

**Wekiva River, Rock Springs Run, and Little Wekiva Canal
Basin Management Action Plan (BMAP)
Onsite Sewage Treatment and Disposal System (OSTDS) Committee Meeting Summary**
*Thursday, March 8, 2018
1:00 PM
Public Works West Altamonte Operations Facility
Lake Lotus Training Room
950 Calabria Drive
Altamonte Springs, FL 32714*

Attendees

Advisory Committee Members

Julie Bortles, Orange County
Jay Exum, FOWR
Roxanne Groover, FOWA
Bart Harriss, FDOH
Danielle Marshall, City of Altamonte
Springs

Nick Mcray, Lake County
Kim Ornberg, Seminole County
Kate Rogers, City of Apopka
Charles Whitaker, Homeowners

Others

Quentin (Bob) Beitel
Steve Brown, Brownie's Septic
Keith Browning, OUC
Fred Brummer
Dominique Buhot, Greens Environmental
Audra Burchfield, FDOH
Tiffany Busby, Wildwood Consulting
Susan Davis, SJRWMD
Greg DeAngelo, DEP
Lauren Dorval, FDACS
Kim Duffek, FDOH
Bill Eggers, AquaFiber
Chris Ferraro, DEP
Casey Fitzgerald, SJRWMD
Charles Friel, CAWLBS
Tina Gordon, Wildwood Consulting
Xueqing Gao, FDOH
Madeline Hart, FDACS

Dave Herbster, DEP
Brian Holmes, Homeowner
Moirra Homann, DEP
Barbara Howell, DEP
Yelitza Jimenez, FDOH
Mitchell Katz, Orange County EPD
Emily Lawson, Orange County EPD
Charles Legros, DEP
Celeste Lyon, DEP
Megan Nelson, Orange County Utilities
Nicolas Pisarello, ATM
Roland Raymundo, SCPW
Andrea Sampson, Homeowner
Mary Szafraniec, Wood
Mary Thomas, WSP
Stacy VanCamp-Garcia, Orange County
Commission

Welcome and Introductions

Tiffany Busby welcomed everyone to the meeting and thanked the City of Altamonte Springs for use of the meeting room. She reminded attendees that the meeting is also an OSTDS advisory committee meeting and, as such, the first part of the meeting would primarily engage the committee members and the second part of the meeting would be a general BMAP meeting. Tiffany stated that both meetings are open to the public. Tiffany reminded the committee

members of the Sunshine Law requirements and requested attendees sign in on the provided sign in sheets. Tiffany stated that since the beginning of the meeting is focused on the OSTDS committee, they would take their questions first during the committee portion of the meeting and that there would be a break between the committee and general meeting. Tiffany also clarified that the legislative deadline is coming up on June 29, 2018 and that the BMAP would need to be finalized prior to that date. She then introduced Moira Homann, Florida Department of Environmental Protection (DEP), as the basin coordinator and requested each person in the room introduce themselves and the entity they represent. Moira thanked everyone for coming to the meeting and provided an overview of the agenda. Moira thanked the committee for their participation and informed everyone that this would be the last seated committee meeting and, once the committee was disbanded, the Sunshine Law would no longer apply.

Revised OSTDS Policies

Moira defined OSTDS remediation as being either nitrogen enhancement or advanced waste treatment (AWT) featuring 65 % nitrogen reduction as approved by Florida Department of Health (FDOH) or connection to sewer with proper abandonment of a septic system. Moira explained that, according to the statute requirement, new OSTDS within the priority focus area (PFA) on lots less than one acre would be prohibited as of the date the BMAP gets adopted unless they fall into one of the two exceptions: (a) OSTDS with enhanced nitrogen treatment on-site would continue to be allowed; and (b) conventional systems could be permitted if there is sewer project listed in the BMAP that would connect the property to sewer. Moira informed participants that this policy would be in place upon adoption and would provide abatement of future loads.

Moira stated that DEP would be working with participants to identify the "envelope" which would define which policy would be used to mitigate current septic load by determining what size lot and within what areas of the BMAP AWT or sewerage would be required in the future for existing tanks. Moira explained that this decision would be a function of what the needed reduction of nitrogen is, the relative contribution of septic tanks to loading, and recharge and attenuation based on location. Moira clarified that she will be presenting the load reduction needs, the project credits we have, and the potential reductions we could use to fill the gap between what is needed and what we have during the meeting.

Julie Bortles asked if, in addition to municipal projects, when someone applies to get a repair or replacement of their septic system they would need to get remediated. Moira replied that DEP is working with FDOH on a memorandum of understanding and structure implementation.

Someone asked if it would still be possible to develop on a lot less than one acre where there was no sewer. Tiffany Busby responded stating that they could still develop, but would need an AWT system.

