



FLORIDA DEPARTMENT OF Environmental Protection

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Blue-Green Algae Task Force Staff Minutes

June 20, 2023

10 a.m.

**The Water School at Florida Gulf Coast University
and GoTo Webinar**

General subject matter considered: The Blue-Green Algae Task Force (task force) met to engage in discussion of the information presented on identifying sources of nutrients in basin management action plans (BMAPs) at the May 30, 2023, virtual presentation. The task force also heard a presentation on the environmental legislation passed during the 2023 Florida legislative session and the Framework for Freedom Budget.

Attendee Name	Title	Status
Dr. Mark Rains	Facilitator	Present
Dr. Evelyn Gaiser	Member	Present
Dr. Wendy Graham	Member	Present
Dr. Michael Parsons	Member	Present
Dr. Valerie Paul	Member	Present
Dr. James Sullivan	Member	Present

1. Dr. Greg Tolley, Executive Director of The Water School at Florida Gulf Coast University, welcomed the task force and attendees.
2. Dr. Rains provided opening remarks, called roll and facilitated the meeting.
3. Dr. Rains provided introductory comments, emphasizing the direction [Executive Order 23-06](#) (Achieving Even More Now for Florida's Environment) outlines for the task force to provide substantive guidance for further state action to address and mitigate blue-green algae. He encouraged the task force members to provide input on ideas and actions that can either be implemented immediately or brought to the Legislature next spring.
4. DEP Secretary Shawn Hamilton thanked task force members for their hard work. He provided updates on the environmental legislation passed during the 2023 Florida legislative session. This included [HB 1379](#) in support of the goals of Executive Order 23-06, and [Clean Waterways Act](#) rulemaking efforts including revisions to Chapter 62-6,

Meeting minutes are not intended to act as a transcript of the meeting. To watch a recording of the meeting or to see the recommendations of the Blue-Green Algae Task Force, please visit ProtectingFloridaTogether.gov/state-action/blue-green-algae-task-force.

Florida Administrative Code (F.A.C.), Chapter 62-600, F.A.C., and Chapter 62-330, F.A.C. Secretary Hamilton also detailed the Framework for Freedom Budget for Fiscal Year 2023-24, which carves out more than \$3.8 billion for Everglades restoration, water quality protections, vital land acquisitions, and resilience of inland and coastal communities.

5. Task force members asked questions to clarify points of the presentation, including:
 - a. What part of the funding is dedicated to the monitoring and evaluation of projects.
 - b. How evaluations are conducted, how implementation of projects addresses various goals, and whether there is an expectation for a percentage of load reduction that could be adaptively managed through monitoring data or modeling outcomes.
 - c. The allotment of support for expanding stormwater treatment and allocations.
 - d. Innovative technology projects and the vetting process.
 - e. Expounding on the HB 1379 requirement for regional treatment elements in BMAPs and loading assessments that have greater than 20% agriculture contribution.
6. Kimberly Shugar, DEP Director of the Division of Environmental Assessment and Restoration, provided a recap of her virtual May 30, 2023, presentation to the task force, “Identifying Nutrient Sources in Basin Management Action Plans.”
7. A broader discussion was held by the task force on the methods DEP uses to identify nutrient sources in BMAPs, including monitoring and modeling. Dr. Rains and task force members discussed the following:
 - a. Cross-agency coordination:
 - i. The mechanism for cross-agency efforts to address issues identified by DEP. The agency is seeking the task force’s input on a mechanism for siting and prioritizing large, regional projects.
 - ii. The importance of having open conversations between agencies on how nutrients can be reduced by better identifying the issue and improving the models, and what innovative technologies can be used.
 - b. Modeling clarification and suggested improvements:
 - i. The potential to tie the modeling and monitoring together more closely.
 - ii. Modeling of the watershed is done at the time the BMAP was created but can be updated based on new sources.
 - iii. Reiteration of the task force’s suggestion for a study to obtain water quality runoff information from land use parcels, determining the percentage of nutrients in a watershed coming from each of the activities/land uses to try to close the mass-balance on a parcel level.
 - iv. Acknowledgement of the limitations of resources, including DEP staff, staff time, equipment and funds, for doing some modeling, and what can be done about that.
 - v. The need to incorporate legacy loads into these models.
 - vi. Clarification that BMAP models take extreme rainfall events into consideration. The model output represents a 10-year average of rainfall

