



ALAFIA RIVER, HILLSBOROUGH RIVER, AND MANATEE RIVER BASIN MANAGEMENT ACTION PLANS (BMAP) ANNUAL UPDATES

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Water Quality Restoration Program

Division of Environmental Assessment and Restoration

Florida Department of Environmental Protection

Tampa Bay Nitrogen Management Consortium Meeting | April 24, 2026



AGENDA



- Basin Management Action Plan (BMAP) Overview.
- Policy and Reporting Reminders.
- Statewide Annual Report (STAR).
- Progress.



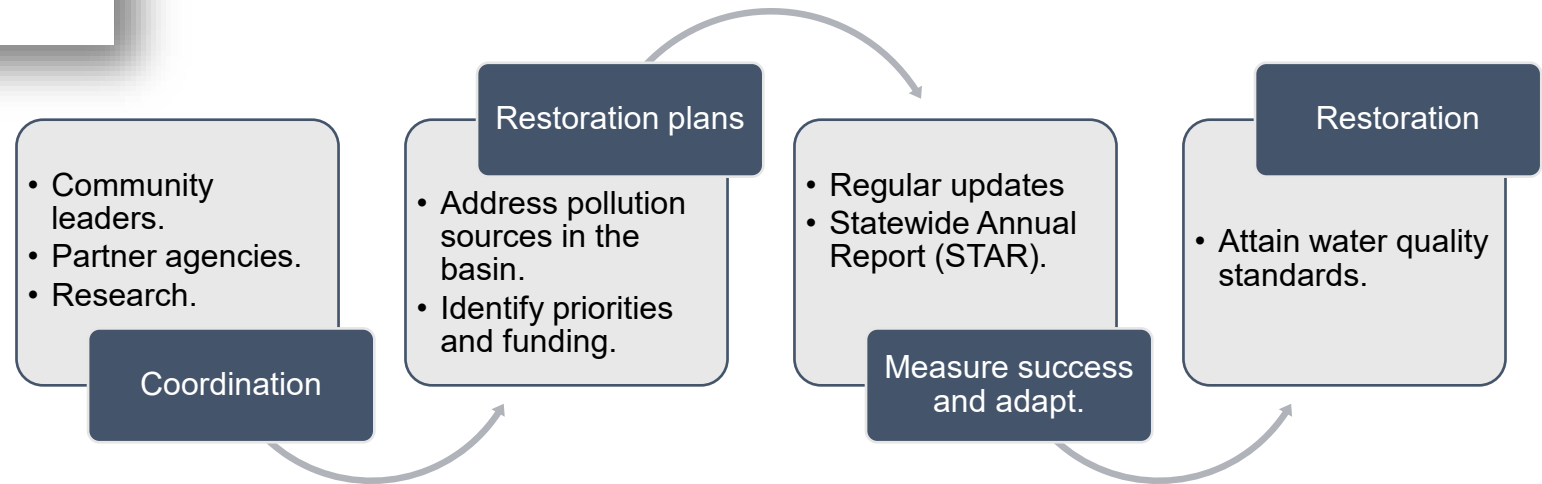
BASIN MANAGEMENT ACTION PLANS (BMAPs)



BMAPs are:

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

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





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



Basin Management Action Plans in the Tampa Bay Watershed

Map for reference only 3/26/2026.
Contact BMAPProgram@FloridaDEP.gov

10 mi



Alafia River and Manatee River BMAPs

- Nutrients and Fecal Indicator Bacteria (FIB).
 - 2014: Initial adoption.
 - 2025: BMAP update.

Hillsborough River BMAP

- FIB
- 2014: Initial adoption.



