

**Lower St. Johns Main Stem
Basin Management Action Plan (BMAP) Annual Meeting
November 2, 2023, via GoTo Meeting
2:00 pm – 3:51 pm**

Committee Members

Chris Farrell, Audubon Florida
Drew Holley, ETM
Jeremy Johnston, CCUA
Duane Kent, St. Johns County
Steve Long, City of Jacksonville
Tara McCue, East Central Florida Regional
Planning Council
Beth Payne, Northeast Florida Regional
Council

Gerry Pinto, Jacksonville University
Greg Strong, DEP
Steve Swann, City of Atlantic Beach
Aaron Watkins, DEP
Ben Wells, North Florida Grower's
Exchange
Wayne Young, JEA

Other Attendees

Eesa Ali, Applied Ecology
Suzanne Archer, SJRWMD
Chloe Arkin, City of Lakeland
Anabelle Baggs, SJRWMD
Evelyn Becerra, DEP
Michelle Brown, SJRWMD
Tiffany Busby, Wildwood Consulting
Deryle Calhoun, City of Neptune Beach
Lauren Campbell, DEP
Stacy Cecil, DEP
Carolyn Ciarlariello, DEP
Tony Cubbedge, St. Johns County
Susan Davis, SJRWMD
Jian Di, SJRWMD
Georges Dion, Pepsi Co.
Dean Dobberfuhr, SJRWMD
Jeff Earhart, Lake County
Yesenia Escibano, FDACS
Amanda Exposito-Ferree, AtkinsRealis
Jessica Fetgatter, DEP
David Frady, DEP
Terry Gibson, DEPLOY/US
Felicia Gordian, City of Sebastian
Tina Gordon, Wildwood Consulting
Roxanne Groover, Florida Onsite
Wastewater Association

Jim Gross, Florida Defenders of the
Environment
Maddy Hart, FDACS
Janet Hearn, ATM
Cori Hermle, FDACS
Alicia Hogue, DEP
Moirra Homann, DEP
Laila Hudda, EPA
Danielle Ivey, Audubon Florida
Roxanne Jones, Citizen
John Juilianna, SJRWMD
Thomas Kallemeyn, DEP
Chandler Keenan, DEP
Trevor Knight, Marion County
Charles Legros, DEP
Celeste Lyon, RES
Noosha Mahmoudi, SFWMD
Sarah Malone, City of Lakeland
Jeff Martin, JM Engineering
Taylor Maxwell, SJRWMD
Theresa May, Marion Pumper
Tom Mayton, SJRWMD
Callie McAdoo, ECT
Lori McCloud, SJRWMD
Nicole Morgan, DEP
Lori Morris, SJRWMD

Daryl Myers, Hanson
Mark Nelson, Jones Edmunds
Kevin O'Donnell, DEP
Michael Olka, Lake County
Josh Papacek, SJRWMD
Ben Pernezny, Ardurra
Nicolas Pisarello, ATM
Wendy Poag, Lake County
Robert Potts, ATM
Victoria Quick, CCUA
David Ratter, Avantic
Chris Rothenberg, DEP
Matthew Scriptor, Ecological Associates
Stacey Simmons, FDACS

Drew Thacker, Westervelt
Mickey Thomason, DEP
Riley Timbs, SJRWMD
Kenneth Weaver, DEP
Heather Webber, CCUA
William White, SJRWMD
Gregory White, Associated Construction
Products
Alan Williamson, City of Orange City
Jessica Wineberg, Orange County
Eden Yarborough, SJRWMD
Kelly Young, Volusia County
Bill Zoby, Citizen

Welcome

Greg Strong welcomed committee members and participants to the meeting.

BMAP Updates

Q (Chris Farrell): The slides with the required reductions started showing reduction in 2008. It looks like the required reductions were exceeded in the first year. Do we also have data to show the water quality improvements? There has been changing land uses since the original estimates.

A: The 2008 BMAP start date was shown in the graph even though the BMAP reductions started before then. The original model was based on 1995 land cover for stormwater and 1997 or 1998 for wastewater, so projects completed after that were considered not included in the model and contributing to the reductions. This means that projects prior to 2008 would show up at the 2008 mark on the graph. The landscape and wastewater discharges have changed since 1995, and that is why an updated model is needed to show what the landscape and the loading looks like now. Riley Timbs with St. Johns River Water Management District will present later the current water quality.

Q (Greg Strong): Why are the dissolved oxygen (DO) trends going up and down in the graphs shown?

A: These are annual plots or slightly less than annual plots, if the data were limited. DO normally goes down when it is hot and goes up during the cooler months. The fluctuations seen in the graph are seasonal variations and are expected. The Clapboard Creek 2022 plot shows more variation because it shows the whole range of the year. Graphs for 2020 were made using smaller sample size and did not represent the full variation as sampling was reduced or stopped at the beginning of the Covid pandemic. The graphs resume the full range of data in January 2021.

Q (Chris Farrell): Can you explain the objective and reasoning for the 40 micrograms per liter (µg/L) and the 40-day determination in the assessment?

A: Any time you have over 40 µg/L of chlorophyll-a, there is an increased chance that there is an algal bloom. Keeping chlorophyll-a under 40 µg/L 90% of the time would be less than 40 days per year. The 40-day threshold is not necessarily consecutive days, but 40 total days for the year. Additionally, these data are assessed for the two worst case scenario waterbodies (WBIDs); however, there are stations in almost every WBID and the spatial coverage is good. The two WBIDs selected have more frequent monitoring because they have been the areas most likely to have high chlorophyll-a concentrations.

Q (Gerry Pinto): Are land applications of biosolids considered agriculture?

A: Land application of biosolids requires a permit. However David Frady said he would speak to the regulatory division about how they categorize that permit and get back to Gerry Pinto with a more detailed response.

Q (Gerry Pinto): What percentage of the loading in the Lower St. Johns basin is originating from the middle or upper portion of the river now and how does that impact the goals of the total maximum daily load (TMDL) or BMAP.

A: Loading from upstream was considered in the original model, including Crescent Lake which was identified as part of the BMAP but not part of the modeled area, the Ocklawaha system, and the upstream portions of the St. Johns River. The BMAP allocations were based on controllable sources within Lower St. Johns River watershed and assumed a similar reduction of the loading coming in from upstream sources. Riley Timbs acknowledged that the load coming from the upper basin, especially places like Lake George with high nitrogen contributions, are contributing to the loading. He followed up and said that there are some historical studies that indicate up to two-thirds of nitrogen likely comes from the upstream basins, but there is not a recent study to quantify the proportion of upstream versus internal loads. It was stated that this may be able to be addressed in the model update if data are available.

Q (Steve Swann): On the OSTDS remediation plans required by the Clean Waterways Act, it was asked if the Lower St. Johns Main Stem was determined to need remediation plans to meet the TMDL.

A: The determination was made based on the BMAPs either having 20% or more of loading or from that source or if DEP determined that remediation was needed. DEP deemed that the OSTDS plans were needed in all nutrient BMAPs to achieve the TMDLs. Steve Swann asked to follow-up with Moira Homann regarding this assessment.

Comment (Roxanne Groover): Roxanne posted that the Florida Onsite Wastewater Association (FOWA) is having an open house next week in Lake Alfred on November 8 (9 am to 3 pm) where many of the industry professionals and manufacturers of the enhanced nitrogen reducing technologies will be there to answer questions and show how their systems work. Please pre-register for the FOWA open house using this link: <https://www.menti.com/alnq2rstwbtd/0>.