

Upper Wakulla River and Wakulla Springs Basin Management Action Plan

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

Summary

Tuesday, June 28, 2016

2:00 PM

Wakulla Community Center

8000 Old Woodville Road, Tallahassee, Florida

Attendees

Advisory Committee Members

John Buss – City of Tallahassee
Bob Deyle – Environmental Interest
Theresa Heiker – Leon County
Sheree Keeler – Wakulla County
Curtis Baynes – Property Owner
John Hallas – Private Utilities
Stan Derzypolski – Other Interests
Anthony Gaudio – Other Interests
Roxanne Groover – Other Interests

Others

Doug Barr, Citizen
Curtis Baynes, CE Baynes and Associates
Catherine Bray, City of Tallahassee
Kristina Bridger, Leon County
Douglas Buck, Florida Home Builders
Association
Tiffany Busby, Wildwood Consulting
John Buss, City of Tallahassee
Kevin Coyne, DEP
Katherine Davis, Florida Department of
Health
Stan Derzypolski, Florida Association of
Builders
Robert Deyle, Wakulla Springs Alliance
Scott Barrett Dyer, DEP
Eric Etters, City of Tallahassee
John Folks, Citizen
Cassel Gardner
Xueqing Gao, Florida Department of Health
Anthony Gaudio, Sustainable Tallahassee
Bill Graham
Roxanne Groover, Florida Onsite Waste
Association

John Hallas, Talquin Electric Cooperative
Katie Hallas, FDACS
Terry Hansen, DEP
Kenny Hayman, DEP
Mark Heidecker, City of Tallahassee
Theresa Heiker, Leon County
Bob Henderson, WAS
Moira Homann, DEP
Sheree Keeler, Wakulla County
John Kraynak
John Labie, WRC
Sondra Lee, City of Tallahassee
Graham Lewis, NFWFMD
Sean McGlynn, WSA FOWS
Brian Miller
Cheryl Minskey, DEP
John Moran
Anita Nash, DEP
Steve Peene, ATM
Mark Repasky, Wastewater Technologies
Johnny Richardson, Leon County
Aine Ryan, Orangeburg LLC
Tom Taylor, Florida State University

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Elke Ursin, FDOH
Edgar Wade, Leon County

Brandon Wanner, Cardno
Heather York, Wildwood Consulting

Welcome and Introductions

Tiffany Busby welcomed attendees to the first meeting of the OSTDS advisory committee. 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 for their time. She stated that the meeting format the meeting would be different than previous meetings because the Florida Department of Environmental Protection (DEP) wants to engage committee members. She stated that attendees could offer public comments at different points during the meeting and asked attendees to be brief. She welcomed feedback from the advisory committee throughout the meeting. She stated that although the advisory committee meetings will focus on septic tanks, the other sources will be addressed during other meetings. Kevin Coyne stated that this is the first meeting of the advisory committee and we will be learning as we go. He stated that the DEP provided comment cards for the meeting. He stated that we may find that these are not needed. He will collect them during the meeting and group them by topic. The cards can be useful if anyone does not want to speak at the meeting but is interested in submitting a comment for the meeting record.

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.

Advisory Committee

Moira asked the advisory committee to introduce themselves. Advisory committee members include the following:

- John Buss – City of Tallahassee
- Bob Deyle – Environmental Interest
- Theresa Heiker – Leon County
- Sheree Keeler – Wakulla County
- Curtis Baynes – Property Owner
- John Hallas – Private Utilities
- Stan Derzpolski – Other Interests
- Anthony Gaudio – Other Interests
- Roxanne Groover – Other Interests

She indicated that a few of the committee members have designated alternates. Moira stated that the goal of the OSTDS remediation plan is to address wastewater and septic sources of nitrogen in the basin. She stated that the committee was formed to assist DEP with technical discussions and to provide a link between DEP and the sectors represented by the committee members. She stated that the basin management action plan (BMAP) must be revised and re-adopted by July 2018 to incorporate the OSTDS restoration plan. The plan will contain 5, 10, and 15 year

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milestones, a detailed plan to meet the total maximum daily load (TMDL) within 20 years. She reiterated that other sources of nitrogen to the basin will be considered outside of the advisory committee.

