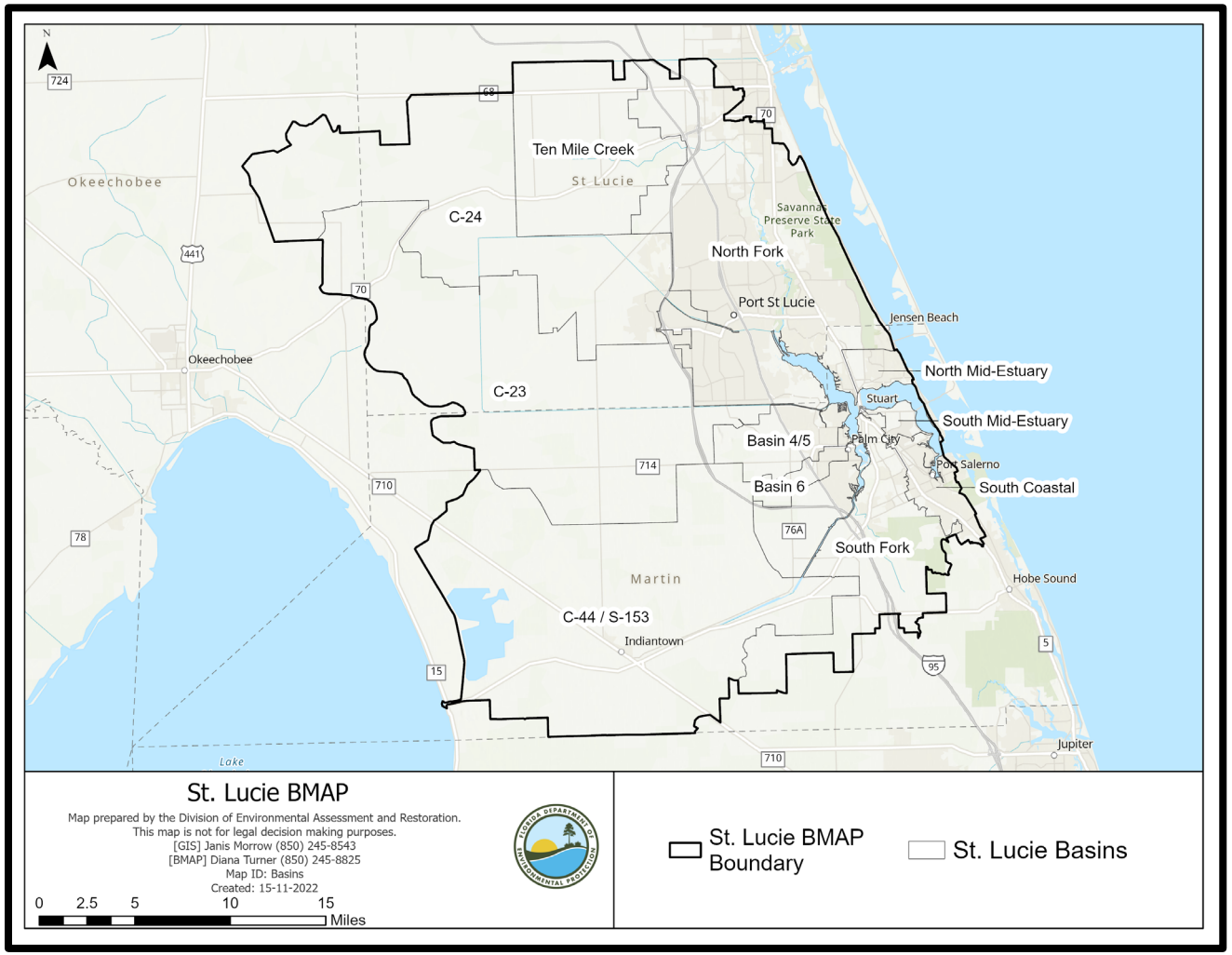
ST. LUCIE RIVER AND ESTUARY
ANNUAL MEETING


Photo Credit: SFWMD

Agenda:

- Background.
- South Florida Water Management District (SFWMD) Updates.
- Statewide Annual Report (STAR).
- Annual Progress.
- Upcoming Basin Management Action Plan (BMAP) Update.
- Florida Department of Agriculture and Consumer Services (FDACS) Updates.

BACKGROUND



St. Lucie BMAP

Total nitrogen (TN) and total phosphorus (TP) total maximum daily loads (TMDLs) are concentrations established in 2009.

- TP: 0.081 milligrams per liter (mg/L).
- TN: 0.72 mg/L.

BMAP established in 2013.
Boundary was updated in 2020.

STAKEHOLDERS

ST. LUCIE BMAP

Regional/State Agencies:

- FDACS.
- Florida Department of Transportation. (FDOT) District 1.
- FDOT District 4.
- Florida Turnpike Enterprise.
- SFWMD.

Local Governments:

- Martin County.
- Okeechobee County.
- St. Lucie County.
- City of Fort Pierce.
- City of Port St. Lucie.
- City of Stuart.
- Town of Sewall's Point.

Special Districts:

- Hobe St. Lucie Conservancy District.
- North St. Lucie River Water Control District.
- Pal Mar Water Control District.
- Troup-Indiantown Water Control District.

Community Development Districts:

- Copper Creek.
- Creekside.
- Portofino Isles.
- River Place.
- St. Lucie West Services District.
- Tesoro.
- Tradition.
- Veranda.
- Verano.
- Villa Vizcaya.

STORYMAP

ST. LUCIE RIVER AND ESTUARY BMAP

Introduction

Welcome to the St. Lucie 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 reductions 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.

SFWMD Update

St. Lucie River Watershed Construction Project

Stacey Ollis, PMP
Principal State Policy Analyst
Everglades and Estuaries Protection Bureau

St. Lucie River and Estuary BMAP Annual Meeting

April 3, 2024

Agenda


St. Lucie River at US-1 Bridge

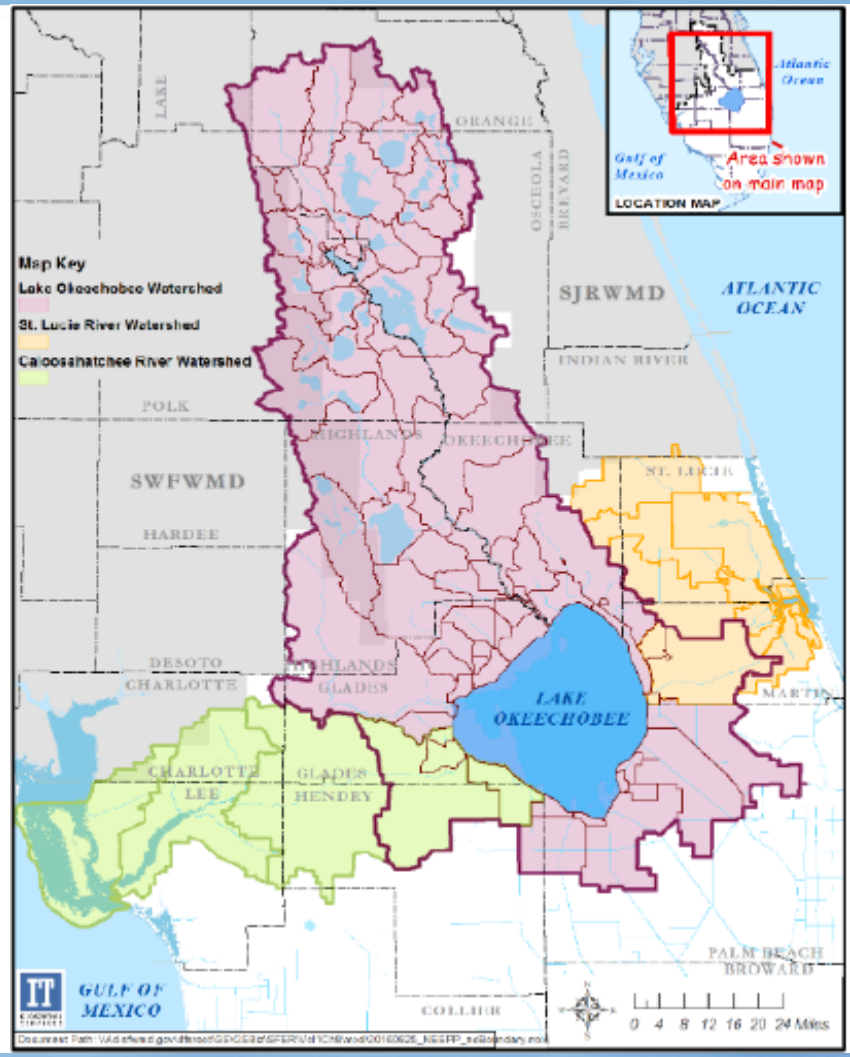
- Northern Everglades Program Overview
- 2023 St. Lucie River Watershed Construction Project Review
  - Project Spotlights
  - Water Storage Benefits
- Watershed Protection Plan Reporting

Northern Everglades and Estuaries Protection Program (NEEPP)

- Purpose: Protect and restore surface water resources by improving hydrology and water quality for the Northern Everglades ecosystem (§373.4595, Florida Statutes)

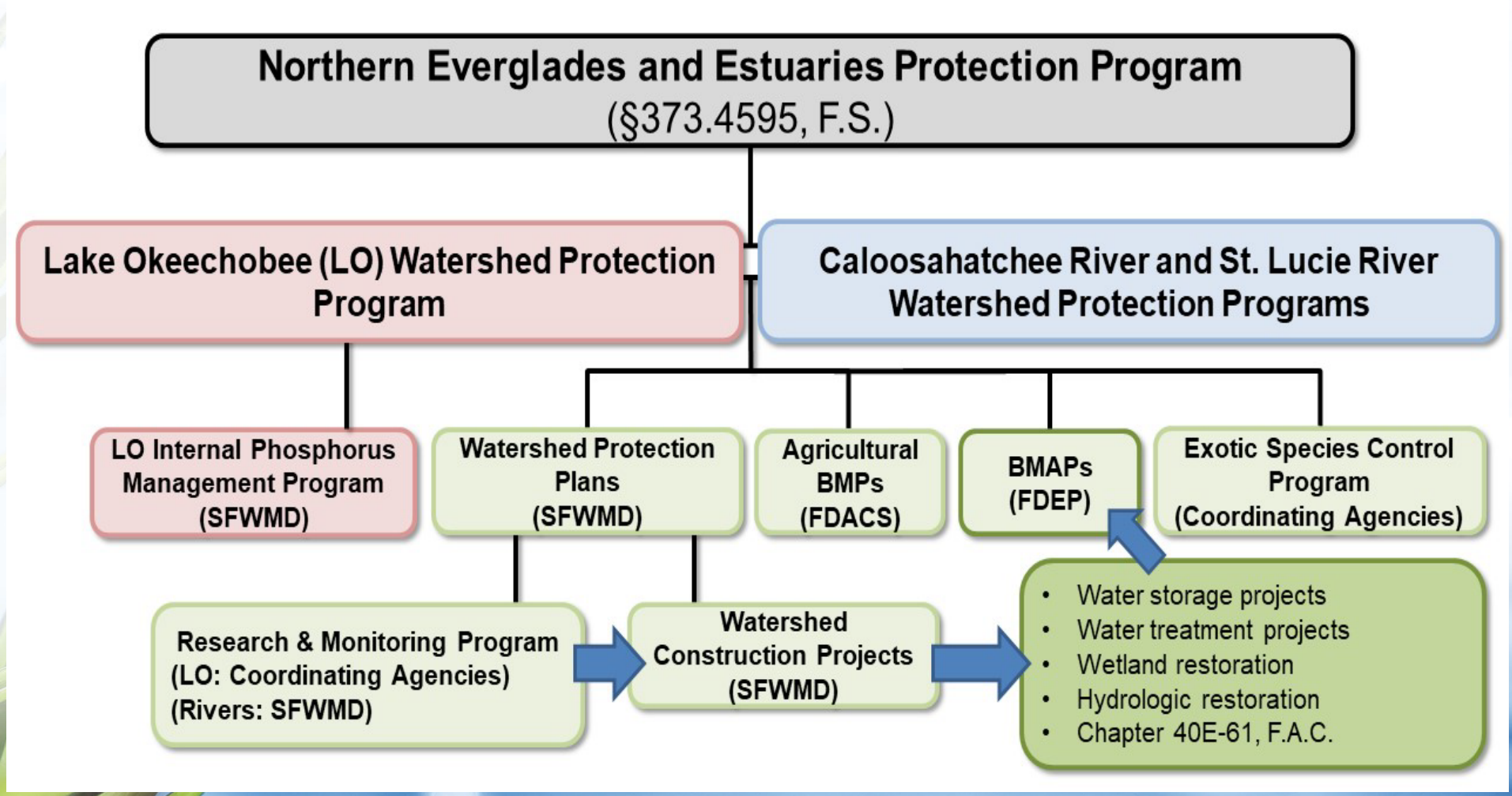
- Goal: Improve Water Quality
  - Lake Okeechobee: Total Phosphorus (TP)
  - Caloosahatchee Estuary: Total Nitrogen (TN)
  - St. Lucie Estuary: TP and TN

- Goal: Manage Water Quantity
  - Increase water storage north of Lake Okeechobee and in Caloosahatchee and St. Lucie River Watersheds



