Sewage Handling and Disposal Advisory Committee

March 19, 2010

FINAL Meeting Minutes

Attendance:

Member Attendees	Non-Member Attendees
Mike Lynn *	Dave Tiller
Colin Bishop *	Anish Jantrania
Bob Lee *	Dwayne Roadcap
Robert Wadsworth *	Jim Bowles
Barrett Hardiman *	Marcia Degan
Allen Knapp *	
V'lent Lassiter *	
Bill Keeling *	
Bill Timmons *	
Vincent Day *	
Valarie Rourke *	
Jim Pyne *	
Greg Evanylo *	
Ray Freeland *	
James Hall *	
Todd Benson	
John Harper	

See Appendix 1 for a copy of the Draft Agenda.

New Business:

Emergency Regulations will be on the Governor's desk by Monday. Governor is aware of the issue and will have the emergency regulations—Geothermal and well regulations on fast track, Secretary's office has looked at the emergency regulations and is sending them to the Governor.

What is the active date for the regulations? Enactment clauses are 30-days after Governor submits. We asked for March 1 as a start date, effective upon filing with the registrar, VDH would file the regulations upon Governor's approval.

Draft Guidance Manual for the Emergency Regulations:

It is in draft form, not an official policy. Dave Tiller with OEHS addressed the Board: created committee of EH Managers, supervisors and senior specialists, job was to create tool for implementing the emergency regulations, imperative that we have a way to implement, brainstormed the type of document we wanted to create, talked about FAQs for the emergency regulations, clarifying statements, that might help. Group wanted a document similar to the document for the private well regulations' implementation manual. A certain section of the regulations is cited with instructions. Group read the emergency regs and tried to see what the questions might be. I'd like to walk away with Board's review comments of the document, if you see something unclear, misplaced, let me know, tell me what the solution would be to make it more clear.

Bob Lee: Key things, relate your data system and data entry to make the guidance work. Operators need a system and staff need to know what the data is and how they are going to use it. I don't know enough myself to talk to that side of it. My experience, the data system you use to generate potential non-compliance situations, if someone doesn't submit quarterly monitoring report, the system is flagged, then that would allow the staff to act on it, if report not submitted timely, flag pops up so staff can use it to obtain compliance.

Other big issue is definitions: privies and pump and haul, context is presented as they are not a treatment works, then I'm not sure under VA Code that you have authority to regulate them. My comments are inserted to show where that plays out:

Def of treatment works , 32.1-164, Powers & duties of the Board, Board supervision & control over onsite sewage systems and alternative sewage systems and treatment works as they affect health. If you don't consider them onsite systems, and they are not treatment works, then you lose the control. My suggestion is to say they are treatment works, but treat them differently. In rule, treat it differently and then get around the problem. Privies have many different forms, out-house, easy to look at, What about Clivus Multrum, are you going to spray on your flower beds? You need a graywater system, where does that go? Regulate under something in the code is needed. That's just one example under privy, another thing, portable privies, they fall into the category, it's not easy, they should be under the Board's control.

Mike Lynn:

Flow Chart: Which table to use for which treatment level? When our tech group worked on this, we had difficulty confirming language in the emergency regulations, at least the performance criteria, that they apply to all systems, not just systems under HB1166. Our question is this: for interim period, until we get to final regs, is the dept of the opinion that an AOSE designing one of those systems could they refer back to GMP #147? That's where the loading rate tables are. We found some inconsistencies. Recommendation that GMP

#147 remain as is for systems not designed under the engineering exemption. Need AOSE section or a PE section.

Knapp: GMP #147, our intention is to keep it even after the emergency regs go into effect. Section 70 only applies to engineered systems. You can still use GMP #147 and you will be in compliance.

Group discussion continued: If a PE designed something under HB 1166, his min footprint, designing under 1166 for watertable, his footprint would be designed on that table, AOSE could design a smaller system using GMP 147. PE not prevented from GMP 147, Table 1 in the regs, you have a lower loading rate than in GMP 147. General comments from persons concerned about mixing & matching GMP #147 with the emergency regulations.

