

**Silver Springs and Rainbow Springs Basin Management Action Plan (BMAP) Onsite
Sewage Treatment and Disposal Systems (OSTDS) Remediation Plan Meeting**

**Silver Springs State Park, S.A.U.P.P. Room
5656 E. Silver Springs Blvd, Silver Springs, FL**

July 22, 2016, 9:00 a.m.

Advisory Committee members present:

- Dan Dooley, Florida Department of Health (FDOH) in Marion County
- Wesley Asbell, FDOH in Levy County
- Tracy Straub, Marion County
- Sean Lanier, City of Ocala
- Bryan Schmalz, Bay Laurel Center CDD (On Top of the World)
- Burt Eno, Rainbow River Conservation, Inc.
- Russ Melling, Oklawaha Valley Audubon
- Jerry Guerra, Marion County Building Industry Association
- Robert Himschoot, Florida Home Builders Association
- Roxanne Groover, Florida Onsite Wastewater Association
- Anthony Dennis, FDOH in Alachua County

Advisory Committee – Mary Paulic

- Purpose of the OSTDS Remediation Plan
 - To advise/provide DEP with opinions or direction on Wastewater/OSTDS Remediation Plan
 - Assist with specialized technical discussions and topics to be researched
 - Provide information back to community leaders, decisions makers, and homeowners
- The water bill that was passed talks about a Priority Focus Area, but that is not the only area of interest
- This is not a voting advisory committee, so we don't need a quorum
- Members may change over time, which is fine by DEP
- It is important for interests to have someone here participating in the meetings, so it is good to have alternates
- The Remediation Plan needs to:
 - Provide for BMAP revisions by July 2018
 - Include development of 5, 10, and 15 year goals
 - Include a plan to meet the TMDL in 20 years
 - Include elements of each of the three "prongs"
 - Projects
 - Science
 - Education
 - The goal is to get a plan that can actually be implemented
- The Remedial Plan will merge both Rainbow Springs and Silver Springs BMAP areas

- The same major entity is involved in both
- There is not a clear defining boundary between the two areas
- The plan covers Marion County and portions of Levy, Lake, Sumter, Putnam and Alachua Counties
- The list of Advisory Committee member could change a bit over time with emerging issues
- The Advisory Committee will be operating under Sunshine Law
 - This limits ability of committee members to communicate on issues that could come before the committee
 - Discussion with alternates and staff is permissible
- The purpose of the Advisory Committee is to provide ideas, comments, suggestions and concerns to DEP toward reducing nitrogen loads from OSTDS sources through development of an effective and cost-efficient OSTDS Remediation Plan
- The Advisory Committee does not have to reach a consensus, but DEP does value opinions and wants to know if there are diverging views

Tracy Straub: Are the presentations and materials going to be available online?

Response – Yes, will be on the existing ftp site in a separate folder specifically for this plan.

Burt Eno: RRC stands for Rainbow River Conservation, not Coalition

Robert Himschoot: We need to make sure the information is available and easy to find.

Bryan Schmalz: The agenda and the procedures handed out today were very focused on OSTDS, is this going to address wastewater as well?

Response – The focus is on OSTDS, but that doesn't unlink us from the wastewater issues. They are both related.

Bryan Schmalz: One of the wastewater objectives was to look at effluent standards.

Response – That will affect how we look at the OSTDS issues. Will want to know what the upgrade plans are for utilities and where we have existing systems.

Burt Eno: I am curious where the cutoff is for OSTDS? There is a funded project in Dunnellon to take five package plants offline and send the effluent to the city system.

Response – That doesn't directly relate to this committee. There is a difference between OSTDS and package plants. A similar project in that area that involves hookup of septic in the future would relate to this. As we get further into this we can discuss the structure a bit more.

Public Comment: When we say onsite systems, does that include package plants? I want to make sure we have that distinction.

Response – When talking package plants, that is what DEP permits as a plant, OSTDS is what DOH permits.

Robert Himschoot: that threshold is at 10,000 gallons per day (gpd) and is clearly defined in statute.

Response – We will need to make sure that we are careful with the terminology. With the NSILT, package plants were treated separately and have treatment standards.

Public Comment: It is important to look at those package plants as well. That is where the waste will go when OSTDS are taken offline.

