

Upper Wakulla River and Wakulla Springs Basin Management Action Plan

Onsite Sewage Treatment and Disposal Systems (OSTDS) Remediation Plan Meeting Summary

Tuesday, August 2, 2016

2:00 PM

Wakulla Community Center

8000 Old Woodville Road, Tallahassee, Florida

Attendees

Advisory Committee Members

Curtis Baynes – Property Owner
John Buss – City of Tallahassee
Katherine Davis, Florida Department of Health
Bob Deyle – Environmental Interest
Anthony Gaudio – Other Interests
Roxanne Groover – Other Interests
John Hallas – Private Utilities
Theresa Heiker – Leon County
Sheree Keeler – Wakulla County

Others

Doug Barr, Citizen	Moir Homann, DEP
Ed Bettinger, FDOH Tallahassee	Cal Jamison
Catherine Bray, City of Tallahassee	Sondra Lee, City of Tallahassee
Tiffany Busby, Wildwood Consulting	Debbie Lightsey
Melissa Corbett, Wakulla County	Sean McGlynn, WSA FOWS
Kevin Coyne, DEP	Cheryl Minskey, DEP
John Folks, Citizen	Anna Padilla, Leon County DSEM
Marcy Frick, Tetra Tech	Mary Paulic, DEP
Xueqing Gao, Florida Department of Health	Kate Payne, WFSU News
Johnny Grace, USDA-FS-SRS	Mike Sundin, Florida Onsite Waste
Bill Graham	Association
Pamela Hall	Elke Ursin, FDOH
Mark Heidecker, City of Tallahassee	Nick Wooten, NFWFMD
Bob Henderson, WAS	Heather York, Wildwood Consulting

Welcome and Introductions

Tiffany Busby welcomed attendees to the second meeting of the OSTDS advisory committee. She thanked Wakulla County for the use of the meeting space. Attendees introduced themselves. She stated that the focus of the meeting will be to look at the nitrogen sources to the Upper Wakulla River and Wakulla Springs and specifically at the contribution from OSTDS. She thanked the advisory committee members for their time. She stated that the meeting format the meeting would be different than previous meetings because the Florida Department of

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Environmental Protection (DEP) wants to engage the committee members specifically. She stated that attendees could offer public comments at different points during the meeting and asked attendees to be brief with their remarks. She welcomed feedback from the advisory committee throughout the meeting. She stated that although the advisory committee meetings will focus on septic tank loads, the other sources will be addressed during other meetings. She stated that each of the meetings would build on the previous meeting and that each meeting would begin with a recap of the follow up items from the previous meeting. Tiffany stated that the DEP provided comment cards for use by anyone who wanted to make comments or would like to submit their comments in writing.

Tiffany stated that she is a contractor to the DEP. Attendees introduced themselves. Moira Homann introduced herself as the basin coordinator. She thanked the advisory council for their time and participation and provided an overview of the agenda. She stated that she would provide opportunities for public comment during the meeting and at the end of the meeting.

Sunshine Law Reminders

Moira reminded committee members of the Sunshine Law requirements. She stated that the Florida Department of Health (FDOH) decided that they would have Catherine Davis will be the primary representative on the advisory committee and Floyd Williams will be the alternate in order to avoid internal issues with the Sunshine Law requirements. Moira stated that she received upcoming meeting dates for the Wakulla Springs Alliance so DEP can provide public notice of those meetings. The Alliance will be responsible for the other public meeting requirements.

Recap Items

Moira provided an overview of follow up items from the last meeting. She had requested project updates, which were uploaded to the DEP public website. She will compile an inventory of the project files received for the next meeting. Moira will also ensure that projects funded by the Northwest Florida Water Management District (NFWFMD) are included with project collection efforts. Stakeholders can upload additional information at any time.

Anthony Gaudio stated that the NFWFMD recently selected projects for funding and the committee did not have an opportunity to review those projects. Moira stated that the committee will not be reviewing and ranking each project. Anthony wanted to ensure that the projects were thoroughly vetted for funding. He asked why the NFWFMD selected a project for funding that use experimental treatment when other treatment methods have already been verified and have a better chance for success. Nick Wooten stated that the technologies to be evaluated in the projects have not been selected yet. He stated that the funding was from the legislature, through DEP. He stated that the NFWFMD will work with Leon and Wakulla Counties to review other technologies for the pilot projects. Nick stated that it will be a collaborative effort and there is a two year window for project completion. Kevin Coyne appreciated Nick for attending the meeting on behalf of the NFWFMD. Moira will follow up with the NFWFMD to obtain a schedule for grant funding solicitation and project selection. Nick stated that it would be good to have Drew Bartlett and Tom Frick involved too.

