

Subject: Webinar to discuss Basin Management Action Plan (BMAP) Requirements for Golf Course Managers and Superintendents

Dear Superintendents, General Managers, and Landscape Maintenance Staff,

Join us for a focused webinar designed specifically to assist golf course managers, superintendents, and landscape maintenance staff with navigating basin management action plan (BMAP) requirements.

Webinar Details

Topic: BMAP Requirements

Date: May 4, 2026

Time: 1:00 PM

Location: Online via GoTo (link provided upon registration)

To Register: <https://attendee.gotowebinar.com/register/8797457970375947615>

In this webinar, we'll cover:

- What BMAPs are and why they matter for golf course management
- BMAP requirements and reporting
- Q&A

To ensure we address your most pressing questions during the webinar, we encourage you to **submit your questions ahead of the session**. Simply reply to this email (BMAPPProgram@FloridaDEP.gov).

Best regards,

The BMAP Program



GOLF COURSE REQUIREMENTS IN BASIN MANAGEMENT ACTION PLANS (BMAPS)

Jessica Fetgatter, Tony Tomalewski

Water Quality Restoration Program

Division of Environmental Assessment and Restoration

Florida Department of Environmental Protection

GoTo Webinar | May 4, 2026



WEBINAR TIPS

Audience Participation

Open your control panel.

Join audio:

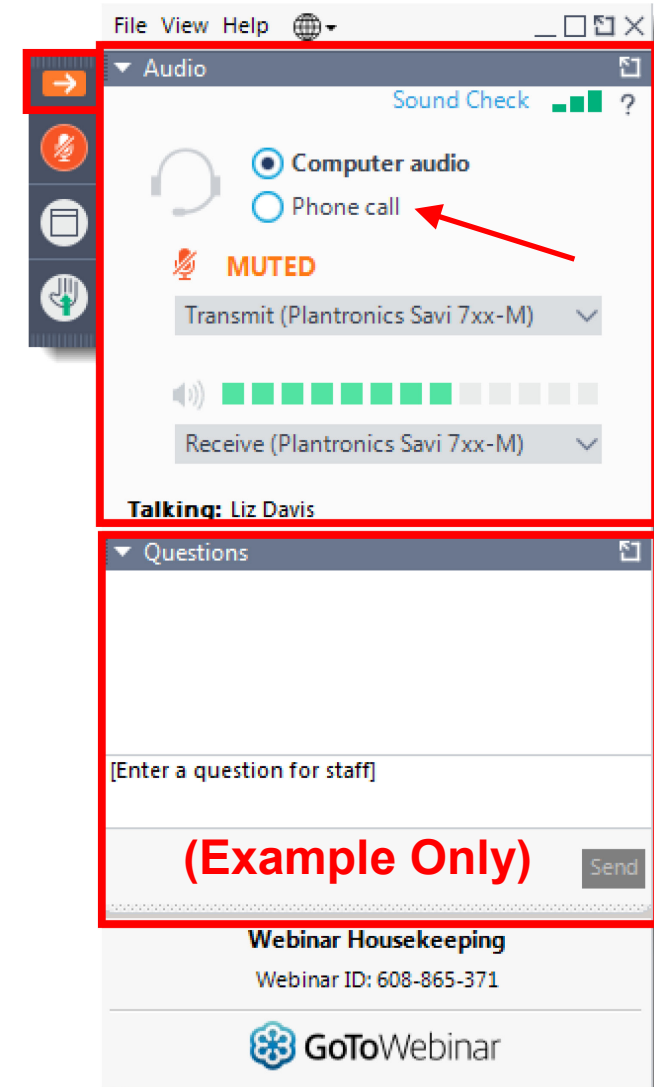
- Choose Computer Audio or
- Choose Phone Call and dial using the information provided with your registration

Attendee audio will automatically be muted.

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

If viewing this webinar as a group, please provide a list of attendees via the **Questions** panel.

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





AGENDA

- Background.
- Supporting Statutes.
- Requirements.
- Deadlines.
- Resources.

