



BASIN MANAGEMENT ACTION PLAN UPDATES

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Florida Department of Environmental Protection

Florida Stormwater Association Pre-Conference | Dec. 4, 2024



AGENDA

- Basin Management Action Plan (BMAP) Overview.
- Statutes Overview.
- BMAPs - Next Steps.





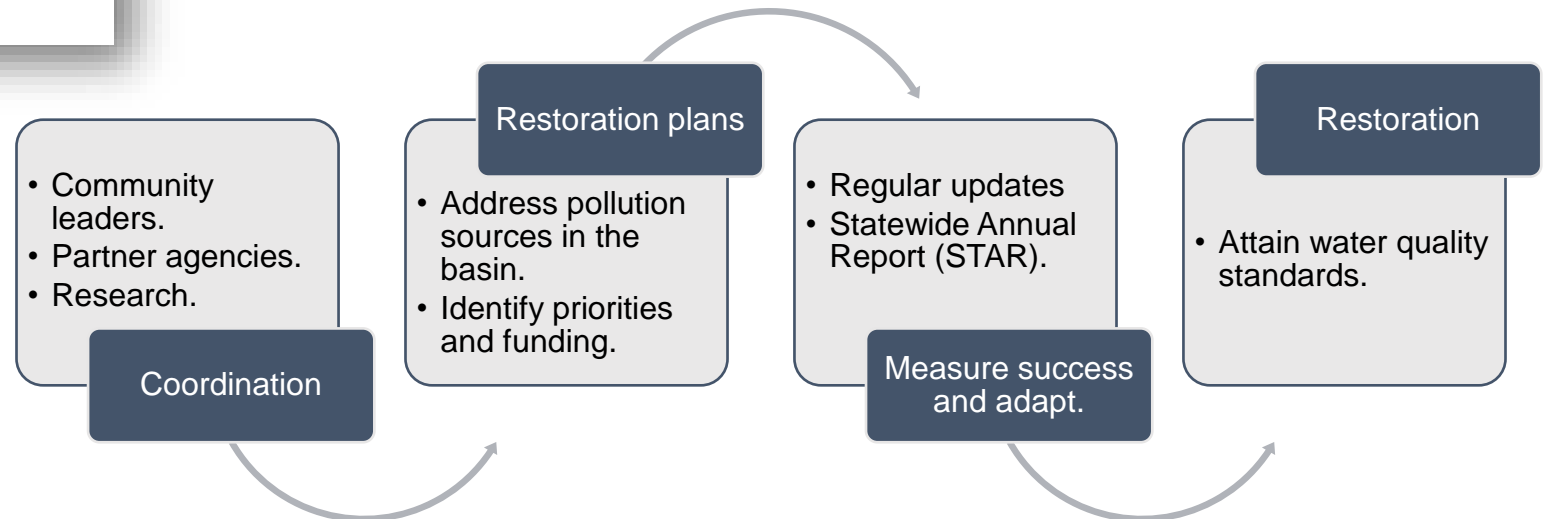
BMAPs



BMAPs are:

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

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

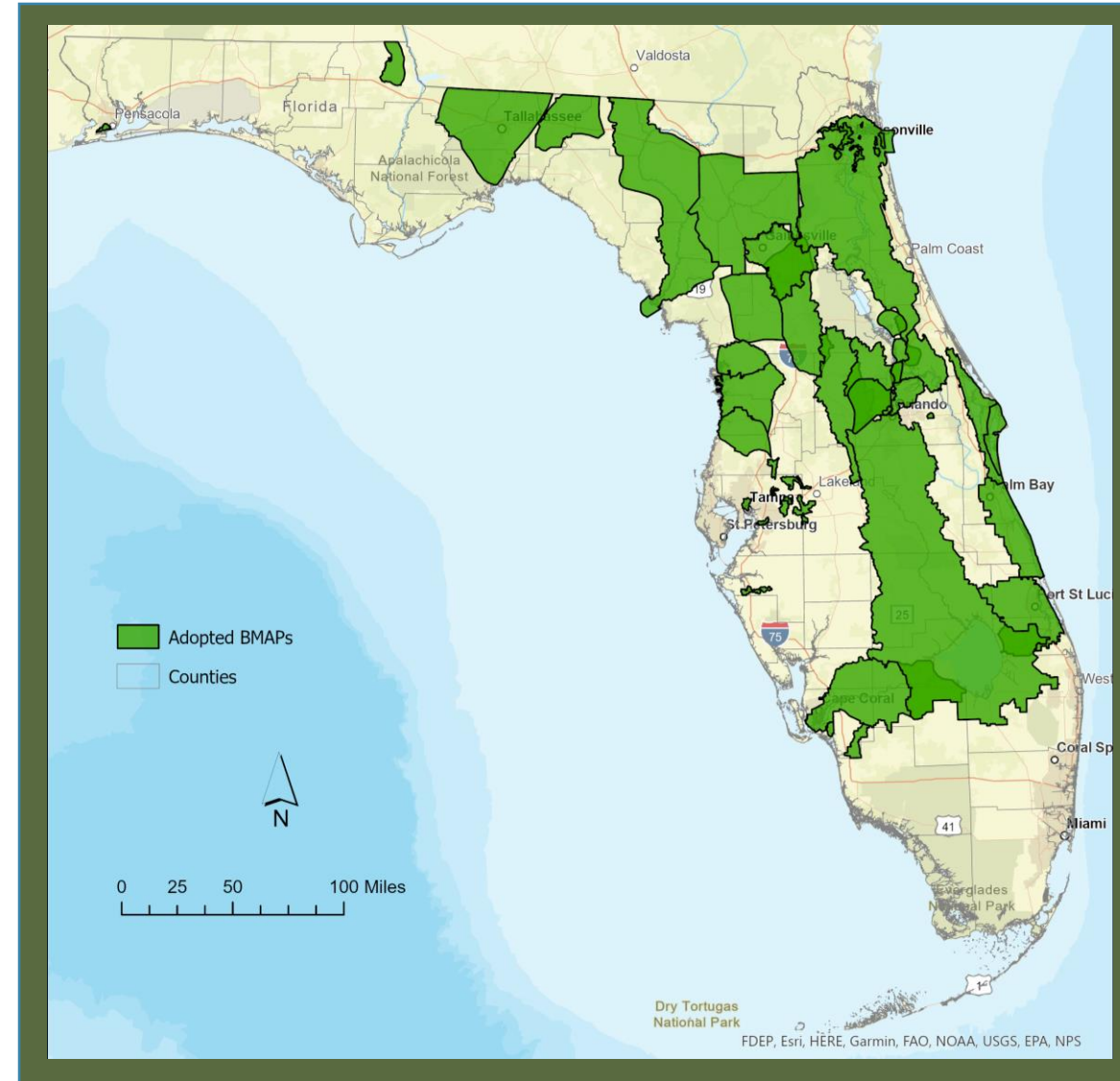




BMAPs ACROSS THE STATE

33 BMAPs:

- 14 springs.
- 19 surface water:
 - Three Northern Everglades and Estuaries Protection Program (NEEPP).
 - Three Indian River Lagoon.
 - Seven other nutrient.
 - Six bacteria.





KEY BMAP COMPONENTS

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

Projects to meet the TMDL:

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

Process to assess progress toward achieving the TMDL:

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



BILLS AND LEGISLATION

- Florida Watershed Protection Act, section 403.067, Florida Statutes (F.S.).
- Florida Springs and Aquifer Protection Act, Part VIII of Chapter 373, F.S.
- Northern Everglades and Estuaries Protection Program (section 373.4595, F.S.)
- Indian River Lagoon Protection Program (section 373.469, F.S.)
- Senate Bill (SB) 712 Clean Waterways Act (2020).
- House Bill (HB) 1379 (2023).
- HB 1557 (2024).





LEGISLATION HIGHLIGHTS

CLEAN WATERWAYS ACT (2020)

- Promotes resilient wastewater infrastructure and utilities and looks at future growth.
- Requires local governments within a BMAP to develop wastewater treatment plans and/or onsite sewage treatment and disposal system (OSTDS) remediation plans to be incorporated into BMAP updates.



Source: South Florida Water Management District (SFWMD)



LEGISLATION HIGHLIGHTS

HB 1379 (2023)

- Requires BMAPs be assessed and updated every five years as needed to include implementation milestones and other requirements.
- Requires a list of projects and strategies that will achieve the five-year implementation milestones to meet TMDLs.
- Incorporates agricultural cooperative regional water quality improvement elements.
- Requires facilities discharging to a waterbody impaired for nutrients or subject to a BMAP or reasonable assurance plan (RAP) area to upgrade to advanced waste treatment (AWT) within 10 years.
- Requires applicants for new septic systems serving lots of 1 acre or less within BMAPs and RAPs to connect to central sewer if available, or if unavailable, to install an enhanced nutrient-reducing system or other wastewater system that achieves 65% reduction in nitrogen.
- Requires local governments to include BMAP projects in their comprehensive plans so these projects can be prioritized to achieve restoration benefits.
- Expands prohibitions in Outstanding Florida Springs BMAPs to entire BMAP area (section 373.811, F.S.)
- Expands grant opportunities to accelerate project implementation.



