

Virginia Stormwater Best Management Practice (BMP) Clearinghouse Stakeholder Meeting

DEQ Piedmont Regional Office
4949-A Cox Road, Glen Allen, VA 23060
August 15, 2019

Meeting minutes by Jane Walker -- Additional information pertinent to the meeting discussion but not provided during the meeting is included within brackets, [].

Virginia Department of Environmental Quality (DEQ) Personnel Present

Robert Cooper, DEQ-Central Office
Melanie Davenport, DEQ-Central Office
Drew Hammond, DEQ-Central Office
Jaime Robb, DEQ-Central Office

Virginia Water Resources Research Center Personnel Present

Jane Walker, Virginia Water Resources Research Center (VWRRC)

Stakeholders Present

Derek Berg, Contech
Tommy Branin, Colonial Construction Materials, Inc. (CCM)
Ranee Buck, Lane Enterprises
Scott Crafton, Virginia Department of Transportation (VDOT)
Thakur Dhakal, Fairfax County
Jacob Dorman, Contech Engineered Solutions
Travis Dorman, ADS/BaySaver
KC Filippino, Hampton Roads Planning District Commission (HRPDC)
Chris French, BioClean Environmental
Doug Fritz, GK Y
Hannah Gill, Dewberry
Jeff Hancock, VDOT
Caleb Hurst, Draper Aden Associates
Kyle Knapp, Virginia Tech
Kyle Logue, BC
Ben Lydon, Hydro International
Jared MacKenzie, Oldcastle
Mark Miller, AquaShield, Inc.
Juan Carlos Morgado, James City County
John Rotondo, Rotondo Environmental Solutions
David Sample, Virginia Tech
Kateri Shreve, Luck Ecosystems
Corey Simonpietri, ACF Environmental
Ginny Snead, AMT
Samantha Solgere, Rotondo Environmental Solutions
Diana St. John, City of Virginia Beach

Phillip Taylor, Hydro International
Darryl Walker, City of Petersburg
Kyle White, Luck Ecosystems
Joe Wood, Chesapeake Bay Foundation
John Woodburn, Goochland County
Wei Zhang, Tree Diaper

Call to Order & Introductions

Jaime Robb of DEQ called the meeting to order. Everyone introduced herself or himself. DEQ's Melanie Davenport announced that this would be Ms. Robb's last meeting in her current role at DEQ as she has just taken a position at the Piedmont Regional Office managing their stormwater and wetlands programs. Until DEQ fills the position, Drew Hammond will step into the role with future stakeholder meetings.

Minutes from April 17, 2019 Meeting

There were no comments or additions to the April 17th meeting minutes so they were approved as provided.

Update: DEQ Stormwater Program

Ms. Robb reported that DEQ has been busy with issuances of the Construction General Permit (CGP) for 2019, which became effective July 1st. DEQ is processing thousands of reissuances from local VSMP (Virginia Stormwater Management Program) authorities as well as where DEQ is the VSMP authority. She requested patience and reassured everyone that DEQ's staff is processing them as quickly as possible.

Ms. Davenport stated that the regulatory advisory panel (RAP) to assist DEQ in the development of regulations to consolidate the Virginia Erosion and Sediment Control Program and the VSMP has met twice. The regulatory process is exempt from parts of the Administrative Process Act (APA). She offered that the group will work only on what the General Assembly (G.A.) has given authority for it to do. Thus far, they have been working to clarify definitions and help with organization (e.g., different sections for program administration, technical requirements, CGP, etc.). It is a tedious task. DEQ greatly appreciates the dedication and hard work of the individuals serving on the RAP.

Ms. Davenport offered that Virginia will submit its final Phase III Watershed Implementation Plan (WIP) for the Chesapeake Bay TMDL (total maximum daily load) on August 23, 2019. The Phase III WIP covers the steps to be implemented between now and 2025 to meet Bay restoration goals. A stakeholder asked what would be the consequences if the G.A. says, "no" to what DEQ proposes. Ms. Davenport clarified that it is a plan that can change. Virginia will need to make up differences in some way if the G.A. does not support certain components of the plan.