Robert Himschoot: We still have to ultimately dispose of the water. It is important that those facilities are looked at, too.

Public Comment: What about the disposal of septage by pumpers? Are you going to be looking at how that is processed or not?

Response – These are details that we haven't fully gotten into yet.

Roxanne Groover: The rule preventing the land application of septage went into effect July 1st. There is currently a variance process in place right now giving those that apply another year to convert to a DEP regulated biosolids facility. When we discuss septage, we also want to talk about biosolids.

Review of Silver Springs BMAP – Mary Paulic

- We are using I-75 as a dividing line between the BMAPs
- The TMDL was adopted in 2012 for Silver Springs and includes three WBIDS
 - We want to get all 3 down to 0.35 mg/L for nitrate, which requires a 79% reduction in concentration
- BMAP approach
 - Not specific to OSTDS
 - Plan is in 5 year increments. Starting in PFA and working out.
- The current BMAP contains 34 wastewater projects
 - The primary strategy for addressing OSTDS so far has been connection to sewer
- Both BMAPs contain a new set of wastewater standards
 - These mirror what Marion County has in their Land Development Code
 - For areas closer to the springs, we are really looking at AWT level standards
 - DEP Central District has already sent out the first round of notification letters to the plants within the PFA
 - Outside the PFA, there is still upgraded standards
- The Nitrogen Source Inventory and Loading Tool (NSILT) is way for us to assess how nitrogen is currently being applied in the BMAP area.
 - The tool estimates loads from:
 - Atmospheric deposition
 - Agricultural and nonagricultural fertilizer
 - Livestock waste
 - Drainage wells
 - Septic systems
 - Wastewater application
 - The purpose of the NSILT is to provide the best available estimate of what is getting into the aquifer
 - It is a GIS based tool
 - The developed part of the BMAP area is where the high recharge areas are.
 - OSTDS represent 12% of the nitrogen loading to the surface, and 38% of the loading to the aquifer. Within the 10 year time of travel, OSTDS contribute 44% of the load that reaches the aquifer.

Russ Melling: I have seen that in some other areas atmospheric deposition is a higher source, is that the same here?

Response – Atmospheric deposition data covered 2011-2013 and used a national coverage. That model predicts higher load per area in urban areas. At the land surface it was 20% of the loading, but drops to 10% of loading when attenuation was included. There are a lot of factors that play into why it may be different here.

Review of Rainbow Springs BMAP – Evan Williams

- The Rainbow Springs BMAP area covers two counties: Marion and Levy
 - This BMAP area is different in land-use compared to Silver Springs, it is much more rural
 - The BMAP contains two WBIDS
 - The target nitrate concentration is the same as Silver Springs, 0.35 mg/L
 - Algal mats are a problem, but they start further downstream
- There were 5 wastewater management projects in the adopted BMAP
 - Reuse projects in this area were seen as a load reduction in urban fertilizer
 - This is different than how it was accounted for in Silver Springs
 - Contained 3 large projects listed as conceptual
 - Only one of those projects may move forward, the removal of 5 package plants, pending finalization of a funding agreement.
- Rainbow Springs NSILT results
 - The same methods for the Silver Springs NSILT were used for Rainbow Springs
 - Not as much variability in recharge as Silver Springs
 - Atmospheric deposition was calculated slightly differently for Rainbow Springs
 - The rural nature of the basin makes agriculture a much larger percentage than in Silver

Priority Focus Areas – Mary Paulic

- The recently passed law (Sub-Section 373.802, Chap. 2016-1 Laws of Florida) has language about PFAs.
 - Definition: Area or areas of a basin where the Floridan aquifer is generally most vulnerable to pollutant inputs where there is a known connectivity between ground water pathways and an Outstanding Florida Spring (OFS).
 - Must be completed by July 1, 2018.
 - Must take into account factors that may lead to degradation of an OFS, such as:
 - Groundwater travel time to the spring
 - Hydrogeology
 - Nutrient load, etc.
- We have delineated PFAs following what is in the Marion County Springs Protection Ordinance
 - Approximate the 10 year time of travel
- Includes some of the known conduit flow for Silver Springs. Marion County Springs Protection Resolution was passed in 2005
 - Identifies 2 different protection zones in the county

- Only applicable in unincorporated Marion County.
 - Was adopted into Land Development Code so provides restrictions to new developments
- There were some dye studies conducted by SJRWMD to look at travel time to Silver Springs
 - Dye made it from Orange Lake Sink to Marion Correctional Institute in 181-194 days

Tracy Straub: We don't know that the dye didn't make it to silver, just that it did not within the study time.

