

Lake Okeechobee Basin Management Action Plan

Technical Meeting Summary

Wednesday, September 17, 2014

10:00 AM – 12:00 PM

Williamson Conference and Education Center

2229 NW 9th Avenue, Okeechobee, Florida

Attendees

Nagel Altrui, Kissimmee Beth Alvi, FDEP Rick Baird, Osceola County Missie Barletto, Aim Engineering and Surveying Lesley Bertolotti, SFWMD Vanessa Bessey, FDACS Karen Bickford, Lee County Del Bottcher, SWET Tiffany Busby, Wildwood Consulting Catherine Cackling, E Sciences (<i>phone</i>) Marisa Carrozzo, Conservancy of Southwest Florida Kevin Carter, SFWMD Kevin Coyne, FDEP (<i>phone</i>) Courtney Davis, UF-IFAS Okeechobee Joseph DeCerbo, Spring Lake Improvement District Rebecca Elliott, FDACS Tony Federico, Macvicar, Federico & Lamb (<i>phone</i>) Clell Ford, Highlands County Stan Ganthier, FDEP Jane Graham, Audubon Society R.L. Groover, FOWA Katie Hallas, FDEP Noah Handley, Lykes Brothers John Hayford, Okeechobee Utility Authority Janet Hearn, ATM Tom Hill, Farm Bureau Ray Hodge, Southeast Milk Dianne Hughes, Martin County (<i>phone</i>) George Jones, ORCA Kimberly Lawrence, Osceola County Beth Lewis, SFWMD Libby Maxwell, Florida Legislature Erin McCarta, Tetra Tech	Linda McCarthy, Lykes Brothers Inc. Alicia McDougal, Kissimmee Barbara Miedema, Sugar Cane Growers Coop Marcos Montes de Oca, Belle Glade Tom Moran, Lake Wales Charles Murphy, Okeechobee News Martha Musgrove, Florida Wildlife Federation Melodie Naja, Everglades Foundation Julie Neurohr, FDEP Kelly O’Nan, Hendry County Michelle Piccolo, FDEP Marcy Policastro, Wildwood Consulting Pete Quasius, Audubon West Glades Irene Quincey, Pavese Law Firm Jack Richie, Highlands County Lakes Assoc. H.M. Ridgely, Evans Properties Gary Ritter, SFWMD Greg Roppelt, Genesis Water Brent Setchell, FDOT District 1 (<i>phone</i>) James Show, Valencia Water Control District Eddie Snell, Reedy Creek Improvement District Linda Stanley, Florida Wildlife Federation Jeff Sumner, SFWMD Joe Thrower, Osceola County Jeff Verbance, IND Thomas Co Inc. Trina Vielhauer, FDEP Boya Volesky, Everglades HUB Pam Wade, SFWMD James Warner, APAFR Paul Whalen, TAC Environmental Curt Williams, Florida Farm Bureau Bonnie Wolff Pelaez, FDACS
---	--

Welcome and Opening Remarks

Tiffany Busby welcomed everyone to the Lake Okeechobee Basin Management Action Plan (BMAP) meeting. The participants introduced themselves and the entity they represent.

Lake Okeechobee Basin Management Action Plan

Beth Alvi thanked everyone for participating in this meeting because it is important for the stakeholders to stay engaged in the BMAP process. The work to restore Lake Okeechobee is not finished; it is just starting. There is a need to keep planning more projects to meet the total maximum daily load (TMDL). The draft BMAP will be presented during the meeting. Beth noted that after the stakeholders have had time to read the BMAP, they can contact the Florida Department of Environmental Protection to obtain answers to their questions and express their concerns on the BMAP. The Department has already had discussions about the BMAP with some of the stakeholders.