LEGISLATION HIGHLIGHTS

HB 1557 (2024)

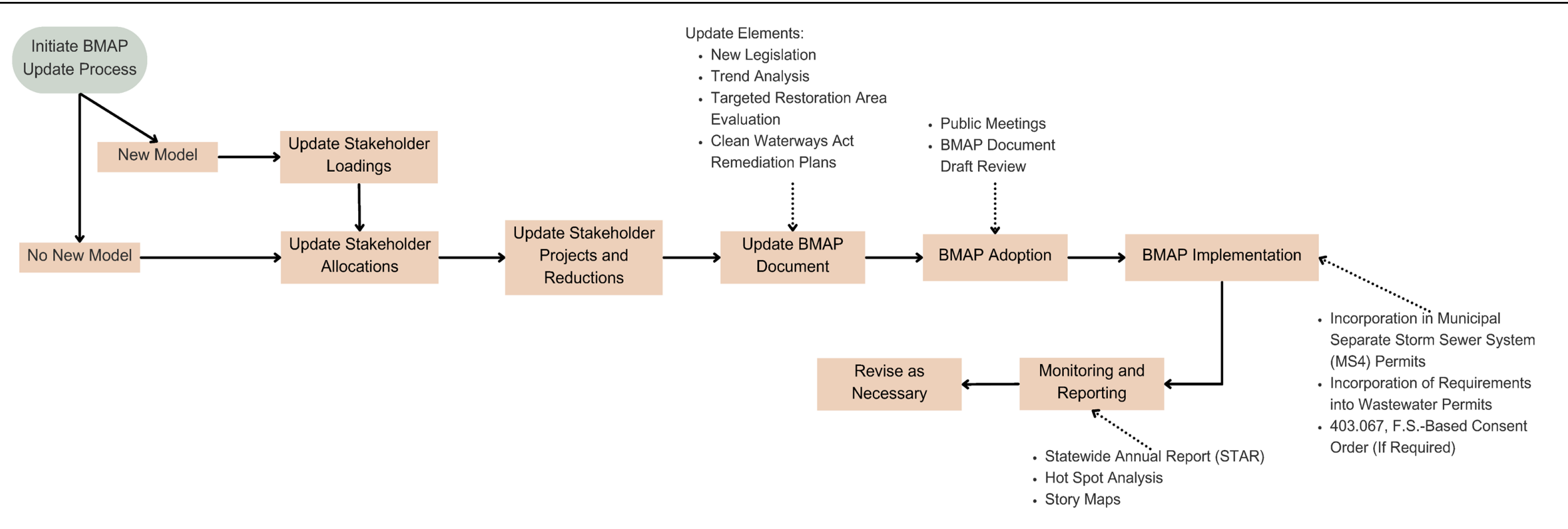
- Requires AWT of reclaimed water within BMAPs.
- Requires facilities (including private) to provide information to local entities developing domestic wastewater treatment facility plans and OSTDS remediation plans within BMAP or other restoration areas.



Photo Credit: SJRWMD



BMAP UPDATE PROCESS FLOWCHART





BMAP UPDATE COMPONENTS

ADOPT BY JULY 1, 2025

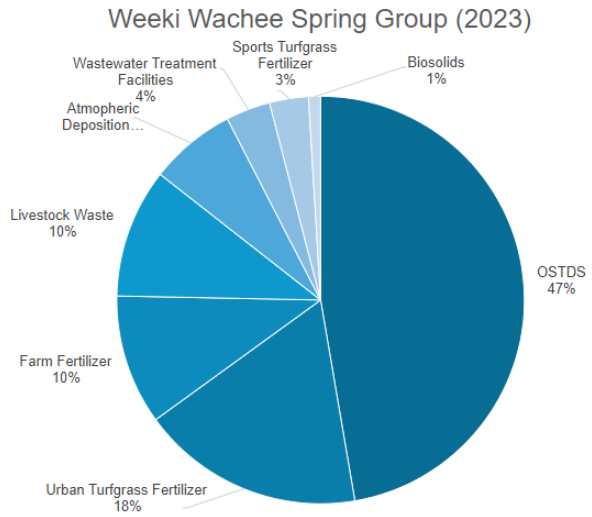
- Model updates.
- Spring vent load analyses.
- Revise/develop entity allocations.
- Future growth.
- Establish five-year milestones for project implementation and list of identified projects to meet five-year milestones.
- Incorporate Clean Waterways Act (2020), HB 1379 (2023) and HB 1557 (2024) requirements.
- Incorporate regional projects.
- Water quality data evaluation:
 - Evaluation of the monitoring networks.
 - Water quality trend analyses.
 - Hot spot analysis.
- Evaluate further OSTDS provisions.
- Evaluate the need for AWT or other more stringent effluent limits for wastewater facilities.
- Include recommendations from the Five-Year Reviews (NEEPP BMAPs).