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John Buss expressed concern that the committee might think it will decide which technologies would be applied. He stated that he believes the job of the committee is more general and professionals can figure out the details. He stated that the committee has been tasked to develop the recommendations for local governments as well as offering policy advice, direction and thoughts to DEP. John Hallas stated that the technology decision should be left up to the septic tank installers. He also believes the committee has been tasked with providing general direction.

Moira stated that the FDOH also provided studies to share with the group. She reiterated that she will generate an inventory of data and studies received. Sheree Keeler stated that she will be uploading some information related to Wakulla County's projects.

Moira displayed a graph of nitrate concentration at the spring from 1997 to 2016 that she received just prior to the meeting. She will post the graph and data to the public folder online. She stated that people can email her directly for information requests, rather than submitting a public records request which can take additional time. Bob Deyle stated that the reason the nitrate concentration data are all over the place is because of the flow conditions. If there has not been much rain then the nitrate levels are higher. Moira stated that there would be additional information provided about the water quality data during the annual meeting.

Moira stated that the priority focus area (PFA) boundaries were also discussed during the last meeting. She placed information about the PFAs on the public website. She also has a two page paper regarding the delineation of the PFAs that she will provide to the committee for feedback. She stated that DEP does not plan to move the boundary lines but is interested in whether there have been enough data provided. Moira will send out this document for comment after the meeting. She stated that she also plans to have draft maps prepared for the next meeting. Bob asked if Anita Nash helped with the document and delineations. Moira stated that Anita Nash was involved. Bob stated that Anita Nash was very helpful in helping him to understand the development of the PFAs. Moira stated that the draft maps will show the most and less vulnerable areas but will not show conduits.

Tiffany offered an opportunity for public comment.

Pam Hall stated that the colors shown on the aquifer vulnerability maps are a function of the data and that the colors are not equivalent from county to county. Pam also stated that the Woodville project selected by the NFWFMD for funding is a phased project. She stated that it is a big project that is beginning now and there are still lots of considerations that need to be discussed.

Mike Sundin stated that the concentrations in the spring have come a long way already. If the nitrate concentration is at 0.4 milligrams per liter (mg/L) then it is at background for the levels coming in from the north. He wondered how to get the concentrations below 0.4 mg/L. Nick responded that he would be glad to follow up with Mike after the meeting. Nick has seen concentrations around 0.2 mg/L in city wells.

Bob asked if someone at DEP such as Anita Nash could take a look at the new conduit information to see if changes should be made to the PFAs or if the boundary should be shifted between PFA1 and PFA2. Kevin responded that someone at DEP will look into it.

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Moir introduced John Buss to summarize the Lombardo Report.

New Items/Discussion

John Buss stated that the Lombardo Report was prepared in 2010 and finalized in 2011. The preparation of the report was paid for by Leon County, Wakulla County, and the City of Tallahassee. He stated that there were a number of other studies that led up to this report. The purpose of the report was to assimilate the relevant data and conclusions from the previous work to formulate guidance on actions local government can take to better manage the wastewater load from OSTDS in Leon and Wakulla Counties.

John Buss provided a pie chart showing that septic tanks was the largest contributor once the city upgraded the wastewater treatment plant to provide advanced wastewater treatment. He stated that the load shifted to septic tank systems, but that load is manageable unlike atmospheric deposition and the agricultural load coming in from the north. John Buss encouraged attendees to focus on the location of the tanks and not the technology. He stated that the septic tank load is an easier load to reduce than the load from atmospheric deposition, livestock, sinking streams, fertilizer, and inflow. John Buss stated that the study cost \$60,000 and is adequate for planning purposes.

John Buss presented a slide of the number of septic systems in Leon and Wakulla Counties and the City of Tallahassee but reminded the audience not to focus on the numbers. The focus should be developing some general guidance and strategies. He then displayed a slide of the Leon and Wakulla septic tank systems south of the Cody Scarp. He pointed out the 8,600 septic tanks identified in Scenario 1 of the Lombardo report. These septic tanks can be included in PFA1 or PFA2 depending on flow in Spring Creek. These systems fall within Leon and Wakulla Counties. John Buss stated that there could also be Housing and Urban Development grant funding available for projects. He reiterated that load reductions from septic systems is doable and affordable.