Moira presented the needed nitrogen reductions to meet the total maximum daily load (TMDL) as 209,428 pounds of nitrogen per year (lb-N/yr). She further explained that DEP has been collecting projects from entities to see what the expected reductions in nitrogen could be in the basin. Moira stated that the reductions expected from projects is 109,262 lb-N/yr and that leaves a gap of 100,166 lb-N/yr that needs to be filled by additional projects or policies. Moira explained that all project credits submitted were attenuated and recharged to calculate the load to groundwater.

Moira showed what the expected reductions could be if the OSTDS policy was extended to (a) lots less than one acre; (b) lots greater than or equal to one acre; and (c) for all lot sizes within in the PFA through AWT and through sewerage. Moira reminded everyone that these reduction numbers were shown in the last meeting and are meant to demonstrate what could be done to address the gap. Moira stated that based on the OSTDS numbers, lots less than one acre in the PFA would be the only lots needed to achieve the necessary reductions and would give us a potential reduction of 125,634 lb-N/yr for AWT or 183,692 lb-N/yr for sewerage. Moira reminded participants that these numbers are not cumulative as a septic system on each lot cannot have both AWT and sewer.

Danielle Marshall asked if the 100,000 pound gap was all sources of nitrogen or just OSTDS. Moira and Tiffany clarified that the gap is for all sources and that, in Wekiva, OSTDS is a large source and there are some areas that cannot be addressed, such as atmospheric deposition. Danielle stated that we need to think about the cost of sewerage and if it is feasible to do that in all areas. Moira stated that these are ranges and are not additive as we know we will have a mix of AWT and sewer.

Kim Ornberg stated that this was assuming that all lots would be able to do AWT. Moira replied that this policy would only apply to lots less than one acre in the PFA if policy A was selected. Roxanne Groover stated that on some small lots the liner or other large systems may not work as they have smaller drain fields, but there are other options that meet or exceed the 65 % outside of the larger passive systems. Moira clarified that yes, we need to look at all technologies approved by FDOH. Tiffany stated that is why we need more local input because if they know for example that most areas cannot be sewerage, then we know to look more toward the AWT reduction.

Bart Harriss asked if this means that we can look at other ways to achieve the gap and whether the needed reduction was broken into percentages by source. Moira clarified that the 100,166 lb-N/yr is the total load to be reduced and we are not allocating a certain reduction amount by source since we know the relative contribution from the nitrogen source inventory loading tool (NSILT), but not the percentage at the springs. Bart also asked if we are focusing on OSTDS because it is easy. Nick Mcray suggested that we look at the NSILT with the assumption that all the sources have the same loading and we don't know the sources. Moira clarified that we know

the sources, their relative contribution, and what the loading at the spring is, but we don't know fate and transport in the groundwater system.

Jay Exum stated that since you don't know and it is hard to define, the larger volume (three times what comes out of the springs) should be treated, so that we know we are addressing the load. Moira stated that this is the best approach we have and this is an adaptive plan so, if in five years we have a better model or have not attained our goal, the plan will be adjusted. Jay stated that the Friends of Wekiva believe this is going to underestimate loading and thereby will not meet the objectives.

Julie Bortles asked if the 100,166 lb-N/yr is the gap and there is 109,262 lb-N/yr list of current projects, are the stormwater projects submitted by entities already included in the current projects number. Moira stated that yes, they have provided us with estimates and we have attenuated and recharge the reduction numbers provided and looked at reductions from each source. Someone asked what the timeframe was and Moira responded that it was 20 years.

Someone asked what will happen after 20 or 25 years. Moira reminded participants that the plan is iterative and would be adjusted every 5 years. The participant suggested that DEP start adjusting the equipment we have on residential sites if the goal will be moved every 20 years. Moira stated that the department plans to evaluate progress by year 15 to give the last 5 years to look at projects and policy adjustments if the TMDL is not being met. Greg DeAngelo stated that the TMDL target concentration at the vent is what we are trying to get to 0.286 milligrams per liter (mg/L) and that would achieve what we need to get to. Greg reminded everyone that once the target concentration is met, DEP will still look at the biological health of the system and adjust the TMDL further if those goals are not being met.

Options to Address the Gap

Moira stated that the 100,166 lb-N/yr is the amount that needs to be reduced, or the gap. She stated that if the policy is set as policy B, which would include policy A as well as lots greater than or equal to one acre within the PFA, an added reduction of around 17,000 to 25,000 lb-N/yr can be expected. If the OSTDS policy is expanded BMAP wide, additional reductions of 15,000 to 22,000 lb-N/yr can be expected. Moira also discussed other sources of nitrogen, including urban turfgrass and sports turfgrass, but noted that it is hard to determine what additional reductions can be gained from policy or advanced education beyond what DEP is already giving credit for in these source categories. Moira stated that it is an option to get reductions from fertilizer use and Seminole County is working on additional reductions now and monitoring to quantify those reductions. Moira stated that additional advanced agriculture practices could result in reductions of 5,000 to 46,000 lb-N/yr and a change in wastewater treatment facility (WWTF) permitted effluent standards could result in an additional 54,754 lb-N/yr from the current Wekiva

Protection Act (WPA) standards. Moira clarified that we would talk about these options further in the general meeting portion.

