

Florida Department of Environmental Protection (DEP)
Indian River Lagoon (IRL) Basin Management Action Plan (BMAP)
Annual Meeting Summary
April 25, 2024, via GoTo Webinar
1:00 pm – 2:34 pm

Attendees

Melissa Adams, SJRWMD
Carolina Alvarez, Brevard County
Suzanne Archer, SJRWMD
Irene Arpayoglou, DEP
Jana Ash, RES
Aleah Ataman, Brevard County
Christian Avila, SFWMD
Steven Baker, U.S. Space Force
Peter Barile, Citizen
Virginia Barker, Brevard County
Melanie Barna, Citizen
Venetia Barnes, Fort Pierce
Mike Barnett, GHD
Matthew Bearden, DEP
Evelyn Becerra, DEP
JP Bell, Florida Realtors
Eric Blount, Palm Bay
Carly Bolo, Kimley Horn
David Botto, Citizen
Beth Brady, Save the Manatee Club
Terri Breeden, Brevard County
Stacy Burke, Volusia County
Tiffany Busby, Wildwood Consulting
Thomas Calhoun, Seminole County
Lauren Campbell, DEP
Daniel Cardona, Palm Bay
Stacy Cecil, SJRWMD
Eric Charest, Indian River County
Nancy Church, Volusia County
Kelli Cosentino, Responsible Development
Ralph Crawford, Citizen
Jeanne Curtin, Florida House of
Representatives
Natalie Dahl, Intertek

Deinna Dalton, DEP
Sara Davis, DEP
Melisa Diolosa, SJRWMD
Nikki Dix, DEP
Dean Dobberfuhr, SJRWMD
Kayleigh Douglass, Applied Ecology
Doug Durham, NASA
Christine Eastwick, U.S. Fish & Wildlife
Service
James Einloth, Citizen
Yesenia Escribaon, FDACS
Jason Evert, JMT
Amanda Exposito-Ferree, Atkins Realis
Natalie Fausel, Anfield Consulting
Jessica Fetgatter, DEP
Randy Fink, SJRWMD
Jake Fojtik, Florida Farm Bureau
David Frady, DEP
Marcy Frick, Tetra Tech
Terry Gibson, Deploy US
Felicia Gordian, Sebastian
Tina Gordon, Wildwood Consulting
Raichel Gulde, RES
Lauren Hall, SJRWMD
Samuel Hankinson, DEP
Richard Hans, Governmental Management
Services
Kenny Hayman, DEP
Kate Helms, Satellite Beach
Charlie Hoey, SJRWMD
Moirra Homann, DEP
Laila Hudda, Citizen
Dana Hutchinson, Citizen

Robert Irving, Florida Fish & Wildlife
Conservation Commission
Grace Johns, Hazen and Sawyer
Daryll Joyner, Citizen
VJ Karycki, Rockledge
Chris Keller, Wetland Solutions
Brooks Kimmel, Vaya Space
Lewis Kontnik, Citizen
Tricia Kyzar, University of Florida
James Lappert, St. Lucie County
Julianne LaRock, SFWMD
Charles Legros, DEP
Ivette Leiva, FDOT
Susan Little, Citizen
Lora Losi, Citizen
Andrew Luering, DEP
Mariah Mack, The Nature Conservancy
Jason Mahaney, Grant Valkaria
Sarah Malone, Applied Ecology
Erich Marzolf, SJRWMD
Michael McCabe, Melbourne Tillman WCD
Mike McMunigal, SJRWMD
Melissa Meisenburg, Indian River County
Donovan Morrell, Upham Inc.
Lori Morris, SJRWMD
Jessica Mostyn, DEP
Michael Myjak, Citizen
Elizabeth Nackman, SJRWMD
Kevin O'Donnell, DEP
Stacey Ollis, SFWMD
Judy Orcutt, Citizen
Sara Ouly, SFWMD
Melanie Parker, SFWMD
Ximena Pernet, RES
Jon Perry, ESA
Kimberly Peyton, Rockledge
Libby Pigman, SFWMD
Nicolas Pisarello, ATM
Robert Potts, ATM