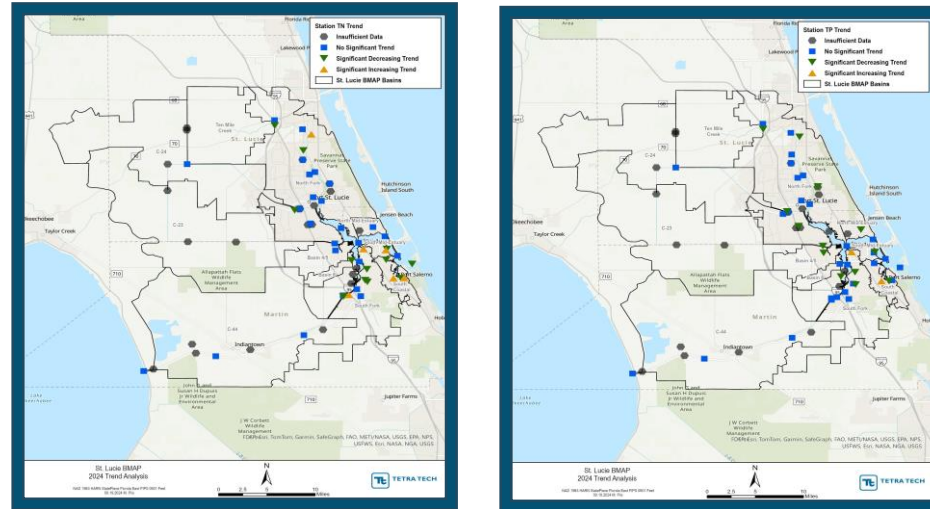


DATA EVALUATION EXAMPLES

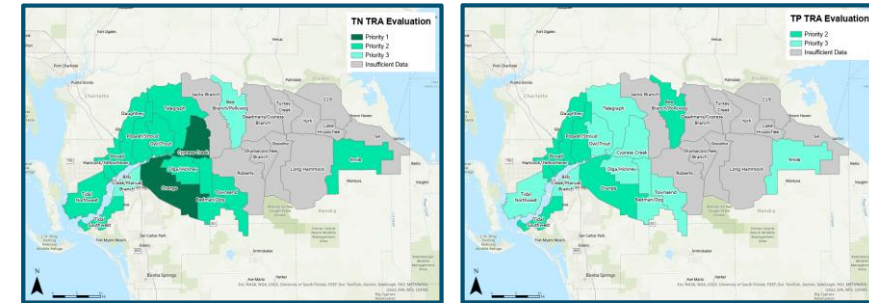
Nitrogen Source Inventory Loading Tool (NISLT)



Water Quality Trend Analyses (Station Trends)



Targeted Restoration Area (TRA) Evaluation

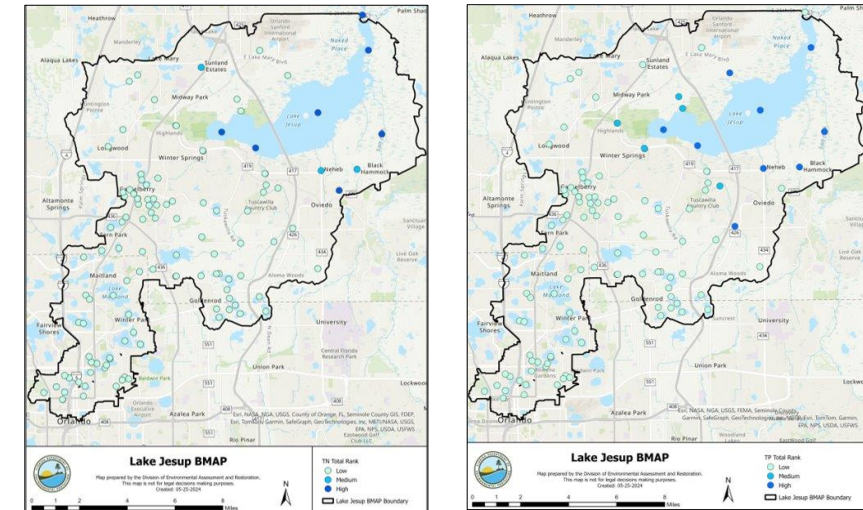


Spring Vent Analysis

DeLeon Spring- Total Reduction Needed to Meet the TMDL		
	Nitrogen Loads (lbs.-N/yr.)	Information
Total Load at Spring Vents (October 2023)	30,556	Upper 95 % confidence interval – nitrate and flow data 2012-2022
TMDL Load	16,278	TMDL target is 0.35 mg/L and using the same flow data and proportions
Percent Required Reductions	47%	Based on Spring Vent Load and TMDL Load
Total NSILT Load (October 2023)	153,756	2023 NSILT
Required Reductions	71,846	Proportional decrease in NSILT load

cfs: Cubic feet per second.
mg/L: milligram per liter.

Hot Spot Analysis





MILESTONES/ALLOCATIONS EXAMPLES

Wekiwa Spring and Rock Springs

Entity	Milestone 2028 Assigned Reductions lbs-N/yr (30%)	Milestone 2033 Assigned Reductions lbs-N/yr (+50%=80%)	Milestone 2038 Assigned Reductions lbs-N/yr (+20%=100%)
City of Altamonte Springs	4,641	12,376	15,470
City of Apopka	16,842	44,913	56,141
City of Maitland	669	1,783	2,229
City of Montverde	1	3	4
City of Ocoee	22,240	59,308	74,135
City of Orlando	1,737	4,632	5,790
City of Winter Garden	4,412	11,766	14,708
Lake County	671	1,789	2,236
Orange County	155,672	415,126	518,907
Seminole County	21,998	58,662	73,327
Town of Eatonville	254	678	848
Town of Oakland	2,447	6,526	8,158
Town of Windermere	1,091	2,909	3,636
Mt. Dora WWTF	7	17	22
Private WWTF*	1,565	4,175	5,218
Private Golf Courses*	6,009	16,025	20,031
Agriculture (BMPs)	2,455	6,547	8,184
Ag-Cooperative Regional Elements and Cost Share	10,769	28,717	35,896
Regional Projects	11,885	31,695	39,618