Nick asked if the "OSTDS BMAP wide" policy would only apply in the springshed or also in the surface water BMAP. Moira clarified that it would only be the groundwater system and not the surface water.

Jay asked what does the WWTF springshed versus PFA mean since that was only a two pound difference. Moira stated that the difference between the springshed wide a PFA wide policy would only be two pounds because expanding the area to which the policy applies would only impact one facility. Jay asked if the WWTF numbers were based on actual data or models; Moira answered that they are based on actual flow and concentration.

Implementation and Milestones

Moira stated that there are a couple of milestones that need to happen to implement the OSTDS policy including the development of funding programs, an update to the FDOH rules, and development and dissemination of educational materials. Moira stated that these milestones would likely be reached once the BMAP is adopted and will allow us to address the existing tanks sooner rather than later. Moira reminded participants that new tanks will still be impacted upon adoption of the BMAP.

Kim Duffek asked what the plan is for notifying homeowners in the area where the policy will be applied. Moira stated that DEP is working with FDOH to identify this and address that issue. Xueqing Gao added that DEP will need to inform FDOH of adoption and how soon we need to implement remediation on existing lots and that FDOH will start working with the county health departments when that adoption happens. Xueqing stated that in terms of homeowners, FDOH and DEP still need to figure out how owners of existing systems in the remediated area will be notified. Moira stated that the FDOH rule update needs to happen first for existing systems, but new homes will be addressed upon adoption. Xueqing asked if when DEP says July 1, that is referring to when it will be signed or implemented. Greg stated that the BMAPs have to be adopted no later than July 1, 2018 which means the secretary signature is required by that date, however there is still a challenge period after the signature. Greg also reminded participants that the signature is required on or before, so BMAP adoption could happen sooner than that. He also stated that July 1, 2018 is a Sunday, so the signature would likely happen on or before June 29, 2018.

Roxanne stated that it doesn't matter what the effective date is, homeowners, contractors, and other departments should know what the policy will be before then. She stated that concern from the septic industry is that some people will need to get AWT instead of conventional systems by 21 days after adoption and recommended that everyone be proactive. Roxanne further stated that

education of homeowners should already be happening now. Moira stated that the question of new tanks shouldn't be an issue as, by statute, if they are on lots less than one acre within the PFA, you need AWT or sewer. Roxanne stated that she didn't think the homeowners knew that. Moira responded that the agencies do.

Roxanne stated that there seems to be conflict over what new is between DEP and FDOH. Greg replied that the agencies are not in contention over what constitutes new anymore and that if FDOH considers it new by their current definition, DEP will accept that. Xueqing stated that FDOH is working on informational graphics, flyers, presentations, posters and other educational materials and will reach out to Roxanne to provide contractor trainings and hold open house events to look at who stakeholders should talk to and where to get funding. Someone stated that the major concerns here are when counties will stop providing conventional system permits and asked if on July 2, 2018 they will have to change the repair permitting. Bart stated that FDOH will be meeting to decide this before adoption and it will be handled. Tiffany added that if you are a local FDOH employee, you need to look to your agency management for guidance.

Fred Brummer asked if there will be funding in place since many people will not be able to afford this if they were not planning on it. Greg replied that these milestones will be accomplished over the next few years and will include funding, education, and FDOH rules which will need to be in place before people are required to do AWT when filing a repair and modification permit. Fred asked if that meant that the AWT and sewerage requirements would not be in place upon adoption of the BMAP. Greg clarified that no, those are not by adoption, but will be within the first few years and will be included in the BMAP documents. Moira added that the envelope will be what needs to be addressed once these milestones have been made.

Andrea Samson stated that this rollout has had a lot of hiccups and she doesn't understand how DEP can do what they are proposing without organizing with the counties who are doing the sewerage plans. She added that homeowners are going to remediate without knowing if sewer is coming. Tiffany clarified that the counties will be sharing their sewerage plans with FDOH. Andrea stated that nobody is talking about the ongoing maintenance cost increasing by 50 %, especially for fixed and low income people and stated that if DEP is looking at the cost, the maintenance cost needs to be considered, in addition to capital cost, because some of these technologies require a system that has to have electric to work. She stated that when there is no power, you have no option to live in your home.

