

MEETING SUMMARY
TMDL Executive Committee and Stakeholders
February 24, 2011
FDEP-Northeast District Office
Jacksonville, Florida

Meeting Attendees

| Executive Committee Members Present | Other Attendees |
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| <p>Andy Ames, St. Johns County Ray Avery, Clay County Utility Authority Lad Daniels, First Coast Manufacturing Association Casey Fitzgerald (for Kirby Green), SJRWMD Pete Hallock (for Neil Aikenhead), Builders/Developer's Representative Danny Johns, North Florida Grower's Exchange Phil Laurien, East Central Florida Regional Planning Council (<i>ex officio</i> member) Jody Lee, FDACS-Office of Ag and Water Policy Don Loop, Stewards of the St. Johns Athena Mann, JEA Radha Pyati, University of North Florida Jens Sapin (for Mary Beth Oxendine), U.S. Navy Vince Seibold (for Ebenezer Gujjarlapudi), City of Jacksonville Neal Shinkre, St. Johns County Greg Strong, FDEP Brian D. Teeple, Northeast Florida Regional Council</p> | <p>John Abendroth, FDEP Drew Bartlett, FDEP David Bolam, CCUA Derek Busby, SJRWMD Tiffany Busby, Wildwood Consulting Jay Caddy, Navy Rick Carper, Atlantic Beach Ivan Chou, ECT Ed Cordova, JEA Jocelyn Croci, FDOT Jon Croci, Camp Blanding Tony Cubbedge, St. Johns County Betsy Deuerling, City of Jacksonville Scott Dombrosky, NS Mayport Joe Emery, FDEP Alan Foley, Jones Edmunds Mark Greenwood, Neptune Beach Janet Hearn, ATM John Hendrickson, SJRWMD Mike Hersey, ATM Don Jacobovitz, Putnam County Donna Kaluzniak, Atlantic Beach Mike Kelter, Legacy Civil Engineers Karen Kohoutek-Luckin, FDOT Melissa Long, FDEP Tom Mallet, COJ Jeff Martin, FDEP Larry Miller, St. Johns County Dana Morton, City of Jacksonville Mark Nelson, Jones Edmunds Mike Null, Green Cove Springs Alan Obaigbena, FDOT Sharon Piltz, FDEP Marcy Policastro, Wildwood Consulting Michele Rundlett, Smurfit-Stone Robert Sackellares, Georgia-Pacific Jennifer Sagan, AMEC-BCI Tim Schram, King Engineering Clint Smith, Bowen Civil Engineering Paul Steinbrecher, JEA Patrick Victor, CDM Gary Weise, City of Jacksonville Robert Yarborough, Seminole Electric</p> |
| <p>Committee Members Not Present Jack Rintoul, U.S. Army Corps of Engineers Vivian Garfein, Middle Basin-FDEP Central District (<i>ex officio</i> member)</p> | |

Welcome and Introductions

Greg Strong welcomed everyone and noted that a lot has happened since the last meeting. Mr. Strong introduced the new Executive Committee members, **Danny Johns, Radha Pyati, and Lad Daniels**. The participants introduced themselves and the entity they represent. Mr. Strong noted that there has been an increasing level of public interest in the long-term health and restoration of the river. The basin management action plan (BMAP) has been in place for two years and most of the projects are on track and on schedule despite the challenging economic conditions and fiscal limitations. This is very encouraging and bodes well for the future of the river.

Review and Comments on the January 13, 2010 Meeting Summary

Greg Strong moved that the summary for the January 13, 2010 meeting be approved. Vince Seibold seconded the motion. The motion carried with no objections.

