Indian River Lagoon Basin Management Action Plans

Annual Meeting Summary
Wednesday, May 27, 2015
9:30 AM – 12:10 PM
Brevard County Agricultural Center
3695 Lake Drive, Cocoa, Florida 32926

Attendees

Carolina Alvarez, Brevard County	Claudia Listopad, Applied Ecology Tammy
Virginia Barker, Brevard County	Mayfield, City of Melbourne
Ann Benedetti, SJRWMD	Victor Karycki, City of Rockledge
Alix Bernard, City of Rockledge	Barbara Lenizewski, DEO
Jason Bessey, St Lucie County	Bach McClure, Brevard County
Randy Burden, EcoSense International	Keith McCully, Indian River County
Tiffany Busby, Wildwood Consulting	Bill Messersmith, City of Vero Beach
Erik Charest, Indian River County	Keith Mills, City of West Melbourne
Kevin Coyne, FDEP	Matthew Mitts, City of Vero Beach
Brett Cunningham, Jones Edmunds	Ryan Morrell, Air Force
Christine Daniel, FDEP	Richard Morrissey, ECT
Dennis Davis, Jones Edmunds	Mary Oakley, UF
Robert Day, Citizen	Keegan O'Brien, 3E Consultants
Patrick Dayan, St. Lucie County	Judy Orcutt, Citizen
Robert Delgadillo, BOCC St. Lucie County	Marion Parsons, City of Palm Bay EGIS
Brenda Dewees, City of Edgewater	Amanda Peck, FDEP
Douglas Durham, NASA	Ken Poole, City of Rockledge
Roger Dykes, Cocoa	Alan Potter, Satellite Beach
Chris Dzadovsky, St. Lucie County BOCC	Robert Potts, E-Sciences
Rebecca Elliott, FDACS	Barbara Powell, DEO
Gordon England, Applied Sciences Consulting	Thomas Price, IHA/Kennedy Space Center
Yesenia Escribano, FDEP	Joanie Regan, City of Cocoa Beach
Ellen Eveland, SE Consultants	Sandra Reller, City of Titusville
John Fergus, City of Satellite Beach	HM Ridgely, Evans Properties
Chris Ferraro, FDEP	Gary Ritter, Florida Farm Bureau
Lisa Frazier, Frazier Consulting	John C. Royal, Brevard County
Aga Freed, EcoSense International	Todd Scaldo, Indian Harbour Beach
R. Gal, Citizen	Brian Sharpe, FDEP
Patricia Gertenbach, E-Sciences, Inc.	George Simons, Carter Associates, Inc.
Clyde Giesenschlag, Citizen	David Sinton, Melbourne Village
Peggy Giesenschlag, Citizen	Jeff Smith, ECT
Don Griffin, City of Rockledge	Leesa Souto, MRC
Lorraine Guise, Brevard County	Robbyn Spratt, Brevard County
David Gunter, Indian River Farms WCD	Dani Straub, Melbourne
Hugh Harling, ECFRPC	Alexis Thomas, Indian River County
Lori Helton, D3 Commission Office	Mark Tripson, IRFWCD
Erlyn Hupfer, ISC Environmental Assurance	Everett Wegerif, City of Cocoa
Toni Janicki, Janicki Environmental	Terry Williamson, Brevard County
Margie Lasi, St. Johns River WMD	John Windsor, FIT

Welcome and Opening Remarks

Tiffany Busby welcomed everyone to the meeting and thanked the Brevard County Agricultural Center for the use of their room. Everyone introduced themselves and the entity they represent. Tiffany asked if there were any changes to the meeting summary from April 21, 2015. There were no comments or changed suggested.

Tiffany thanked everyone for the contributions made to this year's annual reports. While the Florida Department of Environmental Protection (Department) assembled the report, they represent the work done locally and the information provided by the stakeholders. Tiffany mentioned that Yesenia Escribano is the Basis Coordinator and the Department contact for all three Indian River Lagoon (IRL) Basin Management Action Plans (BMAPs); her contact information is provided on the agenda for future reference.

Yesenia Escribano briefly reviewed the agenda for the meeting.