Mitchell Katz stated that it was mentioned that counties should be giving FDOH plans for sewer, but it would be easier to plan these projects if we knew if the funding and what portion would be paid by counties and state. Mitchell stated that at a recent board meeting, we heard that this is an unfunded mandate. He asked if there could be a state-wide water quality improvement fee to lighten the load and lower income inequality. Mitchell stated that municipalities don't have the ability to make these huge reductions without help from the legislature or government.

Casey Fitzgerald from the St. Johns River Water Management District (SJRWMD) stated that districts have a modest cost-share program and that Amendment 1 money could potentially be directed toward this effort. Greg stated that DEP funding department has been asking for projects and springs have been allocated \$50 Million.

Fred stated that the effective date is July 1, but there is a gap between the adoption and remediation and asked how are DEP would ensure that buyers are informed of the substantial cost when transferring property. He stated that this creates an issue for every sale that takes place for lots of less than one acre in the PFA and, for the repair and replacement rules, you need to make sure that this is adopted in a timely manner. Moira stated that goes to education and rulemaking. Tiffany added that she was not sure how the liability changes because the remediation plan is coming when there is the same case with anything in the home that has to meet new standards or needs to be repaired after a sale is completed.

Kim stated that we haven't even gotten to the point where we are looking at where the allocations are and what is cost effective and makes sense, adding that not everyone will have to upgrade their septic. Moira stated that we need to have some sort of OSTDS remediation plan that addresses the load and the feasibility.

Dominique stated that 10 years ago when everything started we said it is all about money and we still don't have the funding. He asked if DEP was aware that there are some disclosure laws and there are some areas where the AWT replacement would be more expensive than the total property value, stating that is going to be a problem. He reiterated that funding needs to be put in place at the same time and needs to be adequate as just Wekiva alone would cost billions to do AWT. He added that his personal experience with his own AWT system breaking and needing maintenance has cost \$3,000 over the last 3 years. Tiffany stated that they understand that this is a common concern. Bart stated that when you are talking about the FDOH rules, those will also be open to public comments and hearings in the future.

Julie asked when a draft document would be available and Moira stated that is expected in late April to early May.

Tiffany and Moira thanked the committee and reminded them that the committee is officially dissolved at the adjournment of the committee session and, once they come back to start the meeting, it is a public meeting with no seated committee.

Jay stated that he had an email that he wanted to submit as part of the public record. He asked that DEP include recommendations from his organization that have been discussed previously in calls as part of an official record. Tiffany accepted the document. It is provided in Appendix A.

Danielle stated that in the PFA not every lot is developed and asked if someone develops new lots, how we account for that load and won't tanks, even if they are AWT, contribute to future loading. Tiffany stated that we will have to adjust as we move forward to make sure that we are still meeting the TMDL. Moira reminded everyone that in 5 years, if needed, changes can be made to the approach including expanding the OSTDS policy and looking at additional load reductions from other sources.

Jay asked if the completed projects that are a part of the gap analysis will be listed in the BMAP along with the funding sources. Moira stated that DEP has asked for a lot more information on this round of project collection and that much of the information submitted will be included in the BMAP and annual reports. Jay asked what would happen if the projects that could be shown to fill the gap don't get done. Moira explained that DEP is still looking at projects on an annual basis to keep track of the reductions and make sure we are still on track. Jay asked what projects were used to calculate the reduction. Moira stated that Mary Szafraniec would be presenting on that in the next part of the meeting. Jay stated that nothing over a year should be used since that is the transport time in the PFA. Greg clarified that the travel time is one of the things to look at when drawing the PFA, but it does not mean that there is only a one year travel time.

Committee Adjournment

The final meeting of the Wekiva OSTDS Committee adjourned at 2:32 PM.

General Public Meeting

Tiffany welcomed everyone back and reviewed what we would be discussing in the second half of the meeting. Moira clarified that this meeting review the nitrogen sources in the basin and reminded everyone that at our last meeting in November we discussed the load and required reductions. She reminded everyone that we are still looking at the same numbers from the red bar, green bar analysis and the required reduction of 209,000 lb-N/yr. Moira explained the milestones and how the nitrogen reductions are defined.

Moira introduced Mary Szafraniec from Wood to discuss the water quality analysis performed to determine the project dates that would apply to reductions in this BMAP. Tiffany informed everyone that Dr. Szafraniec did her PhD on springs and has a lot of experience with water quality.

