Everglades West Coast & Caloosahatchee River and Estuary BMAPs Annual Meeting

Via Webinar
April 2, 2024
1:00 PM

Webinar Registration Link:
https://attendee.gotowebinar.com/register/8528079803719458649

Agenda

- South Florida Water Management District (SFWMD) Updates
- Statewide Annual Report (STAR)
- Everglades West Coast Background and Progress
- Caloosahatchee Background and Progress
- Upcoming BMAP Updates
- 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 on Caloosahatchee, contact: Diana Turner, 850-245-8825, Diana.M.Turner@FloridaDEP.gov
For more information on Everglades West Coast, contact: Evelyn Becerra, 850-245-8547,
Evelyn.Becerra@FloridaDEP.gov

WEBINAR HOUSEKEEPING

Attendee Participation

Open your control panel.

Join audio:

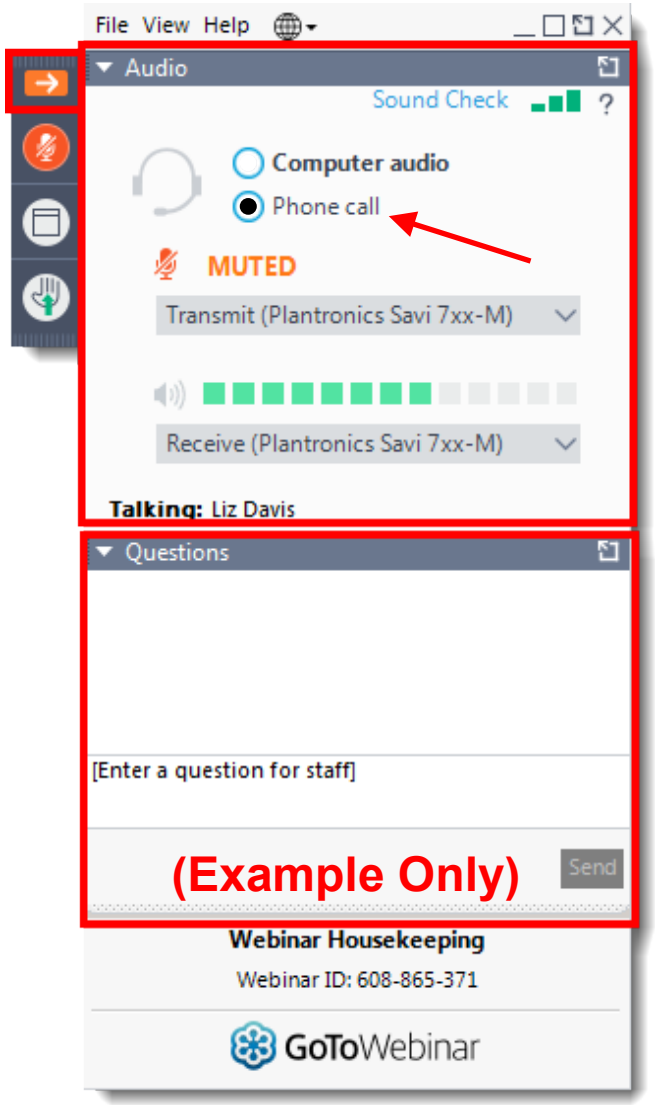
- Choose Computer Audio **or**
- Choose Phone Call and dial using the information provided with your registration

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.



EVERGLADES WEST COAST AND CALOOSAHATCHEE BASIN MANAGEMENT ACTION PLANS (BMAP) ANNUAL MEETING

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

GoToWebinar | April 2, 2024

Photo Credit: SFWMD

ANNUAL MEETING AGENDA

Agenda:

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


Photo Credit: SFWMD

SFWMD Update

Caloosahatchee River Watershed Construction Project

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

Caloosahatchee River and Estuary BMAP Annual Meeting

April 2, 2024

Agenda


Caloosahatchee Estuary
Oyster Reef

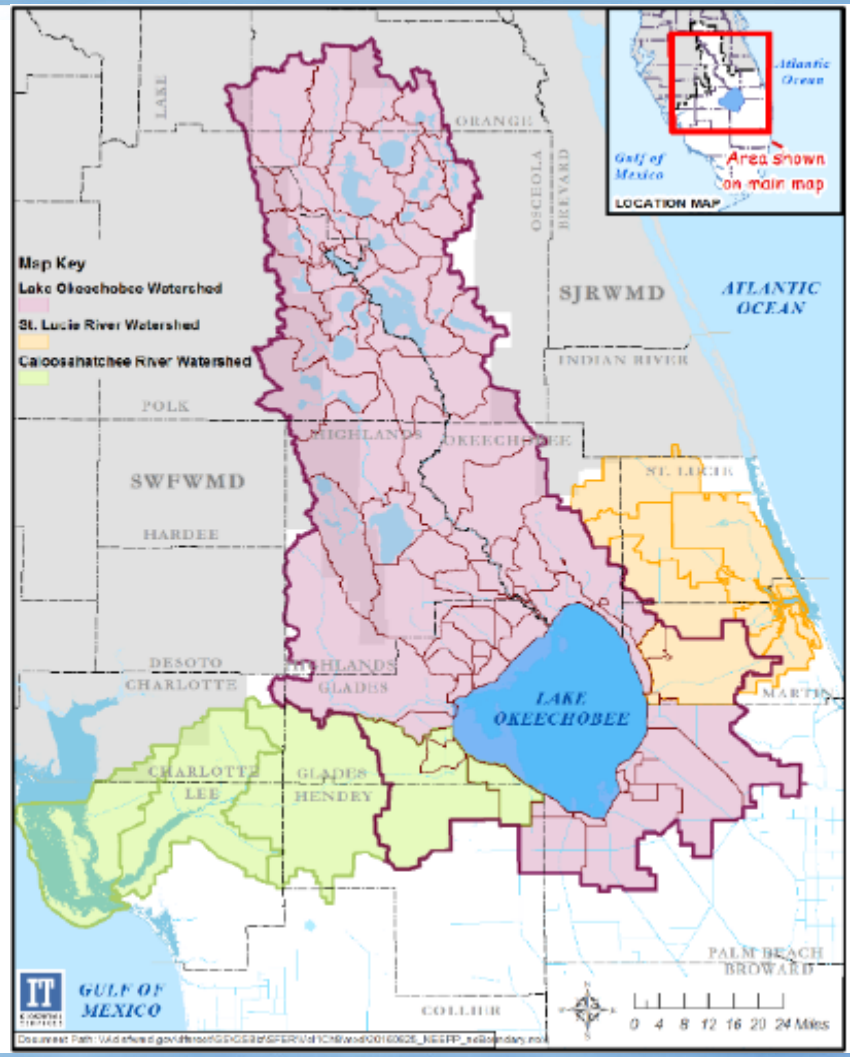
- Northern Everglades Program Overview
- 2023 Caloosahatchee River Watershed Construction Project Review
  - Project Spotlights
  - Water Storage Benefits
- Watershed Protection Plan Reporting

Northern Everglades and Estuaries Protection Program (NEEPP)

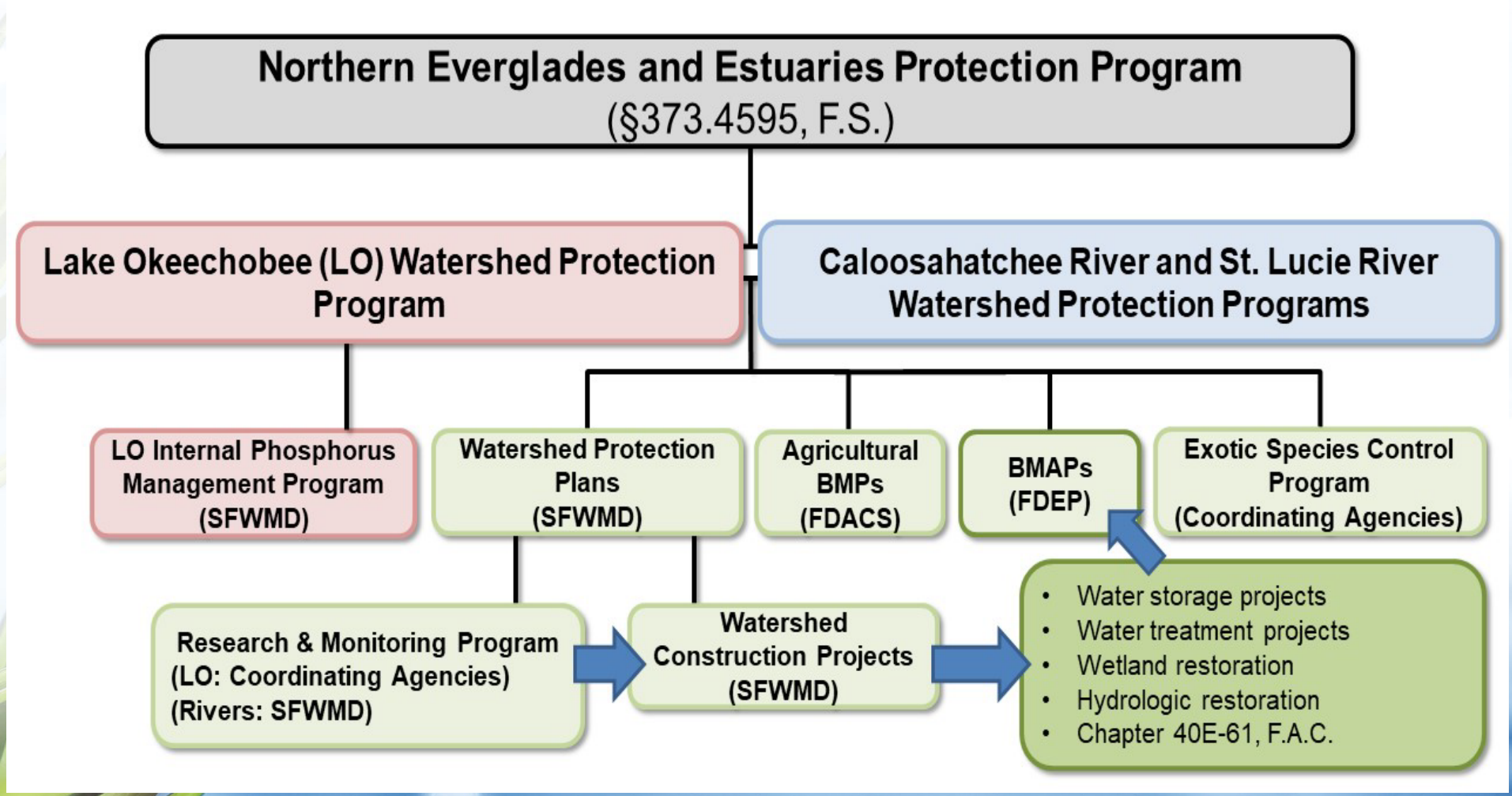
- Purpose: Protect and restore surface water resources by improving hydrology and water quality for the Northern Everglades ecosystem (§373.4595, Florida Statutes)

- 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



NEEPP: Coordinating Agencies Roles



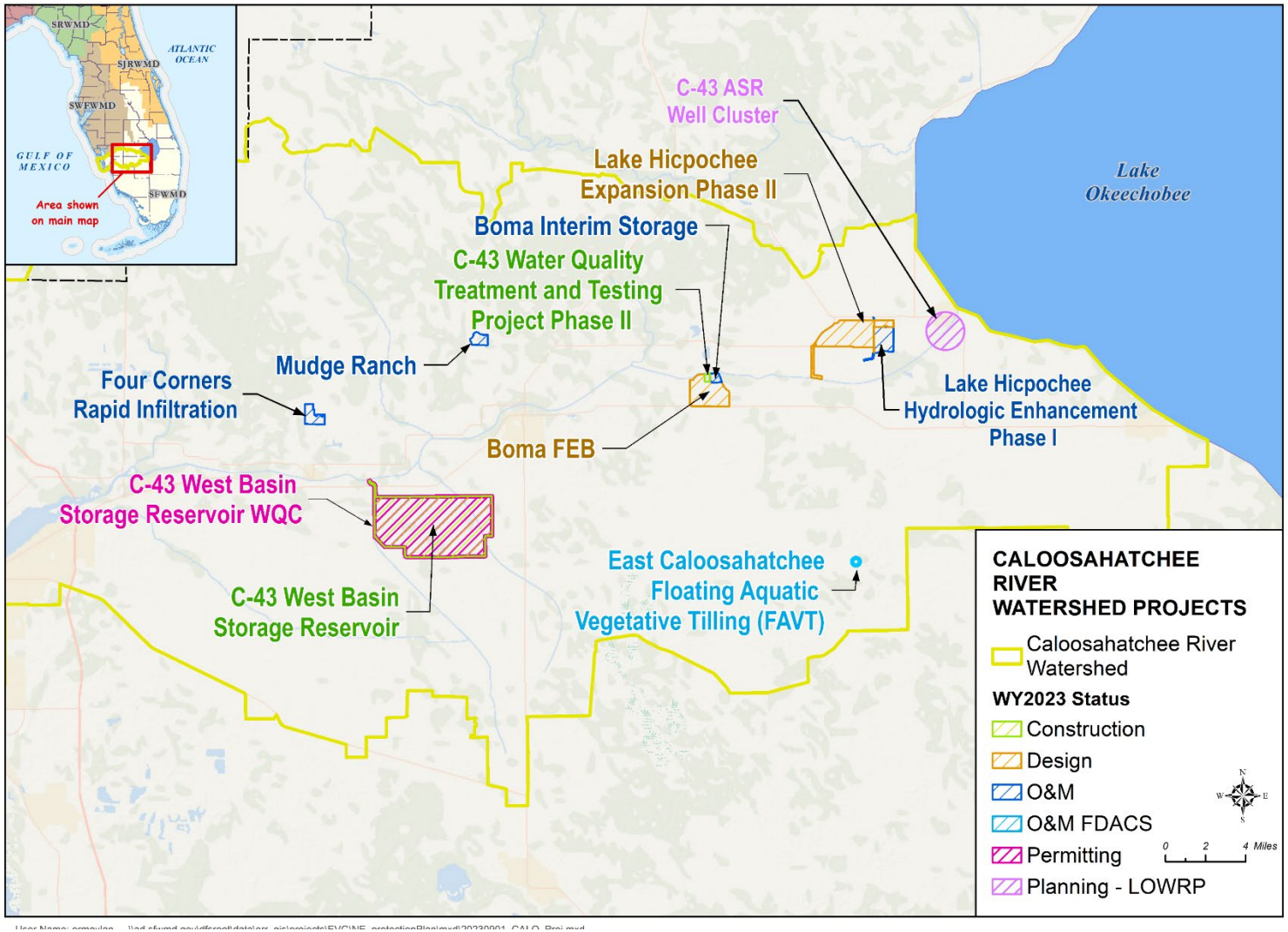
Presenter: Stacey Ollis

Caloosahatchee River Watershed Construction Project Review

- In 2020, SFWMD initiated annual Caloosahatchee River Watershed Construction Project (CRWCP) 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 CRWCP Review
  - Key accomplishments during Fiscal Year (FY) 2023 (Oct. 1, 2022–Sept. 30, 2023)
  - Final 2024 SFER – Volume I, Chapter 8D (March 1, 2024) at SFWMD.gov/SFER

SFWMD Projects

- FY2023 CRWCP Status:
  - 1 project – planning
  - 3 projects – design/permitting
  - 2 projects – construction
  - 4 projects – operations



Project Spotlights

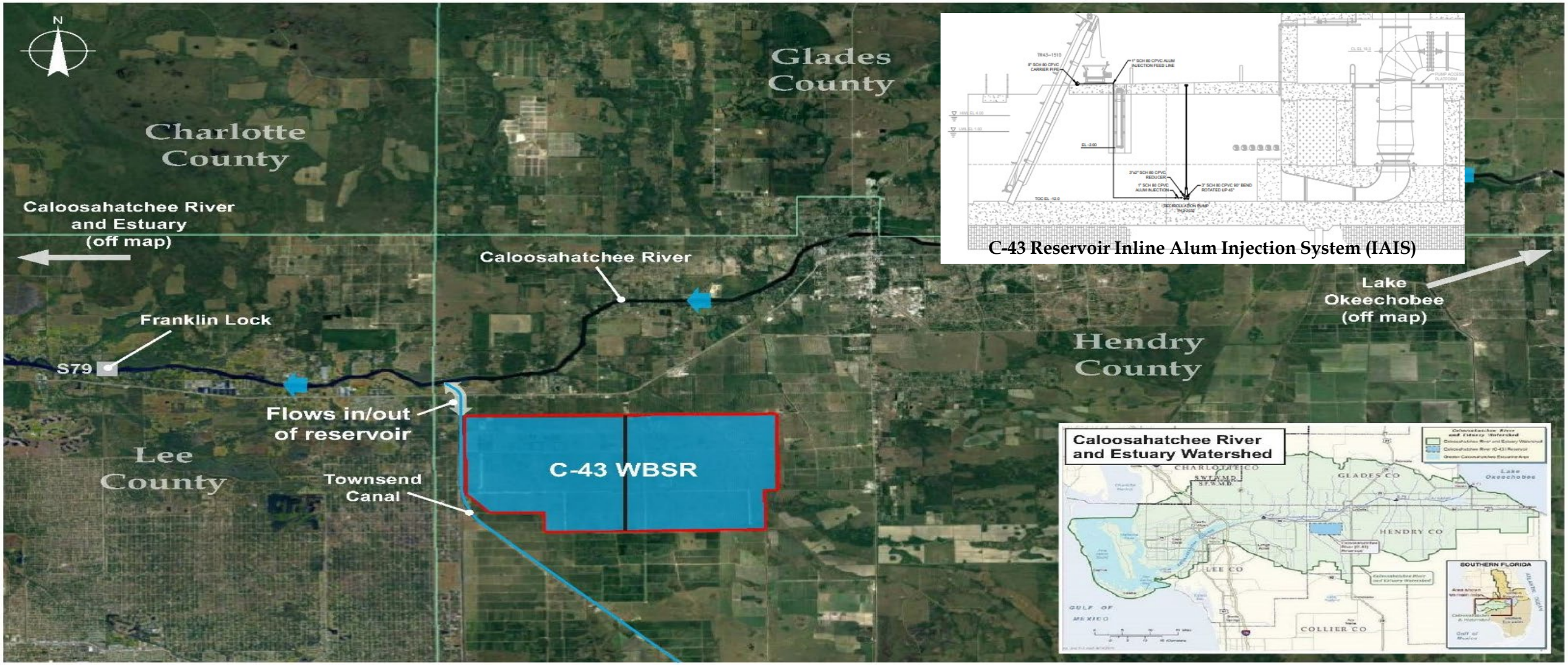
- C-43 West Basin Storage Reservoir and Water Quality Component
- Four Corners Rapid Infiltration
- Boma Flow Equalization Basin (FEB)
- C-43 Water Quality Treatment & Testing Facility – Phase II, Test Cells
- Lake Hicpochee Hydrologic Enhancement – Phase II Expansion

C-43 Reservoir Pump Station Ribbon Cutting (Dec'2023)

C-43 West Basin Storage Reservoir

Southwest corner of C-43 Reservoir

C-43 Reservoir Water Quality Component



Four Corners Rapid Infiltration

Four Corners Ribbon Cutting (May 2023)

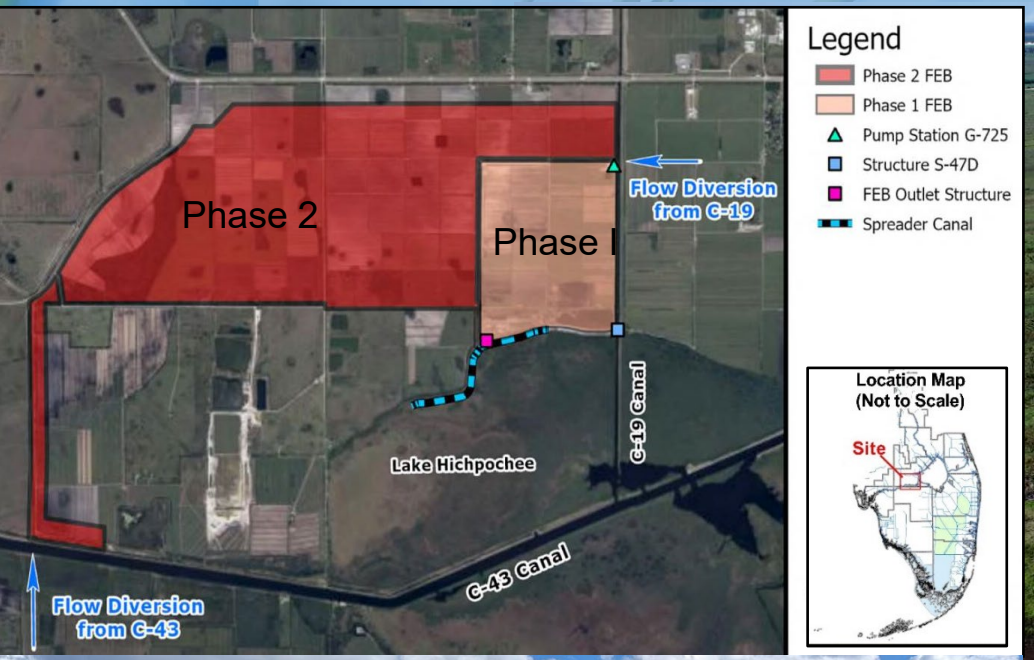
Project Inflow Pumps

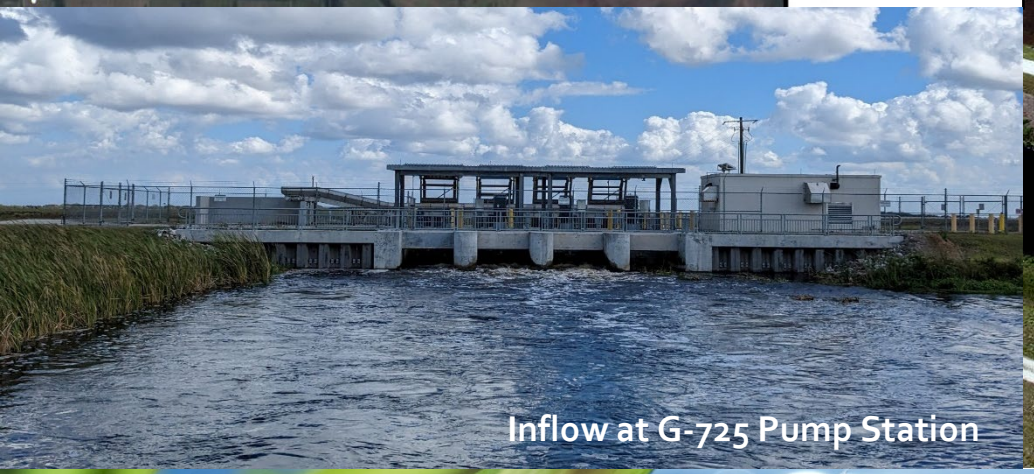
Boma Flow Equalization Basin & C-43 Water Quality Treatment & Testing Facility