BACKGROUND

ALAFIA RIVER BMAP TMDL COMPONENTS (TN / TP)

Waterbody	Total Nitrogen and Total Phosphorus TMDL Components
1621G Alafia River above Hillsborough Bay (Tidal Segment)	<p>TN concentration (target = 0.65 milligrams per liter [mg/L]) WLA (NPDES stormwater) = 54% reduction WLA (NPDES wastewater) = 14.3 lbs/day LA = 54% reduction</p>
1592C Mustang Ranch Creek	<p>TN concentration (% reduction) WLA (NPDES stormwater) = 50% LA = 50%</p> <p>TP concentration (% reduction) WLA (NPDES stormwater) = 45% LA = 45%</p>
1639 Thirtymile Creek	<p>TN concentration (target = 3.0 mg/L) WLA = 3.0 mg TN/L (monthly average) LA = 1.6 mg TN/L (annual average)</p>

LA = Load Allocation
mg/L = milligrams/Liter
NPDES=National Pollutant Discharge Elimination System
TN=Total Nitrogen
TP=Total Phosphorous
WLA = Waste Load Allocation





BACKGROUND

ALAFIA RIVER BMAP TMDL COMPONENTS (FECAL COLIFORM)

Waterbody	Fecal Coliform TMDL Components
<p>1578B Turkey Creek</p>	<p>Fecal coliform concentration WLA (NPDES stormwater) = 64% reduction WLA (NPDES wastewater) = must meet permit limits LA = 64% reduction</p>
<p>1592C Mustang Ranch Creek</p>	<p>Fecal coliform concentration (% reduction) WLA (NPDES stormwater) = 88% reduction LA = 88% reduction</p>
<p>1552 English Creek</p>	<p>Fecal coliform concentration (% reduction) WLA (NPDES stormwater) = 40% reduction LA = 40% reduction</p>
<p>1583 Poley Creek</p>	<p>Fecal coliform concentration (% reduction) WLA (NPDES stormwater) = 67% reduction LA = 67% reduction</p>

LA = Load Allocation

mg/L = milligrams/Liter

NPDES=National Pollutant

Discharge Elimination System

TN=Total Nitrogen

TP=Total Phosphorous

WLA = Waste Load Allocation





BACKGROUND

HILLSBOROUGH RIVER BMAP TMDL COMPONENTS

Waterbody	TMDL Components
1482 Blackwater Creek	Fecal coliform concentration (% reduction) WLA (NPDES stormwater) = 71.6% reduction LA = 71.6% reduction
1442 New River	Fecal coliform concentration (% reduction) WLA (NPDES stormwater) = 35.3% reduction LA = 35.3% reduction
1561 Spartman Branch	Fecal coliform concentration (% reduction) WLA (NPDES stormwater) = 59.3% reduction LA = 59.3% reduction
1522C Baker Creek	Fecal coliform concentration (% reduction) WLA (NPDES stormwater) = 42.9% reduction LA = 42.9% reduction
1522A Flint Creek	Fecal coliform concentration (% reduction) WLA (NPDES stormwater) = 51.2% reduction LA = 51.2% reduction
1443E Lower Hillsborough River	Fecal coliform concentration (% reduction) WLA (NPDES stormwater) = 51.2% reduction LA = 51.2% reduction

LA = Load Allocation

mg/L = milligrams/Liter

NPDES=National Pollutant

Discharge Elimination System

WLA = Waste Load Allocation





BACKGROUND

MANATEE RIVER BMAP TMDL COMPONENTS (TN / TP)

Waterbody	Total Nitrogen and Total Phosphorus TMDL Components
<p>1923 Rattlesnake Slough</p>	<p>TP (% load reduction) WLA (NPDES stormwater) = 21% LA = 21%</p> <p>TN (% load reduction) WLA (NPDES stormwater) = 30% reduction LA = 30% reduction</p> <p>BOD5 (% load reduction) WLA (NPDES stormwater) = 31% reduction LA = 31% reduction</p>
<p>1913 Nonsense Creek</p>	<p>TN (% load reduction) WLA (NPDES stormwater) = 27% reduction LA = 27% reduction</p> <p>BOD5 (% load reduction) WLA (NPDES stormwater) = 36 % reduction LA = 36% reduction</p>