Data Analysis for the Period of Record

Mary gave an overview on the data collection and analysis, stating that most of the data used were from SJRWMD and included spring discharge and spring vent nitrate and nitrite. Mary stated that they also utilized groundwater monitoring wells from the SJRWMD and U.S. Geological Survey (USGS) to consider well concentrations as a future predictor of spring vent concentrations. Mary explained the quality assurance and quality control (QA/QC) process, which is in line with the SJRWMD and approved by DEP, which included removing fatal

qualifiers and performing statistical checks. Mary stated that this analysis was a breakpoint assessment to determine period of record and used the 95 % confidence interval for discharge and concentration and calculated the load to the spring vent. Mary added that after looking at the springs and groundwater, she feels that future analysis would benefit from additional groundwater monitoring as that information was limited. She stated that the data are not sufficient to do an actual travel and lag time analysis as someone had suggested. Mary stated that in the breakpoint assessment there was a significant correlation with nitrogen concentration and discharge, which you could see from the drought period of 2006 – 2008 when there was reduced flow. Mary identified the selected period of record for inclusion of projects to be January 2009 forward as this provides a representative and stabilized time frame with no dramatic changes in flow, concentration, or trend.

Mary then reviewed the spring vent load and TMDL, explaining that these were calculated using a longer period of record from 2003 to 2017 since that has a more representative range of conditions about possible future concentrations in springs. Mary stated that for the groundwater there were not enough data to make any solid conclusions; however, she did state that wells nearest the springs had lower concentrations ranging from 0.05 to 1 milligram per liter (mg/L) and wells near Lake Apopka had the highest concentrations at around 3 mg/L, which would suggest a northeast groundwater flow path toward the springs. Mary explained that with more data from wells it could be possible to determine future concentrations and potentially look at travel time.

Someone asked if you see that when flow is reduced the concentration increases. Mary replied no, flow and concentration are highly correlated.

Julie asked what the depths of the wells that were used was and whether they were deep wells, adding that DEP put in some new surficial wells. Mary stated that the wells that could be used for future concentration and travel time would need to be deep wells.

A stakeholder asked if a well that could be used as background data or ambient conditions was identified. Mary stated that yes, there were some wells that had concentrations less than .02 or 0.04 mg/L and, with a TMDL of 0.286, the 0.02 would be considered natural or ambient. The stakeholder said that should demonstrate that the nitrogen is from controllable sources.

Someone asked if, for Wekiva, before around 10 years ago nitrate higher on average. Mary responded that yes, the previous period of record was higher. Mary added that for Wekiva nitrogen has been stable, but for Rock Springs there is a decreasing trend if you take away the influence of discharge level.

A stakeholder suggested that it would be useful if DEP installed some deep wells so that they can look at a more targeted approach to where to focus projects.

Andrea stated that there were private wells that were a part of Rick Hicks study and DEP should be looking at this. Moira stated that those may not be deep wells, but DEP will look to see if they are deep enough to be utilized in a groundwater study.

Moira stated that the Mary's slides would be included in the posted version of the presentation online.

BMAP Gap Analysis

Moira reminded everyone that we looked at projects from January 2009 for inclusion of credits to groundwater. Moira stated that there was an extensive verification of credits submitted to DEP for new information or credits that changed. Moira also reminded stakeholders that if their entity did not provide all the information needed, those projects are likely not included in this gap analysis and will also not be included in the annual report.

Moira reviewed the gap for Wekiva, including the nitrogen sources addressed, the credits, and the description on what was included. She noted that all of the project credits submitted were attenuated and recharged to get the credit to groundwater. Moira reviewed the qualifications for what is included in each category as follows:

- OSTDS credits are based on projects submitted, not on policy.
- Urban Turf Fertilizer (UTF) credits are based on up to 6 % of an entities load to groundwater for public education and ordinances and also include any stormwater projects that were submitted.
- Farm Fertilizer (FF) credits are based on a 15 % credit and assume 100 % owner implemented best management practices (BMPs) on all fertilized land.
- Sports Turfgrass Fertilizer (STF) credits are based on a 6 % credit for sports fields and a 10 % credit for golf courses on the STF load to groundwater and assume 100 % implementation of BMPs.
- Livestock Waste (LW) credits are based on a 10 % credit on the load to groundwater and assume 100 % owner implemented BMPs at all facilities.
- Nurseries credits are based on a 15 % credit to groundwater and assume 100 % owner implemented of BMPs at all facilities.
- WWTF credits are based on full compliance with the current WPA policy and also include WWTF projects that were verified.

Mitchell asked if the credit for agriculture and golf courses has monitoring to ensure that is accurate and stated that if it is presumptive credit, it would be interesting to take that load credit and see what percentage actually shows up. Maddy Hart stated that the Florida Department of Agriculture and Consumer Services (FDACS) has an implementation verification program to make sure people are doing the BMPs, but does not have a monitoring program yet. Moira stated that agricultural lands have an option of enrolling or monitoring at their own cost, but nobody

has signed up to do monitoring at this time. Mitchell stated that the same thing could apply to ponds where if you are not doing ongoing maintenance, the reductions might not be as large as you are claiming and that DEP should have a program to ensure that they are still meeting the needed function.

