

**Virginia Department of Health (VDH)  
Sewage Handling and Disposal Advisory Committee (SHADAC)  
September 16, 2016**

**Meeting locations:**

5<sup>th</sup> Floor, Main Conference Room  
James Madison Building  
109 Governor Street  
Richmond, Virginia 23219

**Remote Location:**

Christiansburg Health Department  
210 South Pepper Street, Suite A  
Christiansburg, Virginia 24073

**List of attendees at central location:**

Advisory Committee Members

Mike Lynn	David Fridley	Curtis Moore	Alan Brewer
Cody Vigil	Jeff Walker	Laura Farley	Vincent Day
Dwayne Roadcap	James Hall	Colin Bishop	V'lent Lassiter

Ms. Farley sat in as the representative for the Virginia Association of Realtors.

VDH Staff and Members of the Public

Marcia Degen	Lance Gregory	Angela Redwine	Mike Burch
Tom Ashton	Reed Johnson	Justin Demora	Sean McGuigan
Kristin Marie Clay	Adam Feris		

**List of attendees at remote location:**

Advisory Committee Members

Bill Timmons

**Administrative**

1. Welcome.

Chairman Lynn welcomed the committee members, VDH staff, and the public to the meeting.

2. Approve agenda.

Mr. Moore made a motion to approve the agenda. The motion was seconded by Mr. Hall. The committee approved the agenda.

Mr. Walker then asked for 5 to 10 minutes to discuss competitive interest and how that aligns with public health which VDH is charged with protecting.

Mr. Vigil seconded the request. All members were in favor.

### 3. SHADAC appointments.

Mr. Gregory informed the committee of four update appointments to the SHADAC: Mr. Moore to represent the Virginia Onsite Wastewater Recycling Association; Mr. Walker representing the Virginia Association of Professional Soil Scientist; Ms. Karen Fried representing the Virginia Association of Realtors; and Mr. Day representing the Virginia Section of the American Institute of Professional Geologists.

Mr. Walker asked whether the Virginia Association of Onsite Soil Evaluators (VAAOSE) would receive an appointment on the SHADAC. Chairman Lynn suggested adding the question to the agenda.

### 4. Review summary from June 3, 2015 meeting.

Mr. Vigil made a motion to approve the summary. Mr. Walker seconded the motion. All members voted in favor of approving the summary.

### **Public Comment Period**

There were no public comments received.

### **Old Business**

#### 1. GMP 2015-01 FAQs.

Prior to the meeting, Mr. Gregory provided committee members with a copy of frequently asked questions (FAQs) for Guidance Memorandum and Policies (GMP) 2015-01 discussed by a subcommittee of the SHADAC. The FAQs were split into two categories, those where the subcommittee reach consensus on the proposed response and those where the subcommittee felt additional discussion was necessary. Mr. Gregory asked for comments on the FAQs, specifically those where the subcommittee reach consensus.

Mr. Walker commented that in his area of the state some designers are using 20 year old documents to support a design without even going to the site. Mr. Walker recommended a change in VDH policy.

Mr. Roadcap referred Mr. Walker to GMP 153 which deals with certification from licensed professional.

Mr. Walker asked whether VDH allows employees to provide soil work to a license professional engineer to complete a design.

Mr. Roadcap commented that soil work completed by VDH staff is a public record, and a license professional could refer to that soil work under their own designer's license.

Mr. Walker commented that the Department of Professional and Occupational Regulations (DPOR) has a policy that professional engineers must have a certification from the soil evaluator that they are responsible. Mr. Walker voiced concern that VDH has some risk management issues and liability issues if other licensed professional are using VDH staff's soil work.

Mr. Roadcap suggested inviting DPOR to a future meeting to discuss the matter in greater detail.

Ms. Clay asked whether Mr. Walker was referencing the Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects (APELSCIDLA) or the Board for Waterworks and Wastewater Works Operators and Onsite Sewage System Professionals (WWWOSSP).

Mr. Lynn stated that he sees two issues: 1) private designer using VDH's work, or 2) private designer using another private designer's work.

Mr. Walker clarified that the issue could be a professional engineer (PE) using and onsite soil evaluator's (OSE) work, or an OSE using another OSE's work.

Mr. Lynn stated that another question for DPOR, is whether an OSE can draw on a surveyor or PE plats.

Mr. Brewer suggested that a subcommittee work on the issue, and then have the whole committee evaluate a proposal from the subcommittee.

Mr. Walker suggested that the SHADAC recommend that Commissioner ask DPOR to reconvene the OSE/PE workgroup.

Mr. Roadcap asked for clarification on the problem the committee was trying to solve. He stated that it may not be appropriate for the SHADAC to ask the Commissioner to ask another agency to create a workgroup.

Mr. Fridley commented that the issue seems largely an area for DPOR to work on. VDH could discuss the status of soil evaluations on file at local health departments regarding their status as a public document.

Mr. Fridley moved that the committee clarify the point of the availability of existing records on file with local health departments; clarifying their status as being public records.

Mr. Bishop seconded the motion.

Mr. Roadcap commented that records on file at the local health department are public documents, anyone can receive a copy.

The committee voted 6 to 5 not to carry the motion.

Mr. Lynn asked Mr. Gregory to send out dates to schedule another meeting for subcommittee.

2. Proposed fast track regulations regarding direct dispersal.

Mr. Gregory stated that since the last meeting he had not received any comments on the draft fast track regulatory language for repairs and voluntary upgrades that constitute direct dispersal.

Mr. Roadcap added that 18 variances have been issued so far, and that homeowners and private sector providers have reported that the requirements for direct dispersal are too costly for repairs and voluntary upgrades. Mr. Roadcap would like to move forward with the proposal, but wanted to give the committee a final chance to discuss before moving the issue before the Commissioner.

Mr. Walker stated that the Virginia Association of Professional Soil Scientist supports the proposal.

Mr. Bishop stated that there is inconsistency in the proposal as VDH would be backing off of total nitrogen, biological oxygen demand and total suspended solid standards for direct dispersal, but not backing off disinfection.

Mr. Walker asked whether the proposal should be extended to large systems.

Mr. Moore suggested that VDH may want to reserve that capability to grant those under individual variances.

Mr. Day asked how many systems could potentially be impacted.

Mr. Roadcap commented that it could be tens of thousands.

Mr. Walker made a motion that the SHADAC has reviewed the proposal and recommends that agency move forward with the fast-track.

All were in favor; the motion passed.

3. Motion: Letter from the committee to the State Health Commissioner.

Mr. Brewer provided background on how he developed the language in a draft letter to the Commissioner based on a motion from the last meeting. Specifically, he used the meeting summary to craft the justification section of the draft letter.

Mr. Roadcap commented that he did not believe the committee needed the last section on approval. Mr. Roadcap also commented that he does not believe the SHADAC has to ask the Commissioner to direct the SHADAC to work on something. The committee could decide itself to work on a specific topic.

Mr. Brewer commented that the committee has limited resources, and the recommendations in the draft letter are going to take some time develop. He believes it is appropriate for the Commissioner to direct the committee to work on the issue because it will take significant resources from committee members to complete.

Mr. Walker commented that his intent in supporting drafting a letter was to increase the number of systems available for use within Virginia. If another state approves a treatment system the manufacturer should not have to go through so much difficulty reviewing the product in Virginia. Mr. Walker commented that the draft letter creates a lot of work without much benefit. He made a motion to discard the letter as written.

There was no second to move the motion forward.

Mr. Moore stated that the argument is there is not an appreciable difference between TL-2 and TL-3 effluent, so the question is whether there is a substantial need to have that difference in the regulations. The intent of the motion to draft a letter to at least go back and look at the issue and make sure that there is an appropriate demarcation between TL-2 and TL-3.

Mr. Moore made a motion to remove the approval section in the draft letter.

Mr. Vigil seconded the motion.

Mr. Brewer asked to make an amendment to the motion to give the Chairman the ability to make editorial amendments to the draft letter.

Mr. Vigil seconded the motion.

The motion passed with Mr. Walker abstaining.

Mr. Bishop asked whether there will be a subcommittee formed to work on the issue once a response from the Commissioner is received.

Mr. Roadcap stated that he suspects there are other interested parties that would be included in the discussion.

#### 4. Potential white papers form the SHADAC and its representative organizations.

Mr. Walker commented that VAPSS is disappointed in the way VDH is using its resources to support statistics, and that he has to submit freedom of information act request to get information that should be public information. He stated that VAPSS has suggestions for how VDH could

streamline its resources, rather than providing direct services. VAPSS would like VDH to take these concerns seriously.

Mr. Lynn commented on a need to determine whether all or part of the committee supports the issues that VAPSS is bringing forward. He added that since VAPSS continues to bring this issue forward, then it may be up to VAPSS to bring a product forward to the committee for review.

Mr. Brewer commented that white papers could be a mechanism for bringing issues forward, and may be more appropriate for providing background on difficult issues. Mr. Moore agreed.

Mr. Walker stated that typically a white paper is used to inform someone ahead of a decision. He added that if VAPSS creates a white paper, it will take it directly to the Commissioner or the Secretary, but VAPSS won't use resources to inform people that should already be informed.