Presenter: Stacey Ollis

NEEPP: Coordinating Agencies Roles



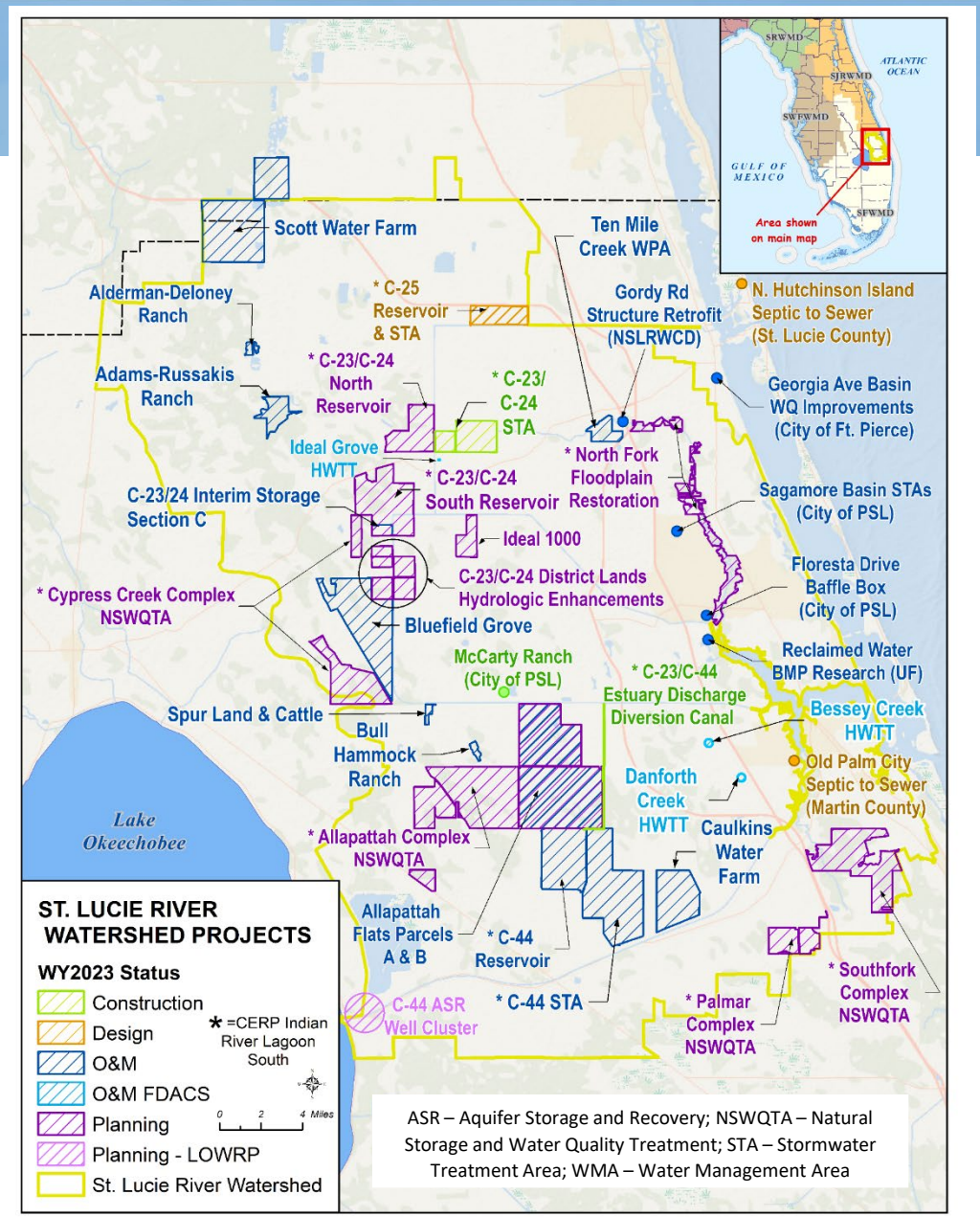
Presenter: Stacey Ollis

St. Lucie River Watershed Construction Project Review

- In 2020, SFWMD initiated annual St. Lucie River Watershed Construction Project (SLRWCP) reviews, as part of the Watershed Protection Plan (WPP) reviews
- Annual reviews are important to:
  - Maintain transparency and accountability in BMAP process
  - Assist to progressively move toward achieving state's TMDLs
  - Develop and update WPPs required every five years
  - Consolidate into NEEPP annual progress reporting (South Florida Environmental Report, or SFER) per §373.4595(6), F.S.
- Focus: 2023 SLRWCP Review
  - Key accomplishments during Fiscal Year (FY) 2023 (Oct. 1, 2022–Sept. 30, 2023)
  - Final 2024 SFER – Volume I, Chapter 8C (March 1, 2024) at SFWMD.gov/SFER

SFWMD Projects

- FY2023 SLRWCP Status:
  - 10 projects – planning/design
  - 2 projects – construction
  - 11 projects – operations



Project Spotlights

- CERP Indian River Lagoon – South
- C-23/24 Interim Storage – Section C and Other Parcels
- Bluefield Grove Water Farm
- Scott Water Farm

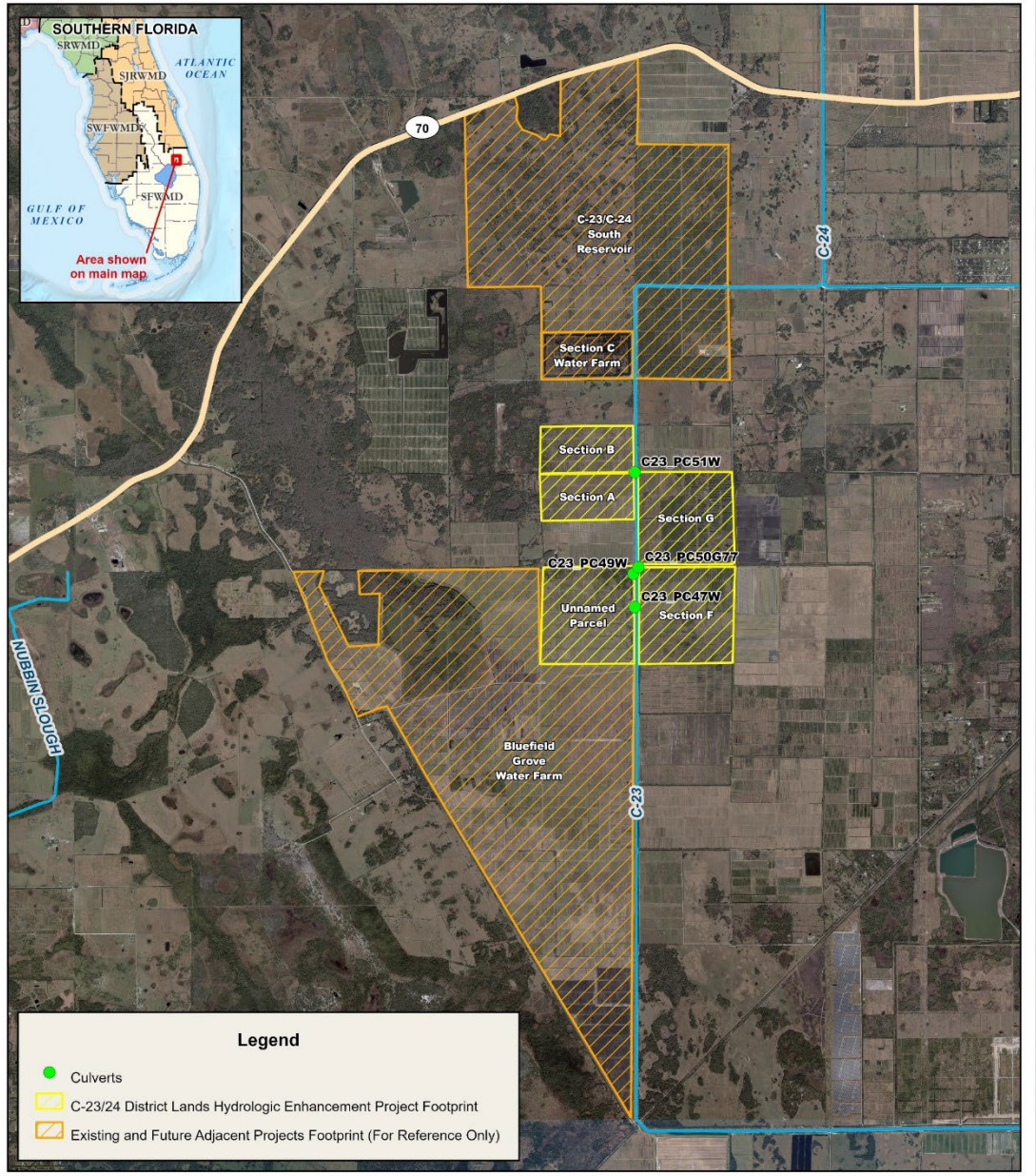
C-44 Reservoir

US Army Corps of Engineers

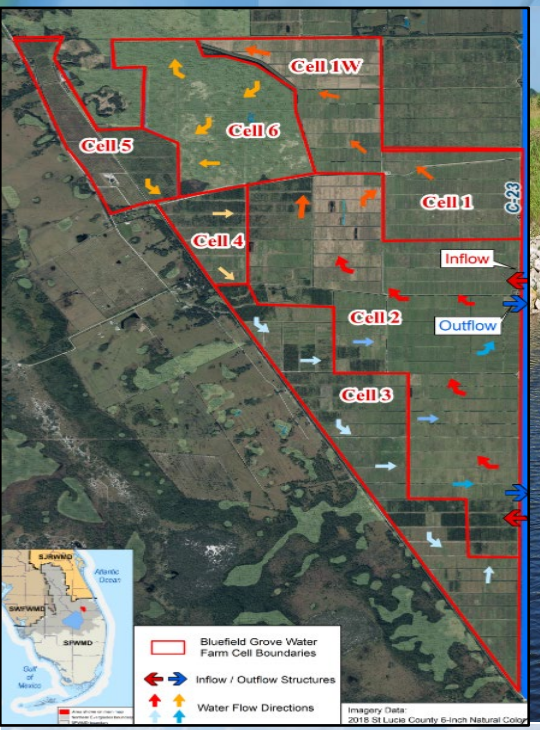
Indian River Lagoon - South

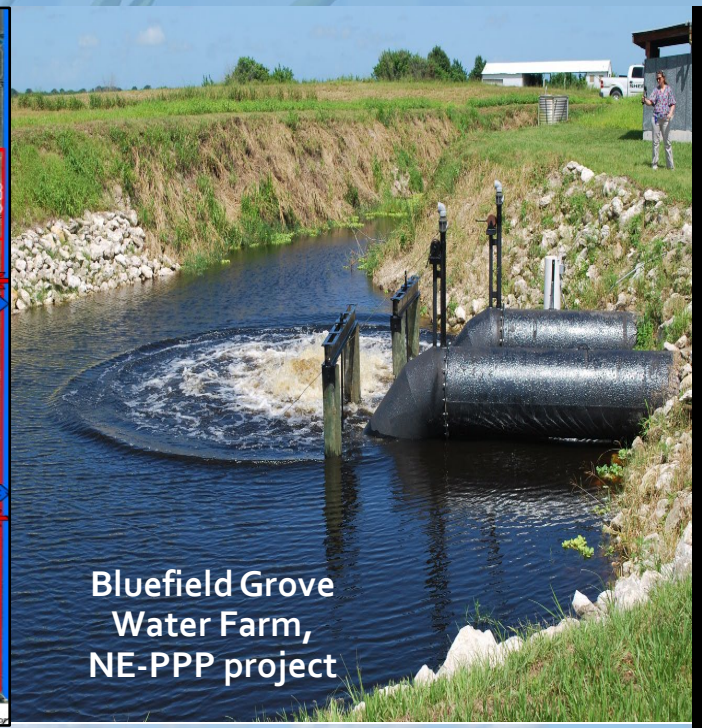
C-23/24 District Lands: Section C Interim Storage and Other Parcels