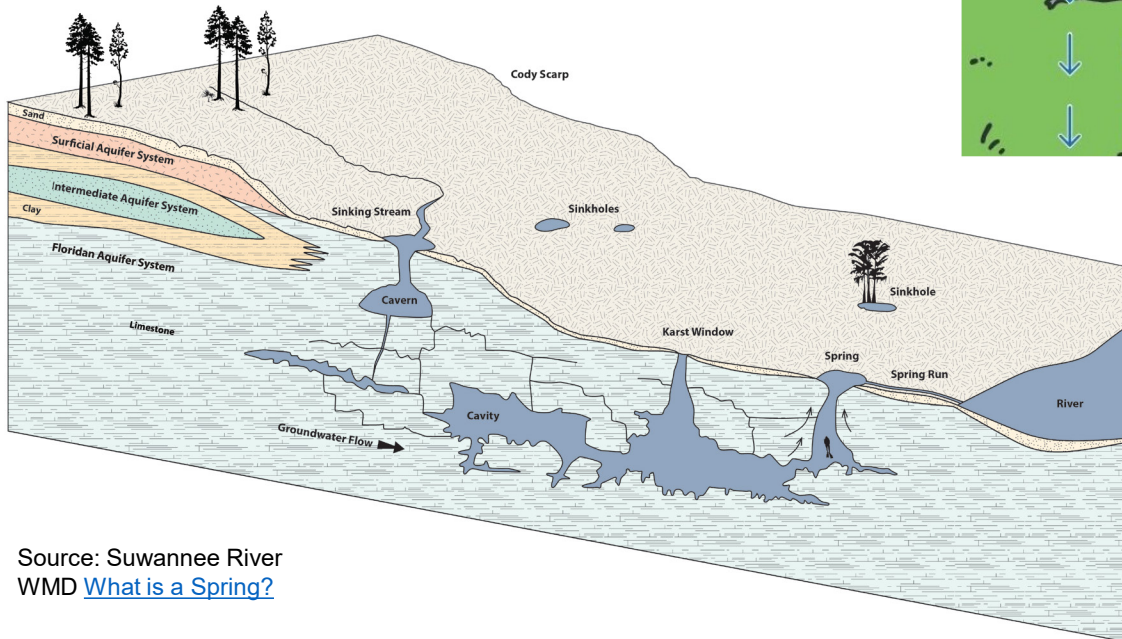


Photo Credit: DEP

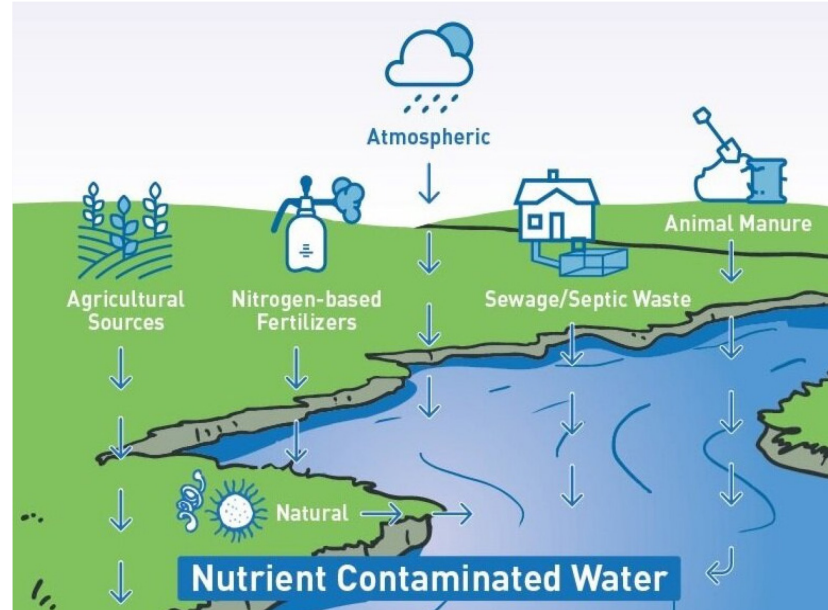


SOURCES AND DYNAMICS

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



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



Source: Beta Analytics

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:



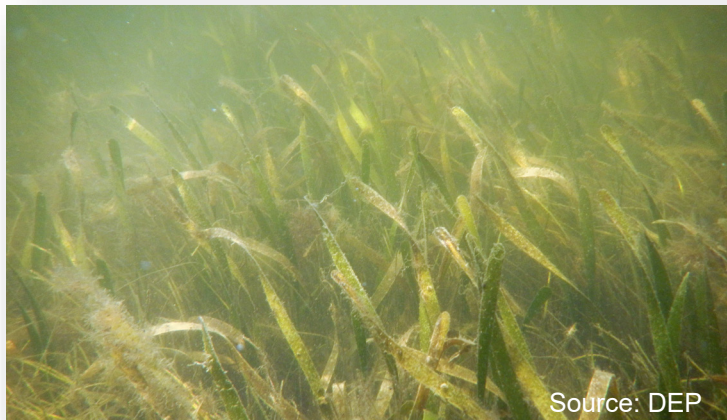
Harmful Algal Blooms



Red/Brown Tides Along Coast/Estuary



Fish Kills and Habitat Damage



Seagrass Loss



Oyster Losses and Economic Damage



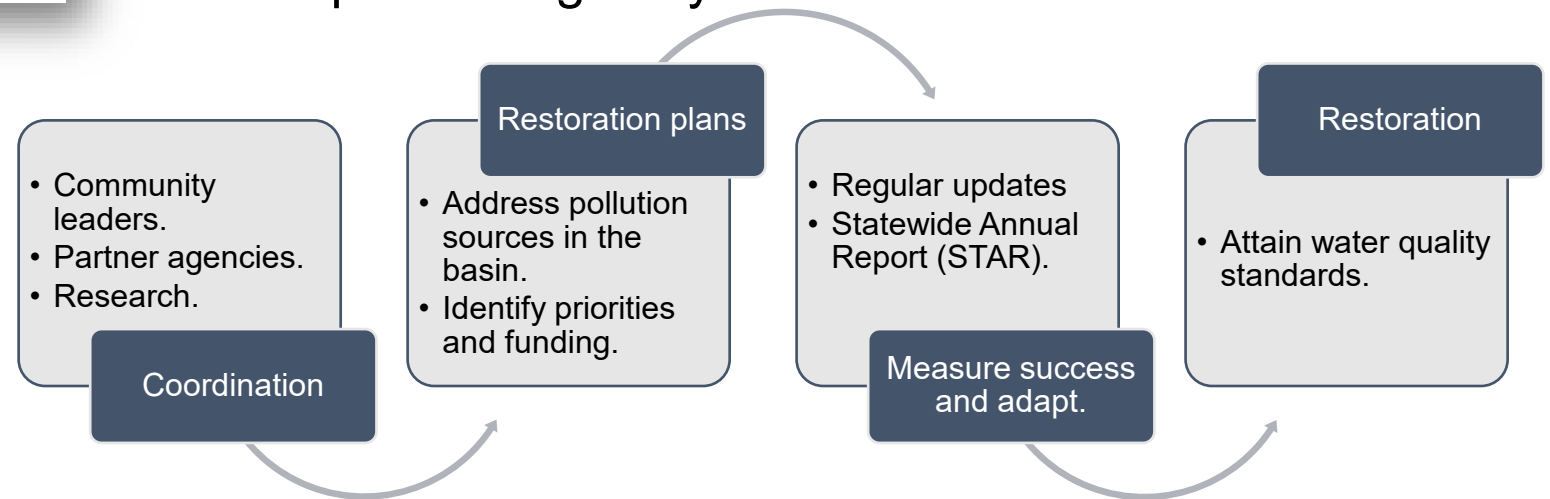
BMAPs



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 for adaptive management.
- 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.