Caloosahatchee River and Estuary

Entity	TN Starting Load (lbs/yr)	TN Required Reductions (lbs/yr)	TN Allocation (lbs/yr)	TP Starting Load (lbs/yr)	TP Required Reductions (lbs/yr)	TP Allocation (lbs/yr)
Agriculture	2,128,687	884,700	1,243,987	472,423	284,285	188,138
City of Fort Pierce	48,617	16,205	32,412	8,071	5,266	2,805
City of Port St. Lucie	397,343	138,187	259,156	67,422	44,277	23,145
City of Stuart	36,893	6,003	30,890	6,142	2,700	3,442
Copper Creek CDD	2,591	1,500	1,091	431	306	125
Creekside CDD	1,695	475	1,220	293	175	118
FDOT District 4	44,404	15,907	28,497	8,047	4,801	3,246
FDOT District 1	1,013	594	419	283	218	65
Martin County	388,638	75,231	313,407	66,501	31,786	34,715
Okeechobee County	13,635	7,950	5,685	2,629	1,966	663
Portofino Isles CDD	2,186	1,271	915	371	285	86
River Place CDD	1,166	389	777	195	127	68
Southern Grove CDD	2,107	1,226	881	424	310	114
St. Lucie County	180,521	67,679	112,842	32,612	21,398	11,214
St. Lucie West Service District	40,406	13,469	26,937	6,967	4,545	2,422
Tesoro CDD	7,756	2,585	5,171	1,271	829	442
Town of Sewall's Point	1,919	417	1,502	319	174	145
Tradition CDD	14,621	8,396	6,225	2,562	1,815	747
Turnpike	13,839	4,163	9,676	2,281	1,402	879
Veranda CDD	3,037	1,012	2,025	407	266	141
Verano CDD	1,778	1,030	748	366	260	106
Villa Vizcaya CDD	357	119	238	60	39	21
Village of Indiantown	16,560	3,600	12,960	2,780	751	2,029
Total	3,349,769	1,252,108	2,097,661	682,857	407,981	274,876

Imperial River (Everglades West Coast)

Entity	2027 TN Milestone (lbs/yr)	2032 TN Final Milestone (lbs/yr)
DACS	13,968	27,968
DOT D1	47	94
Corkscrew Farms CDD	555	1,110
City of Bonita Springs	5,407	10,814
Lee County	1,749	3,498
Total	21,726	43,484

Hendry Creek (Everglades West Coast)

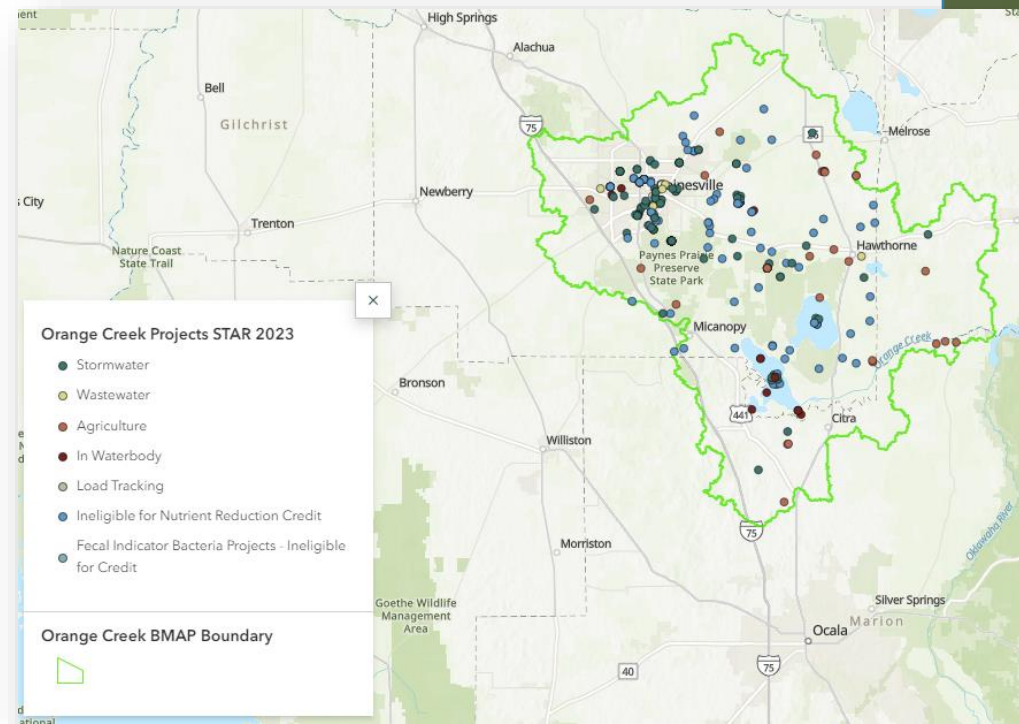
Entity	2027 TN Milestone (lbs/yr)	2032 TN Final Milestone (lbs/yr)
DACS	183	366
DOT D1	68	135
Catalina at Winkler Preserve CDD	79	157
Laguna Lakes CDD	157	314
Lee County	7,591	15,182
Total	8,078	16,154



PROJECTS

HB 1379 (2023) requires responsible entities to report on projects needed to meet the required five-year milestones.

