Annual Meeting Summary
Wednesday, January 28, 2015
10:00 AM – 12:00 PM
SFWMD Lower West Coast Service Center – 1st Floor Large Conference Room
2301 McGregor Boulevard, Fort Myers, Florida

Attendees

Beth Alvi, FDEP	Danette Kinaszczuk, Collier County
Martha Avila, FDEP	David Liccardi, Bonita Springs
Karen Bickford, Lee County	Gene McAvoy, UF
Karen Bliss, Charlotte County	Ruth McGregor, CRCA
Brad Browning, Bonita Springs	Vincent Miller, Fort Myers
Bill Byle, Charlotte County	Nicole Monies, FDOT
Marisa Carrozzo, Conservancy of Southwest Florida	Anita Nash, FDEP
Kevin Carter, SFWMD	Julie Neurohr, FDEP
John Cassani, Watershed Council	Kelly O'Nan, Hendry County
Dan Ceilley, FGCU	Roland Ottolini, Lee County
Cheryl Clark, FDEP	Ximena Pernett, SFWMD (*by phone*)
Tom Conboy, South FL Engineering and Consulting	Marcy Policastro, Wildwood Consulting
Sara Davis, FDEP	Raymond Qualk, ECWCD
Tim Denison, Johnson Engineering	Pete Quasius, Audubon
Tim Eckert, Lee County	Irene Kennedy Quincy, Pavese Law
James Evans, Sanibel	Erin Rasnake, FDEP
Tony Federico, Federico, Lamb & Assoc. (*by phone*)	Gary Ritter, Florida Farm Bureau
Matt Feeney, Bonita Springs	Joe Schmidt, SFWMD
Phil Flood, SFWMD	John Scott, CRCA
Chad Gillis, New-Press	Steve Sentes, SFWMD
Andrew Gottlieb, South FL Engineering and Consulting	Brent Setchell, FDOT
Katie Hallas, FDACS	Eric Shea, FPL
Ed Hanlon, Watershed Council	Carlton Spirio, FDOT D1
Janet Hearn, ATM	Heather Stafford, FDEP
Connie Jarvis, Cape Coral	Andy Tilton, Johnson Engineering
Ray Judah, FCOC	Rhonda Watkins, Collier County
Anura Karuna-Muni, Lee County	Bonnie Wolff Pelaez, FDACS
Kerry Kates, Florida Fruit and Vegetable Assoc.	Kirby Wolfe, FDEP
Keith Kibbey, Lee County	Linda Young, CWN of Florida

Welcome and Opening Remarks

Beth Alvi welcomed everyone to the Caloosahatchee Estuary and Everglades West Coast Basin Management Action Plans (BMAPs) annual meeting. Beth introduced the Florida Department of Environmental Protection staff. Sara Davis is the new coordinator for these basins. Anita Nash has been working with Lee County to implement the fecal coliform total maximum daily load (TMDL) for Hendry Creek. Marcy Policastro is a consultant for the Department, and has been working on BMAPs across the state. Julie Neurohr is the Department's contact in the South District office. Beth thanked Phil Flood and the South Florida Water Management District (SFWMD) for the use of the meeting room. The participants introduced themselves and the entity they represent.

Beth stated that the last year has been busy and the Department has been working on items that are important to the stakeholders in these basins. Development of the Caloosahatchee River freshwater TMDL continued, and the Department modelers have been working with the stakeholders on the TMDL. The next TMDL workshop is planned for late February/early March, and the Department will let the stakeholders know when the workshop is scheduled. The Department completed and adopted the Lake Okeechobee BMAP, and the Department worked collaboratively with stakeholders, SFWMD, and the Florida Department of Agriculture and Consumer Services (FDACS) to develop the BMAP. Beth noted that although the Lake Okeechobee TMDL is only for total phosphorus (TP), the Department knows that total nitrogen (TN) reductions are important for the Caloosahatchee and St. Lucie estuaries. Where possible, the Department quantified the TN reductions associated with the projects in the Lake Okeechobee BMAP, and they will continue to quantify the TN reductions. In addition, the Caloosahatchee Community Forums have been held over the last year, and are led by the SFWMD with participation from the local governments. The goal of the forums is to determine projects to bring to the legislature. The last forum will be held tomorrow.