Table 1 loading rate: TL 3 does not match the guidance document. It doesn't match up. You have to look at GMP #147, trying to match the guidance document to match the reg. Table 1 was to base TL2 numbers on EPA recommendations, comparison to STE, then TL-3 loading rates were best approximation of GMP #147, not a perfect exercise, pressure dosing versus gravity fed, it's a compromise and it's not perfect, on the other hand, the reg has a loading rate chart for TL2,

It's not for VDH to say who can use the emergency regulations. In Section 70, VDH is not interpreting whether an AOSE can use it. VDH is not going to enforce DPOR's rule.

Does the flow chart make sense? The flow chart does not mention policies of the Department. Do you think we should add a statement for "VDH policies and regulations" so that it is clear that the design meets both? Sounds reasonable.

If PE designs anything that is not in the regs or not consistent with the regs or policy, then that submission should have to be under 163.6 of the Code. It can't be enough to say, "I'm an engineer and I can do it."

Under 1166, regs requires 8 trenches, you as engineer can't say 6 trenches using chambers, you can't say under 1166 that gravel is equivalent to chambers. We've never had mandatory O&M before, people are asking how I can have a reduced septic tank effluent with reduced footprint to avoid the O&M requirements. It's the unintended consequence of the emergency regulations and requiring O&M.

We have been hesitant to go down this path, we don't know the fate of the regulations will be right now, we are walking a fine line here, the emergency regs are supplemental to the Sewage Handling and Disposal Regulations (SHDR), if you want to work under the regulations, just because of 1166, PEs design fully in compliance with both sets of the regulations, emergency regs and SHDR.

Flowchart on Page 2, if you are not a PE and you design an alternative system in accordance with the emergency regulations, where does it fit on the flow chart? Just from a clarification standpoint, would it help to expand Table 1 to include gravity, versus pressure, etc. If you expand and include all of the increments, Table 1 has a range for perc rates, we could expand to give more guidance, this is your max for gravity, etc. We would have to be careful about the loading rates, easy to get confused between conventional and alternative systems. This is a maximum. We want to stress simplicity and flexibility.

Jim Pyne: What is the legal standing of the O&M manual? Let's say I'm an operator and I'm not operating in accordance with the O&M manual. What happens? Does VDH receive and review O&M manuals or just receive them?

Here's what I do for O&M manuals in the larger context: When the facility is built, our permit includes the O&M manual, we review the manual that will paint us into a corner, we review it very carefully, once they are submitted for approval, it takes a long time to get it reviewed and approved. Usually it is an iterative process, is the O&M manual a legal document that we must take that kind of care with? It's important. For example, statement says, you will operate with 42.53 mg/l mixed liquor. If I don't do that, then I'm in violation if I don't have that. I would rather it not be an enforceable document.

Who is going to develop the manual? Owners may or may not have a manual if one even existed for the systems that are already out there. What can an operator do if they don't have an O&M manual? VDH should come up with what they think they want the operator to do for those systems without an O&M manual.

The O&M manual is not an enforceable document today. There is a lot of stuff to keep up with. We did not make the O&M manual enforceable because people wanted to include stuff that goes beyond the min requirements of the regs, if it were enforceable, we would be enforcing something not required by the regs. The O&M manual has not gone through any APA process so it is not enforceable.

Regs are not written to be overly prescriptive. If your manual is not enforceable, then you shouldn't have to review it. If you want people to follow it, then you would have to make it enforceable. You deliberately write regs to not be so prescriptive. If you are not going to enforce it, then don't review it. If it is enforceable, then review it. This is an emergency reg, we are going to be in permanent reg mode, the trade-off, if O&M manual says visit it once per week but the regs say once per year, couple weeks go by, VDH has enforcement against owner and the unit may be working fine. Citizen says the regs require annual visit, who wrote the O&M manual, the PE and some other people, that doesn't seem right …. This reg also has to work for large systems with various pieces of equipment, then that may be where you want the O&M manual to be reviewed and approved and enforced.

Another piece of guidance, Section 140, it's getting reviewed by the committee, as soon as it done, I will email to the advisory committee.