Robert Himschoot: What were the calculations used for these studies?

Response – We can get you that information.

Robert Himschoot: Within the Marion County Springs Protection Ordinance, how many lots were developable prior to 2005, versus how many lots are now available to build?

Tracy Straub: I am not sure. The ordinance was developed with a task force. There may have been a number put together back then. Those older lots are entitled to a septic unless central sewer is available. The standards are for new lots developed.

Robert Himschoot: It would be good to know the number of lots available now that could put in a septic

Dan Dooley: The 2005 ordinance had little effect on existing lots at all.

Robert Himschoot: I would like to see the formula for how the loading for septic was calculated.

Response – We do have an NSILT document that would provide much more detail.

Robert Himschoot: The point is that we have limited field data to verify the loading calculations?

Response – The NSILT would have used the best available data.

Robert Himschoot: If you have a bad number going in to produce the calculations, what you get out of it could be wrong.

Response – We can get those people together for you to discuss the numbers and loading.

Robert Himschoot: In describing the effluent standards, there was little discussion about how OSTDS systems can meet some of those standards as well. I just wanted to bring that to your attention.

Public Comment, Lisa Saupp: The NSILT is critical and we have to really look at it. I would recommend that we keep looking at that. There is a large body of data for groundwater monitoring available for the last 10-15 years that we should look at.

Response – We did look at a lot of that data and SJRWMD is looking at it to get a feel for concentrations in the aquifer.

- The 2 OSTDS Remediation Plan Prongs are Projects, Scientific Information and Education
 - Projects
 - Since BMAP adoption, some projects have received funding
 - These are projects done by the City of Belleview
 - They are all at the planning stage right now

- We have to continue to update project information
 - There is an upcoming annual meeting for the BMAP this fall
 - We will start data collection in the next couple of weeks to update
- Scientific Information
 - The SJRWMD Springs Protection Initiative is ongoing right now.
 - Results not expected for this until 2018
 - We have a lot of data available already, though will be getting some updates for a few items.
 - There is a library folder on the FTP site, we will start loading available literature to that
 - If you know or have additional studies, let us know so that we can load those on there

Elke Ursin, FDOH

- I work in Tallahassee with DOH
 - We look at big picture a lot at the state office
 - There are about 2.7 million septic in the state.
 - The ground and soils take care of about 30% of the nitrogen from OSTDS
 - We provide coordination to ensure that good ideas in one area are applied elsewhere.
 - Connecting to central sewer is not always feasible, so we have to look at how to address those areas
- We have 2 main focuses: looking at nitrogen reduction in septic systems and creating an inventory of where they all are
 - There is a searchable web application for well and septic now
 - Called the Florida Water Management Inventory (FLWMI), located at <https://gis.flhealth.gov/FLWMI>
 - When it comes to technologies, we are working to get new tech available
 - One of our concepts was creating an idea for a lined drain-field
 - Right now our code does not allow it. We are now working with the Technical Review and Advisory Panel (TRAP) to allow that and open the door for other technologies to be used
 - We are also working to simplify some of the designs that came out of the big septic study
- In Silver, there are just over 160,000 total built parcels.
 - 52% on sewer and 46% on septic
 - In the PFA for Silver, there are 50k built parcels
 - This illustrates how making a difference in the PFA might not be enough to make enough of an impact to reduce the TMDL in 20 years
 - The loading from septic may be more than what is shown in the NSILT
 - There is a discrepancy between the number of septic found in the NSILT, and what we came up with for the FLWMI

- FLWMI has 16,000 more known and likely septic parcels
- In Rainbow, there are just over 50,000 built parcels
 - 15% are on sewer and 73% on septic
 - There are 5,200 built parcels in the PFA and 98% of them are on septic
 - There is only a 52% match between the NSILT and the FLWMI
- The FLWMI has 17,500 more known and likely septic. There is an opportunity to use the FLWMI to update the NSILT in the future
- We recently received some funding to start filling in some of the unknown parcels.
- Just because a parcel is on public drinking water, it doesn't necessarily mean there is a system that could be expanded. They could be on a limited use well.