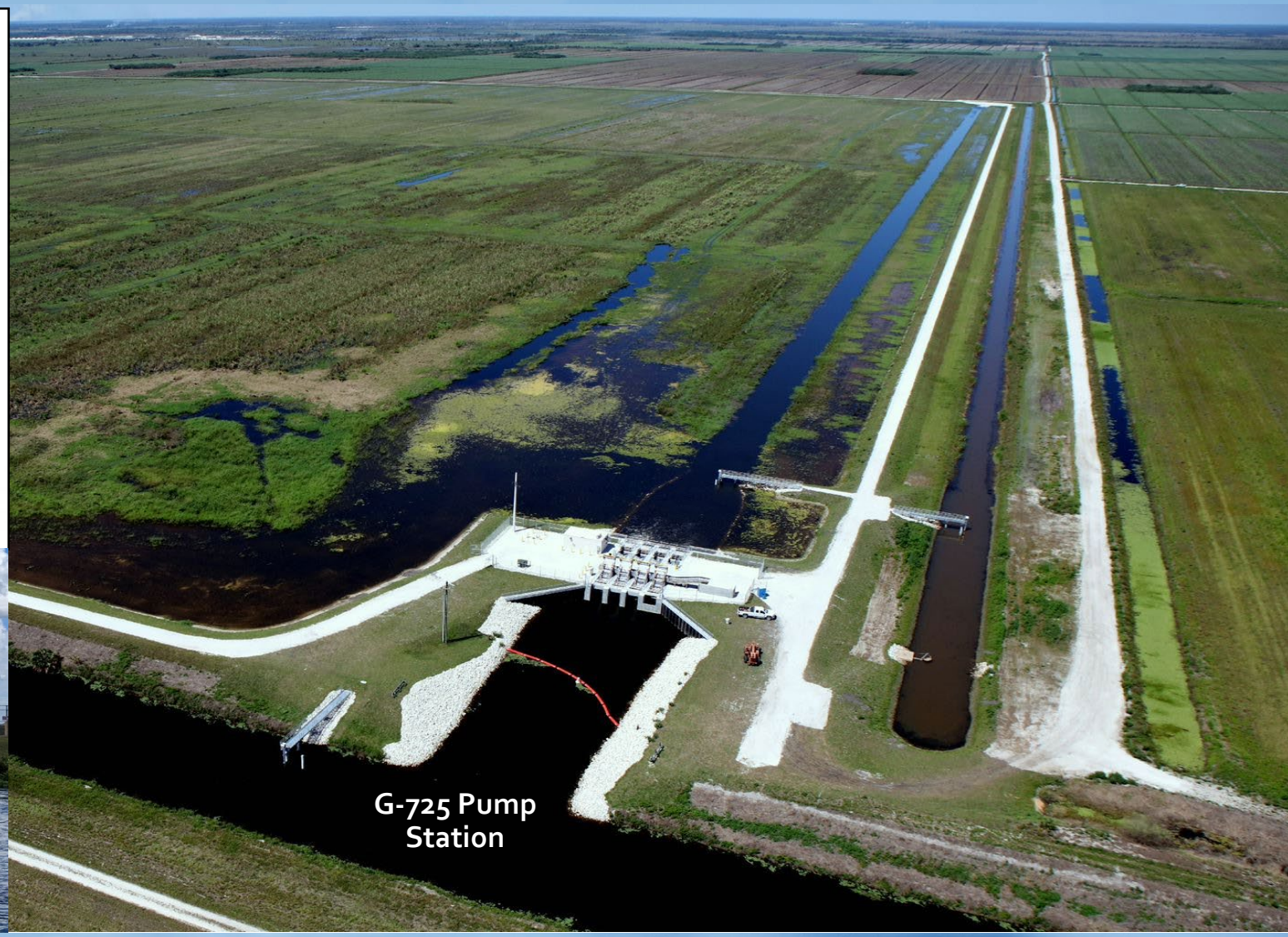
Test Cell Facility construction at Boma property

Test cells construction site

Lake Hicpochee Hydrologic Enhancement



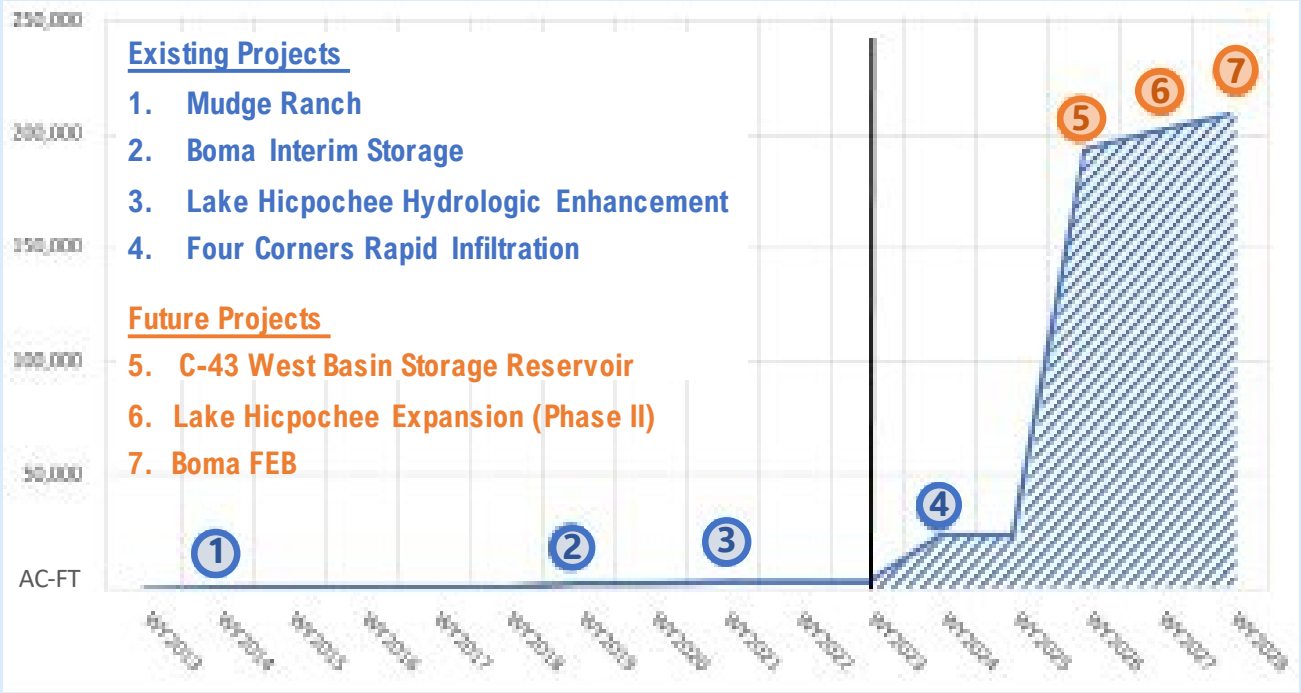

Inflow at G-725 Pump Station


G-725 Pump Station

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
- During WY2023, 3 SFWMD projects provided 4,989 ac-ft of storage (3,767 ac-ft, 2 DWM; 1,222 ac-ft, 1 regional)
- Future projects are planned to add storage capacity of more than 185,000 ac-ft over the next five years

Increasing Water Storage in the Caloosahatchee River Watershed



Watershed Protection Plan Reporting

For more information, visit:

SFWMD.gov/WPPs

and

SFWMD.gov/SFER

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

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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South Florida Water Management District
sollis@sfwmd.gov; 561-682-2039

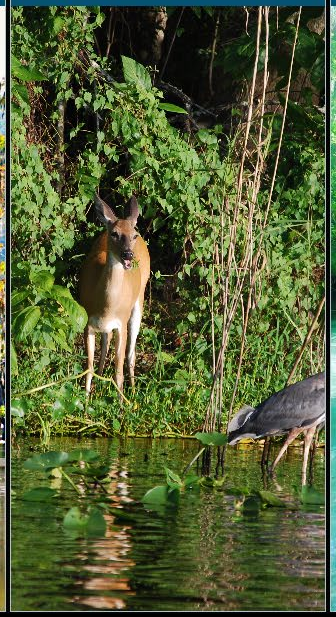
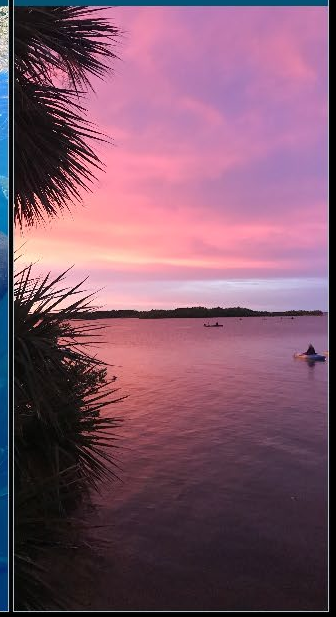
sfwmd.gov

STAR
STATEWIDE ANNUAL REPORT

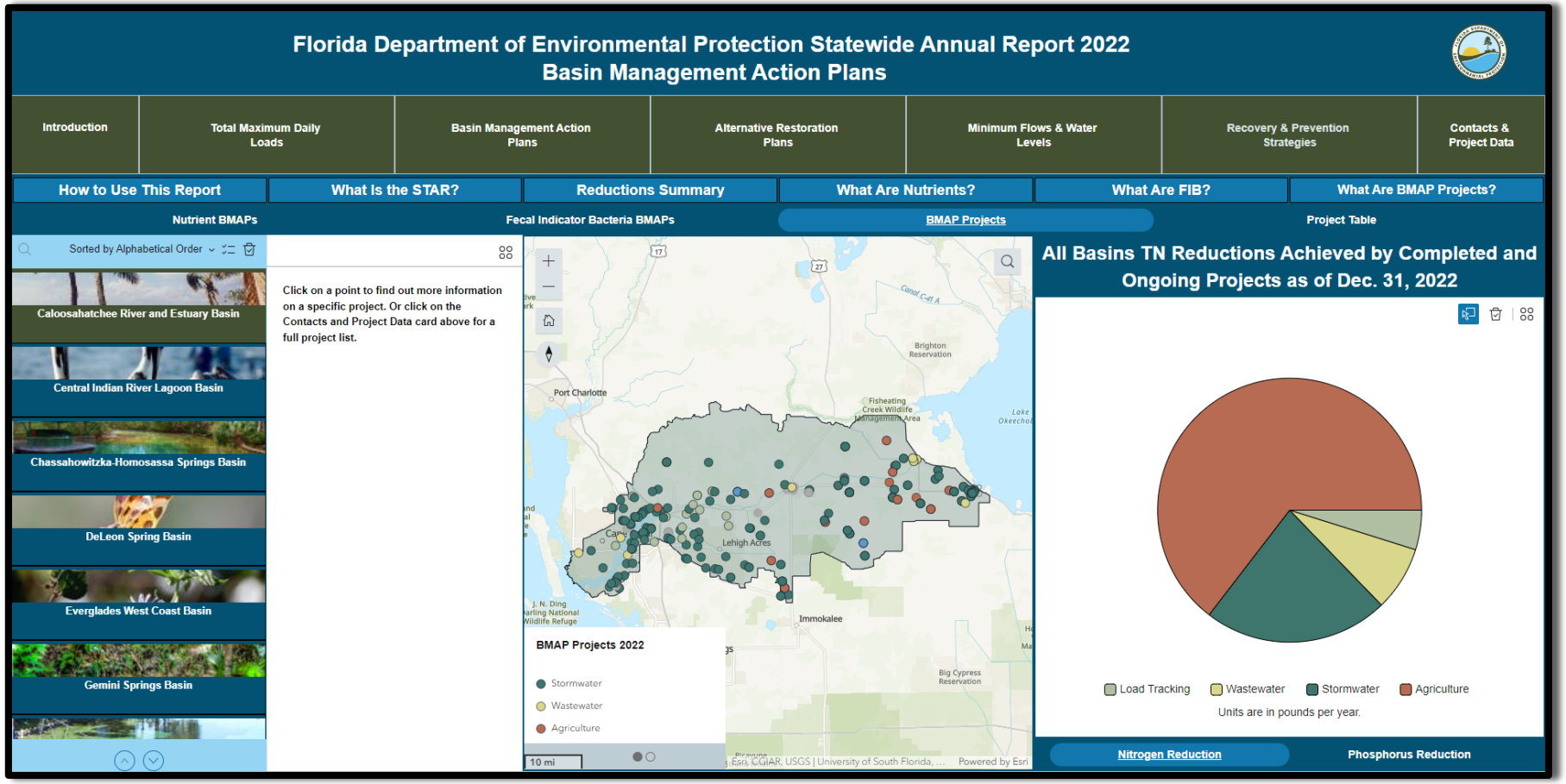
The Statewide Annual Report 2022

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

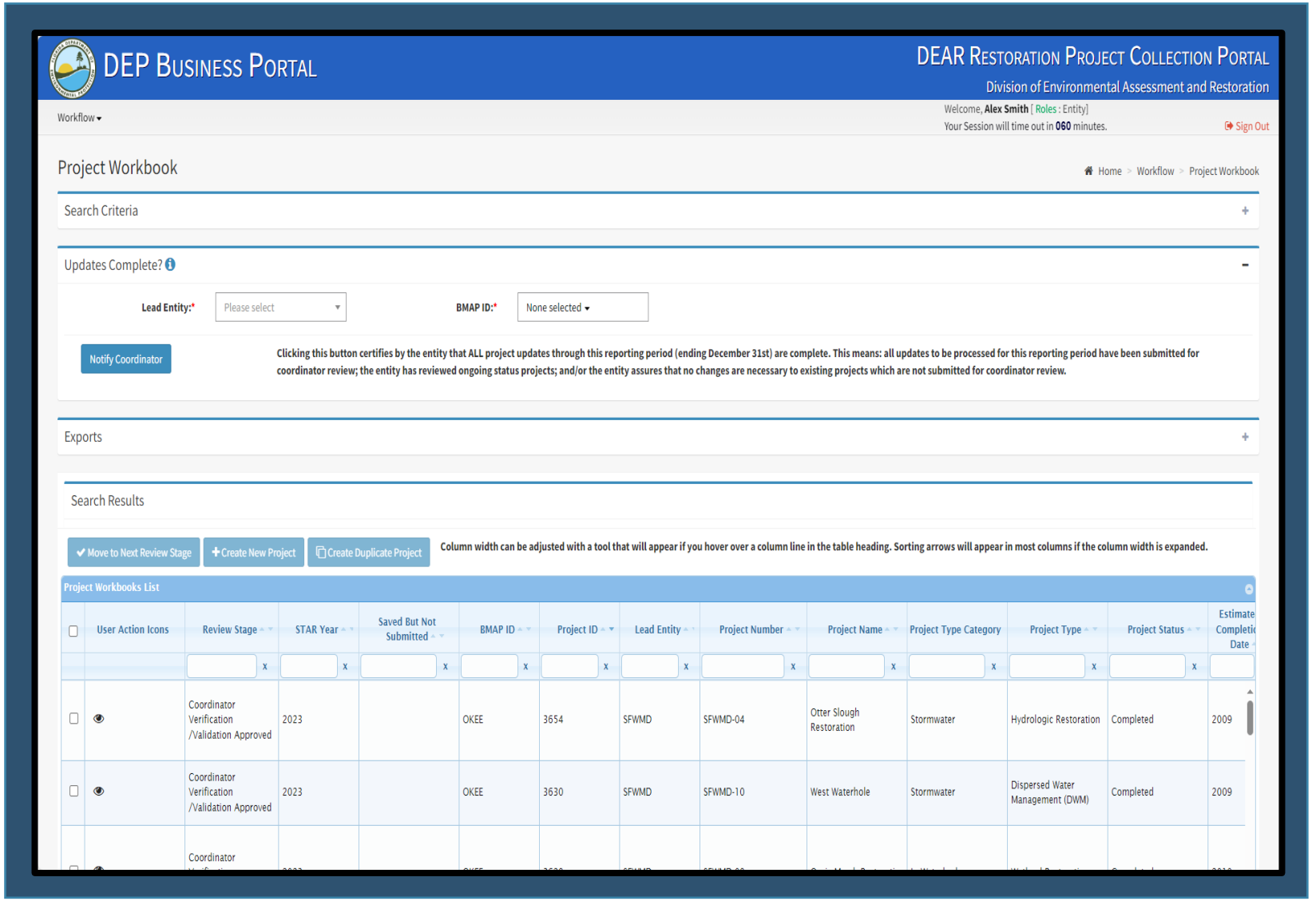


- Report will be published by July 1, 2024, with reporting through Dec. 31, 2023.
- Summarizes accomplishments in the BMAPs statewide.
- Reports on restoration projects and management strategies.
- Data download available.

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.



EVERGLADES WEST COAST BMAP
BACKGROUND

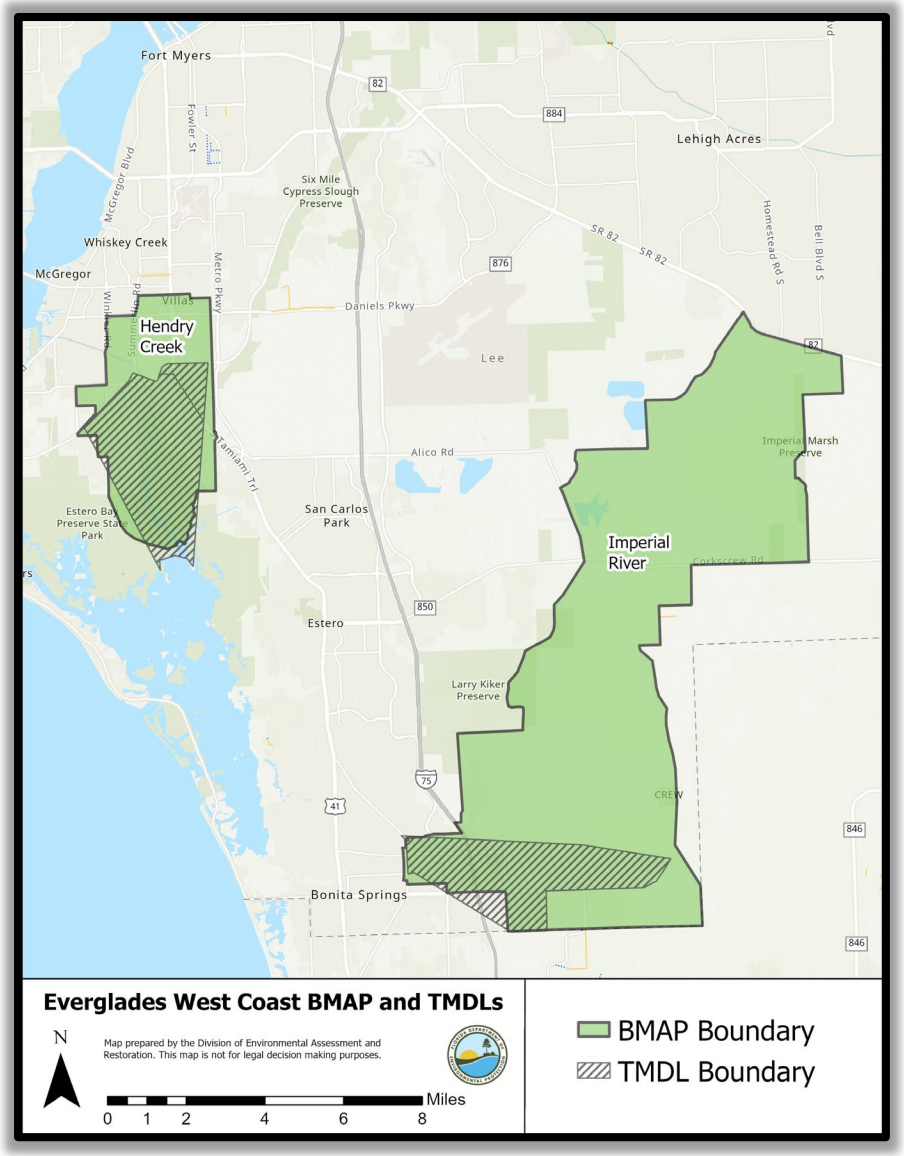
Everglades West Coast Total Maximum Daily Loads (TMDLs)

Hendry Creek and Imperial River

Adopted in 2008:

- Dissolved oxygen (DO) impairments.
- Total nitrogen (TN) reductions.