John Buss presented an assimilation of the U.S. Geologic Survey (USGS) model demonstrating required load reductions and also accounted for current regional growth until 2018. He also presented the guidance provided in the Lombardo Report:

1. Due to significant natural attenuation, i.e., reductions, there is limited value in seeking additional nitrogen removal north of the Cody Scarp (not cost-effective in dollars per pound of nitrate reduction).
2. To achieve 0.35 mg/L nitrate in Scenario 1, the maximum practicable nitrogen removal is required for all septic systems in the Scenario 1 area.
3. That means either central sewer or advanced or performance-based septic systems as opposed to conventional septic systems.

John Buss stated that costs today may be higher, but the costs are about the same per household regardless of which option is selected. John stated that a central agency is needed to raise capital. He stated that the options may be different based on population density. The next steps for the group is to develop a wastewater management plan and wastewater facilities plan. He

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suggested that stakeholders would need to begin raising capital with an annual fee. Leon County went another way and secured \$2,800,000 using future sales tax. He stated that reductions from septic systems is no longer a technical issue, but it is a financial, political and social issue. He believes there must be some cost to the septic tank system owners, potentially the same cost as users of the wastewater treatment plant owners in order to generate revenue for projects. He posed the following questions:

1. Can we agree that everyone must pay?
2. Can we agree on the need for a regional management entity?

Roxanne Groover agreed with John Buss about personal responsibility, but suggested caution in establishing a management entity. She stated that it will be important to ensure that the staff are professionally trained and licensed.

Anthony stated that John Buss did an excellent job of distilling the report and recommendations. He clarified that advanced wastewater treatment is needed for nitrogen but not for other parameters such as biological oxygen demand, phosphorus, and others. Anthony wants to focus on cost effective solutions and getting started on raising capital. He reiterated that this is a very political issue.

Theresa Heiker stated that Leon County Water Resource Committee has developed an alternative sewer project with consideration of population density of existing development and flooding in the area.

Sheree Keeler stated that Wakulla County also has flooding issues and septic tanks may not be a good option in those areas. She stated that the county is working with the U.S. Department of Agriculture to secure a \$12,000,000 loan for sanitary sewer. She stated that this will be performed in coordination with DEP.

Bob asked if there is a path for getting money the money to conduct a study in six months.

Anthony stated that he worked on a proposal for a cluster system for Magnolia Gardens which would be cheaper than central sewer. He stated that this would be a cost effective alternative with good load reductions.

Curtis Baynes stated that for years there has been more urbanization around rural waste systems and there is a need for more than traditional systems that delivers less than 0.35 mg/L nitrate. He added that areas within Capital Circle might be appropriate for central sewer. He asked if there was data available regarding the success or failure of performance based systems.

Roxanne stated that this group should be open-minded about non-traditional systems. These are being installed in other states with success. She suggested a cradle to grave analysis of systems.

Theresa suggested working with DEP to secure funds to set up pilot projects looking at alternatives. Sheree stated that the Wakulla County is working on changes to the county's comprehensive plan. The changes will allow flexibility for central sewer and alternatives to conventional septic systems.

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Pam stated that the \$2,800,000 proposal includes three key features:

1. A flooding and treatment study.
2. Exploration of a management entity and how that could be established and managed.
3. A comprehensive plan assuming a management entity is in place.

She added that this plan also will consider future land use which was not considered in the Lombardo report. Theresa stated that the Lombardo Report looked at loading estimates through 2018.

Moira began her presentation of the draft methodology for load reduction calculations. She pointed out that the unit of measure is pounds per year rather than kilograms per year which was used in the nitrogen source identification and loading tool (NSILT). She added that she would be presenting ranges because the total maximum daily load (TMDL) was set prior to the completion of the City of Tallahassee project. The high end of the range is a 56.2% reduction in load which is probably an overestimation of what remains to be done. The low end of the range is a 14% reduction based on current water quality information.

Bob asked if we are reducing each piece of the pie by only 14%, then we will not achieve the required load reduction. Moira agreed. She suggested that we probably need to be somewhere in between. Moira pointed out that the Lombardo Report would suggest a reduction of 29% or approximately 100,000 pounds of nitrate per year and suggested this might be a good target. Kevin stated that this methodology is in draft and is a starting point for conversations.