Beth noted that the BMAP progress reports were sent to stakeholders yesterday, but the stakeholders will have several weeks for review and comments. The reports will discussed during the meeting, and the stakeholders will be reporting on projects that occurred over the last year. One of the projects that will be presented is a pilot project, which is helpful to determine what new technologies could work in this area. In addition, the Department will discuss its activities during the reporting period.

Overview of the Caloosahatchee and Everglades West Coast BMAP Annual Progress Reports

Sara stated that she will provide a brief overview of the annual reports. If the stakeholders have questions or comments on the reports, they can provide them to Sara by February 25th. Sara stated that the BMAP process is a phased approach to implement the TMDLs. The BMAPs itemize a set of projects to reduce TN, and identify needs in the basin for additional studies and monitoring. The Department tries to engage the stakeholders in the BMAP process to obtain as much data and input as possible. Both the Caloosahatchee Estuary and Everglades West Coast BMAPs were adopted in 2012. A lot of projects were completed during the first year of BMAP implementation, and a few additional projects were completed this year, as well as the continuation of ongoing activities. The reporting period is December 1, 2013 through November 30, 2014. The reports include information on the TMDLs and BMAPs, activities during the reporting period, and an update on the water quality and biological monitoring.

In the Everglades West Coast BMAP, a spreadsheet model was developed to allocate the load reductions based on land uses. The stakeholders in the Hendry Creek watershed are Lee County, Catalina Community Development District, Florida Department of Transportation (FDOT), and agriculture. In the Imperial River watershed, the stakeholders include Lee County, Bonita Springs, FDOT, and agriculture.

During the reporting period in the Hendry Creek watershed, FDOT increased its street sweeping, which resulted in additional reductions from what was in the original BMAP. Lee County also increased its street sweeping and continued its public outreach. The reductions associated with agricultural best management practices (BMPs) implementation were quantified for the first time in this report. Sara noted that the reductions shown for the reporting period include the BMPs quantified for all agricultural

acres enrolled to date. FDACS has enrolled 26.7 acres of the 97.9 agricultural acres, based on the 2004 land use coverage. In the Imperial River watershed, Bonita Springs continued its public education activities, and is working on a pilot project that will be discussed later in the meeting. Lee County increased its street sweeping, and continued its public education. FDACS enrolled 4,125.8 acres out of 11,604.6 agricultural acres to date. The total Hendry Creek reductions were 200 pounds per year (lbs/yr) of TN, and the Imperial River reductions were 10,063 lbs/yr of TN. The graphs in the report show the total reductions achieved through completed and ongoing projects from the BMAPs, 2013 progress reports, and these reports. The total reductions to date for the Hendry Creek watershed are about 66.5% of the reductions needed to meet the TMDL, and the reductions for the Imperial River watershed are about 22.6% of the reductions needed. The BMAP monitoring plan was created to provide a better understanding of loads, identify areas with high nutrient concentrations, and track long-term water quality trends. The responsible stakeholders continued their monitoring from the BMAP.

In the Caloosahatchee Estuary Basin, Charlotte County, Cape Coral, and the East County Water Control District continued their education and outreach activities. FDOT increased its street sweeping in the basin. Lee County completed the Nalle Grade stormwater park design. FDACS enrolled 17,722.3 acres of agriculture to date. Fort Myers completed the Carrell Canal water quality retrofit project, which will be discussed later in the meeting. The total reductions for the reporting period, including quantification of the agricultural BMPs, are 31,733 lbs/yr of TN. The reductions to date are about 44.3% of the reductions need to meet the TMDL. Cape Coral, Fort Myers, Lee County, SFWMD, and the Department's South District continued water quality monitoring in the basin. In addition, SFWMD and the Department's South District conducted seagrass monitoring, and SFWMD conducted oyster monitoring.

