GOLF COURSE REQUIREMENTS IN BASIN MANAGEMENT ACTION PLANS (BMAPS)

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Florida Department of Environmental Protection

GoTo Webinar | Oct. 27, 2025

WEBINAR TIPS

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Attendee audio will automatically be muted.

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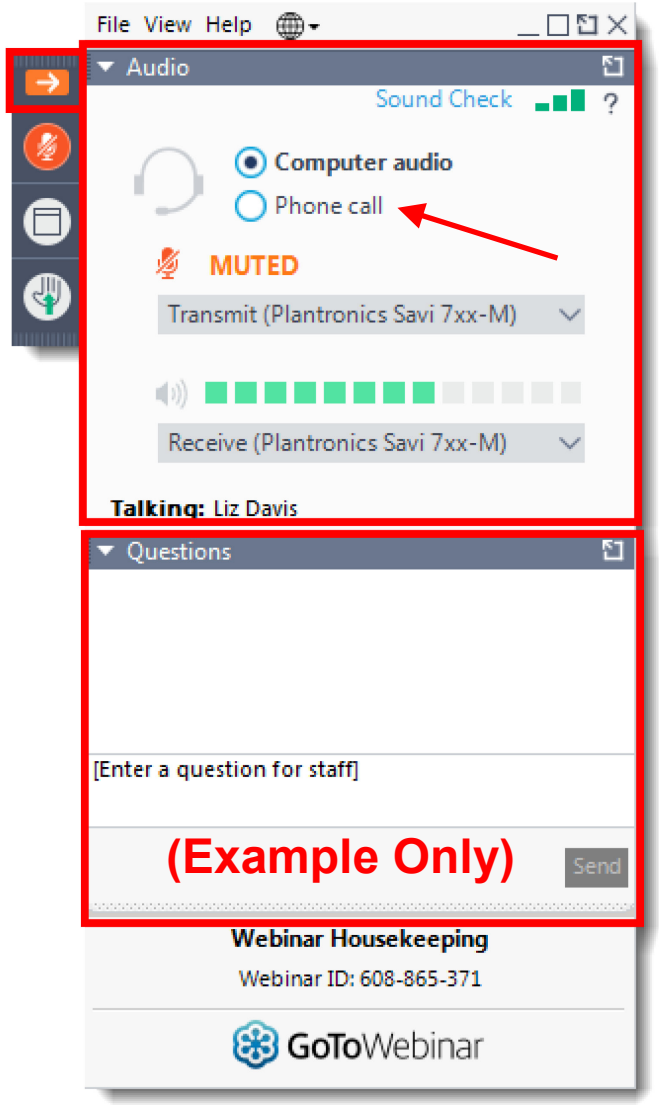
Note: Today's presentation is being recorded and will be provided on the website after the webinar.

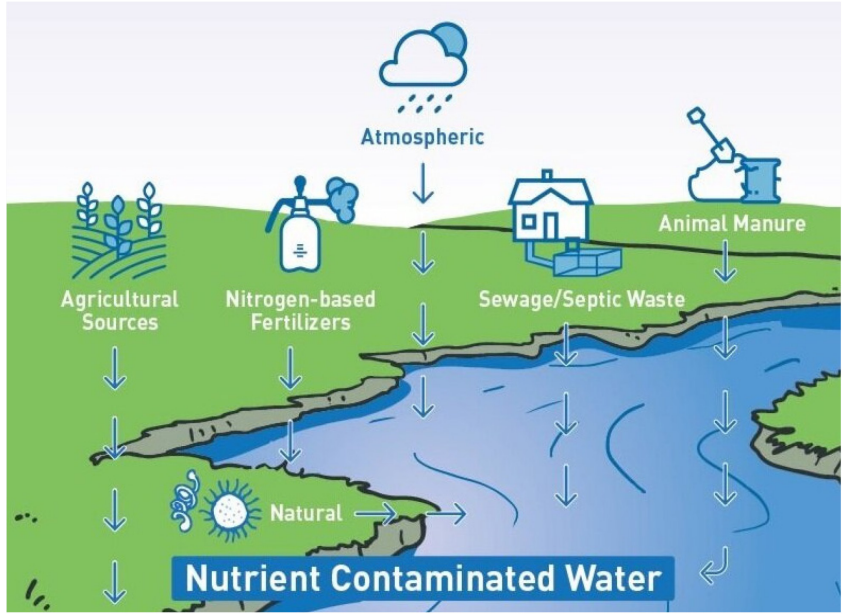


AGENDA

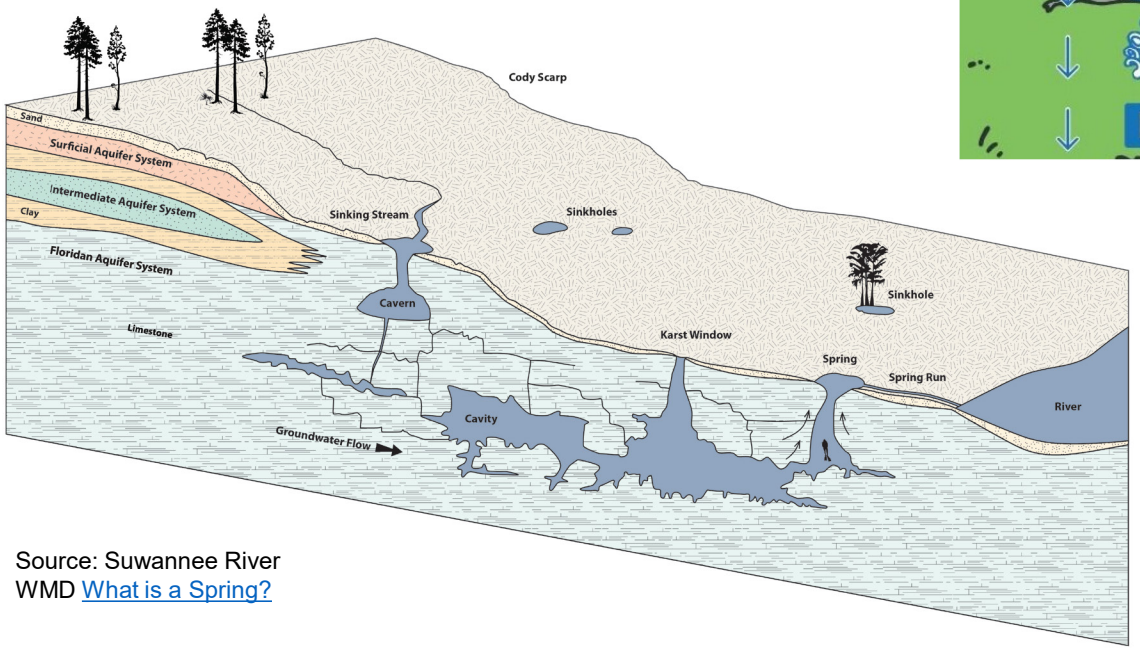
- Background
- Statutes
- Requirements
- Deadlines