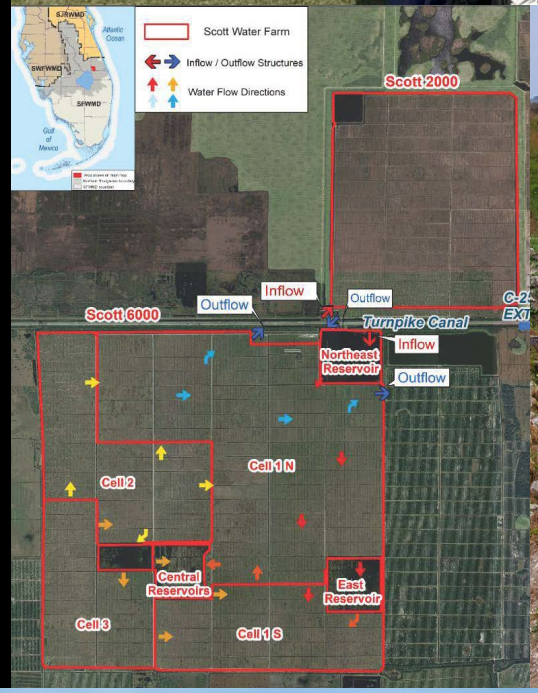
Section C Interim Storage



Bluefield Grove & Scott Water Farms

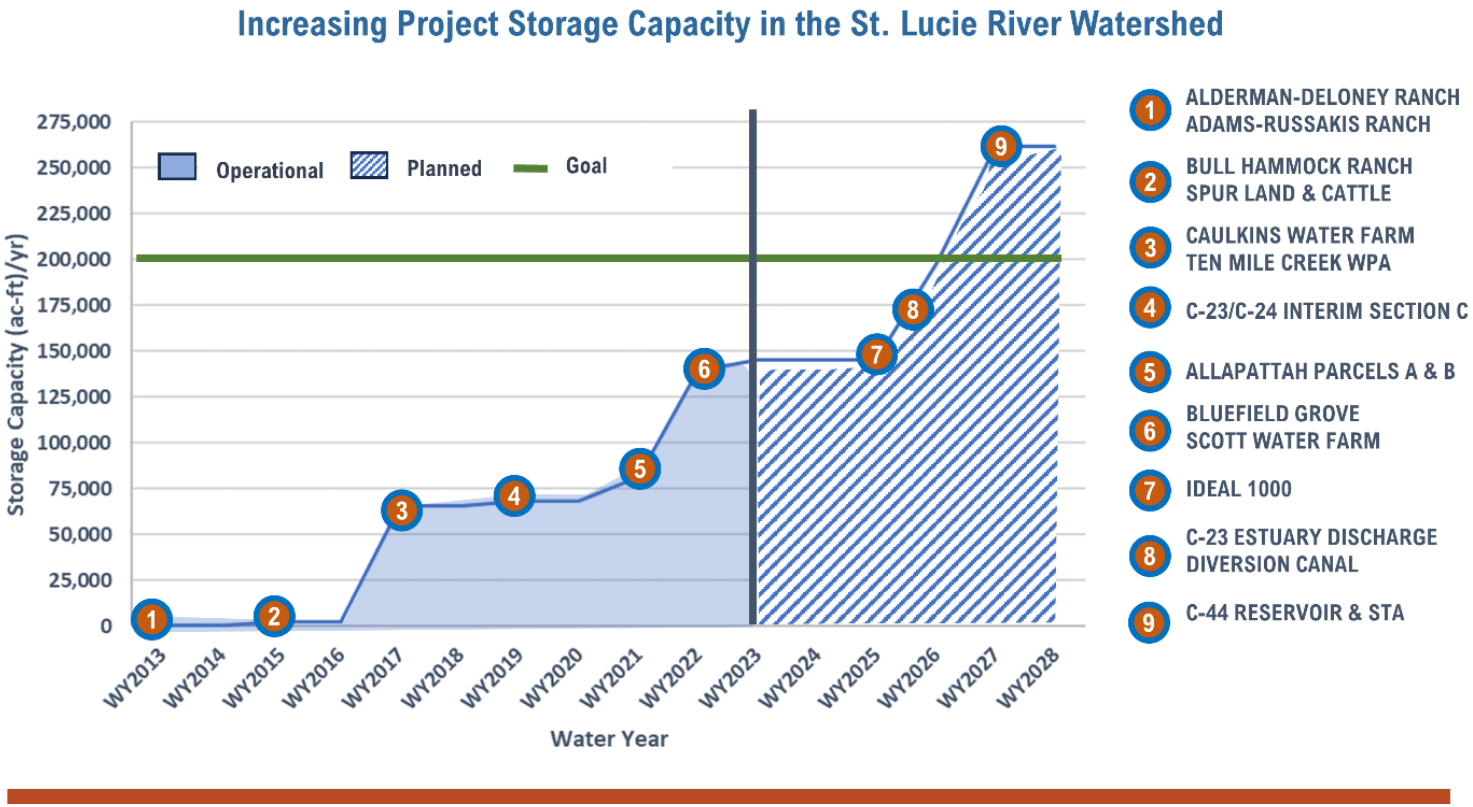




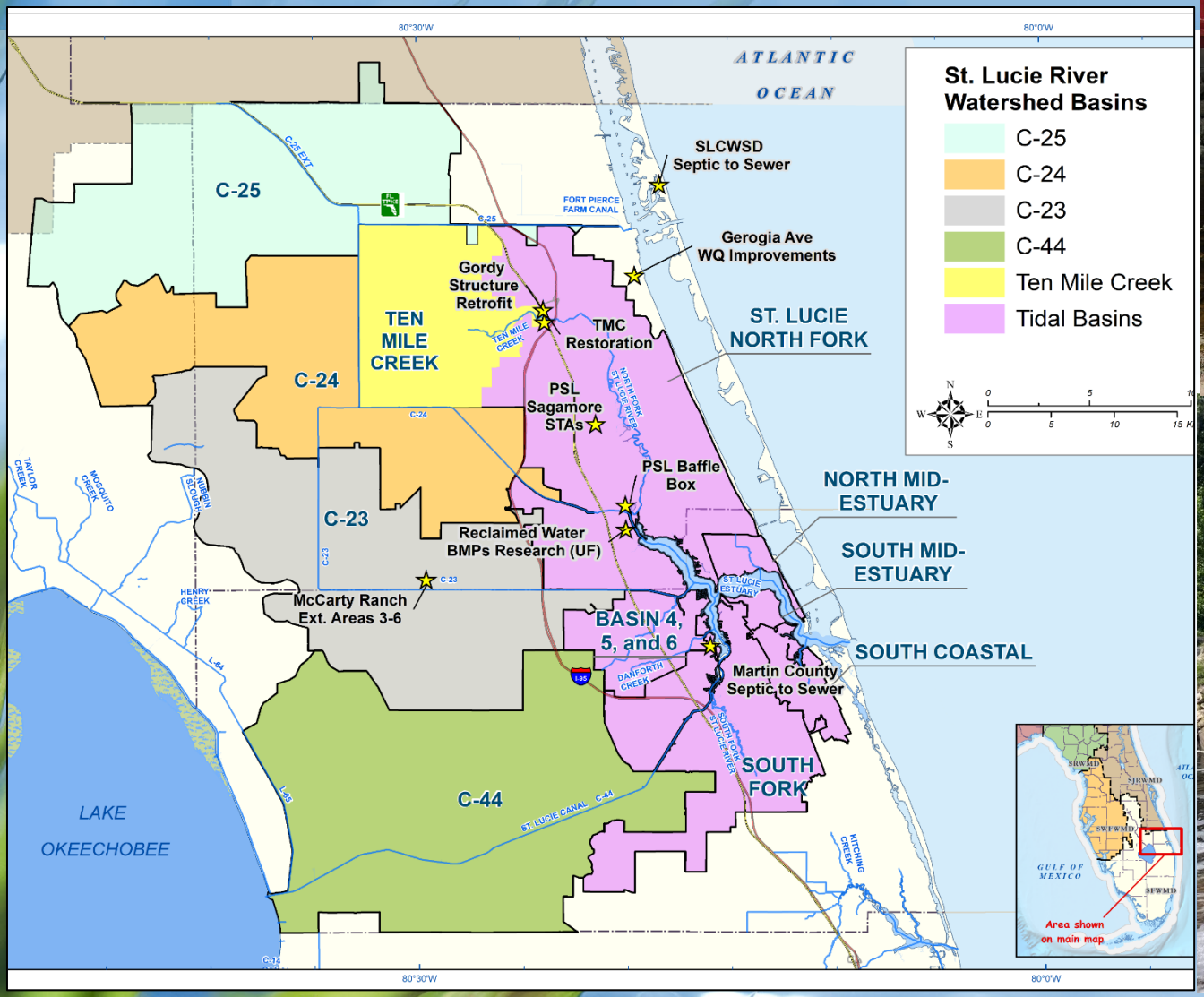


Water Storage Benefits

- Key DWM program benefits:
  - Reduces runoff/discharge to and stores/treats water in regional system
  - Promotes hydrologic enhancement, groundwater recharge, improves habitat
  - Avoids high cost of land purchase and keeps private lands on local tax rolls
  - Storage and/or treatment provided typically exceeds permit requirements
- In WY2023, 11 SFWMD projects provided ~128,371 ac-ft of storage (109,840 ac-ft, 8 DWM; 18,531 ac-ft, 3 regional)
- Future projects are planned to add storage capacity of more than 122,000 ac-ft over the next five years



Local Projects in the St. Lucie



City of Fort Pierce – Georgia Ave. Basin Water Quality Improvements

NSLWCD Gordy Structures Retrofit

Watershed Protection Plan Reporting

For more information, visit:

SFWMD.gov/WPPs

and

SFWMD.gov/SFER

(Final 2024 SFER – Volume I, Chapter 8C)

Mark Your Calendars

2024 SFER Open House
Poster Sessions

April 10 & 11, 2024 at 1 pm

SFWMD Headquarters
B-1 Auditorium & Lobby
3301 Gun Club Road
West Palm Beach, FL

For more information, visit:
SFWMD.gov/news-events/meetings

Contact Information

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Everglades & Estuaries Protection Bureau
South Florida Water Management District
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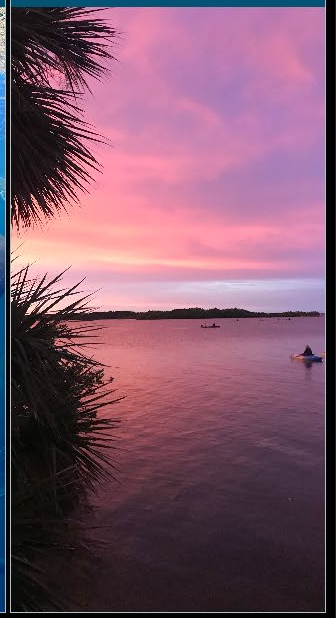
sfwmd.gov

STAR
STATEWIDE ANNUAL REPORT

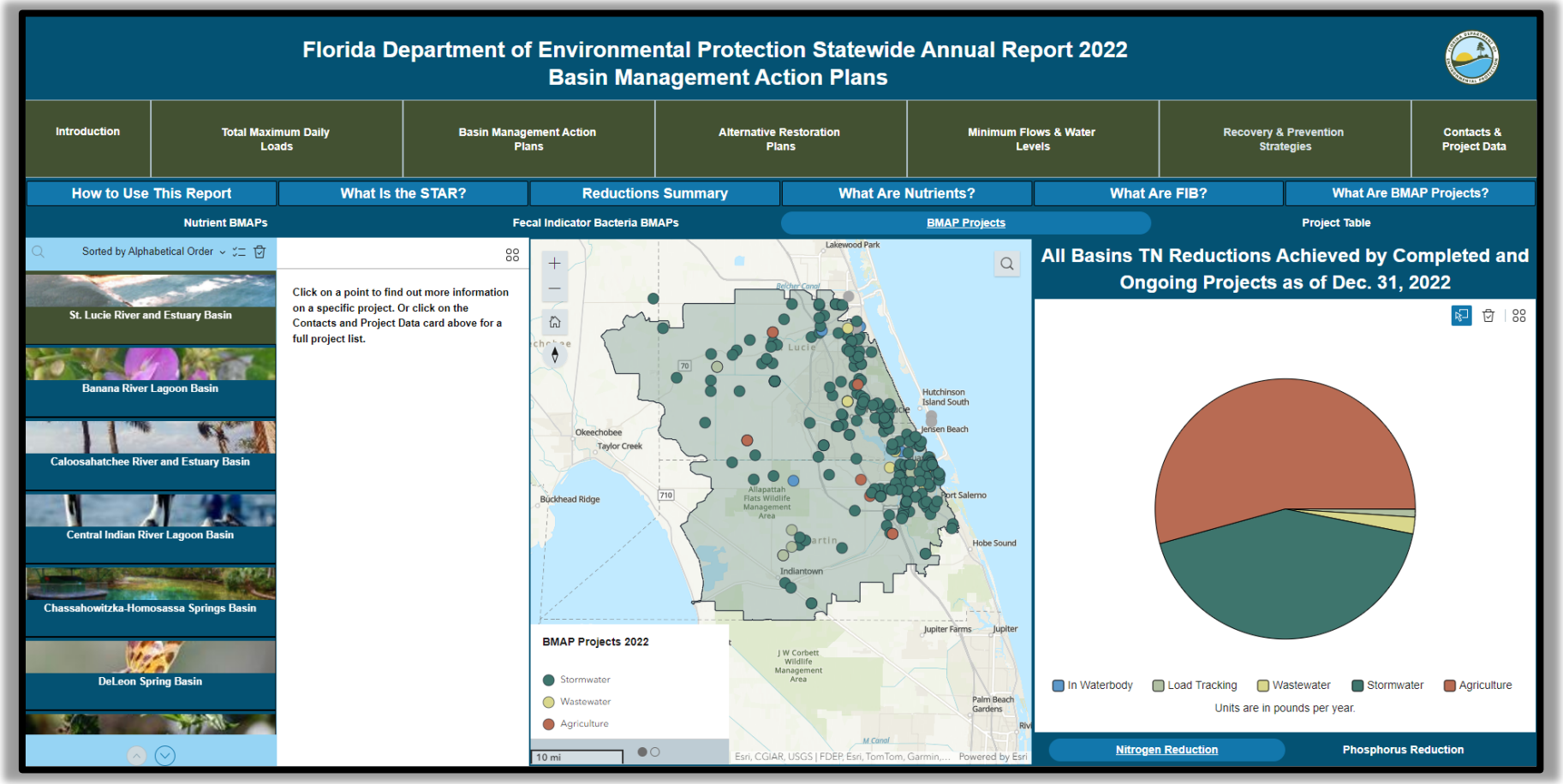
The Statewide Annual Report 2022

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.

As required by section 403.0675, Florida Statutes, and to report on additional restoration efforts, this report updates the status of protection and restoration actions through total

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
STATEWIDE ANNUAL REPORT

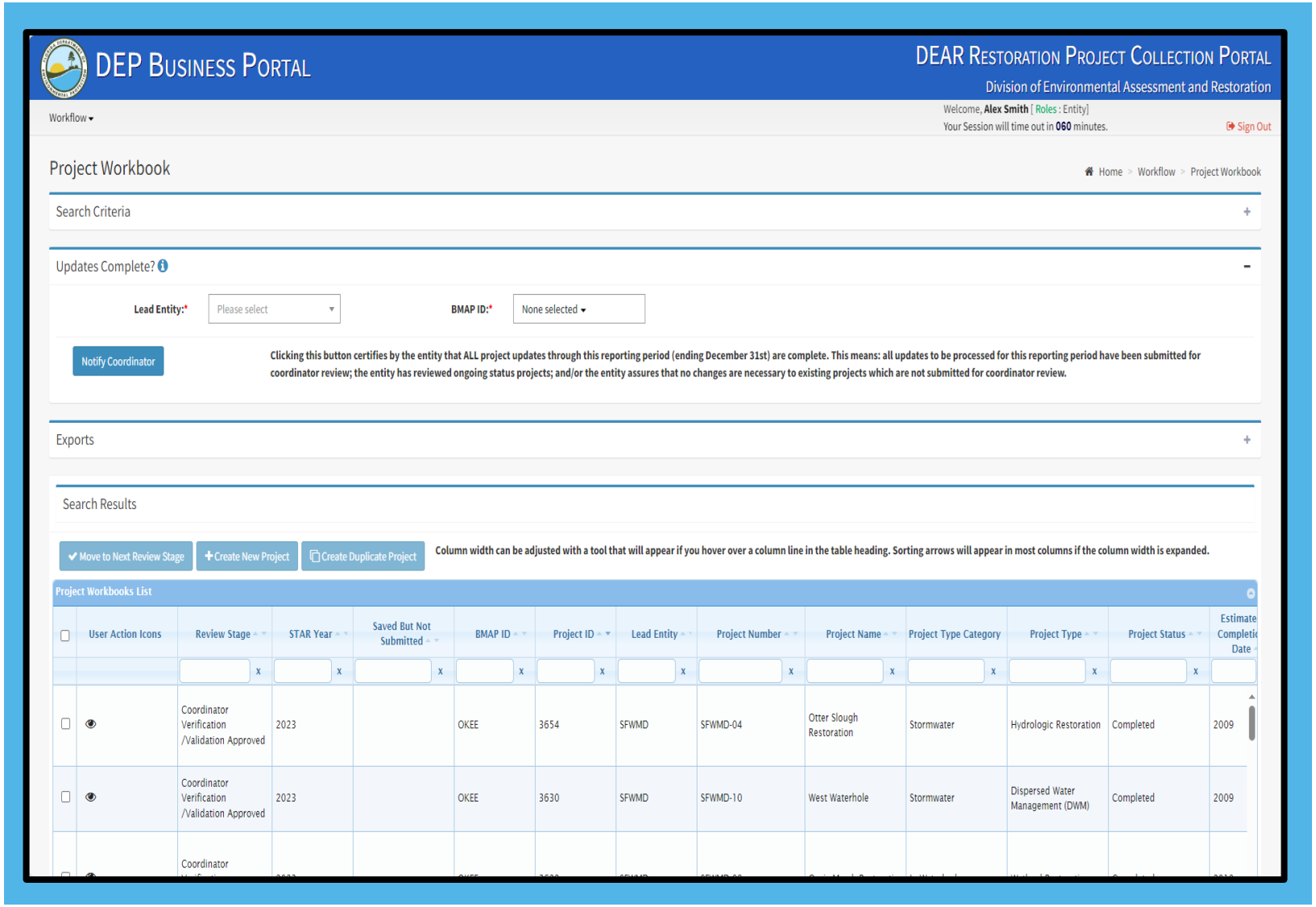


- Report published by July 1, 2024, with reporting through Dec. 31, 2023.
- Summarizes accomplishments in the BMAPs statewide.
- Reports on restoration projects and management strategies.
- Data download available.

https://floridadep.gov/STAR

STAR
BMAP PORTAL FOR PROJECT COLLECTION

- Be sure to let your BMAP coordinator know if changes in access to your projects in the portal are needed.



