



Weeki Wachee Springs Basin Management Action Plan (BMAP) Update Meeting

Via Webinar

Webinar Registration Link:

<https://attendee.gotowebinar.com/register/6477705030558186333>

April 16, 2025

2:00 PM EDT

Agenda

- Weeki Wachee Springs BMAP Background.
- Overview of Draft Weeki Wachee Springs BMAP.
- Next Steps.
- Questions/Comments.

Please note the site for documents pertaining to the Weeki Wachee Springs BMAP: [BMAP Public Meetings | Florida Department of Environmental Protection](#)

For more information on the Weeki Wachee Springs BMAP, contact: Moira Homann, 850-245-8460.
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WEEKI WACHEE BASIN MANAGEMENT ACTION PLAN DOCUMENT UPDATE

Chandler Keenan

Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection

GoTo Webinar | Apr. 16, 2025



WEBINAR TIPS

Audience Participation

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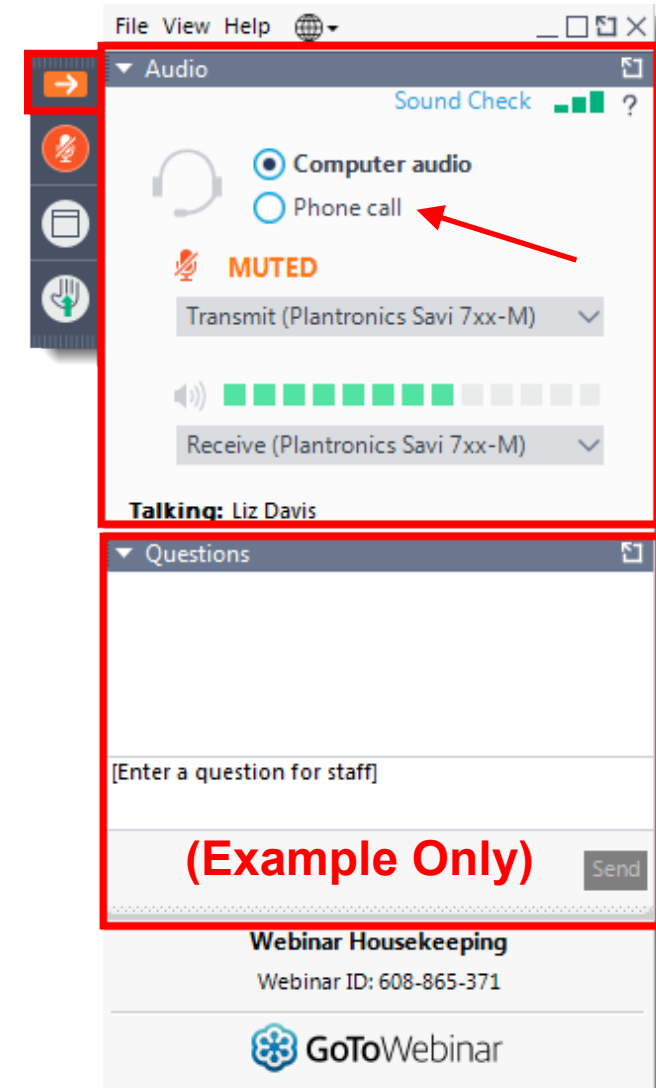
- Choose Computer Audio or
- Choose Phone Call and dial using the information provided with your registration

Attendee audio will automatically be muted.

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

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Note: Today's presentation is being recorded and will be provided on the website after the webinar.





AGENDA

- Basin Management Action Plan (BMAP) Background.
- Review of Previous Meetings.
- Document Update Walk-through.
- Next Steps.



Photo Credit: USFWS



KEY BMAP COMPONENTS

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

Projects to meet the TMDL:

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

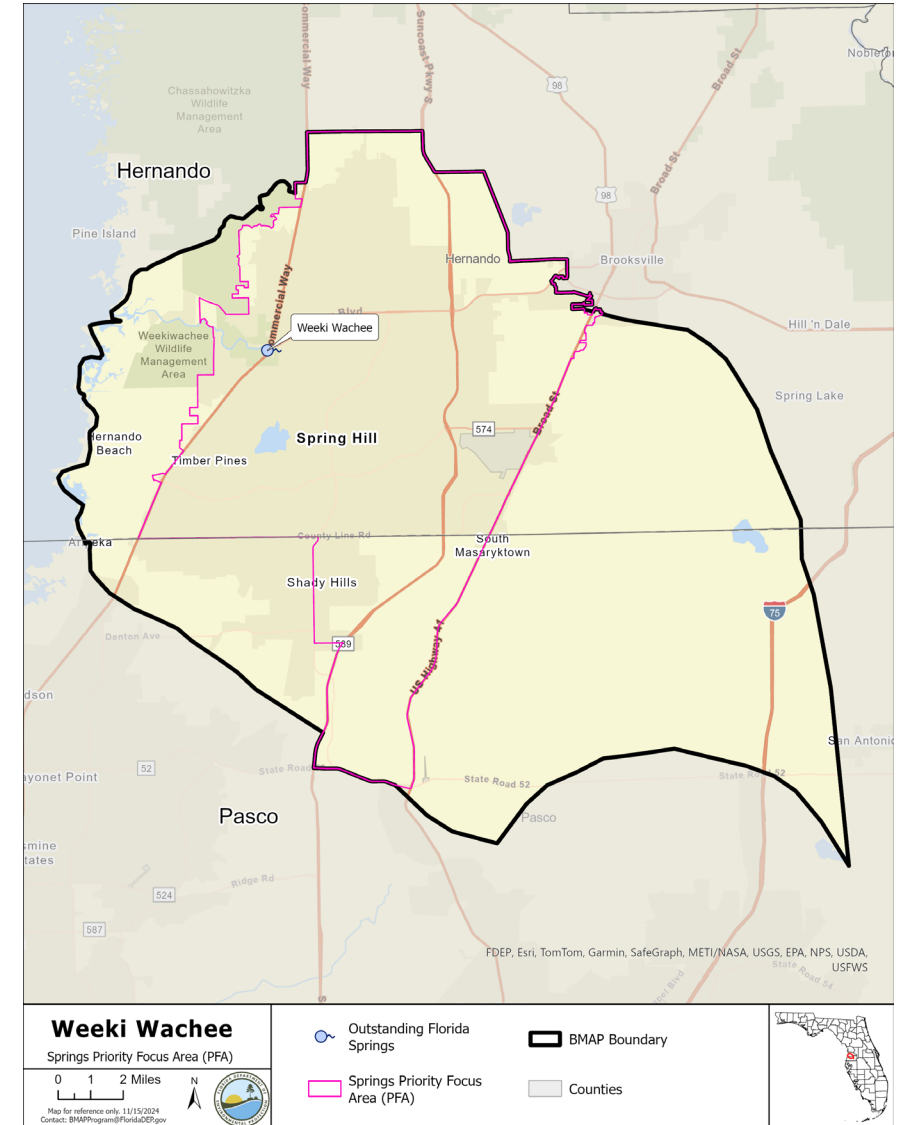
Process to assess progress toward achieving the TMDL:

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



BACKGROUND

- BMAP area is approximately 200,474 acres.
- Impaired for the nitrate form of nitrogen.
- TMDL is a monthly average target of 0.28 milligrams per liter (mg/L) of nitrate.





BACKGROUND

BMAP STAKEHOLDERS

Type of Entity	Name
Responsible Entities	Agriculture City of Brooksville Hernando County Pasco County Private Golf Courses Private Wastewater Treatment Facilities
Responsible Agencies	County Health Departments Florida Department of Agriculture and Consumer Services (DACCS) Florida Department of Environmental Protection (DEP) Florida Department of Transportation (DOT) — District 7 Southwest Florida Water Management District
Other Interested Stakeholders	Residents/Homeowners Florida Farm Bureau Florida Native Plant Society Florida Springs Institute Hernando Beach Government Affairs Committee Hernando County Task Force Hernando Environmental Land Protectors (HELP)Florida Onsite Wastewater Association Save the Manatee Club Septic System Contractors Sierra Club Adventure Coast Group



BMAP UPDATE COMPONENTS

ADOPT BY JULY 1, 2025

- Nitrogen Source Inventory Loading Tool (NSILT) updates.
- Spring vent load analyses updates.
- Entity allocation development.
- Establish five-year milestones for project implementation.
- Incorporate the 2020 Clean Waterways Act, 2023 House Bill (HB) 1379 and 2024 HB 1557 requirements.
- Incorporate regional projects.
- Future growth.
- Water quality data evaluation:
 - Evaluation of the monitoring network (spring vent and groundwater).
 - Water quality trend analyses.
- Evaluate further onsite sewage treatment and disposal systems (OSTDS) provisions.
- Evaluate the need for advanced wastewater treatment (AWT) or other more stringent effluent limits for domestic wastewater treatment facilities (WWTF).





PREVIOUS MEETINGS

Summary of BMAP update meetings (held in 2024):

- **January Public Meeting**
 - Virtual
 - Overview of NSILT methodology updates (all springs basins)
- **May Public Meeting**
 - Virtual
 - Legislative requirements and basin specific analyses
- **October/November Public Meeting**
 - In person
 - Basin and entity allocated reductions, poster session
- **Entity Specific Meetings**
 - Throughout summer and fall
 - Seven meetings with responsive stakeholders to discuss reduction allocations and project lists



Source: [Crystal River and Kings Bay | WaterMatters.org](https://www.watermatters.org/)



DRAFT DOCUMENT

Section 1: Background

Section 2: Implementation

Section 3: Monitoring and Reporting

Section 4: Commitment to Plan Implementation

Section 5: References

Appendices

Legislation

TMDLs

BMAP Requirements

BMAP Area

Priority Focus Area
(PFA)

