

**Central Indian River Lagoon
Basin Management Action Plan (BMAP)**

Technical Meeting Summary

Friday, August 14, 2009

9:30 AM – 11:00 AM

North Indian River County Library

1001 Sebastian Blvd (CR 512)

Sebastian, FL 32958

Attendees

Amy Adams, Cape Canaveral Scientific, Inc. Carolina Alvarez, Brevard County Vanessa Arnal, Citizen Tracey Askew, SpecPro Richard Baker, Pelican Island Audubon Society Virginia Barker, Brevard County J.M. Boyer, Masteller & Moler, Inc. Tiffany Busby, Wildwood Consulting Joe Carroll, Carroll and Associates Kevin Carter, SFWMD Marvin Carter, Carter Associates Rich Davis, Jones Edmunds & Associates Wesley Davis, Indian River County Commission Robert Day, SJRWMD IRL NEP Duane Defreese, Aquafiber Jim Egan, Marine Resources Council Rebecca Elliott, FDACS Gordon England, Stormwater Solutions Kristin Fecko, AECOM Chris Ferraro, FDEP Edward Fontanin, Wade Trim Inc. Debby Franklin, Malabar Clark Giangarra, Algae Collection Technology Lorraine Guise, Titusville Steve Haigis, MIATC Sebastian Inlet Dennis Hanisak, Harbor Branch Oceanographic Institution Janet Hearn, ATM Kathy Hill, SJRWMD Dianne Hughes, FDEP Carol Johnson, FDACS Keith Jones, USACE Roy Kain, Vero Beach	Bob Kelly, SAIC Jenni Lamb, Melbourne Colleen Lindler, Melbourne Beach Mike McCabe, Palm Beach Bach McClure, Brevard County Keith McCully, Indian River County Tom McGowan, MSLRWCD/AECOM Bill Messersmith, Vero Beach Matt Mitts, Vero Beach Stephen Moler, Masteller & Moler, Inc. David Phillips, Sustainable Engineering & Design Marcy Policastro, Wildwood Consulting Robert Potts, E-Sciences Margie Reynolds, Sebastian Troy Rice, SJRWMD IRL NEP John Royal, Brevard County Sally Scalera, Brevard County Extension Charles Shinn, Florida Farm Bureau Federation George Simons, Carter Associates Robbyn Spratt, Brevard County Suzanne Stempel, Brevard County Dani Straub, Melbourne John Teneyck, Vero Beach Rodney Tillman, FWCD Amy Tracy, FDEP Bob Ulevich, St. Johns Improvement District, Sebastian River Improvement District Everett Wegerif, Cocoa Harvey Wheeler, E&S Control Solutions Kaylene Wheeler, Palm Bay Bonilyn Wilbanks-Free, Malabar Diane Wilson, Indian River County
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Welcome and Opening Remarks

Tiffany Busby welcomed participants and thanked the City of Sebastian for hosting the meeting. This is the first breakout meeting of the individual subbasins and the focus is on the Central Indian River Lagoon (IRL). The participants introduced themselves and the entity they

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represent. Tiffany noted that the Florida Department of Environmental Protection (FDEP) is trying to determine a contact for each entity in the basin to ensure they are aware of the meetings. The IRL National Estuary Program (NEP) office provided a list of contacts at the start of the Basin Management Action Plan (BMAP) process and FDEP has updated this list with everyone who attended the first two kickoff meetings and anyone who asked to be added. After the July meeting, the list of stakeholders was cross checked with the distribution list and contacts were found for any missing entities. There is now at least one contact for each entity and FDEP is asking the stakeholders to help identify others who should be added to the distribution list.