SOURCES AND DYNAMICS

Excess nutrients come from **sources on the landscape.**



Source: Beta Analytics



Source: Suwannee River WMD [What is a Spring?]

Complex groundwater and surface water flow dynamics lead to environmental impacts far away from point of origin.

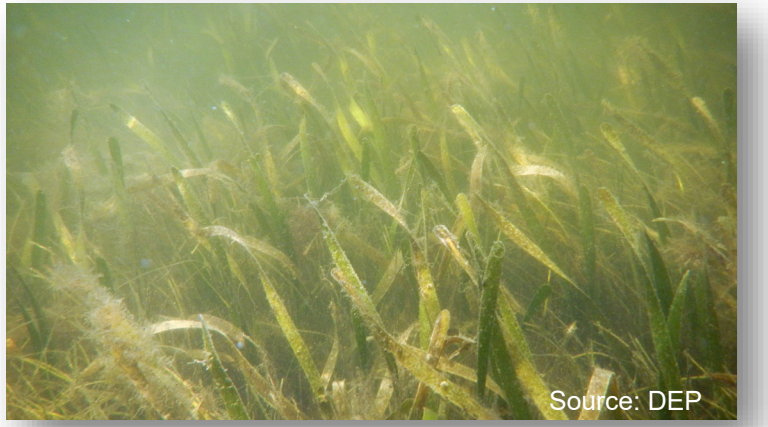
- Stormwater:
  - Urban Turfgrass Fertilizer.
  - Sport Turfgrass Fertilizer.
  - Landscape Management.
- Onsite Sewage Treatment and Disposal Systems (OSTDS).
- Wastewater Treatment Facilities (WWTF).
- Livestock Waste.
- Farm Fertilizers.
- Atmospheric Deposition.

EXCESS NUTRIENTS CONTRIBUTE TO:

Harmful Algal Blooms

Red/Brown Tides Along Coast/Estuary

Fish Kills and Habitat Damage



Seagrass Loss

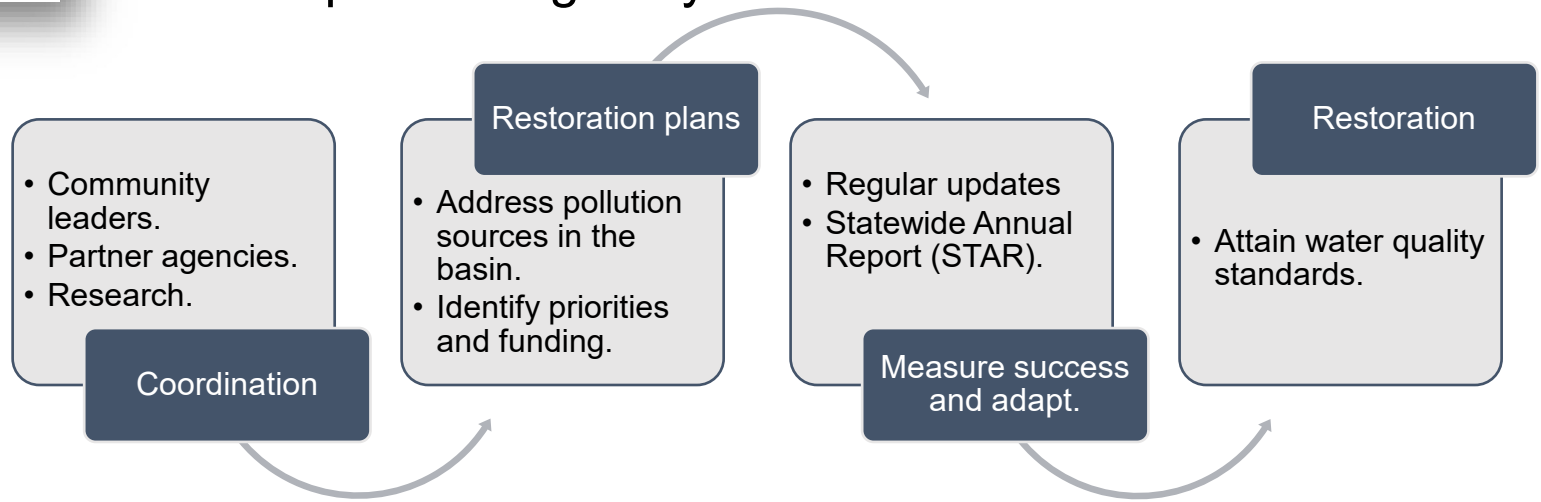
Oyster Losses and Economic Damage

BMAPs

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

BMAPs are:

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



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:

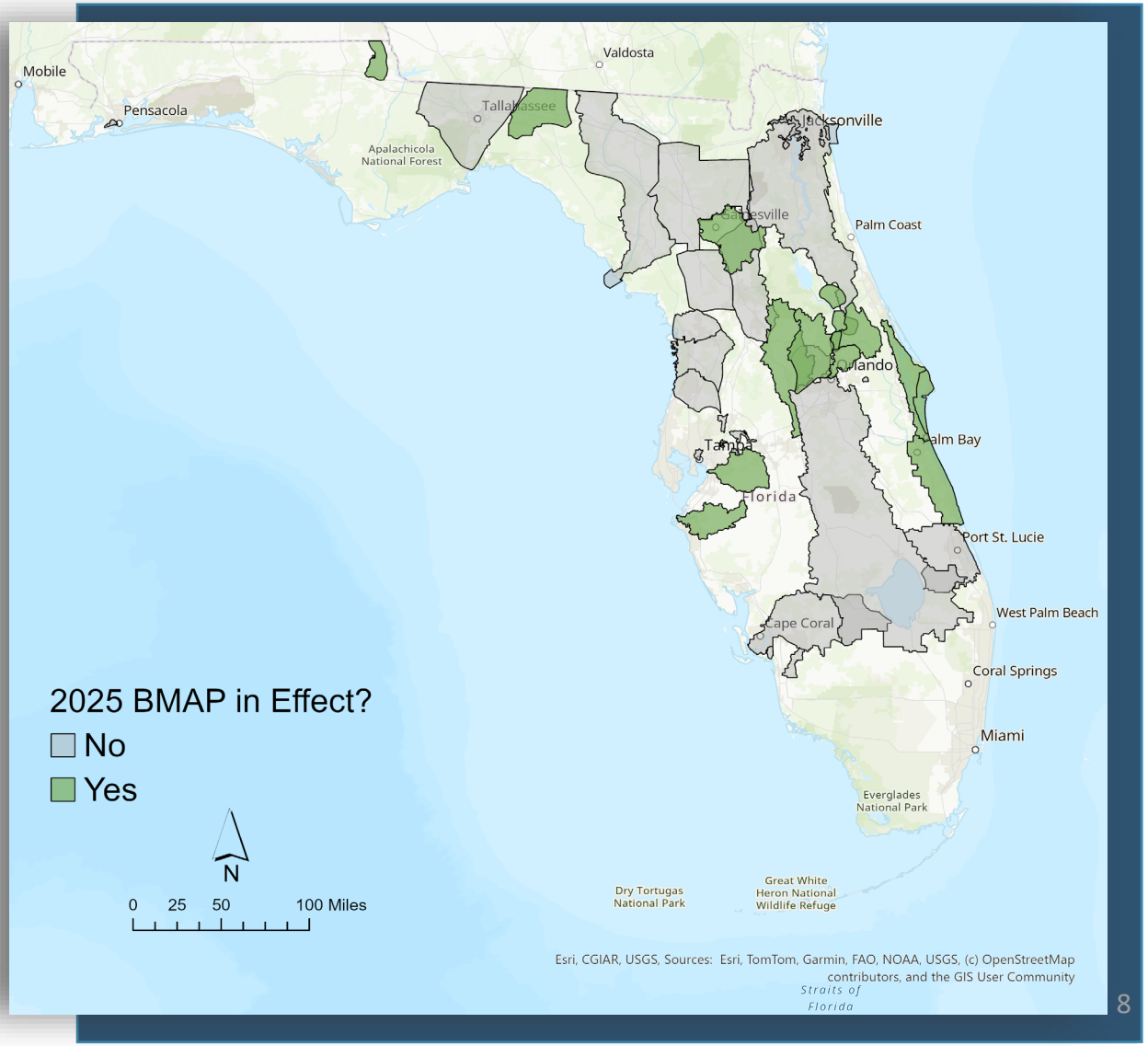
- Implementation timeline.
- Commitment to projects.
- Expected water quality improvement from projects and management strategies.

Process to assess progress toward achieving the TMDL:

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

BMAPs ACROSS THE STATE

- 33 BMAPs:
  - 14 Springs
  - 19 Surface Water:
    - 3 Northern Everglades and Estuaries Protection Program (NEEPP)
    - 3 Indian River Lagoon
    - 7 Other nutrient impaired systems
    - 6 Bacteria impaired
- At this time, updated golf course requirements apply only to golf courses located in the BMAPs shaded in green.



SUPPORTING STATUTES

- Florida Watershed Restoration Act Section 403.067, Florida Statutes (F.S.).
  - NEW: Five Year Milestones.
- Florida Springs and Aquifer Protection Act Part VIII of Chapter 373, F.S.
- Indian River Lagoon Protection Program Section 373.469, F.S.
- Northern Everglades and Estuaries Protection Program Section 373.4595, F.S.

Source: SJRMWD

Requirements for Golf Courses

- Implement best management practices (BMPs) as described in the University of Florida Institute of Food and Agricultural Sciences (UF IFAS) golf course BMP manual, *Best Management Practices for the Enhancement of Environmental Quality on Florida Golf Courses* (2021).

- Water quality monitoring (if required).

- UF-IFAS Florida Golf Courses Best Management Practices Program certification.
  - Confirmation of certification status with DEP required by **Jan. 14, 2026**.
  - Certification required by **Dec. 31, 2026**.
  - Renewed every 4 years.

- Submission of a nutrient management plan (NMP).
  - Draft due **June 27, 2026**.
  - Final due **June 27, 2027**.

- Reporting during Statewide Annual Reporting (STAR) process.