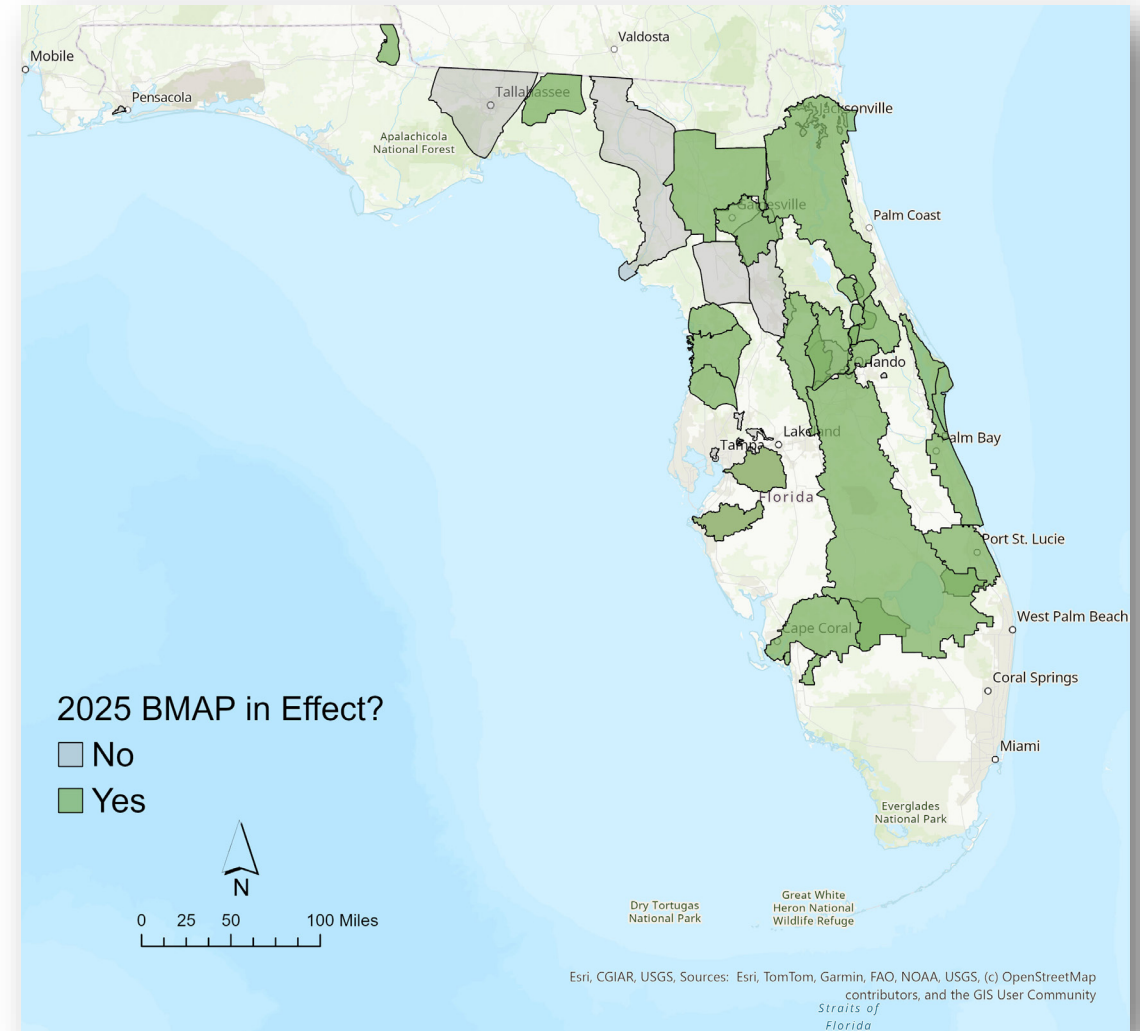
Process to assess progress toward achieving the TMDL:

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



BMAPs ACROSS THE STATE

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





BMAPs ACROSS THE STATE

Florida Department of Environmental Protection Geospatial Open Data

Statewide Basin Management Action Plan (BMAP) General Areas

✓ Authoritative

FDEP Open Data Administrator
Florida Department of Environmental Protection

Summary

To spatially represent the areas where a BMAP is being prepared and areas where a BMAP is adopted. The purpose of this layer to show the land areas subject to a BMAP and the water areas that are being restored.

[View Full Details](#)

[Download](#)

Details

Dataset
Feature Layer

As Needed
Info Updated: October 23, 2025 at 9:18:23 AM EDT

As Needed
Data Updated: October 8, 2025 at 12:00:00 AM EDT

June 29, 2011 at 12:00:00 AM EDT
Published Date

Records: 33
[View data table](#)

I want to use this >

Records: 33

Statewide BMAP General Areas

Zoom to

OBJECTID	4
SHAPE	undefined
DISTRICT	SED
GROUP_NUM	Group 2
GROUP_NAME	St.Lucie - Loxahatchee
PROJECT	St. Lucie River and Estuary
STATUS	Adopted BMAPs
SUB_DATE	January 9, 2013
CONTACT_NAME	Tony Tomalewski
CONTACT_PHONE	(850) 245-8683
CONTACT_EMAIL	Anthony.Tomalewski@FloridaDEP.gov
DOC_NAME	St. Lucie River and Estuary BMAP
PARAMETERS	TN/TP/BOD
TYPE	Surface Water BMAP
ACRES	539,744.147
BMAPID	STLU
SHAPE.AREA	2,184,267,066.44
SHAPE.LEN	273,090.271

FDEP | Esri | TomTom | Garmin | FAO | NOAA | USGS | EPA | NPS | USFWS

- Visit the following page to check which BMAP(s) you are in:
- [Statewide Basin Management Action Plan \(BMAP\) General Areas | Florida Department of Environmental Protection Geospatial Open Data](#)



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).
- [UF-IFAS Florida Golf Courses Best Management Practices Program certification.](#)
 - Certification required by **Dec. 31, 2026.**
 - Renewed every 4 years.
- Submission of a nutrient management plan (NMP).
 - Draft due **one year after BMAP effective date.**
 - Final due **two years after BMAP effective date.**
- Reporting during STAR.