Stakeholder Activities During the Reporting Period from Both BMAPs

City of Fort Myers

Andy Tilton stated that the Fort Myers Country Club has been in place for more than 100 years. There are vacant parcels within the property, which were identified by the city as locations for water quality improvement projects in the 2008 stormwater master plan. The golf course itself did not have any water quality treatment. The residential areas to the north and south did not have treatment either because they were constructed before the state stormwater rules. There are also commercial and residential areas to the east that did not have treatment. The city evaluated how to maximize nutrient load reductions within the golf course footprint, without affecting the golf course itself. The golf course is relatively flat and had its own drainage problems. It also needed irrigation upgrades. The fill material from the excavation of the ponds and filter marshes was used to build up the new golf course. An additional weir was added in the canal to divert water to the two ponds on the eastern side of the project, and then the water is routed back to the canal. The water from the north is diverted into the filter marshes, and then into the culverts to the canals. The original design was to place the diversion structures underground; however, the structures would have been large, difficult to access, and expensive. Therefore, this part of the project was modified. Overflow boxes were also added to prevent flooding during high flow events.

James Evans asked what the total cost is for the project. Andy responded that the total cost was a little over $5 million, but this included the golf course regrading, sodding, and installation of the irrigation system. It would also be difficult to split the cost of excavating the filter marshes and ponds because this portion of the project was used for water quality treatment and to build up the golf course. Brent Setchell asked what the TN load reductions are. Andy responded that the city estimated about 900 lbs/yr

of TN but the Department estimated 1,200 lbs/yr in the annual report. The city will be monitoring the project to verify the reductions. A participant asked who the project funding partners were. Andy responded that the Department, golf course, and Community Redevelopment Area (CRA) contributed funding. The CRA includes 14 areas, of which four areas along US 1 contributed funding so that they would receive water quality credits for redevelopment.

City of Bonita Springs

David Liccardi stated that the city is trying to think outside the box for project ideas to help with future BMAP reductions. The bioreactor with the woodchips has a lot of science behind it, and the city found this project had promise when they conducted research. Therefore, they decided to implement a pilot project. The city is working with South Florida Engineering on the project. The pilot project is located in the southwest corner of the city. There is not a lot of space in the city to build large projects to meet the BMAP reductions so they are looking for projects that do not require a lot of land. The city is hoping this project will be added as a BMAP project in the future. David stated that the city talked with the Department about the project, and the Department provided a grant for the pilot project. The project will include monitoring to show the benefits.

David noted that Matt Feeney developed a BMP assessment tool to determine where and how best to implement projects in the city. The tool is used to identify hotspots, and then a BMP can be applied in the tool to determine the associated load reduction. This tool was used to determine the pilot project location. The goal of the project is to mimic a wetlands scenario by creating a bioreactor. The woodchips are placed in a lined trench, which intercepts flow to remove/reduce nitrogen through denitrification. The water comes into the project through a perforated pipe system that allows water to leach into the woodchips. The water is then captured on the other side of the woodchips in another perforated pipe before it is discharged. The city identified hotspot locations in the city where adding the bioreactors would help to reduce nutrients, and they hope that the information from the pilot project can be used to implement the project on a larger scale. The pilot project site is located a few blocks south of the river, and is close to the recently completed Felts Avenue stormwater project. The surrounding area is medium density residential, and the pilot project treats about 41 acres on a plot of land that is about 300 feet by 300 feet. The city estimates that the project will achieve 130 lbs/yr of TN reductions. The advantages of this project is that it provides a high nitrogen removal rate at a low cost and on a small footprint. The challenges for this project are the need for a low flow rate and a head differential, seasonal rainfall is a factor, potential sulfur/mercury issues, potential carbon and nutrient flux from the media if it does not stay hydrated, and potential for clogging. The project monitoring will include water level stage, volume, TN, TP, and dissolved oxygen (DO). The project will be done in conjunction with the redevelopment of downtown, which is a $16 million project. Construction should begin in April, using the $250,000 grant from the Department.