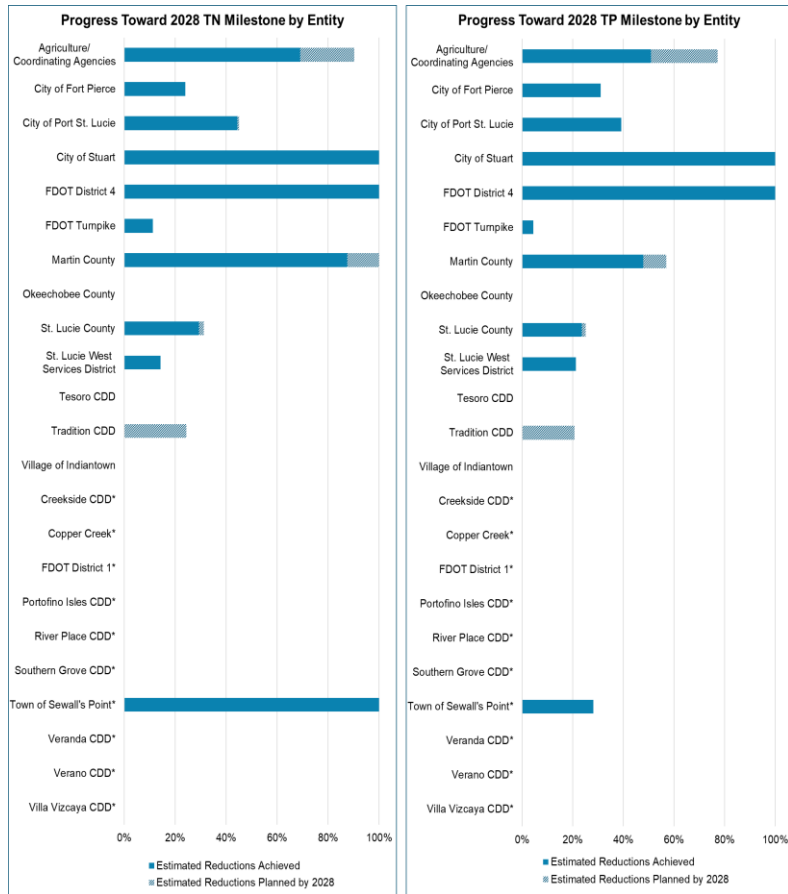
- It is critical for each BMAP that entities plan for and report projects and project updates to the state through the STAR process.
- All projects needed to fulfill milestones should be included in the STAR, even if a funding source has not been identified.
- Reporting projects in the STAR allows the state to evaluate funding needs and prioritize projects to promote maximum environmental benefit and to meet milestones.
- Where entity allocations and milestones do not already exist, they will be added in the 2025 BMAP update or another BMAP update after completion of updated modeling. Interim management strategies will be included in the 2025 update for these BMAPs.



