

# RESEARCH REVIEW AND ADVISORY COMMITTEE

## ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

### ADVISORY TO THE DEPARTMENT OF HEALTH

AUTHORITY: SECTION 381.0065(4)(o), FLORIDA STATUTES

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Final Minutes of the Meeting held at the Southwood Office Complex, 4025 Bald Cypress Way, Room 130L, Tallahassee, Florida  
June 20, 2018

#### In attendance:

#### Research Review and Advisory Committee (RRAC) Members and Alternates:

##### In person:

- Bill Melton (Vice-Chair, member, Consumer)
- Craig Diamond (member, Environmental Interest Group)
- Eberhard Roeder (member, Department of Health)

##### Via teleconference:

- Carl Ludecke (Chair, member, Home Building Industry)
- Bob Himschoot (alternate, Home Building Industry)
- Roxanne Groover (member, Septic Tank Industry)
- John Schert (member, State University System)
- Daniel Meeroff (alternate, State University System)
- Clay Tappan (alternate, Professional Engineer)
- Mark Tumeo (member, Professional Engineer)
- Eric Rollings (member, Real Estate Profession)
- Thomas Baker (alternate, Real Estate Profession)

##### Absent members and alternates:

- Elke Ursin (alternate, Department of Health)
- Chris Pettit (alternate, Local government)
- Robert Washam (alternate, Consumer)
- Geoff Luebkemann (member, Restaurant Industry)
- Mark Repasky (alternate, Restaurant Industry)
- Matt Surrency (alternate, Local Government)

#### Department of Health (DOH), Onsite Sewage Program (OSP):

##### In person:

- Ed Barranco, Ed Williams, Xueqing Gao, Debby Tipton, Alan Willet

#### Other attendees:

##### Via teleconference:

- Andrea Samson (homeowner)
- Lee Rashkin (Presby Environmental)
- Kevin Sherman (Presby Environmental)
- Denworth Cameron (Presby Environmental)
- Fred Vengrouskie (Presby Environmental)
- Ashley Garrison (Presby Environmental)

##### In person:

- Greg DeAngelo (DEP)
- Samantha Toussaint (FAMU)

- 1. Introductions** – Eight out of ten groups were present, representing a quorum. The meeting started at 1:00 pm. The agenda was presented, introductions were made, and some housekeeping issues were discussed. **Xueqing Gao** briefly summarized the discussions during the RRAC session on December 12, 2017 regarding the ranking of several high priority research projects and indicated that the focus of this meeting was to provide updates on the status of several high priority projects ranked by RRAC. In addition, Mr. Greg DeAngelo, the deputy director of the DEP Environmental Assessment and Restoration program provided updates on the development and adoption of the

# RESEARCH REVIEW AND ADVISORY COMMITTEE

## ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

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---

onsite sewage treatment and disposal system (OSTDS) remediation plans for Outstanding Florida Springs impaired for nitrogen. Xueqing Gao also announced the membership renewal of several RRAC members and the retirement of Mr. Dale Holcomb, one of the most experienced and knowledgeable staff with the OSP, on August 16, 2018.

2. **Review of previous meeting minutes – Chair Carl Ludecke** called to review the RRAC meeting minutes of the December 12, 2017 meeting.

**Motion by Mr. Craig Diamond and seconded by Dr. Eb Roeder for the RRAC to approve the minutes of the December 12, 2017 meeting with no changes. All were in favor, none opposed, and the motion passed unanimously.**

3. **Old Business and Research Program News – Xueqing Gao** went over the action items from the last meeting.