Other Scientific and Historical Information

Stakeholder
Involvement

Best Management
Practices (BMPs)
Adopted by Rule



DRAFT DOCUMENT

Section 1: Background

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Appendices

Pollutant Loads

Load Reduction Strategy

Allocated Reductions

**Management
Strategies**

OSTDS

WWTF

**Urban Turfgrass
Fertilizer (UTF)**

**Sports Turfgrass
Fertilizer (STF)**

Agriculture

Atmospheric Deposition

Future Growth

Funding Opportunities



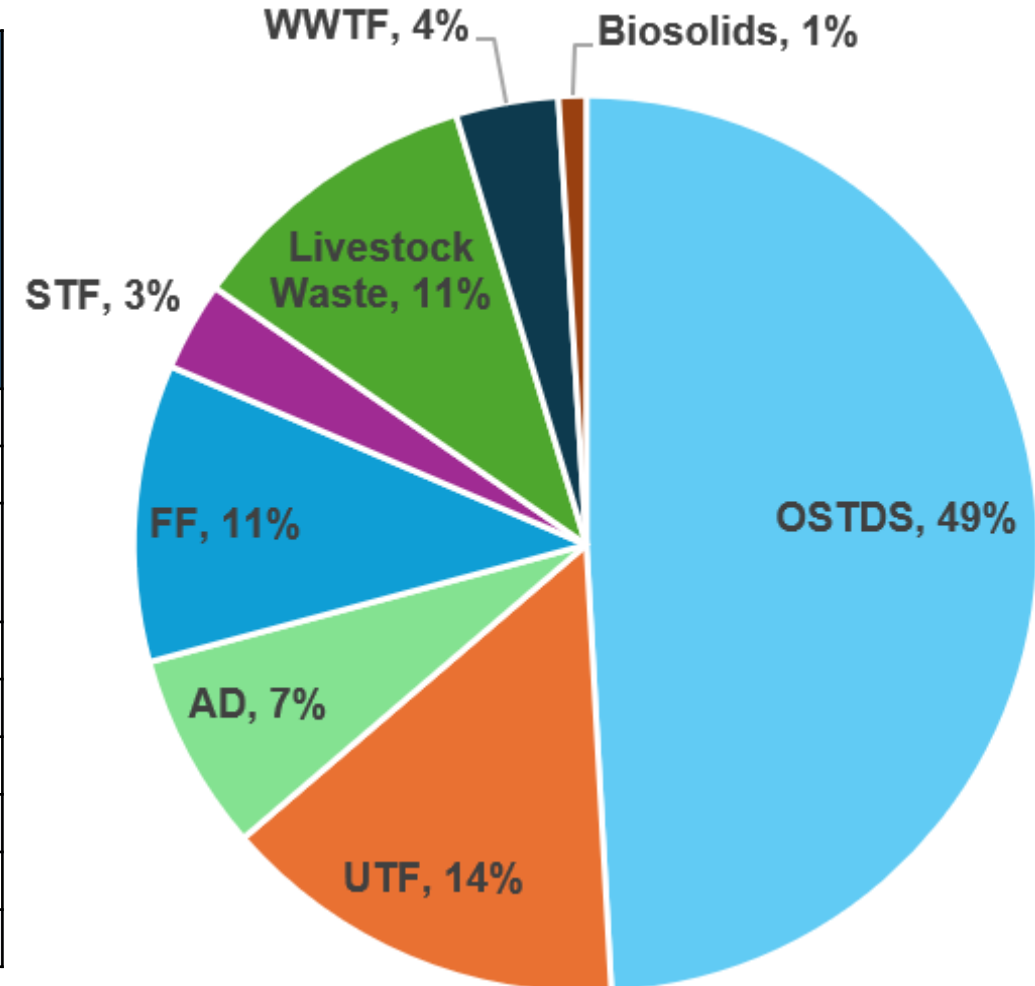
POLLUTANT LOADS

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Loading to groundwater by source in the Weeki Wachee Basin

Nitrogen Source	Total Nitrogen (TN) Load to Groundwater (lbs/yr)	% Contribution
OSTDS	641,621	49
UTF	190,166	14
Atmospheric Deposition (AD)	93,069	7
Farm Fertilizer (FF)	139,819	11
STF	41,825	3
Livestock Waste	139,175	11
WWTF	47,836	4
Biosolids	12,878	1
Total	1,306,388	100

lbs/yr = pounds/year





LOADING ALLOCATION

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Description	Withlacoochee Nitrogen Loads (lbs/yr)	Notes Regarding Data Used
Total Load at Spring Vents	308,909	Upper 95% confidence interval — nitrate and flow data 2012 to 2022 (0.91 mg/L and 173.04 cubic feet per second [cfs]).
TMDL Load	95,265	TMDL target of 0.28 mg/L and using the spring vent flow data from 2012 to 2022.
Percent Reductions	69%	Calculated reduction needed based on the total load at the spring vent and the TMDL load.
NSILT Load	1,306,388	Total load to groundwater from the updated NSILT.
Required Reductions	903,509	Percent reduction multiplied by the NSILT load.

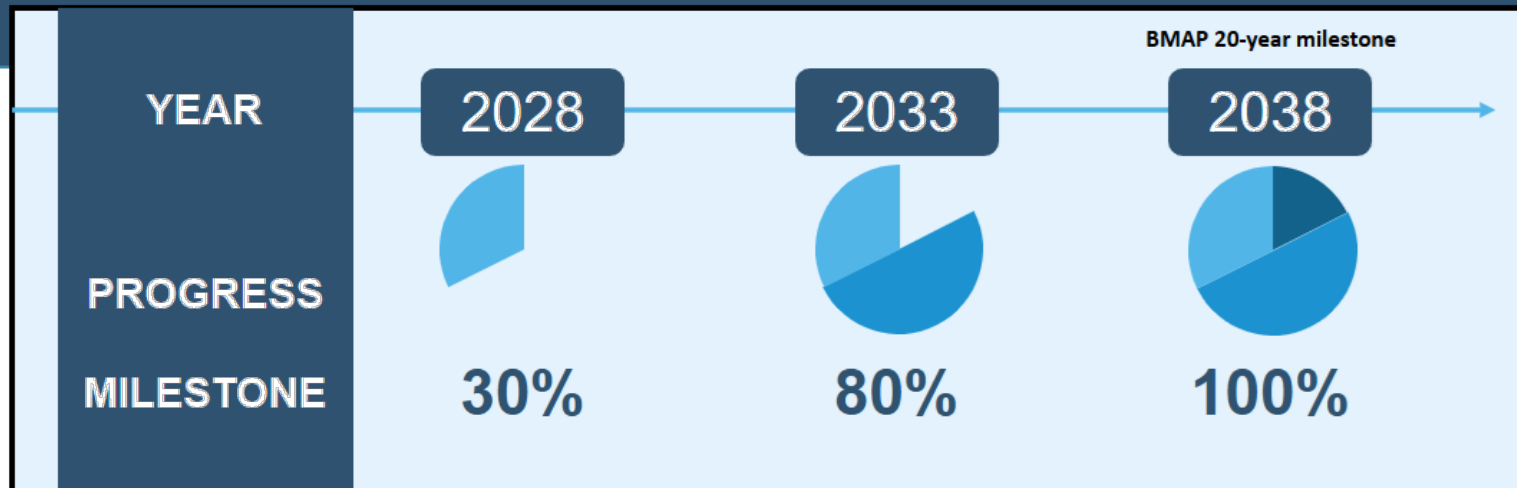
cfs – cubic feet per second



MLESTONES/REDUCTION SCHEDULE

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

- Consistent with statutes, entities must provide a list of projects and strategies to DEP that show how entities will meet their required reductions to achieve the next upcoming BMAP milestone, even if the identified project or strategy will not be completed by the milestone.
- All projects needed to achieve milestone targets should be included in the Statewide Annual Report (STAR), even if a funding mechanism is not currently identified, as this information gives the state an understanding of the support is necessary to achieve BMAP goals and assists with the prioritization of projects.
- It is critical for each BMAP that entities plan for and report projects and project updates to the state through the STAR process.





MILESTONES/REDUCTION SCHEDULE

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

- Responsible entities must submit a **sufficient list** of additional projects and management strategies to DEP by **Jan. 14, 2026**, to be compliant with the upcoming BMAP milestone or be subject to further department enforcement.
- If any lead entity is unable to submit a sufficient project list, then specific project identification efforts must be submitted **by Jan. 14, 2026**:
 - These responsible entities must submit project identification efforts whose purpose and timeline will provide projects to meet the 5-year milestone.
 - These efforts create a compliance schedule that must reflect the urgency of defining, funding and implementing projects to meet the upcoming and future milestones.
 - These planning efforts are ineligible for BMAP credit themselves but are necessary to demonstrate that additional eligible management actions will be forthcoming and BMAP compliance will be achieved.