Update on the Status of the Environmental Protection Agency's (EPA) Numeric Nutrient Criteria (NNC) and Discussion of Possible Responses

Greg Strong stated that the Florida Department of Environmental Protection (FDEP) recognizes that the potential impact of the NNC is a significant concern for stakeholders. The NNC were promulgated by the U.S Environmental Protection Agency (EPA) on December 6, 2010 for freshwater streams, springs, and lakes in Florida. The details of how the criteria will be implemented have not been fully determined. There is concern that the federal standards could undermine the BMAP efforts by setting standards that are different than the adopted total maximum daily loads (TMDLs). As part of the NNC, EPA allows for the submittal of TMDLs for consideration as site-specific alternative criterion (SSAC), which allows for locally specific information to apply in lieu of the more general regional criteria.

Drew Bartlett stated that FDEP was working on NNC during the time of the litigation when EPA made the determination to step in. The FDEP draft rule stated that TMDLs would not be affected by the NNC. FDEP encouraged EPA to include the same language as they were working on their criteria; however, EPA ultimately adopted the SSAC provision and pointed to this provision as a way to include the adopted TMDLs. EPA did review the merits of the Lower St. Johns River (LSJR) TMDLs and allocations, and approved the LSJR TMDLs. Mr. Bartlett noted that from his perspective, there is no technical difference between a NNC standard and a TMDL. He asked this question to EPA and has not received a response.

The SSAC provisions went into effect on February 6, 2011, and EPA has yet to receive a SSAC submittal. The rule states that the EPA Regional Administrator can approve the SSAC and explains the procedure on how anyone in the state can petition EPA for a SSAC. FDEP always thought that TMDLs should be easily approved as a SSAC. However, the draft SSAC guidance EPA issued last week does not seem to include this message about the TMDLs. FDEP is preparing to talk to EPA about the TMDLs and FDEP is aware that there may also be local interest in adopting the LSJR TMDLs as SSACs.

Tiffany Busby noted that the promulgated criteria are for freshwaters and EPA is still working on the marine estuarine criteria. The NNC would only affect the total nitrogen (TN) and total phosphorus (TP) TMDLs for the LSJR freshwater section. Additional criteria will be released later that will affect the TN marine TMDL.

Mike Kelter asked if the definition for marine used in the TMDL matches the definition for the estuary NNC. Mr. Kelter asked if these are not the same definitions how might the TMDL be impacted.

Mr. Bartlett responded that he is not sure if the two definitions are identical but it may not matter. When setting a standard, there is the option to change the definition to match the spatial extent in the TMDLs.

Mr. Kelter noted that in 2009, FDEP drafted several TMDLs, including one for Doctors Lake. The stakeholders around Doctors Lake were disappointed when EPA rejected FDEP's draft TMDL and

proposed their own TMDL that followed more closely with the NNC standards, as opposed to the LSJR TMDL. Mr. Kelter asked if FDEP has considered creating SSACs for these TMDLs.

Mr. Bartlett responded that FDEP had not considered doing that until now; however, the stakeholders do not have to depend on FDEP to petition for a SSAC. FDEP is currently focusing on those TMDLs with adopted BMAPs as the first priority for SSACs.

Neal Shinkre asked if FDEP is anticipating a response from EPA on the technical differences between a TMDL and a SSAC.

Mr. Bartlett responded that the group in EPA responsible for NNC is different than the group responsible for TMDLs, and it seems that the NNC group is unwilling to take the time to review the TMDLs up front as SSACs. There is also the concern that many adopted TMDLs were subject to the Consent Decree schedule and are of suspect quality. This may be true for some TMDLs, but the quality and analyses for the LSJR TMDLs are not suspect.

Ray Avery asked if FDEP is going to file for the TMDLs as SSACs.

Mr. Bartlett responded that this is complicated because the state of Florida filed suit against EPA. There are ongoing discussions about whether FDEP should submit the TMDLs or if there are other appropriate entities that should do so, such as the stakeholders investing in the restoration.

Mr. Avery noted that the stakeholders can participate in the SSAC submittal, but FDEP and the St. Johns River Water Management District (SJRWMD) did all the work on the TMDLs and have the data. It would be difficult for the stakeholders to respond to technical questions from EPA about the TMDLs.