#### 5. TL-3 field evaluation policy.

Dr. Degen commented that GMP 147 has been around since 2009, and VDH has been working on an update to that policy. The revision has gone through the SHADAC for review, and is now at the Commissioner's Office for approval. One new item in the proposed revisions is an option for manufacturers to request a variance. VDH has heard about the need to be able to use data from outside of the state.

Mr. Walker asked whether product reviews are specifically completed by VDH PEs.

Dr. Degen stated that reviews are not specifically required to be done by a PE, but all reviews are done by VDH's technical service engineer staff.

Mr. Vigil commented that some of these field evaluations are very expensive, \$50,000 to \$100,000 to prove what has already been done in other states.

Mr. Bishop commented that manufacturers are being asked to resubmit for approval something that has already been approved. He asked at what point does a system that has been used for 20 years become a conventionally used system.

Mr. Walker commented that the additional testing cost will increase the cost of the treatment units in Virginia.

Mr. Lynn commented on the wide disparities in enforcement of operation and maintenance throughout the state. For years VDH spoke about shifting the focus of the program from the front end to the back end (operation and maintenance), but VDH is still ignoring the back end.

Dr. Degen clarified that the new separation distances in the Regulations for Alternative Onsite Sewage Systems were based on the level of treatment being achieved. If VDH is looking at reevaluating the acceptance of just a TL-2 standard, then the agency may also need to reassess separation distances.

Mr. Walker commented that OEHS has to figure out how we get back to risk assessment, and away from competitive interest.

6. TN field evaluation policy and multi-state agreement.

Dr. Degen spoke about a copy of a recent watershed agreement that was shared with the SHADAC which states that VDH will accept field data from other states for total nitrogen testing. The agreement is not doing approvals state to state, but VDH can use testing from other states to approve a system under VDH's policy.

Mr. Bishop commented that the agreement creates a conundrum, because some other states require testing in their state. So if a manufacturer is testing total nitrogen in another state, they will also likely be testing BOD and TSS in that state as well. However, VDH does not accept BOD and TSS testing from out of state.

### **New Business**

1. Enforcement/requiring repair of failing systems versus voluntary upgrade.

Mr. Roadcap commented that when homeowners come to VDH with septic issues they either tell us they have a failing system or they want a voluntary upgrade. With a repair owners are subject to criminal prosecution; with a voluntary upgrade owners are not required to install the upgrade. Additionally, voluntary upgrade waivers transfer ownership, where a repair waiver does not transfer ownership. Sometimes VDH has situations where a designer will come in and apply for a repair application, but the owner says they are not having a problem they are just applying based on advice from a contractor. The issue for VDH is if an agent for the owner applies for a repair, VDH hasn't physically seen a failure. The line is getting blurred between repairs and voluntary upgrades. The repair piece of this problem is that the regulations say sewage on the ground surface or backing up in the home is a failure. Then we have a nebulous section in the regulations that talks about polluting groundwater. However, VDH essentially is issuing permits to pollute. If you have an undeveloped property, and then install a regulatory compliant sewage system, you are polluting to some extent. There are not specific policies being presented on this issue. Mr. Roadcap just wanted to bring the issue to the attention of the SHADAC.

Mr. Walker stated that his clients are reluctant to engage VDH until they have a plan to put forward.

Mr. Moore asked whether VDH has a right of entry on complaints.

Mr. Roadcap commented that VDH can knock on the front door, but staff can't look around the property without permission.

Mr. Moore suggested that a regulatory definition needs to be created for existing systems that don't meet current regulations; may also need code changes to address these issues.

Ms. Farley commented that if a realtor hears of an issue with the system, then they have to disclose that issue to a buyer.

Mr. Roadcap added that there is also an issue with on again off again failures. An owner might limit their water use, and the failure goes away.

Mr. Moore commented that consent agreements with owners may be one solution.

Mr. Walker inquired as to the status of civil penalties.

Mr. Roadcap stated that VDH hopes to have a policy together by the end of the year.

Mr. Day commented that risk assessment must play a role in enforcement.

## 2. Horizontal separation to well and interpretation of 12VAC5-613-200.

Mr. Gregory presented a drawing to show the different ways people have been interpreting section 12VAC5-613-200.1 which states that “in cases where an existing sewage system is closer to a private drinking water source, the AOSS shall be no closer to the drinking water source than the existing sewage system.” Some have interpreted this to mean that if an owner’s current sewage system is 100 feet from the neighbors Class IIIC well, but the neighbors own system is only 50 feet from the well, then any repair on the adjacent lot can be as close as 50 feet to the neighbors Class IIIC well. Mr. Gregory commented that this interpretation of the regulations could lead to surrounding a private well with onsite sewage systems that do not comply with the horizontal setbacks. VDH has interpreted this section in the same manner as the repair clause in the Sewage Handling and Disposal Regulations, meaning a proposed repair can be as close to a private well as the system it is replacing, but if the original system meets the horizontal separation distance, then the repair must meet the separation distance as well, regardless of how close their neighbors system is to their own well. Mr. Gregory asked the committee what the best way would be for VDH to inform industry professional about this interpretation, such as a FAQ or GMP.

Mr. Moore asked whether having it in a GMP hold more weight.

Mr. Brewer recommended changing the regulations to assure clarity of the interpretation. He also suggested that VDH get on a schedule of routinely reviewing the regulations to change administrative issues.

Mr. Walker stated that he believe the issue belongs in the regulations not a GMP.

Mr. Bishop made a motion that the clarification be put in an FAQ, and that the regulations be revised to incorporate VDH’s interpretation

Mr. Moore seconded the motion and made a motion to amend the motion by adding that the recommendation be direct to the Commissioner.

All committee members were in favor, the motion passed.

### 3. VDH process for reviews of work pursuant to 32.1-163.6.

Mr. Roadcap commented that VDH has a policy from 2009, GMP 17.A, that deals with review of applications with supporting work from the private sector. VDH is asking staff to continue using that policy, while OEHS works on revisions. Mr. Roadcap asked whether anyone was interested in participating in the revision, or if the SHADAC as a whole would like to be involved.

Mr. Walker volunteered to help.

Mr. Moore also volunteered. He commented on a lack of consistency of what has to be submitted under Va. Code Section 32.1-163.6, and that many designs are just defaulted to Va. Code Section 32.1-163.6 designs.

### 4. Competitive interest.

Mr. Walker commented that localities don't allow building inspectors to design buildings, and asked at what point the regulations extend to direct service delivery. He stated that he does not believe direct service delivery is a proprietary interest for VDH when there are other duties not being accomplished. He commented on the large number permits being issued by the public sector for development of real property and asked how those activities affected VDH oversight role.

Mr. Fridley commented that a number of stakeholders participated in SHIFT process with the goal of maximizing private sector participation to the extent possible, and VDH has agreed to implement the consensus recommendations from that stakeholder committee. He asked Mr. Walker to clarify his goal given that background.

Mr. Walker commented that he has seen only a trivial change in market choices since the SHIFT process concluded. He asked what changes to the regulations, the budget bill, or agency policy where necessary to see a shift of designs to the private sector.

Mr. Lynn commented that the committee encourages VAPSS to bring a white paper forward for the committee to consider. One emphasis could be strategies that VAPSS has identified to increase that shift of services.

Mr. Walker commented that some sites are getting conventional systems when maybe they should be getting alternative systems. He believes enforcement is lacking because of the focus on direct services.

Mr. Day commented that he would be interested in seeing the data VAPSS has to show where sites should not have received a permit for a conventional system.

### 5. VAOSE budget amendment.

Mr. Gregory discussed that a budget amendment was proposed during the previous General Assembly session that would have modified one of the manufacturer appointments to also be a representative from the VAOSE. However, the budget amendment was not included in the final budget approved by the general assembly.

DRAFT

**Virginia Department of Health  
Sewage Handling and Disposal Advisory Committee Meeting  
Agenda**

Date: September 16, 2015

Time: 10 am to 2 pm

Location: 5<sup>th</sup> Floor, Main Conference Room  
James Madison Building  
109 Governor Street  
Richmond, Virginia 23219

**Administrative (25 minutes)**

1. Welcome. (5 minutes)
2. Approve agenda. (5 minutes)
3. SHADAC appointments. (10 minutes)
4. Review summary from June 3, 2015 meeting. (5 minutes)

**Public Comment Period**

**Old Business (35 minutes)**

1. GMP 2015-01 FAQs. (20 minutes)
2. Proposed fast track regulations regarding direct dispersal. (15 minutes)

**Break (10 minutes)**

**Resume Old Business (60 minutes)**

3. Motion: Letter from the committee to the State Health Commissioner. (20 minutes)
4. Potential white papers from the SHADAC and its representative organizations. (10 minutes)
5. TL-3 field evaluation policy. (15 minutes)
6. TN field evaluation policy and multi-state agreement. (15 minutes)

**Break (10 minutes)**

**New Business (90 minutes)**

1. Enforcement/requiring repair of failing systems versus voluntary upgrade. (30 minutes)
2. Horizontal separation to well and interpretation of 12VAC5-613-200. (30 minutes)