ENTITY ALLOCATIONS

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Timeline

- 2028: 30%
- 2033: (+50%) 80%
- 2038: (+20%) 100%

2028 5-year milestone required reductions by entity in the Weeki Wachee Basin

Entity	2028 Milestone Assigned Reductions (30%) TN (lbs/yr)	Total Assigned Reductions TN (lbs/yr)
Pasco County	33,361	111,202
City of Brooksville	1,050	3,500
Hernando County	145,452	484,839
Agriculture	60,558	201,861
Private WWTFs*	465	1,549
Private Golf Courses*	8,462	28,207
Regional Projects	2,395	7,983
Total, All Reductions	251,743	839,142

*List of facilities and golf courses is included in the BMAP document.



ENTITY ALLOCATIONS

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Weeki Wachee Basin Entity	2028 Milestone Assigned Reductions (30%) (lbs/yr)	TN Completed and Ongoing Project Credits (lbs/yr)	TN Reductions from Planned and Underway Projects* (Not Verified) (lbs/yr)	Total Projected** Project TN Reductions by Entity Through 2028 (lbs/yr)
Pasco County	33,361	1,248	4	1,252
City of Brooksville	1,050	98	0	98
Hernando County	145,452	2,572	16	2,588
Agriculture	60,558	64,973	0	64,973
Private WWTFs	465	0	0	0
Private Golf Courses	8,462	0	0	0
Regional Projects	2,395	19	0	19
Total, All Reductions	251,743	68,910	20	68,930

* Planned and underway project reduction estimates are not verified by DEP.

** Projected reductions include projects with a project status of completed, ongoing, planned and underway.



WASTEWATER

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Recent legislative updates have expanded the requirements for addressing wastewater sources within BMAPs.

Clean Waterways Act (2020)

- Requires local governments within a nutrient BMAP to develop wastewater treatment plans and/or OSTDS remediation plans to be incorporated into BMAP updates.

Reclaimed Water Senate Bill (SB) 64 (2021)

- Subsection 403.064(16), Florida Statutes (F.S.), requires domestic wastewater utilities that dispose of effluent, reclaimed water or reuse water by surface water discharge to submit for DEP review and approval, a plan for eliminating non-beneficial surface water discharge by Jan. 1, 2032.
 - A utility must fully implement the approved plan by Jan. 1, 2032.
- If a plan was not timely submitted or approved by DEP, the utility's domestic WWTFs may not dispose of effluent, reclaimed water or reuse water by surface water discharge after Jan. 1, 2028.



WASTEWATER

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Recent legislative updates have expanded the requirements for addressing wastewater sources within BMAPs.

Environmental Protection HB 1379 (2023)

- Requires facilities discharging to a waterbody impaired for nutrients or subject to a BMAP to upgrade to AWT within 10 years.
- Requires applicants for new septic systems serving lots of one acre or less within BMAPs to connect to central sewer if available, or if unavailable, to install an enhanced nutrient-reducing system or other wastewater system that achieves a nitrogen reduction of 65%.

Environmental Protection HB 1557 (2024)

- Requires advanced treatment of reclaimed water within BMAPs (403.086, F.S.).
- DEP has determined that the use of reclaimed water is causing or contributing to the nutrient impairments being addressed in this BMAP area.
- The facilities listed in the BMAP - Appendix D have 10 years from BMAP adoption to meet the applicable AWT standards.



WASTEWATER

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

The nitrogen effluent limits will be applied as an annual average, taken at end of pipe before any land disposal (or other authorized compliance point), to all new and existing WWTFs with a DEP-permitted discharge or disposal area within this BMAP.

Nitrogen effluent limits for wastewater facilities

Facility Capacity (gpd)	Surface Water Discharges (mg/L)	WWTFs Not Listed in Appendix G — Rapid Rate Land Application Effluent Disposal System (mg/L)	WWTFs Not Listed in Appendix G — All Other Disposal Methods, Including Reuse (mg/L)
Greater than 100,000	3	3	3
20,000 to 100,000	3	3	6
Less than 20,000	3	6	6

gpd = gallons per day.
mg/L = milligrams per liter.



OSTDS REMEDIATION

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Section 373.807, F.S.

- Requires BMAPs to include an OSTDS remediation plan if OSTDS contribute at least 20% of nonpoint source nitrogen pollution, or if DEP determines OSTDS remediation is needed to achieve the TMDL.
- This remediation plan establishes a remediation policy (**Appendix E**) applicable to **all existing OSTDS** within **the PFA on all lots of all sizes**.
- This remediation plan was included in the 2018 BMAP and has not been modified for this update.

Subsection 403.067(7)(a)9., F.S.

- Requires local governments to develop an OSTDS remediation plan if DEP identifies OSTDS as contributors of at least 20% of point source or nonpoint source nutrient pollution or if DEP determines remediation is necessary to achieve the TMDL.
- This BMAP contains a remediation plan for OSTDS consisting of management actions, including those described in **Appendix B** in the draft BMAP document.



WASTEWATER

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Biosolids

- To provide assurance that nitrogen losses to surface water and groundwater are minimized from the permitted application of biosolids and septage in the BMAP, requirements in accordance with Chapter 62-640, Florida Administrative Code (F.A.C.), apply to newly-permitted application sites and existing application sites upon permit renewal.



Source: DEP



URBAN TURFGRASS

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Fertilizer Ordinance

- Subsection 373.807(2), F.S., requires local governments with jurisdictional boundaries within an OFS to develop, enact and implement a fertilizer ordinance by July 1, 2017.

Stormwater

- The National Pollutant Discharge Elimination System (NPDES) Stormwater Program will, within five years of BMAP adoption, evaluate any entity located in the BMAP area that serves a minimum resident population of at least 1,000 individuals that is not currently covered by a Municipal Separate Storm Sewer System (MS4) permit and designate eligible entities as regulated MS4s, in accordance with Chapter 62-624, F.A.C.
- Chapter 62-330 F.A.C. (2024).
 - Updated Florida's stormwater rule for design criteria and to strengthen the operation and maintenance requirements.
 - Applicants must demonstrate a level of treatment sufficient to accomplish the greater of the following nutrient load reduction criteria through calculations or modeling that the future stormwater management systems would provide additional treatment to meet new Environmental Resource Permits stormwater treatment performance standards of 80% reduction for TP and 55% reduction for TN or post-development condition average annual loading of nutrients does not exceed the predevelopment condition nutrient loading, along with additional requirements that would apply where a project discharges to Outstanding Florida Waters or impaired waters.