Kenny Hayman stated that the advisory committee is subject to government in the sunshine laws. He stated that the main rule applicable to this group is that the committee members cannot speak or communicate with other committee members about committee businesses outside of publicly noticed meeting. He stated that the committee members can speak to others and to DEP staff as well as their alternate. He added that the committee members cannot speak to each other about topics that could come up as meeting topics. Curtis Baynes stated that many of the committee members see each other in other forums where septic tanks could come up. Anthony Gaudio stated that some people on the board are members of forums where updates will be requested. Kevin stated that he could provide updates during these forums, other members of the advisory committee could step out of the room, or the meetings could be publicly notices to avoid conflicts. Anthony Gaudio asked if Moira could provide Kenny Hayman's contact information in case the committee members had additional questions for Kenny. Bob Deyle stated that the Wakulla Springs Alliance meetings could be publicly notices as a work-around. Kenny stated that there are requirements for public meetings to keep in mind.

Moira displayed a slide with the excerpts from operating procedures and guidance for the committee members. She sent the three page document to the committee members prior to the meeting to allow time for review. Tiffany stated that some of the BMAPs around the state have basin working groups to gather consensus among the group. This group will be different and similar to the Bacterial Technical Advisory Committee set up by the DEP. Moira asked if any of the committee members had any questions or comments. Curtis stated that one of the procedures states that there does not need to be a quorum of the committee to meet and the committee will not create a work product. He stated that their role seems to be brainstorming and asked if this is correct. Moira responded that the deliverable will be a written remediation plan that will be the result of discussions and input from the committee; however, the DEP will do the drafting. She stated that each section of the plan will be brought before the committee for feedback. Tiffany added that because the committee is not a voting committee, there was no need for a quorum. She added that if a committee member could not attend a meeting, the member could submit comments to DEP prior to the meeting for consideration. Kevin stated that there will be some brainstorming during the advisory committee meetings and there will be quick deadlines. He reiterated that we will be learning as we go through the process.

Bob stated that he had the same reaction about the lack of reaching consensus within the group. He believes that people can behave differently and with different motivation when consensus is needed. He felt there should be an expectation for agreement. He believes the legislation intended for the advisory committee to develop the plan.

Sheree Keeler stated that she believes this is more of a working group. She stated that her Board of County Commissioners will have to approve anything she brings to the committee. Theresa stated that she will too. Sheree stated that she will need time to review information before she can provide definitive answers.

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Roxanne Groover stated that she believes the procedures for the advisory committee are good, especially since they will not be voting. She stated that it can provide education opportunities among the group and that each member's opinion will carry equal weight. She stated that she does not need permission or approval from her association to provide information or responses as a sector representative.

Stan Derzpolksi stated that it will be important to advisory committee members to have time to review the notes and information, to be able to refine the plan as we move forward.

Moira stated that she sent an email to the advisory committee members and will be reaching out for future meeting topics. She will offer some ideas at the conclusion of the meeting today. She would like to have more on an information exchange among committee members rather than her presenting information during the meetings.

John Buss asked if Moira will be setting dates for future meetings. Moira responded that she will suggest a date for the next meeting. John stated that he would like to get them on his calendar so the time is reserved.

Moira provided an opportunity for public comments.

Tom Taylor stated that he is glad to work with Tiffany and others on the procedures for having good discussions. He stated that he can offer other guidelines keeping in mind the requirements of the sunshine laws.

Bob Henderson stated that a correction is needed under V.5 of the operating procedures and guidance document.

Review of Upper Wakulla River and Wakulla Springs BMAP

Moira stated that she would re-post the BMAP and TMDL document. Roxanne stated that she understands the goal is to meet the TMDL in 20 years and asked when the timeclock starts. Kenny stated that the clock started when the BMAP was adopted in October of 2015. Tiffany stated that the statute is not crystal clear but the good news is that there is time and the statute only applies to springs. Moira stated that many of the springs BMAPs were adopted in October 2015. John Buss asked if Moira was going to send the link to the general BMAP website or if it would be a link to information for the committee. Moira responded that the advisory committee has a homework sheet at the table with the ftp site and the link to OSTDS information. She stated that she could also email the link to the advisory committee. Information from the April meeting is already posted.

Moira presented a slide with the Upper Wakulla River TMDL information. She stated that nitrate concentrations are going down and approaching the target for total nitrogen (TN); however, the biological community also must be restored.

Stan asked what the reductions is for Wakulla and what the starting point is for the 56.2% reduction. Moira stated that the goal is to reduce the nitrogen concentration. Kenny stated that there is a verification period associated with the TMDL. Stan asked what the benchmark was for the TMDL. Catherine Bray stated that she believed it was 0.8 milligrams per liter (mg/L) TN.

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She stated that it was described in detail in the TMDL document. Kevin stated that DEP will come to the next meeting with that information. Stan requested a graph showing the information.