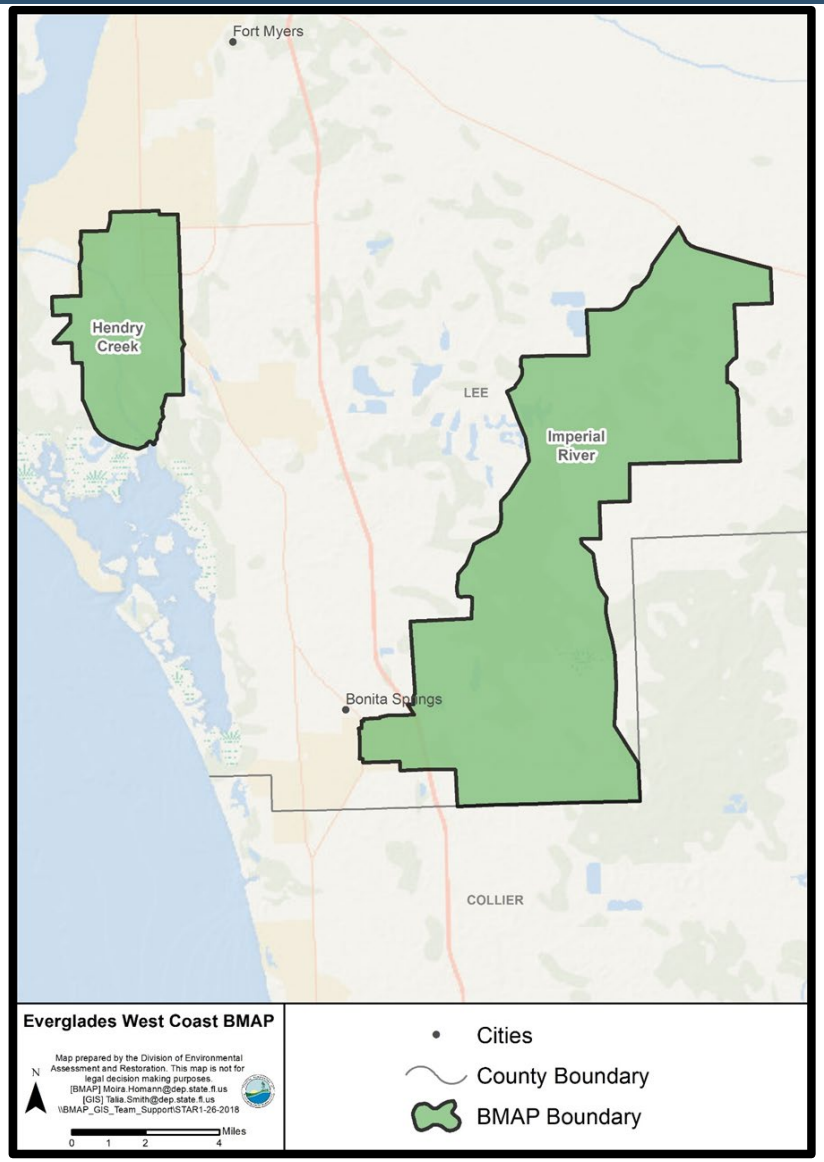
Target concentration 0.74 milligrams per liter (mg/L) TN.



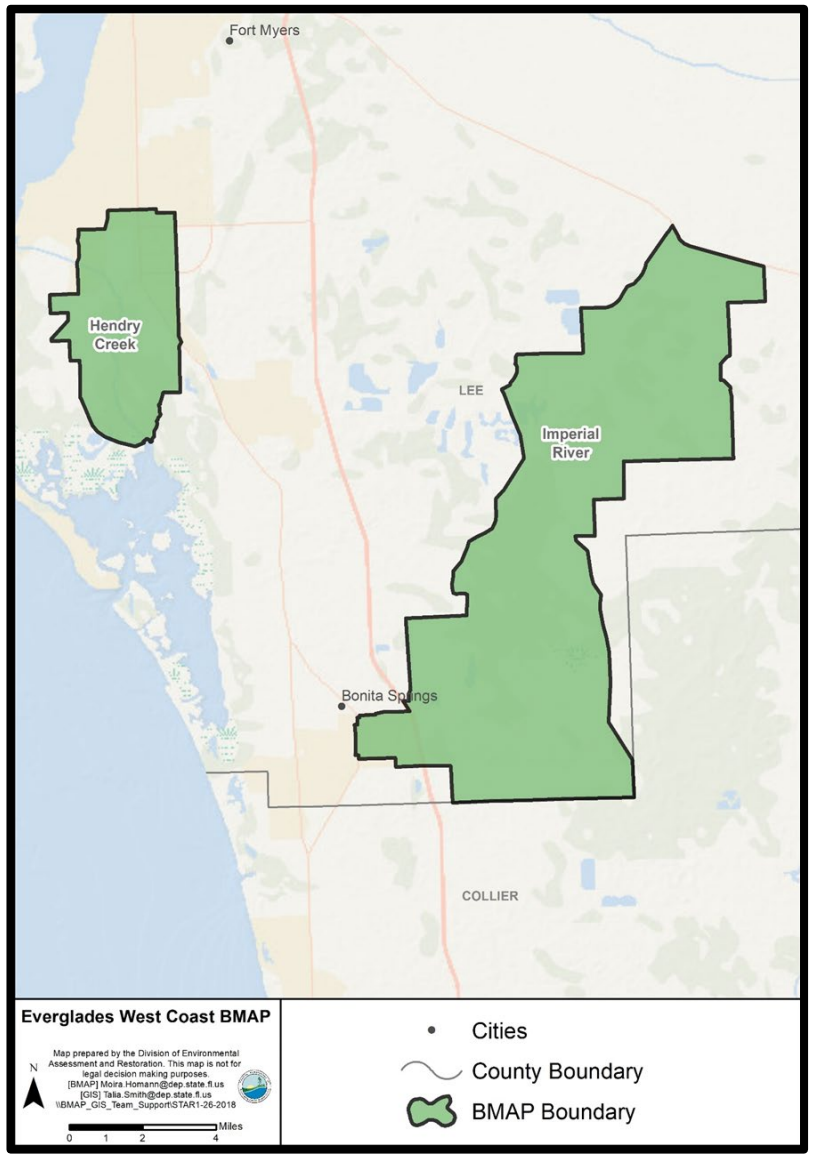
EVERGLADES WEST COAST BMAP
BACKGROUND

- Initially adopted November 2012.

- Total required reductions:
  - Hendry Creek: 10,320 lbs/yr TN.
  - Imperial River: 60,125 lbs/yr TN.



EVERGLADES WEST COAST BMAP
STAKEHOLDERS



Stakeholders	BMAP Basin
City of Bonita Springs	Imperial River
Lee County	Hendry Creek, Imperial River
DACS	Hendry Creek, Imperial River
Florida Department of Transportation (FDOT)	Hendry Creek, Imperial River

EVERGLADES WEST COAST BMAP

*PRELIMINARY 2023 STAR UPDATES

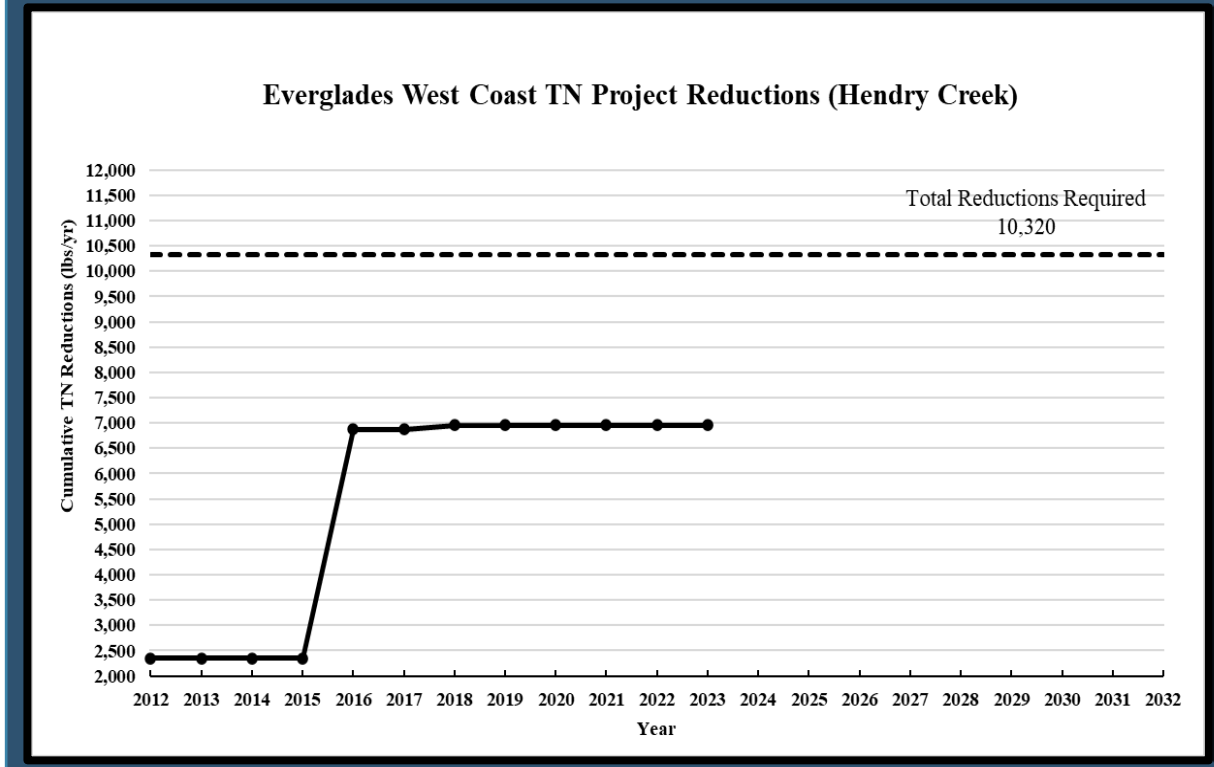
Projects Through Dec. 31, 2023.

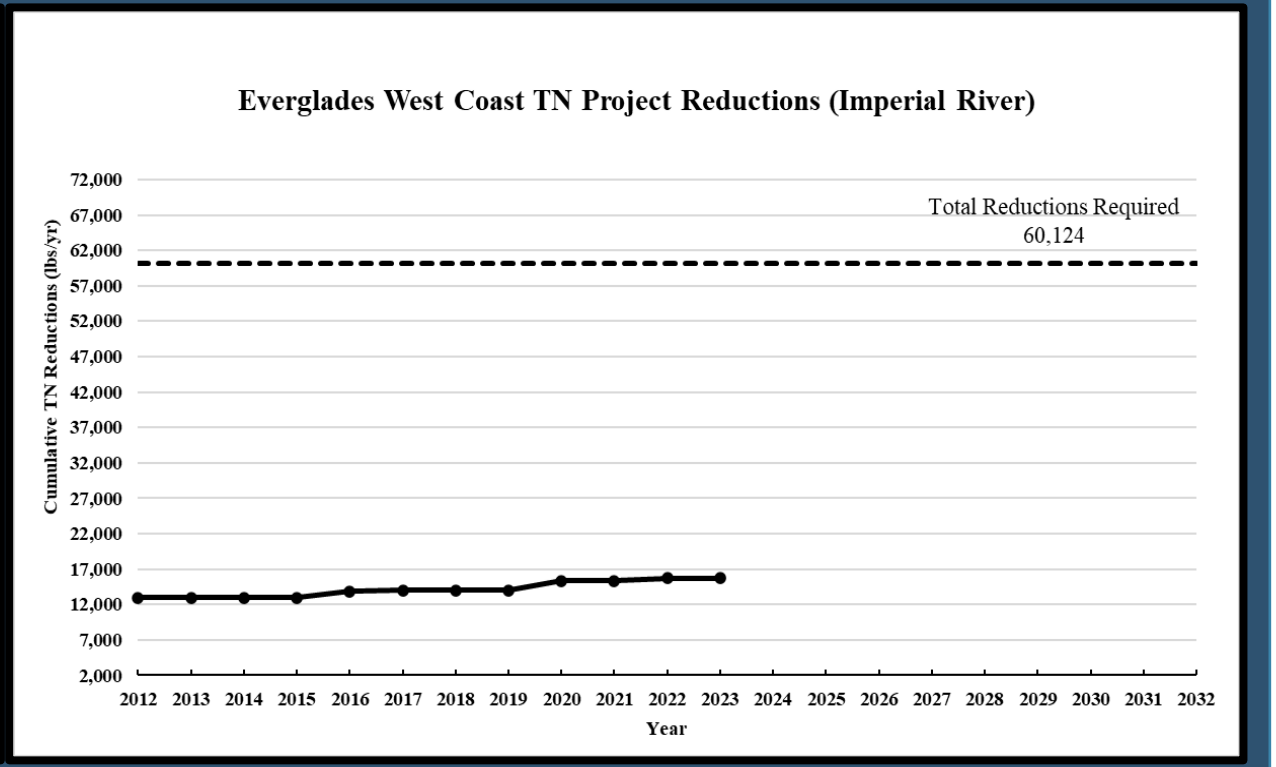
Lead Entity	Completed	Ongoing	Planned	Underway	Total
City of Bonita Springs	8	3	2	2	15
DACS	0	2	0	0	2
FDOT District 1	8	4	0	0	12
Lee County	11	4	0	1	16
Total	27	13	2	6	45

EVERGLADES WEST COAST BMAP

*PRELIMINARY 2023 STAR UPDATES

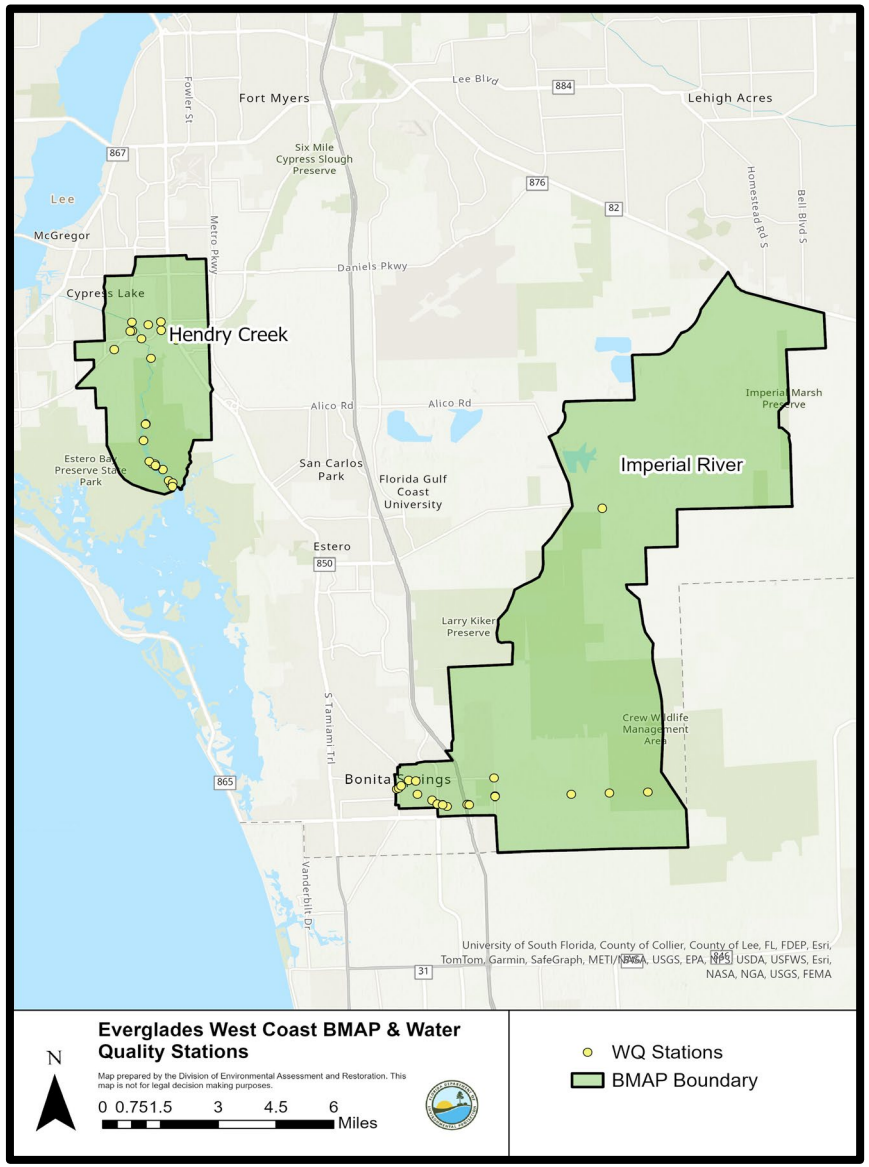
Progress through Dec. 31, 2023.

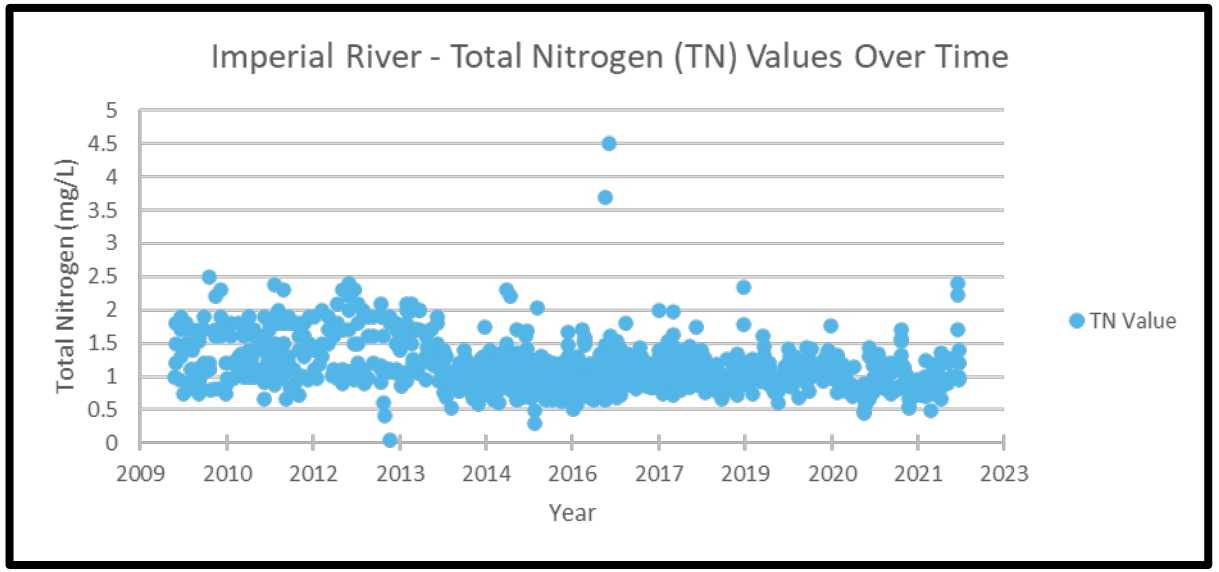


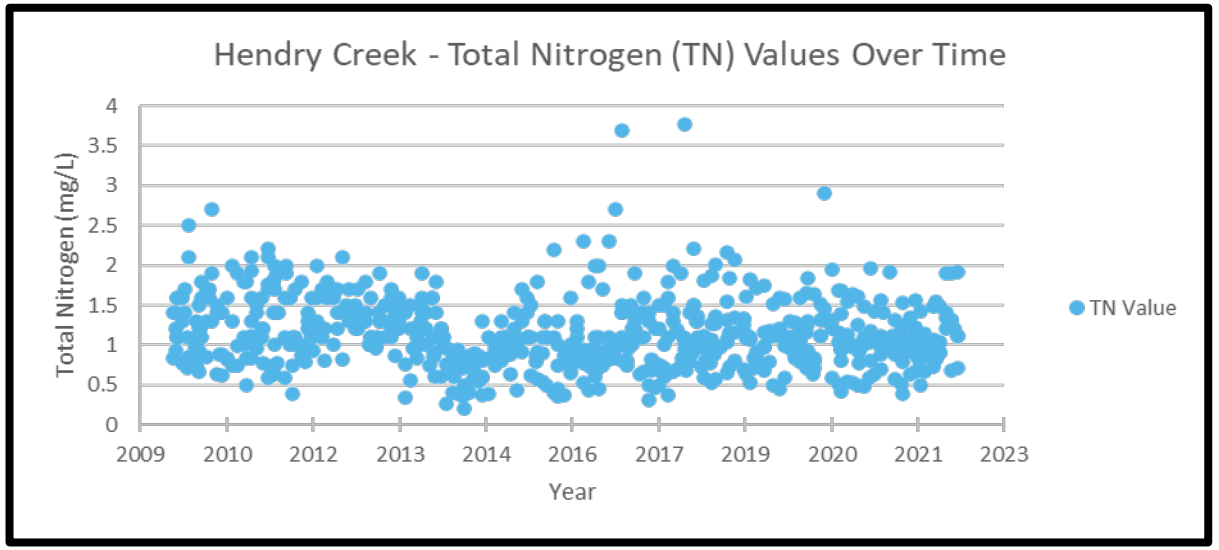


Completed and ongoing projects only.