Action Item 1 - Finalize research project ranking. After the December 12, 2017 RRAC meeting, the OSP staff analyzed the scores for all eight research projects proposed by RRAC members and DOH staff and created the final ranking of these research projects. The top five high priority research projects are:

- Continuation of Florida Water Management Inventory (FLWMI) (total score received 28, ranked 1<sup>st</sup> position)
- Continued Monitoring on Passive Nitrogen-reducing Onsite Systems by the OSP (total score received 28, ranked 1<sup>st</sup> position)
- Development of Funding Mechanisms for OSTDS Remediation and Upgrades (total score received 26, ranked 3<sup>rd</sup> position)
- Correlations between Water Quality, OSTDS, and Health Effect (total score received 14, ranked 4<sup>th</sup> position)
- Estimation of Failure or Non-conformance Rates of OSTDS (total score received 10, ranked 5<sup>th</sup> position)

The OSP is continuing with the FLWMI project. The project is currently at its second phase. Detailed updates of the project would be provided in the following presentation. The OSP staff had surveyed and has, on three occasions, sampled the passive nitrogen-reducing onsite systems since April of 2017. In addition, a request for funding support from the federal 319 grant for the continued monitoring project was approved by both DEP and the U.S. Environmental Protection Agency (EPA), and a project contract had been signed between DEP and DOH. As the next step, the DOH project team will focus on completing Task 1 of the project, which is to prepare a quality assurance project plan (QAPP) and get DEP approval on the QAPP. In the meantime, OSP staff conducted online research on using the Clean Water State Revolving Fund to support OSTDS-related activities in the United States. Detailed findings from the research would be provided in a following presentation.

# RESEARCH REVIEW AND ADVISORY COMMITTEE

## ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

### ADVISORY TO THE DEPARTMENT OF HEALTH

AUTHORITY: SECTION 381.0065(4)(a), FLORIDA STATUTES

---

It is expected this year, that the OSP staff will be focusing on the three projects listed above. Once these three projects generate some meaningful results, the OSP staff will initiate the other two projects.

Action Item 2 – RRAC membership renewal. Three RRAC members, Mr. Craig Diamond (Environmental Interest Group), Mr. Geoff Luebke (Florida Restaurant and Lodging Association), and Ms. Roxanne Groover (Florida Onsite Wastewater Association), whose old memberships expired by the end of January of 2018, were reappointed. The renewed membership will continue through January 31, 2021. The Department sincerely appreciates their continuing efforts in guiding OSP's research activities. In addition, Mr. Mark Repasky indicated that he would soon send in his membership renewal materials.

Ms. Elke Ursin had been appointed as an alternate member on behalf of DOH to serve on the RRAC committee. Her term will continue through January 31, 2021.

Action Item 3 – Draft meeting minutes for the December 12, 2017 meeting. The draft meeting minutes for the December 12, 2017 meeting had been posted on <http://www.floridahealth.gov/environmental-health/onsite-sewage/research/rrac.html>. All the other materials related to the meeting were posted on the same website.

**Xueqing Gao** summarized the Program News:

- (1) Mr. Dale Holcomb, after working with the Environmental Health Program for 37 seven years, will retire. His official last day with the program will be August 16, 2018. A retirement party will be held for Dale to show appreciation to his contribution and congratulations to his new life. Mr. Ed Barranco was in the process of recruiting for the position.
- (2) The OSP previously requested to the legislature for an annual categorical budget of \$1.4 million to support the permitting activities related to the implementation of OSTDS remediation plans in basins of nutrient-impaired Outstanding Florida Springs. About \$1.3 million had been approved by the legislature for onsite sewage staff augmentation in springs counties. However, county health department across Florida took a \$40 million reduction in salary appropriations throughout the state in the last two legislative sessions, which caused concerns whether the cut would impact the county health department's capability to carry out the OSTDS remediation plan-related permitting activities. After contacting the spring counties, the OSP staff found that, except for a couple of springs counties located in agriculturally dominated areas, which do not expect dramatic increase in workload related to the OSTDS remediation plans, the salary cut would not have any significant impact on the counties where OSTDSs are major contributors.
- (3) To support the implementation of the OSTDS remediation plans, the OSP revised the Rule 64E-6.009(7), F.A.C. to include an in-ground nitrogen-reducing biofilter system. The Notice of Proposed Rule for the revision was published on March 23, 2018. A public hearing was held on April 16, 2018. No challenges were received by OSP. Several written comments were received. Department staff were working on addressing these comments and rulemaking was in progress. It was expected that the rule would become effective by early August, 2018.
- (4) The Onsite Sewage Program developed a set of educational materials related to the implementation of the OSTDS remediation plans. These materials had been posted on the

# RESEARCH REVIEW AND ADVISORY COMMITTEE

## ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

### ADVISORY TO THE DEPARTMENT OF HEALTH

AUTHORITY: SECTION 381.0065(4)(o), FLORIDA STATUTES

---

program's website (<http://www.floridahealth.gov/environmental-health/onsite-sewage/index.html>) and are accessible by the public.