STAR

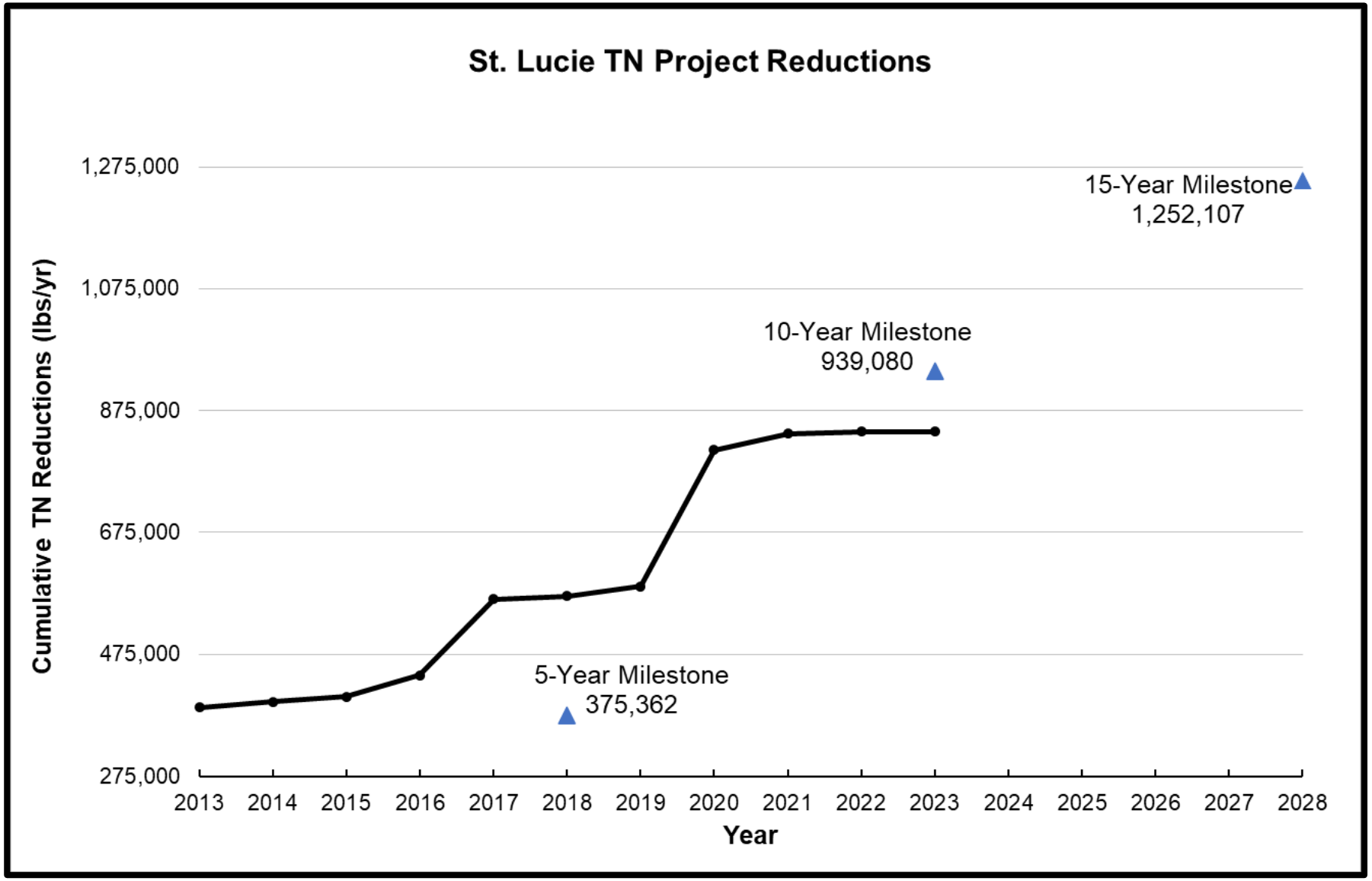
*PRELIMINARY 2023 STATUS OF PROJECTS

Entity	Completed	Ongoing	Planned	Underway	Grand Total
City of Fort Pierce	9	4	0	0	13
City of Port St. Lucie	26	4	0	4	34
City of Stuart	21	3	0	1	25
FDACS/Agriculture	12	8	0	0	20
FDOT District 4	60	2	0	0	62
Fort Pierce Utilities Authority	0	0	1	5	6
Hobe St. Lucie Conservancy District	1	0	1	0	2
Martin County	40	3	1	3	47
North St. Lucie River WCD	11	0	0	0	11
SFWMD - Coordinating Agency	8	0	1	1	10
St. Lucie County	9	9	4	4	26
St. Lucie West Services District	2	3	0	0	5
Town of Sewall's Point	30	2	2	3	37
Troup-Indiantown WCD	2	0	0	2	4
Turnpike Enterprise	3	2	0	0	5
Tradition CDD	0	0	1	2	3
Grand Total	**234**	**40**	**11**	**25**	**310**

STAR

*PRELIMINARY 2023 STATUS OF PROJECTS

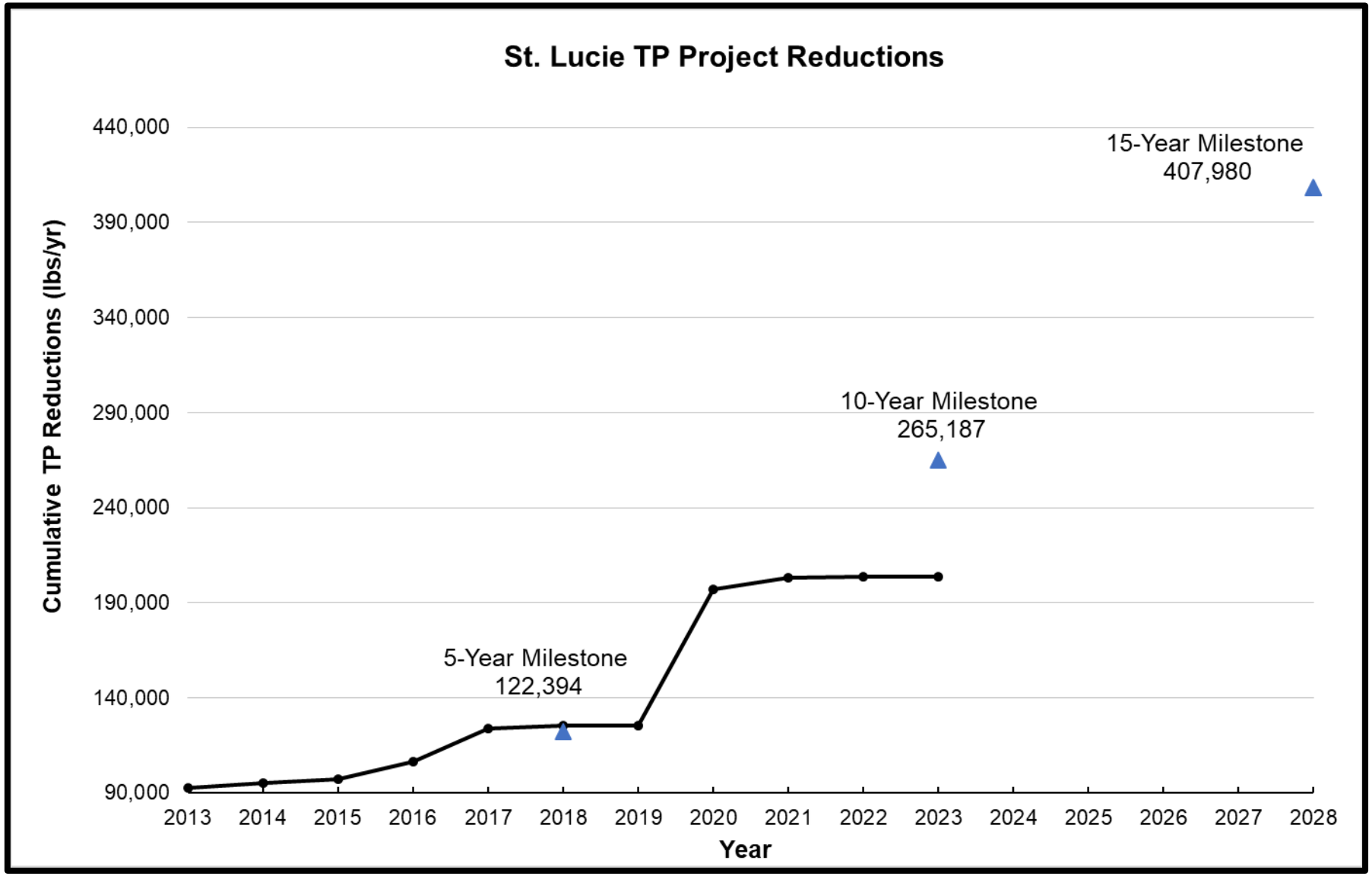
*Completed and Ongoing Projects.



STAR

*PRELIMINARY 2023 STATUS OF PROJECTS

*Completed and Ongoing Projects.



TARGETED RESTORATION AREA (TRA) EVALUATION UPDATE

APPROACH

Step 1

Concentration five-year average

↓

Compare to Numeric Nutrient Criteria (NNC) benchmark

Priority 1: Greater than twice the benchmark.

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

Priority 3: Equal to or less than benchmark.

or

Step 2

Concentration + Flow

↓

Flow weighted mean (FWM) concentration (five-year average)

↓

Compare to NNC benchmark

Priority 1: Greater than twice the benchmark.

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

Priority 3: Equal to or less than benchmark.

Step 3

Attenuated Loading + Acreage

↓

Attenuated Unit Area Load (UAL)

↓

Compare to subwatershed target UAL (target load/acres)

Move up one priority: Greater than 50% above subwatershed target UAL.

Maintain priority: Less than 50% above watershed target UAL.

Move down one priority: less than subwatershed target UAL.

Step 4

Five-Year Review Water Quality Analysis

↓

TN or TP trend (FWM concentration if available, otherwise use concentration)

↓

Statistically significant trend

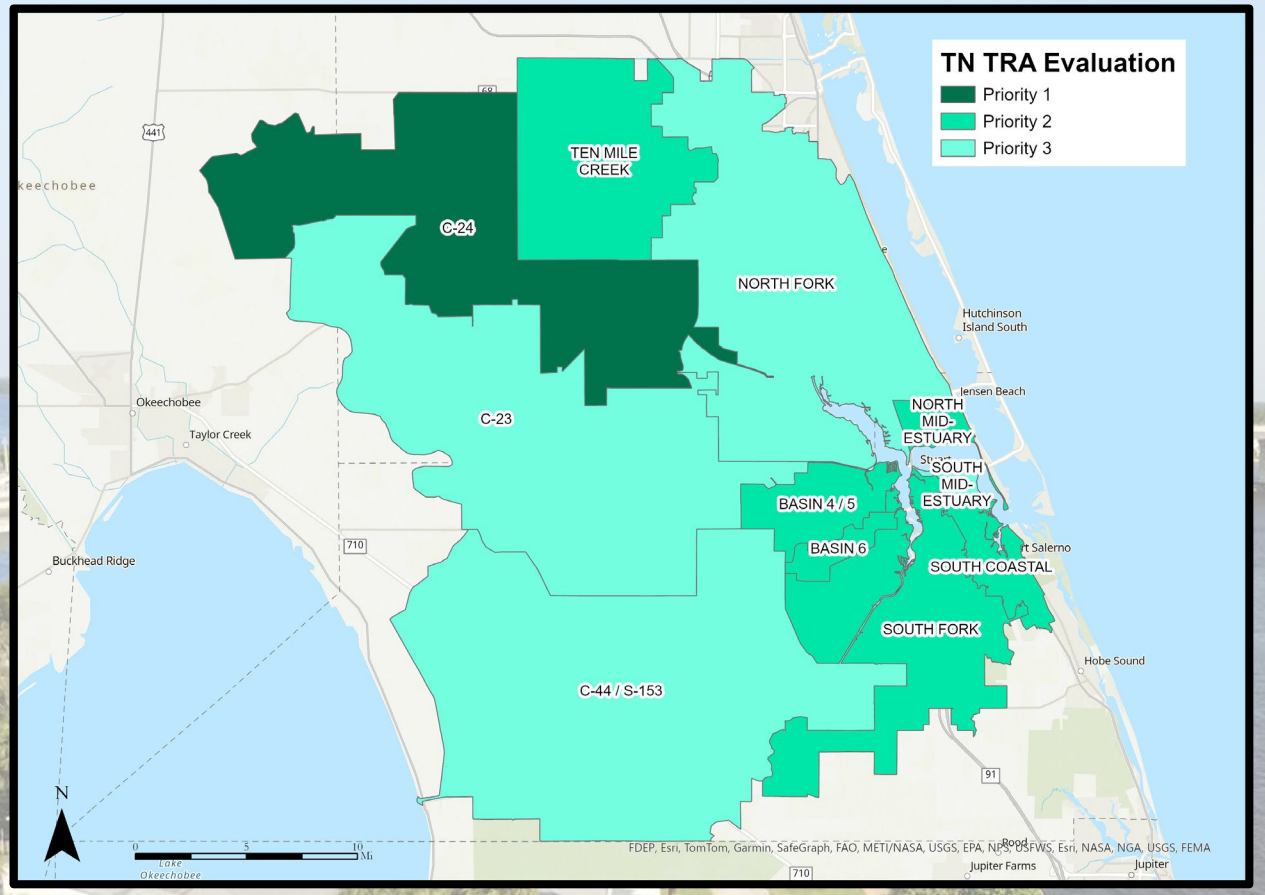
Move up one priority: Statistically significant increasing trend.

Maintain priority: No statistically significant trend.

Move down one priority: Statistically significant decreasing trend.

