

Upper Wakulla River and Wakulla Springs Basin Management Action Plan

Technical Meeting Summary

Thursday, May 16, 2013

10:30 AM – 12:00 PM

Woodville Community Center, Live Oak Room

8000 Old Woodville Road, Tallahassee, Florida 32305

Attendees

Joseph Addae-Mensa, DEO Craig Barkve, Tallahassee Curtis Baynes, Citizen Winston Borkowski, Hopping Green & Sams Catherine Bray, Tallahassee Kathy Burke, Leon County Tiffany Busby, Wildwood Consulting John Buss, Tallahassee Steve Cioccia, FDEP Melissa Corbett, Wakulla County Christy Crandall, FAMU Brett Cunningham, Jones Edmunds Hal Davis, Citizen Holly Edmond, FDACS Rance Ellis, FDACS Eric Etters, Tallahassee Charlie Gauthier, FDEP Pam Hall, Citizen John Hallas, Talquin Electric Cooperative Kenny Hayman, FDEP David Henry, Tallahassee Steve Hodges, Tallahassee	Joy Jackson, FDEP Cal Jamison, Friends Debbie Lightsey, Citizen Roy Lima, Florida Forest Service Eric Livingston, Citizen Alex Mahon, Leon County Health Department Sean McGlynn, MLI Anita Nash, FDEP Keith Parmer, KDP R&D Steve Peene, ATM Ron Piasecki, Friends of Wakulla Springs Marcy Policastro, Wildwood Consulting Jennifer Portman, Tallahassee Democrat Ron Potts, ECT Johnny Richardson, Leon County Bruce Ritchie, Florida Current Luis Serna, Wakulla County Ed Steinmeyer, Leon County Herb Thiele, Leon County Bob Thompson, FPS Rob Williams, Center for Earth Jurisprudence
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Welcome and Introductions

Tiffany Busby welcomed everyone to the Upper Wakulla River and Wakulla Springs Basin Management Action Plan (BMAP) meeting. The focus of this meeting is on the BMAP monitoring plan, which is a required component of the BMAP. The participants introduced themselves and the entity they represent.

Follow Up on Management Strategies Collection

Steve Cioccia stated that he wanted to provide a brief update on the management strategies collection process. The Florida Department of Environmental Protection met with the primary stakeholders within the Priority Focus Areas (PFAs). The purpose of these meetings was to discuss the types of management strategies that should be provided for the BMAP to accomplish the BMAP goals and to discuss strategies that could help in the future. Meetings were held with Wakulla County, Leon County, City of Tallahassee, Wakulla State Park, and Talquin Electric Cooperative. Steve stated that these were good discussions and everyone came away from the meetings with a better idea of what should be included in the BMAP as strategies. Steve noted that the Department would be organizing the management strategies and presenting them at the

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June meeting. Emails were also sent to each responsible stakeholder outside the PFAs asking them to provide management strategies information. These stakeholders included Gadsden County, Jefferson County, City of Gretna, City of Midway, City of Quincy, Town of Havana, Federal Correctional Institution, Florida Agricultural and Mechanical University, and Florida State University. A solicitation for management actions was also sent to the entire stakeholder distribution list. Steve stated that if any stakeholder has ideas or recommendations for BMAP strategies, please provide this information because the Department is interested in hearing about strategy options.

Monitoring Plan Development

Anita Nash stated that a handout was provided that summarizes the monitoring plan information that will be discussed today. Anita stated that the Upper Wakulla River Total Maximum Daily Load (TMDL) would be met when the nitrate concentration meets the 0.35 mg/L target and healthy vegetation is present. These criteria are also consistent with the springs numeric nutrient criteria (NNC), which will be used by the Department for water quality assessment purposes every five years. Subparagraph 403.067(7)(a)(5), Florida Statutes, requires that the BMAP must include milestones for implementation and water quality improvement, and a plan to monitor water quality for progress towards the TMDL.