Review of BMAP Annual Progress Reports

Yessenia noted that these reports are the second annual progress reports for all three lagoon areas—Banana River Lagoon (BRL), North IRL, and Central IRL. The report cover activities conduced from March 1, 2014 through February 28, 2015. The reports include the accomplishments and completed projects during the reporting period and also list activities scheduled in the upcoming year. They also include some management strategies for Phase 2 of the BMAPs.

Yesenia reminded everyone that the reductions are based on the total maximum daily loads (TMDLs) for the IRL. TMDLs were adopted in March 2009 for total nitrogen and total phosphorus to achieve water quality conditions for seagrass re-growth at historic water depths. Reductions were assigned to three project zones—BRL B, North A and North B. The project zones called BRL A and the three project zones in the Central IRL were not assigned specific reductions as the seagrass targets were being met at the time. All three BMAPs were adopted in February 2013.

Yesenia summarized the number of completed and re-started projects in each BMAP area. She added that the Florida Department of Agriculture and Consumer Services (FDACS) continued to enroll agricultural producers in best management practices in the North and Central IRL. She noted that there is complete enrollment of producers in the South IRL area and there is little agricultural area remaining in the BRL area.

In terms of monitoring, surface water quality monitoring as well as seagrass monitoring continued throughout the reporting period. There were many on-going activities taking place throughout the year such as public education, street sweeping, and BMP cleanout activities. Yesenia commented that up to six percent credit is available for public education efforts outside the Central IRL area. As the calculations are based on the entity-specific starting load, the calculations can only be performed in project zones where those starting loads have been assigned.

Yesenia reminded everyone that the original Florida Stormwater Association (FSA) street sweeping tool separated the amount of credit for street sweeping based on the land uses in the area swept. Since then, the FSA tool has been updated and the credit is not land use dependent. There are three categories of

maintenance that can be calculated using the FSA tool: street sweeping; catch basin clean out; and BMP clean out. Yesenia added that the Department wants to be consistent and have everyone use the same FSA tool, so it is important to have the information on how the street sweeping calculations were made.

Yesenia stated that the reports are still considered as draft documents. There may be more adjustments to the reports based on comments and additional information received.

Yesenia described the bar charts showing the reductions to date and progress toward the TMDL for each area. In the BRL B area, both the TN and TP reductions are greater than the 15% reduction targets for the first iteration. In North A and B, the reductions for TN and TP also exceed the first iteration target of 15 percent. Yesenia stated that the Central IRL report outlines the projects and reductions taking place in the Central IRL, but since a phase 1 reduction target was not set, there are not charts for the Central IRL area.

Yesenia emphasized that all three BMAPs are focused on seagrass recovery and growth at the deep edge. Therefore the load reductions do not have to meet the TMDL reductions if the biological response is meeting the TMDL response target.

For the monitoring plan, Yesenia reviewed the goals of the BMAP monitoring plans and the types of sampling being conducted. She added that the stakeholders responsible for monitoring in the IRL all participated in the monitoring efforts during the reporting period. The information collected through the monitoring measures progress towards the TN and TP reductions.

Yesenia noted that she plans to hold a monitoring meeting later this year to check in with the entities that conduct the monitoring and review any issues they are encountering. She added that some of the previously measured parameters have changed in the past year, and those changes are included in each respective report.

Matt Mitts suggested that the Department should publish a timeline with specific dates on when the next cycle will start and what will be happening with the new reduction requirements. Before the current BMAP is completed, he would like to know the schedule for development of the next BMAP. Yesenia responded that we have more information about the schedule for North IRL and Banana River; the schedule for the Central IRL has not yet been established. Kevin Coyne added that the Department expects the Phase II BMAP development to start much earlier than the lead time to prepare the annual reports. Tiffany added that the BMAP development historically has started about one year ahead of the end of the current BMAP cycle.

John Fergus stated that more than one year is going to be needed for these BMAPs, especially to review the model and to get agreement on what the BMAP should include. Pattie Gertenbach asked if there were any bar charts for the Central IRL. Yesenia responded that bar charts marking progress in the Central IRL will be provided after a process has been done to establish a target for the Central area.