The spray irrigation systems that are jointly managed by DEQ, there is GMP on spray. Seems like we need to change GMP, homeowner got $4,000 bill per year to have operator do the O&M in the GMP. Owner can't add own chlorine, the GMP has weekly requirements and it gets tied into the system. Those tables in the GMP for O&M, the spray irrigation has requirements that exceed the emergency reg requirements. That's a tough issue because DPOR says who can write those regulations. Allen Knapp agreed to look at the spray irrigation policy and its O&M requirements.

TL-2, NSF 40 certification, the O&M manual will require 2-visits per year and the regs will require 1 per year.

Any other ideas for the guidance document? Deadline for submitting comments? Keep in mind that it is a guidance document that doesn't go through regulatory procedures so we can adjust or talk about it. Because it is an emergency reg, you will be road-testing the guidance and the reg. We can submit comments on our experience as anecdotal information develops on how it is working.

Sampling will be a legal issue, certified labs, how do you notify operators about non-certified labs. Non-certified lab doesn't notify customers sometimes. Will operator be able to modify an O&M manual? PE says that if you change my O&M manual then my responsibility and liability changes. There are two sides to that. Is there an answer? I think you could do it a couple ways:

1. If engineered system, then operator should go to PE
2. If non-engineered system, then operator should be able to make changes.

We will see operators change operation based on who's living there. I don't think the reg or guidance says that O&M manual has to be signed by PE. O&M manual is owned by the owner.

By DPOR regs, inspection is not the same as operation. If local ordinance requires inspection, you don't have to be operator. When we asked DPOR, the answer was that inspection is not operation because definition of operator includes hired by owner. DPOR may have something new to say about it.

V'lent Lassiter: HB1788, limits locality's ability to regulate alternative system, Ted McCormack included in sub-group's conference call on Jan. 20. Asked, would the emergency regs supercede Bay Act requirements? Any septic system in Ches Bay must be pumped every 5 years, 100% reserve drainfield, the language in emergency regs, would that be enough to protect the interests? Joan Silvattee, Director, vetted it thoroughly in house, we were satisfied that it preserved locality's right to regulate Ches Bay. No other issues.

Colin Bishop: Our sub-group has a lot to discuss, may want to wait to the next meeting to talk about the subcomittee's issues.

3rd Sub-group: Jim Pyne, we sent out Part III to group, getting comments, Bob Lee sent something, we echoed a lot of the comments today, come back to the next meeting and have something more substantive. Group thought that advisory committee should focus next meeting discussion on Colin and Jim's subcommittee work.

TMDL: Russ Perkins, Alan Pollack,

Alan Pollack: Passing around brief presentation, Commonwealth actively engaged with TMDL over a decade, operating under federal court decree that EPA signed in 1999, 600 or so impaired waters in the consent decree, monitoring data that shows you are not meeting standards, it's impaired and you need to do a TMDL, it's a pollutant loading cap, most frequent issue is bacteria, it's the pollutant of concern. The Ches Bay and a number of the tidal waters and VA's portion were on the list in 1998 when EPA was sued. Section 303-D of the Clean Water Act was not being implemented, consent decree settled, schedule runs out in May 2010 for what VA is supposed to be doing. 2010 is a driver for a number of things, the Governors of VA, EPA Administrator and MD signed agreement said we would keep it out of federal regulatory agreement. We worked toward our share of the pollution, the pollutants are N, P, and sediment, those are the 3 pollutants. Clear we could not get it done by 2010. EPA recognizing it as an interstate water body, EPA is going to do TMDL with states, clear that EPA is running the show. Going through technical issues. That's the background. May 2010, if VA does not finish 2010, then EPA has to get it done by May 2011, we knew we weren't going to make it, acknowledged politically in 2008-2009, state leaders asked that we get this done, couldn't get Bay off of the list. Federal Gov't responding to Obama's executive order to clean up the bay. The timeline is outrageous; it's complicated, difficult issue. Federal Gov't saying that you do it or we'll do it. So, we are working feverishly. Big challenge ahead of us. What are the sources of the pollution that is causing the impairment? Ag, sewage, stormwater, etc. That's what EPA using to estimate loadings, input into the water quality model, submerged grasses, chlorophyll (algal levels),