Amy Tracy stated that she understands the concern that there is not yet an allocation to each of the entities; however, she assured the participants that FDEP is not holding back information. The allocation process is extremely technical with a lot of facets that need to be examined. In addition, FDEP upper management will need to review the proposed allocation approach before it is presented to the stakeholders. FDEP is also taking a closer look at the project cutoff date to determine an appropriate timeline. There are a lot of data to go through and FDEP is trying to understand all the assumptions in the model and they do not want to rush through the process. Amy stated that allocations will not be discussed today because there are no answers but she anticipates having more information for the November meeting. The allocation numbers for each entity may not be available at that time but more information about the approach and the projects eligible for credit should be available. Amy asked the stakeholders to please be patient and to contact her with any concerns.

Information Needed for Basin Working Group Formation

Tiffany stated that this is a technical meeting that does not have a set membership. The purpose of the technical meetings is to have discussions about the BMAP, listen to questions and concerns, resolve technical details, and gather information. In addition to the technical meetings, there will be the less frequent Basin Working Group (BWG) meetings. The BWG is an appointed group that will make official recommendations to FDEP about BMAP issues. Although FDEP has the final decision on the BMAP, having a BWG provides a good opportunity for obtaining recommendations from the stakeholders and to have management level participation. A handout was provided for BWG representative nominations. FDEP does not specify who the representatives should be; therefore, it is up to each organization to determine an appropriate person who has knowledge of the IRL Basin. There will be one BWG representative for each entity so if an entity has both a wastewater treatment facility (WWTF) and municipal separate storm sewer system (MS4) allocation, then it would be best to have a BWG member who can speak to both. If an entity provides multiple nominations for the BWG, FDEP will follow up with that entity to determine the best representative. In addition, the nomination form includes a recommendation for an alternate, which is helpful to ensure the entity is represented if the BWG member cannot attend a meeting.

Gordon England asked what the difference is between the BWG and Technical Advisory Committee (TAC) meetings. Tiffany responded that the technical meetings are *not* TAC meetings and they are open to everyone. There is a distribution list of interested participants but no set membership. The technical meetings will be run as public meetings and meet all the Sunshine Law requirements, but not having a set membership allows the technical stakeholders to coordinate their activities outside of publicly noticed meetings. The BWG members will be

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appointed by FDEP based on feedback from the entities. The BWG will have a set membership and the representatives will be subject to all Sunshine Law provisions for groups with set members, including the provision that they cannot discuss BMAP related issues outside of a publicly noticed meeting. This limitation should be considered when determining the BWG representative. The BWG will provide recommendations to FDEP on items related to the BMAP such as the allocation approach and project list and they will be asked to endorse the final version of the BMAP document.

Amy stated that she is aware that there are travel issues for some entities and she requested that the entities inform her of any travel limitations. The opportunity will be provided for each entity to host a meeting. There is the option to set up a call in number but this is not ideal since the BMAP process relies on the group dynamic, which is difficult to develop over the phone.

Harvey Wheeler asked how the Sunshine Law applies to the technical meetings. Tiffany responded that this is a public meeting that meets all the Sunshine requirements such as that this meeting was publically noticed and meeting minutes will be provided. There is no set membership so the technical participants can talk about BMAP-related activities outside of meetings.

Virginia Barker stated that because of the Sunshine Law limitations she thought the BWG would be brought together later in the process. Tiffany responded that the BWG will not meet until there is something for them to discuss. FDEP may decide to have a kickoff meeting once the group is formed to explain the BMAP process and the efforts underway but this would not occur until 2010. Amy added that in other basins FDEP has found that designating BWG members takes awhile because the entities need to have internal discussions to choose a representative. FDEP wants to start these membership discussions now so that the BWG is established when a meeting is needed. Virginia stated that Brevard County represents several cities in the basin on stormwater issues and there could be conflicts no matter where in the management chain a representative is selected. The county may withhold a nomination if they feel that identifying a member prevents them from doing what the cities have hired them to do.

The question was asked about how many BWG members there will be. Tiffany responded that there will be a seat for each entity with an allocation and FDEP is still determining who will have an allocation. In addition, FDEP usually invites a public/academic interest to have a seat, which helps FDEP to have that perspective as well in the BMAP process.