Focused objectives are needed in the monitoring plan to provide the information needed to determine if there is success associated with BMAP implementation. Anita noted that the Department drafted two primary objectives for discussion. The first primary objective is to “Track trends in nitrate concentrations and loads in the Upper Wakulla River and Wakulla Springs.” This objective would be determined through water quality sampling. The second primary objective is to, “Track trends in the biological communities in the Upper Wakulla River.” This objective would be determined through the rapid periphyton survey (RPS) and the linear vegetation survey (LVS). The RPS evaluates the algae at specific sites in the waterbody and LVS evaluates vegetation at the same sites. Eric Livingston noted that the presentation says that the first objective is to track both concentrations and loads but the handout only says concentrations. If flow is not measured, loads cannot be determined. Anita responded that flow data would be collected so the handout will be updated to add “loads” as part of the first objective.

Anita stated that the core water quality parameters that would be evaluated are nitrate + nitrite, ammonia, and Kjeldahl nitrogen. Anita noted that listed under supplemental parameters are sucralose, nitrogen isotopes, and oxygen isotopes, which are needed at the spring vent and conduits. The information from these three parameters will help to refine the map that was presented at the last meeting by Brian Katz (FDEP) that showed the relative contributions of human sources of nitrate to the springs.

Anita stated that for the biological monitoring, RPS would be conducted as an assessment of the algae in the river, in terms of both abundance and variety. Christy Crandall asked what the frequency of the monitoring would be for the BMAP. Anita responded that the frequency would be discussed later in the presentation. Bob Thompson asked for more detail on the RPS evaluation. Joy Jackson responded that the RPS evaluation takes place on a 100-meter reach of the river. For a transect across the stream, nine points are examined for algae. Algae are pulled

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up to measure the length. At the center of the transect, a canopy measurement is taken to determine the amount of sun exposure for that portion of the river. A series of 11 transects are evaluated in the 100-meter reach of the river. The information collected is used in a ranking system based on the length of the algae. If 20% or more of the algae are greater than ten centimeters long, a sample of the algae is taken back to the laboratory for identification. Joseph Addae-Mensa asked since the RPS is not something that can be done in the office, where in the field would the survey be conducted. Joy responded that the Department has had discussions about what areas would be representative stretches of the river, and this will be included later in the presentation. These areas were identified through a process of site visits and local knowledge of the system. Bob asked what defines a healthy river. Joy responded that the Department has reference sites that represent healthy systems. The reference sites had less than 20% of the algae greater than ten centimeters long, which is how this threshold was determined. Bob asked if the reference sites are spring-fed rivers. Joy responded that some of the reference sites are spring-fed.

Anita stated that the LVS is a survey of vegetation in that same 100-meter river reach to evaluate native versus non-native species. Joy added that the Department uses a coefficient of conservatism (C of C) for wetlands that evaluates the fidelity of the plants to a specific site. If the plants on a site are very ubiquitous, the site receives a low C of C score. A group of experts took the wetlands information and created a similar evaluation process for lakes and streams. This evaluation also considers the percentage of native and percentage of non-native species. Bob asked if the LVS only evaluates submerged aquatic vegetation or also emergent plants. Joy responded that the LVS evaluates any plants in the water and does not include plants on the banks. Anita asked what would occur if there was an island in the middle of the transect. Joy responded that the LVS standard operating procedure (SOP) says only to evaluate the wetted area, so any plants on the island would not be included. Bob asked if bulrush in the water would be included in the evaluation. Joy responded that it would be included.

Anita stated that the Department has SOPs for water quality sampling to prevent contamination of the samples. The RPS and LVS also have SOPs that need to be followed. The SOPs are posted on the Department's website. The water quality data are uploaded to the STORET database and the biological data are stored in the SBIO database. In order for the Department to use data in the water quality assessments, they must be collected following the appropriate SOP. Anita noted that other monitoring not conducted following the SOPs could provide useful information about the system but cannot be used to track progress towards the TMDL.

Anita stated that the existing monitoring in the basin includes quarterly sampling at the spring vent and five conduits by the Department's Ground Water Protection Section. Anita noted that some of the conduits are difficult to access because of the tick infestation in those areas, so samples from those conduits are not always collected quarterly. The Department spoke with the Wakulla State Park about clearing vegetation around the sample sites for these conduits to allow quarterly sampling to occur regularly. The Northwest Florida Water Management District (NFWFMD) is also sampling quarterly at the spring vent. Starting in October 2013, NFWFMD will be conducting the RPS, LVS, and stream condition index (SCI) near the upper bridge in a 100-meter stretch of the river. NFWFMD is currently collecting monthly water

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quality samples at the upper bridge. The U.S. Geological Survey (USGS) has a flow gage at the upper bridge, which is funded by the Department.