Nutrients are good, basis of the food chain, but too much of a good thing is the problem, low O2 levels, sediment, restrict sunlight, algal blooms, unsightly, can cause other problems, VA is not alone, the watershed goes into NY, Pennsylvania, MD, VA, eastern panhandle of WVA, parts of DE, parts of DC. Each state getting slice of the pie, each state is being capped. Dividing by source sector. The TMDL is the loading cap, broken down by wastewater location, load allocation, margin of safety, which can be explicit or implicit. The implicit approach, assume that there are conservative assumptions so that you don't have to set aside some of the load. We could spend a lot of time on the modeling and estimating loads off of landscapes, the water quality model, the air quality model, Nitrogen coming from air and the airshed is bigger than watershed. Air from Ohio reaching Bay.

We don't have sediment targets yet, expect something in April, a lot of success in VA, kind of frustrating, media picks up on failure of Bay cleanup, but when you look at the loading 25 years ago, think about population increase, we have seen a significant reduction. Estimated loads on a range of hydrologic conditions, using 1990s hydrology. Numbers are from Virginia. 12.4 million to 7.4 million pounds.

Got target loads from EPA and they are expected to change. Target numbers, final, should be coming soon. Our targets are 59.2 million pounds on N, we are at 72, we are close.

EPA using the Bay TMDL as a model, 600 + TMDLs on consent decree, another 200, so 800 total, EPA will say "accountability." They sent a consequences letter if the states don't measure up on the TMDL, what happens if the VA plan doesn't meet or don't meet on time, then what happens? EPA will change allocations among source sectors, others directed at implementation, plan goes to 2025, which is the current deadline, we have to come up with 2-year milestone, if don't meet, they could open up "consequences box." Under clean water act, EPA can regulate many practices, if EPA doesn't like what they see, then we will ratchet down on the regulated sources, may get a lot of objections to issuing permits for stormwater or wastewater, CAFO, could become more stringent. We get grant funds from EPA, they may promulgate local nutrient restrictions. Generic schedule in slides. States have target loads and break down to the river basins, we need an implementation plan to take basin allocations and break down to "segment shed" plans. The whole bay is not impaired, fixed segments, 92 segments in the whole bay system, there must be TMDL for each segment shed, we will have 40 segment sheds with 3 TMDL plans, break them out to different sectors, spreadsheet nightmare.

Process now to develop watershed plans. Preliminary plan by states by June 1, 2010. EPA looks it over, sees whether it meets their expectations, 60-day comment period, public meetings throughout state, and EPA will issue by end of the year. Phase II, take the 40 TMDL segment sheds, in James River, land above fall line is one segment, big areas in some cases, next year, divide it up to the locality level. At the local level, if you know what your responsibility is, then you can make better decisions. That's the concept, that will be another big challenge. Next, there will be 2-year milestones. If you don't meet, then the consequences can come.

5 Major source sectors:

Wastewater, Ag, septic, Forest, Urban Runoff.

Stormwater estimates are starting to go up, Nitrogen from onsite systems going up, TS=tributary strategy, E3=Everything, Everywhere, Everyone= theoretical

TS plan to show that we are over target numbers, what you are going to do to get below target allocations. We hope new numbers won't push us below the TS strategy

Septic systems are small part and it is going up, but it must have an allocation in the TMDL, DCR and DEQ working with VDH to deal with the challenge.

Phosphorus loads, EPA model world, don't consider P an issue for septic and no allocation assumed. On nitrogen issue, on septic load, EPA figures 9.6 lbs from each septic system.

Looking to see what can we do better in the future with new technology for onsite sewage systems. EPA references 2 studies that they use to account for the nitrogen assumptions. Undoubtedly, there are differences, any septic system in Loudoun is not delivering nitrogen to the watershed, the nitrogen is taken out, what's getting in groundwater? It's negligible and it is less than what they are getting from Agriculture. The end date is 2025.

Getting some subject matter experts together to see what are some things that could be done in the future. We have stakeholder group, and we are trying to show some of this to the group. BMP coverage level, we need to come up what effects possible changes would make. We need multiple iterations on the "model run" to see how we can meet the loading reduction required.