Moira stated that the BMAP was adopted in October 2015 and includes projects and management strategies located within the priority focus areas (PFA) to achieve nitrate reductions. She displayed a map of the PFAs. Moira described the various types of projects within the BMAP and the phased approach. Moira stated that the Nitrogen Source Inventory Loading Tool (NSILT) is a planning tool that provides the best available assessment of where nitrogen is currently being applied in the BMAP area from various sources. She stated that NSILT has gained importance since it is used to determine whether or not a remediation plan is needed.

Stan asked Moira to define sinking streams in wastewater treatment facilities (WWTF) to ground water. Moira stated that loads may be applied somewhere in the basin rather than distinct application points. She stated that those loads are handled differently. Stan asked if there is a committee focused on that source. Moira stated that NSILT already accounted for them in the NSILT report. Tiffany stated that the WWTF projects are identified in the BMAP. Stan stated that there is a committee for septic tanks and asked if there are committees for all of the other sources. Moira responded that there is a link between removing septic tanks and wastewater treatment plant loads because the effluent would go to the WWTF. Moira stated that there are other projects identified to address other loads. For example the Florida Department of Agriculture and Consumer Services (FDACS) works with growers. Other efforts are going on but there is not a committee. Kevin stated that DEP can provide information on other projects. Stan stated that based on the NSILT graph 51% of the load comes from OSTDS and 49% comes from other sources. He asked if someone is addressing these other sources. Kevin stated that they are being addressed. Moira stated that we need to decrease the OSTDS load but that load will go somewhere. That load needs to go to the WWTF. She stated that there are other projects to address the other sources.

John Buss stated that the original pie chart of sources did not look like the one shown today. Originally the WWTF load was the greatest piece of the pie chart. He stated that the WWTF load has decreased due to a project that has been completed.

Bob Deyle stated that sinking streams are streams that go below ground and pop up to the surface again at the spring. He stated that there are four within the basin and most are surrounded by forest land. Since these areas are largely undeveloped, there is not much to be done to reduce that load.

Moira displayed the pie chart nitrogen loading to ground water based on NSILT. This information is contained in the BMAP. Anthony asked what happens if the nitrate concentration is reduced by 56.2% to 0.35 mg/L TN and the spring is not restored. He asked if the BMAP addresses that situation. Tiffany stated that we need to restore the biology of the system too. She stated that if the biology is restored before the nitrate concentration is reached then that is good too. Kenny stated that if we meet the TMDL but the biology is bad then the system may not be

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biology driven. He stated that it could be something else and we would need to figure that out. Tiffany stated that we also need to maintain the system after we reach these goals.

PFA Boundary

Moira stated that the PFAs for Wakulla Springs are adopted in the BMAP. She stated that there is a requirement in Chapter 2016-1 Laws of Florida that states that every spring BMAP must delineate the priority focus area. She stated that delineation of the PFAs was done through public meetings with lots of input from stakeholders. She provided a slide describing the process. Bob Deyle stated that he would like to know exactly how the lines were drawn. He suggested this as a topic for a future meeting since project selection and funding could be based on the boundaries. Moira stated that there will not be a distinction for funding between PFA1 and PFA2. She stated that PFA1 is more vulnerable and PFA2 is more intermittent but both areas are important.

Anita Nash stated that the City of Tallahassee, Leon County, and Wakulla County funded studies for the PFAs and the accuracy is really an unknown. She does know that it is not accurate to the parcel level and may have a mile buffer around the boundary. She stated that the delineation is based on the Florida Geological Survey (FGS) springshed boundary of 2007 and was based on the best science available at the time.

Bob Deyle asked how they went from aquifer vulnerability to generate the boundaries. Kevin stated that he would be glad to go through the details with Bob and then report out to the committee. John Buss stated that terms line margin of error communicates more accuracy than there is. He stated that the committee needs to get to more practical matters like helping DEP know where to put projects. He stated that if we try to refine the science then we get bogged down in the details and suggested that is not an effective use of committee time. Roxanne suggested putting the information on the ftp site so it is available if anyone would like to review it on their own time. Bob agreed this was a good idea.

Kevin stated that the committee needs to be thinking about 5, 10, and 15 year goals so there will be a time to think about projects within the BMAP boundary but outside of the PFAs as well. The goal is to start at the best locations and to think about large and small scale projects. Moira reminded the committee that there is a good starting point for the PFAs in the BMAP. Stan suggested looking at areas close to the spring and working out from there. Bob stated that he really just wanted to know the margin of error for the boundary. Anthony stated that the boundary will help us prioritize projects because funding is limited. He added that if a project is clearly within the PFA it will be prioritized higher than one located on the boundary. Stan asked if it is possible to overlay the cavern system with the map of known conduits. Anita stated that this was done in 2013 and it can be added to the ftp site for review.