4. **Updates on the Basin Management Action Plans (BMAP) OSTDS Remediation Plans – Mr. Greg DeAngelo** provided updates on the development and adoption of the OSTDS remediation plans. He started by indicating that the DEP Environmental Assessment and Restoration Program is responsible for implementing the Florida Watershed Restoration Act, which entails setting the water quality criteria for waters of the state across Florida, including springs, lakes, rivers, and estuaries. The program is also responsible for monitoring these waterbodies by collecting water quality samples and assessing these waterbodies against the water quality criteria. Waterbodies that are not meeting those criteria, are placed on a list for developing the total maximum daily loads (TMDLs), which specify the maximum amount of a given pollutant that can be discharged into a receiving water without causing impairment. TMDLs are the restoration targets for impaired waters. For nutrient impaired springs, the pollutant under concern is nitrate. The target nitrate concentration is either the general 0.35 mg/L for Florida springs or site specific nitrate concentration targets established during the TMDL development. After setting the TMDL targets, DEP works with sister agencies such as DOH, the Department of Agriculture and Consumer Services, Water Management Districts, and the public to come up with restoration plans. Those are the Basin Management Action Plans (BMAPs). All the components mentioned above are part of the Florida Watershed Restoration Act existed since 1990s.

In 2016, Florida legislature passed the Florida Springs and Aquifer Protection Act, designating 30 Outstanding Florida Springs across the state. DEP was required to assess each of those springs to establish water quality restoration target (TMDL) on the way towards developing the BMAPs. All work had to be completed by July 1<sup>st</sup>, 2018. In addition to developing these BMAPs, the Florida Springs and Aquifer Protection Act also requires that DEP establish the priority focus area (PFA) in nutrient-impaired spring basins. The statute carries certain prohibitions on activities in PFAs.

Since December of 2017, DEP has held public meetings for all spring BMAPs and completed that in the beginning of June. DEP also finished all the meetings with advisory committees for spring basins where advisory committees had been established. In the past 18 months, DEP held more than 100 public meetings in spring basins of 24 impaired Outstanding Florida Springs.

In addition to establishing PFAs, an OSTDS remediation plan is required for each of these impaired springs. These plans include an assessment of relative contributions of nitrogen from different sources. All thirteen spring BMAPs developed by DEP included OSTDS remediation plans and PFA. However, not all of these BMAPs will require enhancement of the existing systems.

**Bill Melton:** Will these BMAPs be adopted instantaneously upon delivery or will it take a period of several months to put them into the rule book?

**Greg DeAngelo:** They will be adopted and become effective when they are clerked – the day after the Secretary signs them. These BMAPs are not rules and they will not be put into rule books. But they still go through the same public processes. On the day the Secretary signs these BMAPs, DEP will send out a notice to all stakeholders on DEP's distribution list to notice everybody that these

# RESEARCH REVIEW AND ADVISORY COMMITTEE

## ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

### ADVISORY TO THE DEPARTMENT OF HEALTH

AUTHORITY: SECTION 381.0065(4)(a), FLORIDA STATUTES

---

BMAPs have been adopted and the 21-day challenge period has begun. DEP is also required to publish advertisement in newspapers of general circulation in the areas of BMAPs. During the challenge period, people can challenge one or more of the BMAPs or request time for filing a challenge. BMAPs will become effective and stay effective during the challenge period. There is no delayed implementation.