BOD5 = 5-day biological oxygen demand

LA = Load Allocation

mg/L = milligrams/Liter

NPDES=National Pollutant Discharge Elimination System

TN=Total Nitrogen

TP=Total Phosphorous

WLA = Waste Load Allocation



BACKGROUND

MANATEE RIVER BMAP TMDL COMPONENTS (FECAL COLIFORM)

Waterbody	Fecal Coliform TMDL Components
1923 Rattlesnake Slough	Fecal coliform concentration (% reduction) WLA (NPDES stormwater) = 43% reduction LA = 43% reduction
1926 Cedar Creek	Fecal coliform concentration (% reduction) WLA (NPDES stormwater) = 61% reduction LA = 61% reduction
1913 Nonsense Creek	Fecal coliform concentration (% reduction) WLA (NPDES stormwater) = 57% reduction LA = 57% reduction
1914 Braden River above Evers Reservoir	Fecal coliform concentration (% reduction) WLA (NPDES stormwater) = 43% reduction LA = 43% reduction
1840 Gilly Creek	Fecal coliform concentration (% reduction) LA = 56% reduction

BOD5 = 5-day biological oxygen demand

LA = Load Allocation

mg/L = milligrams/Liter

NPDES=National Pollutant

Discharge Elimination System

TN=Total Nitrogen

TP=Total Phosphorous

WLA = Waste Load Allocation



BACKGROUND

ALAFIA RIVER BMAP STAKEHOLDERS

Type of Governmental or Private Entity	Participant
<p>Responsible Entities</p>	<p>Agriculture City of Lakeland City of Mulberry Hillsborough County Plant City Polk County</p>

Type of Governmental or Private Entity	Participant
<p>Responsible Agencies</p>	<p>County Health Departments Florida Department of Agriculture and Consumer Services (DACCS) Florida Department of Environmental Protection (DEP) Florida Department of Health Florida Department of Transportation Southwest Florida Water Management District</p>
<p>Other Interested Stakeholders</p>	<p>Residents/Homeowners Florida Onsite Wastewater Association Septic System Contractors Tampa Bay Estuary Program Tampa Bay Water</p>



BACKGROUND

HILLSBOROUGH RIVER BMAP STAKEHOLDERS

Type of Governmental or Private Entity	Participant	Type of Governmental or Private Entity	Participant
<p>Responsible Entities</p>	<p>Agriculture City of Plant City City of Tampa Hillsborough County Pasco County Polk County</p>	<p>Responsible Agencies</p>	<p>County Health Departments Florida Department of Agriculture and Consumer Services (DACCS) Florida Department of Environmental Protection (DEP) Florida Department of Health Florida Department of Transportation Southwest Florida Water Management District</p>
		<p>Other Interested Stakeholders</p>	<p>Residents/Homeowners Florida Onsite Wastewater Association Septic System Contractors Tampa Bay Estuary Program University of South Florida</p>