Kim Ornberg stated that Seminole County has sports fields, but for other fields not managed by the county, how does DEP know that they are actually doing BMPs. Celeste Lyon replied that the NSILT looks at the presumed load and the credits are given by contacting those fields to see if and how they are implementing BMPs.

Jay asked how the WWTF credits are calculated as the SJRWMD pointed out that there are some facilities that are not up to WPA standards. Tina Gordon clarified that there are only two facilities not currently discharging at the current standards and that the majority of the reduction for WWTFs came from a project submission from the City of Orlando at their Water Conservation II facility.

Kim asked if the UTF credits include stormwater, and Tina responded that they do.

Julie stated that if the credits shown include the projects for WWTF, then she would need to follow up on the Orange County projects. Tina replied that if there was not a completion date, location, and supplemental information to support the verification process submitted, that the reduction was not included in the calculation of credits.

Kim and Julie asked if DEP would share what the reductions are with attenuation and recharge and provided the calculations. Moira responded that, yes, DEP could share what the final calculations were and how they were calculated.

Jay asked if the large waste water project was done a few years ago, wouldn't we have seen that reflected in the load already. Mary stated that is not always the case and it depends on the recharge, travel time, and other factors in terms of how quickly it can get to the spring vent. Moira stated that Mary's analysis is what let us look at the 2009 forward time period. Jay asked if the Orange County project would take that long to be reflected. Mary stated that some of these further areas may take 10 years or so to see the reduction in the vent load. Moira stated that she did not think that this PFA was drawn with one year travel time. Mary stated that some springs take longer to travel and depends on where the project is and added that without a travel time study, it is just an estimation.

OSTDS

Moira showed reduction numbers for additional reductions from enhancement or sewerage of OSTDS outside the PFA. She stated that if septic systems outside the PFA are addressed, an expected reduction of between approximately 10,000 to 22,000 lb-N/yr, depending on what lot

size is included and whether there was AWT or sewer conversion performed as the improvement.

Roxanne asked if the original OSTDS policy fills the gap, why we are looking at these. Kim stated that it was because everyone may not get to all of those OSTDS from the first septic slide within the PFA and this would make it so we don't have to do AWT or sewer on all existing septic systems if the gap is filled in other ways. Moira and Tiffany clarified that the policy envelope would identify which septic systems need to be AWT or sewer in the PFA and that will be a permitted requirement in the BMAP. They added that new systems would have the policy applied to them when the BMAP was adopted, but the policy would be to remediate OSTDS in PFA less than one acre after the implementation milestones occur. Roxanne stated that we need to clarify this in the BMAP.

Someone asked if, when we get to the point where we have rules and funding in place and down the road, their drainfield stops working whether the septic company will say that it has to have AWT before fixing the field. Tiffany stated that her understanding is that if you need a repair or modification permit from the county, you would need to add AWT to your OSTDS at that time. Kim asked what if the drainfield is outside the PFA, would it need to be AWT. Tiffany stated that still needs to be clarified for this BMAP, but if you are outside the PFA it would not apply if the policy in the BMAP was for lots one acre and inside the PFA. Roxanne asked what if you need a new OSTDS outside the PFA. Xueqing stated that once the BMAP is signed, FDOH will discuss whether or not we can deny a permit based on repair and modification denials for BMAPs. Greg stated that Xueqing is correct and that is why we need the rulemaking, because today FDOH does not have the legal authority to deny the repair or modification permit based on a DEP BMAP document or policy, but they are in the process of examining those rules. Roxanne stated that we need a clear definition of what new means and, currently, FDOH is not defining repair or modification as "new." Greg stated that DEP is trying not to redefine "new," but instead is coordinating with FDOH for additional rule making using the current FDOH definitions of "repair" and "modification."

Danielle asked if the credit allotted for OSTDS in the current gap analysis accounts for reductions from when the policy goes in to effect. Moira responded that no, these are current projects that were submitted by entities.

Bart asked if as of July 1, 2018 any new septic on a lot less than one acre in a PFA would need AWT or sewer. Moira responded that yes, that is per the legislature and not negotiable.

Wastewater Treatment Facilities

Moira reviewed the WPA effluent standards for the Wekiva Protection Area stating that the reductions shown in the gap analysis already take these into account. Moira stated that, in previous meetings, DEP has talked about the current standards and the new proposed standards

based on disposal volume and disposal method. Moira presented what the reductions would be if the BMAP went to these new standards in the PFA as an approximate 54,000 lbs-N/yr reduction. Moira stated that DEP is working with the DEP Central District to see if this is feasible to do and has had a call with them to look at this approach.