Overview of Draft Lake Okeechobee BMAP

Katie Hallas stated that she would provide an overview of the draft BMAP document. Chapter 1 is the introductory chapter and discusses the history of the Lake Okeechobee restoration efforts and where the BMAP is looking to go with restoration. Restoration efforts have been ongoing in the Lake Okeechobee Watershed (LOW) for the past several decades. In 2000, the Florida Legislature enacted the Lake Okeechobee Protection Act (LOPA). In 2004, the Coordinating Agencies (the Department, Florida Department of Agriculture and Consumer Services [FDACS], and South Florida Water Management District [SFWMD]) collectively submitted the Lake Okeechobee Protection Plan (LOPP), which was required by the legislature and laid out plans for phosphorus reductions and monitoring. In 2007, the legislature recognized that the Caloosahatchee and St. Lucie Estuaries, in addition to Lake Okeechobee, were important to the state and nation. This recognition led to the Northern Everglades and Estuaries Protection Program (NEEPP), which was an expansion of LOPA to include the estuaries. As part of NEEPP, the Coordinating Agencies were required to prepare the Lake Okeechobee Watershed Construction Project-Phase II Technical Plan. This plan was submitted to the legislature in 2008, and it included monitoring and restoration initiatives. Per the NEEPP, it is required that the information in the Phase II Technical Plan provide the basis for the BMAP. To do this, the Department has been working closely with the Coordinating Agencies and stakeholders on the BMAP.

The BMAP process is laid out in the Florida Watershed Restoration Act, which is Section 403.067, Florida Statutes. The statute lists the BMAP contents and process. The BMAP process is stakeholder-driven because the stakeholders are the ones conducting the activities to restore the waterbodies. Katie stated that BMAPs are enforceable because they are signed by the Department's Secretary by order. The BMAPs are periodically updated through annual progress reports, which include updates on existing efforts and new projects. The BMAPs are phased, and the Department will continue to work with the stakeholders to identify new projects and information to update the BMAP.

During the BMAP process, the Department worked with the stakeholders to identify projects to reduce total phosphorus (TP) to Lake Okeechobee. BMAP meetings began in February 2013, and a total of ten meetings have been held, in addition to numerous conversations and email exchanges on information for the BMAP. The goal of the BMAP is to achieve the TP TMDL for the lake. There are nine sub-watersheds that make up the LOW, and the watershed covers several counties over a large area.

A TMDL is the total amount of a pollutant that a waterbody can assimilate and still meet its designated uses. The Department worked with the Lake Okeechobee Technical Advisory Committee to determine the TMDL, which the Department adopted in May 2001. The TMDL allows 140 metric tons (MT) of TP to be discharged to the lake annually, of which 35 MT is for atmospheric deposition and 105 MT is for all nine sub-watersheds in the LOW. Compliance with the TMDL is based on a five-year rolling

Lake Okeechobee Basin Management Action Plan

average. Katie noted that the LOW is a flashy system with dry and wet periods, which is why a rolling average was determined to be the most appropriate way to assess compliance.

Katie stated that Chapter 1 includes the assumptions and considerations, which are key sections of the BMAP. The assumptions are those that were used when developing the BMAP document. The main assumption is that for the first BMAP phase, the focus is on the six sub-watersheds north of the lake. Based on water quality data for calendar years 2001-2012, about 89.1% of the TP load and 88.3% of the discharge to Lake Okeechobee come from the six northern sub-watersheds. In addition, the Watershed Assessment Model (WAM) only covers the northern sub-watersheds. Therefore, the Department determined that it would be best to focus on these sub-watersheds for project collection during the first BMAP iteration. Another assumption is that some of the projects in the BMAP are provisional best management practices (BMPs), and these are listed in Table A-2 of Appendix A. The provisional reductions are based on the available data, and as additional data are collected by the stakeholders or agencies, the Department will refine the reduction estimates for these projects. Examples of provisional BMPs include public education, muck removal, aquatic vegetation, and septic tank phase out. The final assumption is that the nutrient reduction benefits of the projects were determined using the best available information. If stakeholders provided monitoring data for a project, the Department used those data to determine the reductions. The Department can tweak the reduction estimates in the future if data are provided to show that the reduction estimates are not correct.