TRA EVALUATION UPDATE

RESULTS



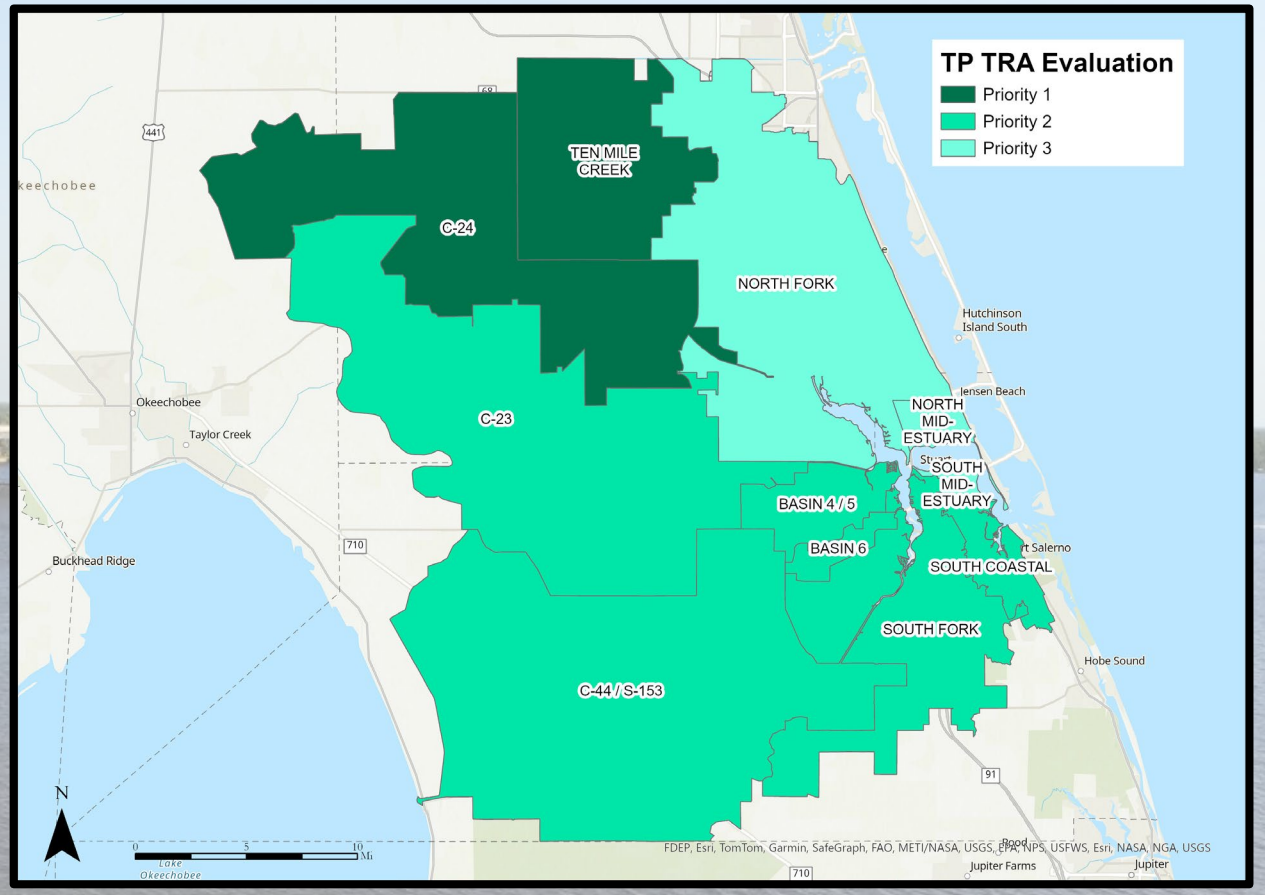
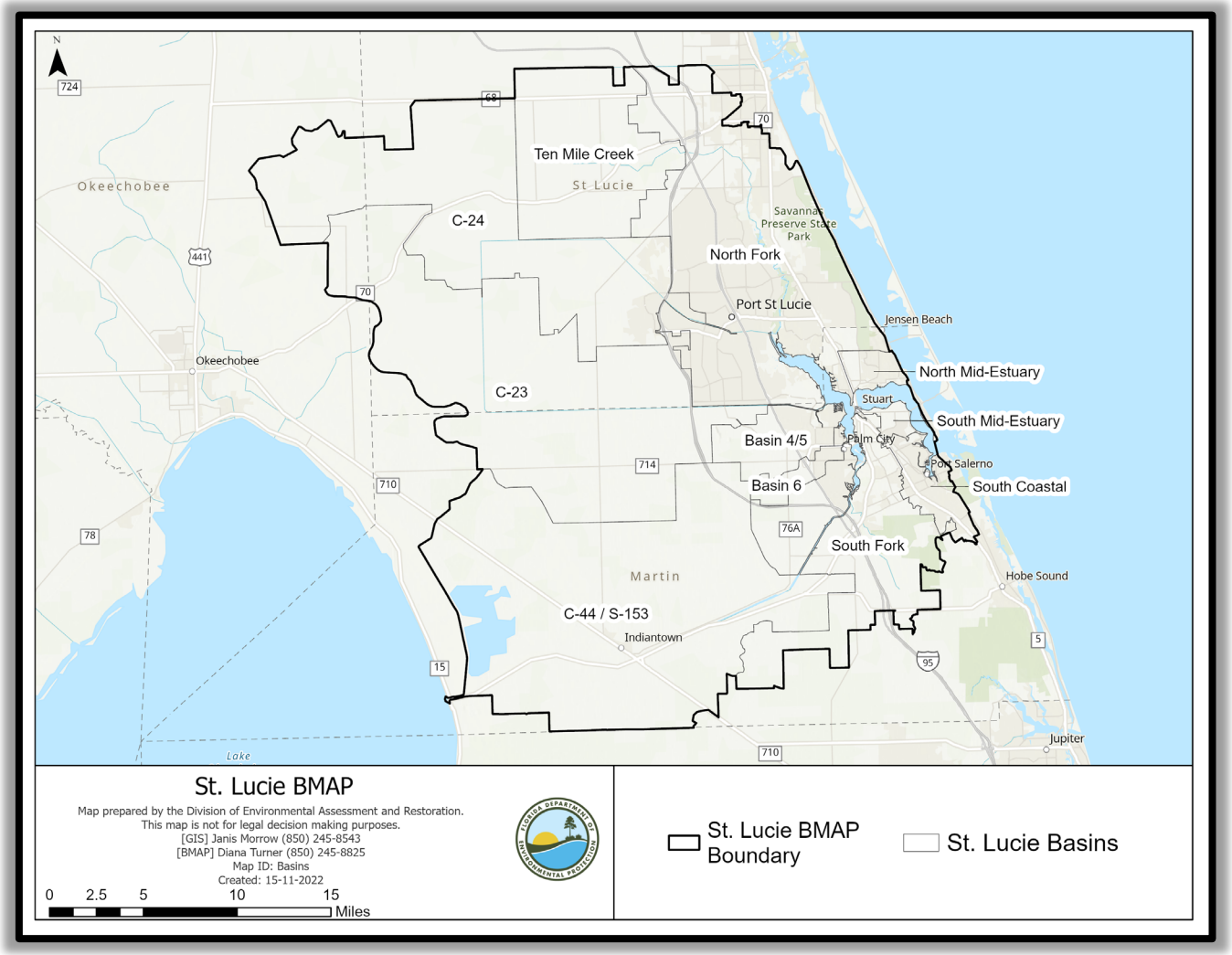


Photo Credit: SFWMD

UPCOMING BMAP UPDATE

COMPONENTS



- Evaluation of wastewater effluent limits.
- Onsite Sewage Treatment and Disposal System (OSTDS) requirements for new systems on lots one acre or less.
- Inclusion of regional projects.
- Inclusion of a hot spot analysis.
- Inclusion of additional water quality analyses.
- Inclusion of any needed updates to the monitoring network.
- Inclusion of the Clean Waterways Act requirements.
- Inclusion of recommendations from the 2023 Five-Year Review.

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.

Compliment to the TRA Evaluation:

- Analysis uses stations with two and five years of data, allowing more monitoring stations to be used.
- Can help narrow down more specific areas in need of attention within the TRA basins.
- Components are independent, rather than sequential.

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 BMAP Threshold.

BMAP Threshold:

- St. Lucie River and Estuary:
  - TN TMDL – 0.72 mg/L
  - TP TMDL – 0.081 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 90th percentile for the whole BMAP.

Rank 0: Station average below BMAP threshold.

Rank 1: Station average above threshold but below 90th percentile.

Rank 2: Station average above 90th percentile.