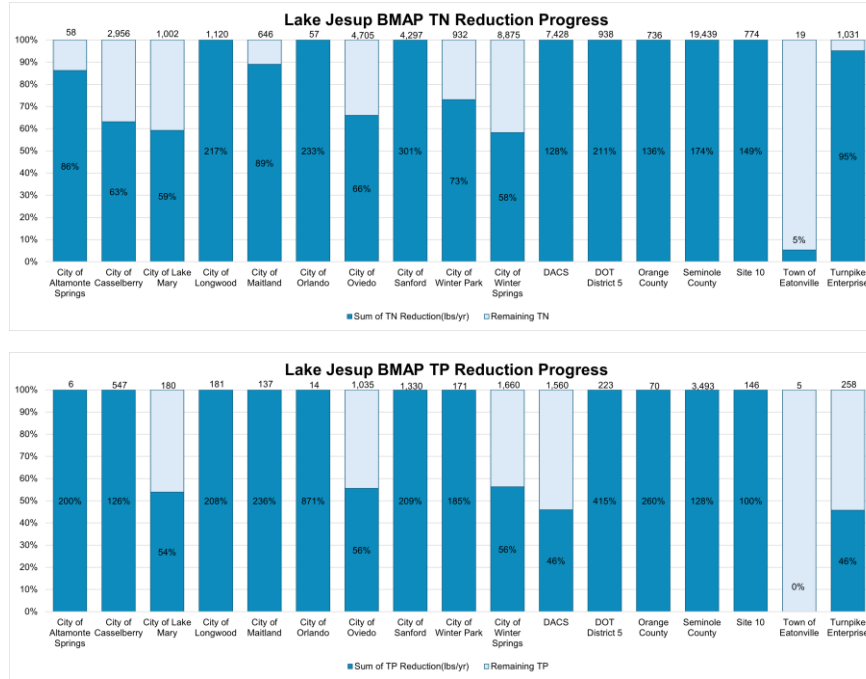


PROGRESS TO MILESTONES EXAMPLES

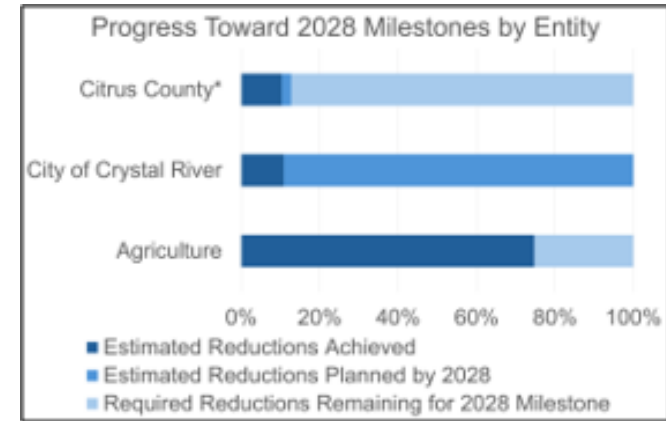
St. Lucie River and Estuary



Lake Jesup

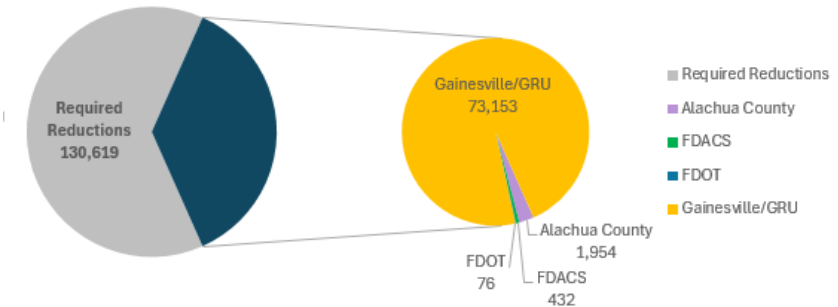


Crystal River/Kings Bay



Orange Creek

Alachua Sink Waterbody Required Reductions (lbs-N/yr)





STATEWIDE ANNUAL REPORT (STAR) PROJECT REPORTING

What is the STAR?







- Summarizes accomplishments in the BMAPs statewide.
- Reports on restoration projects and management strategies.
- Published July 1 of each year.
- STAR 2023 reports on project statuses through Dec. 31, 2023.

The Statewide Annual Report 2023

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 2023 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. This application does not scale well on mobile devices and is optimized for viewing on larger format screens.

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 maximum daily loads (TMDLs), basin



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 2023 Intro \(arcgis.com\)](https://arcgis.com)



BMAP UPDATES TIMELINE

May-
Aug.
2024

Individual meetings on allocations and milestones with BMAP stakeholders.

Aug. 1,
2024

Final wastewater and OSTDS plans due from stakeholders.

June -
Oct. 2024

Public meetings on allocations, milestones and the draft BMAP document.

Technical analyses and drafting the BMAP documents.

June -
Dec. 2024

Final Draft BMAP documents.

Jan. -
Feb.
2025

Statutory deadline for updated nutrient BMAPs.

July 1,
2025



RESOURCES

BMAP WEBSITE AND STORYMAPS

Basin Management Action Plans (BMAPs)

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

Water Quality Restoration Program Quick Links

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

[Statewide Annual Report](#)

[Water Quality Grant Opportunities 2024-25](#)

[BMAP Public Meetings](#)

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

[Tools and Guidance for Calculating Total Nitrogen \(TN\) and Total Phosphorus \(TP\) Reductions](#)

[Florida Water Quality Credit Trading](#)

What is a Basin Management Action Plan?

A BMAP is a framework for water quality restoration that contains a comprehensive set of solutions to achieve the pollutant reductions established by a TMDL. Examples include permit limits on regulated facilities, urban and agricultural wastewater and stormwater infrastructure, regional projects and conservation programs designed to reduce pollutant loads established by a TMDL. A BMAP is developed with local stakeholders and relies on local input for implementation. BMAPs are adopted by Secretarial Order and are legally enforceable. BMAPs allow for incremental load reductions through the implementation of projects and management practices, monitoring and conducting studies to better understand the water quality and hydrologic dynamics of the basin, project implementation and water quality analyses. DEP continues to work with local and regional stakeholders on projects necessary to meet reduction milestones to achieve the TMDLs and inform funding priorities.