Katie stated that the considerations section summarizes the items that need to be worked on and which will be evaluated before the second BMAP phase. One consideration is that the land use in the BMAP is the 2009 coverage, which was updated in 2013 to include the inactive dairies land use code and to make adjustments in the land uses. For the second BMAP phase, the most current land use data will be used. Another consideration is that the watershed boundaries used in the BMAP match the boundaries used in the 2014 Lake Okeechobee Protection Plan (LOPP) Update to ensure consistency between the BMAP and Phase II Technical Plan. However, during the BMAP process, several stakeholders noted that boundaries need to be modified. Katie noted that if the stakeholders identify areas that should be added or removed from the BMAP boundaries, they should let her know. The WAM was used to develop the load estimation tool for the BMAP, and the tool was used to calculate the starting loads for each sub-watershed and the project nutrient reduction benefits. The Coordinating Agencies are planning to update the WAM to refine the existing model and to add the sub-watersheds south of the lake.

Another consideration is the complexity of problem. Katie stated that the Department recognizes that this is a complex watershed, and while significant progress has been made in understanding the watershed, there is still more that needs to be done to gather information. One of the items that needs more study is the legacy phosphorus in the watershed. Based on Del Bottcher's work, legacy loading is a significant issue, and the Coordinating Agencies have been working to identify measures to address the legacy phosphorus. The attenuation factors in the load estimation tool are another consideration. Four of the northern sub-watersheds drain directly to Lake Okeechobee; however, the Upper Kissimmee sub-watershed drains to the Lower Kissimmee sub-watershed, and the Lake Istokpoga sub-watershed drains to the Indian Prairie sub-watershed before going to the lake. The Department recognizes that there is attenuation through these sub-watersheds to the lake, and will determine appropriate attenuation factors as part of the WAM refinements.

Lake Okeechobee Basin Management Action Plan

Identification of areas with elevated TP will also be completed once the WAM is refined. In a previous meeting, a map with areas of high TP, based on the current WAM outputs, was presented. Once updated information is available, the Coordinating Agencies will assess what projects should be put in place to address the high loading. Another consideration is that the Department adopted TMDLs for several lakes in the Kissimmee chain in December 2013. The Department will determine how to integrate these TMDLs into the BMAP in the future. The final consideration is related to total nitrogen (TN) in the watershed. TN is an issue for downstream estuaries so the Department wanted to determine the TN reduction benefits from the Lake Okeechobee BMAP projects. An estimated TN reduction of 123.1 MT was determined for the projects in the BMAP. The Lake Okeechobee TMDL is for TP; however, in the future, if the lake is determined to be impaired for TN, the Department would adopt a TN TMDL that would be implemented through a revised BMAP.

Jane Graham asked what the sequence is for working through the process to identify areas with elevated TP. Katie responded that once the BMAP is adopted, the Department will reassess the monitoring plan using information from the updated WAM, once completed. The Department will work with the stakeholders to identify hotspots in the watershed and to determine where additional monitoring and projects are needed.

Martha Musgrove asked how the TN impairment for the lake would be determined. Katie responded that the Department would determine if the lake is impaired for TN through the assessment process. Lake Okeechobee is a Group 1 waterbody, so it will be assessed with the other Group 1 waterbodies. Martha stated that she would like to know who to contact to keep track of the progress made in evaluating TN. Beth responded that if the assessment is done on the normal schedule, it would occur in four years. However, once a BMAP is in place, the Department evaluates whether assessments are needed sooner and they will do that with Lake Okeechobee. Martha asked if a separate BMAP would be needed for TN. Beth responded that TN could be part of this BMAP. After adoption, the Department and stakeholders will meet annually to discuss project updates and monitoring data. If TN is determined to be an issue, it can be brought into the process during an annual report.

Marisa Carrozzo stated that the Conservancy of Southwest Florida has a similar concern about TN for the estuaries. She recommended that the Department assess TN within the next year to determine if a TMDL is needed so that it can be incorporated into the BMAP process. Beth responded that she appreciates this comment, and many of the projects in the BMAP also address TN loading. Marisa asked if the Department has determined how TN reductions in the LOW would affect the loads in the outfalls to the estuaries. Beth responded that this evaluation has not yet been done. Karen Bickford asked if the Department has a TN load estimate to give an idea of what the TMDL would look like. Katie responded that in a previous meeting, the Department presented the TN starting loads for the watershed; however, the Department has not determined if the lake is impaired for TN. Karen asked for the TN starting load to be added to the BMAP. Kimberly Lawrence asked if the WAM was calibrated for TN. Del Bottcher responded that the model was calibrated for TN, but this was not the focus as the model was intended to look at TP in the LOW. The detailed calibration was for TP, and a more cursory calibration was done for TN.