**Ed Williams:** If somebody does challenge these BMAPs, will these BMAPs be delayed due to the challenge?

**Greg DeAngelo:** Yes. In addition, the challenge is not the only process that can delay the implementation of these BMAPs. Request for extension of time to file a challenge would similarly hold these BMAP in advance. DEP has a real-time PFA map showing the areas covered by PFA and BMAPs, which is located at <http://www.floridadep.gov/pfamap>. DEP is now in the process of updating the map so that it will show which BMAPs are effective and which BMAPs are pending so that DOH County Health Departments will know where issuing permit to conventional systems will be prohibited.

**Eb Roeder:** If one BMAP is challenged, will the challenge only stop that one BMAP?

**Greg DeAngelo:** It will only stop the one BMAP being challenge. DEP is working on refining the PFA map so that the pending or effective status of each individual BMAPs can be shown. This feature will become available by the time the Secretary signs these BMAPs.

For areas where these BMAPs are effective, starting from July 2nd, within the PFAs on lots less than one acre, conventional OSTDSs will not be allowed for new construction. Homeowners will be required to either install a nitrogen-reducing system or connect to sewer. Permits for conventional systems will only be allowed if sewer will become available within five years of permit application.

**Ed Barranco:** So now the BMAP language is back to “within five years” as oppose to “listed in the BMAPs as projects”?

**Greg DeAngelo:** Correct. The language evolved. The current language in all BMAPs are the same, which is “within five years of the permit application”.

**Bill Melton:** Does the five-year tie to the local governments’ five-year capital improvement program?

**Greg DeAngelo:** It is more related to the time required for local governments to prepare a wastewater management master plan, for the DEP to make funding available to enhanced OSTDSs and DOH rule making processes. It is also related to the requirement from the Florida Springs and Aquifer protection plan that the restoration target needs to be achieved within 20 years.

**Bob Himschoot:** Why would so much emphasis be put on central sewerage when putting in nitrogen-reducing systems will accomplish the same thing? DEP seems to have the philosophy of sewerage the world while most of the wastewater treatment plans only achieve the secondary treatment level before they discharge to rivers and the ocean. Why does DEP not encourage the

# RESEARCH REVIEW AND ADVISORY COMMITTEE

## ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

### ADVISORY TO THE DEPARTMENT OF HEALTH

AUTHORITY: SECTION 381.0065(4)(a), FLORIDA STATUTES

---

use of onsite systems that can achieve high treatment standard and recharge the water to the ground?

**Greg DeAngelo:** That is a fair point. BMAPs do not force sewerage. What the BMAPs require is for the conventional systems to be off the table as per statute. Either connecting to sewer or installing a nitrogen-reducing system would be perfectly viable under these BMAPs.

**Ed Barranco:** DOH is currently working on a guidance document to tell county health department what to do when these BMAPs become effective. One of the things that DOH instructs the county health departments to do is to contact utilities to find out whether sewer will become available. At the time this guidance document was constructed, the five-year element was not in play. When submitting a permit application, the applicant, most likely, will not have a clue about the sewer availability in the future. We will continue to instruct the county health departments to contact the utility for the information. Will the utility be able to provide the information on future sewer availability?

**Greg DeAngelo:** DEP does not mean that applicants must provide the information on future sewer availability. If contacting the utility for the information is a better approach to get the information, DEP is fine with that.

**Ed Barranco:** Historically, we have that communication in various different manners within different counties. But we communicated about the sewer availability. The added feature of five-year is what becomes a question. We don't know whether the sewer authority knows whether a sewer will become available in five years out. If the sewer authority does not make the statement, we will have to assume that the sewer is not available and the permit applicant will have to go with the advanced onsite system.

**Andrea Samson:** We had a conversation with Drew Bartlett not too long ago. He told us that the county has five years to develop a plan and DOH is going to fund the feasibility study. How is that related to the five-year concept discussed here?

**Greg DeAngelo:** What I have been talking about is the new systems. Let's now talk about the existing systems. When will the requirement on the existing system kick in. The answer is not by July 2<sup>nd</sup>. The answer is sometime in the next five years after three things have happened. The three elements include the completion of the master feasibility studies, the establishment of the funding mechanism to support the new requirement on the existing systems, and DOH rule making that allows them to better integrate the requirement of the BMAP into their permit decisions. The funding mechanism will be established within months from now and will be well within the five-year timeframe. When all three elements are ready, DEP will revise the BMAPs to put the requirement on existing systems into play and make the requirement enforceable. The BMAPs provide a five-year period for all these three elements to happen.

