

**Indian River Lagoon (IRL) Basin Management Action Plans (BMAPs)
Florida Department of Environmental Protection (DEP) Webinar Summary
Wednesday, December 16, 2020
10:00 am**

Participants

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Steven Baker, Citizen
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David Botto, Citizen
Marlys Breckle, Citizen
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Katherine Caricchio, AECOM
Stacy Cecil, DEP
Eric Charest, Indian River County
Angela Chelette, FDACS
Carolyn Ciarlariello, DEP
Graham Cox, Citizen
Allison Crow, FDOT
Sara Davis, DEP
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Melisa Diolosa, SJRWMD
Doug Durham, NASA
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Julie Espy, DEP
Martin Figueroa, USDA
Tammy Foster, NASA
Marcy Frick, TetraTech
Brandon Friedman, St. Lucie County
Jessica Frost, SFWMD
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Nathan Gavin, SFWMD
Patricia Gertenbach, E Sciences
Clyde Giesenschlag, Citizen
Jim Glass, Citizen
Tim Glover, FSSR
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Anthony Gubler, Brevard County
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WCD
Kimberly Haigler, Sebastian
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Kenny Hayman, DEP
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Tyna Hilton, Edgewater
Chuck Jacoby, SJRWMD
Nathan Jagoda, DEP
Dennise Judy, DEP
Victor Karycki, Rockledge
Kerry Kates, Florida Fruit and
Vegetable Assoc.
Bill Klein, Citizen
Molly Klinepeter, Indian River
County
Lewis Kontnik, Citizen
Julianne LaRock, SFWMD
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Jen Lomberg, Matanzas Riverkeeper
Celeste Lyon, Wood
Michael McCabe, Melbourne-
Tillman WCD
Bach McClure, Brevard County
Keith McCully, Indian River County
Vincent McDermott, Citizen
Jan Miller, SJRWMD
Matthew Mitts, Vero Beach
Dianne Montes, MSE Group
Lori Morris, SJRWMD
Bob Musser, Port Canaveral
Michael Myjak, Citizen
Kevin O'Donnell, DEP
Stacey Ollis, SFWMD

James Oppenborn, St. Lucie County
Judy Orcutt, Citizen
Maria Paituvi, E Sciences
Gina Parrish, Citizen
Amanda Peck, DEP
Jon Perry, Janicki Environmental
Robert Potts, E Sciences
Thomas Price, NASA
Jeff Ratliff, Cape Canaveral
Sandra Reller, Titusville
Scott Reynolds, Indian River County
William Rice, Indian River County
Frank Rohrer, Indian River Lagoon
News
Patrick Rose, Save the Manatee
Lisa Ruckman, Citizen
Mark Ryan, Indian Harbour Beach
Ted Saltos, DEP
Douglas Scheidt, NASA
Mark Sees, Citizen

Dwight Severs, Citizen
George Simons, Carter Associates
Mailin Sotolongo Lopez, DEP
Robbyn Spratt, Brevard County
Corinne States-Broecker, Citizen
J. Danielle Straub, Melbourne
Richard Szpyrka, Indian River
County
Jane Thompson, AECOM
Mark Tomczyk, Woolpert
Diana Turner, DEP
Jessica Vaccare, DB Environmental
Jose Vega, St. Lucie County
Rachel Vitek, E Sciences
Craig Wallace, Citizen
Michael Walther, Coastal Tech Corp
Benita Whalen, Dispersed Water
Chris Williams, DEP
Terry Williamson, Brevard County
Kelly Young, Volusia County

1. Opening Remarks

Tiffany Busby welcomed everyone and reviewed how the webinar software works. She noted that the meeting was being recorded. Tiffany added that after the meeting DEP would send out a follow up email with related meeting materials. These include today's presentation, a recording of the presentation, and a summary of the questions and answers.

2. State of the Lagoon

Question: I have measured water visibility using a Secchi disk in the IRL in Titusville to be below less than 5 meters (m) from July 18 to December 15. Some days it was only 0.1 m. Is this caused from stormwater from too much development not being properly regulated?