SPORTS TURFGRASS

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Sports Turfgrass and Golf Courses

- Sporting facilities are required to follow the 2025 Sports Turf BMP Manual.
 - DEP and University of Florida/Institute of Food and Agricultural Sciences (UF/IFAS) are collaborating the develop this manual.
- Superintendents of golf courses within the BMAP must obtain a certification for golf course BMPs under section 403.9339, F.S., and all golf courses must implement the BMPs described in the 2021 DEP golf course BMP manual.
- All golf courses located within a BMAP are required to submit a Nutrient Management Plan (NMP).
 - A draft NMP must be submitted to DEP within one year of BMAP adoption and a final document is due two years after adoption.



AGRICULTURE

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Dairy Operations with Confined Animal Feeding Operations (CAFO) Permits, Chapter 62-670, F.A.C.

- Waste storage ponds must be lined and demonstrate no leaking.
- Sampling for TN and TP or land-applied effluent/wastewater must be included in the monitoring plan.

Livestock Operations Without CAFO Permits

- Section 403.067, F.S., requires livestock operations not large enough to require a NPDES CAFO permit must enroll in and implement the applicable DACS BMP Program OR
- Conduct a monitoring program approved by DEP or the applicable water management district.

Aquaculture

- Chapter 597, F.S., required DACS to create a program that requires those who sell aquatic species to annually acquire an Aquaculture Certificate of Registration and implement Chapter 5L-3, F.A.C., Aquaculture BMPs. Permit holders must be certified every year.

Silviculture

- The Florida Forest Service implements Chapter 5I-6, F.A.C., and requires both private and public forest landowners across the state to comply with BMPs and the rule.



AGRICULTURE

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Agricultural Cooperative Regional Elements (ACE)

- Section 403.067, F.S., requires the DACS, DEP and agricultural producers to work together to establish an ACE.
- DACS is responsible for providing DEP a list of projects which, in combination with BMPs, state-sponsored regional projects and other management strategies will achieve the needed pollutant load reductions established for agricultural nonpoint sources.
- DACS is assigned the lead role on project solicitation, development, selection and implementation; however, they will work closely with all the key stakeholders, including DEP as a partner agency, to define and identify regional projects that will be included in the BMAP.
- DACS and DEP will work together to track progress on agricultural water quality projects under the ACE framework through the development of performance metrics and evaluation of water quality monitoring data in the basin.
- DACS will report on projects annually through the DEP STAR process and during BMAP update and/or development.
- Projects and other management strategies implemented through the ACE will be evaluated cooperatively by partner agencies using the predetermined performance metrics.



ATMOSPHERIC DEPOSITION

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

- Atmospheric sources of nutrients are local, national and international.
- Recent data indicate that the emission of nitrogen has been generally decreasing in Florida with an up to 55% decrease in atmospheric emissions by 2028 possibly as result of the following:
 - Power plant fuel source changes.
 - Air treatment upgrades.
 - Increased use of electric vehicles.
 - Decreasing mobile sources.
- No specific nitrogen reductions were assigned to this source category in this BMAP.
- Atmospheric deposition sources and trends will be re-evaluated periodically.



FUTURE GROWTH

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Assessed additional loading to the basin by 2040 under different growth management scenarios.

- 2040 population “additional people” based on Bureau of Business and Economic Research (BEBR) medium growth projections per county.
- Growth distributed to jurisdictional boundaries based on available land area.
- Determined percentage of population sewerage based on Florida Water Management Inventory (FLWMI) parcel to point data.
- Applied per person loading values for portions of future population on centralized sewer or OSTDS.
- Assumed increase in urban turfgrass loading based on percentage of available acres developed using low and high intensity landscaping, based on a general percent turf cover and turfgrass species fertilization rates.
- Ran three management scenarios to look at loading by entity, source and overall basin.



FUTURE GROWTH

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Scenario 1

By 2040:

- **90% or more of new population** is connected to central sewer.
- All wastewater treating to **3 mg/L**.
- Remainder of new population has **enhanced OSTDS**.
- **2% of available land** developed using **low intensity** landscaping (10% turf cover using centipede grass).

Scenario 2

By 2040:

- **New population** is connected to central sewer at **same rate as today**.
- All wastewater treating to **3 mg/L**.
- Remainder of new population has **enhanced OSTDS**.
- **10% of available land** developed using **low intensity** landscaping (10% turf cover using centipede grass).

Scenario 3

By 2040:

- **New population** is connected to central sewer at **same rate as today**.
- All wastewater treating to **6 mg/L**.
- Remainder of new population has **conventional OSTDS**.
- **17% of available land** developed using high **intensity** landscaping (25% turf cover using St Augustine grass).



FUTURE GROWTH ANALYSIS

SECTION 2: IMPLEMENTATION TO ACHIEVE TMDL

Entity	2040 People	Scenario 1 TN (lbs/yr)	Scenario 2 TN (lbs/yr)	Scenario 3 TN (lbs/yr)
Hernando County	17,110	11,093	37,417	219,442
Brooksville	444	202	432	4,616
Pasco County	33,773	24,773	92,282	285,692

2040 Loading — Basin Totals	Scenario 1 Total	Scenario 2 Total	Scenario 3 Total
	36,068	130,131	509,751

In every scenario, additional loading is expected in the basin by 2040 due to increasing populations. Entities should be working now to both remediate existing loading and plan to mitigate loading from future growth.



DRAFT DOCUMENT

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Appendices

Methods for Evaluating
Progress

Adaptive Management

Water Quality and
Biological Monitoring

**Groundwater
Analysis**



WATER QUALITY MONITORING

SECTION 3: MONITORING AND REPORTING

Primary objectives:

- Measure the water quality and biological response in the impaired springs and groundwater at the beginning of the BMAP period and during implementation.
- Document nutrient trends in the springshed.