What can we do and how far will it get us? Once we get there, then state staff will distribute to 35 segments, dealing with 40 smaller drainage areas to divide up the loads, will do after we figure out the statewide level of effort required to meet the allocation.

WLA= waste load allocation
LA= load allocation is the other stuff--see slide

For the onsite systems, we initially found lack of information of things that are going on that is not known or is not tracked, if we collect some data then that would help with the modeling. Ideas to adjust model: Denitrification systems being installed, if 10 to 15 percent, septic pump-outs, very high level with Ches. Bay requirements in those areas, lesser frequencies for the rest of the state. Other ideas, installing trenches shallower to get greater offset with vegetative buffers between receiving waters, then you get vegetative uptake, we don't know how efficient that would be, trying to get that approved as a best management practice. Pump-outs won't get us all the way to the allocation reduction, we either need more hook-ups or future systems must generate a lot less nitrogen. Or, maybe we could have some more BMPs like shallower installations.

Conversion to public sewer would reduce onsite pollution but increase point source pollution. With the nitrogen, treatment plant you get a lot less than 9.66 mg/l. Could create a load increase in the wastewater plant, some things effect another.

Public wastewater systems have done a lot of reduction with significant money. Can't do much in forest, but it is a low polluter and good land use, what's left, urban stormwater and septic. We need to stop those from going up.

Every site is specific. Some sites are 36-40 feet to groundwater, then to calculate N impact, you have to figure out how fast groundwater moves, there is a lot of attenuation, it's like fighting city hall, if EPA sticking with this figure regardless of site specific features, then hey, we are having zero contributions at this site, it seems that 9.6 lbs is questionable. It is intended to be an average over a broad area, the nitrogen is not intended to reflect the site specific issues. The risk from all sites is not the same, some sites are higher risks and transport more and others transport a lot less. The model should account for site specificity but it does not. Average crop yield, average forest yield, etc. EPA takes 40% and shoot to a simulated stream, that's the assumption, that's for onsite, everywhere. The model being used has a lot of inertia and weight, changing the model will be difficult, right now onsite systems account for 3 million pounds annually, the 3 million pounds have to go somewhere else, the reduction is the same.

3 BMPs recognized by the model and VDH has proposed 2 more, 25% reduction and another for 75% reduction, try to work with that group. Let's capture things we are currently doing, shallow-placed systems get 50% uptake and denitrification, include with NSF 245 system, then you get more than 75%. Then track and report these things. Without monitoring, it would be an assumption.

From bigger picture point of view, wastewater area, the GA in 2005 with the Nutrient exchange program, big treatment plants that are significant discharges, reduce to a cap and then they have to hold that cap even with population increase. For non-significant, you don't have to go down, but you can't go up. The thinking 5 years ago is what transpired.

What would it take to cap Nitrogen in onsite sewage systems? In one sense, every new discharge would have to be zero. You can't do that with the model. Model assumes 9.6 lbs per new onsite sewage system. There is a webinar from EPA next week, the next date of the implementation plan group is working on a date, don't have a date yet.

Next advisory committee meeting date: April 23, next meeting date, Allen will let us know the location. Details will be forthcoming.

Appendix I: Meeting Agenda

Sewage Handling and Disposal Advisory Committee
Virginia Department of Health
Draft Agenda – March 19, 2010

Administration

- Call to Order
- Approve Agenda
- Review and approve minutes from Sept 18, 2009, and Dec. 11, 2009 meetings (attached)
- Review committee rules (attached file)

New Business

1. Legislative Update- GA bills from the 2010 session- Allen Knapp/Barrett Hardiman
2. Draft GMP for Emergency Regulations implementation (David Tiller)
3. Chesapeake Bay TMDL - Russ Perkinson (DCR) and Allan Pollack (DEQ) (scheduled for 1:00 P.M.)
4. Next meeting dates

Old Business

1. Status report on four regulatory actions:
   -Schedule of Civil Penalties
   -Geothermal Wells and Well Yeild/Storage
   -Indemnification Fund
   -Emergency Regulations for Alternative Onsite Sewage Systems

2. Subcommittee Reports: Emergency Regulations for Alternative Onsite Sewage
3. Status of Issue- Clerks of Court recording requirements (Robert Wadsworth)

Adjourn