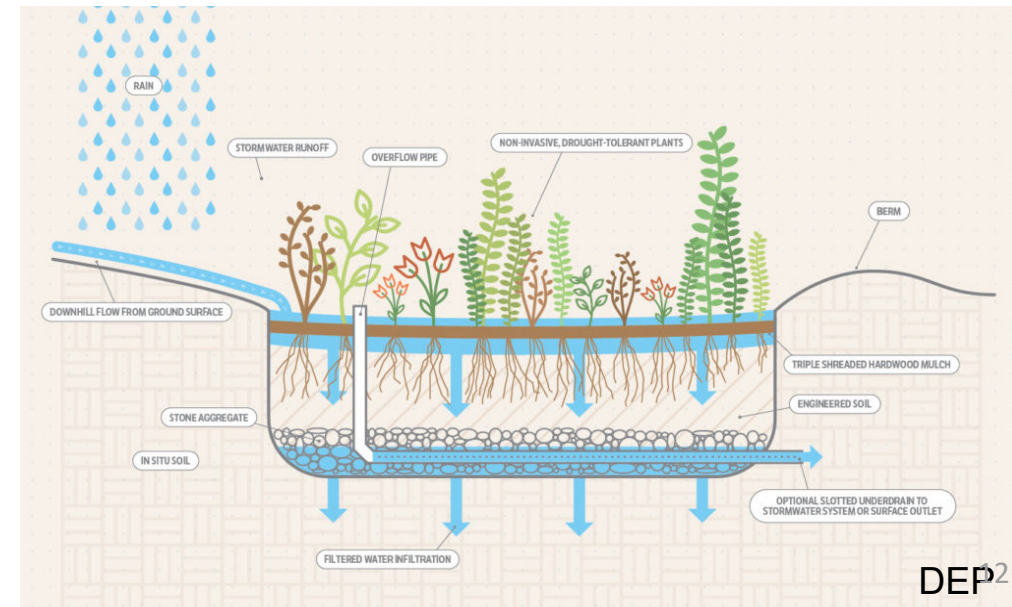
NUTRIENT MANAGEMENT PLAN (NMP)

Components:

- Turf information.
 - Turf type(s) and acreages.
 - GIS shapefile.
- Nutrient application rates.
 - Fertilizer.
 - Reuse/effluent.
 - Other: compost, manure, etc.
- 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:

- Lined media in stormwater features.
- Denitrified walls.
- Rain gardens.
- Tree boxes.
- Bioswales.





NMP

FILLABLE PORTABLE DOCUMENT FORMAT (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 Reten** 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

	A	B	C	D	E	F	G
1	Nutrient Application Log						
2							
3	Only complete green cells						
4							
5	Turf Type	Turf Species	Acreage				
6	Tees						
7	Greens						
8	Fairway						
9	Roughs						
10	Total		0				
11							
12	Fertilizer Application						
13	Month	Turf Type	TN Application Rate (lbs/acre)	TP Application Rate (lbs/acre)	Number of Applications	Total TN Applied (lbs)	Total TP Applied (lbs)
14	January	Tees				0	0
15		Greens				0	0
16		Fairway				0	0
17		Roughs				0	0
18	February	Tees				0	0
19		Greens				0	0
20		Fairway				0	0
21		Roughs				0	0
22	March	Tees				0	0
23		Greens				0	0
24		Fairway				0	0
25		Roughs				0	0
26	April	Tees				0	0
27		Greens				0	0
28		Fairway				0	0



NMP

EXAMPLE NUTRIENT APPLICATION TABLE TEMPLATE CONT.

64								
65	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)
66								
67	January				0	0	0	0
68	February				0	0	0	0
69	March				0	0	0	0
70	April				0	0	0	0
71	May				0	0	0	0
72	June				0	0	0	0
73	July				0	0	0	0
74	August				0	0	0	0
75	September				0	0	0	0
76	October				0	0	0	0
77	November				0	0	0	0
78	December				0	0	0	0
79	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.

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.

Interactive List

Project Types



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.

Lab References

- [NELAP Certified Laboratories Homepage](#)
- [Florida Health Environmental Laboratories](#)

Soil

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

Water

- Sampling and analysis according to DEP's Standard Operating Procedures (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.



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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

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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)

12³

Jan Tees- TP Application
Rate

(lbs/acre)

12³

Jan Tees- Number of
Applications

12³

Jan Tees- Total TN Applied

(lbs/acre)

Value will autopopulate.

12³

Jan Tees- Total TP Applied

(lbs/acre)

Value will autopopulate.