EVERGLADES WEST COAST BMAP
WATER QUALITY







EVERGLADES WEST COAST BMAP
STORYMAP

Introduction | Overview | Location | Water Quality | Projects | Progress | Contacts & More Informatio...

Introduction

Welcome to the Everglades West Coast Basin Management Action Plan 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).

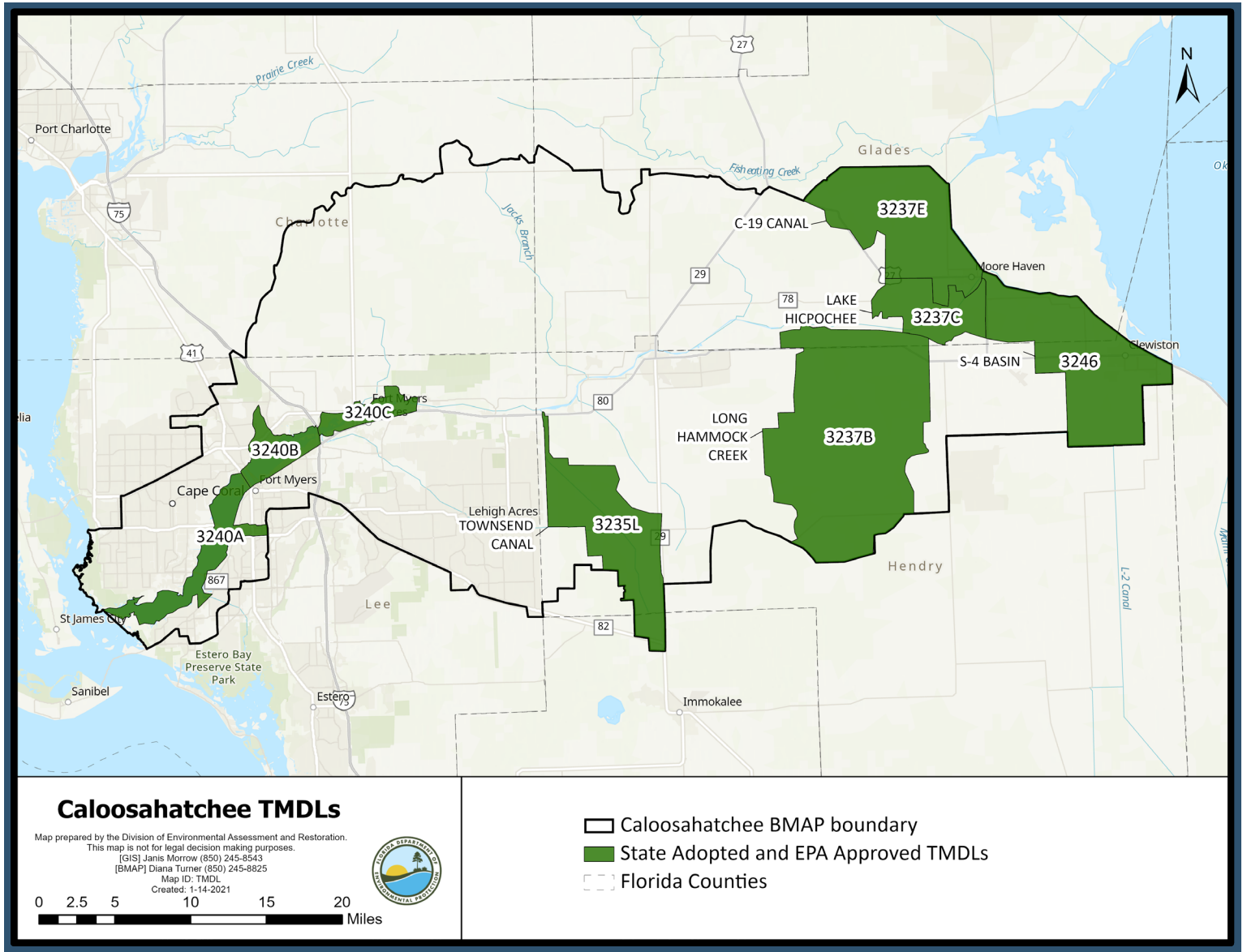
These broad-based plans are developed with local stakeholders and rely on local input and commitment for development and successful implementation. BMAPs are adopted by DEP Secretarial Order and are legally enforceable.

This Story Map reflects the status of BMAP projects most recently published in the Statewide Annual Report (STAR). Please use the tabs above to navigate through this Story Map and learn more about the Everglades West Coast BMAP. Last updated June 2023.

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

CALOOSAHATCHEE RIVER & ESTUARY BMAP

BACKGROUND



Tidal BMAP:

- Developed in 2012 to address TN in the estuary.

Current BMAP:

- Developed in 2020 to encompass complete watershed and include new tributary TMDLs.

CALOOSAHATCHEE RIVER & ESTUARY BMAP
STAKEHOLDERS

Local Governments:

- Charlotte County.
- Collier County.
- Glades County.
- Hendry County.
- Lee County.
- City of Cape Coral.
- City of Clewiston.
- City of Fort Myers.
- City of LaBelle.
- City of Moore Haven.

Community Development Districts (CDDs):

- Lucaya.
- Mirada.
- Moody River Estates.
- Port LaBelle.
- Portico.
- River Hall.
- Sail Harbour.
- Sugarland.
- Verandah East.
- Verandah West.

Special Districts:

- Barron Water Control District (WCD).
- Clewiston WCD.
- Collins Slough WCD.
- County Line Drainage District.
- Cow Slough WCD.
- Devil's Garden WCD.
- Disston Island Conservancy District.
- Flaghole Drainage District.
- Gerber Groves WCD.
- Hendry-Hilliard WCD.
- Lehigh Acres Municipal Services District.
- Sugarland Drainage District.

Agencies:

- FDACS.
- Florida Department of Environmental Protection.
- (FDOT) District 1.
- SFWMD.

CALOOSAHATCHEE RIVER & ESTUARY BMAP

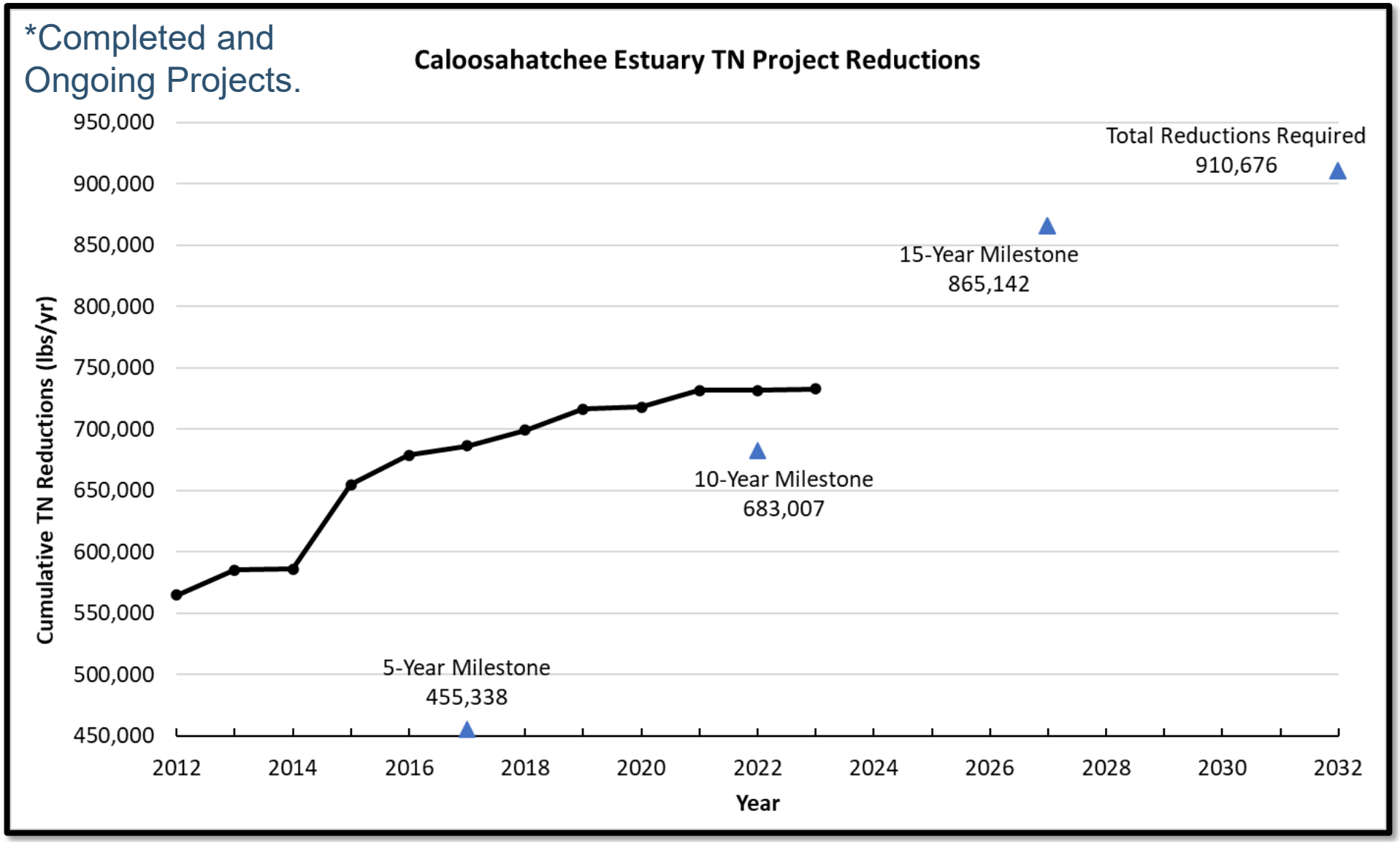
*PRELIMINARY 2023 STAR UPDATE – ESTUARY

LeadEntity	Completed	Ongoing	Underway	Planned	Total
Barron WCD	1	1	3	0	5
Charlotte County	0	1	0	0	1
City of Cape Coral	14	3	1	1	19
City of Clewiston	3	3	0	0	6
City of Fort Myers	11	2	3	1	17
City of LaBelle	0	0	0	5	5
City of Moore Haven	1	0	1	0	2
Clewiston Drainage District	1	1	3	0	5
Collins Slough WCD	1	1	3		5
County Line Drainage District	1	1	0	3	5
Cow Slough WCD	1	1	3	0	5
Devil's Garden WCD	1	1	3	0	5
Disston Island Conservancy District	1	1	3	0	5
FDACS	0	6	0	0	6
FDOT District 1	29	2	0	0	31
Flaghole Drainage District	1	1	3	0	5
Gerber Groves WCD	1	1	3	0	5
Glades County	2	0	0	2	4
Hendry County	1	0	4	3	8
Hendry-Hilliard WCD	1	1	3	0	5
LA-MSID (formerly ECWCD)	15	1	1	1	18
Lee County	44	2	4	1	51
Lucaya CDD	0	2	0	0	2
Mirada CDD	0	2	0	0	2
Port LaBelle CDD	0	0	1	0	1
Portico CDD	3	1	0	0	4
SFWMD - Coordinating Agency	3	0	3	2	8
Sugarland Drainage District	1	1	3	0	5
Verandah East CDD	0	1	0	0	1
Verandah West CDD	0	1	0	0	1
Total	**137**	**38**	**48**	**19**	**242**

CALOOSAHATCHEE RIVER & ESTUARY BMAP

*PRELIMINARY 2023 STAR UPDATE – ESTUARY

*Completed and Ongoing Projects.



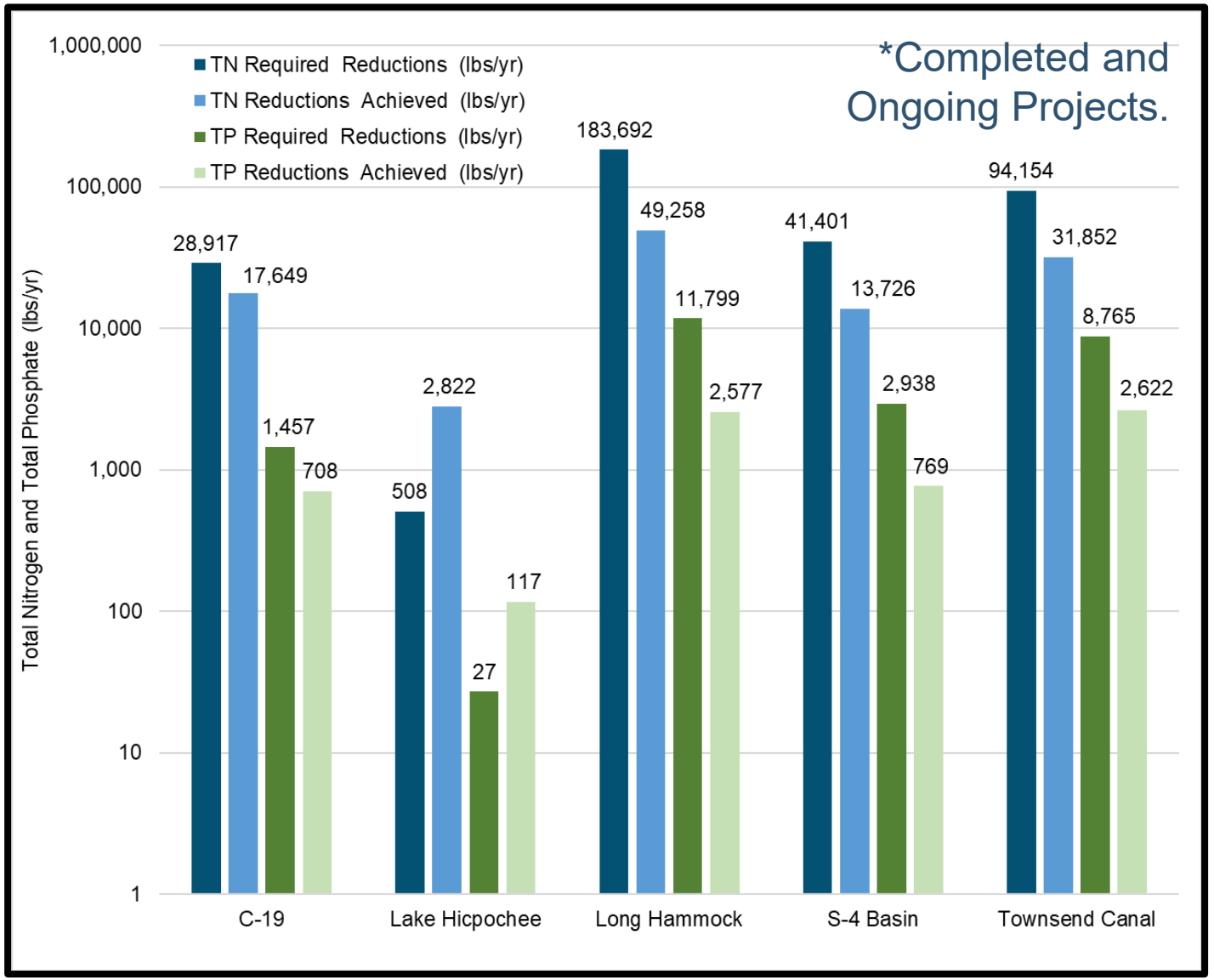
CALOOSAHATCHEE RIVER & ESTUARY BMAP

*PRELIMINARY 2023 STAR UPDATE – TRIBUTARIES

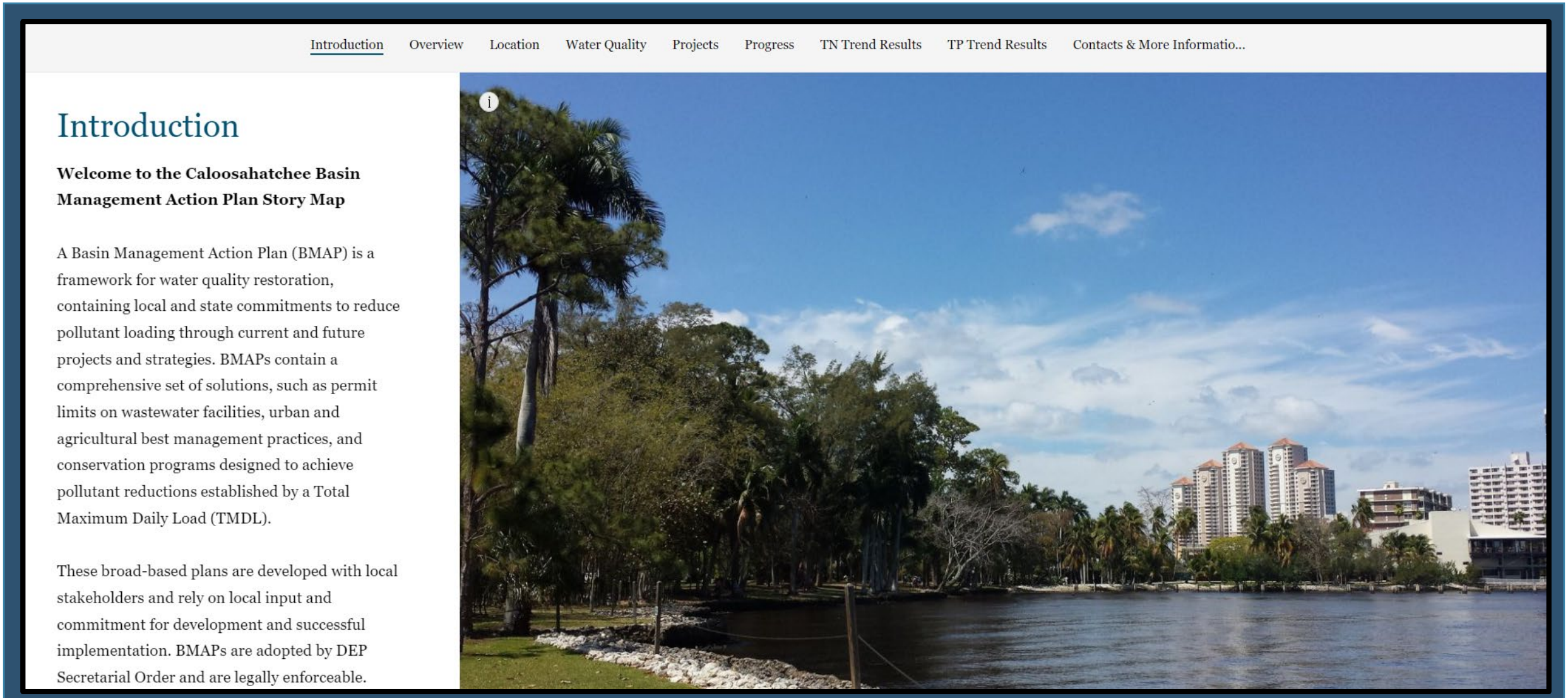
Lead Entity	Completed	Ongoing	Underway	Planned	Total
Barron WCD	1	1	3	0	5
City of Clewiston	3	3	0	0	6
City of Moore Haven	1	0	1	0	2
Clewiston Drainage District	1	1	3	0	5
Collier County	0	1	0	0	1
Collins Slough WCD	1	1	3	0	5
Cow Slough WCD	1	1	3	0	5
Devil's Garden WCD	1	1	3	0	5
Disston Island Conservancy District	1	1	3	0	5
FDACS	0	10	0	0	10
FDOT District 1	2	0	0	0	2
Flaghole Drainage District	1	1	3	0	5
Glades County	5	0	0	2	7
Hendry-Hilliard WCD	1	1	3	0	5
Port LaBelle CDD	0	0	1	0	1
SFWMD - Coordinating Agency	1	0	3	1	5
Sugarland Drainage District	1	1	3	0	5
Total	**21**	**23**	**32**	**3**	**79**