**Break (10 minutes)**

3. VDH process for reviews of work pursuant to 32.1-163.6. (30 minutes)

**Adjourn**

**Future SHADAC Discussion Items  
As Presented for Prioritization at 4/15/15 SHADAC Meeting**

**Regulatory Review -12 Total Votes**

1. Treatment
  - a. Appropriateness of NSF 40 vs. NSF 245
  - b. Appropriateness of nitrogen requirements (4 votes)
    - measuring success of nitrogen requirements
  - c. Conventional systems getting a pass in Ches. Bay (5 votes)
  - d. Assessing benchmark for performance
    - BOD, TSS, are there more appropriate standards
  - e. Product review & approval adds cost, no benefit to consumer (1 vote)
2. Revising regs to design based on hazard/risk
3. Incorporate GMP's into regs
4. Combined SHDR & AOSS Regs

**Internal VDH Policies/Processes – 9 Total Votes**

1. Local HD processes for staff (5 votes)
  - Rappahannock HD Loading Rate Chart
  - Consistency between districts
  - local policies not supported by local ordinance
2. QA/QC (2 votes)
  - sharing info w/ SHADAC
  - Internal Level 1 & 2 reviews
  - 10% Level 2 reviews private (subdivisions)
3. Professional liability risk for VDH (2 votes)

**SHADAC – 7 Total Votes**

1. What is the SHADAC's purpose?
  - Getting back on track
  - Lost focus
  - Not using as a platform for criticizing VDH/OEHS
2. SHADAC Training
  - conflict of interest class for members (exam)
  - State required training (VDH?: Is this available)
3. Procedures
  - Public comment

**GMP 2015-01 – 7 Total Votes**

1. Timeline for processing private apps over bare apps. (2 votes)
2. Co-inspection
  - Who is right?
  - What happens w/ disagreements?
3. Survey Requirements (4 votes)
  - simple repairs
  - Is it “legal” to use a surveyor's plat and mark on it if his seal is remains on it? (1 vote)

4. Elimination of abbreviated design form.
  - Do AOSE's still have to show calculations?

**Standard of Practice – 5 Total Votes**

1. VDH
2. AOSE
3. PE

**Privatization – 5 Total Votes**

1. VDH providing direct services (5 votes)
  - For sale inspection
  - Water samples

**Conflicts of Interest - 4 Total Votes**

1. Designers that Rep Products (4 votes)

**Report O&M of Alt. systems & Alt. Discharging systems – 3 Total Votes**

1. i.e. compliance rates
2. Failures/functioning as designed. (3 votes)

**Licensure – 1 Total Vote**

1. Provision for seal/e-seal
  - VDH OSE signatures
  - Electronic signatures
2. Use of previous soil work
3. Lack of visible professional responsibility (1 vote)
4. Transfer of ethics & admin to DPOR

**Data – 1 Total Vote**

**Duel Standard – 0 Votes**

1. Use of VDH forms required for VDH staff, not private sector
2. VDH OSE's have to meet WPE, only recommended for private sector.
3. VDH – OSE liability

**Disclosure Document – 0 Votes**

1. Suggested edits/additions
2. Measuring success of strategy

**Soils – 0 Votes**

1. Is a soil horizon w/ a slower rate w/in 18" a restriction? –mounding calcs?

**Waivers & Variances – 0 Votes**

August 12, 2015

**DECISION MEMORANDUM**

**TO:** Marissa J. Levine, MD, MPH, FAAFP  
State Health Commissioner

**THROUGH:** Mike Lynn, Chairman  
Sewage Handling and Disposal Advisory Committee

**FROM:** Sewage Handling and Disposal Advisory Committee (SHADAC)

**SUBJECT:** Recommendation to reassess section 12VAC5-613-70 of the Regulations for Alternative Onsite Sewage Systems (12VAC5-613, the AOSS Regulations)

**PURPOSE**

The SHADAC requests that the State Health Commissioner reassess section 12VAC5-613-70 of the AOSS Regulations in order to provide a cost-effective and reasonable procedure to validate the anticipated performance of treatment units of small Alternative Onsite Sewage Systems (AOSS).

**BACKGROUND**

§12VAC5-613-70 of the AOSS Regulations require the that Division of Onsite Sewage and Water Services, Environmental Engineering, and Marina Programs develop a protocol to verify the expected performance of treatment units of small AOSS that meet Treatment Level 2 or Treatment Level 3 effluent quality. On April 15, 2015, the SHADAC passed a motion recommending that the State Health Commissioner (Commissioner) revisit the section of the regulations that deals with treatment level 2 and treatment level 3 testing; 12VAC5-613-70 of the AOSS Regulations.<sup>1</sup>

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<sup>1</sup> The AOSS Regulations define treatment level 2 effluent or "TL-2 effluent" as secondary effluent as defined in 12VAC5-610-120 that has been treated to produce biological oxygen demand 5-day (BOD5) and total suspended solid (TSS) concentrations equal to or less than 30 mg/l each.  
The AOSS Regulations define treatment level 3 effluent or "TL-3 effluent" as effluent that has been treated to produce BOD5 and TSS concentrations equal to or less than 10 mg/l each.

## JUSTIFICATION

The SHADAC believes reassessment of section 12VAC5-613-70 of the AOSS Regulations is necessary for the following reasons:

1. The costs to the manufacturer for compliance are significant and better understood now that the regulation is in place.
2. The Virginia Department of Health resource requirements for administering the program are significant.
3. Programs in other states may be more cost-effective and efficient.
4. There is a need for a thorough cost – benefit analysis of the regulation.
5. The Virginia Department of Health has not provided any guidance to operators or staff on treatment units not meeting expected performance criteria and has no method or policy to de-list non performing treatment units.

## RECOMMENDATION

The SHADAC recommends that the Commissioner reassess section 12VAC5-613-70 of the AOSS Regulations. The SHADAC also recommends that the Commissioner direct the SHADAC, with VDH staff assistance, to:

1. Accept stakeholder input on the current regulation.
2. Review the current staff resources required to administer the regulations.
3. Review the practices of other states.
4. Develop the framework and cost estimate for a cost-benefit analysis.
5. Develop draft language for a revised regulation.

The SHADAC further recommends that the Virginia Department of Health fund and complete a cost-benefit analysis of the current regulation and the SHADAC draft language.

Lastly, the SHADAC recommends that VDH begin the Notice of Intended Regulatory Action process to amend the regulation, after the results of the cost-benefit analysis are known.

## APPROVAL

Recommend       Recommend with Modification       Deny

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Dwayne Roadcap

Date

Approve       Approve with Modification       Deny

---

Allen Knapp

Date

Approve       Approve with Modification       Deny

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Marissa J. Levine, MD, MPH, FAAFP

Date



# COMMONWEALTH of VIRGINIA

Marissa J. Levine, MD, MPH, FAAFP  
State Health Commissioner

Department of Health  
P O BOX 2448  
RICHMOND, VA 23218

TTY 7-1-1 OR  
1-800-828-1120

August 28, 2015

## MEMORANDUM

**TO:** Sewage Handling and Disposal Advisory Committee (SHADAC) Members  
Office of Environmental Health Services Staff  
Environmental Health Managers

**FROM:** Lance Gregory *LG*  
Environmental Health Coordinator  
Division of Onsite Sewage and Water Services, Environmental Engineering,  
and Marina Programs

**SUBJECT:** June 3, 2015 SHADAC Meeting - Follow up to committee motions,  
recommendations, and questions.

This memorandum tries to capture motions, recommendations, and questions presented during the June 3, 2015, SHADAC meeting that require follow-up. I have outlined below an anticipated date of completion for each. Please contact me at [Lance.Gregory@vdh.virginia.gov](mailto:Lance.Gregory@vdh.virginia.gov), with any suggested changes if I have not accurately captured the follow needs.

### Motions:

The motions approved by the committee during the June 3, 2015 meeting are:

- 1. Recommend that VDH distribute the GMP 2015-01 Frequently Asked Questions (FAQs) which received general agreement among the subcommittee to the full SHADAC and give the full SHADAC 30-days to review. Following the review period, VDH will take comments provide by the SHADAC under advisement and publish the FAQs that received general agreement in subcommittee. The same process will be used for FAQs that receive general agreement at future subcommittee meetings.*

**Action:** Provide a copy of the FAQs that received general agreement among the subcommittee to the full SHADAC for a 30-day review and comment period. After 30-days, take the comments under advisement, and then publish the final FAQs on the VDH website.

**Anticipated completion date:** The draft FAQs were provided to SHADAC members on August 27, 2015. Per the motions, members have until September 26, 2015 to provide comments. I will post the FAQs after taking the comments under advisement. However, if the SHADAC is willing to provide comments and approve the FAQs at the September 16, 2015 meeting, I'd be happy to move the FAQs forward sooner.

2. *The SHADAC members should provide the SHADAC chairman with concise language for a draft letter to the Commissioner regarding revisiting 12VAC5-613-70 within 30 days of the September 16, 2015 meeting. The SHADAC chairman will then finalize the letter.*

**Action:** SHADAC members were to provide the SHADAC chairman with concise language for a letter to recommending the Commissioner revisit 12VAC5-613-70 by July 3, 2015. Once received, the chairman is to finalized the letter and send it to the Commissioner

**Anticipated completion date:** To be determined by the SHADAC members and the SHADAC chairman.

**Recommendations:**

I documented one recommendation during the June 3, 2015, SHADAC meeting. That recommendation was:

1. *The committee agreed on the following dates to meet over the next year: September 16, 2015; December 2, 2015; March 23, 2016; and June 1, 2016.*

**Action:** I agreed to post those dates on [www.townhall.virginia.gov](http://www.townhall.virginia.gov) immediately.

**Anticipated completion date:** Meeting dates were posted on [www.townhall.virginia.gov](http://www.townhall.virginia.gov) on June 4, 2015.