Danielle asked what would be the timeframe for the implementation of the new policy. Moira responded that WWTFs would need to have a plan upon permit renewal and would have an implementation schedule in that plan that would need to be approved.

Someone asked whether the statute already requires AWT of under 3 mg/L in the PFA. Moira responded that the WPA only requires AWT for rapid infiltration basins (RIBs) in the PFA.

Urban Turfgrass Fertilizer

Moira presented the general reductions given for UTF, including up to 6 % credit on the load to groundwater for entities. Moira also stated that entities can get larger than 6 % reductions, but need to show monitoring data to support that additional credit.

Agriculture

Moira presented on the standard reductions given for agricultural BMPs, including 15 % for farm fertilizer and 10 % for livestock waste. She presented on the advanced agricultural practices and the range of reductions that could potentially be seen, depending on what was implemented and in what recharge area the land was located. Moira said that we could hope to see 5,000 to 46,000 lb-N/yr from advanced agriculture, but that these numbers were not additive as we know that the land application area would only be in one recharge type. She clarified that these reductions are shown as a range.

Roxanne asked if it is known whether there is enough of these types of practices in the different recharge areas to meet this load. Tiffany stated that Maddy would be providing more accurate numbers on advanced agricultural practices based on recharge area. Maddy stated that in Wakulla Springs it was a big point of discussion because there is so much differential between how much agricultural land is in high recharge versus low recharge, with the majority of the land there being in low recharge areas. She reiterated that these numbers present a range and that there are existing advanced agriculture cost-share projects in the Wekiva basin, where there are not any in Wakulla.

Water Quality Monitoring

Moira stated that water quality monitoring is a big piece of information and that DEP needs monitoring information for the BMAP. Moira explained that the 2015 BMAP includes a table on who is monitoring and what parameters they are monitoring. She asked that entities that have a monitoring station or monitoring protocol provide that table back to her by March 30, 2018 to ensure that the information from the 2015 BMAP is presented in the new BMAP accurately.

A participant asked about biological monitoring and what it means. Kim explained that, in the broadest sense, biological monitoring looks at algae, insects, and plants.

Roxanne asked if somebody is going to get Rick Hick's data to see if they can be applied in Wekiva. Moira informed everyone that Rick is now retired but the wells he installed will be reviewed to see if they can be included in the monitoring plan.

Next Steps

Moira stated that the revised BMAP document that we have been talking about and working on in the last few meetings is focused on the groundwater system sources and impairments and will be the basis for the new BMAP. She stated that we will be keeping the 2015 BMAP in place to continue to address the surface water impairments.

Julie asked what will happen if there are surface water projects in the springshed. Moira responded that those will be attenuated and recharge and applied to the springs. Kim asked, in regards to retention, if it is concentrating the nitrogen if you put it in a pond. Mary replied that if it is in the springshed, it will get credited to groundwater, not the surface. Moira clarified that if it is a direct discharge then they can get credited to the surface. Julie stated that Orange County just submitted a project that direct discharges into Wekiva Canal and asked how that being attenuated or recharged. Moira stated that we would look into a way to account for direct discharge projects in the springshed.

Someone asked if this meant there would be two BMAPs for Wekiva. Moira responded that yes, there will be a groundwater and surface BMAP because the statute requires a springs-focused BMAP. She stated that we still need to have an enforceable BMAP for surface water and will still need to meet the TMDL.

Danielle asked if the draft BMAP will show the reductions that have been tabulated and if with the current reductions the 50 % reduction for the 10-year milestone will be met. Moira responded yes. Danielle then stated that entities will be taking to local governments the budgets to meet the 10-year reduction and this shows that the 10-year milestone has already been met. She stated that it needs to be very clear in the BMAP that some projects are planned and the credits are filled with caveats so that they understand that the 10 year capital improvement plan (CIP) needs to ensure that there are still active projects to address the needed reductions.

Moira stated that the next meeting will be a public meeting to review the draft BMAP document which will be provided at least two weeks prior to the meeting. There will be an opportunity after the meeting to also provide comments in writing. Moira stated that it will tentatively be held in late April or early May and that a meeting date has not been decided yet.

Kim asked if, moving forward and looking at existing tanks in the PFA that need mitigation, is it expected that there will be funding to help those people upgrade to AWT or connect to sewer. Xueqing stated that is what FDOH and DEP are working on and it needs to be decided what the mechanism will be and who will disburse the funding. Kim stated that if there are different vendors that have different technology, entities need to be able to explain when working with homeowners what the technologies are and what the cost and maintenance cost will be. Roxanne stated that the Florida Onsite Wastewater Association (FOWA) is working on a list with manufacturers, standards, capital and maintenance costs, and other information to assist in decision making. Kim asked if FDOH would evaluate these technologies and costs. Xueqing stated the FDOH is working on education materials and that will show the systems that have been approved. Roxanne stated that FOWA has been working with FDOH, but FDOH will not provide costs whereas FOWA will give the range of pricing.