The policy on the existing system will vary from basin to basin. For those agriculturally dominated spring basins, such as Suwannee, Santa Fe, Wacissa, and Jackson Blue Spring basins, BMAPs will not require implementation on any existing systems. For these spring basins, the BMAPs will only require what statute requires on the new systems. There are areas where only existing

# RESEARCH REVIEW AND ADVISORY COMMITTEE

## ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

### ADVISORY TO THE DEPARTMENT OF HEALTH

AUTHORITY: SECTION 381.0065(4)(a), FLORIDA STATUTES

---

systems located in the PFA will be impacted by the BMAP implementation, while in other spring basins, the impacted areas can be larger than PFAs. The important take home lesson is that the BMAP implementation on existing system will not start until all three elements are ready and BMAPs are revised to indicate the implementation.

**Andrea Samson:** The BMAP for the Wekiva area does not have those three elements when I last looked at the BMAP report. Has the BMAP been revised to include those things?

**Greg DeAngelo:** Yes.

**Bill Melton:** So, the home site greater than an acre will be exempted essentially?

**Greg DeAngelo:** A new system on home site greater than one acre will be allowed to put in conventional systems anywhere in the state under the current BMAP. Following conclusion of the DOH rule making, there could be areas where that policy will change and be modified. For the existing systems, when the implementation starts, systems on lots of all sizes in some basins (for example, Kings Bay-Crystal River basin) may be impacted when they need repair and modification.

**Carl Ludecke:** It was estimated that the nitrogen-reducing systems will cost anywhere between \$13,000 to \$17,000 for new homes. They also have to be inspected twice a year at \$500 per inspection. That is \$1000 per year for these enhancement systems. Is it a reasonable estimation?

**Greg DeAngelo:** Some technology solutions that are permissible for nitrogen reduction do need inspections. But that is exactly why DOH revises the rule to put additional options on the table that may not need that level of inspections.

**Ed Barranco:** The rule that DOH is revising is attempting to provide a low-cost alternative to the existing alternatives in the rules that are performance based treatment systems and aerobic systems certified for the NSF 245 standard. Some of these more advanced systems require operating permits, maintenance contracts, and inspections by those maintenance entities. The costs of those systems are variable.

**Ed Williams:** Does DEP have a maximum reimbursement limit? Does a homeowner need to have three bids to get the lowest price?

**Greg DeAngelo:** The three bids will not be a requirement. DEP is still working on the funding details. But we are trying to make it as easy as possible for the homeowners. Three bids or reimbursement that homeowners need to have out-of-pocket money will not work for low-income communities. Ideally, DEP will have a contract with counties or other entities that will pay for the construction and then get reimbursement from the state. DEP is still working on how much we will pay for each system.

**Carl Ludecke:** Marion County, Pasco County, Citrus County, and Orange County requires the BMAP implementation after July 1<sup>st</sup>. But Lake County and Sumter County have not made that decision yet. Does DEP have any update on that?

# RESEARCH REVIEW AND ADVISORY COMMITTEE

## ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

### ADVISORY TO THE DEPARTMENT OF HEALTH

AUTHORITY: SECTION 381.0065(4)(a), FLORIDA STATUTES

---

**Greg DeAngelo:** I am not familiar with the local county ordinances.

**Eb Roeder:** If you look at the map, the Wekiva PFA does not extend to include Lake County.

**Greg DeAngelo:** Correct. At this point, the implementation of BMAPs only cover the system in PFA.

**Carl Ludecke:** Where is the PFA map posted?

**Greg DeAngelo:** A good place to go to stay up to date is <http://www.floridadep.gov/pfamap>. Another good place to go would be <http://www.floridadep.gov/springs>. That is the home page for all things that are springs related. If you scroll down the page, you will find a link called "protecting springs". That is DEP's spring page. There, you can find frequently asked questions, documents, and description of BMAPs and spring protection. There are also factsheets for homeowners, builders, local government, and utilities, and other information. When these BMAPs are adopted, they will also be on the DEP main BMAP page. The page is easy to find through the <http://www.floridadep.gov/springs> link.