John Fergus commented that it will be big effort so it should start sooner rather than later. There has been a disconnect that the target was being met in Central, even though no improvements had occurred. Alan Potter asked that if the SWIL model is used in the Central IRL, whether the Department will switch to the SWIL in the BRL and the North IRL. Tiffany responded that there have not yet been any

decisions on what models will be used in the different basins or what the timing would be. John added that it still isn't clear that the deep edge of the seagrass is the right target to use. The Department should expect energetic discussion on that issue. Yesenia responded that she enjoys energetic discussion and that there are many items to consider when deciding what model and target to use.

Tiffany asked Yesenia when comments are due on the reports, so they can be finalized. Yesenia responded that comments are due in about three weeks—by June 12, 2015. Yesenia added that she has already contacted some folks for specific information about their projects or calculations, so please respond back to her no later than June 12th.

Virginia Barker asked about the agricultural enrollment and that it is great in the Central IRL but not very extensive in the North IRL; she asked what can be done to address this disparity. Rebecca Elliot responded that she believes that FDACS is meeting its target enrollment in the North IRL, but she will check on the numbers and respond back to Yesenia.

Presentation on Projects and BMAP Efforts

St. Lucie County

Jason Bessey, with St. Lucie County, gave a PowerPoint presentation on their Taylor Creek Restoration Dredging project. He showed a map of the project area and the areas involved with the three phases of the project. Jason noted that Phase 1 of the project cost $2.8 million and was completed in 2004. Due to delays in permitting for Phase 2, the shoreline stabilization activities in Phase 3 proceeded before Phase 2. Phase 3 was completed in 2007at a cost of $1.5 million. Phase 2 muck dredging was completed in December 2014 at a cost of $3.5 million.

Dani Straub asked how long their pipeline was and the number of pumps used. Jason responded that the pipeline is approximately 2.5 miles, with one large pump and one relay pump.

Jason showed photos of the project sites, shoreline stabilization, and the spoil disposal site. Jason noted that they had problems in Phase 1 with the polymer they used and moving the material. It only took 30 days to dredge the area but it took six months to move the material, because it was so sticky and hard to manage. They had to mix sand with the matrix in order to move in and to reduce it sticking to the scoops.

For shoreline report, they used some sheet pile. There were some very steep areas along the creek, so they also used rip rap armoring. Jason noted that further north they found another spoil site where they pumped the dredged material directly to the site and no alum was used. Jason recommended to anyone considering a dredging project to get the property for soil disposal squared away early in the process. Jason added that their spoil was very sandy—much sandier than expected. They worked with the University of Florida (UF)—Institute of Food and Agricultural Sciences (IFAS) to re-purpose the muck removed. The sodium levels were a bit high, so that limited some of the potential uses.

Jason explained that there was a former trailer park site that was gone after a hurricane. The site had become a designated burn site for the Federal Emergency Management Agency (FEMA) collection. The county decanted the spoil material and moved it to create a berm for the burn site, which makes it safer to use.

The lessons learned were the following: 1). Obtaining another permit beyond their maintenance dredging permit took a long time; 2). There was not as much material as anticipated; 3). The material was less than 10 percent organic (sandy); 4). The drying and transport of the material was the toughest part of the project; 5). The deepest muck was in the navigational channel, which was not expected.

Ryan Morrell asked if this kind of project could be eligible for BMAP credit. Jason responded that they don't need credit right now because they are in the Central IRL and they don't have an allocation. Tiffany added that there is a process for dredging projects to receive credit if the information is provided about the project and the material and the project meets the criteria for credit.

Gary Ritter asked about the land uses in the C-25 area and in the Southern IRL area. Yesenia responded that the Southern IRL area is described in the Central IRL BMAP and the activities are included as a part of the Central IRL Annual Progress Report.