James stated that the fraction of nitrate in the TN is important because the project will not remove the organic nitrogen load. If the TN is mostly organic nitrogen, the nutrient reduction will not be large. David responded that the pilot project will be used to determine the TN load reductions that can be achieved in this area. James noted that this type of project has mostly been implemented in the Midwest, and was focused on agricultural areas. This project could have potential in the Caloosahatchee Basin, but it will be interesting to see the reductions from an urban area. A participant asked how long the material lasts. David responded that the information they reviewed shows that the woodchips will last about 15-20 years. Anura Karuna-Muni asked what the limitations are of this technology, and what

the cost per pound of TN removal is. David responded that it is difficult to answer the cost per pound of removal question right now. The project does not have a limitation in the size of the area that can be treated, as long as there is enough water to keep the material hydrated. Tom Conboy stated that one of the challenges of the project is the need for a low flow rate to achieve the best removal rates. The site also needs a head differential to help move water across the material. Ed Hanlon added that this is important because the nitrogen removal is driven by microbes, so the project is just as much a biological solution as an engineering solution. Carlton Spirio asked if the type of wood matters. Tom responded that the studies he reviewed are more focused on comparing woodchips to other carbon sources so there is little preference for the type of wood. James added that the size of material makes more of a difference because surface area is important for microbes. In addition, harder woods will last longer since it takes more time to break them down. Keith Kibbey asked what the construction timeline is. David responded that they plant to kick off the project in April, and hope to have construction completed in the summer. Gene McAvoy noted that there seems to be a lot of questions about the project, and the city could use the resources at Florida Gulf Coast University to help answer these questions. David responded that a lot of research has already been done, and several people have offered their assistance to the city.

Department Activities During the Reporting Period

Marcy stated that the BMAPs included a list of considerations that would be addressed during the first BMAP iterations to prepare for the second BMAP iterations. Both BMAPs included a consideration to determine the reduction benefits from phasing out septic tanks. The Everglades West Coast BMAP included a consideration for additional DO research to better understand the water quality in the basin. Both BMAPs included multiple considerations related to revising the allocations in the second iterations. The water quality data will help refine the allocations in the Everglades West Coast Basin, and additional modeling is being done in the Caloosahatchee Basin to help with those allocations.

To determine the benefits from septic tank phase-out, the Department contract with Dr. Ming Ye at Florida State University to create the ArcGIS-Based Nitrate Load Estimation Toolkit (ArcNLET). This tool is used to determine the nitrogen loading from septic tanks to surface waters. ArcNLET is a simplified model that evaluates nitrate fate and transport as the nitrogen moves through the ground water and breaks down through denitrification. The tool is able to simulate multiple septic tanks so an entire area of septic tanks that has been phased out or is being considered for phase-out can be evaluated. The purpose of ArcNLET is to provide a management tool for determining where removing septic tanks would have the greatest water quality benefit. If the stakeholders are interested in using ArcNLET, it is publically available at http://people.sc.fsu.edu/~mye/ArcNLET. This link includes the tool, user manuals, and tutorials. Marcy noted that one level up in the website link goes to Dr. Ye's personal webpage, which includes his contact information. The stakeholders could also contact the Department to learn more about ArcNLET.

ArcNLET is a Geographic Information System (GIS) extension so it runs in ArcGIS. The input shapefiles needed are the locations of septic tanks, locations of waterbodies (local information on canals and waterbodies is important), topography as the Digital Elevation Model (DEM) (used to simulate the ground water), and hydrogeological and transport parameters. To use ArcNLET, it helps to have a basic knowledge of hydrogeology to ensure the appropriate factors are used for the area, and an understanding of ArcGIS is needed to input files and understand the tool outputs. Interpreting the results requires an understanding of ground water flow and solute transport, and an understanding of site-specific

information. Marcy noted that the understanding of local conditions is important because when the tool was used in the City of Jacksonville, it did not show that the plumes from many septic tanks were reaching surface waters. When reviewing the results, the city realized that the local canals were not included in the surface water coverage.