Pam asked if we could work consistently in kilograms per year and Anthony asked about the standard load per household. Bob asked if the Lombardo Report addressed loads from other sources. Kevin responded that it does not, but is strictly focused on septic tank systems. Bob stated that there would need to be some assumptions about other sources.

Moira prepared an example to share, but due to time constraints for the meeting, Tiffany suggested holding off on a detailed discussion until the next meeting. Anthony agreed this was a good stopping point and stated that he would provide information about the NSF 245 system. He stated that this is an off -the-shelf system than can achieve reductions of 50% to 84%. He reminded the group that the passive systems are not approved at this time. Roxanne offered to send the information about NSF 245 to Moira.

Bob stated that the purpose of the methodology is to back into the number of systems needing remediation. He asked if the assumptions are reasonable. He asked why Moira used numbers from the Environmental Protection Agency (EPA) and for the five county area. Anthony stated that he has local studies by Jeff Chantham with nitrate loads in local systems which would be better than EPA numbers.

John Buss suggested that Moira provide all the numbers in a spreadsheet that the committee could review before the meeting. He stated that this would save time if the group came to the meeting ready to discuss the information rather than following along with slides. It was suggested that the group ignore possible reductions from atmospheric deposition.

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Roxanne asked if materials shared with the committee prior to the meetings are able to be shared with others. Kevin stated that once they are posted, then they are open to the public. Moira responded that some of those documents are draft documents but she will be sure to state that these are draft. She will generate the draft spreadsheet suggested by John to share with the committee.

Tiffany offered an opportunity for public comment.

Pam stated that on the methodology it estimates discharge by household. Wastewater treatment plants treat more than simply wastewater. She suggested that DEP may be making the calculation more complicated than necessary. She suggested labeling parameters in the spreadsheet and including the calculations. Then stakeholders could run various scenarios.

Debbie Lightsey stated that she thought the committee would be voting and developing the plan. She asked why the committee must be a sunshine group when the responsibilities are so limited. Tiffany stated that DEP Office of General Council advised them that an advisory committee with membership advising a state agency must be a sunshine group. Kevin added that all of the materials are public record.

Mike Sundin stated that there are two scenarios in the Lombardo Report, but the focus today has been on Scenario 1. He stated that the flow rate published on the Wakulla Springs website corresponds with Scenario 2. He added that the recommendations are different for the two scenarios and this is important. He stated that the more appropriate mass loading per household is 200 gallons per day per house. If this average mass load is used, then the reduction from septic tanks is met. Mike added that as sewer systems age there is exfiltration which increases with rain events. He stated that this is not captured in the pie chart. He added that sanitary sewers do have an impact on the spring.

Tom Taylor thanked DEP for getting the job done and stated that John gave an excellent presentation. He stated that there is a need for consistency. He thought it would be helpful to have a model to assist with project selection. He stated that the management entity is an important piece. He thought it would be helpful to have a methodology to decide when to sewer. He stated that the county does not have a way to force homeowners to hook up to central sewer. He asked what studies the counties and city need to make decisions.

Theresa stated that her grant is fully funded and she has a 50% commitment from the neighborhood, so far, to hook up to sewer. She stated that they are looking at central sewer because the neighborhood floods.

Anthony stated that cluster systems can be used in areas that flood so long as it is a water tight system. He will send that information to Tiffany. Catherine Bray reminded the audience that all new systems must meet the 3 mg/L nitrate in the PFA.

Debbie Lightsey asked for a summary of the springs legislation. Moira responded that this was provided during the last meeting and the notes as well as the presentation are posted on the public website.

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Next Meeting Date

The next meeting has been scheduled for Tuesday, September 13, 2016 at 2:00 pm.

Adjourn

The meeting adjourned at 4:40 pm.

Action Items

- Moira will compile project updates received from stakeholders.
- Moira will follow up with the NFWFMD regarding grant funding project solicitation and selection schedules.
- Moira will prepare an inventory of relevant information and research for Wakulla Springs.
- Moira will post the recently received data and graph for nitrate concentrations between 1997 and 2016.
- Moira will send for review the two-page document regarding the PFA boundary delineation.
- Roxanne will send the NSF 245 System information.
- Anthony will send information for water tight systems capable of nitrogen reductions to 3 mg/L to Tiffany.