John asked if they had to use a polymer again, were there better options available. Jason responded that based on his experience he would recommend avoiding the use of a polymer and to decant the water on-site. Ellen Eveland asked if the county had considered the use of geotubes. Jason replied that he wasn't sure as the geotubes are a fairly new product and this project was designed a long time ago. John Winsor asked why Phase 3 of the project—the shoreline stabilization—was not done first. Jason replied that they planned it that way but permitting took so long they proceeded with Phase 3. They could have conducted the project under their existing maintenance permit but based on public input, they decided to ask the U.S. Army Corps of Engineers for another permit.

Ellen asked that if the county was given an allocation, if they could get credit. Tiffany responded that if there is enough information about the project and it meets the credit criteria, a dredging project can get BMAP credit. Since the sediments were sandy, it might not receive as much credit as removal for very organic material. Tiffany noted that dredging credit is based on the material removed, so the calculations are independent of the watershed model used for allocations.

John asked how big the spoil disposal site was. Jason showed one of the maps with the scale on it as an estimate of its size. Jason noted that a lot of things went well with this project. Chris Dzadovsky added that they did have a discharge at the second spoil site through a bioswale. The discharge numbers were well below the requirement of 0.5 of particulates. Jason noted that the site was built to accommodate the project.

Jason showed a video of the project. Lisa Frazier asked what the costs were on the mats. Commissioner Dzadovsky replied that Heathcote Gardens is next door to the site. Keith McCully asked what was done with the alum sludge. Jason responded that based on Harvey Harper's research, it depends on what doses you have. Since the pond is over 50 feet deep, while there will be accumulation, there is a lot of depth to work with. The pond may need to be dredged at some point in the future. Jason added that they can put the sludge into the wastewater collection system at a lift station. The sludge actually aides the wastewater process. It is also helpful at the landfill, so they have multiple options on what to do with it. You can also use it to stabilize soils that have high legacy TP loads—such as areas of former cow/calf operations—it helps to immobilize TP. David Gunter noted that the site discharges into shellfish waters. Jason replied that the water goes into a pond first, as it would not be allowed to direct discharge into shellfish waters. Jason added that some people worry about the aluminum content.

However, the pH of the water needs to be less than 3.5 in order for the aluminum to be released, so it is very safe and very stable. They also don't use a lot of alum as they have observed that they don't get a lot of life when the concentration is less than 7.5 mg/L. H.M. Ridgely asked what the volume of water is. Jason responded that they are setting it up now, so he doesn't have the volume numbers yet. It is an urban area, so it is filling up fast.

Brevard County

Robbyn Spratt provided a presentation on selected Brevard County activities including the Pine Island Conservation Area Stormwater Improvements. The Pine Island project was initiated as a partnership between the St. Johns River Water Management District (SJRWMD) and the Brevard County Environmentally Endangered Lands (EEL) Program in purchasing the land. There are two main discharge points on North Merritt Island—the northern site discharges to the IRL and the southern site discharges to the BRL. With the project, 6,000 acres of untreated stormwater runoff is now diverted into two expanded wet detention basins that were previously isolated borrow pits.

Robbyn reported that the Phase 1 construction began in August 2011 and was completed in September 2012 at a cost of $1.64 million. A TMDL Grant and a §319 grant were received in support of the project ($800,000). For Phase 2, construction began in September 2012 and was completed in December 2014 for a cost of $1.62 million ($500,000 §319 grant received). Robbyn reviewed the Phase 1 and Phase 2 scopes of work and a map of the site. The benefits of the project included water quality improvements for North IRL and the BRL, flood control, and removal of the non-native Brazilian Pepper plants.

Construction challenges included the lack of stockpiling area for excess fill; coordination with multiple entities; coquina rock creating a hard bottom and changing the design depth; the "No-Name Storm" in October 2011; and testing for petroleum contamination. There were also issues with vultures and with manatees damaging materials, equipment and sod.

The pollutant removal efficiencies achieved are excellent and higher than expected: 82.38% for orthophosphate; 81.25% for ammonia; 87.75% for total Kjeldahl nitrogen, 93.50% for phosphorus; and 84.86% for total suspended solids (TSS). The expected load reductions are 65,845 lbs/yr TSS, 2,238 lbs/yr TP and 8,181 lbs/yr TN. Robbyn added that they don't know why the results are exceeding expectations—perhaps the spartina shelf is helping the removal efficiencies or there aren't as many birds using the site.