CALOOSAHATCHEE RIVER & ESTUARY BMAP

*PRELIMINARY 2023 STAR UPDATE – TRIBUTARIES



CALOOSAHATCHEE RIVER & ESTUARY BMAP
STORYMAP



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

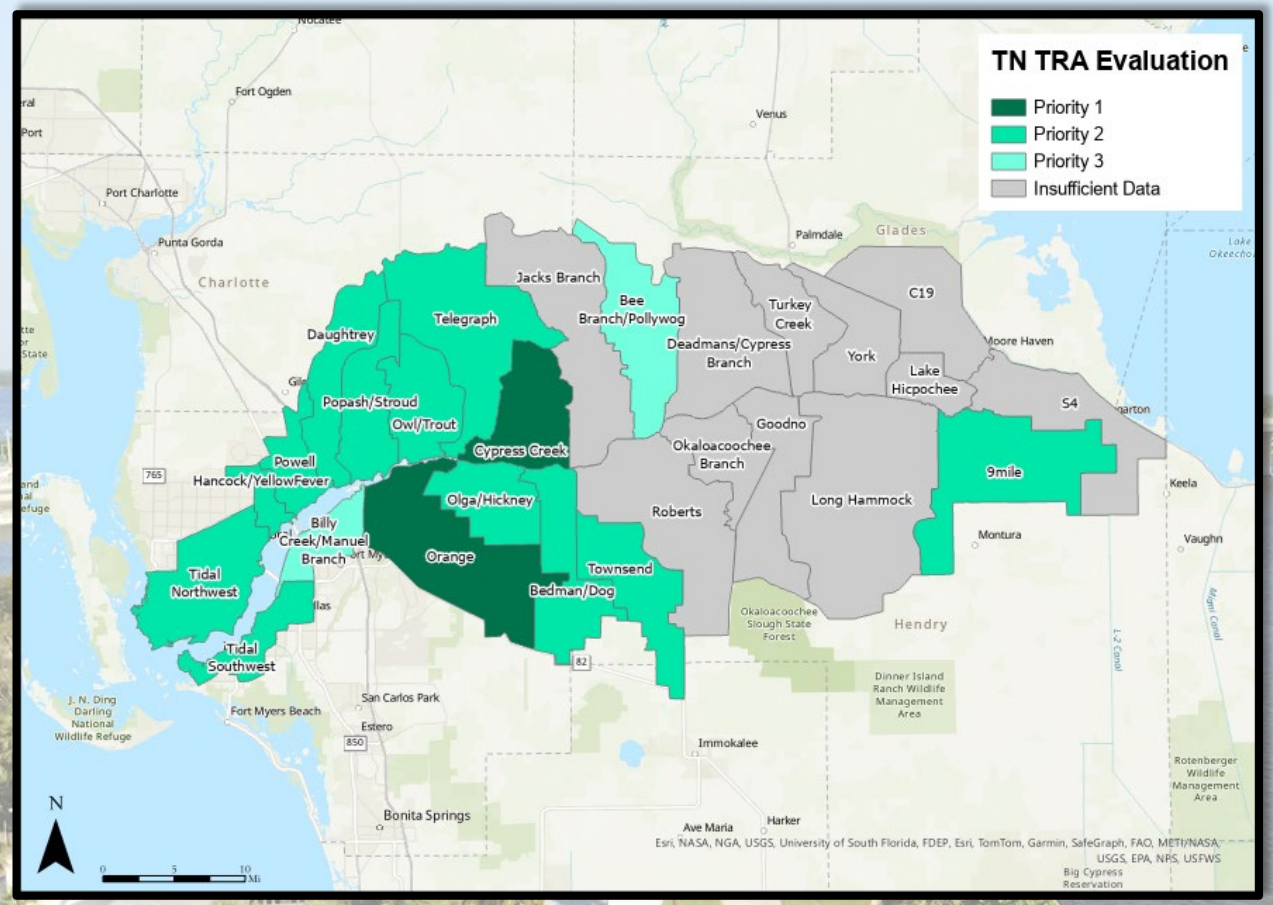
Move up one priority: Statistically significant increasing trend.

Maintain priority: No statistically significant trend.

Move down one priority: Statistically significant decreasing trend.

TRA EVALUATION UPDATE

2023 EVALUATION RESULTS



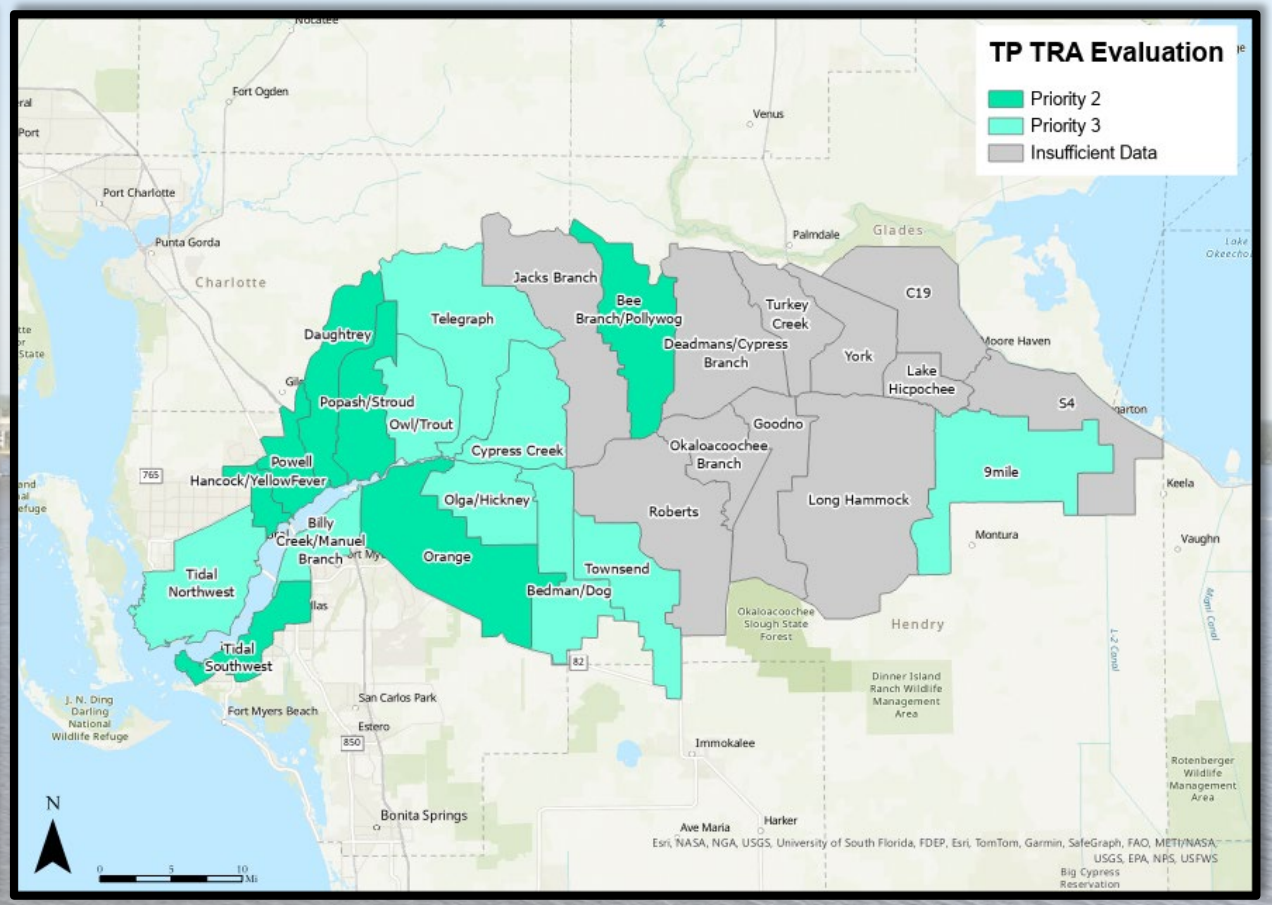


Photo Credit: SFWMD

UPCOMING BMAP UPDATES

UPDATE BY JULY 1, 2025

Everglades West Coast:

- Wastewater effluent limits based on size of facility and effluent disposal method utilized.
- Onsite sewage treatment and disposal system (OSTDS) requirements for new systems on lots one acre or less.
- Development of a hot spot analysis.
- Evaluation of the monitoring network.
- Update to land use and allocations.
- Inclusion of entity milestones.
- Inclusion of the Clean Waterways Act requirements.

Caloosahatchee River and Estuary:

- Evaluation of wastewater effluent limits.
- OSTDS requirements for new systems on lots one acre or less.
- Inclusion of regional projects.
- Development of a hot spot analysis.
- Evaluation of the monitoring network.
- Update to allocations.
- Inclusion of entity milestones.
- Inclusion of the Clean Waterways Act requirements.

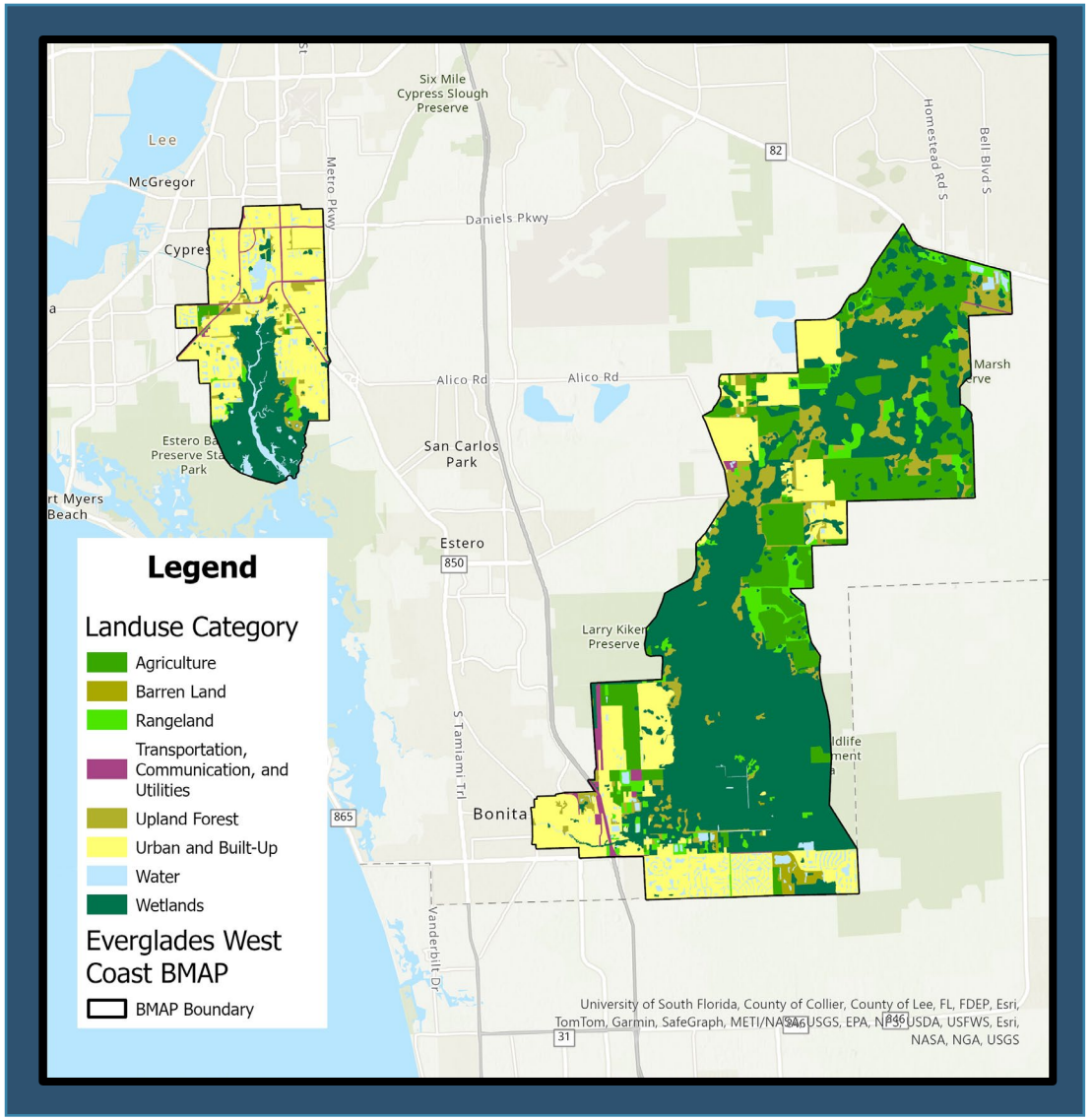
EVERGLADES WEST COAST LAND USE
UPDATE

Hendry Creek

Land Use Category	Acres in Current BMAP	Acres Updated with SFWMD 2017-19 Land Use
Urban	5,184	5,905
Agriculture	98	219
Natural Lands	5,182	4,369

Imperial River

Land Use Category	Acres in Current BMAP	Acres Updated with SFWMD 2017-19 Land Use
Urban	6,160	8,857
Agriculture	11,597	8,821
Natural Lands	27,203	27,270

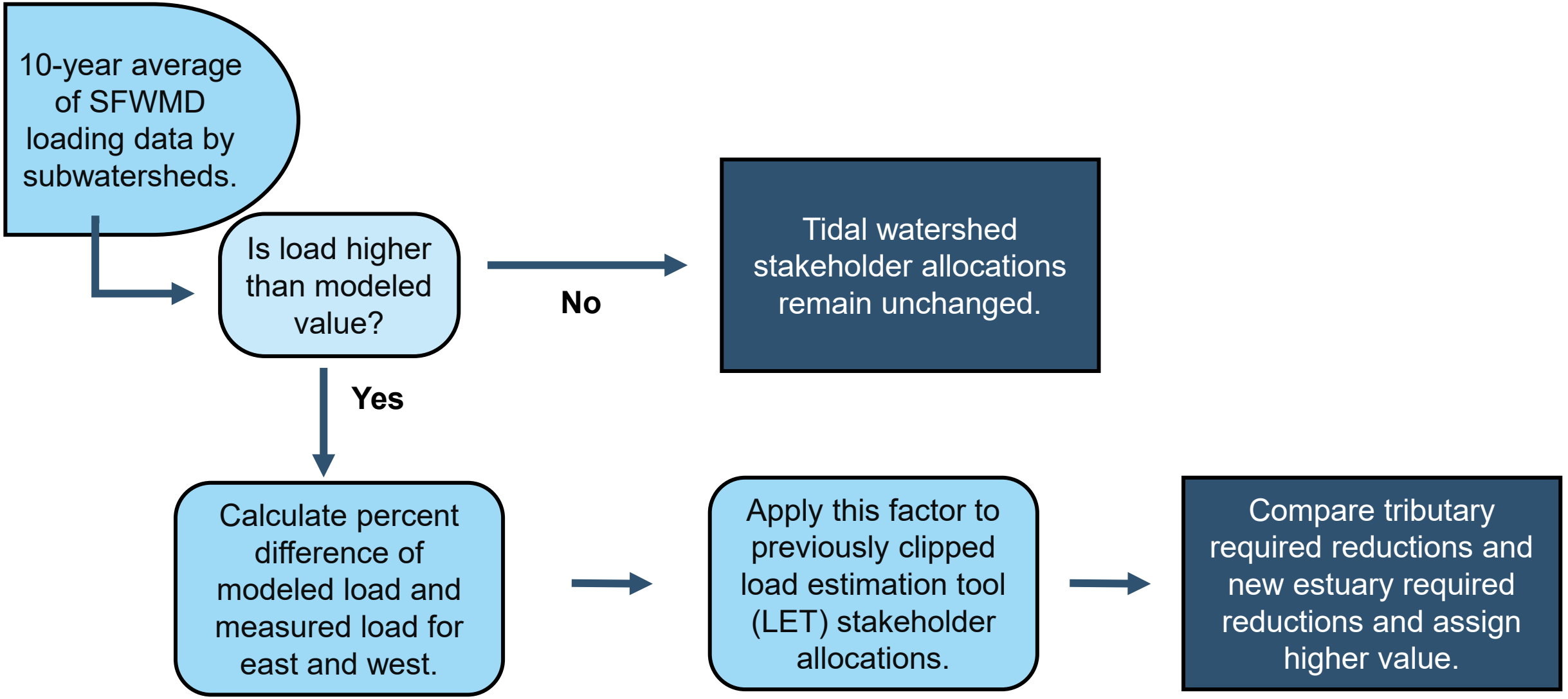


CALOOSAHATCHEE REQUIRED REDUCTIONS
UPDATE

- Recent monitoring data from the South Florida Environmental Report (SFER) reported a much **higher loading of TN** to the Caloosahatchee Estuary than had been determined by the BMAP model using data through 2015.

- The 2022 Five-Year Review made recommendations to **update the loading** in the BMAP to better match measured data and to then also **update required reductions**.

CALOOSAHATCHEE REQUIRED REDUCTIONS
UPDATE



CALOOSAHATCHEE REQUIRED REDUCTIONS
UPDATE

Subwatershed	BMAP TN Start Load (lbs./yr.)	TN Required Reduction (lbs./yr.)	10-Year Average Water Year 2013–22 (lbs./yr.)	Percent Increase
East Caloosahatchee	1,008,818	232,028	1,329,467	31.78%
Tidal Caloosahatchee	1,200,195	276,045	1,137,632	▼5.21%
West Caloosahatchee	1,750,448	402,603	2,457,362	40.38%
Total	3,959,461	910,676	4,924,461	24.37%

Allowable Load = 3,048,785 lbs/yr
New required reductions: ~1,938,241 lbs/yr

HOTSPOT ANALYSIS DEVLOPMENT

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 to 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.

HOTSPOT ANALYSIS DEVLOPMENT
COMPONENTS OF THE HOTSPOT 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:

- Caloosahatchee River and Estuary:
  - TN – Peninsular Numeric Nutrient Criteria (NNC) – 1.54 mg/L
  - TP – Peninsular NNC – 0.12 mg/L

HOTSPOT ANALYSIS DEVLOPMENT

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.