Anita stated that the proposed monitoring for the BMAP is to add a monthly water quality station at the tour boat dock. Anita noted that a station is needed in this location because the existing monitoring in this area is at the spring vent, which is part of a separate waterbody identification (WBID) number from the Upper Wakulla River WBID. The Department assesses water quality on a WBID basis; therefore, while the data from the spring vent site could be used to help determine progress towards the TMDL, the Impaired Waters Rule (IWR) evaluation requires data from monitoring stations within the WBID to determine compliance with water quality standards. In addition to the monthly water quality station at the boat dock, the Department is also proposing adding a site for RPS and LVS near where the tour boats turn around. The proposed water quality and RPS and LVS sampling would likely be conducted by NFWFMD. The biological sampling would occur two times per year.

Anita noted that the Department and NFWFMD are discussing re-installing the flow gage at Spring Creek. The information from this gage will help with the minimum flows and levels (MFLs) process and to help better understand the overall system. If this gage is added back, the Department will likely purchase the equipment and NFWFMD would operate the gage. Ron Piasecki asked when the Wakulla MFL process would start. Anita responded that she is not sure of the timeline.

Bob stated that he is concerned that conducting the RPS and LVS twice a year is not enough. The plant community, structure, and amount of plants change dramatically throughout the year. The river is currently in a high growth cycle where hydrilla and southern naiad are growing from the river bottom, so they are low in the water column. In about three months, these plants will be topped out and will cover large portions of the river. Bob stated that he recommends sampling at least quarterly to capture these different states of vegetation growth. Anita asked if there is a way to select the two times per year to be representative of the different plant stages. Eric asked why two times per year was selected. Anita responded that this is the minimum standard for the IWR assessment. Eric asked if conducting the survey two times per year is not representative of the system, what the value would be of collecting this information. Anita responded that the Department would need justification to increase the sampling from the minimum.

Christy stated that nitrate data loggers are useful because it is impossible to guess what occurs with the nitrate concentrations between sampling events. The additional data from a logger could also help to provide an idea of the lag time for changes in load to reach the springs. Anita responded that she agrees this would be helpful. She noted that what is proposed for the BMAP monitoring plan is the minimum required for the IWR to evaluate water quality trends. There is an option to add additional monitoring as a research priority. This monitoring would not be required for the full five-year BMAP iteration, but it could be helpful to understand the system better. The additional RPS and LVS evaluations and the data loggers could be added to the BMAP as research items. Tiffany asked if there is a resource issue for not adding the additional RPS and LVS frequency to the monitoring plan. Anita responded that it is not so much that this additional evaluation could not be done, as it needs to be discussed further. The Department has been talking with NFWFMD about conducting this sampling twice per year. If NFWFMD has

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the available labor, they might be willing to conduct the biological monitoring quarterly. However, if resources are cut back, the monitoring included in the presentation is the minimum that would be needed.

Eric stated that this monitoring is the minimum needed to meet the IWR requirements but the BMAP monitoring is supposed to be “sufficient to evaluate whether reasonable progress in pollutant load reductions is being achieved over time,” per the statutes. The BMAP monitoring might need to be more than what the IWR requires. Anita responded that the BMAP includes other components to track projects and the monitoring will track nitrate concentrations. If the concentrations are decreasing and projects are being implemented, the loads would be decreasing. Pam Hall responded that this depends on whether the projects are working as estimated. Pam stated that there are ways to calculate if there is sufficient sampling frequency to identify a certain amount of change. Only having two numbers for the biological sampling does not allow for a statistical evaluation. The amount of sampling needed to sufficiently determine the progress should be identified and then the monitoring network can be designed. Anita stated that the water quality sampling would be conducted monthly. Pam responded that enough data are needed to determine if the changes observed are real or if they are just noise in the data. Anita noted that this would be difficult to determine in a ground water system.