Katie stated that Chapter 2 in the BMAP sets the stage for what the BMAP is working to protect and restore. The LOW covers almost four million acres, of which about 45% is agricultural lands, 45% is natural lands, and the rest is urban and built-up lands. The hydrology information in the BMAP is

Lake Okeechobee Basin Management Action Plan

shown for both calendar year and water year, and the flows vary by year. Katie noted that due to ditching in the watershed and the dike around the lake that changed the historical sheetflow, the system has become flashy. While the West Lake Okeechobee Sub-watershed has the lowest discharge, its discharge falls into a wide range. The water quality data are also variable because the discharge and flow rates are variable, which is why TMDL compliance is based on a five-year rolling average.

Barbara Miedema asked if there is any recognition of unusual weather events, such as the multiple hurricanes in 2004-2005, which are outside of the stakeholders' control. Katie responded that if something drastic occurs, such as the hurricanes, this would be acknowledged in the assessment. Chapter 2 discusses the variation in weather patterns, and Katie noted that more detail could be added, if needed. Eric McCarta asked what the dataset is for the numbers in the presentation. Katie responded that the data are from SFWMD's annual environmental report, which uses data from DBHYDRO. This database only includes SFWMD's data; however, if other stakeholders have data, they can provide it to the Department.

Katie stated that Chapter 3 describes the sources in the watershed. There are 22 Phase I and 16 Phase II municipal separate storm sewer systems (MS4s) within the LOW. The MS4 permits include a self-implementing clause that requires the permittee to implement activities in a BMAP. There are also 37 urban nonpoint source entities, and they must also implement activities in BMAP. For agricultural sources, the primary land uses in the LOW are improved and unimproved pasture, woodland pasture, and citrus groves. Agricultural producers within a BMAP area must implement BMPs or water quality monitoring to show that they are not causing or contributing to violations of water quality standards. Melodie Naja asked if there is a coverage showing which areas are implementing FDACS BMPs versus SFWMD Works of the District BMPs. Katie responded that the two programs have not been compared yet, but the Department can provide this information.

Katie stated that Chapter 4 in the BMAP describes the load estimation tool. The Department used the 11 WAM domains that Del had created for the northern sub-watersheds. The model output was used in the load estimation tool to determine the starting loads in the sub-watersheds and to calculate the project reductions. WAM implicitly included agricultural and urban BMPs through the model calibration, so the load reduction from these BMPs was assumed to be part of the starting load. In the S-191 basin, dairy and citrus BMPs were explicitly included. To level the playing field, the Department compared loading from these land uses in other sub-watersheds, and used a factor to add remove the BMPs from this domain (27% for citrus and 17% for dairies was added back in). The Department did this so that the reductions from BMPs that were in place were not double counted. Martha asked if by doing this, the Department is pretending that there were no BMPs in place. Katie responded that the reductions from BMPs that were in place were assumed to be part of the starting load. Martha asked if the starting loading is the same as the baseline load. Katie responded that these loads are the same, and she will make sure the BMAP uses consistent terminology.

Katie stated that the unit TP loads per hectare were determined by using the WAM output for the land uses within each sub-watershed. The unattenuated loads in the tool had an attenuation factor applied to account for the biogeochemical processes that occur in the watershed. The total load to Lake Okeechobee is the sum of the attenuated loads from each sub-watershed. The total starting load is 448.3 MT, which needs to be reduced to 105 MT to meet the TMDL. Katie noted that there is a table in the BMAP with the schedule for the WAM revisions. The Coordinating Agencies are working on a contract

Lake Okeechobee Basin Management Action Plan

with Del to expand the WAM to include the three southern sub-watersheds. This contract will also involve evaluating the sensitivity of the model compared to real world data. The revised WAM will be used to assess the project reductions, revise the starting loads, and identify TP hotspots where additional monitoring and projects are needed. Kimberly asked if the updated WAM will implicitly include BMPs from 2007 (end of the current WAM timeframe) to the present. Del responded that the effort will be to refine the model and to ensure it is representing what is currently occurring, so that the model can be calibrated to existing data. The existing data represent current BMP implementation. Kimberly asked where the planned model calibration points will be in the Upper Kissimmee sub-watershed. Del responded that wherever there are existing monitoring data, those points will be used in the calibration. Melodie asked if a good assessment of owner-implemented BMPs versus enrolled BMPs is needed to help with WAM refinement. Katie responded that she will discuss how agricultural BMPs will be assessed later in the presentation.