Standard Deviation (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

Average Rank
+
Percentile Rank
+
SD Rank
+
Frequency Rank

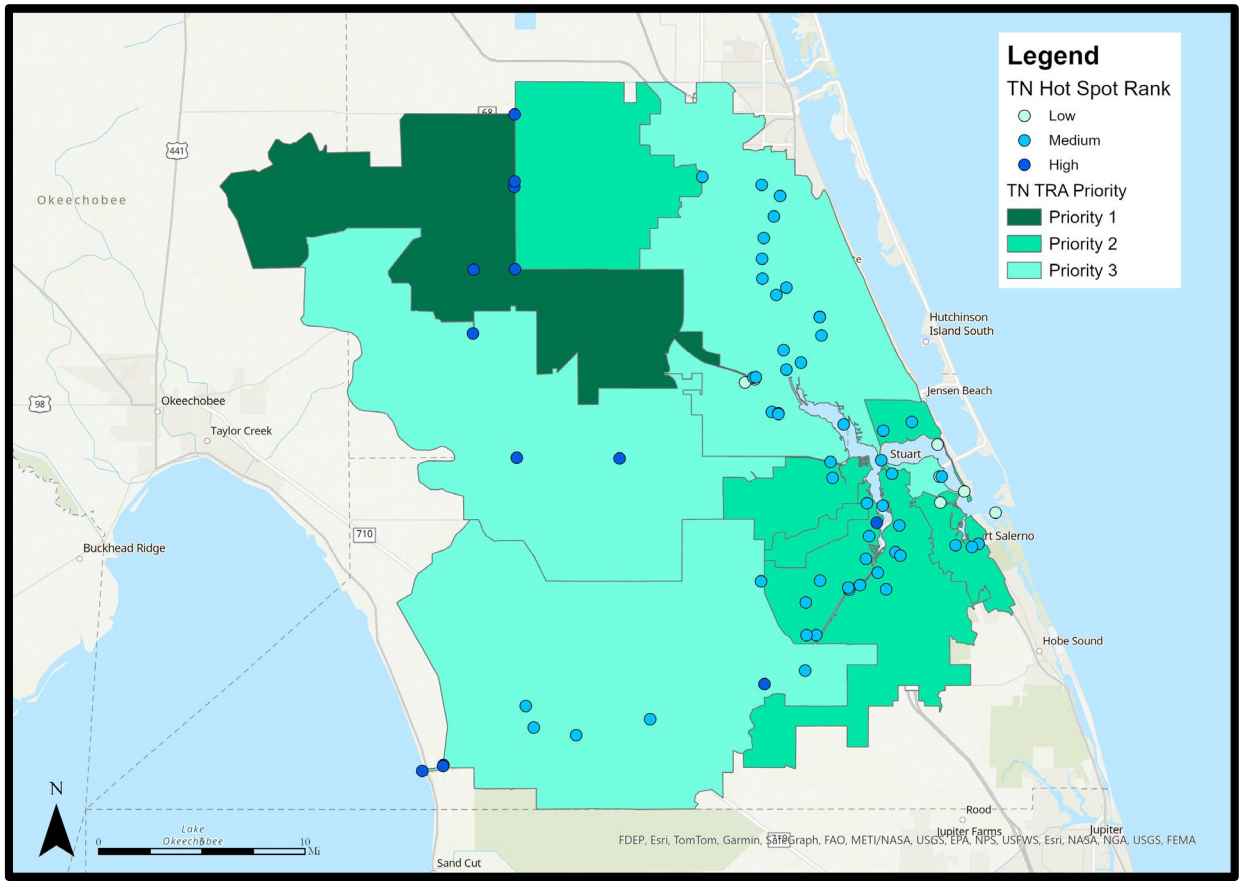
=

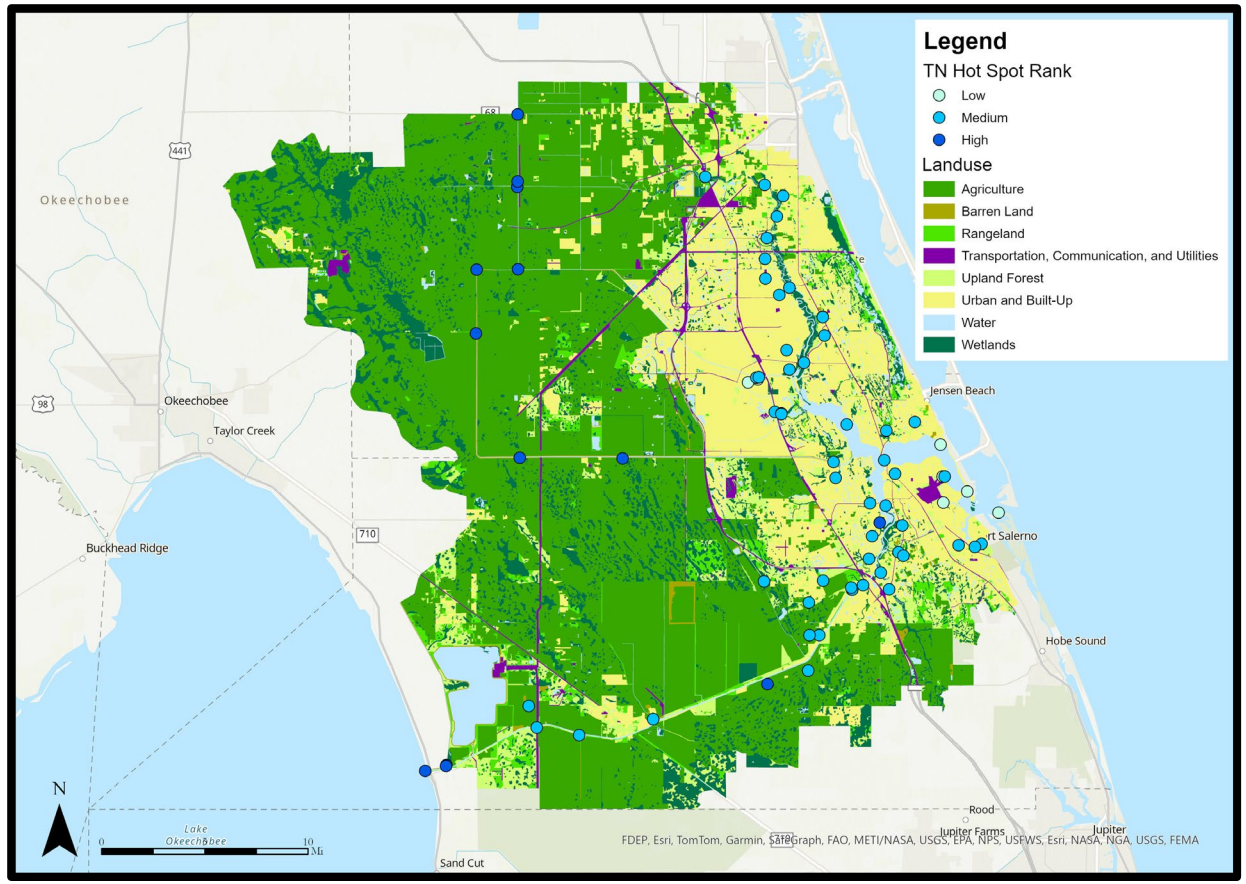
Total Index Rank

Rank 0 = Least Concern
Rank 8 = High Concern

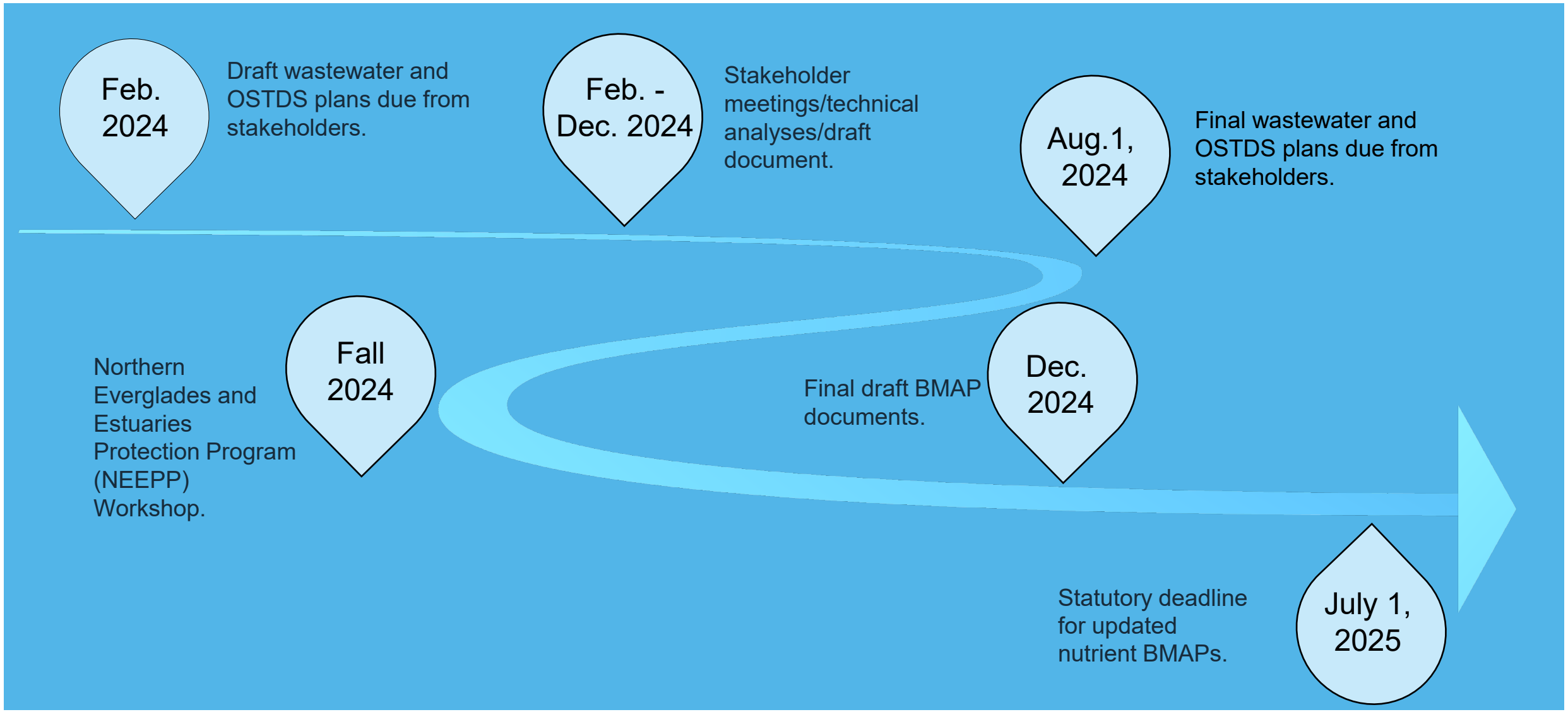
HOT SPOT ANALYSIS RESULTS EXAMPLE

ST. LUCIE TN RESULTS





UPCOMING SCHEDULE



St. Lucie BMAP Annual Meeting

April 3, 2024

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

Overview

- Office of Agricultural Water Policy (OAWP) Staff and Responsibilities
- Agricultural Best Management Practices (BMP)
- BMP Manual Update
- Enrollments within the St. Lucie Basin
  - Unenrolled Agricultural Lands Classification
- BMP Implementation Verification (IVs)
- BMP Enrollment Viewer Web App
- Legislative Report

Office of Agricultural Water Policy (OAWP)

- **West Gregory;** Director West.Gregory@FDACS.gov
- **J.P. Fraites;** Asst. Director John.Fraites@FDACS.gov
- **Bret Prater;** Asst. Director Bret.Prater@FDACS.gov
- **Angela Chelette;** Chief of Policy Planning and Coordination Angela.Chelette@FDACS.gov
- **Steve Smith;** Chief of Field Services Steve.Smith@FDACS.gov

OAWP Staff

- **Yesenia Escribano;** Environmental Administrator-BMAPs Yesenia.Escribano@fdacs.gov
- **Jennifer Thera;** Environmental Consultant-PPC Jennifer.Thera@fdacs.gov
- **Rebecca Elliott;** Environmental Consultant-PPC Rebecca.Elliott@fdacs.gov
- **Raulie Raulerson**; Environmental Administrator-Field Services Raulie.Raulerson@fdacs.gov
- **Vacant**; Environmental Manager-Field Services
- **Sheila Kitaif;** Biological Administrator-Field Services Sheila.Kitaif@fdacs.gov

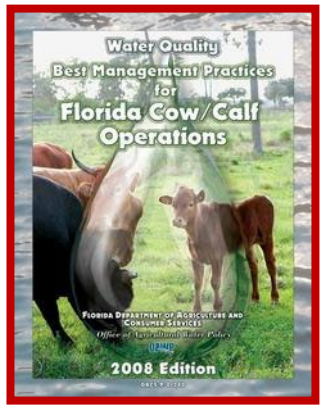
OAWP Responsibilities

- Development and implementation of agricultural best management practices (BMPs)
- Implementation of cost share programs
- Water supply and water quality planning and coordination
- Scientific and technical research
- Other policy development and statutory responsibilities
- Binding determinations

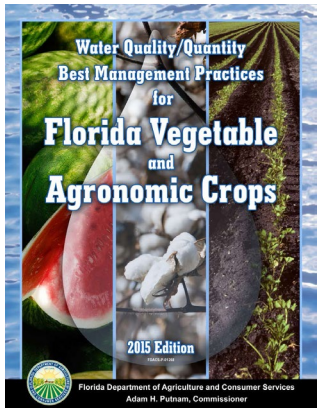
Benefits of Agricultural Best Management Practices

- Management strategies, tools and practices that improve water quality, conserve water, and protect water resources (Efficiency)
- Best available science and technology
- Technical and economic feasibility (Manual)
- Balance productivity with water quality improvement
- Proper implementation confirmed through implementation verification (IV) site visits

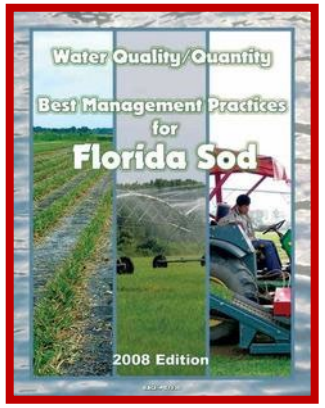
BMP Manuals


Water Quality
Best Management Practices
for
Florida Cow/Calf Operations
2008 Edition


Water Quality/Quantity
Best Management Practices
for
Florida Specialty Fruit and Nut Crops
2011 Edition


Water Quality/Quantity
Best Management Practices
for
Florida Vegetable
and
Agronomic Crops
2015 Edition
Florida Department of Agriculture and Consumer Services
Adam H. Putnam, Commissioner


Water Quality/Quantity
Best Management Practices
for
Florida Equine Operations
2011 Edition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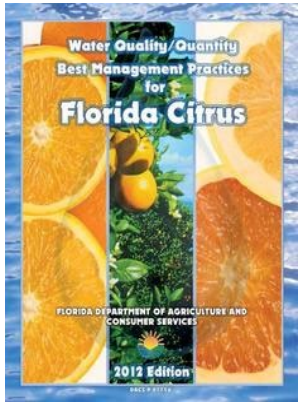
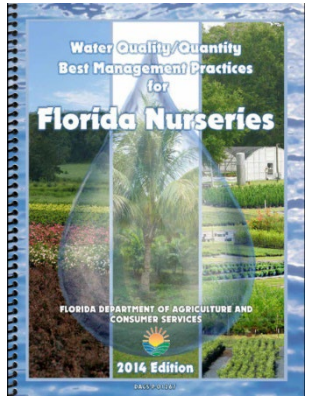
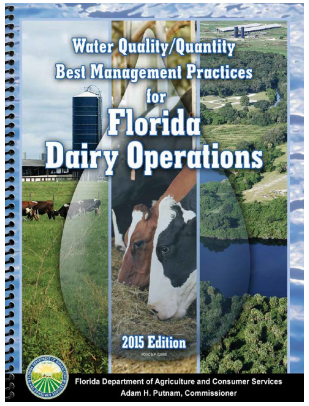
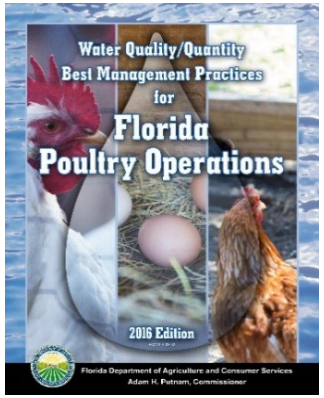
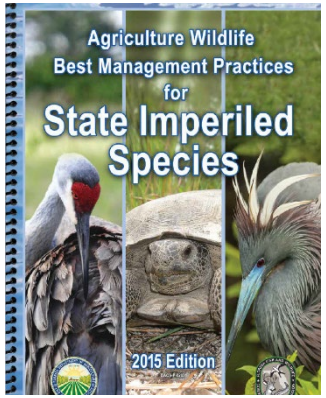

Water Quality/Quantity
Best Management Practices
for
Florida Citrus
2012 Edition


Water Quality/Quantity
Best Management Practices
for
Florida Nurseries
2014 Edition


Water Quality/Quantity
Best Management Practices
for
Florida Dairy Operations
2015 Edition
Florida Department of Agriculture and Consumer Services
Adam H. Putnam, Commissioner


Water Quality/Quantity
Best Management Practices
for
Florida Poultry Operations
2016 Edition
Florida Department of Agriculture and Consumer Services
Adam H. Putnam, Commissioner

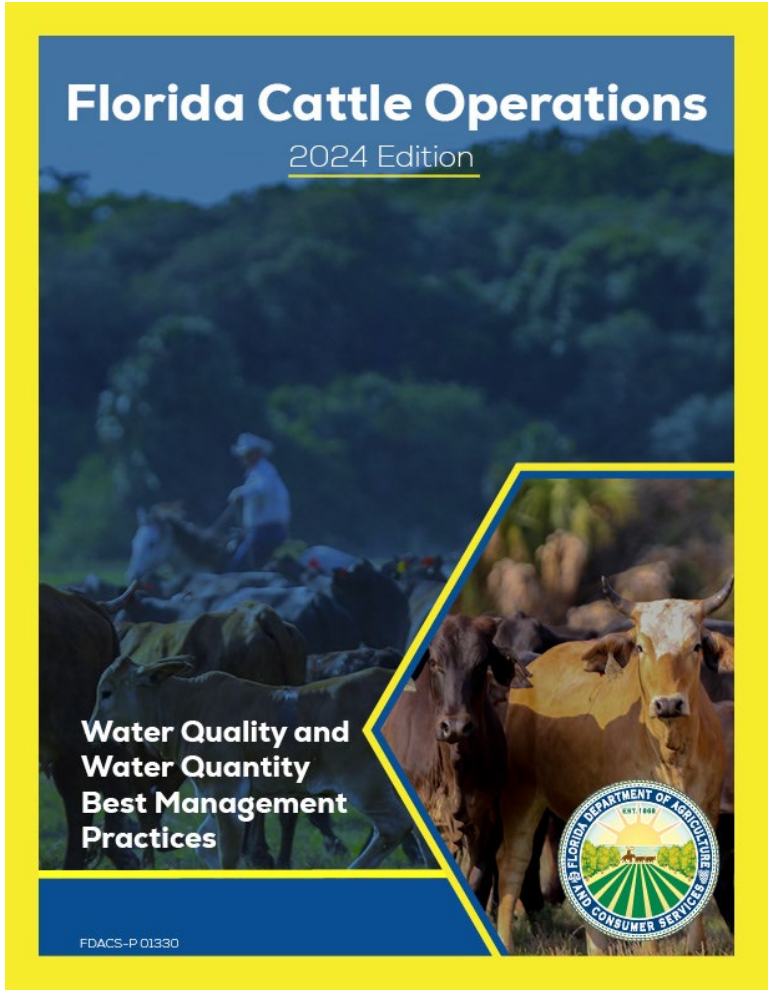

Agriculture Wildlife
Best Management Practices
for
State Imperiled Species
2015 Edition

Update BMP Manuals: Status

Best Management Practices (BMPs)

The producer agrees to perform the following items either checked as "In Use" or "Planned:

Nutrient Management					
Do you apply nutrients or plan to apply nutrients in any form on the operation associated with this NOI?			**Yes**	**No**	**-**
			In Use	**Planned**	**N/A**
1.1	**Right Source**				
	1	If using commercial fertilizer (including Class AA biosolids), identify and document the nitrogen (N), phosphorus (P), and potassium (K) concentrations using the guaranteed analysis or product label information prior to application.			
	2	If using manures, poultry litter, compost, or other sources, determine and document the N, P, and K concentrations of those materials prior to application. Acceptable alternatives to laboratory analysis include supplier analysis, NRCS guidelines or values established in scientific literature.			
	3	If using Class A or Class B biosolids, account for the nutrient concentrations and follow the requirements of the FDEP permit.			
1.2	**Right Rate**				



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 St. Lucie BMAP

Basin/Subbasin	Total Ag Acres	Enrolled Ag Acres	% Enrolled	Irrigated Acres	Enrolled Irrigated Acres	% Enrolled
Basin Total	288,434	215,849	**75%**	60,071	52,637	**88%**
Basin 4/5	2,878	1,594	**55%**	217	157	**72%**
Basin 6	429	152	**36%**	173	55	**32%**
C-23	88,934	69,358	**78%**	8,267	7,471	**90%**
C-24	63,391	49,032	**77%**	13,433	12,385	**92%**
C-44/S-153	74,207	60,237	**81%**	27,301	25,055	**92%**
North Fork	6,977	1,468	**21%**	983	52	**5%**
North Mid-Estuary	2	0	**0%**	2	0	**0%**
South Coastal	28	0	**0%**	0	0	**0%**
South Fork	18,297	13,732	**75%**	4,620	3,812	**83%**
Ten Mile Creek	33,298	20,344	**61%**	5,072	3,674	**72%**