**Questions:**

I did not record any specific questions during the June 3, 2015, SHADAC meeting that required agency follow up at the next SHADAC meeting.

**Virginia Department of Health (VDH)  
Sewage Handling and Disposal Advisory Committee (SHADAC)  
June 3, 2015 – Meeting Summary**

**Meeting locations:**

5th Floor, Main Conference Room  
James Madison Building  
109 Governor Street  
Richmond, Virginia 23219

Remote Location  
Christiansburg Health Department  
210 South Pepper Street, Suite A  
Christiansburg, Virginia 24073

**List of attendees at central location:**

Advisory Committee Members

Mike Lynn	Dwayne Roadcap	David Fridley	Curtis Moore
Alan Brewer	Joel Pinnix	Cody Vigil	

VDH Staff and Members of the Public

Marcia Degen	David Tiller	Lance Gregory	Mike Burch
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**List of attendees at remote location:**

Advisory Committee Members

Jeff Walker	Bill Timmons
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Mr. Walker sat in as the representative for the Virginia Association of Professional Soil Scientist.

**Administrative**

1. Welcome.

Chairman Lynn welcomed everyone to the meeting.

2. Approve agenda.

There were no edits to the agenda. Mr. Brewer made a motion to approve; Mr. Moore seconded that motion. The motion carried.

3. SHADAC appointment.

Mr. Gregory informed committee members that VDH will be sending out letters to organizations where their appointee's term has expired. The letter will ask organization to provide at least two nominations with resume to be forwarded to the Commissioner. This aligns the SHADAC appointment process with the process for other VDH Boards such as the Appeals Board.

4. Review summary from April 15, 2015 meeting.

There were no comments on April 15, 2015, SHADAC meeting summary. Mr. Vigil made a motion to approve the summary; Mr. Brewer seconded the motion. The motion carried.

5. Future meeting dates.

Mr. Gregory commented on a memorandum he sent to SHADAC members on May 15, 2015, which summarized the recommendations from the last SHADAC meeting. One of the recommendations from the previous meeting was to have more frequent meetings. The memorandum contained tentative SHADAC meeting dates for the next year. Mr. Gregory asked whether those date were suitable to the committee. The committee agreed on the following dates to meet over the next year: September 16, 2015; December 2, 2015; March 23, 2016; and June 1, 2016. Mr. Gregory stated he would post those dates on [www.townhall.virginia.gov](http://www.townhall.virginia.gov) immediately.

**Public Comment Period**

There were no public comments.

**Old Business**

1. GMP 2015-01 FAQs: subcommittee update.

Chairman Lynn provided an overview of the May 29, 2015, SHADAC subcommittee meeting to discuss VDH's draft frequently asked questions (FAQs) document for Guidance Memorandum and Policy (GMP) 2015-01. The subcommittee reviewed the draft FAQ giving draft responses a 1, 2, or 3; 1 meaning there was general agreement; 2 meaning additional discussion was required, and 3 meaning there was significant disagreement. He then asked if there were any particular FAQs the committee would like to discuss.

Mr. Walker commented that the subcommittee discussed issues regarding disclosure. He stated that the Virginia Association of Professional Soil Scientist (VAPSS) has shared with the Department of Professional and Occupational Regulations (DPOR) their concerns that a contract or a statement including conflicts of interest or limitations of services must be provided to clients. Mr. Walker commented that calling the counter document, currently provided by VDH, a disclosure document is a misnomer. He then asked the SHADAC to consider the issue of distinct services; services requiring a license and those that do not.

Mr. Moore asked whether non-subcommittee members would like for the subcommittee decisions to be vetted through the full committee.

Chairman Lynn commented that under the rules, it appears they will have to come back to the full committee.

Mr. Vigil commented that the subcommittee was able to reach consensus on about 30 percent of the responses.

Mr. Moore suggested that Mr. Gregory send the revised FAQs, based on the subcommittees work, out to the full SHADAC and request comments by a set date.

Mr. Pinnix asked where one would go for an answer if VDH didn't provide the FAQ document.

Mr. Roadcap commented there are concerns about consistency, and have different responses based on who you ask. Without the FAQ document, questions are typically answered by local health department (LHD) staff, and they contact the Office of Environmental Health Services if they need assistance.

Mr. Pinnix voiced concern on where the process stops. VDH writes a regulation, then writes policies fine tuning the regulations, then writes guidance on how you administer the policy. He also commented that it was unclear whether a FAQ will change variability at the LHD level.

Mr. Walker commented the FAQs are not the issue, the policy is the issue.

Mr. Fridley recommended the committee encourage the release of as many of the responses as possible, to help clarify issues specific to GMP 2015-01 to avoid variability of interpretation.

Mr. Vigil stated it was his understanding that was the agreement during the subcommittee

Mr. Moore made a motion that the SHADAC recommend to the department that they distribute the FAQ which receive a 1 to the full SHADAC and give the committee 30-days to review, take the comments under advisement, and publish the FAQs that received a 1 in subcommittee at that point.

Mr. Vigil seconded the motion.

Chairman Lynn commented that there is nothing preventing VDH from doing what they want to do with the FAQ document.

Mr. Walker commented that September is a long way off, and that VDH need to get this off their desk.

Chairman Lynn asked whether the committee would agree to amend the motion to follow the same process for responses that receive a 1 at future subcommittee meetings.

All were in favor of the motion as amended.

2. Motion: State Health Commissioner to revisit 12VAC5-613-70.
  - a. Review draft letter from the committee to the State Health Commissioner.

Mr. Gregory commented that another components of his May 15, 2015, memorandum dealt with the SHADAC's recommendation that the State Health Commissioner (Commissioner) revisit the approval process for treatment level 2 (TL2) and treatment level 3 (TL3). Mr. Gregory provided the SHADAC with a template letter that could be used for creating a formal response to the Commissioner; however, the template is only a framework that requires input from SHADAC to complete.

Chairman Lynn provided the background on the issue from the previous meeting. Several members mentioned that testing cost and the timeframe were prohibitive for manufacturers.

Mr. Vigil commented that the cost of testing in Virginia is \$50,000 to \$100,000.

Mr. Walker stated that VAPSS is concerned about the increasing costs to homeowners, asking whether it is really worth the expenditure for the difference between TL-2 and TL-3.

Mr. Moore asked whether member felt the cost/benefit is off balance.

Mr. Walker stated that homeowners are opting to go with a variance or waiver instead of install a treatment unit. Mr. Pinnix agreed, voicing concern that the regulations are not based in real good science and engineering.

Chairman Lynn commented that there is no guidance on what is in compliance or out of compliance on the back side, after installation; operation and maintenance requirements are not being enforced. He added that using TL-3 limits what type of system you have available for design.

Mr. Burch commented that his company has been in contact with a third party and to test 20 systems quarterly for a year will be \$50,000. He asked whether it is necessary to test nationally approved medical devices in Virginia. Mr. Burch stated that when you combined TL-3 and National Sanitation Foundation (NSF) 245, you only have three treatment unit options in Virginia; commenting the public needs access to more manufacturers.

Mr. Roadcap commented that manufactures could request a variance; however, none have been received to date. Additionally, the regulation is up for periodic review. The agency could also post a notice to receive comments on a specific section of the regulations.

Mr. Fridley asked whether the issue is the testing protocol, or having both TL-2 and TL-3. He commented that those are two very different questions. He added the questions raised get into the public health issue of loading rates, and removal of pathogens.

Chairman Lynn asked where a homeowner stands if a treatment system is de-listed, but the property owner has already installed the system.

Mr. Pinnix commented that from his perspective as an engineer and an operator, he doesn't see a significant difference between TL-2 and TL-3. He voiced concern that the issue deals with picking winners and losers in regards to manufacturers of treatment units, stating that the cost for products go way up following approval. When VDH approved PuraFlo, Advantex, and EcoFlo, the cost of those products went way up.

Mr. Brewer stated that he appreciated the discussion on TL-2 versus TL-3, but the SHADAC's motion in April dealt with verification under section 12VAC5-613-70. He then presented a motion that members provide the Chairman with concise language for the letter to the Commissioner within 30 days for consideration at the next meeting.

Mr. Walker stated he had an issue with presenting a motion on other motion.

Mr. Brewer clarified the specific language for the letter does not exist and he was reluctant to attempt to draft the language during the meeting. His motion was a suggestion that the committee members provide specific language for the letter to the Commissioner within 30 days and that information would be vetted by the full committee, possibly offline.

Mr. Brewer again made a motion that the committee members provide the chairman with concise language for the draft letter to the Commissioner regarding revisiting 12VAC5-613-70 within 30 days, and that language be provided to committee members prior to the next meeting, to allow the committee to take action to approve the letter at the September meeting.

Mr. Moore commented that, if as part of that motion, the committee gave the chairman authority to finalize; the committee wouldn't need to revisit the issue in September.

Mr. Walker moved to amend the motion to give the Chairman that authority.

Mr. Moore seconded that motion.

All were in favor of Mr. Walker's amendment.

All were in favor of the full motion.

### 3. Status of GPS policy.

Mr. Gregory stated that at the last SHADAC meeting, members provided a recommendation for a minor revision to proposed GMP 2015 -2. The recommendation was included in the policy, and the policy has been issued.