Robbyn also reviewed the Fortenberry Regional Stormwater Management System project. This is a water quality and flood storage project treating 164 acres of prime commercial area on Merritt Island. The site provides an opportunity for commercial properties within the watershed to purchase stormwater storage/credits within the pond. Phase 1A of the project began in October 2011 and was completed in April 2012. Phase 1B began in August 2012 and was completed in November 2012. The total construction costs for Phase 1 were $1.5 million. Phase 2 construction began in October 2013 and was completed in June 2014. The construction costs were $2.2 million and a $350,000 TMDL grant was received. Robbyn reviewed the scope of work and showed a map of the site.

The project benefits are water quality improvements for the 164 acre drainage area. Also, the adjacent alum pond is now more efficient because it has a 100-acre reduction in its drainage area. Wetland

creation and preservation also occurred. Additionally, non-native plant species were removed and it expands the Veterans Memorial Park.

Robbyn reviewed the construction challenges including debris removal, off-site mitigation, soils screening to remove glass debris, rain, and dewatering.

Robbyn also noted that they are using their Bluelifefl.org website to provide public education about these two projects as well as public presentations and signs on the site.

Gordon England asked if the county is still pumping alum in the pond. Robbyn responded that they are not as there have been technical issues with the alum so it is only acting as a wet detention pond right now. Gordon asked if the high removal rates could be related to low incoming concentrations of nutrients. Randy Burden replied that they have checked the dissolved oxygen and light penetration with no unusual results. Bach McClure added that Pine Island is largely brackish, so that may affect the results also.

SJRWMD—Water Quality Monitoring Update
Margie Lasi provided a PowerPoint on water quality monitoring efforts in the northern and central IRL system. Margie stated that there are 65 stations overall including those sites collected by Volusia County, the SJRWMD, and the Florida Department of Health-Indian River County (FDOH-IRC). There are 40 lagoon stations and 25 tributary stations. The sampling frequency includes 57 monthly stations, two bi-monthly stations, and six quarterly stations. All samples collected are analyzed at the SJRWMD's laboratory in Palatka, and the SJRWMD is the custodian for all the data.

Margie said that in response to the 2011 super bloom, the SJRWMD added several collection stations in the north IRL and the BRL to better capture watershed loads and to fill in spatial gaps. These included three Cocoa canal sites and three lagoon sites. Also, wet deposition monitoring was reinstated at Sebastian Inlet along-side EPA's Clean Air Status and Trends Network (CASTNET) dry deposition station. FDOH-IRC is the site operator (under contract) for the wet/dry deposition station. Additionally, continuous monitoring is performed at five lagoon locations on telemetry; these stations were started in 2014 with equipment provided by FDEP. Margie reviewed the measured parameters at these sites.

Other lagoon monitoring includes phytoplankton, which has been collected since 1997. The SJRWMD and UF have ten (10) stations that are analyzed through Dr. Ed Phlips' laboratory for both phytoplankton and microzooplankton. Of the 10 stations, five (5) are sampled biweekly and 5 monthly. Event (algal bloom) sampling is also performed by SJRWMD/UF as well as by the Fish and Wildlife Research Institute-Fish and Wildlife Commission (FWRI-FWC).

Since 2013 FWRI-FWC has conducted summer-time monthly continuous flow-through surveys in the super bloom region using salinity and chlorophyll sensors. Margie noted that this effort provides an increased spatial resolution that can be used to evaluate the spatial extent of blooms on a given day.