- conditions. Building the BMAP requires using the model output, and the average condition is what DEP uses to calculate the load reduction estimates and allocations.
- vii. Explanation of some scenarios modeling that DEP has done with springs to determine what it would take to achieve success.
- c. Hotspot analysis:
 - i. Questions on what the hotspots represent. Emphasized the need to account for new sources of nutrients and gather the necessary data to improve the model.
 - ii. Suggestion for DEP to dig deeper into the hotspot analyses to see the land use/land cover distribution, and within that distribution determining the stormwater elements, the agricultural best management practices (BMPs) most commonly employed, etc.
 - d. Agriculture and BMPs:
 - i. Clarification on the inputs, estimated reductions, and assumptions in the Caloosahatchee River and Estuary BMAP.
 - ii. The importance of considering the application, uptake, and plant biomass, and retention or loss of nutrients in the soils across the agricultural landscapes. The need to consider any available agricultural data to observe how much phosphorus and nitrogen is staying on the land and how much is being converted to biomass. This would allow for evaluation of whether expectations are correct.
 - iii. The state must vet both urban and agricultural BMPs that currently have assumed compliance in order to confirm assumptions are correct.
 - iv. Discussed ways to study BMP reductions and measured effectiveness.
 - e. Data and sampling:
 - i. Reiterated the usefulness of evaluating where water quality has recovered and what is being done there compared to where water quality is still impaired.
 - ii. DEP does not use herbicide and pesticide markers/tracers for agricultural nonpoint source detection measurements. It would be difficult to tease out historic versus current pesticides in the water. There has been some pesticide data collected with ambient monitoring, and targeted monitoring occurs when there is a specific issue and monitoring is requested.
 - iii. Question about data gaps in sampling and explanation of why DEP typically doesn't interpolate within the gaps. Task force member stated it may be useful to do some interpolation to possibly identify trends.
 - f. The hot spot analysis was done on concentrations, not loads. Flow data is a limitation for determining loads to receiving waterbodies. How can DEP best use its limited resources to address this?
 - i. DEP could look into using the USGS EGRET (Exploration and Graphics for RivEr Trends) method to extend flow and water quality measurements over wet seasons and dry seasons.
 - ii. Focus on a certain type of system per water management district. Pick five representative systems, one for each water management district, and do intensive LTER (Long Term Ecological Research Network)-type

- monitoring and modeling with results that could be applied in other similar systems.
 - iii. Suggestion to look further into the hot spot analyses.
 - iv. Suggestions of potential improvements to the model, including identification of legacy loads and lag times, and reproducibility of data.
 - v. Recommendation to look at basins where the changes are happening, and measure responses to restoration activities, rather than sitting at the outlet waiting to measure.
 - vi. Researching the assumed efficacy in agricultural BMPs, stormwater treatment, wastewater treatment, and onsite sewage treatment and disposal systems (OSTDS), and seeing if they are actually performing the way we think they are.
- g. There is a suite of different models used in different BMAPs. Does this create a challenge, and are model standards needed? How can DEP ensure those being used are appropriate models that are using the best techniques and result in the best possible outputs?
- i. Put together a focused, technical group to form a community of practice around BMAP modeling. This group could also collect uncertainties of the models. This will assist in providing guidance to be able to compare the models and their appropriateness.
 - ii. DEP clarified that the models undergo public review where anyone can provide feedback and comments. DEP also works closely with water management districts when the models and BMAPs are developed.
 - iii. DEP could do knowledge and technique exchange with the teams in Ohio (and other states) that are dealing with the issue of harmful algal blooms in Lake Erie.
 - iv. Focus on the performance of the models.
 - v. Recommend a hindcast approach to the model.
8. Sara Davis, Director of DEP's Office of Environmental Accountability and Transparency, provided an announcement on enhancements coming soon to [ProtectingFloridaTogether.gov](https://www.floridaparks.com/protecting-florida-together), including navigation changes and text message notifications.
9. The public comment period included the following topics:
- a. Encourage the task force to converse about the enhanced nutrient reduction systems for onsite wastewater in Florida, and an invitation to the task force members to visit the Florida Onsite Wastewater Association training center and learn more about these systems.
 - b. The issues with BMAP development and longstanding total maximum daily loads (TMDLs), and encouragement for state agencies to work together to address these outstanding issues. Recommend developing a roadmap to success for BMAPs and TMDLs.
 - c. As BMAPs and TMDLs are being discussed, keep in mind the many impaired waterbodies that do not yet have TMDLs or BMAPs. Agreement with task force's

desire to see measured data guide action to reduce nutrient pollution. Emphasized prevention and source control over treatment of water coming downstream.

- d. Question about the Clean Waterways Act Stormwater Rulemaking Technical Advisory Committee and wanting to know their outcomes and suggestions to change state and local rules regarding stormwater.
 - e. Fish as a source of nutrients in the waterbodies, and managing water quality by catching and removing fish.
 - f. Desire to see DEP and the task force take into account population growth and projections.
 - g. Suggestion for a treatment plant installed where water is released, cleaning the water before it is sent south, as a way to supplement the new Everglades reservoir under construction.
 - h. Suggestion to discuss policy and its importance for all the BMAPs. There is a need for support of expanded policies from the task force to help move them forward. Also, consider limited resources and tools and how that affects answering some of the questions posed today.
 - i. Consideration of suggestions on how to change state rules in regard to stormwater, and any local government changes.
 - j. The rate of impairment outpacing the capabilities of the TMDL and BMAP process. Stronger efforts need to be made to stop pollution at the source, and one effort is water quality rules and ensuring they are sufficient and not weakened.
10. The task force gave final comments.
- a. The next steps following the meeting's discussion.
 - b. Request to carve out some time in future meetings to review the content presented by Secretary Hamilton.
 - c. Secretary Hamilton provided an overview of the funds to be spent. Request for detailed spending plans and a summary of how funding is divided between programs.
 - d. Reiteration of the desire for the task force members to be more involved in the innovative technology program, including revisiting what's been done, what's worked, what didn't work, and providing guidance. Would also like to see reports from the projects, including the six projects that are now available for use statewide in state term contracts.
 - i. The [Innovative Technology Grant StoryMap](#) provides high level information on the Innovative Technologies Grants Program.
 - e. Request for details on the content of the stormwater rule, Chapter 62-330, F.A.C., and what was drafted versus what was adopted. Also, for similar details on the OSTDS rule, Chapter 62-6, F.A.C.
 - f. Comment on liking the format of the May 30 and today's task force program.

11. Dr. Rains provided closing remarks.