**Clay Tappan:** If a system fails during the 5-year period but the funding source is not available yet, Is the repair deferred until funding is available or will the funding differential cover the whole replacement since the homeowner already paid for a basic system repair?

**Greg DeAngelo:** Before funding becomes available, the repair does not need to be deferred. You can repair to the existing condition. That is repair to the functioning condition of existing conventional system without the nitrogen-enhancement system.

**Ed Barranco:** It would be slightly different for a new system that is impacted by the prohibition. Should it fail in the next five years, it will need to meet the nitrogen requirement, which is now in our rule.

**Greg DeAngelo:** That is a very good point. I am sure that we haven't thought through all those wrinkles yet. In five years, us or someone like us will think through those points when we revise our BMAPs as we roll out the existing system requirement in five years.

**Andrea Samson:** It is amazing to her that so little thoughts have been given to the chaos this is creating in the real estate market.

**Greg DeAngelo:** DEP has been talking to the Realtor Association in Florida and spoke at the association's annual meeting. When the requirement on the existing system is implemented, the homeowners should be held harmless to the nitrogen enhancement. If a septic system is going to fail, it is going to fail irrespective of these BMAPs. The state will cover the additional cost beyond the original repair.

**Eric Rollings:** I was appointed by the realtors to represent the real estate industry. For anything new and any changes, there is always a learning period. But I couldn't agree more that, with the due diligence that you have on a contract, you should be getting the task of inspection on anything



# RESEARCH REVIEW AND ADVISORY COMMITTEE

## ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

### ADVISORY TO THE DEPARTMENT OF HEALTH

AUTHORITY: SECTION 381.0065(4)(a), FLORIDA STATUTES

---

existing anyway. Realtors are concerned about water quality, property values for those that are on the water and the waters are dirty and more prone to algae bloom.

**Clay Tappan:** If a system fails before the funding source is identified and available, and the homeowner does the repair, when the funding source becomes available, does the homeowner have to do anything or nothing happens because it is now a functioning system until another failure occurs?

**Greg DeAngelo:** The system is a functioning system and, until the system fail again, the homeowner does not need to do anything.

- 5. Updates on the Department of Health Chapter 64E-6.009 Rule Revision:** Mr. Ed Barranco first provide a brief update on the status of the rule revision efforts. He indicated that the rule revision not only included Section 64E-6.009(7), which is the inground nitrogen-reducing biofilter (INRB), but also included the change to the aerobic system 64E-6.012, which officially recognizes the NSF 245 certified units. NSF 245 units must first be the NSF 40 units. As many as 600 NSF 245 units have been installed in the state reducing nitrogen to the 50% level.

The proposed notice of rulemaking went out on March 23<sup>rd</sup>. A public hearing was held on 16<sup>th</sup> of April. DOH got multiple comments. Among those comments, DOH got a request to provide the low-cost alternatives, which triggered the Department to provide a Statement of Estimated Regulatory Cost (SERC). The SERC was released on June 12, 2018 to the party that requested it. It will also be published on our website. This started the 21-day challenge period for the SERC. If no challenge will be received at the end of the 21-day period, the Department will file for the rule adoption. Twenty days after the rule adoption is filed, if there are no challenges received, the rule will become effective. The effective date will be around 1<sup>st</sup> of August.

**Ed Barranco** then went over:

- (1) General structure and dimension of the INRB system.
- (2) The INRB will be regulated the same way as the conventional drainfield.
- (3) Structure of the nitrification layer, focusing on the size, thickness, and soil types.
- (4) Structure of the denitrification layer, focusing on the size of the layer, type of lignocellulosic materials allowable, and fine aggregate mixture.
- (5) Other requirements of the INRB:
  - a. Inspection need.
  - b. Setback needs.
  - c. Public record notice need.
- (6) Repair of INRB systems.