Mr. Fridley asked whether there was a proposed launch date for the policy.

Mr. Gregory stated the policy had been sent to Environmental Health Managers and was posted on [www.townhall.virginia.gov](http://www.townhall.virginia.gov).

Mr. Walker voiced concern that policies were being provided to the SHADAC at the last minute. He also voiced concern that the policy does not address professional endorsement per surveying requirements.

#### 4. Chesapeake Bay Watershed Implementation Plan (WIP) goals and milestones.

Dr. Degen provided a presentation on the development of WIP goals and milestones (see attached presentation).

Mr. Brewer commented on the deliverable of 36,000 pump outs each year, with 1986 in Chesapeake Bay Watershed outside of the Department of Environmental Quality (DEQ) managed Chesapeake Bay Protection Area (CBPA). He asked whether that meant the other 34,000 pump outs were outside of the CBPA, adding that the issue is very important to localities regarding credits for best management practices (BMPs). Mr. Brewer stated that localities are not getting credit because they can't track pump outs.

Mr. Walker asked whether there should be a motion from the SHADAC recommending VDH create a process for recording all pump outs.

Dr. Degen commented that the pump out program used to be under the Department of Conservation and Recreation (DCR), and it moved to DEQ during recent restructuring.

Mr. Fridley asked whether this meant that DEQ has authority for ensuring the pump outs occur.

Mr. Brewer stated that there is a difference between the CBPA and the Chesapeake Bay Watershed. There are pump outs in the watershed that are not being reported.

Mr. Walker commented VDH would be the best agency to ensure that pump outs are being reported. Mr. Walker added that VAPSS has been concerned about the lack of data coming out of VDH for two years.

#### **New Business**

1. Potential white papers from the SHADAC and its representative organizations.
  - a. Virginia Association of Professional Soil Scientist proposal.

Chairman Lynn stated that after the last meeting there have been some discussions about a white paper, or targeted white papers, as being a way for the committee to convey needs to the Commissioner and VDH staff. He commented the SHADAC needs to look at whether the white papers could be focused enough to start the process for regulatory changes. Chairman Lynn had spoken with Mr. Walker about having VAPSS present a white paper on some of the issues they have raised.

Mr. Walker then commented on issues with the current status of the onsite program including: deficiencies regarding reporting of who is working under license and under what capacity; the overlap between DPOR and VDH, and VDH's interpretations of license requirements; expectations for work to be done in accordance with engineering standards; the lack of recent soil program graduates being hired by VDH; code official conflicts with design officials; failure rates associated with specific pieces of equipment; VAPSS members that are VDH staff feel they cannot protest agency policies as employees of VDH, but have to hold a limited standard even though they are responsible to the property owners under their license; ambiguity and misappropriation of a seal for onsite soil evaluator; and VDH staff using previous soil work from subdivision reviews.

Mr. Walker stated that a white paper on these issues might have a chance to make a change. He added that the white paper needs support from all stakeholders. We still have unlicensed contractors submitting work. However, Mr. Walker was not willing to commit VAPSS resources.

Chairman Lynn commented that the SHADAC has heard these issues for years. VDH central office has been making an effort to standardize work product, and it sounds like Mr. Walker is asking whether the entire committee should address these issues or just VAPSS.

Mr. Moore asked whether Chairman Lynn could summarize the issues raised by Mr. Walker.

Chairman Lynn commented that he understands the main issue is the use of a seal and whether or not the DPOR board says it's required. Second is that there is still an inherent conflict of interest where the permitting authority is also the designer. Those duties should be separated and the counter document should be a full disclosure document. Another general thought is that things might be easier on everyone if VDH handled few or no bare applications; clarifying the role between designer and regulator. LHD staff are taking to heart that their name is on the design and that it actually means something, that they could have some personal responsibility for what goes out.

Mr. Brewer commented that the Virginia Association of Counties has an established position that they would like VDH to offer direct services to citizens. He added that the issue of licensure was not a primary issue from the work plan developed at the last meeting. However, it would be appropriate to have an organization develop a white paper for an issue that was not raised as a priority at our last meeting, and bring that paper to the committee for discussion.

Mr. Pinnix commented that a seal does provide an indication of professionalism, a he was not aware of any other design profession that doesn't have a seal. Regarding conflict of interest, having a standard work product and conflict of interest go hand and hand. DPOR does not set design standard. Mr. Pinnix stated that in this case he believes VDH sets the standard for work being done under the exemption to the practice of engineering. The American Council of Engineering Companies (ACEC) recognizes that most of the work being done on the design side should be done by the private sector. Regarding a white paper, ACEC would welcome doing

something like that, but where does it go? Does it go from ACEC to the Commissioner, or from ACEC to the SHADAC? ACEC would feel more comfortable having something with its stamp on it.

Mr. Moore stated that when the Virginia Onsite Wastewater Recycling Association (VOWRA) created a white paper on this issue many years ago, it discussed the separation of duties. VOWRA would be happy to entertain VAPSS's white paper, and take that under advisement, but Mr. Moore commented that the SHADAC may not have the resources to put the white paper together.

Mr. Fridley commented that the issues being raised seemed to be interpretation of the Code of Virginia, DPOR's regulations, and a vision for the onsite industry. He added that getting to a consensus on a preferred business model would be difficult. Mr. Fridley also voiced concern that a white paper from the SHADAC may not be the appropriate way to discuss interpretations of the Code or DPOR regulations.

Chairman Lynn made note of Mr. Brewer's point that the SHADAC should be addressing the issues voted on during the previous meeting. Chairman Lynn suggested selecting a few items from the priority list and use the draft decision memorandum as a way to bring those issues forward for the Commissioners. He added that it was not clear whether the agency has the resources to tackle the issues previously addressed during the Safety and Health in Facilitating a Transition (SHIFT) process.

Mr. Roadcap commented that VDH has implemented the consensus SHIFT recommendation to use a strategy to encourage the use of the private sector, not a mandated approach. However the agency is open to suggestions on the encouraging strategy.

Chairman Lynn stated the committee may find it simpler to create a form letter with suggested strategies for encouraging the use of the private sector.

## 2. Proposed amendments to the AOSS Regulations regarding direct dispersal.

Dr. Degen then provide a presentation on proposed amendments to the Regulations for Alternative Onsite Sewage System Regulations (AOSS Regulations) dealing with the section on direct dispersal of effluent to ground water.

Mr. Roadcap commented the idea for the proposed amendment is to address recent variances for direct dispersal. In those cases the Commissioner has general granted variances to repair failing system or install voluntary upgrades provided the system produces TL-3, disinfection, and a 50 percent reduction of total nitrogen. The proposed fast track amendments are designed to help resolve issues with the definition, and changing the performance expectations for repairs and voluntary upgrades. New construction is not part of the proposal; VDH believe that topic would be controversial. VDH is presenting this information to the SHADAC in hopes of getting support for a fast track process. If VDH doesn't get support, public comment could push it into a standard regulatory process.

Chairman Lynn stated that he has not found a professional engineer that thought they could meet the direct dispersal treatment standard without a membrane.

Mr. Roadcap commented that manufactures have stated a membrane and additional filters would get the level of treatment necessary.

Mr. Pinnix commented that he believes VDH has considerable latitude under the repair clause, and the only issue with a voluntary upgrade is the issue with increased monitoring and testing. Additionally, he believes the agency has latitude to restrict the term "excavation" only to the excavation being proposed as part of the design. Mr. Pinnix voiced concern that VDH would be creating a need for a regulation that does not exist with the proposed action.

Chairman Lynn asked where the proposal was in process.

Mr. Roadcap commented that the proposal is at division staff level and the division is seeking the committees input. The intent is to present the policy discussed at the last meeting along with the proposed fast track regulations to upper management for approval.

### 3. Review of regulations within the VDH's onsite sewage program.

Mr. Gregory state the top priority, as voted by the SHADAC during the previous meeting, was regulatory review which includes some of the earlier discussions about treatment and moving policy into regulations. Mr. Gregory asked if the committee has specific suggestions for regulatory changes that could be discussed at the next meeting.

Mr. Pinnix asked what VDH wants.

Mr. Roadcap stated that VDH is responding to the last meeting. The agency is bringing forward regulatory and policy issues it is working on, but VDH is willing to entertain additional ideas from the SHADAC.

Chairman Lynn stated that some of the issues will be address in the letter to the Commissioner discussed earlier.

Mr. Walker commented that the agenda mentions a discussion on the use of previous soil work.

Mr. Gregory explained that it was his intent to discuss the issue with the subcommittee, but the subcommittee ran out of time. He added that it would be on the agenda for the next subcommittee meeting.

Mr. Walker commented that VAPSS believes soil work is intellectual property of the person doing the work and must only be used with their permission.

Mr. Pinnix disagreed that permission is required to use existing soil work form a certification letter.

4. Draft repair and voluntary upgrade waiver policy.

Mr. Tiller presented a draft policy which will combine everything regarding waivers into one policy; combining GMP 128, GMP 155, and new legislation (House Bill 1804). The bulk of the GMP is attachments, letters for the LHD when they receive an applicable application.

Chairman Lynn asked what type of voluntary upgrade VDH staff could process.

Mr. Tiller replied a simple pump conventional system.

Mr. Fridley commented that the draft policy states once you get a repair wavier, you can get additional repair permits under that waiver.