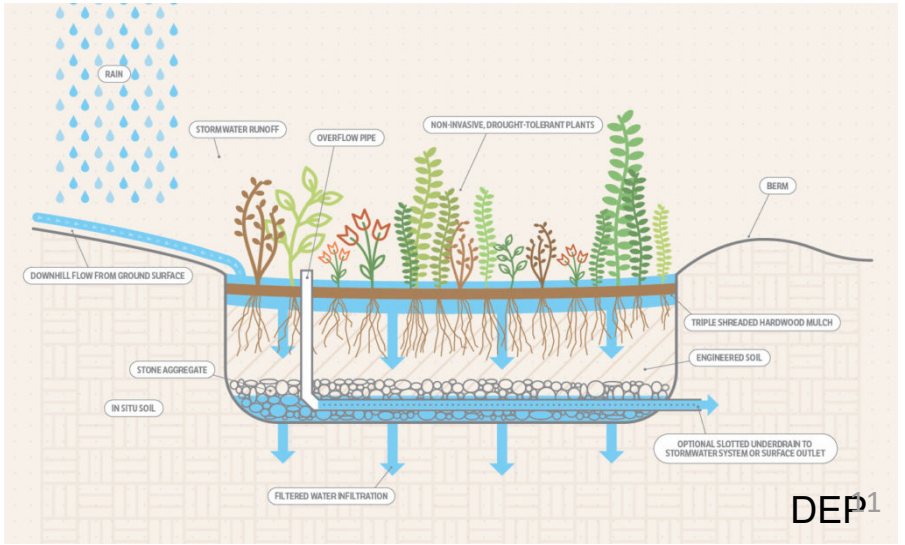
NMP

Components:

- Turf information
  - Turf type(s) and acreages
  - GIS shapefile
- Nutrient application rates.
  - Fertilizer
  - Reuse/effluent
  - Other: compost, manure...
- Best management practices (BMPs)
- Soil, tissue and/or water sampling for nitrogen and phosphorus
- Pre and post development modeling

Examples of BMPs for protecting water quality:

- Slow-release fertilizer
- Lined media in stormwater features
- Denitrified walls
- Rain gardens
- Tree boxes
- Bioswales



NMP

FILLABLE PDF

Please Read: Instructions for Completing and Submitting the Nutrient Management Plan (NMP)

This Nutrient Management Plan (NMP) form has been developed to help golf courses located within Florida's BMAP areas comply with requirements for nutrient reduction and water quality protection.

What to submit with your nutrient management plan package:

- ❑ Completed PDF Form.
- ❑ GIS shapefile detailing course areas.
- ❑ Completed nutrient application Excel spreadsheet.
- ❑ BMP verification documentation.*
- ❑ Monitoring/sampling results for Nitrogen and/or Phosphorous in:
  - Soil.
  - Tissue.*
  - Water Quality.*
- ❑ Pre- and Post- course development modeling and/or sampling reports.*

*Submit if available or required for your course

Note: If you own/manage more than one course which you think should go in one plan, or have any other questions, please reach out to your BMAP coordinator or BMAPProgram@FloridaDEP.gov.

Submitting your completed NMP package

Gather required information

- Link to Secure FTP (SFTP) provided by DEP
- Log-in: **Username**: email **Password**: provided by DEP (a secondary unique password will be auto-generated- **do not share your unique log-in credentials**)

Upload your files to DEPs Secure FTP Server

- Navigate to the designated folder provided by DEP.
- Upload the required files (e.g., PDF form, GIS shapefile, Excel spreadsheet, lab reports).
- Verify that each file has successfully transferred.

Confirm submission- Once your files have been uploaded:

- Notify your DEP contact via email.
- Include the **file names, upload date/time, and your course name** in your confirmation email.

Course Identification and Contact Information

Course Name

Course Address

Best Point(s) of Contact

E-mail

Phone number

Address

◯ Same as above

Superintendent

◯ Same as point of contact

Has the superintendent obtained certification through the UF-IFAS Florida Golf Courses Best Management Practices Program? ◉ Yes ◯ No

Certification Date:

What BMAP(s) is this course located in? Alafia River Basin
Alafia River Basin
Alafia River Basin

NMP

FILLABLE PDF CONT.

The NMP must include the following:

a. *A brief description of the goals of the nutrient management plan.*

This should be a paragraph that describes the goals of your NMP. Talk about how you are managing for high quality turf and water quality. Remember your goal is to protect water quality while maintaining the golf course in premium condition.

b. *Identification of areas where nutrient applications will be made including greens, tees, fairways and roughs.*

Discuss the areas of the course where you plan to use fertilizer, and why. Also discuss the areas that do not need or get any fertilizer applications.

Include a GIS shapefile identifying all of these areas with your submission.
(This must be a zipped file.)

Include the completed Excel Spreadsheet of tables detailing your nutrient application practices with your submission.

Includes: Turf Details

Fertilizer Application

Reuse/Effluent Applied

Are any other sources of nutrients (i.e. manure, compost, etc.) applied to the grounds? If so, please detail in a table similar to the fertilizer and reuse tables.

c. *Current BMP implementation.*
Describe existing BMPs and other nutrient management actions here.

Verification Helper

DEP has prepared a BMP Verification Helper Microsoft Excel file to assist stakeholders in providing project information. The first tab can be used to reference the earliest acceptable date for projects, by BMAP, and determine what kind of supporting documentation is required for verification of nutrient credits based on project type. Project types are organized by category in an easy-to-navigate table in the second tab.

Do you have any nutrient reducing BMPs? Yes No

Project Type 100% On-site Retent Completion Date

Project Description

Verification Documentation Provided Yes No

Project Type 100% On-site Reten Completion Date

Project Description

Verification Documentation Provided Yes No

Project Type 100% On-site Retent Completion Date

Project Description

Verification Documentation Provided Yes No

Include required documentation for BMP credit verification with your submission. No reduction credit will be given if the appropriate required documentation is not provided.

d. *Soil sampling methods and results for each area receiving fertilizer applications. Areas receiving fertilizer applications shall be sampled once every three years. Soil samples shall be collected and analyzed according to UF-IFAS/DEP recommendations or standard industry practice. Soil samples shall be analyzed, at minimum, for:*

1. Nitrogen
2. Phosphorus

NMP

EXAMPLE NUTRIENT APPLICATION TABLE TEMPLATE

Nutrient Application Log

Only complete green cells

Turf Type	Turf Species	Acreage
Tees		
Greens		
Fairway		
Roughs		
Total		0

Fertilizer Application

Month	Turf Type	TN Application Rate (lbs/acre)	TP Application Rate (lbs/acre)	Number of Applications	Total TN Applied (lbs)	Total TP Applied (lbs)
January	Tees				0	0
	Greens				0	0
	Fairway				0	0
	Roughs				0	0
February	Tees				0	0
	Greens				0	0
	Fairway				0	0
	Roughs				0	0
March	Tees				0	0
	Greens				0	0
	Fairway				0	0
	Roughs				0	0
April	Tees				0	0
	Greens				0	0
	Fairway				0	0

Guidance | Nutrient Application

NMP

EXAMPLE NUTRIENT APPLICATION TABLE TEMPLATE CONT.

