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"Ding" Darling Wildlife Society - Friends of the Refuge

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As mentioned in our last article, Florida's Blue-Green Algae Task Force met in August this year. The meeting was a discussion between members of the task force and members of a Stormwater Technical Advisory Committee (TAC) that was established by the Florida Department of Environmental Protection (FDEP) to respond to some of the mandates in [Senate Bill 712, the Clean Waterways Act](#). This article, which is technical in nature, will discuss the key points discussed at the meeting and provide a summary of some of the results that we would like to see happen. A video of the August Task Force meeting can be found [here](#).

Background

In its October 2019 consensus [document](#), the Blue-Green Algae Task Force stated that stormwater runoff was one of the major sources of increased nutrients to Florida's water bodies. These nutrients drive the proliferation of harmful algal blooms (HABs) that have so negatively impacted the Refuge in the recent past.

Florida [defines a stormwater management system](#) to be "a system that is designed and constructed to control discharges which are necessitated by rainfall events, incorporating methods to collect, convey, store, absorb, inhibit, treat, use or reuse water to prevent or reduce flooding, over drainage, environmental degradation, and water pollution or otherwise affect the quantity and quality of discharges from the system."

[Florida's stormwater rule](#) is technology-based and relies upon the following key components:

- A performance standard or goal for the minimum level of treatment
- Design criteria for best management practices (BMPs) that will achieve the performance standard
- A rebuttable presumption that discharges from a stormwater management system designed in accordance with the BMP design criteria will not cause harm to water resources
- Periodic review and updating of BMP design criteria as more information becomes available to increase their effectiveness in removing pollutants
- Water quality monitoring is not required to demonstrate that expected treatment performance is being met.

Senate Bill 712

As described in our last article, Senate Bill 712 was based in part on the recommendations that were in the task force's 2019 consensus document. The TAC that was formed in response to Senate Bill 712 was chartered to focus on [Environmental Resource Permitting \(ERP\)](#) in general and stormwater management in particular.

Tim Rach, Submerged Lands and Environmental Resources Program Administrator, Florida Department of Environmental Protection, leads the TAC and he is also responsible for the statewide implementation of ERP. In his presentation to the task force, Rach provided background on ERP and outlined the progress that the TAC has made to date. According to Rach, Senate Bill 712 required that the FDEP and Florida's water management districts WMDs:

- Update stormwater design and operations regulations
- Update ERP Applicant's Handbooks
- Use the most recent scientific information available
- Consider low impact design Best Management Practices (BMPs)
- Increase nutrient removal from stormwater systems
- Reduce pollutant loadings to waterbodies

Rebuttable Presumption

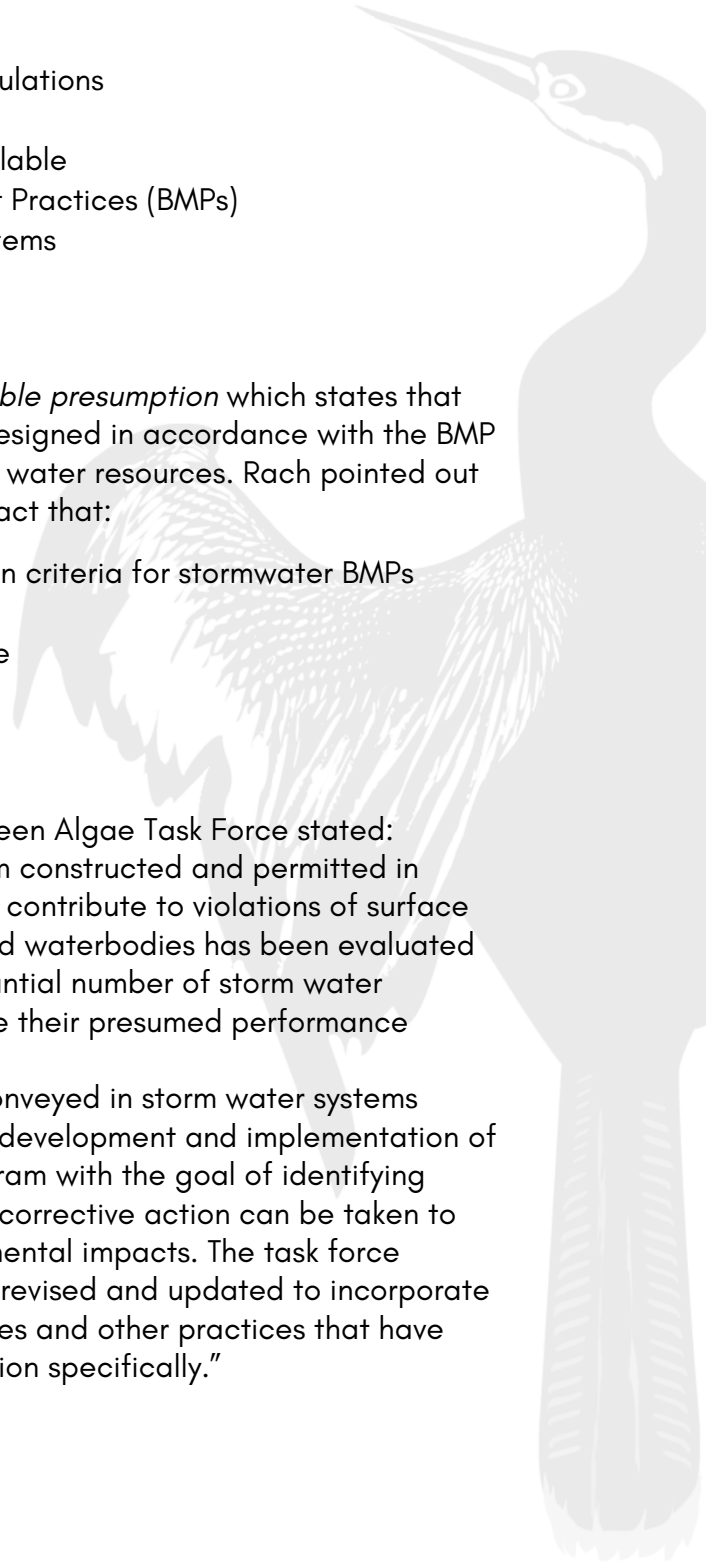
As noted, Florida's stormwater rules include a *rebuttable presumption* which states that discharges from a stormwater management system designed in accordance with the BMP design criteria will be presumed to not cause harm to water resources. Rach pointed out that complicating the rebuttable presumption is the fact that:

- Each of Florida's WMDs develop specific design criteria for stormwater BMPs
- Every district has a different set of standards
- Design criteria vary widely throughout the state
- Performance efficiencies vary widely

Position of the Task Force

In its October 2019 consensus document, the Blue-Green Algae Task Force stated: "The presumption that a storm water treatment system constructed and permitted in compliance with BMP design criteria will not cause or contribute to violations of surface water quality standards in adjacent and/or connected waterbodies has been evaluated and challenged. Available data suggest that a substantial number of storm water treatment systems throughout the state fail to achieve their presumed performance standards.

Given the quantity of water collected, treated and conveyed in storm water systems throughout the state, the task force recommends the development and implementation of a storm water system inspection and monitoring program with the goal of identifying improperly functioning and/or failing systems so that corrective action can be taken to reduce nutrient pollution and other negative environmental impacts. The task force recommends also that storm water design criteria be revised and updated to incorporate recent advances in storm water treatment technologies and other practices that have demonstrated environmental benefits; nutrient reduction specifically."



The Stormwater Technical Advisory Committee

The TAC was established in November 2020, has met 10 times so far, and has two additional meetings planned. The goal of the TAC is to develop and provide consensus stormwater rulemaking recommendations through public discussion and constructive deliberation. There are [13 members of the TAC](#) representing a range of interests including agriculture, academia, and city and county government.

The TAC was tasked with developing:

- Options for identifying stormwater design criteria and BMPs to increase nutrient removal from stormwater discharges
- Measures for consistent application of the performance standards to ensure significant reductions of any pollutant loadings to an impaired waterbody
- Recommended changes to existing stormwater operation regulations to ensure water resources are protected.