Erin Preston, SJRWMD
Allyson Reinert, DEP
Sandra Reller, Titusville
Tim Roberts, Palm Bay
Frank Rohrer, Citizen
Heather Rountree, SJRWMD
Elianni Ruiz de la Cruz, Higgins
Engineering
Maureen Rupe, Citizen
Samantha Russo, SJRWMD
Zack Sampson, Tampa Bay Times
Victoria Schwartz, DEP
Jimmy Sellers, Ecological Associates
Tiffany Simpson, DEP
Lorae Simpson, SJRWMD
Gil Smart, Friends of the Everglades
Katherine Snyder, U.S. EPA
Leesa Souto, Applied Ecology
Jennifer Spain, Volusia County
Heather Stapleton, IRL NEP
Tammy Steen, WR Environmental
Dani Straub, Melbourne
Cole Stubbe, Brevard County
Kaitlyn Sutton, DEP
Danielle Taylor, SFWMD
Jennifer Thera, FDACS
Diana Turner, DEP
Jonathan Turner, FDOT
Unknown, The Florida Channel
Unknown, Food Policy Council
Lisa Van Houdt, DEP
Rachel Vitek, RES
Shreya Vuttaluru, Tampa Bay Times
Nia Wellendorf, DEP
Kaylene Wheeler, Dewberry
Joseph Whyte, RES
Curt Williams, Florida Farm Bureau
Laura Yonkers, Indian River County
Kelly Young, Volusia County

Questions and Answers (Q&A)

St. Johns River Water Management District (SJRWMD) Updates

Q: Lewis asked if the records of salinity go back 10 years to look at freshwater additions to the lagoon. He also asked what we see in the salinity.

A: Yes. This was addressed in the presentation.

Q: Leesa Souto asked if the statistical test used for the trend analysis was the Seasonal Mann Kendall or regular Mann Kendall.

A: It was a regular Mann Kendall test, not the Seasonal Mann Kendall test.

Q: Jon Perry asked what the units on the seagrass bar charts are.

A: The mean seagrass cover charts had a Y-axis in units of percent cover. The seagrass extent charts had a Y-axis in units of hectares.

Q: Lewis Kontnik asked if he could have copies of the seagrass graphs.

A: DEP suggested requesting the seagrass charts from Stacy Cecil (slcecil@sjrwmd.com) or Lauren Hall (lhall@sjrwmd.com).

Q: Lewis Kontnik asked if there are any ideas for the reasons for the increases and the declines in seagrass. We are doing a lot in the North IRL to reduce nutrients, what is going on in the south?

A: It may not be a loss of seagrass, but there may be a loss of canopy species that the maps can see very well rather than an overall loss.

Q: Donovan Morrell asked what a potential reason for the sudden decline is.

A: Tiffany Busby provided a link to a paper that describes the recent changes in seagrass extent, written by experts from SJRWMD and other IRL scientists:

<https://www.frontiersin.org/articles/10.3389/fmars.2021.789818/full>.

Statewide Annual Report (STAR)

Q: Michael Myjak asked if the slides will be made available after the presentation.

A: The slides from today will be posted online. In about a week to 10 days, a GovDelivery notice will be sent with the link to the location where the slides and meeting summary are posted.

Q: Lewis Kontnik asked why the STAR portal is closed now.

A: The STAR portal closes annually to allow DEP to finalize numbers prior to publication of the STAR report. Entities can still view their projects but cannot make updates during that time.

Progress

Q: Lewis Kontnik asked what the basis of the projected reductions are and how do we understand what will happen in the future.

A: If the projected line is flat, we just do not have enough estimated reductions from the planned and underway projects. As we work toward the BMAP update, we'll be working to gather further projects from stakeholders.

Q: Maureen Rupe asked are nitrogen and phosphorus project measurements actual or assumed based on what those completed projects should have removed.

A: There is a mix of project calculation approaches. Some project types require actual monitoring data and some use literature values. When DEP shows the reductions, those are only completed projects with reductions that are verified by DEP.

Q: Jon Perry asked if arithmetic or geometric means were used for hotspot analysis.

A: For the average rank, DEP used the arithmetic mean, but also looked closely at the data, including outliers. They also look at several components for the rank including standard deviation, frequency, and percentile.

Q: Nikki Dix asked what the "BMAP overall average" means.

A: The BMAP overall average is the concentration overall for the whole BMAP.