Amount of Effluent/Reuse Applied*							
Month of Application	Quantity (Millions of Gallons per Day - MGD)	Monthly Average Total Nitrogen (mg/L)	Monthly Average Total Phosphorous (mg/L)	Qty of TN Applied (lbs/month)	Running Total of TN Applied per Month (lbs)	Qty of TP Applied (lbs/month)	Running Total of TP Applied per Month (lbs)
January				0	0	0	0
February				0	0	0	0
March				0	0	0	0
April				0	0	0	0
May				0	0	0	0
June				0	0	0	0
July				0	0	0	0
August				0	0	0	0
September				0	0	0	0
October				0	0	0	0
November				0	0	0	0
December				0	0	0	0
Total:				0	0	0	0

NMP
VERIFICATION HELPER

BMP Verification Helper

First: Select a BMAP in the orange cell below, for the earliest acceptable start date (year).

Lake Jesup
2013

Select a project type from pick list in the cell below.	
Wet Detention Pond	
Category 1:	Stormwater
Category 2:	Stormwater Structural Retention/Detention
Message about the project type selected:	**Definition of the project type selected:**
No additional notes for this project type. Have a great day!	Wet detention means the collection and temporary storage of stormwater in a permanently wet impoundment in such a manner as to provide for treatment through physical, chemical, and biological processes with subsequent gradual release of the stormwater.
Credit Available / *"Ongoing" status is not allowed.*	
Required pieces of information (listed below)*	**Optional pieces of information (listed below)**
★ Project Point Location	Monitoring Reports, Hydrologic Review, and/or Lab Results Showing Benefit
★ Treatment Area (polygon)	Blank Cell
★ Pond Area	Blank Cell
★ Permanent Pool Volume/ Detention Time	***Links below should be used when prompts in the "required info" section indicate a tool linked below is necessary.**

Interactive List | Project Types

Instructions:

1. Will this project be eligible based on start date? Each BMAP tracks projects starting with a specific year and forward. Projects that began before this date are not typically eligible for credit. Select the BMAP basin in the orange cell, B4. As always, contact your BMAP coordinator if you are unsure.

2. What is the project type? Review the project types table (tab called Project Types) and identify the project type that suits the project you are submitting. Project types are categorized for easier identification (ex. stormwater or wastewater). Click on a project type to read the definition in a pop-up. Pop-ups for project types currently ineligible for credit suggest the reader review definitions for creditable project types with similar names.

3. What information is needed for credit verification? Select the project type from the dropdown list in cell B10 (next to the yellow arrow). Confirm that categories 1 and 2 match your project. Read the message box and the definition to confirm you have selected the best option. If not, select another project type that better matches.

4. Provide the required information, that will enable DEP to perform BMP load reduction calculation and verification, **no later than Jan. 15th.** Optional pieces of information are not required, but may be helpful during verification.

5. If you are unsure, please contact your BMAP coordinator.

NMP

FILLABLE PDF CONT.

Describe existing soil sampling here. Describe your planned soil sampling schedule. Provide information about how long you have been soil sampling and what part of the course you are prioritizing.

If soil samples from areas of similar soil, fertilizer use and management are combined, describe the process and justify combining for a "representative" sample.

Include soil sampling results in your submission.

Keep all soil test results (or copies of them) in this file as part of your nutrient management plan. Please do not send them in to DEP individually. If you've been soil testing for years, remember to add copies of all those past results to your NMP file.

e. ***Water quality sampling methods and results. Water quality sampling and analysis should be conducted in accordance with DEP's Standard Operating Procedures. Water quality samples shall be analyzed, at minimum, for:***

1. Nitrogen
2. Phosphorus.

Describe existing water quality sampling. Describe your planned water quality sampling schedule. Provide information about how long you have been doing water quality sampling and what part of the course you are prioritizing.

Include water quality sampling results in your submission.

Keep all water quality test results (or copies of them) in this file as part of your nutrient management plan. Please do not send them in to DEP individually. If you've been testing for years, remember to add copies of all those past results to your NMP file.

f. ***Tissue sampling methods and results. Tissue samples shall be collected and analyzed according to UF-IFAS/DEP recommendations or standard industry practice.***

Describe existing tissue sampling plan here.

Include tissue sampling results in your submission.

Keep all test results (or copies of them) in this file as part of your nutrient management plan. Please do not send them in to DEP individually. If you've been testing for years, remember to add copies of all those past results to your NMP file.

g. ***Soil, tissue and water quality sample results shall be maintained for a minimum of 5 years. Please provide records.***

h. ***When developing new (or expanding) golf courses, pre and post monitoring should be implemented in accordance with UF-IFAS/DEP recommendations.***

Do you do have pre and post course development modeling and/or sampling? ◯ Yes ◯ No

Describe your pre and post course development modeling and/or sampling.

Include report(s) with your submission.

NUTRIENT SAMPLING

All

- Describe past, current, and planned schedule.
- File as part of NMP, **Do not** send individually to DEP.
- Include past results.
- Keep records for at least five years.

Soil

- Methods/results for each area receiving nutrient applications
- Sampling and analysis according to UF-IFAS/DEP recommendations or standard industry practice
- Minimum every 3 years
- Minimum N and P analysis
- Prioritization guidelines

Water

- Sampling and analysis according to DEP's SOPs for N and P
- Prioritized locations

Tissue

- Sampling and analysis according to UF-IFAS/DEP recommendations or standard industry practice.