Mr. Moore commented that the policy needs to define what a repair is.

Chairman Lynn and other members voiced concern that LHD's don't always agree that a proposed project is a repair, and may call it a voluntary upgrade. One example give is the replacement of deteriorated distribution box.

The committee the discussed what types of repairs/upgrades would be enforceable actions by VDH. Is it only an enforceable action when you have a failing system with sewage on the ground, or can VDH require correction of a cracked distribution box when the system is not failing on the ground or backing up in the house? What happens when the existing absorption area doesn't meet current standards?

Mr. Walker voice concern regarding waivers as the systems can result in direct dispersal and be in violation of the regulations. He asked how a designer certifies a design that is not in compliance with the regulations.

Chairman Lynn commented that the waivers are statutory allowances.

Mr. Walker asked whether the designer would need to modify their certification statement to reference the waiver section of the Code.

Mr. Pinnix motioned that the meeting adjourn.

Mr. Fridley seconded the motion and the motion carried.

**Adjourn**

**Virginia Department of Health  
Sewage Handling and Disposal Advisory Committee Meeting  
Agenda**

Date: June 3, 2015

Time: 10 am to 2 pm

Location: 5th Floor, Main Conference Room  
James Madison Building  
109 Governor Street  
Richmond, Virginia 23219

**Administrative (25 minutes)**

1. Welcome. (5 minutes)
2. Approve agenda. (5 minutes)
3. SHADAC appointment. (5 minutes)
4. Review summary from April 15, 2015 meeting. (5 minutes)
5. Future meeting dates. (5 minutes)

**Public Comment Period**

**Old Business (20 minutes)**

1. GMP 2015-01 FAQs: subcommittee update. (20 minutes)
  - a. Questions regarding use of previous soil work.

**Break (10 minutes)**

**Old Business Continued (35 minutes)**

2. Motion: State Health Commissioner to revisit 12VAC5-613-70. (15 minutes)
  - b. Review draft letter from the committee to the State Health Commissioner.
3. Status of GPS policy. (5 minutes)
4. Chesapeake Bay Watershed Implementation Plan goals and milestones. (15 minutes)

**New Business (60 minutes)**

1. Potential white papers from the SHADAC and its representative organizations. (30 minutes)
  - b. Virginia Association of Professional Soil Scientist proposal.
2. Proposed amendments to the AOSS Regulations regarding direct dispersal. (30 minutes)

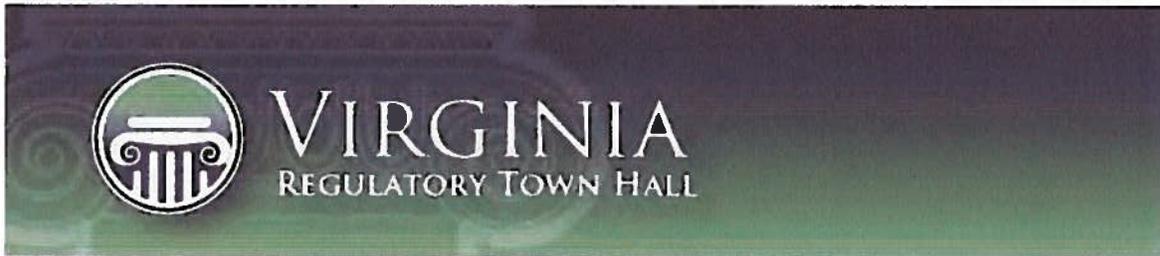
**Break (10 minutes)**

**New Business Continued (65 minutes)**

3. Review of regulations within the VDH's onsite sewage program. (45 minutes)
4. Draft repair and voluntary upgrade waiver policy. (20 minutes)

**Adjourn**

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## Fast-Track Regulation Agency Background Document

<b>Agency name</b>	Virginia Department of Health
<b>Virginia Administrative Code (VAC) citation(s)</b>	12 VAC5-613
<b>Regulation title(s)</b>	Regulations for Alternative Onsite Sewage Systems
<b>Action title</b>	Amend 12 VAC5-613
<b>Date this document prepared</b>	November 21, 2014

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Orders 17 (2014) and 58 (1999), and the *Virginia Register Form, Style, and Procedure Manual*.

### Brief summary

*Please provide a brief summary (preferably no more than 2 or 3 paragraphs) of the proposed new regulation, proposed amendments to the existing regulation, or the regulation proposed to be repealed. Alert the reader to all substantive matters or changes. If applicable, generally describe the existing regulation.*

The Department is seeking to amend sections of the Regulations for Alternative Onsite Sewage Systems (12VAC5-613, AOSS Regulations), including the definition of direct dispersal to clarify that only excavation that creates a direct conduit or preferential path to groundwater is direct dispersal. The agency is also amending the regulations to allow for a nitrogen (N) limit that is

more financially attainable for permit holders and consistent with the EPA's model program for onsite wastewater treatment systems in the Chesapeake Bay watershed, see [http://executiveorder.chesapeakebay.net/130627\\_Ches\\_Bay\\_Tech\\_Assist\\_Manual.pdf](http://executiveorder.chesapeakebay.net/130627_Ches_Bay_Tech_Assist_Manual.pdf). The Department is also proposing to add a section to the regulation to allow for less restrictive performance and monitoring requirements for repairs to failing alternative onsite sewage systems as well as voluntary upgrades to older systems. The current regulations have proved to be an economic stumbling block for owners who want to repair failing systems or upgrade their older septic systems. These less restrictive requirements would only be available to current onsite sewage systems that are directly dispersing effluent to groundwater with a capacity of less than 1,000 gallons/day. Since the AOSS Regulations became effective, the Commissioner has granted many variances to the AOSS Regulations for owners claiming financial hardship for repairs of failing systems and voluntary upgrades to older systems.

### Acronyms and Definitions

*Please define all acronyms used in the Agency Background Document. Also, please define any technical terms that are used in the document that are not also defined in the "Definition" section of the regulations.*

"AOSS" means Alternative Onsite Sewage System  
 "BMP" means Best Management Practice  
 "Board" means Board of Health  
 "BOD<sub>5</sub>" Biochemical Oxygen Demand 5-day  
 "EPA" means Environmental Protection Agency  
 "N" means Nitrogen  
 "TP" means Total Phosphorous  
 "TMDL" means Total Maximum Daily Load  
 "TSS" Total Suspended Solids

### Statement of final agency action

*Please provide a statement of the final action taken by the agency including: 1) the date the action was taken; 2) the name of the agency taking the action; and 3) the title of the regulation.*

### Legal basis

*Please identify the state and/or federal legal authority to promulgate this proposed regulation, including:*

1) the most relevant citations to the Code of Virginia or General Assembly chapter number(s), if applicable; and 2) promulgating entity, i.e., agency, board, or person. Your citation should include a specific provision authorizing the promulgating entity to regulate this specific subject or program, as well as a reference to the agency/board/person's overall regulatory authority.

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Va. Code Section 32.1-12 authorizes the Board to make, adopt, promulgate, and enforce regulations that protect, improve, and preserve public health and the environment for the general welfare of the citizens of the Commonwealth. Va. Code Sections 32.1-164 A. and B. authorize the Board to adopt regulations governing the collection, conveyance, transportation, treatment, and disposal of sewage, including sewerage systems and treatment works as they affect public health and welfare. Va. Code Section 32.1-20 vests the Commissioner with all of the authority of the Board when not in session, and Va. Code Section 32.1-16 provides that the Virginia Department of Health shall be under the supervision and management of the Commissioner of Health.

### Purpose

*Please explain the need for the new or amended regulation. Describe the rationale or justification of the proposed regulatory action. Describe the specific reasons the regulation is essential to protect the health, safety or welfare of citizens. Discuss the goals of the proposal and the problems the proposal is intended to solve.*

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The AOSS Regulations took effect on December 7, 2011. The AOSS Regulations define terms such as "direct dispersal," set performance requirements for AOSSs, including nitrogen (N) limits, and establish a program for operation and maintenance of AOSS. When the AOSS Regulations were promulgated, the EPA provided limited information on expected N reductions in the TMDL. The N limit established in 12VAC5-613-90 D is no longer consistent with EPA's model program, which recognizes a higher N limit. Similarly, through the implementation of the regulations the agency has found that the definition of direct dispersal is too stringent and encompasses many activities, such as boring holes for soil evaluation, that do not lead to direct dispersal of sewage effluent to groundwater.

In the development of the AOSS Regulations, VDH staff worked with the EPA and neighboring states to develop BMPs for small alternative sewage systems through an expert review panel. The panel submitted a draft report to EPA's Wastewater Workgroup on September 10, 2013. The draft report contained multiple BMPs and more BMPs will be added, reviewed, and approved over time. Unless Virginia designers use an approved BMP, EPA will not provide a credit (or N reduction) for the TMDL. As such, 12VAC5-613-90 D (1) should be amended because it is not consistent with the TMDL and the requirements of 90 D (1) should be moved into a BMP to allow for reporting to the EPA to allow for a credit for the TMDL.