Anita asked how the stakeholders would feel if the IWR says that the system has met water quality standards but the BMAP monitoring shows that more reductions are needed so the stakeholders have to keep spending money on project implementation. It would be difficult to have two different sets of facts about the system. Pam responded that these would be two different measures of the system, not two different facts. Keith Parmer stated that the IWR includes a provision that if alternate data demonstrate that the waterbody is still impaired, these data could be used in the assessment, if appropriate. Kenny Hayman stated that the proposed monitoring is above the minimum requirements for the IWR. For the seven and half year assessment period, only two biological assessments are needed. Since the proposal for the monitoring plan is two assessments each year, there will be much more biological data than the law requires.

Anita stated that if the stakeholders wanted more monitoring to make the results more statistically sound, additional funding would be needed. If any of the stakeholders are willing to fund the additional monitoring, it can be included in the BMAP monitoring plan. Christy noted that part of the evaluation for determining if more monitoring is needed should be to look at the actions in the basin. If actions are not being implemented, then more monitoring is not needed. Pam asked what the budget is for the monitoring plan. Anita responded that she was unsure of the exact budget. Debbie Lightsey asked when the new monitoring would start. Anita responded that the new water quality site at the boat dock would start being sampled in October 2013. The Department and NFWFMD would need to determine the best two times per year for the RPS and LVS before these evaluations start. Debbie stated that looking at biology only twice a year is not adequate.

Johnny Richardson asked if NFWFMD would continue to conduct the SCI at the site near the upper bridge. Anita responded that they would continue the SCI evaluation at this site and add RPS and LVS at the upper bridge site and near the tour boat turn around. Johnny stated that part

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of the reason the Upper Wakulla River has a TMDL is because the river failed several SCIs. There is the question whether this system and others around the state would pass the SCI because of the system's characteristics. Johnny asked if the water quality target is met but the biology does not, what does this mean for the achievement of the TMDL. There is a chance that the river will not pass the SCI and LVI because of the exotic plant species that are present. Anita responded that she does not have a definite answer to what this situation would mean for achieving the TMDL. The Department would have to make a decision on how to proceed if the nitrate concentration is met but the biological community is still unhealthy. However, the belief is that once the nitrate concentrations are lower, the amount of hydrilla that comes back will be limited. Johnny responded that he believes that lower nitrate concentrations would slow down hydrilla growth but that hydrilla would still be present and could continue to influence the biological assessment.

Johnny stated that the monitoring plan handout does not include the SCI evaluation and he is glad that NFWMD will still be conducting this. He noted that the NNC requires that SCI, LVS and RPS be conducted. Joy responded that the Department typically conducts all three biological evaluations in addition to water quality sampling. However, the NNC rule requires that the water quality and RPS and LVS pass or that water quality and SCI pass. All three biological evaluations are not required in the NNC rule. Johnny stated that the river is listed as impaired because of the SCI, so he asked if it was a problem to just use the RPS and LVS instead. Eric stated that a waterbody is only listed as impaired if a causative pollutant is identified. If the nitrate target is met but the biology is still impaired, the river would be listed as impaired for another reason other than nitrate loads. Johnny stated that the nitrate is close to the 0.35 mg/L target, but the biology is not improving. Anita responded that while some water quality samples meet the 0.35 mg/L target, this target has to be met for an extended period of time in order for the TMDL to be achieved.

Bob stated that the ultimate goal of the BMAP is to have a balanced biological community, not just meet the 0.35 mg/L nitrate concentration. It seems that the monitoring plan should be sufficient to evaluate the plant and animal community to determine when it is healthy. There was a lot of field and laboratory work done to develop the 0.35 mg/L nitrate threshold level. However, each system responds differently, so it should not be said that the Upper Wakulla River is not impaired if the nitrate concentration is at or below 0.35 mg/L. The biology should also be considered. Anita responded that the evaluation for impairment must be a combination of water quality and biological data. This proposed monitoring plan is the minimum needed to meet the objective of the statute for the first five-year BMAP iteration. The monitoring plan can be adjusted in the future. Bob asked if the monitoring plan calls for the SCI at the site near the tour boat turn around. Anita responded that the springs are low in dissolved oxygen (DO) (editor's note: DO concentration is a component of the SCI and low DO worsens the score), so the RPS and LVS are the best tools for the sampling at this site. Bob stated that the river's impairment was based on the SCI for this location. Anita responded that the impairment was based on the SCI but that was because the RPS and LVS had not been developed yet. Bob stated that he thinks SCI should be added to the tour boat turn around site to see how the results change.