Answer: We see 0.1 m and 0.2 m where the cyanobacterial blooms were taking hold. Generally, any sources of nutrients is likely to have driven these blooms and we need to drive down those loads.

Question: You had mentioned that the focus of the presentation was on the area experiencing problems - what is the data showing in the other parts of the Lagoon?

Answer: In the northern Mosquito Lagoon, in Banana River, and down further south, they weren't having the algal bloom issues recently.

Question: I think the sonde dissolved oxygen (DO) measurements for the Indian River were from Titusville, not Eau Gallie.

Answer: The IRL-I13 measurements were from Cocoa. I've (Chuck Jacoby) added clarifying statements to the PowerPoint.

Question: May 1996 SJRWMD published “Indian River Lagoon Our Heritage at Risk - Indian River Lagoon Comprehensive Plan.” It stated the critically poor conditions of the IRL, and the loss of marine life caused by inadequate development regulations and enforcement rules. The pollution comes from the polluted runoff from the land. The IRL Comprehensive Plan defined many projects and actions required to restore the IRL. The IRL is much worse than it was in 1996; is this because man made causes such as development are creating too much pollution? Do you recommend requiring all new developments be required to follow LID regulations?

Answer: The IRL National Estuary Program Comprehensive Conservation and Management Plan (CCMP) is the document referenced. Certainly, stormwater runoff is a contributor to the IRL, as well as other sources. All the sources need to be addressed, including internal loads that have built up over the decades. The new regulations are designed to address the loads that have occurred over decades. That is something we will have to watch as it plays out. LID is a good approach and I hope that we would follow that. It is important to understand that there are other efforts focused on reducing loads beyond the BMAP, such as updates to the stormwater rules and local efforts through the counties and cities.

Question: For Chuck, would the satellite imagery be available for viewing by Indian River County staff for the same time periods for the Lagoon area within Indian River County (William Rice)?

Answer: The imagery SJRWMD uses is available online, and it should cover your area of interest. If you can provide some coordinates or landmarks to define that area of interest, I (Chuck Jacoby) will work on getting you some images. You should be able to download the imagery from the U.S. Landsat and European Sentinel satellites. Both sets of imagery are available online. Chuck also showed an example of a 2017 Landsat image (Path 15) with part of Indian River County, Fort Pierce Inlet, and Sebastian Inlet.

Question: Are there places to track the most recent information about the IRL algal blooms and chlorophyll-a concentrations?

Answer (from Chuck Jacoby): You can access chlorophyll-a data from the SJRWMD website under Data and Tools→Water Quality→Continuous Sensor-based Water Quality. There is a map on this site where you can select the IRL and select chlorophyll-a data; also Harbor Branch Oceanographic Institute Land/Ocean Biogeochemical Observatories (LOBOs) site, which operates further south. The Ocean Research & Conservation Association (ORCA) has Kilroys deployed around the IRL, mostly in tributaries. The DEP blooms webpage is headed that direction; the current page focuses on the toxic blooms we are seeing down south.

Answer (provided by Virginia Barker): Statewide status reports of *Karenia brevis* abundance including interactive Google Maps are provided weekly by our group at Brevard County. Shellfish harvesting area status maps are provided by the Florida Department of Agriculture and Consumer Services (FDACS) Division of Aquaculture. Gulf Coast beach conditions can be

found at Mote Marine Laboratory's Beach Conditions Report. A full list of red tide-related hotlines and information sources can be found here: <https://myfwc.com/research/redtide/contact/>. Data for other species can be requested at any time by sending an inquiry to HABData@MyFWC.com. To learn more about harmful algal bloom (HAB) monitoring and research in Florida, please visit MyFWC.com/research/redtide and Facebook.com/FLHABs. The ORCA Kilroy data (continuous stations) are posted here: <http://api.kilroydata.org/dmplot/%7B%22z%22:%20%22eyJwaWQiOiA2LCAidWlkIjogMTV9%22%7D>.