BACKGROUND

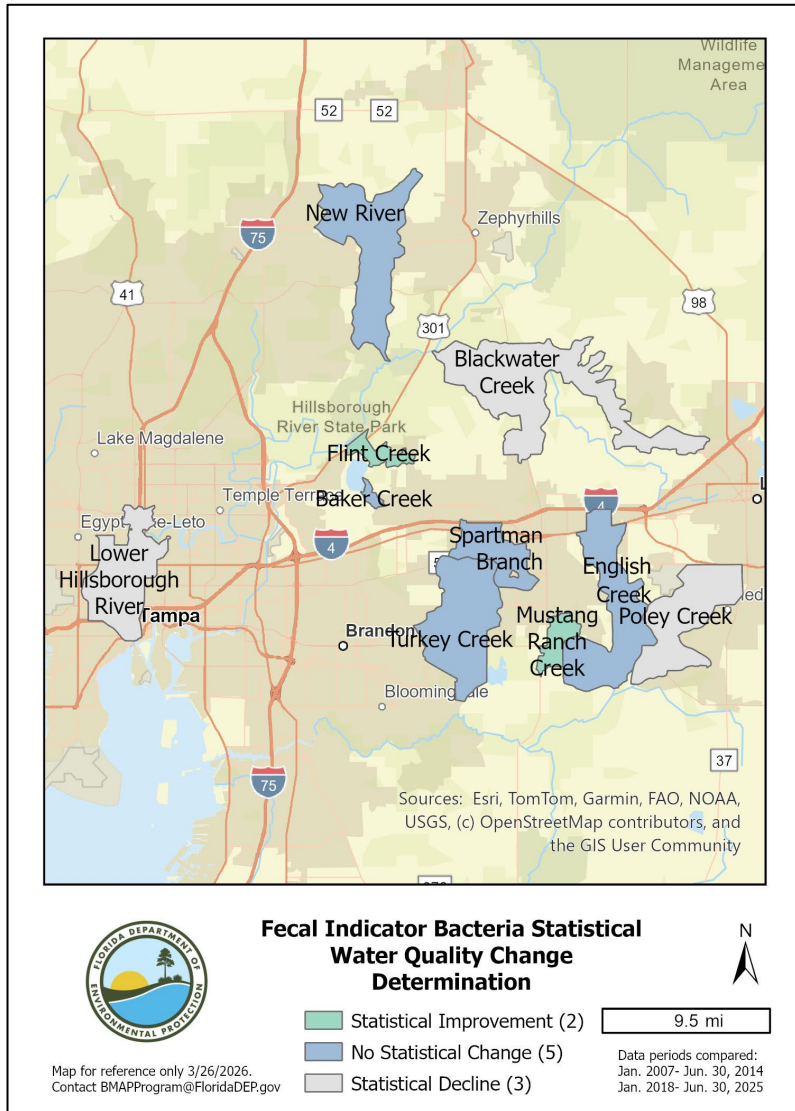
MANATEE RIVER BMAP STAKEHOLDERS

Type of Governmental or Private Entity	Participant
<p>Responsible Entities</p>	<p>Agriculture City of Bradenton City of Palmetto Manatee County Sarasota County</p>

Type of Governmental or Private Entity	Participant
<p>Responsible Agencies</p>	<p>County Health Departments Florida Department of Agriculture and Consumer Services (DACS) Florida Department of Environmental Protection (DEP) Florida Department of Health Florida Department of Transportation Southwest Florida Water Management District</p>
<p>Other Interested Stakeholders</p>	<p>Residents/Homeowners Florida Onsite Wastewater Association Septic System Contractors Tampa Bay Estuary Program</p>