Johnny stated that it seems as if the water quality meets the 0.35 mg/L nitrate concentration over the required time period that it does not matter if the biology passes. Kenny responded that

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biology does matter. In this case, the waterbody would still be listed as impaired, but it means that the existing TMDL is not a resolution to the impairment. Johnny stated that he is concerned about what needs to be done to address this impairment. Reducing nutrient loads is a big part of this but the Department is also bringing in a link between nutrients and biology. If the nitrate meets the concentration in the TMDL and NNC, nothing else matters. Anita responded that this is not necessarily true. If algae are still a problem in the river when the 0.35 mg/L is met, the Department may have to reduce the target nitrate concentration. This had to be done in some waterbodies in other areas of the state, but this may not be needed for the Upper Wakulla River and Wakulla Springs.

Pam stated that the “L” in TMDL stands for load, not concentration. There is some capacity to determine the load with the flow monitoring, and it could be that the concentration is meeting the TMDL but the load could double because there is twice as much volume. Anita responded that if the impairment were only in surface waters, it would be easy to measure the concentrations and volume to calculate a load. However, this is difficult to do in a ground water system because of the storage in the system. The flow station at the upper bridge will help with some calculations of load, although the focus will be on the concentrations. Pam stated that the flow station at the bridge is important because the biological system might be more responsive to load than concentration. Joy stated that there are systems in the state that are spring-fed and have lower nitrate concentrations but still have algae problems. Therefore, the stakeholders need to do the best they can to improve the water quality while having realistic expectations about the results. These systems are complex, so even though nutrients are reduced, it does not mean that there will be an immediate change in the system. Joseph stated that this monitoring effort is more qualitative to show that progress is being made to meet the statute. The stakeholders want to ensure that the monitoring plan is adequate to show this progress.

Sean McGlynn stated that the monitoring plan includes everything needed to calculate loading except for flows. Anita responded that flow data are collected at the upper bridge site. Eric asked about flow data for the conduits. Anita responded that the Department is attempting to find meters to put into the conduits, but it is not definite that this additional flow monitoring will occur. Christy asked when the Spring Creek gage could be reactivated. Anita responded that the Department and NFWFMD are in discussions about this now, so the gage should be back in place before the end of the year. Steve Hodges stated the stakeholders must determine what the plan should accomplish before establishing a monitoring regime. If the goal is really just to see water quality changes, then this should be the focus. Anita responded that that are two objectives for the monitoring plan, one for water quality and one for biological confirmation. The Department is looking for feedback on these monitoring plan objectives. Catherine Bray asked if one of the primary objectives could be for project implementation to meet the statute’s requirements for milestones. Anita responded that the milestone reference in the statute is for determining the success of the BMAP. There are separate milestones for tracking project implementation, but these would not be part of the monitoring plan.

Debbie stated that during the five-year BMAP period, the human population in the basin will be growing and as a result, the nitrogen inputs to the system will increase. She asked how the BMAP would be set up to account for the fact that growth is taking place. The BMAP needs to address both existing and planned development, otherwise it could be that the 0.35 mg/L nitrate

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target is achieved but a few years later, something happens that makes the water quality exceed this target again. Charlie Gauthier responded that the statute says that the BMAP must identify measures to prevent future loading. Charlie noted that he has been reviewing the county comprehensive plans, policies, and springs protection zones that could help to achieve this requirement. Low impact development, Florida-friendly landscaping, and other preventative measures will be needed in the BMAP. Anita added that annual meetings would be held once the BMAP is adopted to review management strategies implementation and sampling results. Connections will be made between changes in the basin and water quality results. Debbie stated that one option could be to require tradeoffs. For instance, if a current septic tank area is meeting the 0.35 mg/L nitrate concentration, then future development would have to be handled in a way that loading is not increased.

