

Lake Okeechobee Basin Management Action Plan (BMAP)

Webinar Summary

Thursday, December 19, 2019

9:30 am – 10:25 am

Participants

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Kyle Graham, Ecosystem Partners
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Barry Hinton, Blue Nano Technologies
Ray Hodge, Southeast Milk
Andy James, SWET
Chris Johns, LLW
Alyssa Jordan, FWC
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Steven Kelly, FDOT
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Kathy LaMartina, SFWMD
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Len Lindahl, MacVicar Consulting
Lisa Lotti, City of Orlando
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Sean Sculley, SFWMD
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Steve Smith, Gulf Citrus Growers
Sid Strickland, Strickland Associates
Maria Taylor, BCWD
Mark Thomasson, Littlejohn Mann & Assoc.
Attila Tottosi, Ensynox
Diana Turner, DEP
Anna Upton, Citizen
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Rachel Vitek, E Sciences
Pam Wade, SFWMD
John West, Citizen
Benita Whalen, Citizen
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The full webinar recording and supporting materials are posted to the Florida Department of Environmental Protection (DEP) file transfer protocol (FTP) site at http://publicfiles.dep.state.fl.us/DEAR/BMAP/LakeOkeechobee/Meetings/18%205YR_BMAPUpdate_Meeting_Dec2019/.

Questions and Answers

Question: How were these attenuation factors calculated? Based on the load estimation tool (LET) or a different procedure was used?

Answer: Based on the LET, which is put together from the modeling results from the Watershed Assessment Model (WAM). We did a comparison by subwatershed of the sources loads from the watershed and compared those numbers to the loads that reached the lake from that same area. It is really just a difference in what the WAM estimates to attenuate between when the load leaves the subwatershed and when it gets to the lake.

Question: Are these total phosphorus (TP) reductions based on WAM estimates or monitoring?

Answer: That is based on both. Where we have monitoring for a project, especially some of the larger regional projects we do have monitoring, so those TP reductions are based on that monitoring. But where the monitoring is not available at a project level, we base those on several things dependent on project type. In some cases we have efficiencies that we use in BMAPs to estimate projects and we need a contributing load from the treated area and that comes out of the model (WAM or LET) and then we apply the efficiency. In some cases the estimates are based on other calculations that are based on various literature for those project types, like retention ponds. It varies based on the project type. We do use the measured data, if available, and, if not, we have a document that shows the methods that we use for the different project types.

Question: How do you see the work of the Blue-Green Algae Task Force influencing the total maximum daily load (TMDL) goals?

Answer: The TMDL we are working with was previously adopted and the BMAP is based on that TMDL. If at some point the task force or some other driver updates the TMDL, then the BMAP will need to adjust. I don't have any understanding or opinion of what that might be because no one has said anything about that to me.

Question: Why aren't you using the South Florida Water Management District (SFWMD) data for assessment of the reductions rather than modeling?

Answer: We are using the SFWMD data in several places. I'm not sure which specific data are being asked about but we have 200+ projects in this BMAP and in order to rely on monitoring to get at those reductions for each project, every project would have to be monitored. That would come at a significantly higher cost. We are increasing monitoring in the BMAP area to try to more granularly track progress throughout the watershed but, as of right now, we're looking at the water quality in the trend analyses that I mentioned but, for project reductions, many of them have to be estimated based on equations and modeling versus the measured data.

Question: Were there any analyses that looked at the ability to achieve milestones and the availability of project funding provided by the state?

Answer: We have future projects, projects that have not yet been completed. We did look at that information for developing the milestones but, like I mentioned, we don't have information that says we

can get to 100 % of the reductions needed. I think in the next few years we will have better information so that is why I mentioned that at the 10-year milestone we may reset the 15-year and 20-year milestones. The abatement strategies evaluation that I mentioned earlier, that analysis was looking at the various combinations of strategies to help reduce loads in the watershed so there were some costs associated with those and there is a full report on that if you're interested.

Question: Several other BMAPs were trying to reach the goal by year 15, which allowed time to address challenges. Why is this set to achieve requirements by year 20?

Answer: The 20 years was actually in statute as of 2016 so the 20 years is what we're using unless the stakeholder groups within those BMAPs have requested a shorter timeframe. I'm not sure which BMAPs are being referenced but I know in the St. Lucie BMAP in 2013 when it was adopted, the stakeholders looked at a 15-year timeframe. We're currently updating that BMAP, as well, so that timeframe may change. This is based on the statute for 20 years.

Question: Considering that legacy loads are projected to give us about 500 tons in annual loads for decades, aren't attenuation factors rather meaningless? Indeed, attenuation is negative now because even without phosphorus additions we still have too much load.