Tiffany offered an opportunity for public comments.

A gentleman with FGS stated that the boundary lines move. He stated that he was involved with the dye trace study. He stated that as a scientist he believes DEP got the boundary right and the committee should not get caught up in the minutia. He stated that there are conduits everywhere in the area.

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Xueqing Gao reiterated Moira's statement that the nitrogen concentrations at the spring are close to 0.35 mg/L TN and asked how much effort should be put into projects at this point. He asked if the efforts to date are sufficient. Kevin stated that we have to work on that with the group.

Tiffany stated that there is an estimated load applied to the ground surface and the aquifer based on NSILT. She stated that the City of Tallahassee completed the WWTF upgrade for the sprayfield but some of the nitrogen ends up in the ground water. She stated that we can estimate how much gets to the ground water using attenuation and recharge to estimate efforts.

Doug Buck stated that this has been a long process for Wakulla and now there is new legislation. Moira stated that DEP proactively included some of the 2015 springs legislation provisions proposed that did not pass, since they could see where the legislature was headed. Tiffany stated that there are some projects in the BMAP to address OSTDS. She stated that DEP knows based on the load estimates from NSILT that those projects are not enough to restore the spring. She stated that the state has funding for springs-related projects.

Sean McGlynn stated that sinking streams also includes some lakes such as Lake Munson.

Identification of Three Main "Prongs" of the OSTDS Remediation Plan

Moira stated that the three prongs include the following:

1. Projects/management strategies.
2. Scientific information.
3. Public education.

As gaps are identified then we will try to gather additional information. Moira displayed a spreadsheet including OSTDS and WWTF projects and management strategies identified in the BMAP. She stated that stakeholders can send updates to project status and funding requests if applicable. She also requested information related to new projects. She placed the project collection sheet on the ftp site. Bob Deyle requested that Moira send the link to the ftp site.

Moira stated that there is a lot of existing scientific information for Wakulla Springs. She asked committee members to try not to focus on the number of OSTDS but rather the density of OSTDS in an area. She asked if anyone had other categories to include with the scientific information. Anthony suggested technology as a category, specifically currently available technology. Kevin stated that this will probably be a topic for discussion at an upcoming meeting as well. Anthony stated that this committee is farther along in the process than some might believe. He stated that we have the Lombardo Study, the WWTF upgrade, and a Blueprint 2000 engineering study. Kevin stated that DEP is collecting a list of all of the information we have.

Stan asked if anyone is aware of any successful retrofits.

John Buss stated that we need to come up with strategies and not just projects. He stated that this is a social and political problem. We have the technology to solve the problem. Moira stated that we are thinking about this too and need input from the committee. John suggested uploading the Lombardo Study. Tiffany added that we have a lot of data already in the archive, but want to make sure it is current. She asked committee members to review the information on the ftp site.

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Moira added that the baseline information needs to be correct. She requested that the committee review existing files on the ftp site and add new information by Friday, July 15, 2016. Kevin added that an inventory of information needs to go in the remediation plan. Stan asked if the DEP has soils information. Kevin responded that DEP does have soils data.

Scientific Information – Florida Department of Health (FDOH)

Elke Ursin stated that the FDOH also has scientific information that may be useful to the advisory committee and DEP in developing the restoration plan. She stated that FDOH is working on an inventory of septic tanks, sanitary sewer lines, public water wells, and public drinking water lines. She displayed this information in a figure showing the BMAP boundary and the PFAs.

The second tool Elke mentioned is an OSTDS and sewer map clipped to the Wakulla Springs boundary. She stated it is very recent from the FDOH septic tank permitting database. Bob Deyle asked about the color differences for sewer and septic tanks. Elke stated that the Florida Department of Transportation (FDOT) has greater confidence in the information that is shaded darker.

Elke displayed a septic system count comparison for the FDOH Florida Water Management Inventory and the DEP NSILT. She stated that FDOT marked unbuilt parcels which may be helpful in the future. FDOH can use the inventory to assist with OSTDS verification in the future.

Elke also displayed a figure of drinking water sources for built parcels. In this figure the darker shading for public water and onsite wells indicate greater confidence in the data. She pointed out that there is more public water lines than sanitary sewer lines.