Paul Steinbrecher agreed that the Executive Committee does not have the depth of technical knowledge that FDEP and SJRWMD modelers have about the TMDLs. Mr. Steinbrecher asked if the Committee could count on FDEP and SJRWMD to be a partner and provide support in the SSAC submittal.

Mr. Strong responded that this could be an option but FDEP would have to discuss internally if this is an approach they want to embrace.

Mr. Bartlett added that he has had discussions with the FDEP Secretary and Deputy Secretary and they agree that it would be good for the Executive Committee to petition for this SSAC. It is a valid question about how EPA will communicate with the Executive Committee. There is the possibility that **Mr. Strong** as the Chair could serve as the point of contact for EPA.

Brian Teeple asked if there is a downside to submitting the TMDLs as SSACs. For instance, could EPA come back and say they do not agree with the proposed SSAC and instead assign another set of criteria.

Mr. Bartlett responded that FDEP has been considering what the LSJR SSAC request should look like and the thought is it would be best to keep everything as shown in the TMDL. The SSAC should be load, not concentration, based. The draft EPA guidance did say what they want the SSACs to be based on concentration and FDEP provided feedback to EPA that this is not always reasonable. EPA could choose to issue their own criteria, and ask for comments on the draft before finalizing the criteria.

Mr. Shinkre noted that this same risk would be present if the Committee did not submit a SSAC. It would be better for the Committee to submit a SSAC based on sound science as opposed to another entity developing criteria different from the TMDL.

David Bolam asked if the stakeholders do not like the criteria set by EPA, how they could challenge the criteria.

Mr. Bartlett responded that this process was not described in the rule, but if the stakeholders submit a request asking EPA to stop proceeding, they would likely agree. If the stakeholders do not agree with the draft criteria, the first step is to send comments to EPA. If EPA does not take the comments into consideration and they adopt the criteria, then the stakeholders can file a legal challenge similar to the process of challenging a TMDL.

Mr. Bolam asked if a legal challenge is needed, how that would occur.

Mr. Bartlett responded that he is not sure and FDEP would need to determine if they want to be involved in such a challenge.

Mr. Teeple noted that another concern is that if EPA determines their own criteria and circulates it for comment, and then the Committee asks them to withdraw the request for a SSAC because they do not like EPA's criteria, that option is out in the public and someone else may pick it up and submit it as a SSAC for further consideration.

Jocelyn Croci stated that the Florida Department of Transportation (FDOT) would like to note that there are state agencies represented by some of the Executive Committee members. Those state agencies may have received similar guidance as FDEP related to pursuing the SSAC while the state is suing EPA. FDOT is represented on the Committee by the City of Jacksonville and FDOT is not sure if they are allowed to make a decision on this topic at this time.

Ms. Busby responded that the Committee members have the option to excuse themselves from a vote if they do not believe the interests they represent would want them to vote.

Andy Ames noted that EPA is currently working on the marine criteria, and they are looking at the TMDL data separately from the freshwater section. There may be data that can be submitted as part of the SSAC that can help assuage some of their marine section concerns. Mr. Ames stated that he thinks the benefits of submitting the SSAC far outweigh the negatives.

Mr. Steinbrecher added that downstream protection values (DPVs) are also included in the EPA proposal and need to be considered. Mr. Steinbrecher asked what the difference would be between the TMDLs and EPA's NNC that will be in effect.

Mr. Bartlett noted that EPA included the concept of ensuring downstream protection in the NNC and SSAC guidance. FDEP commented that showing the SSAC protects downstream waters is unnecessary because downstream protection is already factored into the TMDLs. This downstream protection was imbedded in the LSJR TMDL so it should be a non-issue. EPA did remove the DPV requirement for estuaries in the adopted NNC, but will include this as part of the estuary NNC.

Ms. Busby asked if it is possible to submit all three TMDLs (freshwater TN and TP and marine TN) now as SSACs or if the marine TMDL needs to be submitted once the estuary criteria have been promulgated.

Mr. Bartlett responded that there are no rules restricting what should be submitted. If all three TMDLs are submitted together it would show the entire water quality structure of the river and how the TMDLs protect both the upstream and downstream portions.