Q: Lewis Kontnik asked what percentage of actual measured values are used for project reductions and how many project reductions are calculated based on literature.

A: The method for project reduction estimates varies. Wastewater projects are based on measured data. For urban stormwater projects and agricultural BMPs, those reductions are more likely to be based on literature values but are sometimes measured. Some efforts like street sweeping are based on the measured materials collected, but the nutrient content is based on studies. DEP efficiencies tend to be conservative so that we are not overestimating the benefits of projects.

Q: Nikki Dix asked are the hotspots by BMAP or region.

A: The examples shown are the BMAP area for each of the three BMAPs. We have also started looking at hotspots based on the project zone.

Q: Robert Potts asked if the seagrass depth target is met, do entities still have to meet the milestone targets for the BMAP. He also asked if the information on two-step compliance for each BMAP for sea grass depth targets would be made available.

A: Diana Turner stated she believes entities would still have to meet the milestone targets based on the language in recent statutes.

Q: Kate Helms asked what happens if an entity does not meet its allocation even if the overall goals are met.

A: Entities are responsible for achieving their required reductions and should plan and implement projects to meet their assignments and milestones regardless of whether the overall goals are met. It is important to understand that the overall goals will only be considered to be met if the IRL meets its goals consistently in a variety of conditions, and not based on a year or two of meeting the target. IRL restoration must be a long term effort and demonstrate a long term recovery to be considered a success.

Q: Daryll Joyner asked if participants should be all the questions that the organizers are relaying or only the ones that staff reply to.

A: Only staff can see all of the questions in the GoTo Webinar format. Questions that are not to clarify content specifically covered during the presentation are not being addressed today and will be included in the meeting summary.

Q: Virginia Barker asked, for hot spots, does DEP think that the same numeric nutrient criterion (NNC) is representative of healthy conditions throughout the lagoon and if historic data to support that assumption is available.

A: The hot spot analysis was used as a screening method to identify areas for further investigation or project prioritization. To simplify the analysis, a single nutrient concentration was used across the IRL, but it is very likely that some areas are more sensitive to high nutrient concentrations than others. As such, the hot spot analysis is not designed to be definitive on whether areas are too high (or acceptable) in average concentrations but as a tool to look further into areas that appear to have higher concentrations.

Comment: Carolina Alvarez suggested that the hot spot ranking be added to the legend.

Upcoming BMAP Update

No questions were asked during this section.

Florida Department of Agriculture and Consumer Services (FDACS) Updates

Q: Daryll Joyner asked what the percent reduction in nutrient loading DEP assigns to implementation of the various agricultural best management practices (BMPs).

A: There are many efficiencies associated with various agricultural BMPs. There are owner-implemented BMPs and a lot of cost-share BMPs that have a variety of efficiency rates.

Q: Virginia Barker asked if FDACS is concerned about Class AA biosolids being applied but not reported.

A: Class AA biosolids are marketed to the public, labeled with a guaranteed analysis, and not tracked as biosolids. FDACS is tracking the application of Class AA biosolids (which are considered to be commercial fertilizer) through the nutrient application record form (NARF).

The current adopted BMAPs require that if a producer is using composted manure or biosolids, they must determine the nutrient concentrations before using them, and adjust fertilization rates accordingly. Producers report this in the NARF as pounds over acres applied.

During implementation verification site visits during which NARF information is collected, OAWP field staff review fertilizer application records and the fertilizer guaranteed analysis to determine proper application.

Q: Virginia Barker noted Class A and B are reported, but AA is not tracked as biosolids. Does FDACS require reporting of its nutrient content?

A: If a producer is applying Class A or B biosolids, they must follow the requirements of the FDEP permit and their site-specific nutrient management plan which requires the consideration of all plant-available N and P on site. Either Class A or Class B pathogen requirements and site restrictions must be met before biosolids may be land applied. FDACS does not track the application of Class A and B biosolids as producers are expected to follow their permit requirements within the area covered by the permit.

If there are areas in the operation on which the producer is applying any N, P, or Class AA fertilizer not covered by the permit, then OAWP field staff review fertilizer application records and the fertilizer guaranteed analysis to determine proper application. Producers report this in the NARF as pounds over acres applied.