Pam stated that every time projects are built, people want to know if it had an effect on water quality. Money is spent on construction, but is not always spent on monitoring. Pam suggested that part of the project could be a fee or funding that is set aside to help with monitoring. For instance, \$5 million was spent to dredge Lake Jackson, but no assessments were conducted to determine the effects of this project on the lake's water quality. Anita responded that one of the requirements to receive Section 319 funds is monitoring to show the loads before and after the project. This information is applied to the estimates of load reductions from similar projects across the state.

Anita stated that the monitoring plan presented today is what the Department is proposing to move forward with to meet the monitoring objectives. At the July meeting, there will be discussion about research projects in the basin. This list of research items will be included in the BMAP to show what the stakeholders are interested in learning about, if funding becomes available.

Debbie stated that she would like to discuss how an average citizen or citizens group could be established as a stakeholder in the BMAP so that their input has the same weight as other stakeholders. Tiffany responded that everyone is considered a stakeholder; however, there are certain stakeholders that are identified as sources of nitrates so the Department makes an extra effort to engage those stakeholders and obtain information from them. Everyone was asked to submit management strategies, but meetings were held between the Department and those stakeholders that are responsible for the sources. If anyone has management strategies that they want to submit for the BMAP, the forms were emailed to the distribution list.

Debbie stated that it is her understanding that the forms sent were for capital projects. She asked for those stakeholders who have ideas about sources and recommendations for remediation, if they can provide this information in the meeting or if they need to fill out the official documents. Tiffany responded that she would suggest that Debbie contact Steve with any suggestions. The BMAP will include management strategies tables for each entity, and each entity will be responsible for these strategies. If there were strategies that Debbie has in mind that she or a citizens group would be responsible for, this would fit into the existing process. If she has ideas for strategies that someone else would be responsible for, this needs to be discussed with the Department because strategies cannot just be added to other stakeholder's list of responsibilities.

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Debbie asked if the Department would be making recommendations about the strategies in the BMAP. Anita responded that the Department would compare the management strategies submitted to the land uses in the PFAs. If the Department does not feel that a source is sufficiently addressed, they would talk with the appropriate stakeholder(s) about what other strategies could be implemented to address the source. Debbie stated that Wakulla County and unincorporated Leon County need wastewater management plans to determine how they would serve future developments. She asked how do the citizens ensure this discussion takes place and who would manage these wastewater plans. A wastewater utility or responsible management entity (RME) could be set up to do this. Debbie asked if traditional septic tanks would be left in the ground or if the BMAP would require something be done to address this source. Tiffany responded that the individual entities are responsible for determining the management strategies they want to implement. The Department has the responsibility to ensure that these strategies are adequate to address the sources; however, the Department does not have the ability to require specific management strategies. Eric stated that the BMAP process is public-driven. Any comments made in a meeting or sent by email to the Department must be taken into consideration because the citizens are stakeholders too. Once the BMAP has been vetted, it must be adopted by the Department Secretary and there is a challenge period associated with this adoption. This is part of the due diligence that citizens have in the BMAP process.

Bob stated that that the slide with the table of water quality parameters includes secchi depth. He noted that this is not a good measurement for this system because the springs are too deep. He recommended using the photocell method instead. Anita responded that secchi depth would be collected monthly at the water quality stations in the river because it is a standard measurement when collecting a water quality sample, and would not be used in the spring vent.

Rob Williams asked if the Department could use its authority to promulgate best management practices (BMPs) outside of agricultural areas to address septic tanks. Tiffany responded that the Environmental Resource Permit (ERP) program is the primary way that urban BMPs are evaluated. Anita added that as part of the annual BMAP meetings, the Department would like to discuss septic tanks after the Department of Health (DOH) septic tank study is completed. The report from this study should be available in January 2015. The Department and local governments have limited options to address septic tank loads until the DOH study is completed.