ANNUAL REPORTING

Please read before you begin:

A Basin Management Action Plan (BMAP) is a framework for water quality restoration that contains a comprehensive set of solutions to achieve the pollutant reductions established by a total maximum daily load (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. BMAPs are adopted by Secretarial Order and are legally enforceable.

The fertilizers used to maintain golf courses can be significant sources of nutrients in watersheds that are impaired for nitrogen and/or phosphorous. To achieve the TMDL target(s), all nutrient sources need to reduce their nutrient loading. Similar to other sources, golf courses are required to implement management strategies to mitigate their nutrient loading and be in compliance with the BMAP.

All golf courses located within a BMAP are required to submit a nutrient management plan (NMP) that is designed to, while maintaining even plant growth, prevent nutrient losses to the Floridan aquifer and surrounding surface waters.

The purpose of this survey is to collect information on a golf course's nutrient management.

Have this information ready before you begin:

Nutrient application records by month.
Required documentation for verification of any new best management practices.
Soil, tissue, water quality sampling/monitoring results/reports for the reporting year.

Draft mode is available for this survey. Draft mode automatically saves answers locally in the browser as a respondent progresses through the survey. A respondent can resume the survey in the same browser at a later time.

Please submit any questions about this survey to the BMAP Program: BMAPProgram@floridadep.gov.

Next

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Golf Course Information

Reporting Year*

2025

Golf Course Name*

ABC Golf Club

Superintendent or best point of contact*

Tom Jones

Has the superintendent obtained certification through the UF-IFAS Florida Golf Courses Best Management Practices Program?*

yes | no

Date certified*

January 2025

Are you providing information for multiple golf courses?

yes | no

Back | Next

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ANNUAL REPORTING

Monthly Fertilizer Application

Use the arrows to expand each section.

Fertilizer Application- January

Fill in information below for fertilizer application in **January**.

Tees- January

Jan Tees- TN Application Rate (lbs/acre)	Jan Tees- TP Application Rate (lbs/acre)	Jan Tees- Number of Applications	Jan Tees- Total TN Applied (lbs/acre) Value will autopopulate.	Jan Tees- Total TP Applied (lbs/acre) Value will autopopulate.

Greens- January

Fairway- January

Roughs- January

Fertilizer Application- February

Fill in information below for fertilizer application for the month of **February**.

Tees- February

Greens- February

Fairway- February

Roughs- February

Fertilizer Application- March

Do you have any new nutrient reducing BMPs to report?*

- Yes
- No

Completion Date

MM yyyy

Project Type

-Please select-

Verification Documentation

Drop file here or select file (pdf, doc, docx, xls, xlsx, pptx, ppt, txt)