The AOSS Regulations also regulate direct dispersal of treated effluent to groundwater. 12VAC5-613-90 D (4) establishes a discharge limit of 3 mg/l TN and 0.3 mg/l total phosphorus

(TP) in the Chesapeake Bay Watershed, which is the limit of technology. However, the limit of technology has proved to not be economically feasible for the repairs and voluntary upgrades of small AOSSs of less than 1,000 gallons/day. The Commissioner has granted many variances to owners claiming financial hardship for repairs of failing systems and allowed for lesser requirements for direct dispersal. By some estimates, it can cost over \$30,000 to obtain this level of treatment for TN and TP. The amendment of 12 VAC5-613-90 D(4) will remove the requirement of TN of 3mg/l and .3 mg/l of TP for systems within the Chesapeake Bay Watershed and will allow these systems to meet the same N requirements for other AOSS in the Chesapeake Bay Watershed.

Section 12VAC5-613-90 C sets stringent performance and operational for all systems that result in direct dispersal. These stringent requirements include: 1) quarterly sampling and remote monitoring of the treatment works; 2) treatment of wastewater prior to application to the soil that produces BOD<sub>5</sub> and TSS concentrations each equal to or less than 5 mg/l, fecal coliform concentrations less than or equal to 2.2 col/100 ml as a geometric mean with no sample exceeding 14 col/100 ml, N concentration of less than 5 mg/l, high level disinfection, and filtration capable of demonstrating compliance with an average turbidity of less than or equal to 2 Nephelometric turbidity units prior to disinfection; 3) renewable operating permits; and 4) requiring the designer to provide a hydrogeologic analysis of the receiving groundwater. These stringent requirements, while appropriate for new construction, present a significant financial barrier to repairing or voluntarily upgrading existing systems directly dispersing effluent to ground water. The Commissioner has granted many variances to owners claiming financial hardship for repairs and voluntary upgrades. The amendments to will provide a more financially attainable level of treatment, while still providing a high level of treated effluent that exceeds the systems being repaired or upgraded.

### Rationale for using fast-track process

*Please explain the rationale for using the fast-track process in promulgating this regulation. Why do you expect this rulemaking to be noncontroversial?*

The amendments are required to be consistent with the EPA's model program for the TMDL for N limit. Further, the amendments will allow for more homeowners to affordably repair failing sewage systems or upgrade old sewage systems that are dispersing effluent to ground water and the action will not be controversial as it reduces a financial burden to homeowners while improving public health and the environment.

### Substance

*Please briefly identify and explain the new substantive provisions, the substantive changes to existing sections, or both. A more detailed discussion is provided in the "Detail of changes" section below.*

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Amending the definition of direct dispersal of effluent to ground water in 12 VAC5-613-10 to clarify that excavation excludes soil disturbance that does not create a direct conduit or preferential path to groundwater. Amend 12 VAC5-613-90C by adding subsection (8) to allow for repaired or voluntarily upgraded direct dispersal systems to provide a 50% reduction of TN as compared to a conventional gravity drainfield system in accordance with 12VAC5-613-90B and provide TL3 treatment and standard disinfection in accordance with 12VAC5-613-80 (13) Table 2 for systems with less than twelve inches separation to groundwater. Repealing 12 VAC5-613-90 D(4) removes the requirement of TN concentration of less than or equal to 3 mg/l and TP concentration of less than or equal to .3 mg/l for direct dispersal systems in the Chesapeake Bay Watershed. Instead these systems will meet the 50% reduction of TN as compared to a conventional gravity drainfield system as is required of other AOSS in the watershed.

#### Issues

*Please identify the issues associated with the proposed regulatory action, including: 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; 2) the primary advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, please indicate.*

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The primary advantage to the public for these changes is a reduced financial burden to repair failing onsite sewage systems that disperse effluent to groundwater. The amendments also allow for a less restrictive total nitrogen reduction for small AOSS within the Chesapeake Bay Watershed, from 3mg/l to TN concentration to a 50% reduction of TN as compared to a conventional system. The advantage to the agency is to provide for more repairs of failing dispersal systems without individually granting waivers to the performance requirements due to the economic hardships involved in meeting the requirements. Currently the Commissioner has granted fifteen variances to allow for the repair or voluntary upgrade of existing direct dispersal systems within the Chesapeake Bay Watershed. These standards while reduced from what was initially promulgated are still protective of public health, exceed the level of treatment provided by existing direct dispersal systems, are within the requirements of the EPA's model program for the TMDL, and ease the financial burden on the homeowner while streamlining the agency's processing of applications.

### Requirements more restrictive than federal

*Please identify and describe any requirement of the proposal which is more restrictive than applicable federal requirements. Include a rationale for the need for the more restrictive requirements. If there are no applicable federal requirements or no requirements that exceed applicable federal requirements, include a statement to that effect.*

These changes to the regulations are not more restrictive than the EPA's model program which is not currently required by regulation; instead they seek to conform the state requirements to the EPA's model program.

### Localities particularly affected

*Please identify any locality particularly affected by the proposed regulation. Locality particularly affected means any locality which bears any identified disproportionate material impact which would not be experienced by other localities.*

The localities most affected by these substantive changes will be those within the Chesapeake Bay Watershed. The changes reflect the EPA's model program and are more financially obtainable for homeowners.

### Regulatory flexibility analysis

*Pursuant to § 2.2-4007.1B of the Code of Virginia, please describe the agency's analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) the establishment of less stringent compliance or reporting requirements; 2) the establishment of less stringent schedules or deadlines for compliance or reporting requirements; 3) the consolidation or simplification of compliance or reporting requirements; 4) the establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the proposed regulation.*

The agency could choose to not amend the regulations and expect homeowners to meet the current requirements of nitrogen reduction which exceeds the limit proposed by the EPA model program. However, the number of variance requests and comments submitted to the agency by AOSS designers demonstrate that these regulatory requirements are not obtainable either because of the financial hardship involved or because they are the limits of currently available technology

which is not always feasible in repair and upgrade situations due to limited site and soil conditions.

**Economic impact**

*Please identify the anticipated economic impact of the proposed new regulations or amendments to the existing regulation. When describing a particular economic impact, please specify which new requirement or change in requirement creates the anticipated economic impact.*

<p><b>Projected cost to the state to implement and enforce the proposed regulation, including:</b>  <b>a) fund source / fund detail; and</b>  <b>b) a delineation of one-time versus on-going expenditures</b></p>	<p>Will add no additional cost to the state, will result in a decrease in cost as staff will not have to individually process variance requests to the current regulatory scheme.</p>
<p><b>Projected cost of the new regulations or changes to existing regulations on localities.</b></p>	<p>Will add no additional cost to localities.</p>
<p><b>Description of the individuals, businesses, or other entities likely to be affected by the new regulations or changes to existing regulations.</b></p>	<p>Owners of AOSS systems, especially in the Chesapeake Bay will be able to more affordably construct, repair, and voluntarily upgrade their AOSS systems.</p>
<p><b>Agency's best estimate of the number of such entities that will be affected. Please include an estimate of the number of small businesses affected.</b> Small business means a business entity, including its affiliates, that:  a) is independently owned and operated and;  b) employs fewer than 500 full-time employees or has gross annual sales of less than \$6 million.</p>	<p>Approximately 30,000 onsite sewage systems could be affected. The Department estimates that approximately 250 of the 30,000 systems are owned by small businesses.</p>
<p><b>All projected costs of the new regulations or changes to existing regulations for affected individuals, businesses, or other entities. Please be specific and include all costs including:</b>  <b>a) the projected reporting, recordkeeping, and other administrative costs required for compliance by small businesses; and</b>  <b>b) specify any costs related to the development of real estate for commercial or residential purposes that are a consequence of the proposed regulatory</b></p>	<p>No additional reporting requirements or costs for real estate development.</p>

<b>changes or new regulations.</b>	
<b>Beneficial impact the regulation is designed to produce.</b>	Reduce the financial burden on homeowners and small business to construct, repair, or voluntarily upgrade a existing onsite sewage systems.

**Alternatives**

*Please describe any viable alternatives to the proposal considered and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the action. Also, include discussion of less intrusive or less costly alternatives for small businesses, as defined in § 2.2-4007.1 of the Code of Virginia, of achieving the purpose of the regulation.*

The agency could choose to not amend the regulations and expect homeowners to meet the current requirements of nitrogen reduction which exceeds the limit proposed by the EPA model program. However, the number of variance requests and comments submitted to the agency by AOSS designers demonstrate that these regulatory requirements are not obtainable for failing or older systems seeking upgrades either because of the financial hardship involved or because they are the limits of currently available technology.

**Public participation notice**

*If an objection to the use of the fast-track process is received within the 30-day public comment period from 10 or more persons, any member of the applicable standing committee of either house of the General Assembly or of the Joint Commission on Administrative Rules, the agency shall: 1) file notice of the objections with the Registrar of Regulations for publication in the Virginia Register; and 2) proceed with the normal promulgation process with the initial publication of the fast-track regulation serving as the Notice of Intended Regulatory Action.*

**Periodic review and small business impact review report of findings**

*If this fast-track is the result of a periodic review/small business impact review, use this form to report the agency's findings. Please (1) summarize all comments received during the public comment period following the publication of the Notice of Periodic Review and (2) indicate whether the regulation meets the criteria set out in Executive Order 17 (2014), e.g., is necessary for the protection of public health, safety, and welfare, and is clearly written and easily understandable. In addition, as required by 2.2-4007.1 E and F, please include a discussion of*

*the agency's consideration of: (1) the continued need for the regulation; (2) the nature of complaints or comments received concerning the regulation from the public; (3) the complexity of the regulation; (4) the extent to which the regulation overlaps, duplicates, or conflicts with federal or state law or regulation; and (5) the length of time since the regulation has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the regulation.*

This fast-track is not the result of a periodic review or small business impact review.