Xueqing recommended that entities guide residents in asking the right questions as FDOH cannot be seen as endorsing any particular products or companies, but can answer questions on whether or not there have been complaints on products and if there have been failures reported.

Mr. Brummer asked where the presentation slides would be posted. Moira stated that she would send him an email with that information.

Wrap Up

The next meeting was not scheduled at this time. Moira will send a save-the-date to confirm the meeting date and time once it is decided upon.

Tiffany thanked everyone for all of the information submitted for the annual report and BMAP. She thanked the local entities that submitted projects as well as Maddy, Tina, and Celeste for their contributions.

Adjournment

The meeting adjourned at 4:13 pm.

Action Items

Wekiva General Meeting Action Items:

- Provide the draft BMAP with a newspaper notice of the meeting date.
- Follow up on the monitoring network – Moira to send an email to the monitoring entities with a response due by March 30.
- Check the depth for the wells used in Rick Hick's study to see if they could contribute to the groundwater monitoring needs.
- Send Rick Hick's study to Mary Szafraniec.
- Look into how to account for direct discharge to surface water projects where the location is within the springshed.

- Send Mr. Brummer information on the presentation once it is posted. Provide a link for everyone as a follow up item.

Appendix A.

Jay Exum

From: Mike Cliburn <cliburn1947@gmail.com>
Sent: Tuesday, February 6, 2018 9:38 PM
To: Homann, Moira
Cc: Jay Exum
Subject: Re: Wekiva BMAP February 7 Meeting

Hi Moira -

At the Nov. 8th meeting of FDEP's OSTDS Advisory Committee, FDEP proposed the following approach to reducing nitrogen loads from septic tanks to groundwater within the Wekiva Basin:

- All OSTDS must be sewerred or enhanced within 20 years
- If a sewer is projected in a BMAP project, a conventional system can be installed or repaired in the meantime
- Determine geographical extent of sewer/enhancement requirements: Less than 1 acre lots within the PFA (Priority Focus Area), All lots within the PFA, or Additional lots outside PFA.
- Enhanced OSTDS must meet or exceed NSF Standard 245 nitrogen removal rate or another alternative."

The Friends of the Wekiva River (FOWR) believes that FDEP's approach is not adequate to reduce nitrogen loads from septic tanks within the basin to protect the quality of the groundwater that feeds Wekiwa and Rock Springs. First, the FOWR believes that all septic tanks within the Wekiva Basin should be upgraded or connected to sewer because they contribute about 30% of the total nitrogen load from within the springshed to groundwater, and all septic tank effluent within the springshed has the potential for eventually reaching the springs. Second, the FOWR believes we cannot wait 20 years to require existing septic tanks to be either upgraded or connected to sewer because the goal of the BMAP is to meet the TMDL in Wekiva and Rock Springs within 20 years. We believe that the existing septic tanks within the PFA should be upgraded or connected to sewer within 15 years to allow time for the cleaner groundwater to reach the springs. Finally, the FOWR believes that the NSF – 245 Standard is not sufficient because it requires nitrogen to be reduced by only 50%. The FOWR believes that reducing nitrogen loadings from septic tanks by only 50% will not be sufficient to meet FDEP's TMDL (Total Maximum Daily Load) at Wekiwa and Rock Springs. The FOWR believes that two-stage, high level nitrogen removal OSTDS will be necessary to reduce nitrogen to meet the TMDL in the springs.

Therefore, the FOWR has developed the following recommendations:

- New development within the Wekiva/Rock Springs springshed must either be connected to a central sewer system or served by two-stage, high level nitrogen removal OSTDS starting Jan. 1, 2020.
- Upon failure of an existing OSTDS, the OSTDS must be either upgraded to a two-stage, high level nitrogen removal OSTDS or connected to sewer. However, if the OSTDS is within the proposed service area of a sewer system that has funding committed for construction within 5 years, the existing OSTDS can be replaced or repaired with the provision that it will be connected to the sewer system within 6 months after the sewer system is available for connection.
- All existing septic tanks within the PFA must be connected to sewers or converted to a two-stage, high level nitrogen removal OSTDS system within 15 years from July 1, 2018.
- All existing septic tanks within the springshed, but outside the PFA, must be connected to sewers or converted to a two-stage, high level nitrogen removal system within 20 years from July 1, 2018.

We ask that these recommendations be adopted as the recommended approach for managing septic tank effluent within the Wekiva Basin.

Please let me know if you have any questions about these recommendations.

Mike Cliburn, Friends of the Wekiva River