Margie then reviewed time series graphs of chlorophyll and nutrients (nitrogen-N and phosphorus-P) spanning the last nine years (2006-2014) at two locations, Titusville and central BRL. Margie noted the occurrence of the 2011 super bloom that began in the BRL in March, from where it spread into the North IRL, as evidenced by peaks in chlorophyll, N and P. The super bloom was dominated by a green

microflagellate in the group Pedinophyceae (Pedino) and by picocyanobacteria. A pronounced increase in nutrients (primarily P) was observed in the lagoon in 2010 prior to the super bloom. This increase was accompanied by a sharp drop in the N:P ratio in early 2010. This 2010 "pulse" in nutrients occurred in the heels of a severe and unusual cold weather event in January 2010, when water temperatures remained below 5 degrees Celsius for three consecutive days. A second unusual, although less severe cold weather event occurred the next winter (December 2010), that was followed by additional increases in nutrient concentrations in the early spring of 2011, which continued rising (to unprecedented levels) as the super bloom expanded and peaked. In 2012, the north IRL experienced another bloom of equally unprecedented magnitude as the one in 2011. The 2012 bloom was caused by a brown tide organism, *Aureoumbra lagunensis,* the first occurrence of a bloom of this kind since the 1990s outside of Laguna Madre, Texas. The brown tide of 2012 first originated in Mosquito Lagoon, from where it spread (through Haulover Canal) into the north IRL, but it did not affect the BRL. The BRL instead experienced other algal blooms during 2012 (caused by dinoflagellates and diatoms) that were of lesser magnitude (less than 40 micrograms per liter [ug/L] chlorophyll), but nevertheless significant. The year 2013 was also an active bloom year for the north IRL, with chlorophyll concentrations at Titusville twice exceeding 40 ug/L, first from brown tide and then from blooms of mixed microflagellates. In both the north IRL and the BRL, 2014 was relatively calm year from an algal bloom perspective.

Margie presented a combined slide with time series graphs of chlorophyll and nutrients (N & P) for four IRL stations throughout the IRL (Titusville, central BRL, Melbourne and Vero Beach). Similar nutrient pulses occurred further south in the Melbourne area during 2010 and 2011, but these were not accompanied by unusual algal blooms in 2011/2012 like the ones that affected the BRL and the north IRL. This suggests that the cold weather events of early and late 2010 were likely not the only factor contributing to the 2011 super bloom. During 2013 and 2014, Melbourne exhibited pronounced peaks in phosphorus, and the phytoplankton responded in kind. In the Vero Beach area, however, chlorophyll and nutrients have been considerably stable over the last nine years, with only a very slight increase in chlorophyll concentrations during the period 2009-2012. Titusville, BRL and Melbourne similarly experienced a sharp decline in the N:P ratio after 2009, followed by partial recovery after 2011. At Vero Beach, however, the N:P molar ratio was lowest of all four sites and fairly consistent over time, approximating the 16:1 Redfield molar ratio. This suggests that this southern portion of the central IRL tends to be more nutrient balanced, and that phytoplankton production could be limited by either N or P, or both at any given time. The higher N:P ratios typically found in the north IRL and the BRL (greater than 50:1) suggests a relatively greater availability of N relative to P, and suggest that more often than not, P may be the limiting nutrient controlling phytoplankton growth in the north IRL and BRL. Additional research (e.g., phytoplankton nutrient uptake experiments) is needed to directly test which nutrients limit phytoplankton, as well as where and when.

Margie showed the same four series of graphs (Titusville, Banana River, Melbourne and Vero Beach) with dots on the nutrient graphs that represented the mid-points of each time series. When these dots are connected, longitudinal (north to south) changes in nutrient concentrations were easily discerned. TN declines from north to south. TP is the opposite—increasing the most in the southern portion of the central IRL. Like N, the N:P ratio also decreases from north to south, as does chlorophyll. Shorter hydraulic residence times in the south (i.e. higher flushing rates) versus the north may be an important factor explaining the attenuated chlorophyll response in the south.

Someone asked what happened to the nutrients after the cold weather event, and if they dropped out of solution. Margie responded that they don't know what happened because it was a single event. It is possible that the zooplankton were hit by the cold and also it is possible that the drift algae were affected. Algae are important because they take up nutrients.

Gary Ritter asked if there is any correlation with rainfall and nutrient in the lagoon. Margie replied that normally there is a correlation with external nutrient loading, but during the drought period of 2007-2012, external loads were not a major contributor. Seagrass were growing then and in good shape during the drought years of 2007-2009. By the end of this dry period, the salinity was very high and that may have stressed grazers and other biota beyond their physiological tolerance limits. The pedinophyte bloom that was observed in 2011 is a species tolerant of high salinity (as was the brown tide species observed in 2012). When the No Name storm hit in early October of 2011, salinity and temperature dropped and the bloom crashed. The SJRWMD is currently working on trying to better understand the all sources of nutrient inputs to the lagoon, internal and external, and is updating the lagoon's hydrologic and hydrodynamic model.