Debbie asked if the Department has the ability to say that all the strategies provided are adequate or not adequate to address the nitrate impairment. Anita responded that the Department does have the ability to do this, but they must be reasonable in what they say is adequate for the first five-year BMAP period. Steve Peene asked for an explanation of the sufficiency of effort philosophy, because a lot of the questions seem to be related to the Department's ability to impose actions onto the stakeholders and this does not seem to be where the Department is going in the next five years. Tiffany responded that the sufficiency of effort evaluation does have a mechanism for the Department to go back to the stakeholders and say that a source was not sufficiently addressed. However, the Department will not specify what strategy should be implemented because this is the stakeholder's responsibility. If the strategies provided initially are sufficient, the Department will not have to go back to the stakeholders and ask for more efforts. Steve noted that what is adequate is usually determined by a comparison to a load.

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Anita responded that the sufficiency of effort evaluation would look at land uses and sources, instead of loading, to determine if the sources are sufficiently addressed.

Curtis Baynes stated that he believes the BMAP should include extending sewer throughout the Lake Munson target sewer area and Woodville. The nitrogen loading could be reduced by about 40% in the Lake Munson area and about 60% in Woodville if all the septic tanks connected to the sewer system. Curtis noted that he has been trying to get the Leon County sales tax committee to approve septic tank connection funding assistance, but they did not seem interested after hearing the \$88 million cost. This would be a 20-year project, so it would extend beyond the first BMAP period. Tiffany noted that the sufficiency of effort evaluation is for the first five-year BMAP iteration. Therefore, once the strategies are deemed sufficient for this five-year period, it does not mean that additional strategies would not be needed in the future.

Pam asked if the sufficiency of effort evaluation also includes items such as establishing a funding source or district to implement strategies. It could take time to collect enough money to implement projects. Tiffany responded that the Department is encouraging the local governments to submit ordinances, policies, and other strategies that would help improve the basin. Protective measures are needed to address sources, in addition to putting projects in the ground. Debbie stated that she was confused about the land use comparison, because if the projections for wastewater have not been made, how can the Department say whether the strategies are sufficient. Anita responded that the management strategies would be compared to the existing land uses to identify sources to ensure the sources are addressed.

Catherine stated that the stakeholders know that septic systems are the biggest source. It seems that the group wants the primary stakeholders to show some positive movement in addressing this source. There is a lot that can be done to prepare for addressing septic tanks once the DOH study is completed. Debbie added that the data show that septic tanks are the biggest source so a solution to address this source needs to be identified.

Public Comments and Wrap Up

Anita requested that the stakeholders start sending ideas for research items for the BMAP to prepare for the July meeting. The Department will also send an email to the distribution list as a reminder for this information. Tiffany stated that the next meeting would be the first discussion on the sufficiency of effort evaluation. For the stakeholders within the PFAs, management strategies information is due to Marcy Policastro by May 31st. If anyone has problems meeting this deadline, they should contact Steve. For stakeholders outside the PFAs, strategies information is due by June 7th.

Tiffany stated that the next meeting would be held on Thursday, June 20th at 9:30 AM at the Woodville Community Center. Winston Borkowski noted that the Florida Environmental Regulation Commission (ERC) meeting is scheduled for that day. Kenney added that this meeting would be to discuss the estuary NNC. Four people noted that the ERC meeting would be a conflict for them on June 20th. Tiffany stated that if the ERC meeting becomes an issue, the Department would discuss rescheduling the BMAP meeting.

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Adjourn

The meeting was adjourned at 12:14 PM.

Action Items

1. Anita Nash will update the monitoring plan handout to revise the first objective to include loads, as well as concentration. – *Completed.*
2. The Department will talk with NFWFMD about the possibility of conducting the RPS and LVS quarterly instead of twice per year. – *Completed. NFWFMD is only able to commit to twice per year.*
3. The Department will consider a statistical evaluation to determine the amount of sampling needed. – *Completed.*
4. The Department and NFWFMD will consider adding SCI to the tour boat turn around site. – *Completed. SCI is not an appropriate measure due to the low DO conditions in this location.*
5. The stakeholders should start sending ideas for research items for the BMAP to Anita. The Department will send an email to the distribution list as a reminder for this information. – *Completed.*
6. Stakeholders within the PFAs should send the management strategies information to Marcy Policastro by May 31st. Stakeholders outside the PFAs should send the management strategies information by June 7th.
7. The Department will determine if the June meeting should be moved to avoid conflicts with ERC meeting. – *Completed. The meeting has been rescheduled for June 25th.*