3. Overview of the Updated BMAPs

Question: How do you figure out the "natural" loads?

Answer: In the SWIL Model output (the Load Estimation Tool [LET]), there is a list of land use and land cover codes. Any codes that have natural processes associated with them (e.g., water, scrub/shrub habitat, xeric upland areas, etc.) are considered natural land use codes. It is based on the land use codes and uses; that derives which loads are attributed to natural areas. Natural land use codes are used to estimate the natural loads.

Question: There have been numerous state warning point alerts for discharges to IRL. How can the repeat violations be addressed--fines?

Answer: Hi Mark. Can you please clarify what the point alerts are that you're asking about? *[There was no response to this question.]*

Question: Why does Mosquito Lagoon have a reasonable assurance plan (RAP) and not a BMAP?

Answer: The Mosquito Lagoon does not have a TMDL set for nutrients. The county, the cities, and the Florida Department of Transportation (FDOT) along the Mosquito Lagoon decided, when water quality was declining, to get started on restoration and improving water quality before a TMDL was created. When you create a management plan without a TMDL in place to meet a target, that is called a RAP. In the IRL, we have BMAPs that implement TMDLs. The RAP is designed to meet water quality standards without a TMDL in place.

Question: How will monitoring, if any, of nutrients be performed to assess success of projects?

Answer: In the monitoring objectives in the BMAP, the monitoring network is set up to use that data to track trends in nutrients over time. That is one of the goals is to perform trend analyses and to track the relationship to projects over time.

Question: For your information, the SWIL.zip file appears to be corrupt. The files won't open in a geographic information system (GIS) format. Will try again. Thanks!

Answer: Stacy noted that the SWIL-LET files are posted at http://publicfiles.dep.state.fl.us/DEAR/BMAP/IndianRiverLagoon/GIS/2020_Allocations/LET_20201202.zip. There are separate files for the SWIL Model output and the LET. Another stakeholder (Yesenia Escribano) noted that the LET_20201202.zip file takes a really long time to open, but it works.

Question: Please describe expected department actions over the next five years (prior to next BMAPs update) to effectuate and enforce BMAPs.

Answer: There is a lot going on with the IRL BMAPs. Normally, BMAPs are evaluated about every 5 years to see if an update is needed, but in the IRL there are plans that will likely necessitate updates prior to the next 5-year mark. For these three updated BMAPs, hopefully be adopted in the coming weeks, there are plans to update the modeling and come back and revise some calculations. Also, in Chapter 2, there is some reference to new statutory requirements for utilities and wastewater operators. There is a requirement in statute to incorporate the wastewater remediation plans into the BMAPs by a date certain (July 1, 2025). The next five years will be active for these BMAPs as we look at some model updates and incorporating the wastewater remediation plans into the BMAPs. In addition, there will be attention to the research priorities and looking at trend analyses on the water quality data.

Question: Is the 2021 Strategic Monitoring Plan for the Impaired Waters Rule a new monitoring plan for the BMAP? Will there be a webinar with further details?

Answer: No, that technically is a separate effort conducted by the Assessment Group. The monitoring plans are described in each BMAP report and those are listed out with tables and maps. In the BMAP monitoring plans you can see where the stations are located and what parameters are measured. The best DEP contact for that is Kevin O'Donnell at DEP.

4. Statewide Annual Report

There were no questions related to this agenda item.

5. Updates to Spatial Watershed Iterative Loading (SWIL) Model Scope

There were no questions related to this agenda item.

6. Next Steps

Questions (2): When do you expect adoption of this revision of the BMAPs? Will the revised plans be shared with markups to make the changes easy to find?

Answer: The revised plans with markups are not shared because there are many edits, but you can use the "compare" feature in Microsoft Word to see the differences between the November and December versions. In terms of the adoption timing, that is up to the DEP Secretary. The staff will provide the draft reports and he decides if he needs additional information from staff or stakeholder groups and when to sign the final order for adoption.

7. Questions, Comments, and Discussion

There were no additional questions.

8. Adjourn

The meeting adjourned at 11:21 am.