Katie stated that Chapter 5 describes the projects that have been implemented or are planned. The BMAP includes projects completed since January 1, 2009 and onward. The Department recognizes that there were significant efforts before this time. However, since the TMDL is not being met, the Department wanted to focus on the projects that were completed more recently to determine how best to move forward with reductions. The BMAP also includes a list of projects that are under development by the Coordinating Agencies. The BMAP does not just focus on projects that are completed but also on planned projects in the future that will help to meet the TP TMDL. Katie noted that the terms management strategies, management actions, and projects are all used in the BMAP, and she will make the terminology consistent. The management strategies in the BMAP include urban stormwater BMPs, dispersed water management (DWM), stormwater treatment areas (STAs), hydrologic restoration, hybrid wetland treatment technology (HWTT), and floating aquatic vegetation treatment (FAVT) systems, and agricultural BMPs.

Katie stated that examples of urban stormwater BMPs include wet detention ponds, dry retention, swales, baffle boxes, stormwater reuse, street sweeping, and public education and outreach. Katie noted that she will make the terms “credit” and “nutrient reduction benefits” consistent in the document. The reductions were determined based on the load in the area treated by the BMP, BMP efficiency, and attenuation factor. The stakeholders provided the drainage area for their project, and the Department applied the BMP efficiency from Tables A-1 and A-2 in Appendix A. The attenuation factors for each of the WAM domains are listed in Chapter 4.

DWM projects are not specifically designed for water quality benefits. These projects were designed to be temporary water storage projects because a lot of the planned regional projects, such as the Comprehensive Everglades Restoration Plan (CERP) projects, are not going to be implemented as quickly as originally thought. SFWMD thought the DWM projects would be a good way to provide interim storage to meet the requirements of the Phase II Technical Plan. The Department worked with SFWMD to determine the water quality benefits from retaining water in these projects. These projects are temporary, so the projects in operation will vary from year to year, and this will be noted in the annual reports. There are four DWM projects with water quality data, which were used to determine the nutrient reduction benefits. For the remainder of the DWM projects, a conservative reduction estimate was made based on the acre-feet of storage and the TP concentration associated with the land uses in the project area. The appropriate attenuation factor was applied to the reduction estimates.

Lake Okeechobee Basin Management Action Plan

Katie noted that there are several large STAs south of the lake, which is a different system because the TP loads are much lower than north of the lake, and it is more managed. STAs north of the lake are still relatively new and are being implemented at more of a pilot scale, such as the Taylor Creek and Nubbin Slough STAs. The Lakeside Ranch Phase I STA is a larger scale STA. The reductions for the STAs was based on the starting load from the area treated, treatment efficiency from SFWMD, and attenuation factor. Since these are new projects, the reduction estimates will likely be refined in the future as more information is gathered. The BMAP includes a schedule for Lakeside Ranch Phase II STA, in which it would be fully operational within 7.5 – 9 years. This project is currently under development by the Coordinating Agencies.

There are several smaller hydrologic restoration projects that were designed for water quantity but that have ancillary water quality benefits. There is also one large restoration project, Kissimmee River Restoration (KRR), and the estimated reductions are based on the S-65D and S-65E TP reductions. The estimates for these projects will be refined in the future as more data are gathered. Melodie asked how the reductions for the KRR project were determined. Lesley Bertolotti responded that the reductions were based on the estimated reductions at S-65D, with some additional load that would be added back in between S-65D and S-65E. Melodie noted that the BMAP document is missing detailed information on how the reductions from the STAs, DWM, and KRR projects were determined. Katie responded that there is text to explain the calculation process, but more details can be added, if needed. The Department tried to make these calculations similar to the process used for urban stormwater BMPs. Beth added that the Department can share the calculation spreadsheets for the stakeholders to review. Katie noted that the previous spreadsheets are posted on the FTP site, but she will add the latest versions.