What's New: Upcoming Meetings and BMAP Updates

July 1, 2025 BMAP Update Progress

As required by the Clean Waterways Act, DEP must prepare updates to its nutrient BMAPs by July 1, 2025. The [Update Progress](#) dashboard provides a visual representation of progress towards the completion of related sub-tasks leading up to the July 1, 2025 updates. Please visit the [BMAP Public Meeting](#) page for upcoming meetings and subscribe to meeting notices.

Nutrient BMAPs



Nutrient 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

Springs BMAPs



Springs BMAPs identify the sources of nutrient pollution, list the specific projects and programs necessary to reduce nutrient pollution, and establish priority focus areas where statutory prohibitions on certain activities apply (such as installation of new conventional septic systems).

Fecal Bacteria Impaired BMAPs













Bacteria basin management action plans (BMAPs) include management strategies or projects, to be implemented by local stakeholders, that aim to eliminate and prevent the release of waste, containing pathogens, to natural waterbodies.

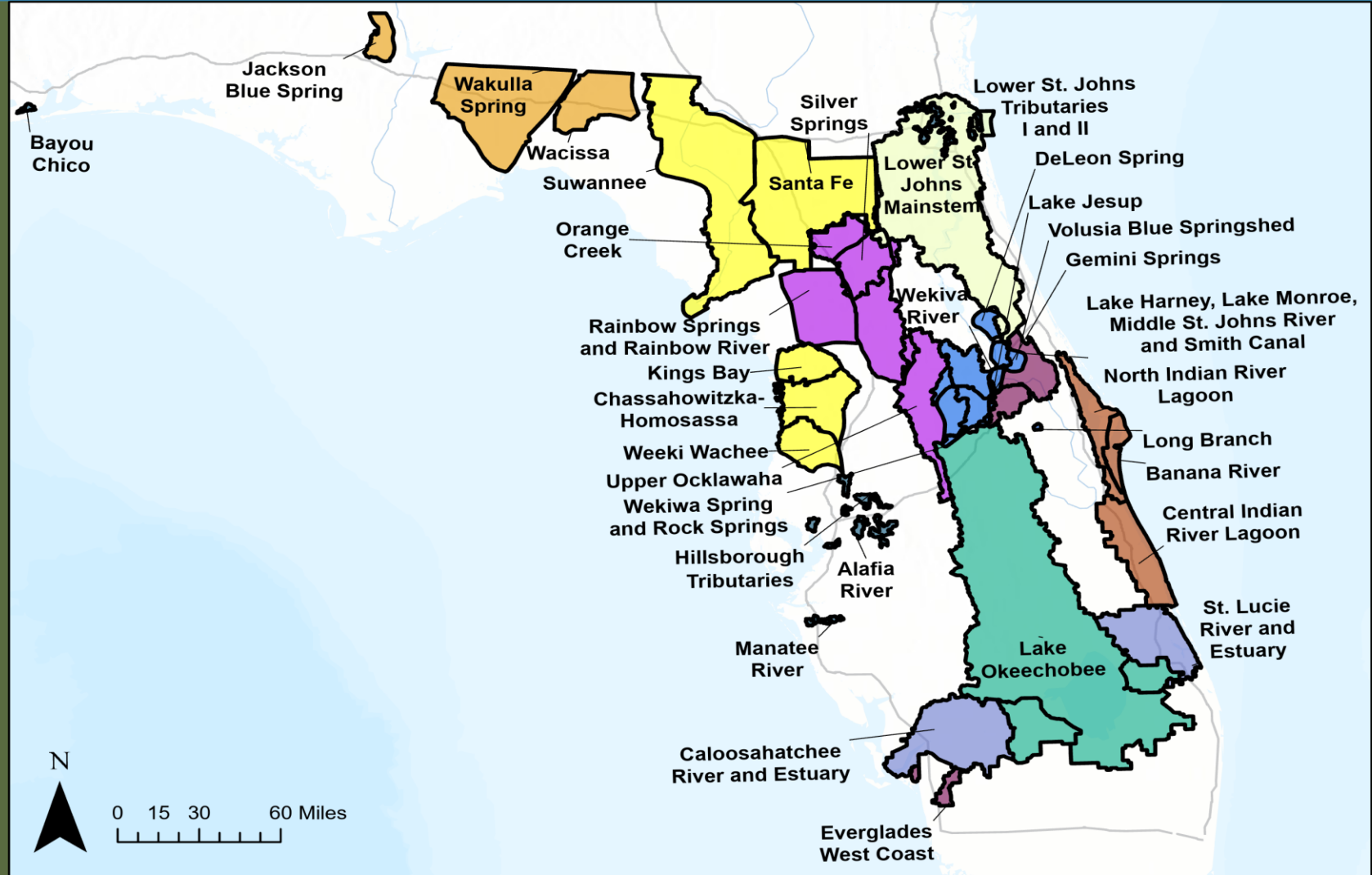
[Basin Management Action Plans \(BMAPs\) | Florida Department of Environmental Protection](#)



BMAP CONTACTS

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THANK YOU

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