David asked if there are any measurements of the quantity of biomass that died and that then released its nutrients into the lagoon. Margie responded that we don't have sufficient data needed to calculate that. For example, we don't have good estimates of the extent of the drift algae at that time, which are important as a source or a sink of nutrients. David asked about the fish that died. Margie said that there is a famous photo taken by National Aeronautics and Space Administration (NASA) researchers of a boat-full of dead snook immediately following the cold spell of January 2010, which attests to impact that event may have had on lagoon fauna. However, we don't have quantitative data to estimate the magnitude of the biomass that died. David added that the fish died and sunk. Margie reiterated that data are insufficient and recommended contacting Rich Paperno at FWRI for more information specifically pertaining to fish in the lagoon. Margie noted that nitrogen is not as conservative as phosphorus. The District is trying to build a better model for the IRL.

Matt asked if you can correlate those data with seagrass. Margie replied that there is a whole group working on seagrass analyses. Matt responded that the IRL is a complex system and a crude methodology is used in the BMAP.

Discussion of Funding Availability

Kevin Coyne stated that Amanda Peck with the Department is here and is an excellent source of information about funding opportunities. Today during the presentations, we heard that several of the projects received §319 or TMDL grant funded. Kevin stated that the Department has a new division called the Division of Watershed Assistance. This division now houses most of the funding programs within the Department.

The Department is planning a future meeting—perhaps in June or July—to have the funding experts come down and talk to everyone about their programs and requirements. The Department may invite some other agencies as well to participate. Kevin asked everyone to think about the right people to invite within their organizations, as that kind of discussion may involve different personnel than usually attend the BMAP meetings.

Amanda Peck added that the Secretary wants the funding to be coordinated so that the projects that are funded are the most valuable and we get the water right. John noted that funding is a topic of interest and he had heard that EPA changed some of its criteria to make some projects harder to fund, especially if there is a conduit involved. Barbara Lenizewski noted that the Department of Economic Opportunity (DEO) is also interested in this meeting and DEO has some small funding sources also, but they also want to work with state and federal funding sources. Gary asked if the matching funds are required in all BMAPs. He noted that in the Okeechobee basin, there are many rural communities that don't have much money, so the cost-share requirements are critical. Kevin responded that is not been determined. Barbara Powell added that DEO has some rural programs and they have some waivers on match requirements and fees. Amanda added that there are also more opportunities for leveraging funds like the State Revolving Fund (SRF) where the loans have very low interest rates. Kevin noted that we will have to look at the EPA criteria for §319 grants, but that is only affecting that grant program and not the others.

Kevin suggested that a separate funding meeting would help to review what funding sources are best suited for different situations. Gordon asked if the §319 application must be tied to nonpoint sources and not to EPA's definition of point sources. Amanda responded that for the EPA money, they are being more restrictive on what is defined as a point source or a nonpoint source. If the water is coming from a major conveyance, they now consider it a point source. EPA seems to be getting away from funding baffle boxes or pipes, but treating sheet flow is okay. Gordon stated that leaves less money available to treat stormwater drainage. Amanda commented that the criteria are more restrictive, but that the grants staff will push for the projects you need.

Alan asked if any changes are possible to the EPA policy. Amanda responded that there is some gray area on their policy and they are working on that with EPA. Robbyn noted that there are many untreated outfalls that deserve attention and funding. Gordon noted that this may be something that Congress could address.

Public Comments and Wrap Up

There were no other public comments. Tiffany reviewed the action items. The meeting adjourned at approximately 12:10 PM.

Action Items

- Yesenia--Plan a future meeting on monitoring to discuss any issues.
- Rebecca Elliot--Check on the enrollment numbers and targets in the North IRL and respond back to Yesenia.
- All—Comments on the draft annual reports are due by June 12th to Yesenia.