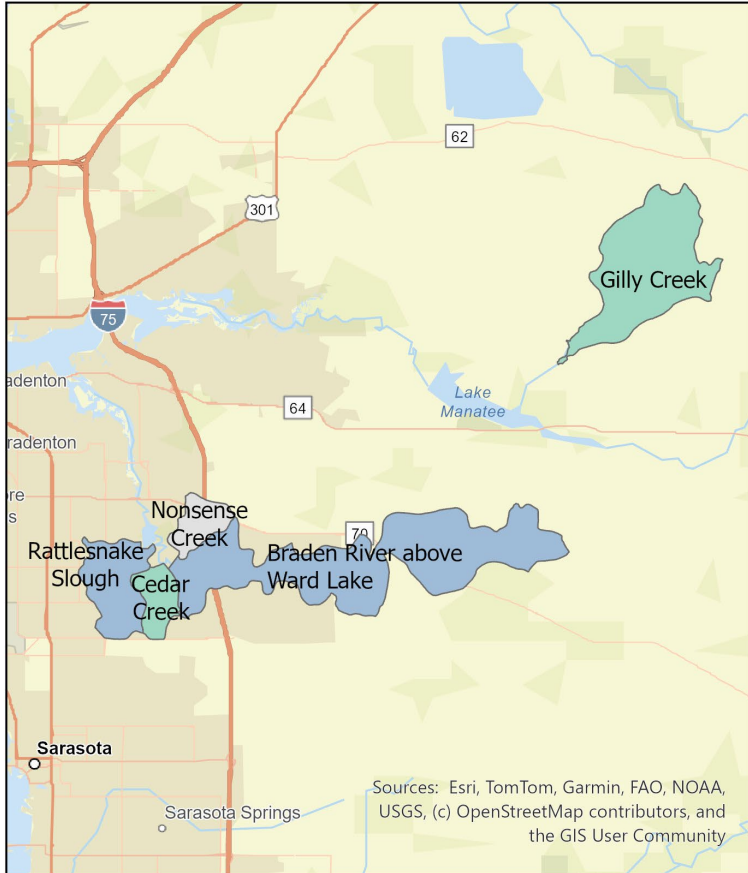
ALAFIA RIVER AND HILLSBOROUGH RIVER BMAPS WATER QUALITY CHANGE THRU JUNE 30, 2025 FIB



Waterbody	Percent Exceedance Jan. 1, 2018, to June 30, 2025
Turkey Creek	59%
Mustang Ranch Creek	44%
English Creek	43%
Poley Creek	89%
Lower Hillsborough River	46%
Spartman Branch	37%
Baker Creek	21%
Flint Creek	12%
Blackwater Creek	30%
New River	36%



MANATEE RIVER BMAPS WATER QUALITY REVIEW THRU JUNE 30, 2025 FIB



Fecal Indicator Bacteria Statistical Water Quality Change Determination

- Statistical Improvement (2)
- No Statistical Change (2)
- Statistical Decline (1)



5.5 mi

Map for reference only 3/26/2026.
Contact BMAPProgram@FloridaDEP.gov

Data periods compared:
Jan. 2007- Jun. 30, 2014
Jan. 2018- Jun. 30, 2025

Waterbody	Percent Exceedance Jan. 1, 2018, to June 30, 2025
Rattlesnake Slough	35%
Cedar Creek	31%
Nonsense Creek	62%
Braden River above Ward Lake	10%*
Gilly Creek	58%

*Braden River above Ward Lake attains the bacteria standard and is placed in Category 2t because the exceedance frequency, when evaluated using the required binomial hypothesis test, does not exceed the 10% listing threshold with statistical confidence. The simple percentages shown above are raw calculations for illustration only; the official assessment relies on the binomial test, which determines whether the of number of exceedances are high enough to indicate a true water quality problem rather than normal variability.



POLICY AND REPORTING REMINDERS

ALAFIA RIVER BMAP AND MANATEE RIVER BMAP REQUIREMENTS

Source	Topic	Requirement
Wastewater	Wastewater Effluent Limits	Where the law does not provide effluent limits or a compliance timeframe, new effluent standards will take effect at the time of permit renewal or no later than five years after BMAP adoption , whichever is sooner. Tables 5 and 6 in the BMAP document.
	Connection to Sewer	Beginning February 2026 and every two years thereafter , utilities with sewer lines in BMAPs must provide DEP a list of properties with existing OSTDS where sewer is available (as defined in 381.00655, F.S.) but have not connected.
Agriculture	Concentrated animal feeding operations (CAFOs) - Dairies	To minimize infiltration of liquid manure, if a dairy uses a clay liner or some other type of engineered waste storage pond system, within two years of BMAP adoption , the dairy must submit to DEP an evaluation identifying the environmental, technical, and economic feasibility of upgrading to a concrete or geosynthetic liner.