12³

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

Project Type

-Please select-

Verification Documentation

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

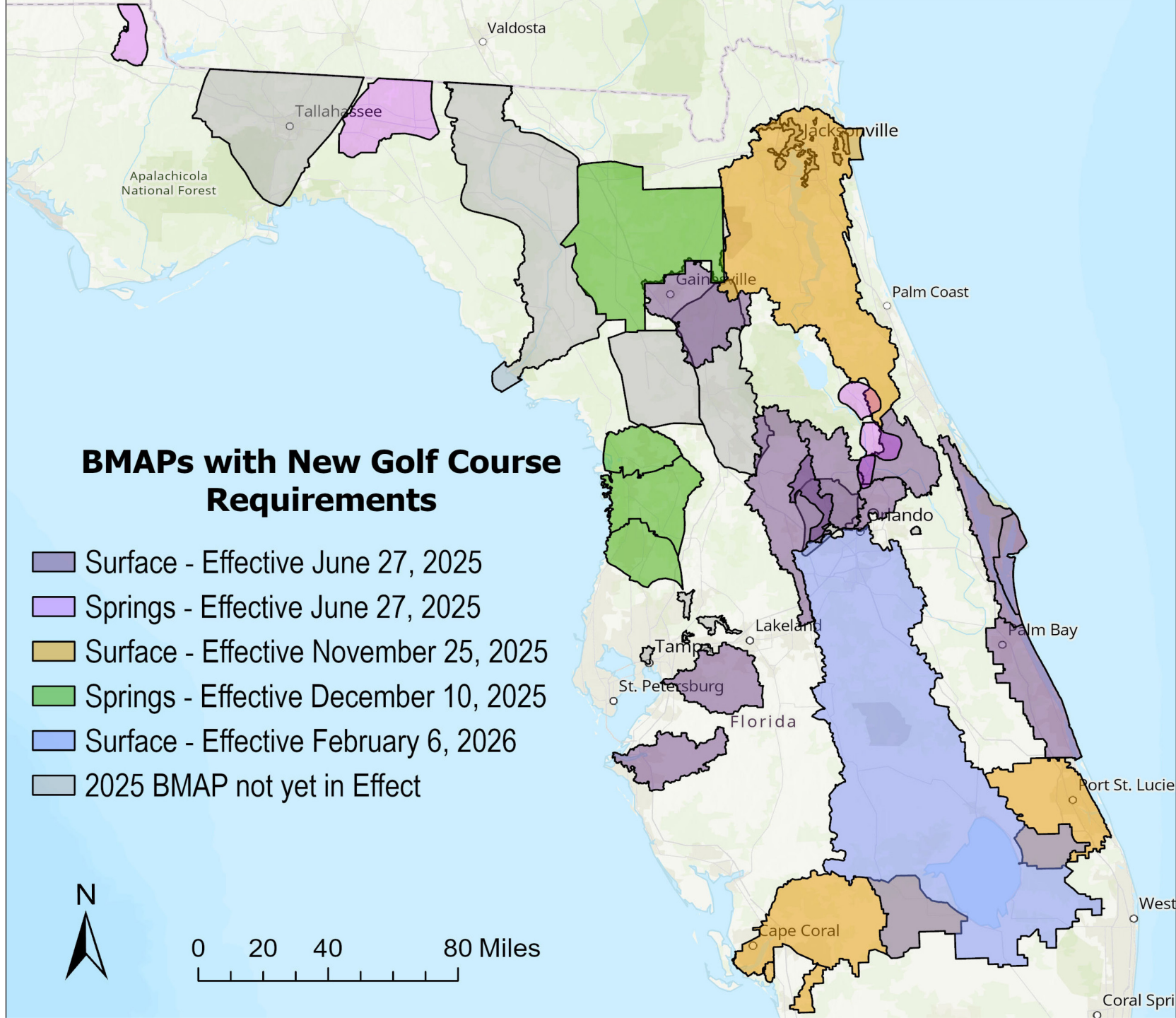
Back

Submit



REQUIREMENTS AND DEADLINES

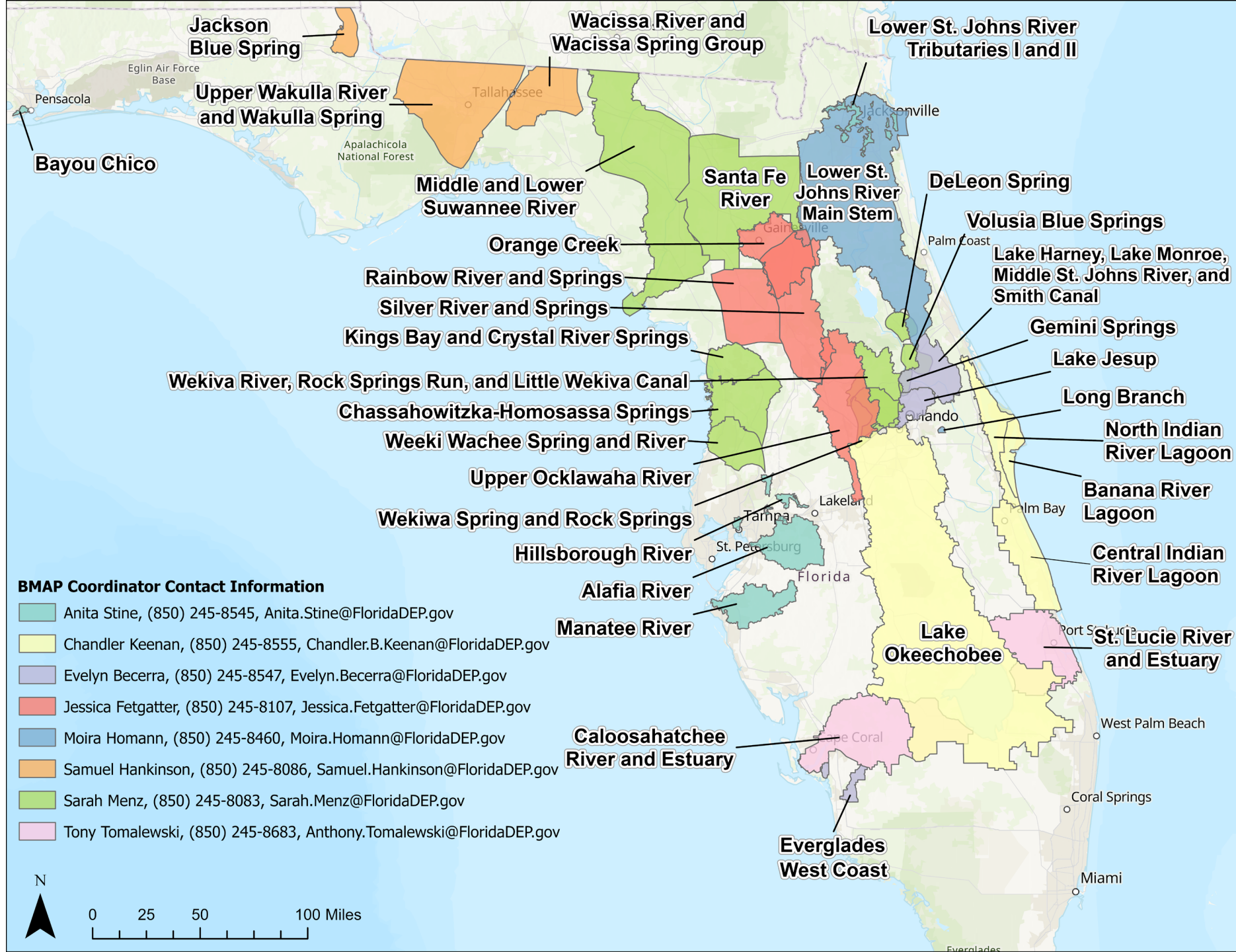
Date	Requirement for <u>Springs</u> BMAP Golf Courses	Requirement for <u>Surface Water</u> BMAP Golf Courses
One Year from Effective Date	Draft NMP Due	Draft NMP Due
Dec. 31, 2026	All superintendents must have completed their UF/IFAS Golf Course BMP Program Certification	Superintendents of publicly owned courses (those owned/operated by local governments/ responsible entities: counties, municipalities, Community Development Districts [CDDs], state universities) must have completed their UF/IFAS Golf Course BMP Program Certification
Two Years from Effective Date	Final NMP Due	Final NMP Due
Mid-November to Mid-January Annually	Annual reporting during the STAR. Beginning November 2028.	Annual reporting during the STAR. Beginning November 2028.





BMAP Effective Dates

Effective Date	BMAP(s)	
	Surface	Springs
June 27, 2025	Alafia River Banana River Lagoon Central Indian River Lagoon North Indian River Lagoon Lakes Harney, Monroe, Middle St. Johns River (MSJR) and Smith Canal Lake Jesup Manatee River Orange Creek Upper Ocklawaha River Wekiva River, Rock Springs Run, and Little Wekiva Canal	DeLeon Spring Gemini Springs Jackson Blue Spring and Merritts Mill Pond Volusia Blue Spring Wacissa River and Wacissa Spring
Nov. 25, 2025	Caloosahatchee River and Estuary Everglades West Coast Lower St Johns River Main Stem St. Lucie River and Estuary	
Dec. 10, 2025		Crystal River / Kings Bay Homosassa and Chassahowitzka Springs Santa Fe River Weeki Wachee
Feb. 6, 2026	Lake Okeechobee	





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 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 meet the requirements established by a TMDL. A BMAP is developed with local stakeholders and relies on local input and implementation. BMAPs are adopted by Secretarial Order and are legally enforceable. BMAPs use a framework that allows for incremental load reductions through the implementation of projects and management actions, 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 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 [BMAP 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 Calendar](#) for upcoming meetings and subscribe to meeting notices.