Back | Submit

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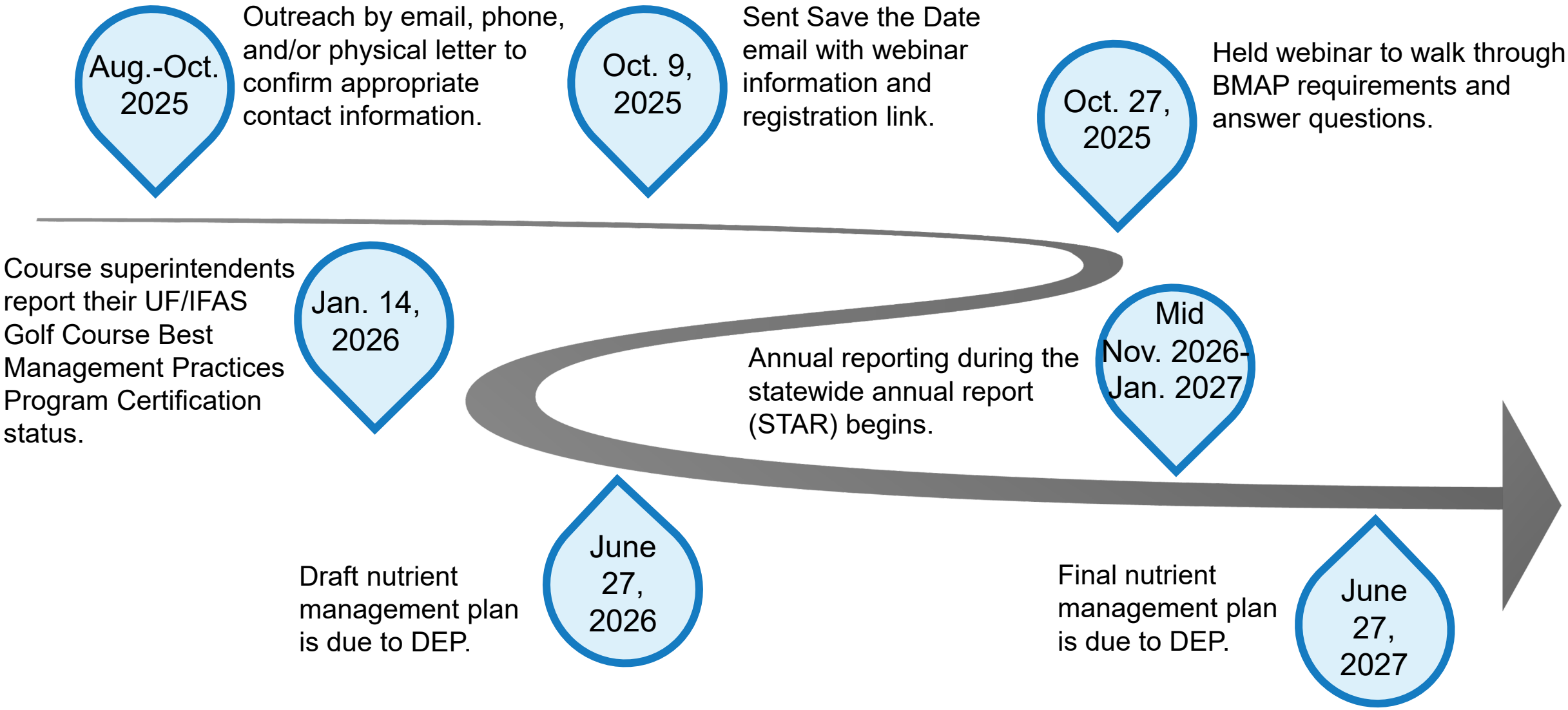
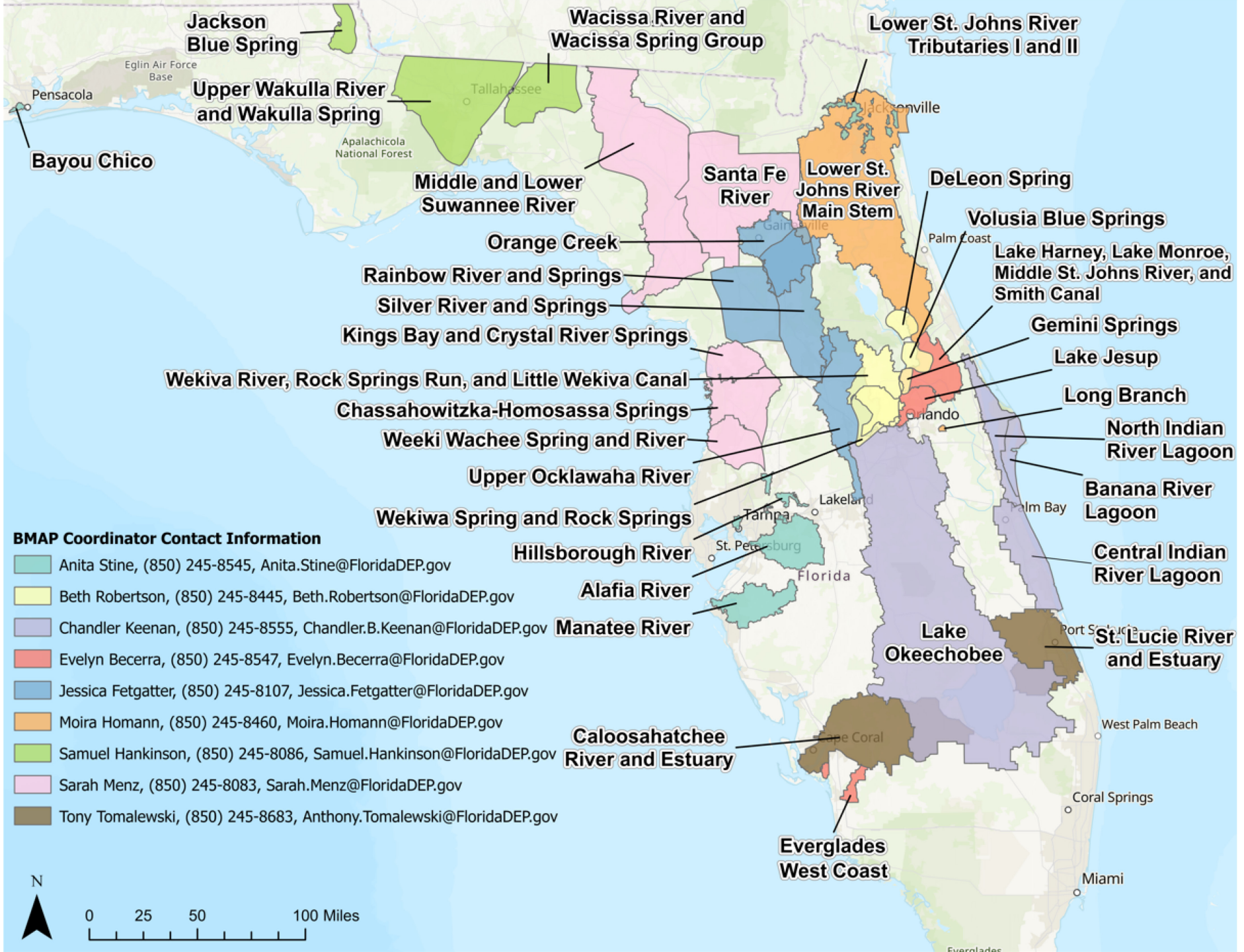
TIMELINE


Aug.-Oct. 2025
Outreach by email, phone, and/or physical letter to confirm appropriate contact information.
Oct. 9, 2025
Sent Save the Date email with webinar information and registration link.
Oct. 27, 2025
Held webinar to walk through BMAP requirements and answer questions.
Course superintendents report their UF/IFAS Golf Course Best Management Practices Program Certification status.
Jan. 14, 2026
Annual reporting during the statewide annual report (STAR) begins.
Mid Nov. 2026-Jan. 2027
Draft nutrient management plan is due to DEP.
June 27, 2026
Final nutrient management plan is due to DEP.
June 27, 2027

DEADLINES

FOR GOLF COURSES LOCATED IN AREAS WHERE 2025 BMAPS ARE IN EFFECT

Date	Requirement
Jan. 14, 2026	Superintendents must report their status for UF/IFAS Golf Course Best Management Practices Program Certification
June 27, 2026	Draft Nutrient Management Plan Due
Dec. 31, 2026	Superintendents must have completed their UF/IFAS Golf Course Best Management Practices Program Certification
June 27, 2027	Final Nutrient Management Plan Due
Mid-November to Mid-January Annually	Annual reporting during the statewide annual report (STAR). Beginning winter 2026.