Mr. Steinbrecher added that it would also be stronger since the three TMDLs were developed together and were reviewed by EPA together. Mr. Steinbrecher noted that the implications of the NNC are easier for a point source to understand because the concentration coming out of the pipe can be measured and compared to the criteria. It is more difficult to determine the implications for the nonpoint sources, especially municipal separate storm sewer systems (MS4s), which have permits.

Mr. Bartlett responded that the responsibilities are more predictable with the TMDLs. For the stormwater entities, the load reductions from projects can be estimated; therefore, a load expression for the NNC makes it more manageable. Using a concentration makes it more difficult to determine what the effects will be, and concentration will fluctuate from year to year just from climate alone. The main question is whether the concentration NNC will apply to the stormwater outfalls. The criteria are based on an annual average and the outfalls do not flow year round. If the receiving stream does not meet the criteria over time, then more will be expected of the stormwater sources in the future.

Mr. Kelter noted that he has read a lot legal opinions that say narrative criteria meet the provisions of the Clean Water Act (CWA) and he asked if this was true in FDEP's opinion.

Mr. Bartlett responded that NNC are required for the state of Florida only, and this decision is the subject of litigation. For the other states, narrative criteria are enough to meet the CWA provisions.

Ed Cordova asked how TP would be included in the marine section SSAC and if the National Pollutant Discharge Elimination System (NPDES) permits would just require holding the line on TP loading.

Mr. Bartlett responded that he thinks EPA is going to rely on the TMDL model developed by SJRWMD for the LSJR estuary NNC criteria. However, it seems that EPA wants use concentration as the standard. If TP is not contributing to the impairment then EPA may not be able to require reductions or that stakeholders hold the line. The standard for TP might be based on assimilative capacity.

Athena Mann stated that if EPA is not responding to FDEP, then it is likely they would not respond to the Executive Committee if the Committee submits the SSAC.

Mr. Bartlett responded that EPA is under a lot of pressure because of the NNC, and there is a feeling by others that EPA is doing bad things to Florida. It would be to EPA's benefit to provide a positive response to an entity submitting a SSAC because they need to show that there are workable solutions to the NNC.

John Hendrickson asked if FDEP has any concerns that the EPA SSAC process is too easy and might lead to the adoption of inappropriate criteria.

Mr. Bartlett responded that FDEP did have that discussion with EPA when they were working on the draft SSAC guidance. There will have to be a lot of discussion on what data are needed, and the SSAC adoption will be a public process so it will be scrutinized.

Vince Seibold stated that he would like to make a motion that FDEP move forward with the SSAC, if having the Executive Committee's support for the TMDL would help FDEP.

Mr. Teeple noted that the state is in litigation with EPA, and that EPA might not be willing to do FDEP a favor while the suit is ongoing.

Mr. Ames stated that he is concerned about the same thing but the science behind the TMDLs is strong and the EPA staff reviewing the SSACs are not attorneys.

Mr. Steinbrecher clarified that the state of Florida through the Attorney General's office and Florida Department of Agriculture and Consumer Services (FDACS) is suing. There are also other entities that are suing, but FDEP is not involved.

Lad Daniels stated that with the change in political leadership in the state, no one knows what will happen in the future. If there is a motion from the Executive Committee for FDEP to move forward with the SSAC that might be the best we can do.

Mr. Bartlett responded that FDEP has been looking at the option of submitting the TMDLs to EPA and requesting action. The LSJR Basin represents the best example of a TMDL and commitment to implementation. The EPA SSAC guidance is draft but there is some language in there suggests a TMDL is not always suitable for a SSAC, which is something that FDEP does not agree with. FDEP is trying to send the message that EPA reviewed and approved these TMDLs and to not undermine this commitment. There is a difference in the level of importance of the SSAC if FDEP applies for it, because most of the cost is on the shoulders of local community. There is strength in the message to EPA if the Executive Committee submits the request. FDEP can take a lot of responsibility for communication with EPA.