All BMAP Documents	NEEPP BMAPs	Springs BMAPs
 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.	 The Northern Everglades watersheds include the Lake Okeechobee watershed and the Caloosahatchee and St. Lucie River watersheds and estuaries.	 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.

Nutrient BMAPs	Indian River Lagoon BMAPs	Fecal Indicator Bacteria BMAPs
		

[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.

The screenshot shows the Florida Department of Environmental Protection website. The header includes the department's name, a navigation menu with links like 'A-Z Index', 'Forms', 'News', 'Events', 'Contact Us', and social media icons. Below this is a secondary menu with 'About DEP', 'How Do I', 'Divisions', and various program areas like 'Air', 'Lands', 'Parks & Rec', 'Waste', and 'Water'. A search bar is located on the right. The main content area features a large green forest image. The title 'Methods for Calculating Project Reductions' is prominently displayed. Below the title is a breadcrumb trail: 'Home » Divisions » Division of Environmental Assessment and Restoration » Water Quality Restoration Program » Methods for Calculating Project Reductions'. On the left, there is a 'Water-Quality-Restoration Quick links' sidebar with links to 'Basin Management Action Plans (BMAPs)', 'Statewide Annual Report', 'Water Quality Grant Opportunities 2025-26', 'BMAP Public Meetings', 'BMAP Documents, Meeting Materials and Recordings', and 'Impaired Waters, TMDLs and Basin Management Action Plans Interactive Map'. The main text area contains the title 'Tools and Guidance for Calculating Total Nitrogen (TN) and Total Phosphorus (TP) Reductions for Restoration Projects', followed by a paragraph describing the website's purpose. Below this is a link to a document titled 'Statewide Best Management Practice (BMP) Efficiencies for Crediting Projects in Basin Management Action Plans (BMAPs) and Alternative Restoration Plans (Draft – September 2021)'. At the bottom, there is a link to the 'BMP Verification Helper (Microsoft Excel file)'.