POLICY AND REPORTING REMINDERS

ALAFIA RIVER BMAP AND MANATEE RIVER BMAP REQUIREMENTS

Source	Topic	Requirement
Wastewater	OSTDS Remediation Plan	The 2025 BMAP includes a boundary expansion that extends the remediation plan requirements to additional local governments. Responsible entities who are newly subject to subparagraph 403.067(7)(a)9., F.S. have one year from BMAP adoption (due June 27, 2026) to submit their applicable remediation plans.
	Wastewater Remediation Plan	Section 4.1.2.3 of the BMAPs explains the 2025 BMAP includes a boundary expansion that extends the remediation plan requirements to additional local governments and private wastewater facilities. Responsible entities who are newly subject to subparagraph 403.067(7)(a)9., F.S. have one year from BMAP adoption (due June 27, 2026) to submit their applicable remediation plans.



POLICY AND REPORTING REMINDERS

ALAFIA RIVER BMAP AND MANATEE RIVER BMAP REQUIREMENTS

Source	Topic	Requirement
Sports Turf	Golf Courses	Draft nutrient management plan (NMP): Due June 27, 2026. Final NMP: Due June 27, 2027.
		Golf Course superintendents for publicly-owned courses (those owned/operated by local governments: counties, municipalities, CDDs...) must have obtained UF-IFAS Golf Course Best Management Practices Program certification by December 31, 2026.
		Annual reporting begins Nov. 2028 – Jan. 2029.



Follow this link or use the QR code for [BMAP golf course resources](#) including requirements, meeting materials, meeting recording, and a Q&A document.



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.
- Currently in the process of project updates and verification for STAR 2025.
 - Projects reported through Dec. 31, 2025.

Florida Department of Environmental Protection Statewide Annual Report 2024
Basin Management Action Plans

Introduction	Total Maximum Daily Loads	Basin Management Action Plans	Alternative Restoration Plans	Minimum Flows & Water Levels	Recovery & Prevention Strategies	Contacts & Project Data
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How to Use This Report | What Is the STAR? | Reductions & Legislation | What Are Nutrients? | What Are FIB? | What Are BMAP Projects?

Nutrient BMAPs | Fecal Indicator Bacteria BMAPs | BMAP Projects | Project Table

Krause Pump Station Emergency Generator

Krause Pump Station Emergency Generator is in the HILL crediting location of the HILL BMAP. The project is estimated to reduce loading by 0 lbs./yr. of total nitrogen and 0 lbs./yr. of total phosphorus. This project is a FIB- Sanitary Sewer and currently has a status of Underway with an estimated completion date of 2025. Stakeholder-reported costs for this project are \$1,400,000.00.

According to City of Tampa, funding for this project was obtained through City of Tampa for City of Tampa - \$1,400,000.00.

City of Tampa describes this project as: Adding emergency generators for master pump station.

Projects listed with zero TN and TP reductions may not have enough information to verify the nutrient reduction credit or may be a project ineligible for nutrient reduction credit but is known to support restoration.

Statewide TN Reductions Achieved by Completed and Ongoing Projects as of December 31, 2024

Source	Color
In Waterbody	Light Blue
Load Tracking	Light Green
Stormwater	Light Purple
Wastewater	Light Yellow
Agriculture	Light Orange

Nitrogen Reduction | Phosphorus Reduction

<https://floridadep.gov/STAR>



PROGRESS THRU DEC. 31, 2025 (DRAFT)

Alafia BMAP					
Lead Entity	Completed	Ongoing	Underway	Planned	Total
EPCHC	1	0	0	0	1
City of Lakeland	0	0	0	1	1
City of Plant City	0	9	1	3	13
DACS	0	1	0	0	1
DOT District 1	0	1	0	0	1
DOT District 7	1	3	0	0	4
Hillsborough County	9	21	4	0	34
Mosaic	0	1	0	0	1
Polk County	4	5	0	0	9
Tampa Bay Water	1	1	0	0	2