The question was asked how the seats would work for those cities Brevard County represents. Tiffany responded that each entity that has an allocation would have a seat. FDEP would need to talk with the county to determine if they will be taking on the allocations for those cities or if they are only working with the cities to help address stormwater problems.

A participant asked if the BWG meetings would only be open to the BWG members. Tiffany responded that the BWG meetings are public meetings. The main discussion will focus on the members and public comment will be taken at a specific time in the meeting. Anyone is welcome to attend.

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Stephen Moler asked since the breakdown of responsibility has not been determined if FDEP will decide on the allocations in conjunction with the BWG. Amy responded that before information is brought to the BWG, it is usually presented at the technical meetings. Tiffany added that FDEP usually prepares something for discussion and input because when the BMAP is adopted, it is a regulatory document to implement the Total Maximum Daily Loads (TMDLs) and FDEP is responsible for defending it. However, information from the stakeholders does help to shape the Department's approach to the BMAP; therefore, the technical participants and BWG members are key to the process.

A participant asked if there is a list of who will receive an allocation. Amy stated that FDEP is working on that now and the list will be brought to a technical meeting for review. Chris Ferraro added that the adopted TMDL does include allocations for the WWTFs already. The BMAP process will focus on working out the stormwater allocations.

Tiffany stated that the BWG nomination form is available electronically on the FTP site and the form can be sent back to either Tiffany or Amy. Tiffany will send a reminder when it gets closer to the November 1st due date.

Central IRL TMDLs – Main Stem and Tributaries

Bob Kelly noted that in the TMDL there were four waterbody identification numbers (WBIDs) in the Central IRL area: 5003D, 2963A, 5003B, and 5003C. The first two WBIDs and last two were lumped together in the TMDL so there are two allocations in the TMDL. Bob presented two versions of the stormwater reduction information from the TMDL: one with atmospheric deposition and one without. The overall load reduction in pounds/year will be allocated to the entities. The TMDL specified how the wasteload allocation (WLA) would be met for each WWTF in the basin. These allocations are based on either the average discharge from 2001-2005 or the 95th percentile load during that time for each facility.

Bob stated that he examined recent water quality trends in the Central IRL using data from the last ten years to calculate annual means for total nitrogen (TN) and total phosphorus (TP). In the graphs in the presentation, the black line is the linear trend over last ten years and the red line is the trend over the last five years. This subbasin has seen a decline in TN over the last ten years with a more rapid decline over the last five years. For the overall IRL Basin, most areas have a declining trend in TN, except for two WBIDs. This trend may be due to changes in atmospheric deposition or changes due to the removal of WWTF discharges to the lagoon. There is no change in TP over the last ten years with a very slight decline in TP over the last five years. The trend in total suspended solids (TSS) is difficult to interpret because it is declining over the last ten years but increasing over the previous five years.

The map of the Central IRL includes the major tributaries and the TMDLs for these tributaries are currently being developed. The TMDLs are on schedule to be completed late this year or early next year. The approach to develop these TMDLs is not yet finalized but may include a combination of literature targets for other estuaries and simulation of a natural background condition to see what the concentrations would be in the lagoon without development. If this approach is used, it is likely that the tributaries TMDLs will require similar reductions to the IRL main stem. The rationale for this similarity is that the seagrass targets in the main stem are based

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on a natural condition and the target for the tributaries will also be based on a natural condition. Bob presented graphs of the TN and TP concentrations in the tributaries compared to the concentrations in the main stem WBIDs to which they discharge.

Mike McCabe asked if all the data in the presentation came from the TMDL report. Bob responded that the main stem TMDL data are from the report but the data from the tributaries came from the Florida Storage and Retrieval (STORET) database and include information through 2008. Amy added that the data can be downloaded from the Florida STORET website. The adopted TMDL for the main stem will not change. The TMDLs for the tributaries will be based on a different data set and will have different targets. The notice of rulemaking for the tributaries TMDLs should occur at the end of this calendar year and then there will be a public meeting(s) and comment period before the TMDL goes through the FDEP adoption process.