**Bill Melton:** Can there be subsidence of the drainfield due to break-down of the lignocellulosic materials?

**Ed Barranco:** The Florida Onsite Sewage Nitrogen-Reduction Strategy (FOSNRS) study did not document significant subsidence. The design of the system is to keep the ligno-fine aggregate

# RESEARCH REVIEW AND ADVISORY COMMITTEE

## ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

### ADVISORY TO THE DEPARTMENT OF HEALTH

AUTHORITY: SECTION 381.0065(4)(a), FLORIDA STATUTES

---

mixture moisturized as much as possible to prolong the life of the denitrification layer. The FOSNRS study indeed provided some longevity estimations, which range between 30 and 100 plus years.

**Bob Himschoot:** Quality of mixture (Woody) is hard to qualify.

**Ed Barranco:** We have received some questions regarding the quality of the mixture. We are looking at some standards. The issue will require us to bring it back to the Technical Review and Advisory Panel (TRAP). Recently, we also received comments regarding the availability of some fine aggregates, which was not brought up during the development of the revised rule language. This is another issue that will be brought up to TRAP.

**Andrea Samson:** One concern that homeowners in the Wekiva area have is that we have heavily wooded lots. Using my own yard as an example, I have two huge oak trees in the middle of my yard. I currently have a 650 square feet drainfield because it was repaired eight years ago. If I install an INRB in my yard, will the 650 square feet suffice without taking out my trees?

**Ed Barranco:** The sizing of the INRB will follow the conventional standard both for new systems under the utilization of the target loading rate and for repairs based on repair standards. The base size of your drainfield will not be changed. But you do have to accommodate some additional areas for the extension of the nitrification area and the denitrification area.

**Andrea Samson:** My drainfield is now running right against the bed that contains two very large trees. If INRB needs to go another 12 inches, I am going to lose those trees. Do you have a variance option?

**Ed Barranco:** Anything that we have a rule written for, we have a variance option. So, you can request a variance. At the same time, we have been saying all along that INRB is not for every site. About 30% of the area across the spring BMAP areas may qualify for INRB. This is because specific standards are set for INRB. Number one, the soil needs to be sandy. Number two, seasonal high water table needs to be meet the standard. If you have relatively high water table, your system may need a mound 12" taller than the mound for the conventional system because INRB includes a 12-inch lignocellulosic layer. Some people may choose to install aerobic treatment unit (ATU) certified for NSF 245 standard instead of a tall mound. INRB may not be the best option for your site.

**Lee Rashkin** asked some detailed questions regarding how the INRB system were tested. **Ed Barranco**, and **Eb Roeder** provided answers.

- 6. Updates on the OSTDS Funding Investigation: Xueqing Gao** presented findings obtained from investigation on the use of the Clean Water State Revolving Fund (CWSRF) to support construction, repair, modification, and enhancement of the onsite wastewater systems in other states. His presentation covers:
- (1) Possible funding sources for management of onsite systems available in Florida.
  - (2) General background of CWSRF.
  - (3) Status of using CWSRF to support the management of onsite wastewater systems in the United States.

# RESEARCH REVIEW AND ADVISORY COMMITTEE

## ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

### ADVISORY TO THE DEPARTMENT OF HEALTH

AUTHORITY: SECTION 381.0065(4)(a), FLORIDA STATUTES

---

- (4) Mechanisms of distributing the CWSRF to homeowners.
  - a. Direct lending.
  - b. Lined deposit.
  - c. Pass-through funding.
- (5) Local government entities serving as intermediate fund dispensing entities between the CWSRF funding agency and individual homeowners.
- (6) Management activities for the onsite wastewater systems that are eligible for the CWSRF funding.
- (7) Establishing the funding terms.
- (8) Securing the loan payback.
- (9) Assisting the low-income communities.
- (10) Challenges of using CWSRF to support management of onsite wastewater systems.
- (11) Major projects usually supported by CWSRF in Florida.
- (12) Challenges of using CWSRF for OSTDS in Florida.