HOTSPOT ANALYSIS DEVLOPMENT

FINAL OVERALL RANK

Average Rank
+
Percentile Rank
+
SD Rank
+
Frequency Rank

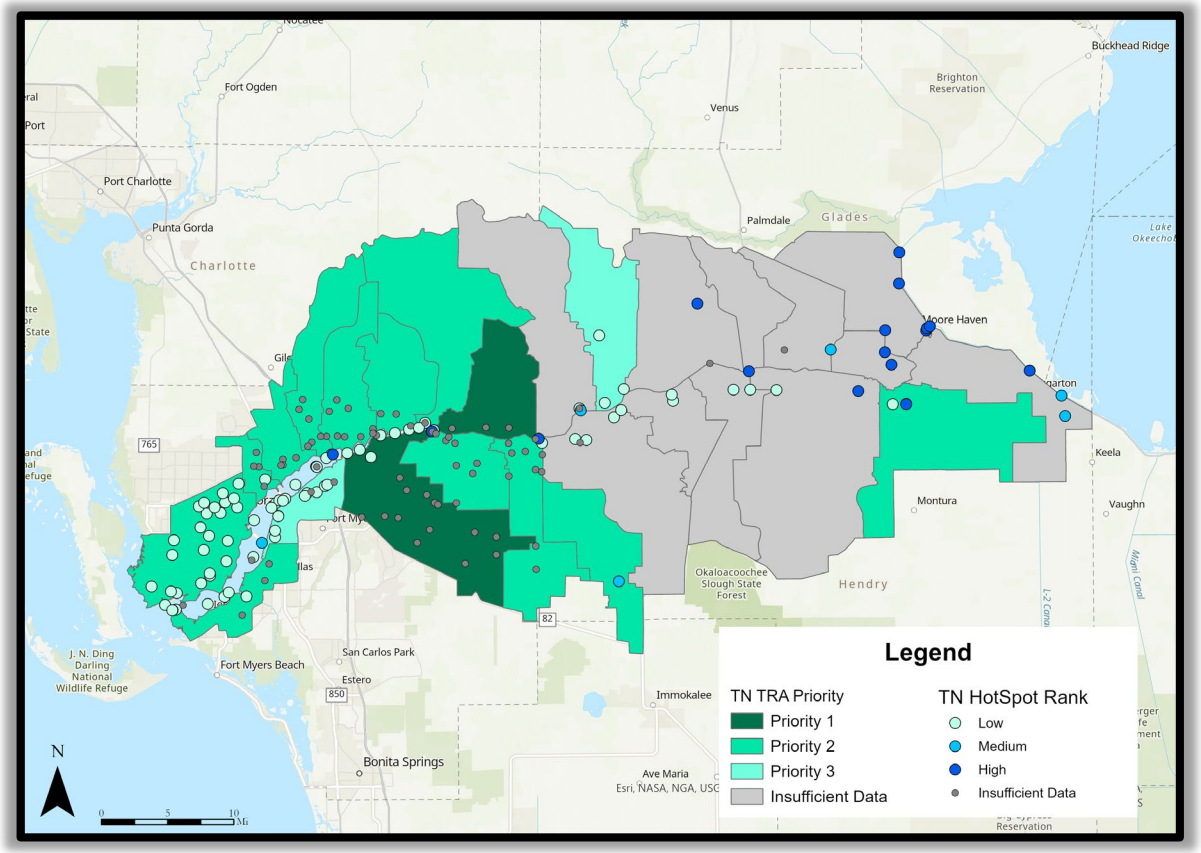
=

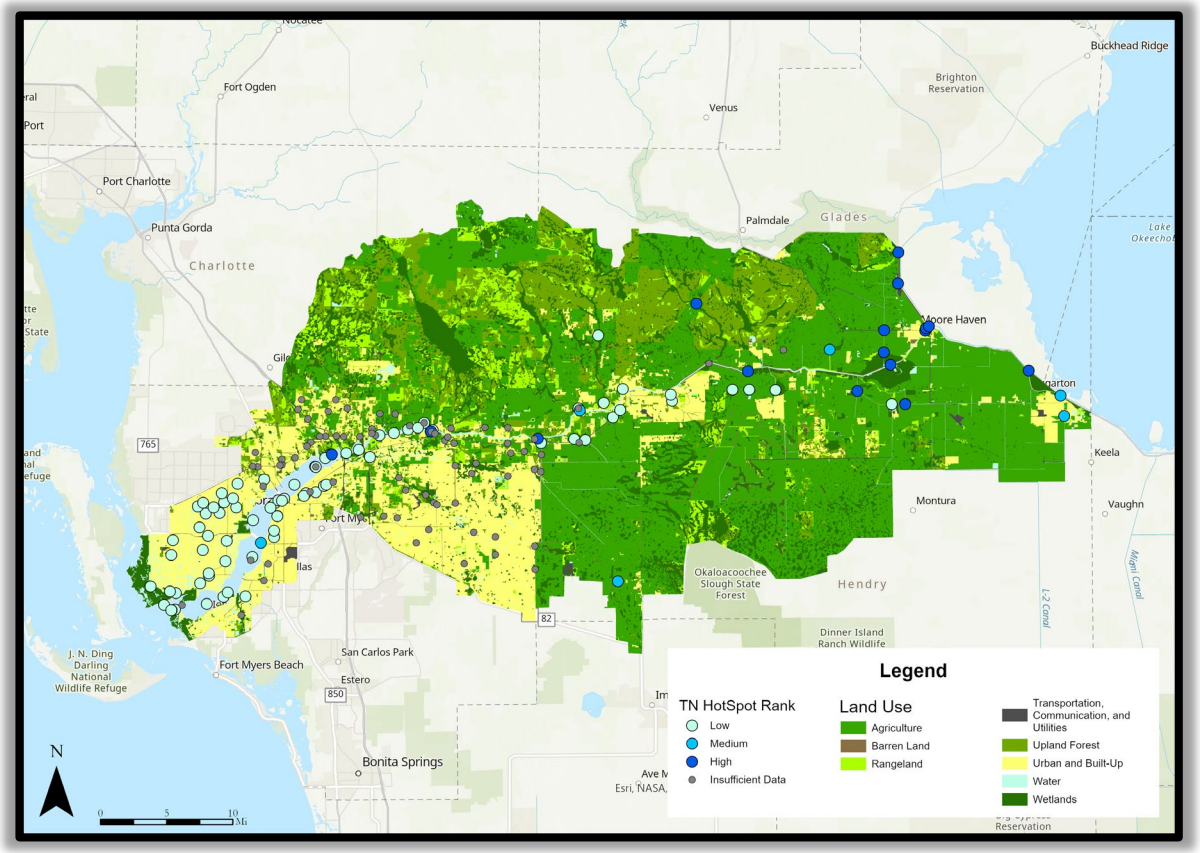
Total Index Rank

Rank 0 = Least Concern
Rank 8 = High Concern

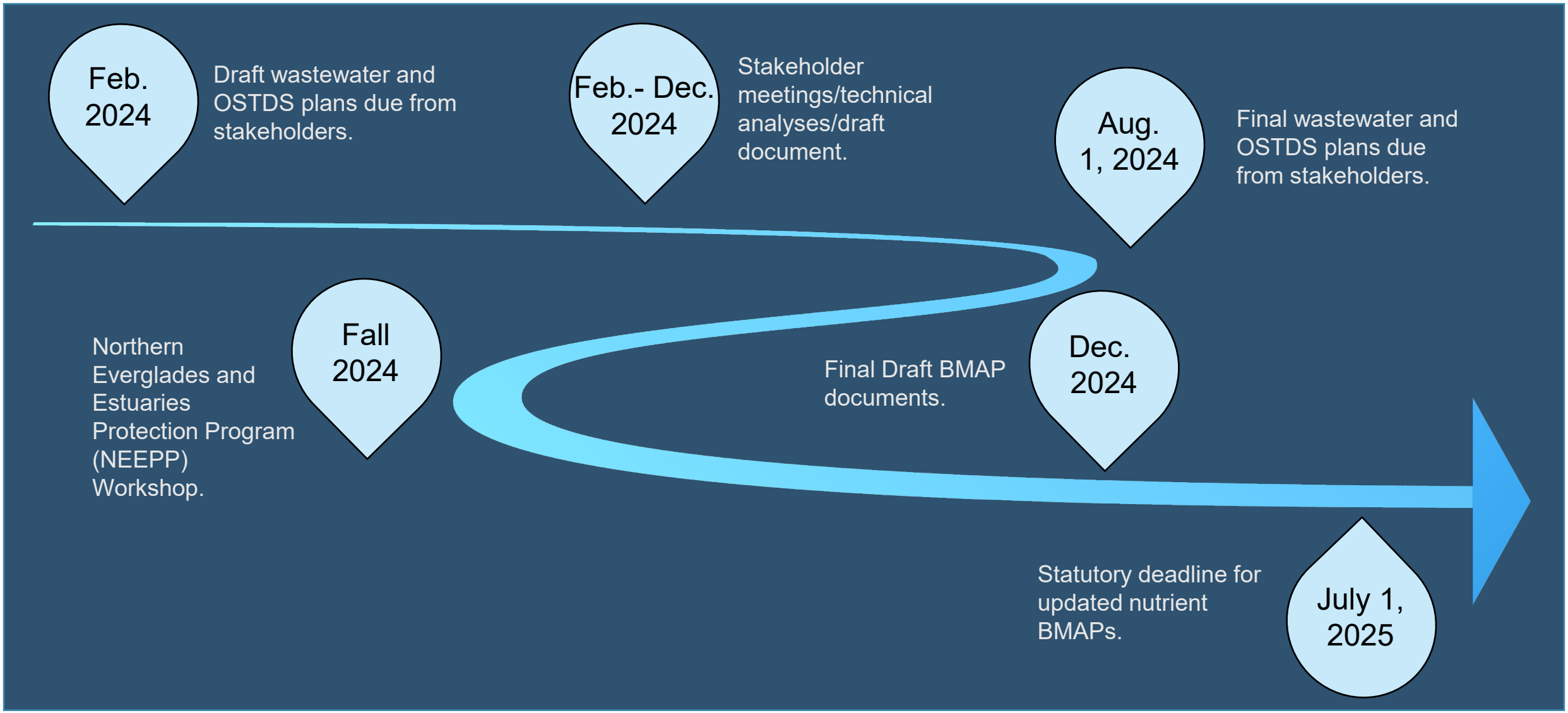
HOTSPOT ANALYSIS RESULTS EXAMPLE

CALOOSAHATCHEE TN RESULTS





UPCOMING SCHEDULE

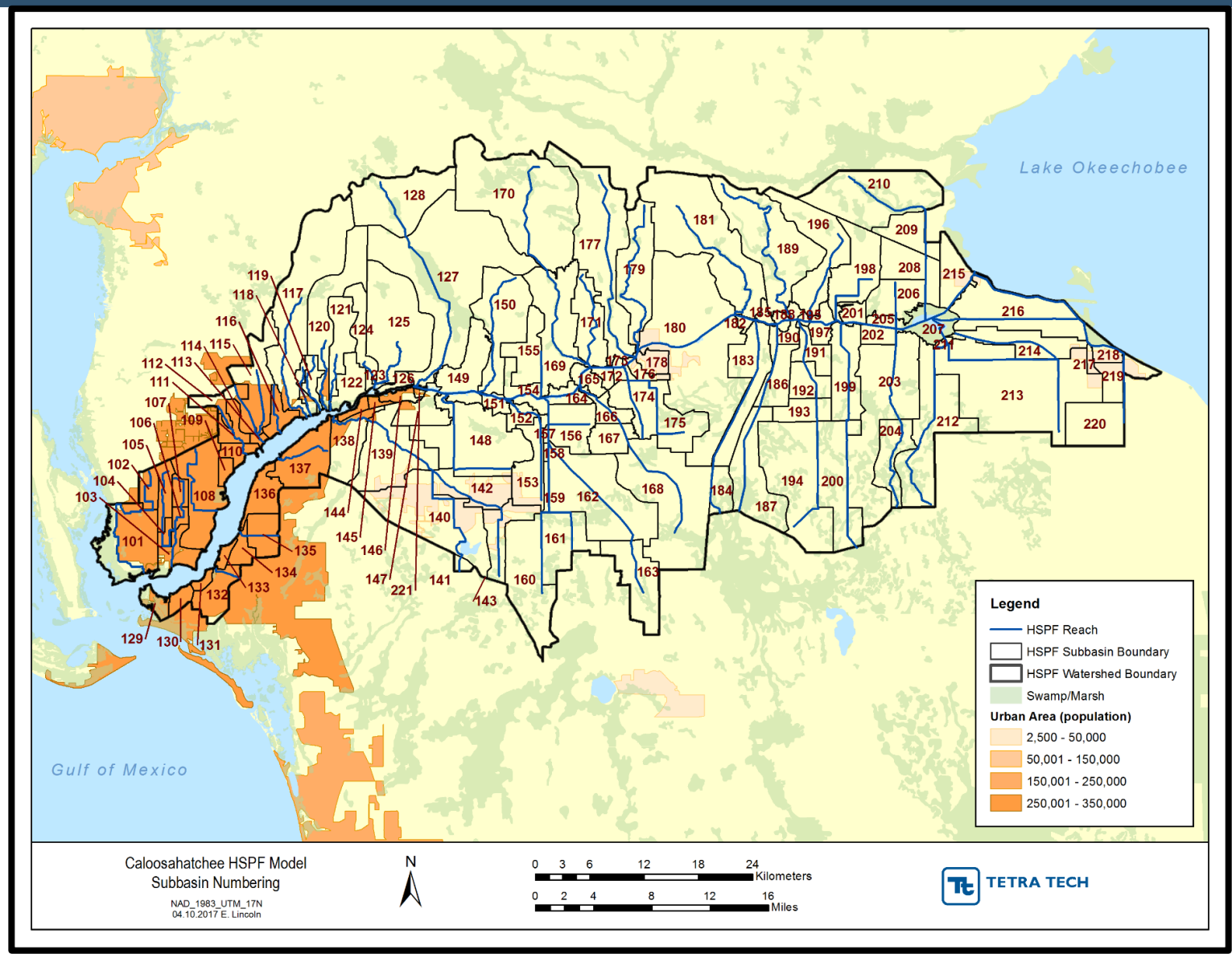


CALOOSAHATCHEE MODEL UPDATE

GENERAL OVERVIEW

To be completed after the 2025 Update and used in later BMAP update.

- Updating the current Hydrological Simulation Program – FORTAN (HSPF) model.
- Updating data used in model:
  - Flow.
  - Water quality.
  - Wastewater facility and OSTDS.
  - Land use.
- Updating allocations.
- Stay tuned for updates!



Caloosahatchee River & Estuary & Everglades West Coast BMAP Annual Meeting

April 2, 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
- Enrollment and Unenrolled Agricultural Lands Classification
  - Caloosahatchee River and Estuary Basin
  - Everglades West Coast Basin
- 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

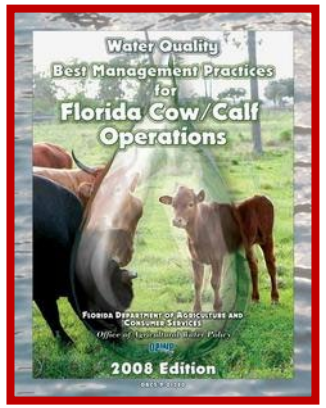
OAWP Responsibilities

- 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

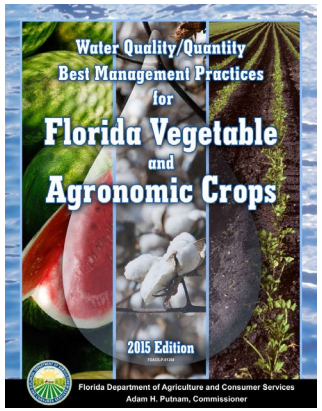
Benefits of Agricultural Best Management Practices

- 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

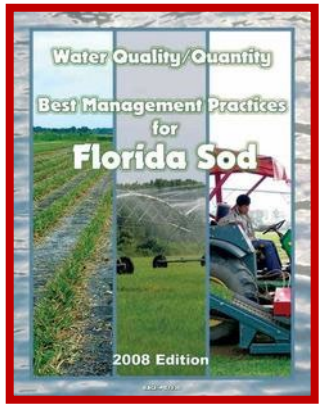
BMP Manuals

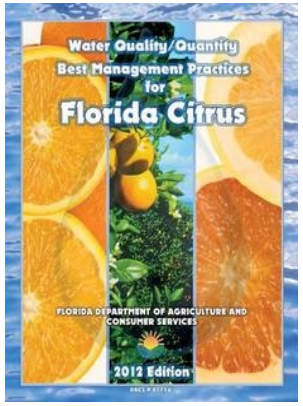

Water Quality
Best Management Practices
for
Florida Cow/Calf
Operations
2008 Edition

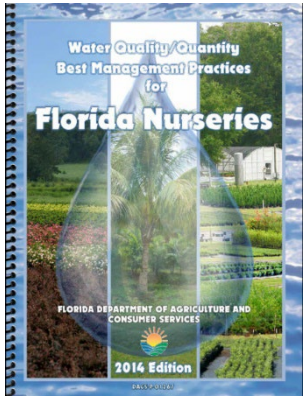

Water Quality/Quantity
Best Management Practices
for
Florida Specialty
Fruit and Nut Crops
2011 Edition

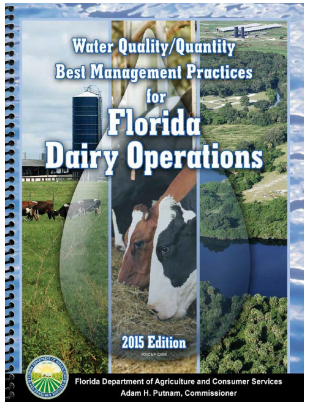

Water Quality/Quantity
Best Management Practices
for
Florida Vegetable
and
Agronomic Crops
2015 Edition
Florida Department of Agriculture and Consumer Services
Adam H. Putnam, Commissioner

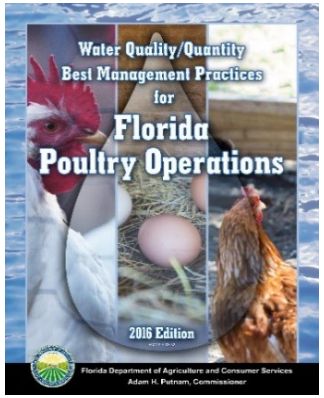

Water Quality/Quantity
Best Management Practices
for
Florida Equine Operations
2011 Edition

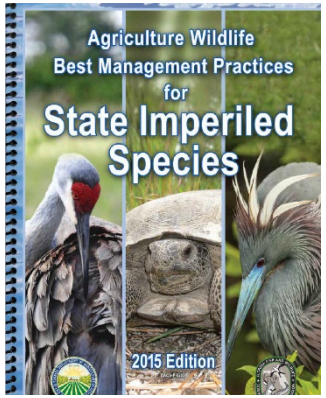

Water Quality/Quantity
Best Management Practices
for
Florida Sod
2008 Edition


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

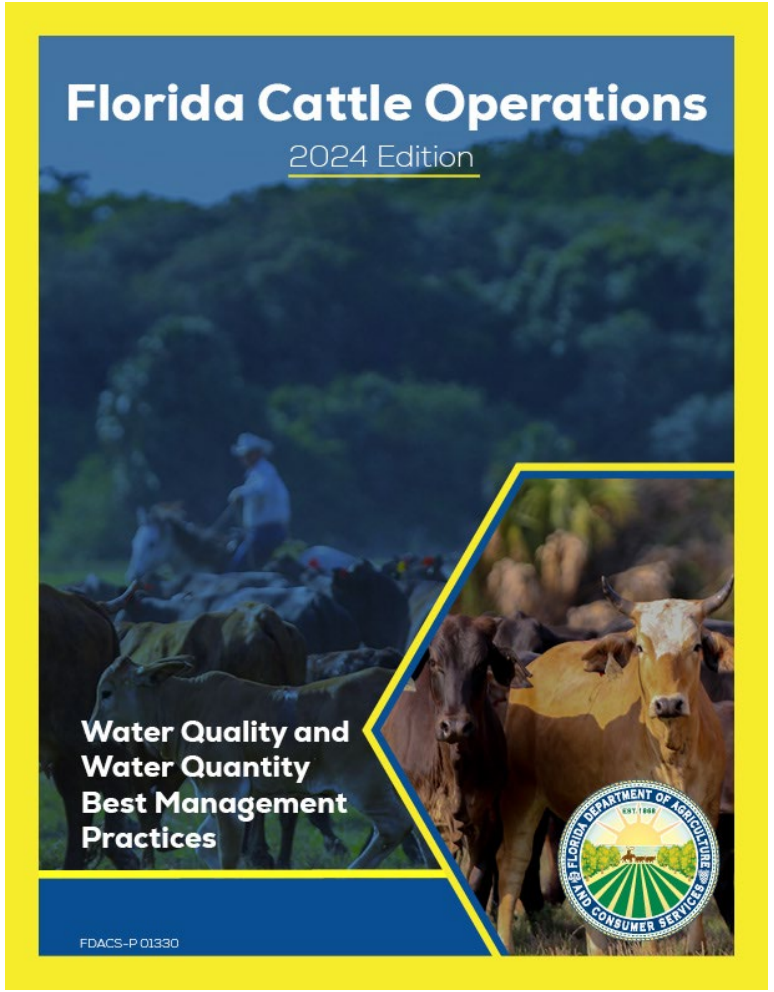

Agriculture Wildlife
Best Management Practices
for
State Imperiled
Species
2015 Edition

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 Caloosahatchee BMAP

Subwatershed	Total Ag Acres	Enrolled Ag Acres	% Enrolled	Irrigated Acres	Enrolled Irrigated Acres	% Enrolled
Tidal Caloosahatchee	58,932	46,358	**79%**	5,657	5,083	**90%**
West Caloosahatchee	180,837	153,794	**85%**	53,769	49,768	**93%**
East Caloosahatchee	194,532	176,131	**91%**	113,456	107,913	**95%**

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

Enrollments within the Caloosahatchee Tributaries BMAP

Tributary	Total Ag Acres	Enrolled Ag Acres	% Enrolled	Irrigated Acres	Enrolled Irrigated Acres	% Enrolled
Townsend Canal	28,868	26,813	**93%**	19,349	19,281	**100%**
C-19	24,545	23,240	**95%**	13,480	12,595	**93%**
Lake Hicpochee	5,189	4,675	**90%**	3,299	3,291	**100%**
Long Hammock Creek	68,807	57,233	**83%**	33,846	31,832	**94%**
S-4	29,203	27,728	**95%**	27,476	26,531	**97%**

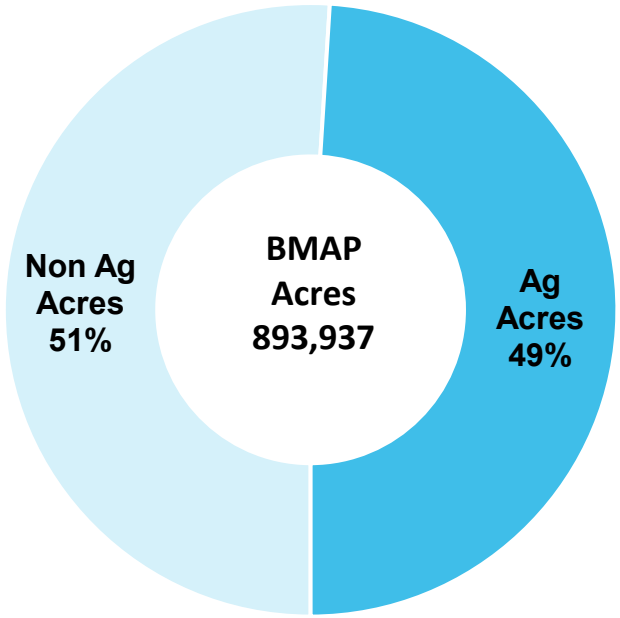
BMP enrollment as of Dec 2023 and the 10th Florida Statewide Agricultural Irrigation Demand (FSAID) Geodatabase

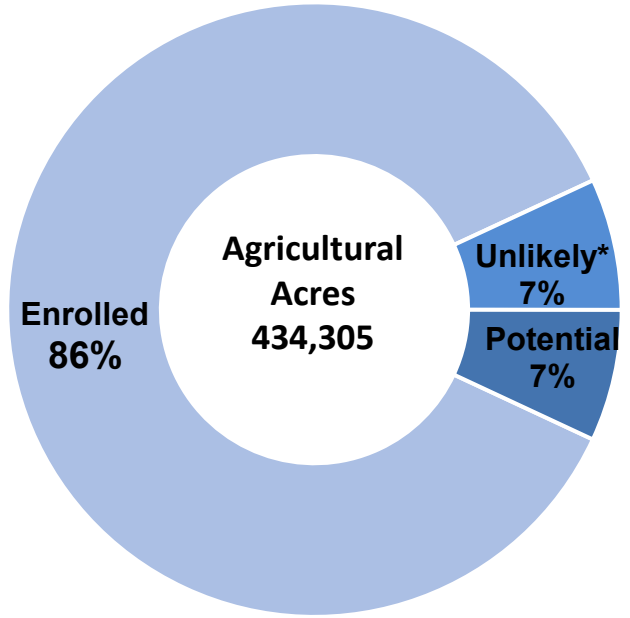
Agricultural Acres Enrolled within Caloosahatchee BMAP