Secondary objectives:

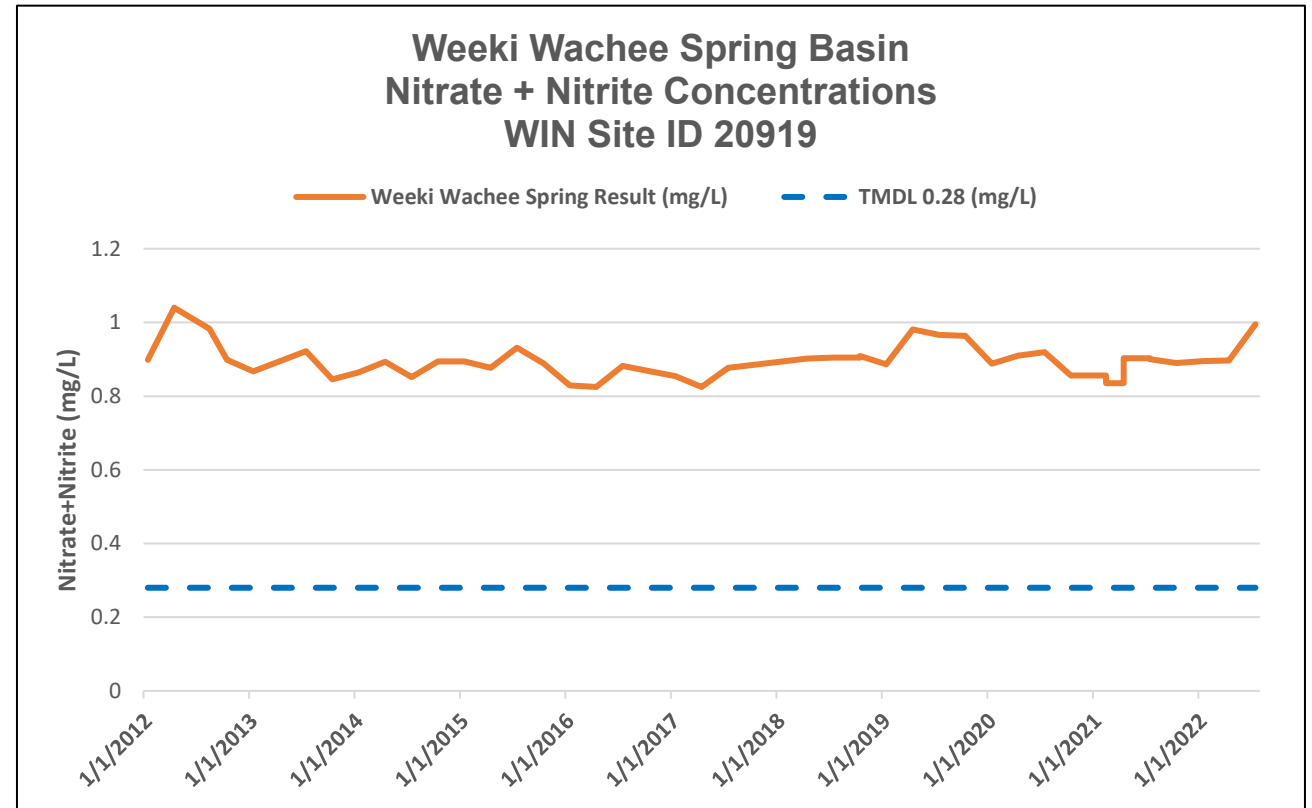
- Identify areas where groundwater data and modeling might help in understanding the hydrodynamics of the system.
- Evaluate groundwater quality trends and nutrient loading to the aquifer across the basin.
- Confirm and refine nutrient removal efficiencies of agricultural and/or urban BMPs, projects and other management efforts



WATER QUALITY MONITORING

SECTION 3: MONITORING AND REPORTING

- Available water quality data will be analyzed during BMAP implementation to determine trends in water quality and the health of the biological community.
- A wide variety of statistical methods are available for the water quality trend analyses.
 - The selection of an appropriate data analysis method will depend on the frequency, spatial distribution and period of record available from existing data. Specific statistical analyses were not identified during BMAP development.





GROUNDWATER MONITORING

SECTION 3: MONITORING AND REPORTING

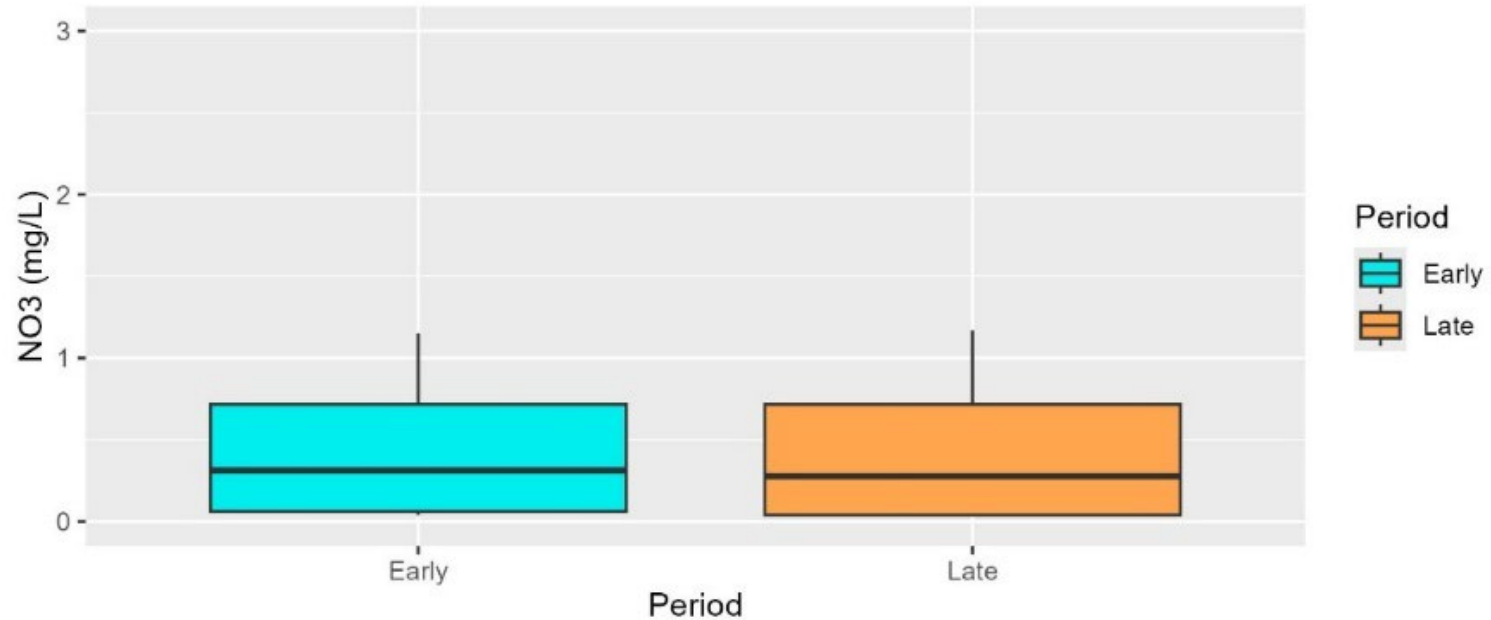
Groundwater monitoring gives us a look at the health of the aquifer before water discharges at spring vent.