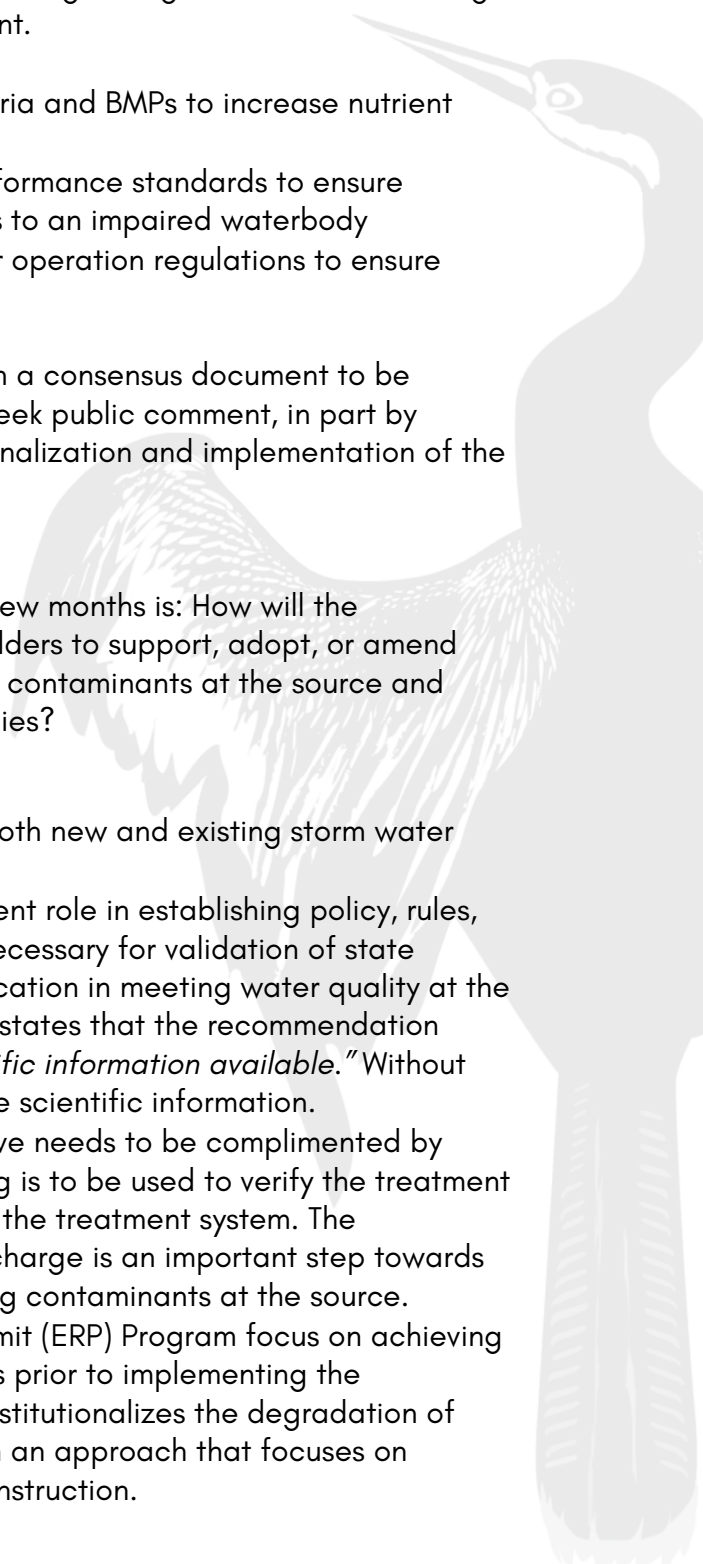
The TAC is expected to outline its recommendations in a consensus document to be published this month. After that occurs, the TAC will seek public comment, in part by conducting workshops. That will be followed by the finalization and implementation of the new rules.

What to Look For

The question that we need to evaluate over the next few months is: How will the rulemaking that the TAC recommends enable stakeholders to support, adopt, or amend current stormwater regulations that will better control contaminants at the source and reduce the contaminants entering Florida's water bodies?

Some specific items to look for are:

- The policy and rulemaking process must address both new and existing storm water treatment systems and not just new systems.
- Water quality monitoring must play a more prominent role in establishing policy, rules, operations, and maintenance. This monitoring is necessary for validation of state regulatory goals and benchmarks, as well as verification in meeting water quality at the treatment system level. As noted, the TAC mission states that the recommendation should be made based on "*the most recent scientific information available.*" Without water quality data, there is a significant hole in the scientific information.
- The regulatory framework of rebuttable presumptive needs to be complimented by recommendations for how water quality monitoring is to be used to verify the treatment system is meeting expectations through the life of the treatment system. The demonstration of water quality at the point of discharge is an important step towards a regulatory and legislative approach of controlling contaminants at the source.
- The goals of Florida's Environmental Resource Permit (ERP) Program focus on achieving water quality that is close to what it was five years prior to implementing the stormwater management system. This approach institutionalizes the degradation of water quality over time and must be replaced with an approach that focuses on returning the water quality to where it was pre-construction.



- The ERP goals and associated storm water pollutants need to be expanded to reflect contemporary challenges. For example, there is a mix of modern-day contaminants that may have a negative ecological impact that are not considered in the current ERP goals. This includes parent and breakdown products of herbicides and pesticides, [microplastics](#), and [perfluorochemicals](#) (PFAS). s
- Florida's regulatory agencies must conduct meaningful inspections and follow up on findings. When deficiencies or defects are found, the responsible party must be notified in a timely matter, with clear expectations of what steps need to be taken and when.

Final Thoughts

Our final thoughts are highlighted by telling a simple story with an important moral. In the story, Joe visits his friend Bob, and Bob asks Joe if he wants a cup of coffee. When Joe says yes, Bob gives Joe a cup of coffee with sugar in it. Bob can't stand having sugar in his coffee, and so Bob and Joe spend several hours painstakingly trying to get the sugar out of the coffee. The moral of this story is that it would have been immeasurably easier for Bob and Joe if Bob never put sugar into the coffee.

The Florida legislature has shown a willingness to fund large infrastructure projects such as reservoirs. While these projects are important, they don't do much to improve water quality. What is needed is a regulatory and legislative approach of controlling contaminants at the source. This is important because, similar to the story of Joe's sugar-laden coffee, it is immeasurably easier to not put contaminants in our water bodies than it is to remove them once they are in the water bodies.

This change in approach won't be easy. It will require both the governor and members of the Florida legislature to hold fast to recommendations made by groups such as the task force and the TAC and to not be unduly influenced by outside interests. All of us have the responsibility to continually evaluate whether enough is being done to improve our water quality and, if not, to let the appropriate people know that more needs to be done.

In Case You Missed It: Update on the use of innovative technologies to treat HABs: See [here](#).

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