Katie stated that HWTT combines chemical treatment and wetlands to achieve reductions. There are five active or planned facilities in the LOW. There is one FAVT project, which uses floating aquatic vegetation for treatment. Katie noted this BMAP has new project types, which makes it unique because it is using innovative technologies to help meet the TMDL. The reductions for these projects was determined by using the area treated, the estimated flow capacity, and the attenuation factor. For agricultural BMPs, the Department only assigned reductions for BMPs implemented since 2009 to be consistent with how reductions were assigned for the urban BMPs. Reductions were determined using 100% enrollment of agricultural lands that were enrolled since 2009 or will be enrolled in BMPs. The BMAP includes a map of agricultural BMP enrollment as of March 2014, and the BMAP will be updated with information through June 2014 before it is adopted.

Katie stated that there are also projects that the Coordinating Agencies have under development. The Department determined load estimates from these projects based on the available information, and some of the projects have more planning needed. These projects are Istokpoga Marsh Improvement District Phase II, which is a collaborative effort with Highlands County; Lakeside Ranch Phase II; two new DWM projects (Buck Island Ranch/Rafter T); Brighton Valley, which is a collaborative effort with Lykes to retain and treat water onsite; Rolling Meadows Wetland Restoration Phase II; dairy lagoon remediation activities; PL-566/Fisheating Creek structure, which is needed to provide water control for the Wetland Reserve Program (WRP) projects; State Road 710 regional project, which is a collaborative effort with the Florida Department of Transportation and the feasibility study will be ready within the next month; and legislative cost-share appropriation program in which FDACS will receive \$10 million a year for the next seven years for cost-share BMPs.

Lake Okeechobee Basin Management Action Plan

There are also other efforts and restoration strategies including alternative BMP nutrient reduction projects, which build on previous efforts to evaluate new technologies; Everglades Headwaters National Wildlife Refuge and Conservation Area, which is a large area of the state in conservation and the Department is working to determine the water quality benefits; SFWMD's Regulatory Nutrient Source Control Program; CERP projects, and SFWMD will work with the federal partner to reassess the Lake Okeechobee projects and determine if new projects need to be developed; Rolling Meadows Phase II; low water level habitat assessment plan to identify projects so the agencies are ready when water levels in the lake are low; expanded water quality monitoring to collect data to guide efforts; and cost-share and owner-implemented BMP effectiveness verification to evaluate the amount of reductions that can be expected from each of these types of BMPs. Melodie noted that verifying BMP effectiveness is not a small effort because a lot of monitoring before and after implementation is needed. Katie stated that the plan is to implement the monitoring at a pilot level for this reason. There is a timeline in the BMAP to create a plan for verification, and then it will take several years to gather enough data to assess the BMPs.

Katie reviewed the summary of the project reductions. In order to meet the TMDL of 105 MT, a total of 343.3 MT of reductions is needed. The total reductions from completed and planned projects are 103.44 MT, and the details for this number are in the tables in the Executive Summary. The projects under development will achieve 46.12-49.14 MT. The total estimated reductions are 149.56-152.68 MT, which is 43.5%-44.4% of the required reductions. Katie noted that she will switch the order of the remaining reductions in the BMAP table. Martha noted that once all the projects in the BMAP are completed within ten years, another 193 MT of reductions will still be needed to meet the TMDL. Katie responded that this is typical of BMAPs because they use a phased approach to achieve the required reductions. Additional projects will be added to the BMAP over time. Martha noted that at the end of ten years, it will be 23 years after the TMDL was adopted. She asked how many years it will take to meet the balance of the reductions. Katie responded that the timeline for the remaining reductions has not been determined, but the Coordinating Agencies will be working to identify projects to meet the balance of the reductions.

Rick Baird stated that he has seen language that asks local jurisdictions to link their MS4 education efforts to load reductions in adjacent waterbodies within their jurisdiction, and he asked what will be required. He also asked if SFWMD still has the alternative BMP that uses filamentous algae for treatment. Lesley responded that the algae project was Hydromentia, and it is no longer active. Beth noted that in terms of the education efforts, the Department has a process to estimate reductions from different types of education activities including ordinances and Florida Yards and Neighborhoods. Beth offered to talk with Ed Smith, who manages the MS4 program for the Department, to determine what the permit requirement is for education benefits, and she will then follow up with Rick.