**Bob Himschoot:** Where do you plan to take this project next?

**Xueqing Gao:** The findings from this investigation help us better understand how other states use the CWSRF to support the OSTDS-related activities. Based on this knowledge, we can communicate with the local governments in Florida to see if they are aware of CWSRF as a possible funding source for OSTDS activities. If they are, find out what the major challenges are that prevent the local governments from using CWSRF and whether we can come up with solutions to encourage the use of this funding source.

**Bob Himschoot:** Is the Department doing the investigation or have you work with other entities to conduct the investigation?

**Xueqing Gao:** Currently, the Department is doing the preliminary investigation. As we obtain information and gaining better understanding of the issue, we will consider cooperating with other entities for the study.

**Ed Barranco:** The key to this study should be to get the buy in from the local government. We need to understand their needs, their expertise, and their capacity.

**Craig Diamond:** Most counties have grant coordinators that work with other programs, DEP, and other state agencies. You may want to talk to them to evaluate their savvy in respect to work with the state revolving fund.

#### 7. Updates on the Florida Water Management Inventory (FLWMI) Project: Dr. Eb Roeder

provided a brief update on the status of the Florida Water Management Inventory Project, which covers:

- (1) Data improvements – filling the data gap, updating the FLWMI system with more recent data, and linking the FLWMI geodatabase with the Environmental Health Database.
- (2) Added features to the web application posted on the public site that allows public to enter their addresses and identify the information about the wastewater treatment methods and drinking water source on their property.

# RESEARCH REVIEW AND ADVISORY COMMITTEE

## ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

### ADVISORY TO THE DEPARTMENT OF HEALTH

AUTHORITY: SECTION 381.0065(4)(a), FLORIDA STATUTES

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- (3) Collaborations with the Environmental Public Health Tracking to generate state-wide service area boundary for public drinking water systems to link impacted population with Fluoridated water or water quality violation, and with the Florida Resources and Environmental Analysis Center to remap inventory data to population density and generate bivariate mapping so that wastewater information and drinking water information can be easily displayed on the same map.
- (4) Funding expectation for the FLWMI project

**Craig Diamond:** St. Johns River Water Management District has water supply data. They generate maps similar to those from FLWMI. They are in the process of doing the projection of long-term water supply and water demand needs for residential and commercial areas. It would be beneficial for both sides to coordinate to prevent reinventing the wheel.

**Clay Tappan:** While RRAC ranked FLWMI as one of the high priority research project for this year, it may be better to turn this project into the maintenance responsibility of the Department or a third-party entity with continued funding from the Department. Is going through RRAC the only way to keep the project going?

**Eb Roeder:** So far, the FLWMI project has been funded through various grants. There is no fixed money for this project. For the last few years, there has not been much research money being used for this project because it is funded by other funding sources. It appears that, for the next year, we will need consider whether putting some research money into the project will be needed.

**Xueqing Gao:** Before every RRAC meeting, DOH will send a meeting packet to each RRAC member through mail and email. We received suggestions from several RRAC members that email attachments for the materials would be sufficient for them and they don't need hard copies through the mail. Xueqing wanted to do a quick survey to RRAC members still with the meeting to determine who needs both email and mail packets and who needs only the electronic email attachment:

**Eb Roeder:** electronic email attachment only.

**Elke Ursin:** electronic email attachment only.

**Roxanne Groover:** electronic email attachment only.

**Carl Ludecke:** both electronic email attachment and hard copy mail.

**Bob Himschoot:** both electronic email attachment and hard copy mail.

**Craig Diamond:** electronic email attachment only.

**Bill Melton:** both electronic email attachment and hard copy mail.

**John Schert:** both electronic email attachment and hard copy mail.

**Clay Tappan:** electronic email attachment only.

**Daniel Meeroff:** electronic email attachment only.

**Thomas Baker:** electronic email attachment only

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**Motion by Mr. Bill Melton and seconded by Mr. Craig Diamond, for the RRAC to adjourn at 4:00 p.m. All were in favor, none opposed, and the motion passed unanimously.**