Answer: We recognize that legacy is a big issue in this watershed and that is noted several times in the report. One of the things we're trying to do is to look at ways to not just deal with the new loads coming in but some of the legacy. The attenuation is based on the new loads coming in and, on top of that, we'll have to address the legacy, as well. Take a look at how we address that in the report and if you have comments based on that language just let us know.

Question: How are you accounting for biosolids spreading? For example, an application for an AA plant in Osceola County would have a capacity of about 150 tons per day which would translate to more than 1,000 tons of phosphorus per year. How will DEP track and account for such imports to the watershed?

Answer: AA biosolids are tracked as fertilizer, which is not necessarily under the purview of DEP. I'll talk in a few minutes about fertilizer tracking.

Question: Do the milestones take into account nutrient increases associated with growth from agriculture and urban sources?

Answer: Specifically the milestones are not looking at that but the BMAP does look at that. I will talk in a few minutes about how we're trying to deal with future growth and other additional sources. We're getting at that in a better way than we have in the past but the milestones are kind of separate from looking at future growth.

Question: A follow up question on legacy phosphorus. Are you implying that legacy phosphorus was not accounted for in the abatement scenarios?

Answer: Legacy phosphorus was accounted for in the WAM modeling. I'm not implying that it wasn't accounted for, what I'm stating is that it's a source that needs to be addressed. We need to focus on it, as well as any new sources of phosphorus from the land in the watershed.

Question: Do you expect the Kissimmee River Restoration completion to contribute to any load reductions?

Answer: I don't expect it to contribute to load reductions but I expect it to help over time. We will be measuring and tracking the data throughout time, so we'll be able to see what is happening there.

***Note: the answer provided during the webinar misinterpreted the question. The answer should be: I expect it to contribute to load reductions over time. We will be measuring and tracking the data throughout time, so we'll be able to see what is happening there.*

Comment: It means attenuation also accounts for legacy phosphorus.

Question: Are you looking at funding for wastewater treatment to handle the perceived increase in biosolids as a result of septic to sewer conversion and the increase in population?

Answer: I'm not sure I have an answer for that question. I know that we, as an agency, are looking at funding opportunities for all the things we're trying to do to help with restoration. I don't think I can answer more specifically than that, unfortunately.

Question: What are the next steps on the projects submitted in response to the RFI for inclusion as part of the BMAP?

Answer: As I described, we simply listed the submittals in the appendix and we described at a high level what was submitted. The reason for us doing the RFI was to help identify what could be done. It was not a request for proposals. It wasn't saying we have money and we're doing something now. What we're trying to do is provide that information so that any funding source could potentially fund any of those projects or any of those technologies to help with the restoration in this watershed. They will have a little better idea of where those projects or technologies could occur and what they are all about. The next steps are to continue to list them in the BMAP and if any entity is interested in partnering with someone in the RFI tables, we encourage that but we're just providing the information at this point.

Question: What are the corresponding flow weighted mean (FWM) concentrations of TP, and are these meeting 40 parts per billion (ppb), which is the basis of TMDL load target?

Answer: The reason those targets were set was because of the measured five-year average loads within each subwatershed and getting to that 105 metric tons. It wasn't based on concentration, it was based on load. That concentration is an in-lake concentration, not a watershed concentration.

Question: The percent load from Taylor Creek/Nubbin Slough on slide 34 is incorrect (said 1% and should be more like 20% or so).

Answer: It should be 19 %. That table is also in Chapter 1 and it looks like something got lost in moving it. Thank you for catching that, we'll fix that.

Question: The 2020 South Florida Environmental Report-Volume I-Table 8B-4 shows the inflows, TP loads, and FWM concentrations for all 9 subwatersheds and all 32 basins within the subwatersheds for water year (WY) 2019. The TP loads to Lake Okeechobee are shown as 442 metric tons with average concentration at 166 ppb. This is far from the 105 metric tons and 40 ppb TMDL. Shouldn't these data be used to assess if reductions are being met in each subwatershed and each basin?

Answer: Yes, absolutely. We look at those data every year as SFWMD produces it. We're not just estimating the reductions and trying to predict the benefits, we're also tracking the data. The water quality analysis that we did looks at that data in that way. As we move forward, we're increasing

monitoring so we'll have additional data. I think the report is the draft report that hasn't been finalized yet. As it gets finalized, we look at that every year to see how it can help us with our restoration. The answer is yes, we're looking at that data, too.

Question: Can you extended comment dateline to January 20. Considering the coming holidays, it is difficult to submit comments before this.

Answer: We do have to have this done by January 31 so we need your comments as soon as possible.