Mr. Strong added that he thinks that if the Executive Committee submits the SSAC request with FDEP, then the odds are better for EPA approval.

Mr. Avery moved that the Executive Committee encourage the support of FDEP to apply for the LSJR TMDLs as a SSAC.

Mr. Strong stated that as the Chair he could submit this directive to EPA through a letter with Executive Committee member signatures.

Jon Croci asked if there are any potential legal repercussions to submitting the SSAC.

Ms. Mann responded that the only legal issues would be if EPA approves the SSAC they are sued by someone who does not like the criteria.

Mr. Bolam stated that they are concerned if FDEP submits the SSAC on behalf of the Executive Committee then the members would be open to a lawsuit.

Mr. Avery revised his motion to state that the Executive Committee asks FDEP to submit the three LSJR Main Stem TMDLs as SSACs with the endorsement and support of the Executive Committee.

Ms. Croci noted that the Governor has enacted Executive Orders over public meetings that have limited discussion by state agencies. Any issues that FDEP has with submitting the SSAC, FDOT might have the same issues as another state agency. FDOT would like the opportunity to talk with FDEP to ensure they are saying the same thing about this issue. Ms. Croci suggested that this motion be tabled since it was not specifically included on the meeting agenda.

Mr. Teeple asked if specific motions are required under Florida Statutes to be listed on the agenda.

Ms. Busby responded that an action on this topic was included on the meeting agenda.

Mr. Steinbrecher noted that the state under this Governor is very strongly opposed to NNC and there is probably guidance already out on this topic. The purpose of this motion is to put something formal together to help FDEP move forward with the SSAC request. Then, FDEP can follow up with the other agencies and make a determination if they pursue this course of action.

Mr. Avery made a motion that the Executive Committee asks FDEP to expediently submit the three LSJR Main Stem TMDLs as SSACs with the endorsement and support of the Executive Committee. Ms. Mann seconded the motion. The motion passed with no objections. Radha Pyati and Casey Fitzgerald abstained from the vote and Phil Laurien, ex officio member, did not vote.

Update on 2010 Environmental Events in the Lower Basin

John Hendrickson stated that 2010 was the most unusual year he has seen in his entire career at SJRWMD. SJRWMD measures the amount of algae in the river, using chlorophyll-*a*, and the amount of algae is temporally and spatially dynamic. SJRWMD used to take point samples for chlorophyll every two weeks but there were holes in the data because the temporal and spatial characteristics were not known. SJRWMD now has sensors on the river that measure chlorophyll continuously. SJRWMD is also working with the National Oceanic and Atmospheric Administration (NOAA) on satellite images of the river. The satellite images correlated perfectly with field data collected on the algae bloom.

The 2010 algae bloom was unusual because it was dominated by the cyanobacteria *Aphanizomenon*, which is common here, but in low relative abundance (usually occurs in more temperate locations). This type of cyanobacteria has never been seen in the LSJR River as more than 14% of the algal biomass; however, in 2010, it was 98% of the biomass. The size of the bloom increased greatly following a rain event in the latter half of May that washed off nutrients into the river between Rice Creek and Toco Creek, and caused the bloom to expand. As the bloom moved downstream, it changed to a *Microcystis* bloom which is more typical for this area. By June, toxins associated with algae were observed in the river.

There was a fish kill in Lake George associated with low dissolved oxygen (DO), which is typical for this lake. There was also a fish kill in the LSJR from Black Creek to the Fuller Warren Bridge that involved mainly adult fish with chronic die-off, which is not consistent with low DO conditions. Investigations by the Florida Fish and Wildlife Conservation Commission (FWC) has shown that the fish had hemolysis (rupture of the blood cells), and the theory is this was caused either by algal toxins, or by bacteria that decompose algae. There was also an unusual mortality event of bottlenose dolphins between July and August. Also during this time, a foam appeared on the river, which is a phenomenon that has been noted elsewhere following the decomposition of algal biomass. Water samples from under the foam had bacteria, which is consistent with algal breakdown.