ArcNLET has been used in the Lower St. Johns River Basin for the City of Jacksonville; St. Lucie River and Estuary Basin for the City of Port St. Lucie, City of Stuart, and Martin County; and is currently being developed for Indian River County in the Indian River Lagoon Basin. Marcy stated that the technical report for the St. Lucie Basin can be obtained from the Department but she will provide a brief overview of the results. The tool uses local conditions to simulate how far the nitrogen plume from a septic tank will travel, and whether it will reach a surface waterbody. The longer the distance the plume travels, the less nitrogen that reaches the waterbody because of denitrification. The ArcNLET results from the St. Lucie Basin show which sub-basins would have the greatest percentage of reductions towards meeting the BMAP required reductions. This helps with planning where projects would have the greatest benefit.

Bill Byle asked if the model takes into account canals with rip rap or other lining. Marcy responded that the model is not that detailed but if information is available on which canals would not allow ground water to enter, these canals could be removed from the GIS shapefile. Gary Ritter noted that Harbor Branch has monitoring in the Indian River Lagoon Basin, and those data could be helpful in the Indian River County septic tank modeling. Marcy responded that the Department would let Dr. Ye know about these data because local data are important to ensure ArcNLET best simulate the local conditions.

Julie stated that a Walk the Waterbody Identification (WBID) number was conducted in Hendry Creek. This effort involves the Department working with the local stakeholders to look for sources of fecal coliforms and collecting samples to identify hotspots. The original walk was conducted in October 2013, and follow up sampling was conducted by the Department with Lee County in October 2014. Six sites were sampled for fecal coliforms, sucralose, acetaminophen, Enterococci, and quantitative polymerase chain reaction (qPCR) using the HF183 human marker. Acetaminophen was not found, which indicates the source was not raw sewage. There was some sucralose found, which is not uncommon but it could indicate that there is a sewer leak. There was a human maker hit near Lakes Park, which will be followed up on. In the Caloosahatchee Basin, the Department is sampling in Trout Creek at three sites, and no acetaminophen or sucralose were found. The Department is also working with Collier County on the Cocohatchee River where they found some sucralose and acetaminophen at the downstream site.

Julie noted that the Department is also conducting a ground water nutrient study in the Everglades West Coast Basin to better understand the nitrogen loading from ground water and to identify the sources contributing the nitrogen. The Department has a network of 30 shallow wells in four watersheds, including Hendry Creek and Imperial River. The Department will conduct quarterly sampling for two years, and three quarters of data have already been collected. There are eight sites in the Hendry Creek watershed and nine sites in the Imperial River Basin. Outside the BMAP, there is sampling in the Lake Trafford watershed at five wells and in the Gordon River watershed at eight wells. The Department is also working with the WateReuse Research Foundation to develop additional indicators to determine nutrient loading attributable to reclaimed water versus septic tank effluent. This project will include

laboratory studies and analysis for the Department's field data to produce a report about how to manage reclaimed water sources.

Marisa Carrozzo asked if the ground water monitoring data will be uploaded to the FTP site or if they are just in the Florida Storage and Retrieval (STORET) database. Julie responded that the data are currently not in either location but can be provided to anyone who is interested. Beth added that the data can be posted to the FTP site once they are organized in a good format. A participant asked how the sources of pollutants will be identified in the ground water. Julie responded that this is the part of the study that the WateReuse Research Foundation will help evaluate. A participant noted that there are a lot of wading birds in the lake itself so it would help to add monitoring in the lake. Julie noted that the Department will look into this. Bill asked why sucralose is included in the fecal coliform study. Julie responded that sucralose is not removed through wastewater treatment so it can help to show if there is a problem with septic tanks. Anita added that having several indicators helps to determine if there is a human source in an area. A participant asked if there has been any research into the long-term effects of reuse irrigation. Beth responded that there have been studies, but these have not been conducted by the Department.