Florida Department of Environmental Protection

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Methods for Calculating Project Reductions

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Water-Quality-Restoration Quick links

- [Basin Management Action Plans \(BMAPs\)](#)
- [Statewide Annual Report](#)
- [Water Quality Grant Opportunities 2025-26](#)
- [BMAP Public Meetings](#)
- [BMAP Documents, Meeting Materials and Recordings](#)
- [Impaired Waters, TMDLs and Basin Management Action Plans Interactive Map](#)

Tools and Guidance for Calculating Total Nitrogen (TN) and Total Phosphorus (TP) Reductions for Restoration Projects

This website describes the DEP methods to calculate total nitrogen (TN) and total phosphorus (TP) reductions for watershed restoration, when site-specific information is not available. This guidance and calculation methods are related to the development and implementation of BMAPs, 4e plans, and 4b/reasonable assurance plans (RAPs).

[Statewide Best Management Practice \(BMP\) Efficiencies for Crediting Projects in Basin Management Action Plans \(BMAPs\) and Alternative Restoration Plans \(Draft – September 2021\)](#)

This document outlines methods to calculate TN and TP reductions for urban stormwater loads related to surface watershed restoration, when site-specific information is unavailable. These calculation methods represent typical BMP performance in Florida, which may be useful to stakeholders when selecting BMPs to achieve nutrient load reductions related to the development and implementation of BMAPs, 4e plans, and 4b/reasonable assurance plans (RAPs). DEP assigns nutrient removal efficiencies and nutrient credits to BMPs on a case-by-case basis, using the information as a guide during the decision-making process.

[BMP Verification Helper \(Microsoft Excel file\)](#)



THANK YOU

BMAPProgram@FloridaDEP.gov

Golf Course Webinar #2

Florida Department of Environmental Protection (DEP)

Questions and Answers Summary

May 4, 2026, via GoToWebinar

1:00 pm – 2:09 pm

Attendees

Jason Bailey

Jamie Baker

Bill Balash

Chad Barber

Raymond Bartels

T. J. Bayer

Evelyn Becerra

Kyle Bender

Jacob Bennett

Tom Bishop

Robby Boyd

Keith Bradshaw

Joe Brink

Alan Brown

Jeffrey Brown

Jazmyn Broxton

Kyle Bunney

Tiffany Busby

Mark Cammarene

Scott Campbell

Tim Cann

Chet Carter

Andres Castellanos

Michael Cauley

Kyle Cheek

Jon Cockerham

James Cooke

Michael Corona

Scott Corwin

Frank Coughenour

Tom Crume

Paul Davidson

Brant Dittmer

Sara Driggers

Robert Dufrasne

Lonnie Eberhard

Jason Ellis

Todd Evans

Michael Fasy

Luke Ferin

Jessica Fetgatter

Nathan Fox

Matt Franco

Wes Frye

Albert Garcia

Elliot Garrison

Tim Gatz

Bruce Gerlander

Mark Gerstung

Terry Halbbrook

Samuel Hankinson

Keith Henley

David Hilh

Robert Hock

Mike Honaker

Paul Housewright

Alex Huetten
Roy Jones
Mike Kelly
Bri Kenny
Brandon Koester
Joseph Kovatch
Daniel Loveridge
Danny Lunceford
Chris Mallon
Robert Markut
Clinton Marrs
Rick Mason
Nate Maurer
Tina McDowell
Vincent McGaugh
Jessica McPherson
Sarah Menz
Eric Miles
Mitchell Miller
Karen Miller
Joshua Miller
Christian Millican
Aaron Mills
Peter Montoleone
Stan Mrozek
Dustin Naumann
Curtis Nickerson
Michael Pafford
Philip Picker
Christopher Pitts
Rodney Reifsnider
James Ridolfi
Martin Rincon
Paul Rio

Mike Roberge
Wallace Robert
Trudi Rock
Steve Rodriguez
Alfredo Rodriguez
Samuel Roe
Wilfrantz Romulus
Jonathon Sachok
Michele Saunders
Tony Sharma
Greg Sheara
Craig Shelton
Mike Shirey
Stephen Sill
Bryan Smith
Cody Smith
Keith Smith
Thomas Stirtzinger
Chris Stringer
Eric Swenson
Christopher Sykes
Tom Taylor
Matthew Thompson
Stephen Tilley
Tony Tomalewski
Rob Torri
Ed Vidal
Robert Volpe
James Weber
Pete Wensel
Jake Wentz
Shelby Wilson
Lee Wiston

Questions and Answers (Q&A)

General Questions

Q: What is the email address for the Basin Management Action Plan (BMAP) Program to submit questions or to find out who is our coordinator?

A: Please contact your basin coordinator. If you do not know who is your basin coordinator, the general BMAP Program email address is BMAPPProgram@FloridaDEP.gov. When you contact DEP, please specify the name of your golf course and location, which will assist DEP in connecting you with the right person.

Q: Who can assist in performing a geographic information system (GIS) shapefile of a golf course? For the GIS shapefiles, is there a free or online tool superintendents can use to create it so they don't have to go back and forth with a consultant or the owner, etc?

A: There are two free software geographic information applications such as QGIS and Google.Earth.Pro, which are mapping applications that allow you to create a spatial data download that you can provide to your DEP coordinator. Contact your DEP coordinator if you need more guidance.

Q: Will this recording being sent via a link?

A: DEP will send an email in follow up to this webinar with a link to the recording, presentation, and Q&A summary.

Q: How do we determine if we are in a surface water or springs BMAP area?

A: You can use [the tool](#) in the presentation that will tell you the name of the BMAP and the type of BMAP. You could also reach out to your BMAP coordinator for that information. Or you can look in the BMAP document itself; all the BMAP documents are posted online.