BMP Manual	Acres
Citrus	38,572
Conservation Plan	43,840
Cow/Calf	99,553
Equine	43
Fruit & Nut	463
Multiple Commodities	104,174
Nursery	1,054
Poultry	56
Row/Field Crop	85,012
Sod	940
TOTAL	**376,117**

Agricultural Lands within Caloosahatchee BMAP

Non-Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Unenrolled - Unlikely Enrollable Acres *	Unenrolled - Potentially Enrollable Acres
459,632	434,305	376,117	29,587	28,431

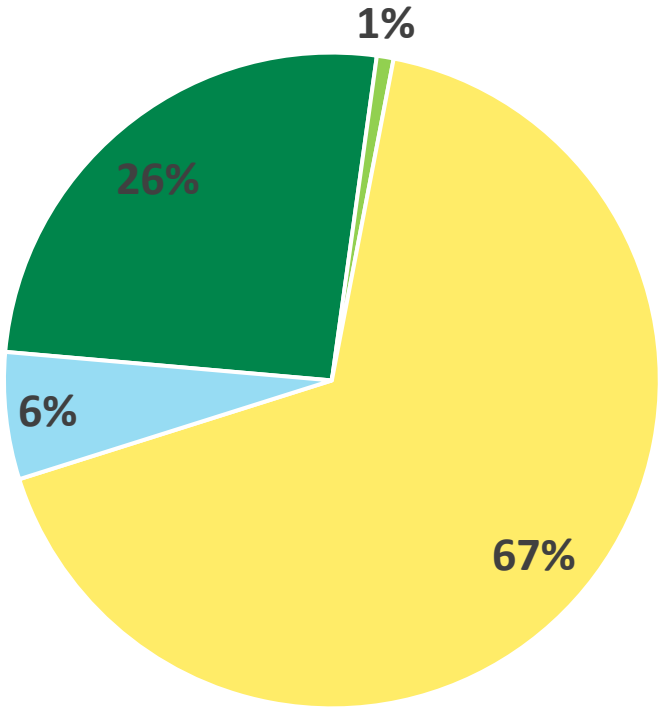




*This value includes acreages within state-owned properties and/or surface water project areas

Unenrolled - Unlikely Enrollable Acres within Caloosahatchee BMAP

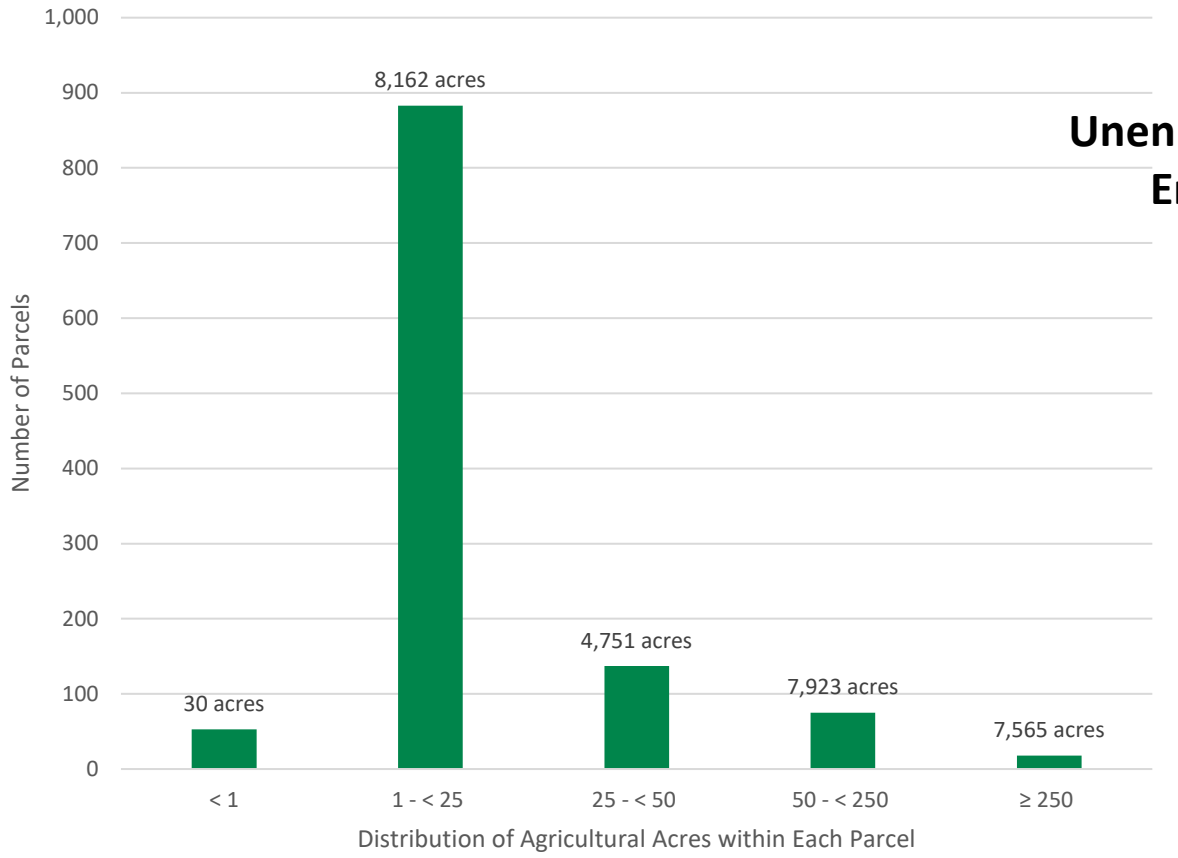
Category	Acres
State Lands, Surface Water Projects	7,635
Timberland and Aquaculture**	245
Not Agriculture [e.g., DOR Use Code 70-99 (industrial or institutional use, acreage not zoned agricultural)]	19,854
Not Enrollable [e.g., missing parcel information, no overlap, conflicting parcel info, slivers]	1,852



Unenrolled - Unlikely Enrollable Acres = 29,587

** *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 Caloosahatchee BMAP



Unenrolled - Potentially Enrollable Acres = 28,431

Enrollments within the Everglades West Coast BMAP

Tributary	Total Ag Acres	Enrolled Ag Acres	% Enrolled	Irrigated Acres	Enrolled Irrigated Acres	% Enrolled
Hendry Creek	103	0	**0%**	75		**0%**
Imperial River	9,431	4,977	**53%**	3,137	3,101	**99%**

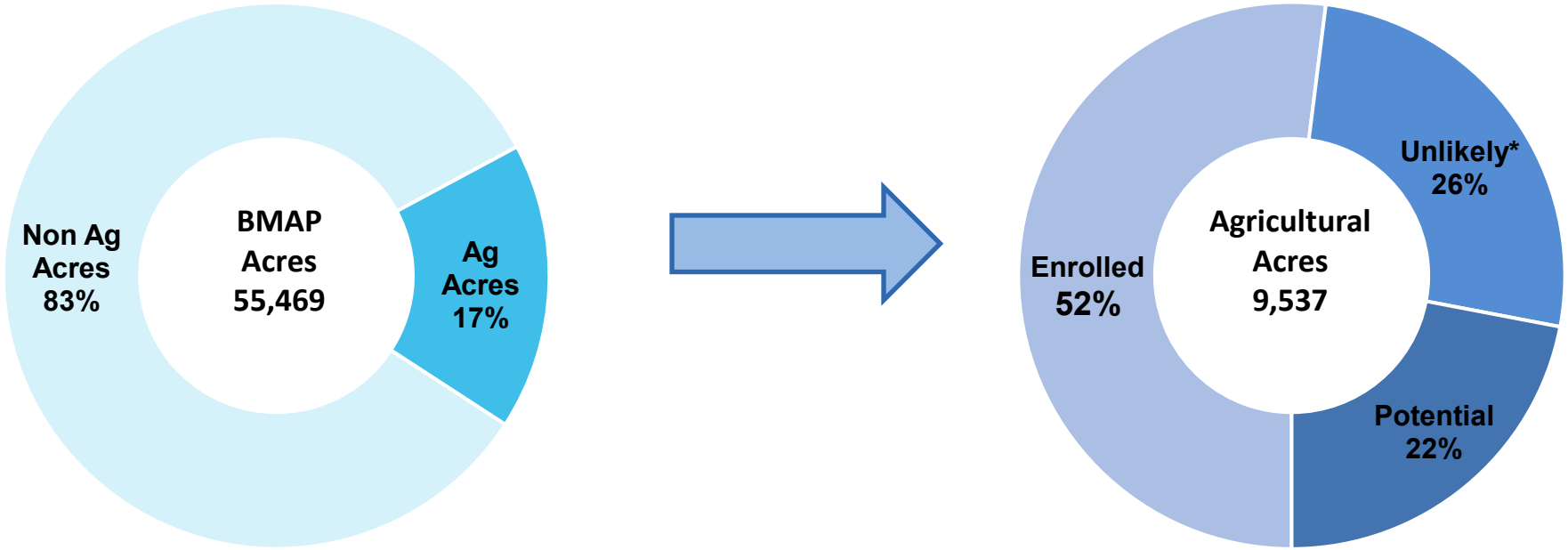
BMP enrollment as of Dec 2023 and the 10th Florida Statewide Agricultural Irrigation Demand (FSAID) Geodatabase

Agricultural Acres Enrolled within Everglades West Coast BMAP

BMP Manual	Acres
Citrus	630
Cow/Calf	444
Multiple Commodities	99
Nursery	22
Row/Field Crop	3,781
TOTAL	**4,976**

Agricultural Lands within Everglades West Coast BMAP

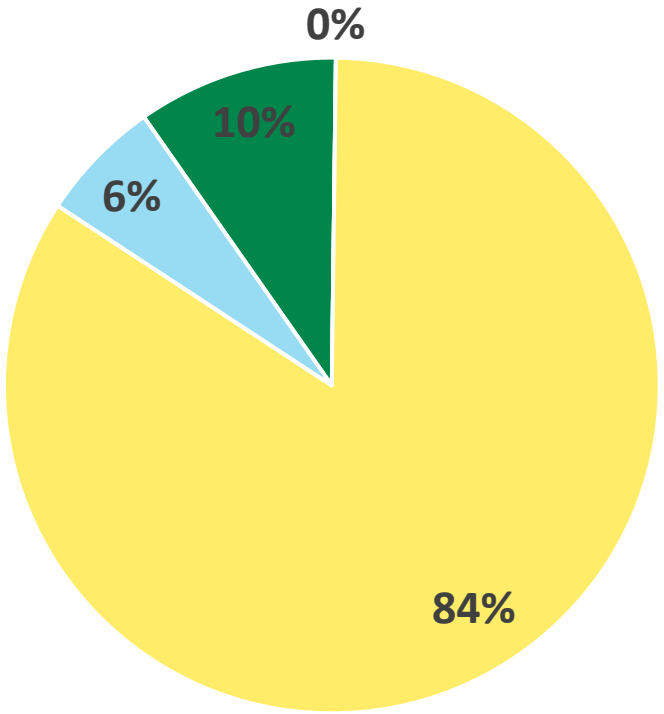
Non-Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Unenrolled - Unlikely Enrollable Acres *	Unenrolled - Potentially Enrollable Acres
45,932	9,537	4,976	2,499	2,057



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

Unenrolled - Unlikely Enrollable Acres within Everglades West Coast BMAP

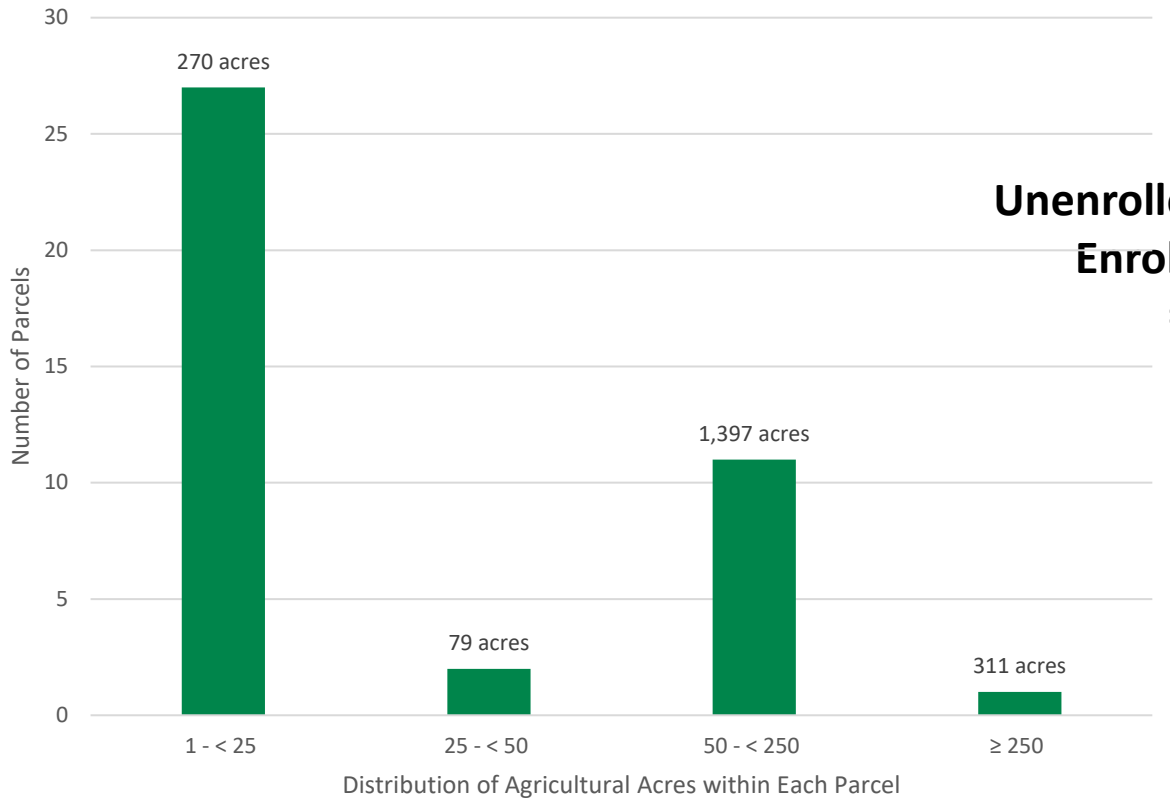
Category	Acres
State Lands, Surface Water Projects	248
Timberland and Aquaculture**	0
Not Agriculture [e.g., DOR Use Code 70-99 (industrial or institutional use, acreage not zoned agricultural)]	2,101
Not Enrollable [e.g., missing parcel information, no overlap, conflicting parcel info, slivers]	151



Unenrolled - Unlikely Enrollable Acres = 2,499

** *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 Everglades West Coast BMAP



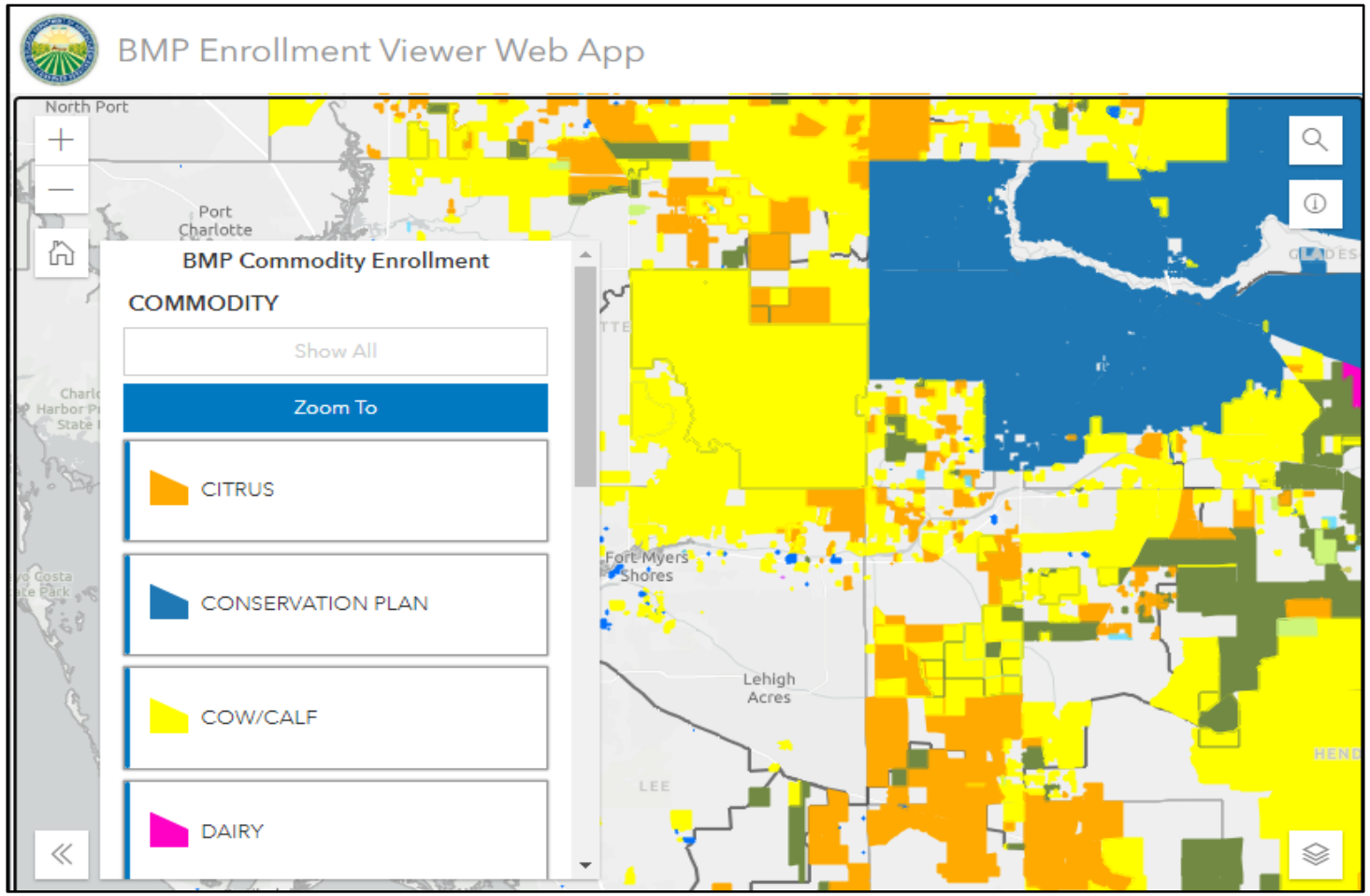
Unenrolled - Potentially Enrollable Acres = 2,057

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
    - 93% completed* – Caloosahatchee
    - 83% completed* – Everglades West Coast
  - 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