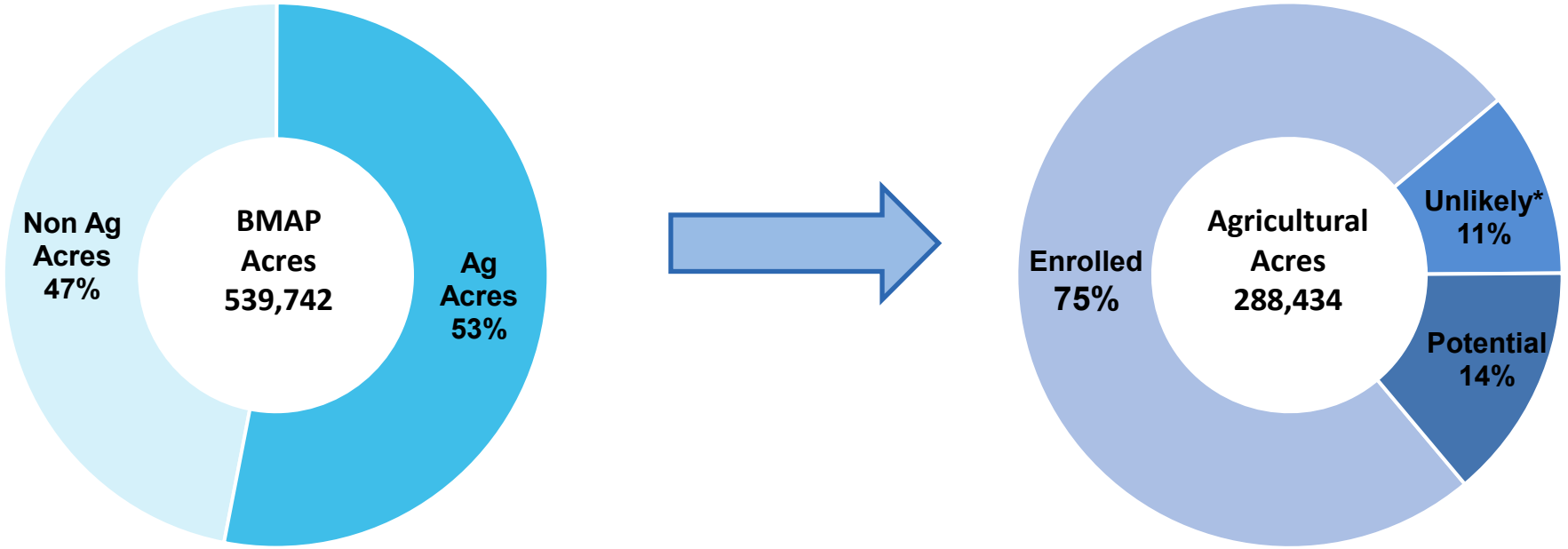
BMP enrollment as of Dec 31, 2023, and the 10th Florida Statewide Agricultural Irrigation Demand (FSAID) Geodatabase

Agricultural Acres Enrolled within St. Lucie BMAP

BMP Manual	Acres
Citrus	6,321
Cow/Calf	121,142
Dairy	617
Equine	657
Fruit & Nut	224
LOPP	3
Multiple Commodities	70,927
Nursery	935
Poultry	42
Row/Field Crop	14,041
Sod	930
Wildlife	10
Total	**215,849**

Agricultural Lands within St. Lucie BMAP

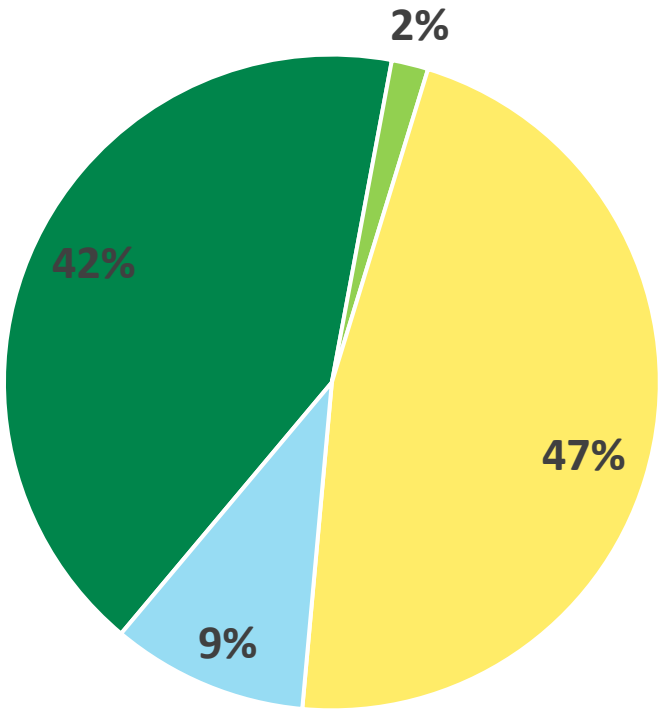
Non-Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Unenrolled - Unlikely Enrollable Acres *	Unenrolled - Potentially Enrollable Acres
251,308	288,434	215,849	32,186	40,340



*This value includes acreages within state-owned properties and/or surface water project areas

Unenrolled - Unlikely Enrollable Acres within St. Lucie BMAP

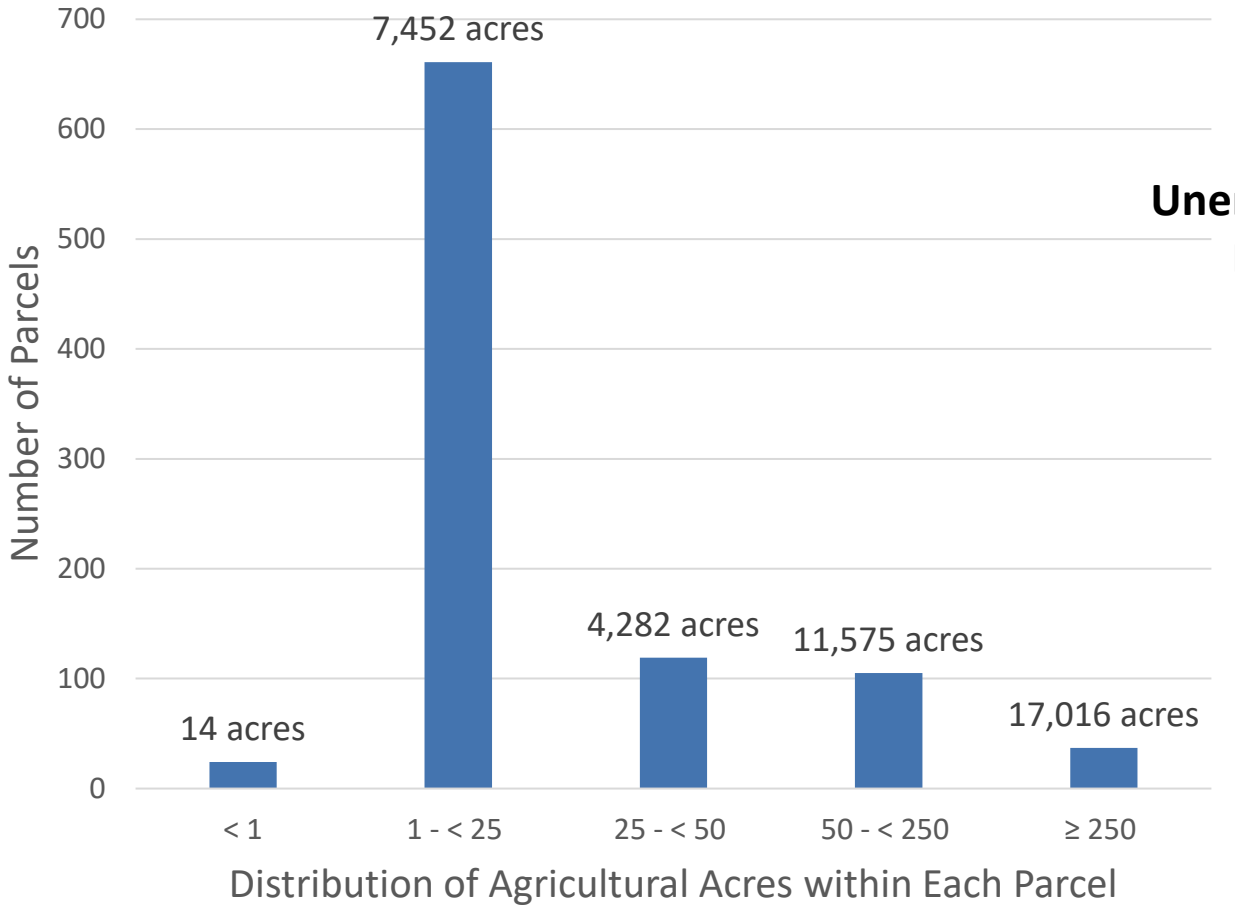
Category	Acres
State Lands, Surface Water Projects	13,461
Timberland and Aquaculture**	582
Not Agriculture [e.g., DOR Use Code 70-99 (industrial or institutional use, acreage not zoned agricultural)]	15,030
Not Enrollable [e.g., missing parcel information, no overlap, conflicting parcel info, slivers]	3,113



Unenrolled - Unlikely Enrollable Acres = 32,186

** *May be eligible to be enrolled under the FDACS Florida Forest Service's Silviculture BMP Manual or the FDACS Division of Aquaculture's Aquaculture BMP manual.*

Potentially Enrollable Parcels & Agricultural Acres within St. Lucie BMAP



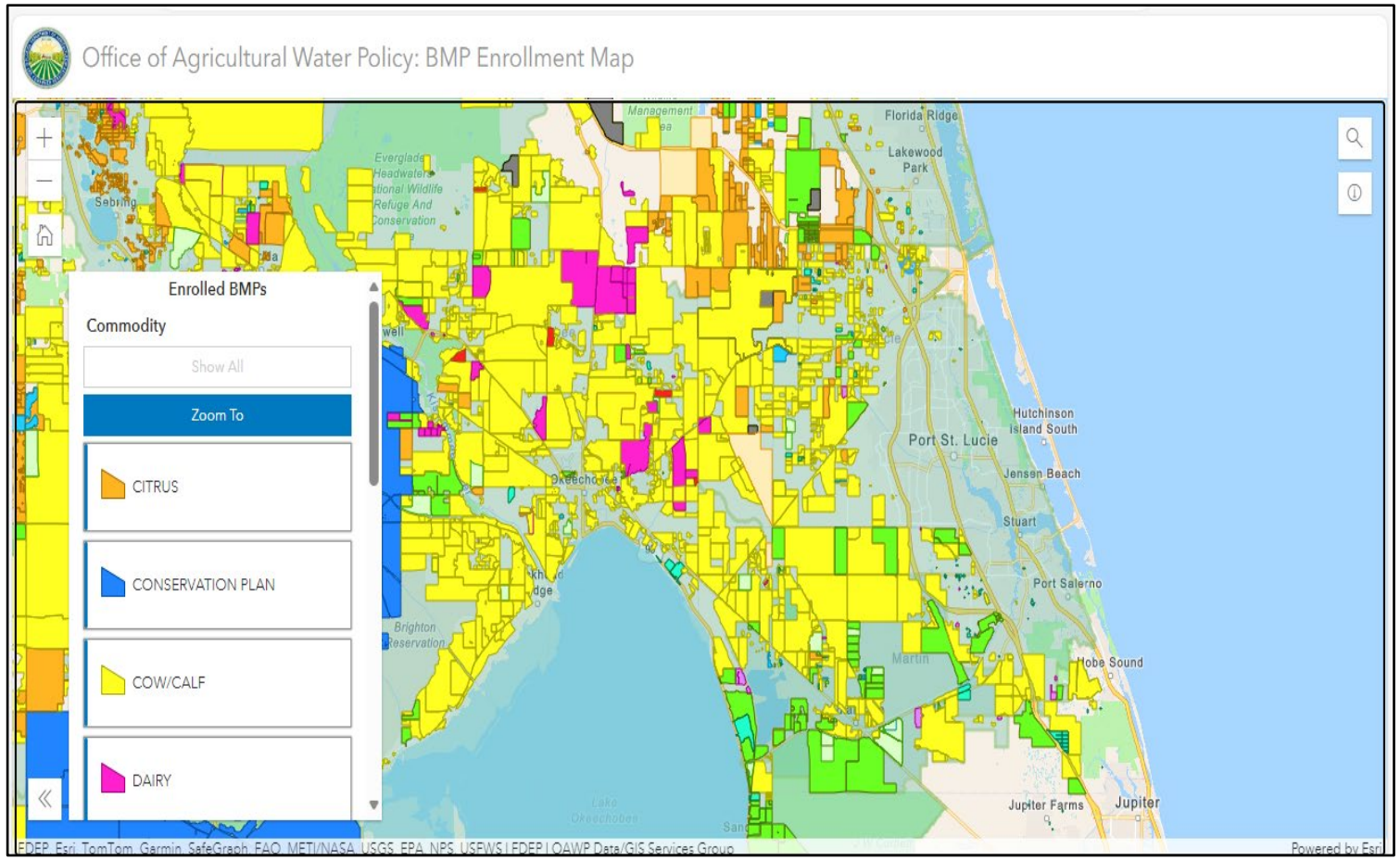
Unenrolled - Potentially Enrollable Acres = 40,340

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
    - 90% 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, 2023

BMP Enrollment Viewer Web App



[Office of Agricultural Water Policy: BMP Enrollment Map (fdacs.gov)]

2024 FDACS Legislative Report

Florida Department of Agriculture and Consumer Services

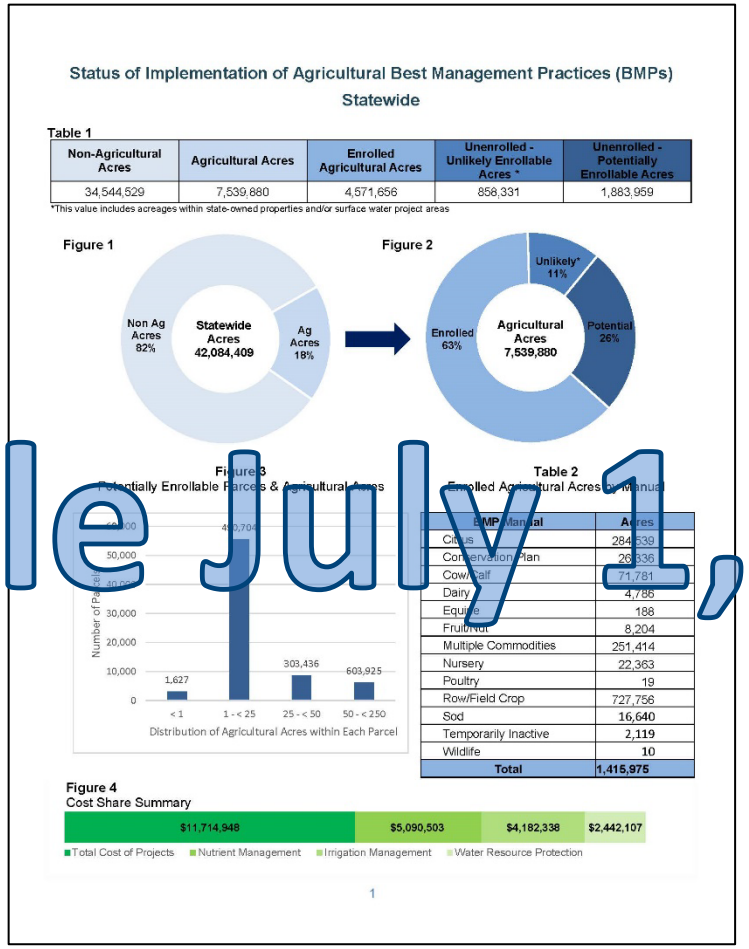
Office of Agricultural Water Policy

Status of Implementation of Agricultural Nonpoint Source Best Management Practices

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

Available July 1, 2024



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

Table 1

Non-Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Unenrolled - Unlikely Enrollable Acres *	Unenrolled - Potentially Enrollable Acres
34,544,529	7,539,880	4,571,656	858,331	1,883,959