Marisa asked when there will be Gordon River and Cocohatchee BMAPs. Beth responded that the Cocohatchee impairment is fecal coliforms, and the Department does not create BMAPs for bacteria anymore. Instead, Anita has been working with local governments to implement tools to find and address sources, and the results are written up in a report. Gordon River has the same issues as the stakeholders raised with the Hendry Creek and Imperial River TMDLs about the DO in the basin. The Department is collecting additional data to determine what the DO should be in this area since the stakeholders noted that 5 milligrams per liter (mg/L) is not appropriate in this basin. Tom asked if a lower DO applies, how that would affect the TMDL/BMAP framework. Beth responded that TMDLs are criteria, which can be changed. The monitoring data will be used to create a more site-specific criterion for DO in this basin. Sara noted that a follow up meeting will likely be held during the first week of March to provide more details on the water quality data.

Sara stated that the Department has been working to update the Caloosahatchee Basin model, and there have been some issues with calibration. Xueqing Gao (Department) and Doug Gilbert (Department) met with the technical subgroup and FDACS in October to discuss water budget issues in the model. The Department is looking at the Hydrologic Simulation Program – FORTRAN (HSPF) model subroutines to address the issues. The HSPF model daily flow calibration was done for the freshwater streams/ canals that are tributaries to the river. The modelers found that the calibration for some tributaries looked good but did not look good for other tributaries, and this seemed to be related to reversing flows. The Department is committed to working on these issues before drafting the tributaries TMDLs. The tributaries TN data since 2009 were compiled to determine trends, and this information will be presented at the March meeting, after coordination with some of the stakeholders. The March meeting will separate the Everglades West Coast and Caloosahatchee data so the stakeholders can attend the portion of the meeting they want to hear about. The Department is developing TMDLs for Billy Creek, Cape Coral, Deep Lagoon Canal, and Popash Creek.

Sara noted that the next meeting will likely be on March 4th. The Department has upcoming grant opportunities. If the stakeholders have projects they are looking to fund, they can contact Connie Becker (Department) for details on the funding.

Public Comments and Wrap Up

Ray Judah stated that he appreciates what the local governments are doing with their projects. However, in looking at the amount of TN that needs to be removed, he recognizes the magnitude of the problem. Studies showed that 88%-90% of the TN comes from east of the Franklin Lock, which means the load is coming from the watershed and Lake Okeechobee. While the local government projects are well intended, they are not getting to the source of the problem. TN causes blue-green algae blooms and red tides that kill marine life. The source of the problem is the TN from Lake Okeechobee, especially from agriculture around the lake. Lake Okeechobee cannot be separated from the Caloosahatchee River, but this is what the Department is doing by not including TN in the Lake Okeechobee BMAP. He asked how the reductions in this basin can move forward meaningfully. Beth responded that Ray raised some good points and there are large reductions that need to occur. The local government projects are smaller but are moving in the right direction by determining what options are available to make reductions in this area. The TMDL for the estuary outlined the loads from the estuarine portion of the river, the freshwater portion of the river, and Lake Okeechobee. The TMDL the Department is working on will address the loading from the freshwater portion, and then the Department will create a BMAP. The Department has been coordinating with agricultural interests and local governments in this area to create a more refined TMDL, which will help with BMAP implementation. The Lake Okeechobee TMDL was only for TP, and the Department can only develop a BMAP for the impairments in a TMDL. Based on concerns from the stakeholders, the Department did an analysis and found that Lake Okeechobee is not impaired for TN. However, they plan to look at the data more closely. The Department realized that it was important to quantify the TN reductions from the Lake Okeechobee projects, and these reductions were included in the BMAP for a fraction of the projects. The Department will continue to determine the TN benefits. Ray requested a copy of the analysis showing that Lake Okeechobee is not impaired for TN. Beth responded that she could provide the information but it is preliminary. James noted that the Department uses a biological target so there can be excess TN in the lake without biological impacts. Beth responded that she will ask the Department's assessment group to provide more information on how the assessment was done. This may be part of the March meeting.

James asked what the probability is that the load reductions estimated in the annual reports are actual reductions. He noted that he is concerned that they will reach subsequent BMAP iterations only to find out they are not doing enough. There are a lot of reductions assigned to education activities, and he is worried these reductions are too high. Beth responded that education benefits are difficult to quantify, but the Department's municipal separate storm sewer system (MS4) program tries to obtain information on the benefits of the outreach activities. The current estimates are based on a study. For the structural projects, the local governments are monitoring some projects, and the data collected will help to refine the BMP efficiencies. The BMAP monitoring plan will also help to determine if there are improving water quality trends in the tributaries and to identify locations where more projects are needed.