To investigate these issues required the coordination of multiple agencies. The agencies established an action plan that was implemented by the responsible entities during the event. The City of Jacksonville, FDEP, Riverkeeper, FWC, SJRWMD, NOAA, Florida Department of Health, and Jacksonville University were all involved in the field reports, data collection, analysis, fish mortality investigations, and public health advisories. In summary, an unusually cold winter may have lead to a bloom dominated by the nitrogen-fixing blue-green *Aphanizomenon*. Non-point source runoff provided nutrients that allowed this

bloom to expand and move downstream. When this bloom moved downstream, it changed to a *Microcystis* bloom. Either algal toxins produced by this bloom or by the bacterial decomposition of this bloom are under examination as potential causes of the fish kill, foam, and possibly contributed to the bottlenose dolphin mortality event.

Jody Lee asked what the chances are that an event like this could happen again on the river.

Mr. Hendrickson responded that a lot of factors aligned to make a very unusual event. Something like this will not be seen very often.

Mr. Lee asked what will happen if the TMDL is exceeded but it is because of natural conditions.

Tiffany Busby responded that a water quality analysis was not included in the annual report because conditions change yearly. Water quality will likely be analyzed every five years. It is also important to note that all the projects in the BMAP have not yet been implemented to meet the TMDL.

Paul Steinbrecher asked if there are models available to make estimates of the frequency of large natural algal blooms in the basin to ensure the focus is on controlling manmade blooms.

Mr. Hendrickson responded that this would be difficult to determine, but it is known that the TMDL will not be protective at all times and that some algal blooms are expected to occur.

Athena Mann asked if a formal report with this information will be prepared.

Mr. Hendrickson responded that FWC will have a report on the fish kill and a report on the dolphin mortality event should be out soon.

Ms. Mann asked if there are any indications that manmade sources caused this bloom.

Mr. Hendrickson responded that that the type of algae that dominated this bloom may not have been attributable to manmade pollution sources. (Editor's note: After the meeting, Mr. Hendrickson clarified that manmade nutrient pollution has caused the LSJR to have a history of nuisance algal blooms, and manmade sources of nutrients certainly led to the expansion of this specific bloom to a harmful level.)

Robert Yarborough stated that some people have used algae bloom pictures as evidence that the TMDLs are not working. Mr. Yarborough asked if the reports will emphasize that this is not a manmade event.

Mr. Hendrickson stated that Jan Landsberg (FWC), the lead author of the fish kill investigation report, would not insinuate something that is not shown by the data.

Ms. Mann asked if the Executive Committee should do something as a group to ensure these insinuations do not occur.

David Bolam noted that EPA's Scientific Advisory Board has discussed looking at three biological indicators. The BMAP monitoring plan does not include these indicators; however, the University of North Florida is looking at the overall health of the river and may be able to provide information.

Radha Pyati stated that the River Report will include some of this information and the preparers are making decisions on how best to represent what occurred.

Andy Ames asked if the monitoring data show an increase in nutrients in the river prior to the bloom.

Mr. Hendrickson responded that the water quality data indicates that nutrients increased in the river prior to the expansion of this bloom, though, we have not included the hydrological information to determine what the loads (because load is the product of concentration and water volume) might have been at that time.

Update on Lower St. Johns River Water Quality Credit Trading Program

John Abendroth stated that at the last annual meeting, **Daryll Joyner** (FDEP) gave an update on the development of the water quality credit trading rule. The rule was adopted and went into effect in September 2010. FDEP prepared a report to legislature that was sent in October 2010. FDEP's recommendation was to extend the pilot program for several more years just in the LSJR Basin until the effects of the NNC are determined. There have been a few formal trades made in the basin under the rule.

Paul Steinbrecher stated that FDEP did outstanding work in providing a flexible tool for the stakeholders to meet reductions. The NNC in Florida is delaying restoration of waterbodies. This trading tool is not being used since entities are not sure what will be required of them in the future.