- Uses measured data (nitrate — total and dissolved) from groundwater monitoring wells from DEP's Water Information Network (WIN) and the WMDs.
- A visual analysis was performed using the annual median as boxplots.
- Wells that were sampled regularly through the period of record were considered “fixed”. Wells with inconsistent sampling (i.e. less than four samples over the period of record) were considered “sporadic”.
- Data from the fixed wells were preferred for analyses because comparisons between time periods represent changes in the same set of wells.
- To create the box plots, the period of record was divided into early (2017-2020) and late (2021-2024) subperiods.
- Future considerations:
 - Stratifying data by land use, distance to spring vent, other factors.
 - Trends analysis for multiple 5-year periods to see changes over time.
 - Well specific trends analysis.



WATER QUALITY MONITORING

SECTION 3: MONITORING AND REPORTING



**Weeki Wachee Springs shed nitrate (NO₃)
Concentrations of Early and
Late periods, Without Outliers.**

In mg/L, Median Early = 0.04; Median Late = 0.04.



DRAFT DOCUMENT

Section 1: Background

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Appendices

Adoption Process

Tracking Reductions

Revisions to the BMAP



ADAPTIVE MANAGEMENT

SECTION 4: COMMITMENT TO PLAN IMPLEMENTATION

Tracking Reductions:

- Required loading reductions are expected to be met by 2038.
- Each entity is responsible for implementing management actions to meet their upcoming 5-year milestone.
- The statewide annual report will provide an annual update of progress made in implementing load reductions tracking the implementation status of the management actions listed in the BMAP.

Revisions to the BMAP:

- Section 403.067, F.S., requires that the plan be revised, as appropriate.
 - Assessment of progress toward milestones must be conducted every five years and revisions to the plan must be made as appropriate.
 - BMAPs use an adaptive management approach that allows for incremental load reductions through the implementation of projects and management strategies; however, the restoration target, the TMDL, remains the same.



DRAFT DOCUMENT

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Appendices



BMAP UPDATE DOCUMENT

APPENDICES

- **Updated:** Important links.
 - **Updated:** Projects to Reduce Nitrogen Sources.
 - Projects submitted by responsible entities through the BMAP portal through October 2024.
 - Includes projects from the 2020 Clean Waterways Act WWTF and OSTDS plans submitted by local governments August 2024.
 - **NEW:** Planning for Additional Management Strategies.
 - Examples of project efforts entities can identify to meet their milestone reduction requirements.
 - PFA Report.
 - **Updated:** OSTDS Remediation Plan.
- **NEW:** Technical Support Information
 - NSILT methodology.
 - **NEW:** Wastewater Facilities.
 - List of facilities with reclaimed water that are causing or contributing to nutrient impairments.
 - **NEW:** Golf Course Nutrient Management Plans.
 - **Updated:** Agricultural Enrollment and Reductions (provided by DACS).
 - **NEW:** Private Wastewater Treatment Facilities Allocated Reductions.
 - **NEW:** Private Golf Course Allocated Reductions.



NEXT STEPS

BMAP update document draft review:

- Draft document sent out via GovDelivery **April 3, 2025.**
- Stakeholder review comments due **May 2, 2025.**

Submit comments to:
Moira.Homann@FloridaDEP.gov



Source: DEP



UPCOMING SCHEDULE

Jan. 2024,
NSILT
methodology
public
meeting.

Spring/Fall
2024,
Technical
BMAP update
public
meetings.

Summer/Fall
2024 One-on-
one
stakeholder
meetings.

April 2025,
Draft BMAP
update public
meetings.

April/May
2025, Draft
BMAP update
comment
period.

July 1, 2025,
Statutory
deadline for
updated
nutrient
BMAPs.



RESOURCES

BMAP WEBSITE AND STORYMAPS

Florida Springs Basin Management Action Plans (BMAPs)

Welcome to the Florida Springs Basin Management Action Plan (BMAP) StoryMap

The springs BMAPs are developed with specific provisions for the protection and restoration of the state's Outstanding Florida Springs. This story map focuses on the springs-related BMAPs; for more details about other BMAPs or more information about the BMAP program in general, visit <https://floridadep.gov/bmaps>.

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

Overview

The Florida Springs and Aquifer Protection Act (Part VIII of Chapter 373, F.S.) provides for the protection and restoration of the state's Outstanding Florida Springs (OFS), which comprise 24 first magnitude springs, 6 additional named springs, and their associated spring runs. The act provides specific requirements for OFS BMAPs beyond those



1 Legislative Requirements



2 Crystal River - Kings Bay BMAP StoryMap



3 DeLeon Spring Story Map



4 Gemini Springs Story Map



5 Homosassa and Chassahowitzka Springs...



6 Jackson Blue and Merritts Mill Pond BMAP Story Map



7 Rainbow Springs Group and Rainbow Springs Group Run...



8 Santa Fe River BMAP Story Map



9 Silver Springs and Upper Silver River BMAP Story Map



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](#)

[Clean Waterways Act Requirements for WWTP and OSTDS](#)

[All Water Quality Restoration Program Content](#)

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 best management practices, wastewater and stormwater infrastructure, regional projects and conservation programs designed to achieve pollutant reductions established by a TMDL. A BMAP is developed with local stakeholders and relies on local input and commitment for successful implementation. BMAPs are adopted by Secretarial Order and are legally enforceable. BMAPs use an adaptive management approach that allows for incremental load reductions through the implementation of projects and management strategies, while simultaneously monitoring and conducting studies to better understand the water quality and hydrologic dynamics. Progress is tracked by assessing project implementation and water quality analyses. DEP continues to work with local and regional partners to identify additional projects necessary to meet reduction milestones to achieve the TMDLs and inform funding priorities.