John Cassani stated that the load reductions are estimated based on a starting load that uses the 2004 land use coverage. He believes that increasing trends in the loading from land use changes will erase the BMAP reductions made. He noted that he was discouraged to hear that the agreement between Lee County and the U.S. Geological Survey (USGS) ended in 2010 so there are no flow data. It would be good to use the grant funding for flow monitoring. Beth responded that the Department had a four-year contract with USGS that picked up after the Lee County agreement ended. SFWMD picked up the contract after the Department. Therefore, there are flow data for the TMDL.

Gary noted that agriculture has been implementing BMPs in this area for decades through regulatory and non-regulatory programs. SFWMD has data for BMP implementation south of Lake Okeechobee, which show reductions in TP. Steve Sentes noted that SFWMD is working on several projects with stakeholders in the basin, and he thanked the stakeholders for working together to implement projects. Beth added that there has been a lot of cooperation among the basin stakeholders. There is a long way to go but the efforts are headed in the right direction.

Linda Young stated that when the Caloosahatchee Estuary TMDL was being developed, everyone knew that the bulk of the problem was coming from Lake Okeechobee. At the time, the Department stated that this load would be addressed through the Lake Okeechobee TMDL, which she thought meant that there would be a TN TMDL for the lake. She stated that she is disappointed with the way this process is unfolding. Linda stated that she read enough of the Lake Okeechobee BMAP to know that it will not turn out well because there is a lot of estimating. The process keeps stalling and estimating with no results, and it is time to get more real. Beth responded that the water quality problem is a big issue that the Department is trying to address in parts. Everyone in the basin has a part to do to help. The process started in the estuary, and will move to the freshwater section once the TMDL is completed so those stakeholders will be making reductions. The Department heard the stakeholders' concerns that Lake Okeechobee needs to be addressed, which is why they completed the BMAP. Most stormwater projects that address TP also reduce TN. The Coordinating Agencies are working together to determine long-term, big picture solutions. The Department made a big stride to address the loading with the adoption of the Lake Okeechobee BMAP, and they hope to start the BMAP for the freshwater portion of the river later this year. Linda stated that there seems to be a lot of enthusiasm from the local governments to make things happen, but the major problem is coming from the lake. Beth responded that the BMAP outlines a ten-year plan for the lake; however, the Department will continue to add projects to the BMAP to make additional reductions.

Marisa stated that the 2004 land use is more than ten years old, and she asked when revised allocations would be made for the second phase BMAPs using newer land use. Beth responded that the Department has discussed this issue but does not have an answer now. She will work with the TMDL group on when to make these changes.

Bill asked if the meeting presentations will be posted. Beth responded that the presentations will be posted to the FTP site by early next week. Sara noted that the Lake Okeechobee BMAP was recently posted to the Department's website if people are interested in reviewing it. The TN reductions for quantified projects are 121 metric tons per year.

Adjourn

The meeting was adjourned at 12:07 PM.

Action Items

- The Department will notify the stakeholders when the next TMDL workshop is scheduled, which will be in late February/early March.
- Stakeholders should provide edits and comments to the annual reports to Sara Davis by February 25th.

- The Department will let Dr. Ye know about the Harbor Branch data for the Indian River County ArcNLET tool.
- Stakeholders can contact the Department for copies of the ground water sampling data. These data will be posted to the FTP site once they are organized.
- The next meeting will be held in early March, potentially March 4th, and Sara will send an email when the date is set.
- The Department will provide Ray Judah with a copy of the Lake Okeechobee TN analysis. The Department's assessment group will provide more information about this analysis, possibly at the March meeting.
- The Department will determine when to add newer land uses into the Caloosahatchee Estuary allocations.
- Sara will post the meeting presentations to the FTP site.