Elke stated that other tools that might be helpful is research compiled since the 1980s for septic systems. She stated that FDOT also can help with technical studies, permitting procedures, rules and research. She added that FDOH also has fate and transport models for nitrogen in ground water from septic tanks in vadose zones under drainfields. She also has information about options for OSTDS upgrades. FDOH does not have funding and is not able to dictate what type of system is needed and where the systems should be installed.

Anthony asked if Elke has information about karst environments that she could share. Elke responded that they have a Manatee Springs study. Anthony asked if she has a study regarding sand overlaying karst environments. Elke stated that she does have such a study and can send it to DEP.

Bob Deyle stated that it would be good to have a basemap of current zoning, aquifer vulnerability with potential loads if built out. He stated that this would be helpful in determining potential impacts of sewerage a potential area. Moira agreed this will be helpful. Bob offered to write up a description of his request.

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Public Education

Moira stated that a public education plan must be developed and an inventory of current efforts would be helpful. Anthony stated that the Chesapeake Bay developed a public education plan and there is no need to recreate the wheel. Kevin stated that he assisted with that effort.

Curtis asked what effect public education is going to have in reducing nitrogen loads to the spring. Kevin stated that having a health septic system can have an impact. Curtis stated that the committee needs to think about what will have the biggest impact over the next 20 years. Tiffany stated that it is not just knowing what to do but how to get funding and manage the politics. She stated that we may need to help people understand their options and the importance to the spring.

Roxanne stated that public education needs to be about public buy-in and not about how to pump a septic tank. John Buss agreed with Roxanne. He compared the effort to littering and seat belts. Public education went a long way and was centered on creating public buy-in.

Anthony stated that a perfectly installed and maintained system is still a direct load to the aquifer so we need to be careful that is not the focus. Proper maintenance will extend the life of the system but will not take away the load. Tiffany encouraged the committee members to continue thinking about public education. Kevin stated that this will probably be a topic for another meeting. Anthony suggested public education as the last item the committee needs to address. Tiffany stated that she appreciated input and suggested that public education early may help with political buy-in. Roxanne stated that the committee needs to have a message ready for the next legislative session. Kevin stated that there are many components to the public education.

Moira suggested that the committee think about possible topics for future meetings. Her thoughts for the next meeting included what we know about wastewater and OSTDS management in the basin as well as possible approaches to address septic systems and implications. She asked the committee to send other suggestions. She will draft an agenda to share with committee members for comments. She asked the committee to volunteer to present topics as well.

Summary

Moira displayed a summary slide and action items. She stated that the next meeting is tentatively set for August 2, 2016. This date worked for the committee members. Sheree offered to host a meeting at Wakulla County, when needed.

Moira offered an opportunity for public comments.

Stan stated that he thinks the committee can complete the plan in a year and restoration can be achieved in ten years.

Curtis asked if committee members could send correspondence to Moira to share with the group. Kenny stated that if a committee member has information to disseminate to a group to discuss at the next meeting then that can be sent to DEP. DEP can share the information. Bob Henderson asked if the springs legislation addresses actions of other state agencies that have an impact on the springs. Tiffany stated that there are some provisions for agriculture in the legislation. Tiffany stated that the springs act can be posted to the ftp site.

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John Buss asked if files uploaded to the ftp site can be viewed by other members and if so, would this be a violation of the sunshine laws. Tiffany stated that uploaded files cannot be viewed by others.

Theresa stated that at the last meeting Moira mentioned technical working groups. She wondered if those will be used in addition to the advisory committee. Moira stated that DEP decided it would be better to have technical discussions with the advisory committee. Kevin added that there was not enough time for multiple meetings. Roxanne stated that if technical discussions were planned for a meeting then the meetings may need to be longer. Kevin agreed but stated that the next meeting should be more focused.

The meeting adjourned at 4:45 PM

Action Items

- Moira will send Kenny Hayman's contact information to the advisory committee.
- Moira will post the BMAP and TMDL document on the ftp site.
- Moira will re-send the link to the ftp site.
- For the next meeting Moira will provide information about the TN starting load and required reductions, preferably as a graph.
- Moira will post the FGS springshed boundary of 2007 and boundary information.
- Moira will post an overlay of the Wakulla cavern system and conduits with the PFAs. Anita stated that this was done in 2013.
- Stakeholders will provide updated project information.
- Stakeholders will complete the project collection form for any new projects.
- Moira will post the Lombardo study to the ftp site.
- Elke will send a study to Moira about areas with sand overlaying karst environments.
- Bob Deyle offered to write up a description of a basemap he thought would be helpful including current zoning and aquifer vulnerability with potential loads if the parcels were build out as zoned.
- Moira will post 2016-1 to the ftp site.