A question was asked about the basis for the definition of “natural condition.” Bob responded that the natural condition is based on land uses associated with historical conditions and the loadings under that condition. Another option would be to look at existing natural conditions in other areas and compare those loadings to the IRL system.

Virginia stated that the Crane Creek TN concentrations are high so she is assuming that a lot of reductions will be needed. She asked if the BMAP process will allow the entities in that area to work with the Vero WWTF to make the reductions more cost effectively or if the entities have to work within the WBID boundaries. Bob responded that one of the complicating factors for determining allocations is what a unit of reduction in one place means in another location. Tiffany added that FDEP has not yet determined how far away reductions can occur to meet the load reductions. Since the IRL Basin is very large, FDEP is working with the St. Johns River Water Management District (SJRWMD) to determine zones where reductions can occur, based on hydrodynamics, and these zone should be larger than the WBIDs. Chris added that just looking at the nutrient concentration in the tributaries does not give a full picture of the impact to the lagoon. Therefore, it is difficult to say right now what the reductions will be. Amy noted that the tributaries model is a three-dimensional (3-D) Hydrologic Simulation Program – Fortran (HSPF) model that will provide more detail than the main stem model.

A participant asked what the concentrations in the presentation represent and if only one sampling point is used to represent each area. Bob responded that the concentration is based on all the monitoring stations in the WBID. Some areas only have one monitoring point but others have multiple stations.

Robert Potts asked if attenuation would be included in the tributaries model. Bob suggested that Robert contact Dr. Xueqing Gao (FDEP) about this question since he working on the tributaries TMDLs. Tiffany added that the TMDLs will be determined for each of the tributaries, in addition to the existing TMDL for the main stem.

The question was asked if project credit would be calculated considering atmospheric deposition and without it. Bob responded that there is only one target but the percent reduction changes depending on whether or not atmospheric deposition is included. Atmospheric deposition is generally considered an uncontrollable source so FDEP will start with the allocation table that

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does not include any reductions from atmospheric deposition. Since there is a reduction in the nitrogen concentration in the main stem, it is possible, although unlikely, that a reduction in atmospheric deposition is the cause. Should this, however, turn out to be the case, then the loadings in the table that includes atmospheric deposition would be used. Otherwise, the allowable loadings would come from the table without atmospheric deposition. The deposition in the TMDL includes both wet deposition (in precipitation) and dry deposition (particle deposition without rain). Tiffany noted that the percent reductions are used to give an idea of the difference between the current loads and the loading needed to meet the TMDL. The pounds per year reduction required will be allocated to each entity.

Geographic Information System (GIS) Data Request

Amy reviewed the handout with GIS data needs. Collecting this information will help everyone have a better understanding of the entire system. The goal will be to have a “maps on the table” exercise in which the stakeholders provide details on their local knowledge of the Central IRL. The stakeholders are asked to share any available data, including information on private infrastructure. Amy noted that if anyone has proprietary data they should contact her so she can ensure it complies with the FDEP proprietary data standards. Some entities may not have GIS data so they can bring their CAD and/or paper maps to the maps on the table meeting. During this meeting, everyone will split up into groups to add information to the base maps that will be provided.

Bach McClure noted that some of the datasets and aerials will be fairly large files and he asked how those files should be transferred. Amy responded that she will only ask for the resolution and year flown for the aerials, to determine what dataset should be used. The entities do not need to send their aerials at this time.

The question was asked if the next meeting would include the maps on the table exercise. Amy responded that it depends on how long it takes to obtain all the data and put it together in a way that is easily readable. If this does not occur at the November meeting, it will likely occur at the February meeting. Amy will send an email ahead of time because this will probably be a longer meeting and it would be beneficial to have field staff attend to provide their local knowledge.