Andy Ames stated that there is interest from entities outside of the Executive Committee to develop projects to create a credit base. For instance, the agriculture community is looking at a regional stormwater treatment (RST) facility that could generate credits to sell. Other private entities have started to think of possible mitigation projects that could provide credits.

BMAP Annual Progress Report: Accomplishments and Issues

Seminole Electric

Robert Yarborough stated that the Seminole Electric project helped all nonpoint sources in the basin because it addressed atmospheric deposition loads. Seminole Electric completed two projects to ensure compliance: (1) removed nitrogen oxides through the selective catalytic reduction (SCR) upgrade, and (2) replaced the flow meters. The power plant burns coal in the boiler and the flue gas has a lot of nitrogen oxides in it. Ammonia is sprayed on the gas and then it goes through the SCR catalyst layers to reduce the nitrogen oxides to gas for treatment. Models were put together several years ago to show how the SCR upgrades would reduce nitrogen. The estimate before the project was 0.8 kg/ha, which was reduced to 0.3 kg/ha after the upgrade. In addition, Seminole Electric added state of the art of flow meters on the river intake, which made a large difference in the numbers being recorded. The SCR upgrade cost about \$185 million for two units (also installed to meet air rules) and the new meters cost approximately \$80,000. Nitrogen oxide emissions were reduced by 89% and the wastewater discharges decreased to more than 10,000 lbs/yr less than Seminole Electric's BMAP allocation.

City of Jacksonville

Vince Seibold stated that the city has outlined ten elements to meet the BMAP allocation. The first element is the Master Stormwater Management Plan, which includes the stormwater utility that generated about \$20 million. The projects in the plan are being prioritized by basin. The second element is the MS4 permit, which includes street sweeping, pollution prevention, education and outreach, a response system for citizen calls, and proactive inspections. The water quality monitoring program is the third element and includes 25 stations in the river and more than 100 tributary sites. The data are posted on the city's website and FDEP STORET. Water quality credit trading is the fourth element although no trades are underway yet. The fifth element is the reuse ordinance that was established in 2006, and that compliments JEA's efforts to expand reuse areas. The sixth element is septic tank phase-out, which is the bulk of the city's BMAP credit. In the BMAP the city received credit for septic tanks within 300 meters of surface waters. A portion of the stormwater utility fee is used to run lines to connect the tanks to the sewer system. The BMAP includes removal of 16,000 tanks, with a 50% removal requirement in 2015. The seventh element is Florida friendly landscape and irrigation system design, which currently only applies to commercial areas, although the city is looking to apply these landscape and irrigation techniques in residential areas. The landscape irrigation and fertilizer ordinances are the eighth element and these ordinances reduce nutrient loading and overwatering that move nutrients into waterbodies. The city also has an education program associated with these ordinances. The ninth element is the pet waste ordinance because pet waste contributes nutrients and fecal coliforms to the waterbodies. The tenth element is low impact development (LID), and the Environmental Protection Board allocated \$100,000 to hire a consultant to follow the Sarasota County LID model and to determine which LID strategies are applicable in northeast Florida.

Town of Orange Park

Mike Kelter stated that before the wastewater treatment facility (WWTF) project was completed, the facility had high TN loads in excess of the permitted loads. It took almost three years to complete the first phase of the WWTF project. This phase achieved a reduction of 35,700 lbs/yr of TN, which is close to the reduction the town needs to meet the BMAP allocation. The second phase of the project includes sending reclaimed water from the town to the Clay County Utility Authority system. SJRWMD has contributed financial assistance for this project. The bid for the second phase was awarded in October 2010. The WWTF upgrades included digesters, chlorine contact chambers, a filter, and converting one

old package plant to a biological nutrient removal (BNR) system. During the construction of Phase 1, plant capacity was tight so the town used facultative bacteria in the collection system to help treat the sewage on the way to the plant. The use of different facultative bacteria also resulted in the ability to run the plant with significantly less energy than if the typical wastewater bacteria had been used.