Manatee BMAP					
Lead Entity	Completed	Ongoing	Underway	Planned	Total
Braden River Utilities	1	0	0	0	1
City of Bradenton	3	2	10	6	21
DACS	0	1	0	0	1
DOT District 1	1	1	1	0	3
Manatee County	8	3	7	11	29
Sarasota County	1	2	0	1	4
Schroeder-Manatee Ranch	0	0	12	0	12



PROGRESS THRU DEC. 31, 2025 (DRAFT)

Hillsborough BMAP					
Lead Entity	Completed	Ongoing	Underway	Planned	Total
City of Lakeland	0	4	0	0	4
City of Plant City	6	17	1	1	25
City of Tampa	43	19	5	2	69
DACS	1	1	0	0	2
DOH	1	7	0	0	8
DOT District 7	0	4	0	0	4
EPCHC	2	8	0	1	11
Hillsborough County	94	11	0	0	105
Pasco County	11	11	0	0	22
Polk County	11	16	0	0	27
SWFWMD	1	0	0	0	1
Tampa Bay Estuary Program	1	4	1	0	6



ALAFIA BMAP NEXT STEPS

DEP INITIATIVES

Situations

- Previously, the chlorophyll-*a* criterion of 15 micrograms per liter ($\mu\text{g/L}$) was established for the tidal river segment to protect the adjacent downstream waters of Hillsborough Bay.
- Hillsborough Bay consistently attains its chlorophyll-*a* and seagrass targets, while the Alafia River - Tidal Segment has not attained the restoration target.
- Additionally, biological data was limited for Mustang Ranch Creek.

Responses

- DEP executed a task assignment for Environmental Science Associates (ESA) to determine if available data and information are sufficient to develop revised nutrient and response variable targets for the Alafia River-Tidal Segment.
- And if feasible, derive site-specific numeric interpretations of Florida's narrative nutrient criterion (paragraph 62-302.530(47)(b), Florida Administrative Code [F.A.C.]
- This work is to be completed by Oct. 31, 2026.
- In Nov. 2025 DEP surveyed Mustang Ranch Creek and gathered biological data.



MANATEE RIVER BMAP NEXT STEPS

DEP INITIATIVES

Situations

- Biological data is limited for Rattlesnake Slough and Nonsense Creek.
- The Gilly Creek FIB TMDL is newly added to the BMAP.

Responses

- DEP is attempting to gather biological data, Stream Condition Index (SCI), but dry conditions have been making this a challenge as recolonization requires months after flows return.
- DEP will initiate a field visit with park staff and other relevant agencies to determine available next steps in identifying sources and potential management strategies.



HILLSBOROUGH RIVER BMAP NEXT STEPS

FIB SOURCE IDENTIFICATION

Situations

- Technologies for source identification are still extremely resource intensive.
- Entities collaborate and dedicate available but limited resources to use source specific indicators and investigative strategies for locating causes of bacteria impairments.

Responses

- DEP provides entities with technical support and coordination for collaborative source identification and investigations through open lines of communication including quarterly Tributaries Assessment Team (TAT) calls.
- DEP's Laboratory provides technical review of lab resources, field tools, data interpretation, and monitoring strategies as requested.



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 and 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, 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



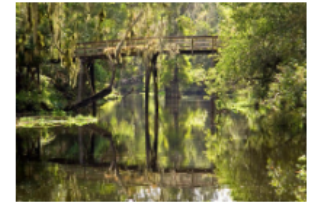
Nutrient BMAPs contain a comprehensive set of solutions, such as permit limits on wastewater facilities, urban and agricultural best management practices, and conservation programs designed to achieve pollutant reductions established by a total maximum daily load

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.



RESOURCES FUNDING OPPORTUNITIES



Florida Department of Environmental Protection
Funding Opportunities
[FloridaDEP.gov/Funding](https://www.floridadep.gov/Funding)





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HOW TO CONTACT US



BMAPPprogram@FloridaDEP.gov



THANK YOU

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