What's New: Upcoming Meetings and BMAP Progress

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 [July 1, 2025 BMAP Update Progress](#) dashboard provides a visual representation of progress towards the completion of each of the required tasks and related sub-tasks leading up to the July 1, 2025 updates. Please visit the [BMAP Public Meeting Calendar](#) to find out about upcoming meetings and subscribe to meeting notices.

- [All BMAP Documents](#)
- [Map including BMAPs adopted and in progress](#)
- [Map of HB 1379 New and Existing OSTDS Requirements](#)

Nutrient BMAPs	Springs BMAPs	Fecal Bacteria Impaired BMAPs
 <p>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</p>	 <p>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).</p>	 <p>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.</p>

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



BMAP MEETING

PUBLIC QUESTIONS PERIOD

Verbal Questions

- We ask that questions and comments be limited to **two minutes** so that we may hear from everyone.

Written Comments

- Submit written comments concerning today's meeting to: Moira.Homann@FloridaDEP.gov.





THANK YOU

Chandler Keenan
Environmental Administrator

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**Florida Department of Environmental Protection (DEP)
Weeki Wachee Basin Management Action Plan (BMAP)
Virtual Public Meeting via GoToWebinar
April 16, 2025
2:00 pm – 3:28 pm EDT**

Attendees

Lisa Bally, ATM	Ken Maguire, FDOH
Vanessa Bauzo, FDACS	Max McAmis, Pasco County
Evelyn Becerra, DEP	Jessica Mostyn, DEP
Julianna Belitz, DEP	Kevin ODonnell, DEP
Vivianna Bendixson, SWFWMD	James Oliver, DEP
Bernard Berauer, Citizen	Gordon Onderdonk, Hernando County
Juanita Bernal, Pasco County	Estenia Ortiz, SWFWMD
Alys Brockway, Hernando County	Ron Patel, Hernando County
Tiffany Busby, Wildwood Consulting	Nicole Pollio, RES
Maxine Connor, Citizen	DeeVon Quirolo, Citizen
Kayla Du-Bois, FDOH	Crysta Reaves, FDACS
Kim Duffek, DEP	Beth Robertson, DEP
Trevor Fagan, SWFWMD	Allen Rose, Pasco Coastal Improvement Council
Jessica Fetgatter, DEP	Tiffany Simpson, DEP
Lawrence Glenn, DEP	Robin Speidel, SWFWMD
Patricia Grunwald, Tetra Tech	The Florida Channel, WFSU-TV
Samuel Hankinson, DEP	Anthony Tomalewski, DEP
Sam Hankinson, DEP	Madison Trowbridge, SWFWMD
Kenny Hayman, DEP	Diana Turner, DEP
Moir Homann, DEP	Gerrit Van Lent, Pasco County
Lisa Van Houdt, DEP	Rachel Vitek, RES
Jean Jones, Citizen	Ken Weaver, DEP
Chandler Keenan, DEP	Rachel Zinck, Citizen
Eugene Kelly, Citizen	

Overall

The draft BMAP document can be downloaded here: <https://floridadep.gov/dear/water-quality-restoration/documents/april-09-2025-week-draft-bmap-document>. Comments on the draft BMAP document are due by May 2, 2025. Verbal comments at this meeting were welcome. Written comments submitted at the meeting were invited. Comments after the meeting should be sent to BMAPPProgram@FloridaDEP.gov by May 2, 2025.

Questions and Answers

Question (Q): Why does the loading pie chart for urban turfgrass fertilizer (UTF) say 14% but the table for UTF loading say 15%?

Answer (A): The relative loading for UTF in Weeki Wachee is 14.6%. The table rounded the value up to 15% but the pie chart information was rounded down to 14%. Thank you for pointing out that discrepancy and we will adjust the presentation.

Q: Who is the responsible entity for the onsite sewage treatment and disposal systems (OSTDS) remediation plan?

A: The OSTDS remediation plan in Appendix E of the draft Weeki Wachee BMAP document outlines the load reduction and regulatory requirements for OSTDS in the BMAP area. DEP is responsible for the Florida's OSTDS regulatory program and is working to transfer the permitting process from the individual county health departments. Additionally, local governments with OSTDS in their jurisdiction were required to develop their own OSTDS remediation plans. Those local entities are responsible for implementing those plans. Local governments will work closely with either the local county health department or DEP (if the OSTDS regulatory transfer to DEP for that county has already taken place) to work through the requirements of the OSTDS plans. The BMAP program has been involved in helping coordinate those efforts.

Q: Any plans to require enhanced OSTDS when repairs or alterations are made to existing conventional systems?

A: Yes. The remediation policy for existing systems in the Weeki Wachee BMAP applies to existing OSTDS in the priority focus area (PFA) on all lot sizes. Upon the need for any construction permit under chapter 62-6, Florida Administrative Code (F.A.C.) to repair, modify, or replace an existing OSTDS affected by the remediation policy, a DEP-approved enhanced nutrient reducing system meeting 65 percent nitrogen reduction must be installed unless the OSTDS permit applicant provides documentation that sewer connection to the property is planned and funded, and structures on the lot will be connected.

Q: Will the OSTDS requirements for existing systems become effective July 1st?

A: The requirements will be effective once the updated BMAP is effective.

Q: Springs nutrient reduction goals are greatly enhanced with greater flows. What is the status of the effort to implement rulemaking to prevent over-pumping groundwater?

A: Please contact the Office of Water Policy and Everglades Restoration at DEP at phone number 850-245-3166. They work on the development of minimum flows and levels (MFLs).

Q: For our impaired basins if we increase flow currently stagnated east-west flow to the gulf on the creeks, rivers, bayous, and waterways would this naturally remedy the needed load?

Currently, the waterways are silted in and not flowing well at all.

A: While flows and residence time play important roles in surface water quality, the focus of the BMAP is to reduce loads to groundwater, so that the water quality of the groundwater that emerges at the spring vent is greatly improved. Removing siltation and improving incoming flows to surface waters will not improve the spring vent quality. So, the BMAP is focused on reducing loads to the land surface that and travel into the deep groundwater and impact the quality of the spring vent.

Comments

Comment: We have east-west flows to pull away from Weeki Wachee--Bear Creek and Cottee River have east, west, and southwest flow to pull away the load.

Adjournment

The meeting ended at 3:28 pm EDT.