Katie stated that the nutrient reduction benefits for activities south of the lake could not be determined since WAM does not extend to that portion of the LOW. However, there are efforts ongoing in the three southern sub-watersheds, which are briefly summarized in the BMAP. These activities include stormwater projects, education and outreach, diversions, muck removal, canal improvements, and agricultural BMPs. Jane noted that the Phase II Technical Plan is supposed to be the basis of the BMAP, and it references the statewide stormwater rule, but the BMAP does not. Katie responded that the Department will try to add some information about the statewide stormwater rule to the BMAP.

Lake Okeechobee Basin Management Action Plan

Jane asked what the timeline is for the Chapter 40E-63, Florida Administrative Code, rule development. Pam Wade responded that SFWMD will be asking for permission to start rulemaking by the end of this year, with the goal of adopting a new rule in early 2015. Jane asked if the rule language will match what was in previous LOPPs. Pam responded that with the completion of the BMAP, there will be some subtle changes. The draft rule will be available for public review early next year.

Katie stated that Chapter 6 of the BMAP is the water quality monitoring section. There is a significant amount of monitoring, particularly from SFWMD. The BMAP monitoring plan is focused on SFWMD's source control stations because these stations are best located to help achieve the monitoring plan objectives. The monitoring plan uses stations sampled by SFWMD, Orange County, Osceola County, City of Kissimmee, City of Orlando, and the U.S. Geologic Survey. There is a table in the BMAP that includes the details on the monitoring stations. Once the WAM is updated, the Department will identify where additional monitoring is needed. Marisa asked if the Department will be providing the monitoring data on a website that the public can access. Katie responded that the BMAP requires that monitoring plan data be uploaded to the Storage and Retrieval (STORET), which is accessible to the public. The Department will also provide data assessments as part of the annual reports.

The BMAP also includes several appendices. Appendix A is the BMP efficiencies and projects. The highlighted projects are missing information. Katie requested that the stakeholders check their project information and reductions to ensure they are correct. Appendix B compares the land use codes to the WAM land use codes to show how the conversions were done for the load estimation tool. Appendix C lists the potential funding sources for projects, which was presented at the April meeting. If stakeholders have ideas for projects, they can contact the Department about funding options. Appendix D is the bibliography of key references and websites. Katie stated that the BMAP is posted to the FTP site. General comments on the BMAP can be provided in the comment matrix, and more detailed comments can be made in track changes in the document. Comments are due on October 6th to Katie and Yesenia Escribano (Department), who is working with Katie on the BMAP. Stakeholders can contact Katie or Beth if they would like to talk through their comments. The meeting presentation is already posted to the File Transfer Protocol (FTP) site.

Questions, Comments, and Discussion

Martha asked if Appendix C provides information on how the costs for the BMAP were determined. Katie responded that the total costs for the BMAP were calculated by adding up the costs provided in the project tables. Jane noted of the \$934 million for projects, approximately \$780 million is for the KRR project, which has been in the works for decades and is not really a water quality project. Several of the STAs and the Rolling Meadows project have been going on for years. Jane stated that the BMAP cost seems like an inflated estimate. Most of the urban BMPs have funding listed as unknown and it would be helpful to add an estimated cost to provide a more realistic funding estimate. With the new legislative session coming up that is supposed to be focused on water, there is an opportunity to obtain funding, as long as the information is realistic. Katie responded that it was not the Department's intent to overinflate the costs; however, they wanted to show all the projects costs, and the BMAP notes that some projects were constructed for other reasons.

Pete Quasius stated that the BMAP is providing actions that provide too little reductions, take too long, and is not directed at some of the key issues that need to be addressed. It is a problem that the legacy loads in Lake Okeechobee are not being addressed and hoping for a drought to address that load should

Lake Okeechobee Basin Management Action Plan

not be a BMAP action. What is missing from this BMAP proposal is reaching the goal, and meeting only 40% of the goal in two decades is not acceptable. If the sticker shock for the BMAP costs is big, that is fine because it is the reality.