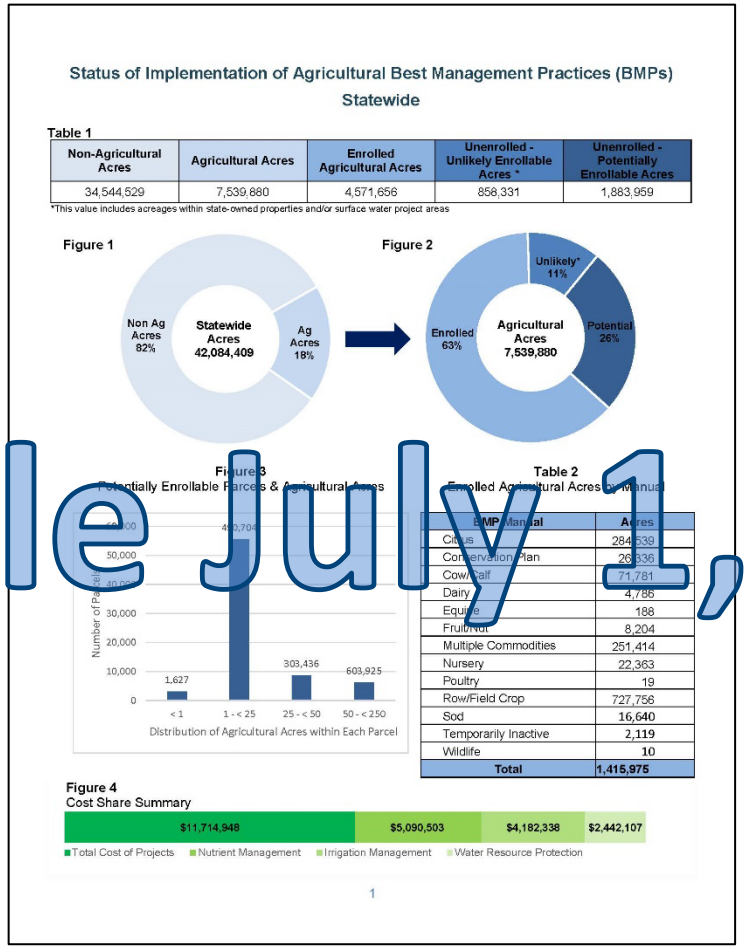
Office of Agricultural Water Policy

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

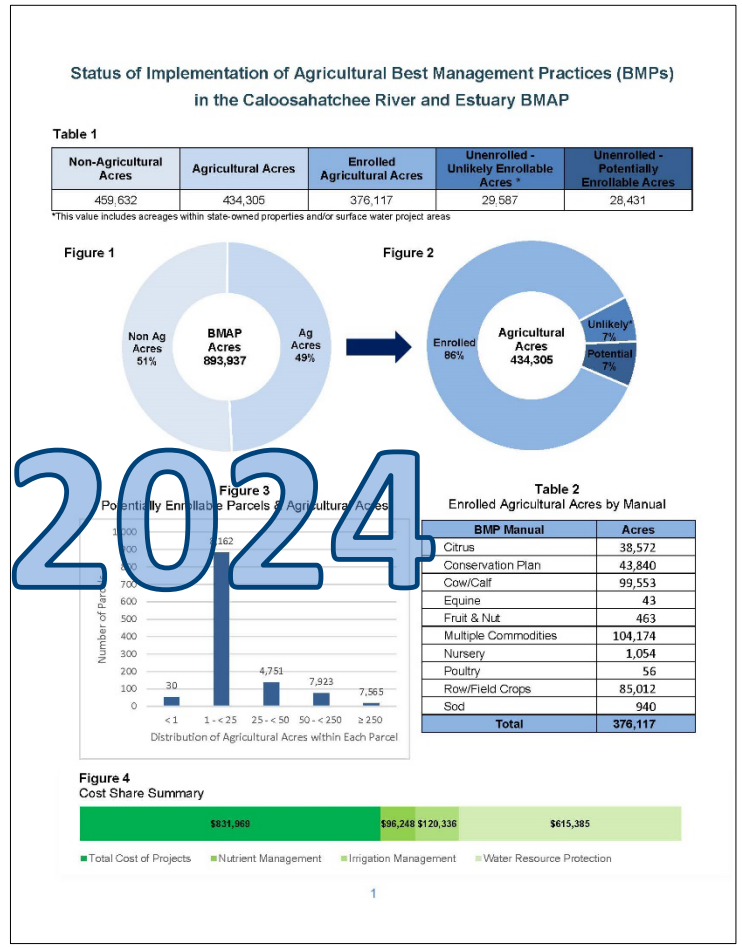
Figure 3
Potentially Enrollable Parcels & Agricultural Acres

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 Caloosahatchee River and Estuary BMAP

Table 1

Non-Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Unenrolled - Unlikely Enrollable Acres *	Unenrolled - Potentially Enrollable Acres
459,632	434,305	376,117	29,587	28,431

*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	38,572
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Equine	43
Fruit & Nut	463
Multiple Commodities	104,174
Nursery	1,054
Poultry	56
Row/Field Crops	85,012
Sod	940
Total	376,117

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

Caloosahatchee River and Estuary and Everglades West Coast
Basin Management Action Plans (BMAPs) Annual Meeting
Webinar Summary
Tuesday, April 2, 2024
1:00 pm – 2:35 pm

Participants

Cassondra Armstrong, SFWMD
Charles Avery, Citizen
Christian Avila, SFWMD
Taufiqul Aziz, DEP
Bill Baker, MacVicar Consulting
Lisa Bally, ATM
Evelyn Becerra, DEP
David Bortell, Citizen
Beth Brady, Save the Manatee
Andrea Browning, Lee County
Patricia Burke, SFWMD
Trevor Campbell, AECOM
Lauren Campbell, DEP
John Cassani, Calusa Waterkeeper
Stacy Cecil, SJRWMD
Carolin Ciarlariello, DEP
Brad Cornell, Audubon
Kevin Coyne, AMP
Susan Dahod, Citizen
Tim Denison, Johnson Engineering
Diane DiPascale, Collier County
Amy Eason, Martin County
Kate English, Pavese Law Firm
Yesenia Escribano, FDACS
Amanda Exposito-Ferree, Atkins Realis
Edgar Fernandez, Anfield Consulting
Jay Ferrin, Florida Senate
Jessica Fetgatter, DEP
Phil Flood, SFWMD
Jake Fojtik, FFBF
Marcy Frick, Tetra Tech
Joe Gilio, Citizen
Beverly Grady, Citizen
Kyle Grandusky, GMA Water
Jennifer Green, FDOT
Roxanne Groover, FOWA
Raichel Gulde, RES
Chris Guth, Federico and Associates
Ron Hamel, FGCU
Maddy Hart, FDACS
Kenny Hayman, DEP
Derek Hendrie, Lykes
Carolina Hernandez, SFWMD
Moira Homann, DEP
Laila Hudda, Citizen
Stephen Hume, Citizen
Nenad Iricanin, SFWMD
Megan Jacoby, SFWMD
Wes Kayne, Barraco & Associates
Chandler Keenan, DEP
Chris Keller, Wetlands Solutions
Steven Kelly, FDOT
Evan Key, DEP
Lisa Kreiger, Lee County
Tricia Kyzar, UF
Juli LaRock, SFWMD
Laura Layman, SFWMD
Bill Lynch, Jones Edmunds
Alexandra Mattingly, SFWMD
Daniel McDevitt, McDevitt Law
Valentina Miele, FL Oceanographic Society
Brandon Moody, Charlotte County
Jessica Mostyn, DEP
Ryne Nimmo, DEP
Kevin O'Donnell, DEP
Stacey Ollis, SFWMD
Steffany Olson, SFWMD
Roland Ottolini, Lee County
Rachel Perley, Four Waters Engineering
Ximena Pernett, RES
Jon Perry, ESA
Mark Perry, Florida Oceanographic Survey
Codty Pierce, Calusa Waterkeeper
Libby Pigman, FWMD
Jason Pim, Sharkinetics
Nicolas Pisarello, ATM
Robert Potts, ATM
Jeff Prater, USACE

Irene Quincey, Pavese Law
Jennifer Reynolds, SFWMD
Ethan Richardson, DEP
Mary Kay Robbins-Kralapp, Citizen
Steven Rodriguez, SDPA
Rhonda Roff, Citizen
Maria Romero, Lee County
Zach Sampson, Tampa Bay Times
Warren Schirado, Citizen
Marlene Severino, DEP
Mailin Sotolongo- Lopez, DEP
Courtney Stevenson, Bonita Springs Utilities
Danielle Taylor, SFWMD
Drew Thacker, Westervelt
The Florida Channel
Jennifer Thera, FDACS
Richard Thompson, City of Fort Myers
Ansley Tilley, RES
Bill Tredik, ATM
Diana Turner, DEP
David Tyler, DEP
Rachel Vitek, RES
Shreya Vuttaluru, Tampa Bay Times
Tommy Walker, Alico
Youchao Wang, SFWMD
Rhonda Watkins, Collier County
Ken Weaver, DEP

The 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/Caloosahatchee/Meetings/2024_Annual_Meeting/ or https://publicfiles.dep.state.fl.us/DEAR/BMAP/EWC/Meetings/2024_Annual_Meeting/.

Questions and Answers

Question on the South Florida Water Management District (SFWMD) presentation: When will DEP determine the C-43 operational water quality certification? C-43 water quality certification is for Water Quality-Based Effluent Limits (WQBELs).
Answer from Diana Turner, DEP: I do not know that at this time but I can look into that.
Follow-up Answer: DEP will issue an operating permit for the C-43 West Basin Storage Reservoir project prior to final completion. According to SFWMD, construction of the C-43 reservoir is anticipated to be completed in December 2024. Please note that since this is a reservoir and not a stormwater treatment area, there is no WQBEL for this project.

Question the SFWMD presentation: Some great projects in the works. What efforts are being made in identifying additional projects and securing lands to address the shortfall of storage needs in the Caloosahatchee Watershed?
Answer from Stacey Ollis, SFWMD: The District is working in collaboration with DEP over the next year. We are in preparation now for our five-year Water Protection Plan reviews and those will be published in the 2025 South Florida Environmental Report (SFER). We are working on the collaboration for identifying additional projects and those will include identifying both public and possible other areas that would allow us to place additional projects. There will be more to come on that in the 2025 SFER.

Question on the DEP presentation: When will the next iteration of the Everglades West Coast BMAP be released/updated?
Answer from Diana Turner, DEP: We are going to be updating this BMAP by July 1st of next year and I will talk a lot more about what is coming up for that update later on in the presentation. It will be updated by next July.

Question on the DEP presentation: My question is about the nitrogen concentrations. Are they summaries/averages over time?
Answer from Marcy Frick, Tetra Tech: Those are the total maximum daily load (TMDL) concentrations, I am assuming. If they are then we are looking at some long-term averages.
Answer from Diana Turner, DEP: If it was about the scatter plots I showed for Everglades West Coast, that was all sample data over time. We do look at trends, particularly in Caloosahatchee.
Clarification: Yes, scatter plots.

Question on the DEP presentation: What projects are in place to improve the year-over-year total nitrogen (TN) reduction to meet the 20 year plan?
Answer from Marcy Frick, Tetra Tech: The projects that we have shown so far are the projects submitted by all of our local stakeholders that were shown in the slides earlier as well as ones that the Coordinating Agencies, that is the South Florida Water Management District, Florida Department of Agriculture and Consumer Services, and Florida Department of Environmental Protection, are looking to do on a more regional scale. Each year as part of the Statewide Annual Report we ask for updates and new projects to continue to meet those targets.
Answer from Diana Turner, DEP: As part of the BMAP updates we will be asking for projects to include in the BMAPs so that is something that we look at as we do the updates.

Question on the DEP presentation: Are the TN reductions noted for the 10-year milestone based on modeling or actual measured/monitored amounts?
Answer from Marcy Frick, Tetra Tech: The answer to that is it is a combination. Depending on the project type, we use the BMAP model for the starting load as well as some defined efficiencies based on studies and literature values to calculate the reductions. Some other projects do have measured reductions that we report on.

Question on the DEP presentation: Are the phosphorus concentrations measured or calculated?
Answer from Marcy Frick, Tetra Tech: If that is for the projects, it is a combination of measured reductions and calculated.

Question on the DEP presentation: How often are the loads coming from the watershed updated?
Answer from Diana Turner, DEP: Every year with the South Florida Environmental Report, they report on loads coming off the watershed every year.
Answer from Marcy Frick, Tetra Tech: For the BMAP, our model starting load remains constant but we do always look at those measured watershed loads that the SFWMD reports on.

Question on the DEP presentation: Where can we see the trends?
Answer from Marcy Frick, Tetra Tech: Those are in SFWMD's South Florida Environment Report and we do the five-year water quality trends for the BMAPs as part of those 5-Year Reviews. The Caloosahatchee trends were in the last 5-Year Review from the year before last.
Answer from Diana Turner, DEP: It is also on the StoryMap.

Question on the DEP presentation: What was the TN reduction number for 2023?
Answer from Marcy Frick, Tetra Tech: We would have to go back into the Statewide Annual Report (STAR) to look at what we got for that. [Note: Based on the draft STAR information, an additional 1,232 pounds per year of total nitrogen were achieved in 2023.]

Question on the DEP presentation: Do those new loads that factor into the TMDL?
Answer from Marcy Frick, Tetra Tech: We will talk about next steps shortly on how we will factor in those new loads.

Question on the DEP presentation: Are the reductions calculated or are you referring to the actual monitoring data as reported by the SFWMD in the five major basins?
Answer from Marcy Frick, Tetra Tech: The project reductions are either calculated using the model and literature or study efficiencies or monitoring data, where available. In terms of the watershed loads, some of that information does come from the SFWMD's South Florida Environmental Report.

Question on the DEP presentation: With the Florida Department of Agriculture and Consumer Services (FDACS) updating their best management practice (BMP) books and practices, how is DEP monitoring those BMP credits? Will there be an increase in sample monitoring to verify compliance?
Answer from Diana Turner, DEP: FDACS is pretty early in the process of updating those BMP manuals so I am not sure exactly what that will look like yet. We are still working through that process with them.

Question on the DEP presentation: Not seeing the same progress reported here as noted in the South Florida Environmental Report (SFER) on a basin or subwatershed perspective. Can you clarify?
Answer from Marcy Frick, Tetra Tech: We did talk about in the 5-Year Review and last year's meeting that there are increasing watershed loads. These progress charts are compared to the estimated loading at the time of the BMAP and Diana will shortly talk more about next steps on how we plan on addressing the increased watershed loads as part of the next BMAP update.

Question on the DEP presentation: Does the total phosphorus (TP) and TN loading account for the inflows from Lake Okeechobee?
Answer from Marcy Frick, Tetra Tech: For the BMAP, we are focused on the loads from the watershed that the local stakeholders are able to reduce. Those are the loading values that we are looking at in the BMAP.

Question on the DEP presentation: Are data reported here including excess Lake Okeechobee discharges as occurring today?
Answer from Marcy Frick, Tetra Tech: The data here are through Water Year 2023, which end at the end of April 2023 so we are not looking at current discharges. That will be reflected in the next targeted restoration area (TRA) update.

Question on the DEP presentation: What is the source of nitrogen in Cypress Creek and Orange River?
Answer from Marcy Frick, Tetra Tech: We have kind of looked into it and I know Lee County has done some studies and we are continuing to try and find sources so that we can address that. I do not think we have a set answer to that yet.

Question on the DEP presentation: Why is insufficient data so prevalent in the eastern basins after 12 years of BMAP?
Answer from Marcy Frick, Tetra Tech: The eastern area was just added in 2020 so we started monitoring those in 2020. As I mentioned, staring next year, we will have quite a few less insufficient

because we will have the five years of data.

Question on the DEP presentation: While the modeled BMAP load for TN was 3.9 million pounds per year, the 2022 measured 5-year average for the watershed was 5.2 million pounds per year. Has this problem of modeled versus measured 5-year averages disparity been addressed to get more realistic status assessments?
Answer from Marcy Frick, Tetra Tech: We will talk about that shortly.

Question on the DEP presentation: Can you comment on the status of House Bill 1557/Senate Bill 1386? Has Governor DeSantis signed yet? The bill adds some further requirements for wastewater treatment facilities specific to BMAPs and TMDLs.
Answer from Diana Turner, DEP: I do know that it has passed. I do not believe it has been signed yet as far as I know.
Answer from Moira Homann, DEP: I do not believe he has signed it yet so we're keeping an eye on that. Once it is signed, we will start talking about how we will incorporate those new requirements into our BMAPs for the updates for next year.

Question on the DEP presentation: Will also update stakeholders in the Everglades West Coast to include any community development districts (CDDs), as you did for the Caloosahatchee River and Estuary?
Answer from Marcy Frick, Tetra Tech: Yes, we did get information from Lee County to do that.

Question on the DEP presentation: Are municipal separate storm sewer system (MS4) permitted programs in compliance with BMAP load reduction targets? If a MS4 is in a BMAP area it requires accountability with the BMAP load reduction.
Answer from Diana Turner, DEP: The MS4s have certain permit requirements that are handled by the MS4 group.
Answer from Marcy Frick, Tetra Tech: Everyone has been submitting projects and updates and making progress towards reductions so I believe that means they are in compliance.
Answer from Diana Turner, DEP: I believe so.

Question on the DEP presentation: How did we get a reduction in urban land use? Or is the 2017-2019 the current?
Answer from Marcy Frick, Tetra Tech: It does not look like there was a reduction. They both increased. The "Acres in Current BMAP" are from the 2012 BMAP with that land use coverage, which 2010 was probably the newest. The updated 2017-2019 coverage is the latest available. There was an increase in urban and a reduction in natural and agriculture.

Question on the DEP presentation: What happens in 2032 if required reductions have not been attained?
Answer from Diana Turner, DEP: There are a couple of things that can happen. We will have to evaluate where we are in 2032 to see if we need to extend the BMAP or if we need to take enforcement because BMAPs are a Secretarial Order so if we need to take enforcement we can.
Answer from Moira Homann, DEP: With the requirements of Senate Bill 1379 where stakeholders have to meet milestones every five years, we'll be able to keep tabs of where we are hopefully way ahead of time before we hit that 2032 deadline and we will be able to work to adaptively manage our

projects and work with stakeholders to ensure that we've got as many projects for the highest amount of reductions as possible before we hit that deadline. At that point we would reconsider if we need to make adjustments to our timeframes.
Comment: This feels like we are kicking the can down the road folks!

Question on the DEP presentation: How confident are you in the 10-year average loading data while also reporting insufficient data for the East and West basins?
Answer from Marcy Frick, Tetra Tech: The 10-year average loading data used in the BMAP are from the model. It is the last ten years of the model period and that was calibrated to data available at that time. The reason we are reporting insufficient data for East and West is for the TRA process we needed five consecutive years of monitoring and those basins have not previously been monitored consistently. As you can see, we do have data that Diana represented in the hotspot analysis. We just did not have the five consecutive years for the TRA approach. These are all just different ways of tracking progress to help inform where we really need to be focusing our efforts moving forward.

Question on the DEP presentation: Will DEP continue to allow excess BMAP load reduction credits for environmental resource permit (ERP) applications?
Answer from Marcy Frick, Tetra Tech: Any BMAP credits have to be above and beyond any permit requirements. If any permitted stormwater treatment projects do have more treatment provided than required, we can give some additional credit.

Question on the DEP presentation: What is TRA?
Answer from Marcy Frick, Tetra Tech: That is the targeted restoration area approach that we described a few slides ago.

Question on the DEP presentation: How are you handling "I" qualified data in the TN calculations?
Answer from Diana Turner, DEP: "I" data is included. We take a look to make sure there is no other qualifier codes with it.

Question on the DEP presentation: In the hotspot data map, there are still lots of insufficient data points. Does that mean no data are being collected in these locations? How can that be addressed?
Answer from Diana Turner, DEP: I have to go back and look at the station list. I do not recall if this is every single station that exists. There are some stations that just by the nature of what the purpose is of the station, they are only sampled a couple of times and then they are done. That could be some of these stations. It could be that that they are newer stations so they maybe only have one year of data. There are a couple of different possibilities.

Question on the DEP presentation: Are data sorted by whether there are lake discharges at the time of sampling?
Answer from Diana Turner, DEP: No, I do not believe so.

Question on the DEP presentation: Will the results of the TRA and hot spot analysis be included in future BMAP Report and/or BMAP Story Map?
Answer from Marcy Frick, Tetra Tech: Yes, they will.

Question on the FDACS presentation: Are there any plans to conduct audits to verify BMP compliance?
Answer from Jennifer Thera, FDACS: Every two years we go out and do the site visit and make sure they are doing everything correctly and implementing everything they need to be doing. It is a two-step process to determine if the BMPs are being properly implemented. We first give them corrective measures and then if a producer does not properly implement, we turn them over to DEP for enforcement.

Question on the FDACS presentation: Despite 95% enrollment in East Caloosahatchee that is where the most nutrient hotspots are. Is there a connection between BMPs implemented and measured outcomes in downstream impaired waters?
Answer from Jennifer Thera, FDACS: For all the BMPs verified effective by DEP, there is a presumption of compliance with water quality standards and there is no onsite monitoring on an operation. Through monitoring, DEP identifies and tracks water quality trends in the waterbody to identify areas in the watershed that are exhibiting high loadings of TN or TP, the hotspot analysis that they talked about, to better focus our management efforts. We are currently working cooperatively with DEP and SFWMD to identify adaptive management strategies and regional projects that will help meet the TMDL.

Question on the FDACS presentation: What portion of agricultural operations have chosen the water quality monitoring option for BMP assessment?
Answer from Jennifer Thera, FDACS: As of today, that we know of, no one has selected the monitoring in lieu of enrolling in our program and implementing FDACS' BMPs.

Question on the FDACS presentation: Why is unenrolled acreage so high in the Everglades West Coast basin? Isn't enrollment required when in a BMAP area?
Answer from Jennifer Thera, FDACS: Of the 48% that is being remained to be enrolled, 26% of those acreages are unlikely agriculture. If we account for what is likely enrollable, we are at 71% enrolled.

Question on the FDACS presentation: Is DEP in charge of BMP enrollment enforcement? If so, what is being done to require enrollment?
Answer from Diana Turner, DEP: Yes, DEP is in charge of enrollment enforcement. Our resident expert in charge of the enforcement program is not with us today so I will follow up with you and we will post an answer online as well. [Note: please refer to the 2023 annual meeting folder on the FTP site for an explanation on what the BMP enrollment enforcement efforts are: https://publicfiles.dep.state.fl.us/DEAR/BMAP/Caloosahatchee/Meetings/2023_03_17_Annual_Meeting/]
Marcy Frick, Tetra Tech: We did cover that in the last two or three years in annual meetings. Some of that information is posted in past presentations, as well, if you want to look back at the FTP site.

Question on the DEP presentation: What model will be used to update the Everglades West Coast BMAP?
Answer from Marcy Frick, Tetra Tech: That will be another land use based model like was used before. We are just updating the land use year as Diana showed.