Training Requirements

Q: There are different types of best management practices certifications-- one for golf one for residential. Are they equivalent? If someone has the residential best management practice (BMP) certification, are they exempt from completing the golf course program?

A: No. Another training certification does not make you exempt. Those programs are separate certifications and training. For golf course superintendents and turf managers, the BMAP requirement is to complete the [University.of.Florida.Golf.Course.Best.Management.Practices.Certification.Training](#).

Q: Is the training certification required for only the superintendent or the facility as well?

A: The certification is for the superintendent and golf course turf managers. The certification is specific to the person, not the golf course. It is the responsibility of the golf

course to ensure that their superintendent or turf manager is certified and to notify DEP that the requirement is met.

Q: Does the golf course training renewal process every four years require retesting?

A: Check with [Dr. Unruh](#) at the University of Florida to confirm, but we believe that renewal process includes re-testing on the material.

Q: Will the golf course training certification be required for wastewater treatment facility (WWTF) reuse purveyors?

A: The golf course training requirement is specific to the golf courses superintendents and turf managers, as the training is focused on golf turf management. The wastewater treatment facility operators have their own training and certification requirements specific to their role as wastewater facility operators.

Nutrient Management Plan (NMP) Questions

Q: Looking at some of the provided information, it appears that the golf course best management practices (BMPs) are not eligible for nutrient reductions in a surface water BMP. Is that accurate?

A: It depends on the BMP. Some BMPs do address water quality but others are designed to address other issues (e.g., water quantity), which is not the focus of the BMAP.

Q: The NMP templates are great and very helpful in calculating nitrogen and phosphorus application rates. However, a lot of the time the nutrient rates are different from one application to another, so the auto calculate doesn't work out right.

A: Thank you for that feedback. The NMP template document is new and it is set up to make it easier to fill in, but there may be some items we need to adjust as we get feedback on specific situations. You are welcome to explain that issue in one of the text boxes or provide a separate document with your correct calculations.

Q: What about course renovations? The fertilizer rates will be higher for a grow in. For our NMP do you want what will be a normal year for us or the best estimate we can give for the grow in after the renovation? We wouldn't want our "final NMP" to seem like we were putting out way more fertilizer than we actually are.

A: For the NMP, we want to see the "business as usual" reporting for your regular turf management conditions. When you are conducting a renovation and have special recovery practices deployed, you can note that situation in your annual reporting, which will follow in the years after the NMPs have been finalized.

Q: Are resort golf courses as well as private golf course currently exempt from this program?

A: All golf courses in the applicable areas have some BMAP requirements. All golf courses in nutrient BMAP areas must complete the NMP and the annual reporting that follows. In surface water BMAPs, only the publicly-owned golf course superintendents and turf managers are required to complete the University of Florida Golf Course Best Management Practices Certification Training. In springs BMAPs, all golf course superintendents and turf managers, regardless of ownership type, must complete the training.

Q: If there is a adjacent property next to our golf course that utilizes reuse water and their property run off runs into our drainage map that travels through our drainage plan, do they need to submit water usage and testing results and have their irrigation company partake in BMAP?

A: No, you do not need to submit other water usage from offsite properties. Here, DEP is interested in the golf course water usage. Other (non-golf) land uses have their own assignments and responsibilities in the BMAP and are reported through other channels.

Comment: I just had a remark for the asker of the question. Although the neighbor is not responsible for BMAP-related testing and regulation, I would recommend to that golf course manager to engage/inquire in sampling the best sites along their adjacent common property line as soon as possible and routinely test at those same sites over time to see if there is an obvious influence from the neighbor's land use contaminating his course and producing inaccurate source indicators. I know the sampling cost money, and neighboring entities may not wish to contribute because of that, but perhaps in the future some funding may become available to assist with course's sample costs that are directly influenced by neighboring property's runoff.

Q: Can you clarify on the sampling--will all courses in any BMAP be required to do all three (soil, water, tissue)?

A: It is not a universal requirement. In your NMP, DEP is looking for a description of your current activities, including sampling if you are performing soil, water, or tissue sampling. If you are not doing any sampling, you can describe that in the NMP. However, if you are not following the University of Florida-Institute of Food and Agricultural Sciences (UF-IFAS) fertilizer guidelines for your turf management, you will be subject to a requirement to conduct monitoring approved by DEP.

Q: If a community development district (CDD) manages the water bodies on the golf course, does the water sampling responsibility fall on the CDD or is it still on the golf course to submit with the NMP?

A: In this case, it would be the golf course responsibility to submit the NMP, unless it is a special case. There are some cases where a CDD is the golf course owner, so the CDD has the golf course reporting responsibilities. If the CDD runs or owns the golf course, the CDD

is the responsible golf course entity. If the CDD is classified like a local government in the BMAP, the golf course reductions are included with the load reduction assignments from their other urban land use sources, and the CDD will be expected to submit any required proof of training, the NMP, and the annual reporting going forward.

Q: If a company manages turf and plants on the property but uses the same water source, should we obtain their application records for NMP planning, such as a contracted landscape company?

A: It is the responsibility of the golf course to report on their fertilizer applications, regardless of whether they apply the fertilizers themselves or contract with a company for that service. If a golf course uses a management company to maintain their turf, then yes, you need to work with them to get the records on what the fertilizer practices are on the property.

Q: We only use nutrients on greens and we have 9 holes. What do we need to do?

A: You will need to provide a NMP for your turf management practices. You can report your fertilizer practices for your greens areas and the amounts. For other sections of the golf course, you should enter those acreages for each turf type and report the fertilizer applications for those acres as zero. Depending on the BMAP and if you are publicly-owned, you may also need to show proof that your turf manager/superintendent has completed the Florida.Golf.Course.Best.Management.Practices.Certification.Training;