Robert Himschoot: What are the average age of the septic systems?

Response – Don't know that yet, but we can get to that.

Robert Himschoot: I would be curious to know which ones were built prior to and after 1982 to show differentiation with the wet-season water table.

Russ Melling: The year should be 1983 for that based on the rule.

Tracy Straub: Did we make a change in 2005 to the language in the LDC to require the change to the wet-season water table?

Dan Dooley: Repairs done now do require the change. We follow the new code for repairs.

Public Education- Mary Paulic

- The overall goal is more coordinated and consistent messaging
- Many stakeholders already have some education going on
- We need community and policy-maker buy in on the messaging and want to make people aware of wastewater issues

Russ Melling: I have been involved in the Wekiva basin as well. They received money to take some septic systems offline, but homeowners voted down the issue. Education is very important. The biggest issues were the inconvenience that comes along with construction, and having a sewer bill forever. The money to convert is not the only problem for people. People didn't believe that they were part of the problem.

Robert Himschoot: It is a matter of property rights. Going to sewer doesn't automatically fix the issue. There are things that can be done onsite to correct issues as well. We need to make sure we have all of the facts to make appropriate recommendations on policy. Onsite systems can meet the needs to treat nitrate, the technology is available.

Russ Melling: I think septic systems in the right place are a good thing. We have to look at this all on a case by case basis. We can't convert all.

Roxanne Groover: We need to make sure we have factual information out there and have a good public education campaign.

Dan Dooley: I was hoping Elke could talk more about the TRAP?

Elke Ursin: The panel met in October last year and discussed the liner concept. They had a lot of questions, so tabled it for more information. DOH has been working with various experts in the field to come up with rule language. The concern is over how detailed it should be. There will hopefully be another meeting in the next month and we can reach some resolution. After the TRAP, it goes to the variance review advisory board.

Roxanne Groover: If the TRAP okays a variance, do we have to wait for it to officially go into rule before we can start using these systems?

Elka: I don't really know the answer to that one.

Russ Melling: I am a member on the TRAP. Our main concern is there are four or five different types of systems out there. It is still early on and we are concerned with making sure they work well long-term. We also have to consider that Florida has a lot of different types of soils. It is a very complex issue.

Public Comment: It is very important that the public understand the issue. They don't right now, and they tie it to politics or other issues. We have to get this information out there.

- We are thinking about meeting every other month for now because this is very data-intensive.

Russ Melling: It may be good to plan for something like 2nd or 3rd Thursday of each month.
Response – That is what we have been doing.

- September 15th will be the next meeting. We will still have to discuss the location.
- We will go through and refine the list of upcoming topics a bit based on what we discussed today
- We may need to eventually move to more frequent meetings with more intensive discussions

Bryan Schmalz: Can a presentation on the alternative systems be set up?

Response – Yes, we can do that.

Russ Melling: It may be good to wait until after the next TRAP meeting, so we don't present on something that may not work.

Elke Ursin: I would concur with that. They are still working to see how some of them scale.

Mary Paulic: It may be good to plan that out for the November timeframe.

Robert Himschoot: For the education plan, is that going to be done in-house or be an outside public relations effort?

Response – We are still looking at ideas and different ways to do this. It is possible we could work to bring in a consulting or social marketing company.

Robert Himschoot: If we get an outside company, a representative would probably need to be brought into this and sit in one the meetings now. Do you have a funding source available through DEP or DOH?

Response – There are various sources. There are legislative funds, Water Management Districts, DEP funds outside of legislative, and possibly state revolving funds. We are looking at funding as a topic for a future presentation.

Robert Himschoot: There may be some funding available through the EPA. They have a national septic smart week in September. I can get you some information on that.

Roxanne Groover: We can look at what all public education materials and efforts are already out there so we don't have to reinvent the wheel.

Terry Hansen: We are doing this process for all of our other BMAPs as well. All are more than welcome to come to those meetings.

Lisa Saupp: We have over 25,000 members in our organization. As you develop educational materials, we can help you get them out there.

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Meeting Adjourned