Gordon asked what the big picture goal is for this data exercise. Amy responded that the purpose is for everyone to understand the hydrology of the system as a whole and to identify potential low cost solutions to achieve reductions. This dataset could be useful for decision making processes in the future. Amy Adams stated that this would also help local governments identify what projects they already have in the ground. She asked if FDEP will help to calculate reductions from the existing projects. Amy Tracy responded that FDEP looks to the entities to provide project details but they will determine a process to calculate credits. Chris added that in other basins FDEP has determined percent reductions associated with structural and nonstructural technologies. Eric Livingston (FDEP) is always a big part of determining credits for projects.

The question was asked if the calculation of the total load going into the IRL assumed that part of the load is from WWTF spills and if there is a way to determine credit for updating the system. Bob responded that one of the TMDL assumptions is that all facilities are operated at

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permit levels. If there are spills, then the facility is not in compliance with the permit and is required to address that issue. BMAP credit would not be given for actions required to bring a facility in compliance with its permit. Chris noted that the need for sewer and lift station information for the maps is related to identifying areas where septic tanks are located and determining potential for removing those tanks.

Amy requested that the entities provide the data as soon as possible and to contact her before sending the data. Amy will set up an FTP site so the entities can securely transfer data.

Duane Defreese stated that a lot of federal funding has been used to address the water quality issues in Chesapeake Bay and he suggested that they develop a strategy to use this BMAP process to obtain federal support for the IRL. Amy responded that BMAPs do bring visibility to funding requests; however, she is unsure how that works for obtaining federal funding.

Allocation Approach – Key Entities vs. Other Stakeholders

Tiffany stated that FDEP is working to determine an allocation approach. Entities with WWTF permits were assigned allocations in the TMDL and these will be included in the BMAP allocations. Those entities with a MS4 should anticipate receiving an allocation. There are also other stormwater sources in the basin. FDEP has determined that Community Development Districts (CDDs), Mosquito Control Districts, and Soil and Water Conservation Districts will not receive an allocation because of their roles. There are also Water Control Districts (WCDs) in the basin that encompass large areas and are separate from the local governments. FDEP is determining how they should be included in the BMAP. Agriculture will also be included and is typically assigned its own allocation because the local governments usually do not have control over agriculture. The Florida Department of Agriculture and Consumer Services (FDACS) will work with the producers to sign them up for the appropriate best management practices (BMPs). If the BMPs are not enough to meet the agricultural reduction then it is the responsibility of the state to meet the balance of the reductions. There is currently not a dedicated funding source for this type of additional effort.

Bob Ulevich noted that the two WCDs he represents are almost exclusively agricultural and the districts do have permitting authority. Tiffany responded that FDEP is working on how to handle agriculture that is located in WCDs since the districts have a relationship with the growers. FDEP will work with the WCDs on this issue.

Amy Adams stated that she did not hear the SJRWMD named on the list of entities and they have some large projects in the basin. She asked what SJRWMD's role is in the BMAP and how the entities can receive credit for those projects. Tiffany responded that SJRWMD has not received an allocation in other BMAPs because they typically do not own urban land. Any projects that improve water quality would be listed in the BMAP but a determination would have to be made about who receives the credit.

Gordon asked if FDEP is going to determine the allocations. Amy responded that the first step will be to determine the allocation approach. FDEP will then identify who should be assigned allocations and calculate the allocations for each entity.

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Jim Egan noted that he has a CD with model fertilizer ordinances for anyone interested. Amy stated that legislation was passed this year regarding the fertilizer ordinance. Local governments are required to adopt the model ordinance or to modify any existing fertilizer ordinances. Amy stated that she will provide information on this requirement so the entities can start reviewing it.

Next Meeting

The next Central IRL meeting will be held Friday, November 13th at the Florida Department of Transportation Treasure Coast Operations Center. Tiffany noted that the meeting locations will rotate throughout the basin and the meetings will typically start at 9:00 AM. The stakeholders provided feedback that they would prefer to start at 9:30 AM to allow for travel time.

Amy Tracy stated that the data file used to create the Central IRL map is not complete and FDEP is working to update the information, including adding West Melbourne and fixing the spelling of "Sebastian."

Adjourn

The meeting was adjourned at 11:35 AM.