*This value includes acreages within state-owned properties and/or surface water project areas

Figure 1

Figure 2

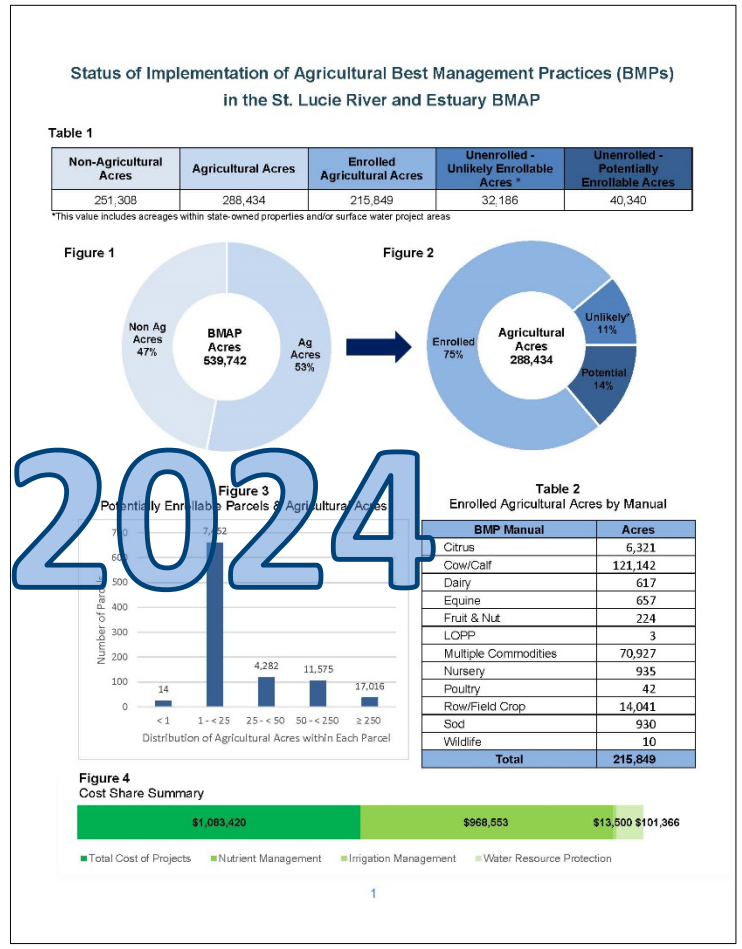
Figure 3
Potentially Enrollable Parcels & Agricultural Acres

Table 2
Enrolled Agricultural Acres by Manual

BMP Manual	Acres
Citrus	284,539
Conservation Plan	26,336
Cow/Calf	71,781
Dairy	4,786
Equine	188
Fruit/Nut	8,204
Multiple Commodities	251,414
Nursery	22,363
Poultry	19
Row/Field Crop	727,756
Sod	16,640
Temporarily Inactive	2,119
Wildlife	10
Total	1,415,975

Figure 4
Cost Share Summary

1



Status of Implementation of Agricultural Best Management Practices (BMPs)
in the St. Lucie River and Estuary BMAP

Table 1

Non-Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Unenrolled - Unlikely Enrollable Acres *	Unenrolled - Potentially Enrollable Acres
251,308	288,434	215,849	32,186	40,340

*This value includes acreages within state-owned properties and/or surface water project areas

Figure 1

Figure 2

Figure 3
Potentially Enrollable Parcels & Agricultural Acres

Table 2
Enrolled Agricultural Acres by Manual

BMP Manual	Acres
Citrus	6,321
Cow/Calf	121,142
Dairy	617
Equine	657
Fruit & Nut	224
LOPP	3
Multiple Commodities	70,927
Nursery	935
Poultry	42
Row/Field Crop	14,041
Sod	930
Wildlife	10
Total	215,849

Figure 4
Cost Share Summary

1

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

Thank You!

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

Jennifer Thera, Environmental Consultant
Jennifer.Thera@FDACS.gov – (850) 617-1722

THANK YOU

Diana Turner
Division of Environmental Assessment
and Restoration
Florida Department of Environmental Protection

Contact Information:
850-245-8825
Diana.M.Turner@FloridaDEP.gov

Photo Credit: SFWMD

St. Lucie River and Estuary Basin Management Action Plan (BMAP) Webinar Summary

Wednesday, April 3, 2024

1:00 pm – 1:54 pm

Participants

Silvia Alderman, Akerman
Cassondra Armstrong, DEP
Jana Ash, RES
Christian Avila, SFWMD
Taufiqul Aziz, DEP
Bill Baker, MacVicar Consulting
Bethany Barnes, Tampa Bay Times
Venetia Barnes, Fort Pierce
Janelle Barriero, Florida Senate
Mark Barton, SFWMD
Sandra Bogan, St. Lucie County
Beth Brady, Save the Manatee
Patricia Burke, SFWMD
Ben Butler, Citizen
Carolin Ciarlariello, DEP
Kelly Cox, Audubon
Kevin Coyne, AMP
Franscesca DiJuio, Everglades Law
Rebecca Dougherty, SFWMD
Terence Duffy, Citizen
Amy Eason, Martin County
Bill Eggers, Evans
Katherine English, Pavese Law
Amanda Exposito-Ferree, Atkins Realis
Elizabeth Fata Carpenter, Everglades Law
Jay Ferrin, Florida Senate
Jessica Fetgatter, DEP
Jake Fojtik, Florida Farm Bureau
Marcy Frick, Tetra Tech
Brandon Friedman, St. Lucie County
Joe Gilio, Citizen
Diane Goldberg, Citizen
Jim Gorton, Martin County
Rebecca Groover, FOWA
Raichel Gulde, RES
Chris Guth, Federico & Associates
Sam Hankinson, DEP
Maddy Hart, FDACS
Kenny Hayman, DEP
Margarita Hernandez, DEP
Moira Homann, DEP
Brian Ingram, St. Lucie County
Nenad Iricanin, SFWMD
Danielle Ivey, Audubon
Megan Jacoby, SFWMD
Paul Julian, Everglades Foundation
Chandler Keenan, DEP
Chris Keller, Wetlands Solutions
Elizabeth Kelly, Martin County
Evan Key, DEP
Lisa Kreiger, Lee County
Lisa Krimsky, UF
Tricia Kyzar, UF
Kathy LaMartina, SFWMD
Jacob Landfield, SFWMD
Juli LaRock, SFWMD
Ivette Leiva, FDOT
Nichola Linehan, St. Lucie County
Andrew Luering, DEP
Jonathan Madden, SFWMD
Valentina Miele, Florida Oceanographic Society
Joshua Miller, SLWSD
Jessica Mostyn, DEP
Caitlin Newcamp, Citizen
Stacey Ollis, SFWMD
Steffany Olson, SFWMD
Sara Ouly, SFWMD
Melanie Parker, SFWMD
Mark Perry, Florida Oceanographic Society
Libby Pigman, SFWMD
Nicolas Pisarello, ATM
Robert Potts, ATM
Jeff Prater, USACE
Allyson Reinert, DEP
Jennifer Reynolds, SFWMD
HM Ridgely, Evans Properties
Rhonda Roff, Citizen
Ellen Rogers, Florida Senate
Beth Ross, Gunster
Elianni Ruiz de la Cruz, Higgins Engineering
Zack Sampson, Tampa Bay Times
Marlene Severino, DEP

Jordan Skaggs, DEP
Gil Smart, Friends of the Everglades
The Florida Channel
Jennifer Thera, FDACS
Raychel Thomas, Pavese Law
Frank Tidikis, Citizen
Diana Turner, DEP
Rachel Vitek, RES
Shreya Vuttaluru, Tampa Bay Times
Jessica Wakefield, SFWMD
Youchao Wang, SFWMD
Benita Whalen, Dispersed H2O

The full webinar recording and supporting materials are posted to the Florida Department of Environmental Protection (DEP) file transfer protocol (FTP) site at https://publicfiles.dep.state.fl.us/DEAR/BMAP/StLucie/Meetings/2024/Annual%20Meeting/.

Questions and Answers

Question on the DEP presentation: When will you be updating the stakeholder list to include new community development districts (CDDs) and other stakeholders?
Answer from Diana Turner, DEP: We will do that as part of the BMAP update.

Question: Can you provide an update of the changes to Section 403.086?
Answer: House Bill 1557/Senate Bill 1386 has not been signed yet.

Question: Please define surface water discharge and clarify what the definition means within 403 when it says "thereto."
Answer: This question is best directed to the Division of Water Resource Management within DEP.

Question: Please provide insight into the advanced wastewater treatment (AWT) requirements relating to reuse systems. After meeting with DEP Division of Water Resource Management/Wastewater Management Program last week at Focus on Change, it was stated that Reuse Discharge for Irrigation Systems Standards are being proposed by legislature to be more stringent (i.e. meet AWT 5,5,3,1). Please provide insight on this matter and a timeline if it is so.
Answer: This question is best directed to the Division of Water Resource Management within DEP. House Bill 1557/Senate Bill 1386 has not been signed yet.

Question: Nutrient contributions for Lake Okeechobee discharges should be included in the required reductions in future iterations of the BMAP/total maximum daily load (TMDL). By our calculations, which are based upon the biweekly sampling at the S-80 structure, 52 billion gallons of water from Lake Okeechobee has been discharged into the estuary over the past 42 days, resulting in a contribution of more than 600 tons of nitrogen into the system. The concentration for total nitrogen (TN) increased from 0.9 to 2.76 milligrams per liter (mg/L), and the concentration for total phosphorus (TP) increased from 0.09 to 0.34 mg/L with the releases from Lake Okeechobee, with little to no local basin runoff contribution during this time. The river and estuary will never reach restoration goals with these egregious unchecked contributions from the Lake. When we bring these concerns up to the Army Corps of Engineers, they indicate that they are charged with flood control, not water quality and that we should address water quality concerns with the appropriate agency, which is DEP. The TMDL and resultant BMAP must identify and hold accountable all contributions to the estuary otherwise it will not be successful. How will DEP account for and elicit nutrient reductions for releases from Lake Okeechobee?
Answer: The TMDL and BMAP identify Lake Okeechobee contributions as part of the total loading to the estuary. The BMAP is focused on reductions to the St. Lucie River and Estuary watershed, where the

local stakeholders can implement projects to reduce nutrient loading. Nutrient loading contributions to Lake Okeechobee are addressed through the Lake Okeechobee BMAP. Reductions made by the local stakeholders and state agencies in the Lake Okeechobee Watershed will help to benefit the estuaries.

Question: As shown in the beginning slides, please consider adding all additional CDDs in the next update. Specifically, please include the entire CDD boundaries in the determination of their starting loads and their load reductions. Many of these CDDs are under development of regional impacts (DRI) and development orders where they are determining their proposed land uses and stormwater management systems. Although many start off with agricultural land uses, once the boundary is approved, the loads should go to the CDDs since they are the governing bodies that manage their stormwater systems and determine their land uses not the MS4.
Answer: Additional CDDs that meet the three criteria for allocations will be included as allocated stakeholders part of the next BMAP update.

Question: We appreciate the additional storage and treatment of the South Florida Water Management District (SFWMD) projects that are underway. How will the reductions from these projects be distributed to the stakeholders? Martin County has previous agreements with the SFWMD due to our financial contribution to the project on the distribution of the reductions from the C-44 reservoir that should be honored during the next update.
Answer: The reductions from regional projects completed by the Coordinating agencies (SFWMD, DEP, and Florida Department of Agriculture and Consumer Services [FDACS]) will go towards achieving reductions needed on agricultural lands that are above and beyond requirements for owner-implemented best management practices (BMPs).

Question: As a suggestion, please include within the targeted restoration area (TRA) analysis the availability of public lands for projects. Targeting basins on the water quality data should be priority, but if land is not available in the basin, it will be hard to create projects to provide reductions.
Answer: This suggestion is noted. Consideration for public lands can be a factor used once the high priority basins have been identified and additional analyses are occurring.

Question: According to the TRA and the hotspot analysis, it appears that the C-24 basin is identified as priority 1 and the most impaired. Most of that basin is agricultural, yet according to FDACS' presentation, most of the land has been enrolled in the BMP notice of intent (NOI) program. How will projects be prioritized in this basin if agricultural land is presumed under rule to meet the water quality requirements when they are enrolled in the program?
Answer: Agricultural producers in a BMAP are required to either implement BMPs from the appropriate FDACS manual or monitor water quality. The owner implemented BMPs will achieve a portion of the reductions needed from the agricultural lands. The Coordinating Agencies will work with producers and local stakeholders to identify additional projects (such as agricultural cost-share or regional treatment) to meet the remaining required reductions.

Question: Any water quality sampling results that are taken during Lake Okeechobee discharges or for a period of time after these discharges should be removed from any TRA or hotspot analysis since DEP presumes within this TMDL/BMAP that Lake Okeechobee is meeting its water quality limits. These results skew the analysis and inappropriately assign those impacts to local stakeholders and are contrary to the original assumption that Lake Okeechobee is not impaired.

Answer: The TRA evaluation and hotspot analysis are not used to assign load reductions to the stakeholders. These evaluations are used to determine areas of the watershed in which resources should be focused to achieve the TMDL. Consideration could be given in the evaluations about whether results include lake releases when determining what actions are needed in a priority basin.

Question: Please take note that most of the hotspots are in agricultural areas and provide solutions on how we can address these areas in the next BMAP iteration.
Answer: Owner-implemented agricultural BMPs will achieve a portion of the reductions needed from the agricultural lands. The Coordinating Agencies will work with producers and local stakeholders to identify additional projects (such as agricultural cost-share or regional treatment) to meet the remaining required reductions. If you have potential project ideas and/or project locations, please share those with DEP for evaluation.

Question: We appreciate FDACS showing a slide on the agricultural rule. How will FDACs address water quality impairments on agriculture that is enrolled in the BMP NOI program? If a municipal separate storm sewer system (MS4) samples an agricultural area that is enrolled and discovers that it is not meeting the BMAP, what should the MS4 do? Report it to FDACS?
Answer: Owner-implemented BMPs may not fully achieve nutrient reductions needed to meet TMDL and BMAP requirements. If an MS4 identifies potential water quality concerns on an agricultural property, they can contact FDACS for follow up.

Question: When the DEP Stormwater Rule gets signed by the governor, how will the extra reductions be handled? The stormwater rule requires 95% reduction in Outstanding Florida Waters (OFWs). This will be extra load reductions for the watershed. Will each MS4 need to track the extra reductions?
Answer: BMAP credits are assigned for nutrient reductions that occur above and beyond any permit requirements. Future projects implemented under the revised stormwater rule requirements will need to be meet the new required treatment efficiencies. If additional reductions are provided beyond those requirements, BMAP credit could be provided for that additional treatment. The higher treatment requirements under the new rule will reduce the water quality impacts from development.

Question: Loading should be determined through sampling and scientific data rather than land use estimates wherever possible.
Answer: Noted. Measured loading information is used in evaluations, where available.