Annual Report Overview

Tiffany Busby stated that the annual report included the period of November 1, 2009 through December 31, 2010. Future reports will be based on a calendar year. The report includes accomplishments, issues, and upcoming year activities. In the freshwater reach, 723.2 kg/yr of TP reductions were made. Projects in this area include the St. Johns County trade with Hastings, Putnam County agreement with SJRWMD for operation and maintenance (O&M) of the Edgefield RST, St. Johns County O&M of the Deep Creek RST, FDACS signing up producers for best management practices (BMPs), and the two existing RSTs are performing well and exceeding expectations. In the freshwater reach for TN, a total of 15,022 kg/yr of reductions have been made. The Seminole Electric project was completed, in addition to the TP projects named above. For the freshwater section TMDL, the MS4s achieved their portion of the TP and TN reductions and the WWTFs achieved their portion of the TN reductions.

In the marine reach, a total of 151,993 kg/yr of TN was reduced. Orange Park completed Phase 1 of the WWTF upgrade, JEA phased out the Beacon Hills WWTF and upgraded the Arlington East WWTF, City of Jacksonville phased out 295 septic tanks, the Jacksonville Beach/FDOT pond on Beach Boulevard was completed, and the Seminole Electric upgrade resulted in credit for the stormwater sources.

The monitoring plan in the freshwater section includes bimonthly ambient sampling and river transects sampling funded by Seminole Electric and Georgia Pacific. In the marine section, the two DO stations were reinstalled after being damaged in 2009. FDEP bought new data sondes and FDOT volunteered divers to set up the stations. The divers also found two of the three lost sondes. In the tributaries, the ambient monitoring occurred on schedule and storm event samples were collected.

In terms of issues, many of the stakeholders noted that funding continues to be an issue and there are uncertainties about how the NNC will impact BMAP implementation. In addition, there were delays in one of the Putnam County projects and one of the FDOT projects. FDEP issued letters to these entities and is working with these stakeholders on the details of the delays and new compliance schedules.

John Abendroth added that the Putnam County issue was due to a funding change that required modification of legal agreements, which took additional time. The county is working to put the funding together and move the project forward as quickly as possible. FDOT is estimating that their project will be completed in fall 2011. There was also an issue with the initial date provided in the BMAP because it was for another portion of the project. Overall, the stakeholders are doing a great job keeping on schedule, which is appreciated and reflects well on the commitment to restoration.

Public Comment, Review and Wrap-up

Ed Cordova stated that it would be helpful to have updates on the Middle Basin projects status for the annual meetings because a lot of reductions are needed from this area for LSJR BMAP.

John Abendroth responded that there is an adopted BMAP for Lake Jesup. The Lake Jesup TMDL is for TN and TP; however the BMAP is addressing TP now because of unknowns related to the in-lake cycling of TN. The BMAP is divided into three phases, with the first BMAP targeting one-third of the reductions (the TMDL total reduction required is 8,504 kg/yr of TP). FDEP is in the process of developing a BMAP for Lake Harney, Lake Monroe, and a portion of the river. This BMAP should be adopted in 2012 with a large load reduction. The LSJR BMAP had a requirement for about 1.2 million kg/yr of TN from the Middle Basin and the combination of the Lakes Jesup, Harney, and Monroe TMDLs is about 4.5 million kg/yr of TN. Approximately 43,000 kg/yr of TP was required in the LSJR BMAP and the Middle Basin TMDLs will achieve about 250,000 kg/yr of TP. There is uncertainty about how

much of these reductions will make it to the LSJR, but these are significant nutrient reductions. The Lake Jesup commitments will achieve about half of the required Lake Jesup TP reductions in the next five years, with full achievement in 15 years. The Lakes Harney and Monroe BMAP should be adopted in 2012 and the overall timeline has not been determined yet. There is no adopted TMDL for Lake George.

Greg Strong noted that the next annual meeting will be held in February 2012.

Adjournment

The meeting was adjourned at 12:23 PM.