Barbara asked what happens after October 6th once the stakeholders submit their comments on the BMAP. Beth responded that the Department hopes to adopt the BMAP before the end of the year. The Department will evaluate the scope and scale of the comments provided, and will then determine when the next meeting will be held. Once the Department edits the BMAP, the revised document will be shared with the stakeholders. Jane asked if there will be another public meeting once the revised BMAP is ready. Beth responded that there will likely be another public meeting but, at a minimum, the Department will follow up with the stakeholders on their comments.

Melodie stated that from the Everglades Foundation perspective, they were impressed by the BMAP and understand that this is a large watershed with legacy phosphorus issues. However, there are several concerns. The first concern is delay because the first BMAP phase is a ten-year period, instead of five years like other BMAPs. While this is a bigger watershed, the LOPA was passed in 2000 and there have not been water quality improvements. The second concern is that the Everglades Foundation would like to see more larger-scale projects, such as more HWT, that have high performance efficiencies. They would also like Lakeside Ranch Phase II accelerated to completion within five years. The third concern is that there needs to be assurance that the TP reductions will be achieved during the first ten years, which could be done by providing a FTP site with project status and performance. It is important to see water quality improvements on the ground.

Martha requested that all the BMAP monitoring data be uploaded to DBHYDRO because it is accessible to the public, and it would be helpful to have a single database to see the flow and water quality data. Katie responded that the Department has own database, STORET, which will be used for the BMAP data. The Department will pull the data from DBYHDRO into STORET. The Department can provide a training session on using this database, at the stakeholders' request. Rick asked if STORET is now easier to use. Trina Vielhauer responded that the Department has staff, who can help provide the data needed from STORET, if there are difficulties with its use. In terms of the comments about delays and timelines, the Department heard from the stakeholders early in the Lake Okeechobee BMAP process that this area is different and there were concerns that the Department would walk away after five years, which is why the Department made the BMAP timeline ten years. The Department is not walking away from this watershed and will continue to work with the stakeholders to help accomplish the reductions. The Department is committed to making sure the projects move forward.

Jane stated that while the stakeholders are moving towards the TMDL goal, it is important that the existing pollution does not continue, which is why source control is key. The law says that where water quality problems exist, the BMPs will be reassessed. Jane noted that the results from the BMP verification will be important to determine how to make the existing BMPs better. She would also like to see more HWT and FAVT projects because they are innovative technologies. As SFWMD and the federal partner determine how to move forward with the CERP LOW projects, there should be an assessment made watershed-wide to determine where the storage should be located. In addition, the last LOPP has about 20 MT more reductions from projects than what is shown in the BMAP. It is important to make sure that these projects are on track.

Lake Okeechobee Basin Management Action Plan

Adjourn

The meeting was adjourned at 12:10 PM.

Action Items

- The stakeholders should let Katie Hallas know if there are areas that should be added or removed from the BMAP boundaries.
- The Department will evaluate how TN reductions in the LOW affect TN discharges in the outfalls to the estuaries.
- The Department will add the TN starting load to the BMAP.
- Stakeholders with water quality data for the watershed should provide it to the Department.
- The Department will provide a coverage showing producers, who are implementing FDACS BMPs versus SFWMD Works of the District BMPs.
- Katie will update the BMAP to make the following terms consistent in document: baseline or starting load; management strategies, management actions, or projects; and credit and nutrient reduction benefits.
- Katie will post the latest project calculation spreadsheets to the FTP site.
- Katie will update the BMAP to include agricultural enrollment through June 2014.
- Katie will switch the order of the remaining reductions in the project summary table.
- Beth Alvi will talk with Ed Smith about the MS4 education requirements and will then provide this information to Rick Baird.
- Katie will add some information about the statewide stormwater rule to the BMAP.
- The stakeholders should check their project information and reductions to ensure they are correct in Appendix A. Missing information should be provided as soon as possible.
- Stakeholders should submit comments on the BMAP by October 6th to Katie and Yesenia Escribano. Stakeholders can also contact Katie or Beth if they would like to talk through their comments.
- The Department will clarify the cost estimates in the Executive Summary.
- The Department will share a revised version of the BMAP based on the comments received with the stakeholders.