Jackson Blue Spring
Wacissa River and Wacissa Spring Group
Lower St. Johns River Tributaries I and II
Upper Wakulla River and Wakulla Spring
Bayou Chico
Middle and Lower Suwannee River
Santa Fe River
Lower St. Johns River Main Stem
DeLeon Spring
Volusia Blue Springs
Orange Creek
Lake Harney, Lake Monroe, Middle St. Johns River, and Smith Canal
Rainbow River and Springs
Silver River and Springs
Gemini Springs
Kings Bay and Crystal River Springs
Lake Jesup
Wekiva River, Rock Springs Run, and Little Wekiva Canal
Long Branch
Chassahowitzka-Homosassa Springs
North Indian River Lagoon
Weeki Wachee Spring and River
Upper Ocklawaha River
Banana River Lagoon
Wekiwa Spring and Rock Springs
Hillsborough River
Central Indian River Lagoon
Alafia River
Manatee River
Lake Okeechobee
St. Lucie River and Estuary
Caloosahatchee River and Estuary
Everglades West Coast
Pensacola
Eglin Air Force Base
Tallahassee
Apalachicola National Forest
Jacksonville
Gainesville
Palm Coast
Orlando
Lakeland
Tampa
St. Petersburg
Florida
Palm Bay
Port St. Lucie
Cape Coral
West Palm Beach
Coral Springs
Miami
Everglades
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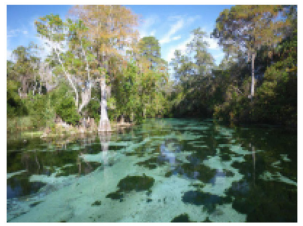
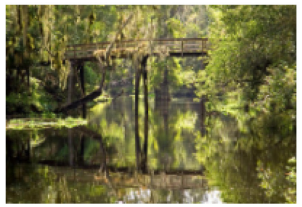
N
0 25 50 100 Miles

RESOURCES
BMAP WEBSITE AND STORYMAPS

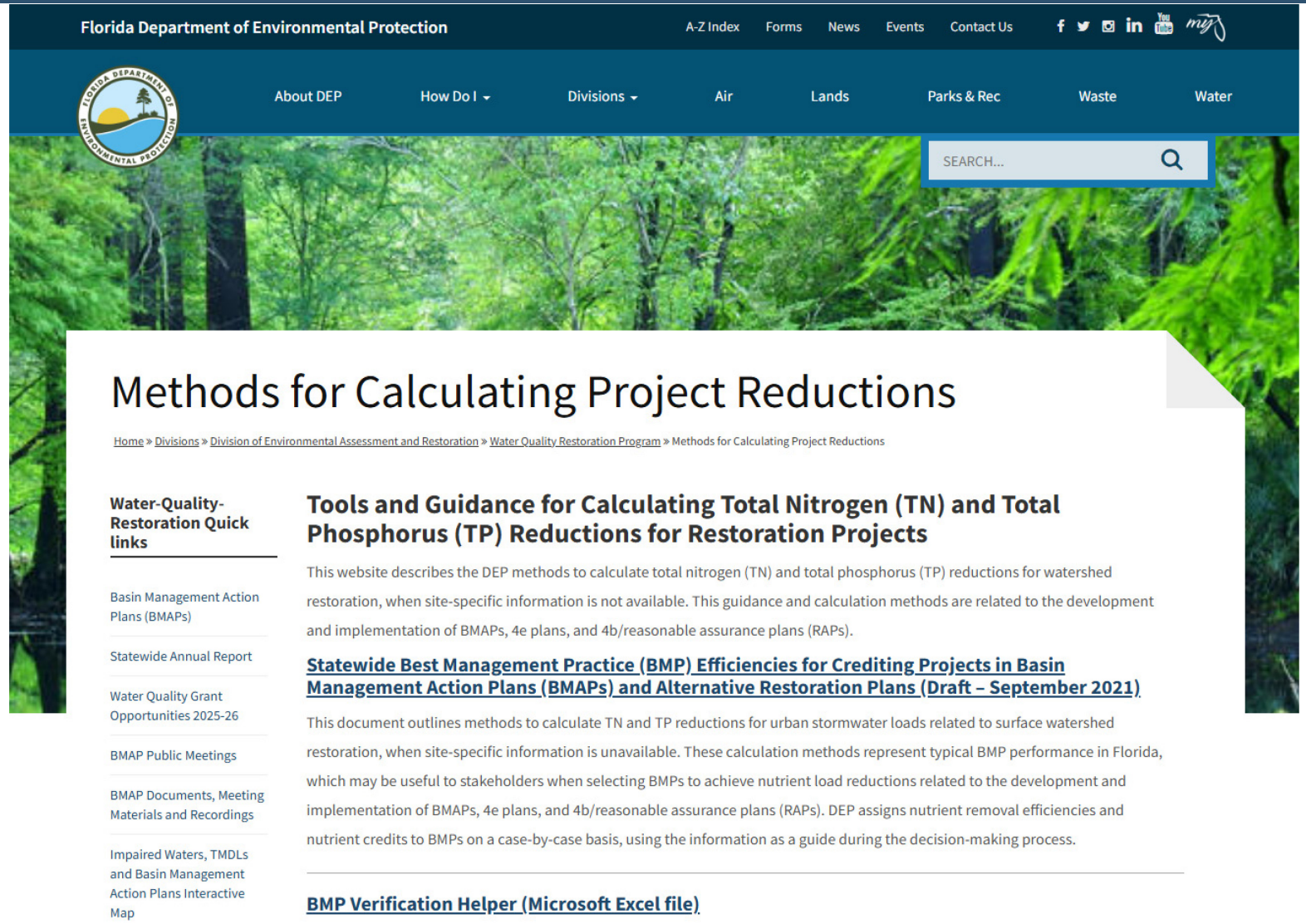
Nutrient BMAPs	Springs BMAPs	Fecal Bacteria Impaired BMAPs
		
Nutrient BMAPs contain a comprehensive set of solutions, such as permit limits on wastewater facilities, urban and agricultural best management practices, and conservation programs designed to achieve pollutant reductions established by a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

RESOURCES
TOOLS AND GUIDANCE PAGE

Tools

- BMP manual.
- NMP template.
- Nutrient application reporting/tracking tables.
- Stormwater BMP efficiencies.
- Verification helper.



THANK YOU

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