**Family impact**

*Please assess the impact of this regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.*

The only potential family impact is that the substantive changes will allow for more families to affordably repair their failing alternative onsite sewage system.

**Detail of changes**

*Please list all changes that are being proposed and the consequences of the proposed changes; explain the new requirements and what they mean rather than merely quoting the proposed text of the regulation. If the proposed regulation is a new chapter, describe the intent of the language and the expected impact. Please describe the difference between existing regulation(s) and/or agency practice(s) and what is being proposed in this regulatory action. If the proposed regulation is intended to replace an emergency regulation, please list separately: (1) all differences between the pre-emergency regulation and this proposed regulation; and 2) only changes made since the publication of the emergency regulation.*

For changes to existing regulation(s), use this chart:

Current section	Proposed new section	Current requirement	Proposed change, intent, rationale, and likely impact of proposed
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number	number, if applicable		requirements
12 VAC 5-613-10		<p>Direct dispersal of effluent to ground water" means less than six inches of vertical separation between the point of effluent application or the bottom of a trench or other excavation and ground water.</p>	<p>Direct dispersal of effluent to ground water means less than six inches of vertical separation between groundwater and the point of effluent application or the bottom of an effluent-dispersal trench or other excavation. Other excavation excludes minor tillage of the soil surface without soil removal; replacement of fill material with better quality fill material as determined by the Department to improve the ability of the site to treat wastewater; house foundations; tank excavations; force main and header line excavations; and soil disturbances, including pre-existing drainfields installed prior to _____ (effective date of regulatory change), that are not designed for surface or groundwater drainage, and do not create a direct conduit to ground water."</p> <p>The intent of the proposed change is to clarify what a direct dispersal sewage system is. Designs were submitted to the department for systems that would not meet the definition of a direct dispersal system but for the fact they were located over older system sites where excavation extended to the water table. The new design was then considered direct dispersal and subject to all the requirements of 12 VAC5-613-90 C, even though the design sought to improve upon the existing site conditions. Further the broad language of the current regulatory definition of direct dispersal could encompass such activities as soil borings which are not part of the design of a system.</p>

Current section number	Proposed new section number, if applicable	Current requirement	Proposed change, intent, rationale, and likely impact of proposed requirements
12 VAC 5-613-90 D(4)		For direct dispersal of effluent to groundwater in the Chesapeake Bay Watershed, TN concentration shall be less than or equal to 3 mg/l and total phosphorus concentration shall be less than or equal to 0.3 mg/l.	<p><del>For direct dispersal of effluent to groundwater in the Chesapeake Bay Watershed, shall be less than or equal to 3 mg/l and total phosphorus concentration shall be less than or equal to 0.3 mg/l.</del></p> <p>The intent of the proposed change is to allow AOSS in the Chesapeake Bay Watershed that are direct dispersal to meet the same requirements as other AOSS in the Chesapeake Bay Watershed of a 50% reduction TN as compared to a conventional gravity drainfield system in accordance with 12 VAC 5-613-90 D(1) and the requirements of 12 VAC 5-613-90 D for direct dispersal systems.</p> <p>The current regulatory requirement is more restrictive than that of the EPA's model program of 10 mg/l N for systems less than 1000 ft to the water's edge. The EPA model program does not set TP limits as Phosphorus migration occurs at a slower pace than that of nitrogen; and phosphorus will continue to adsorb to down gradient unsaturated soils as it migrates. The current regulatory scheme includes requirements and recommended management approaches to prevent system failure which would result in additional phosphorous reaching the Bay.</p>

Current	Proposed	Current requirement	Proposed change, intent, rationale,
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section number	new section number, if applicable		and likely impact of proposed requirements
12 VAC 5-613-90 D(1)		<p>D. The following additional nutrient requirements apply to all AOSSs in the Chesapeake Bay Watershed:</p> <p>1. All small AOSSs shall provide a 50% reduction of TN as compared to a conventional gravity drainfield system; compliance with this subdivision may be demonstrated through the following:</p> <p>a. Compliance with one or more best management practices recognized by the division such as the use of a NSF certified treatment; or</p> <p>b. Relevant and necessary calculations provided to show one or both of the following:</p> <p>(1) Effluent TN concentration of 20 mg/l measured prior to application to the soil dispersal field ; or</p> <p>(2) A mass loading of 4.5 lbs N or less per person per year at the project boundary provided that no reduction for N is allotted for uptake or denitrification for the dispersal of effluent below the root zone (&gt;18 inches below the soil</p>	<p>D. The following additional nutrient requirements apply to all AOSSs in the Chesapeake Bay Watershed:</p> <p>1. All small AOSSs shall provide a 50% reduction of TN as compared to a conventional gravity drainfield system; compliance with this subdivision <del>may</del> [ shall ] be demonstrated through <del>the following:</del></p> <p><del>a. [ c ]</del> compliance with one or more best management practices recognized by the division [ . ]</p> <p><del>b. Relevant and necessary calculations provided to show one or both of the following:</del></p> <p>(1) <del>[an] Effluent TN concentration of 20-30 mg/l measured prior to application to the soil dispersal field [ . ] ; or</del></p> <p>(2) <del>A mass loading of 4.5 lbs N or less per person per year at the project boundary provided that no reduction for N is allotted for uptake or denitrification for the dispersal of effluent below the root zone (&gt;18 inches below the soil surface).</del></p> <p>The proposed change would allow the Department to move the D(1)(b) regulatory requirements into a BMP document to provide TMDL credits. Unless Virginia designers use an approved BMP, EPA will not provide a credit (or N reduction) for the TMDL. Further, 12VAC5-613-90 D (1) b is proposed to be amended to allow for 30 mg/l of TN effluent in accordance with the EPA Model</p>

		surface).	Program and consistent with the actual performance statistics recorded for systems currently permitted by the agency.
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If a new regulation is being promulgated, use this chart:

Section number	Proposed requirements	Other regulations and law that apply	Intent and likely impact of proposed requirements
12 VAC5-613-90 C(8)	<u>8. When an application is filed for a repair or a voluntary upgrade to an existing direct dispersal sewage system, where no other viable regulatory compliant option exists, the sewage system shall provide a 50% reduction of TN as compared to a conventional gravity drainfield system in accordance with 12VAC5-613-90 B and provide TL3 treatment and standard disinfection in accordance with 12VAC5-613-80 (13) Table 2 for systems with less than twelve inches separation to groundwater. The following requirements will not be applicable to repair or voluntary upgrade applications for systems installed prior to December 7, 2011, that result in direct dispersal:</u> a. 12 VAC5-613 90 C (1) through C(4)	12 VAC-5-610 and the rest of the requirements of 12 VAC5-613	For alternative onsite sewage systems directly dispersing sewage effluent to groundwater that are either filing applications to repair or voluntarily upgrade an existing system that results in direct dispersal, the new regulation would allow these systems to not be subject to the performance, operating and renewable permit requirements of 12 VAC5-613-90 C. The intent of this provision is to reduce the financial burden of meeting the requirements of new construction of direct dispersal AOSS for failing systems or those seeking to voluntarily upgrade their systems.

	<p><u>b. 12 VAC5-613 90 C(6) and C(7)</u></p> <p><u>c. and 12 VAC5-100 G.</u> <u>The system will be monitored in accordance with 12 VAC5-613-100 D if it is generally approved or E if it is not generally approved.</u></p>		
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## Part IV

## Horizontal Setback Requirements

**12VAC5-613-200. Horizontal setback requirements.**

AOSSs designed pursuant to § ~~32.1-163.6~~ of the Code of Virginia are subject to the following horizontal setbacks that are necessary to protect public health and the environment:

1. The horizontal setback distances as found in ~~12VAC5-610~~ that apply to public and private drinking water sources of all types, including wells, springs, reservoirs, and other surface water sources, except that in cases where an existing sewage system is closer to a private drinking water source, the AOSS shall be no closer to the drinking water source than the existing sewage system;
2. The horizontal setback distances that apply to shellfish waters as found in ~~12VAC5-610~~;
3. The horizontal setback distances that apply to sink holes as found in ~~12VAC5-610~~;
4. A five foot horizontal separation to a wetland that is subject to permitting by the Virginia Department of Environmental Quality pursuant to the requirements of Title 62.1 of the Code of Virginia; and
5. Unless the AOSS complies with the ground water protection requirements of 12VAC5-613-90.C, a horizontal separation between the soil treatment area and any drainage trench or excavation that comes within six inches vertically of ground water shall be as follows:
  - a. AOSSs utilizing septic tank effluent shall be subject to a horizontal separation contained in ~~12VAC5-610~~;
  - b. AOSSs utilizing TL-2 or TL-3 (without disinfection) shall be subject to a horizontal separation of 20 feet; and
  - c. AOSSs utilizing TL-3 with disinfection shall be subject to a horizontal separation of 10 feet.

## Statutory Authority

§§ ~~32.1-12~~ and ~~32.1-164~~ of the Code of Virginia.

## Historical Notes

Derived from Virginia Register Volume 28, Issue 5, eff. December 7, 2011.

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