The next meeting of the workgroup to study possible expansion of the Chesapeake Bay Preservation Act (Bay Act) is slated for August 21, 2019. Ann Jennings is leading the effort. The meeting is open to the public. [For more information, see <https://townhall.virginia.gov/L/Viewmeeting.cfm?meetingid=29702>].

DEQ needs to get out its Chesapeake Bay TMDL action plan guidance for MS4 (Municipal Separate Storm Sewer System) localities. The agency intends to share the draft with some localities and VAMSA (Virginia Municipal Stormwater Association). The guidance will also go through the new requirements for public notice and 30-day comment period.

Ms. Davenport stated that DEQ plans to submit the nutrient trading regulation final to the State Water Control Board (SWCB) at its December 2019 meeting.

Ms. Davenport reported that earlier this year, a SWCB member requested that DEQ consider developing an instream turbidity standard. DEQ staff has conducted some research on the subject and is reaching out to other states to see if they have an instream turbidity standard and if so, how it is implemented. She offered that DEQ's Jutta Schneider plans to provide an update to the SWCB at its December meeting.

A stakeholder asked if there are any policy changes to the RLD (responsible land disturber) certification. DEQ personnel responded that nothing has changed to their knowledge and offered to check with the DEQ training folks. [Note: After the meeting, DEQ confirmed with training staff that at this time there have been no changes regarding RLD.]

Installations of Manufactured Treatment Devices

Ms. Robb offered that a local government employee and engineer raised concerns as to who needs to certify the proper installation of manufactured treatment devices (MTDs). She asked the representatives of MTD manufacturers if their people are on site to ensure proper installation. One replied that their staff is on site when requested but not at every site. A representative of another company stated they followed the same approach.

In response to a question, an MTD representative offered that his company warranties the device but not the installation of the device. The proper installation is on the contractor. The first representative to speak seconded this approach: warranty for the device only, not installation of the device.

Ms. Robb asked what level of instruction or assistance is provided to engineers and folks on site to ensure the product is installed correctly? An MTD representative offered that someone is generally there the first time the contractor installs the device. In response to a question about who specifically they assist, others offered that they work with both the designer and the general contractor as requested.

A different representative of an MTD manufacturer explained that once his company gets a purchase order, it provides a submittal package to the contractor. The submittal package includes the site drawings, installation instructions, operations and maintenance (O&M) manual, etc. The contractor then forwards the submittal package to the engineer for a signature. The MTD company does not build the structure until it has been signed off by the engineer, and they build it to the approved specification. The MTD company warranties the structure, but not the installation. As part of the QA/QC (quality assurance/quality control) process, all involved should have the items in the submittal package.

A brief discussion ensued on the process for getting the O&M manual to the owner. Ms. Robb offered that it likely is part of the BMP maintenance agreement. Others offered that the process varies by state.

Ms. Robb explained that because engineers are typically involved with the design of non-proprietary BMPs, they tend to be comfortable signing off on the installation. In contrast, the engineers are not as comfortable with MTD installations because they are not as knowledgeable about the design. Thus, some engineers have expressed hesitation about signing that the MTD is installed correctly if representatives of the company are not present to oversee the process. Mr. Hammond added that the issue goes beyond DEQ. The DPOR (Department of Professional and Occupational Regulation) has requested that he attend their next meeting regarding various topics. He will learn more when he attends the meeting but expects it is likely a larger issue than just MTDs.

A representative of an MTD manufacturer offered that his company has a division to help provide resources for installations. They are available to answer questions and go out whenever requested. For the majority of installations, they do not get called.

An engineer offered that in her experience, communication with the MTD company (design end) is better than with the general contractor (installation). She has had experiences where the contractor has already performed the installation before she arrives. DEQ's Robert Cooper offered that at least one VSMP authority requires the scheduled installation be on the plan; the plan also specifies key moments when the engineer needs to be called. A representative of an MTD company reported experiences where the installation was planned for a given date, but when the company representative arrived on that day, they learned that the device had already been installed.

Mr. Hammond asked if most MTD companies request information up front for review when someone specifies the use of their device. A representative of an MTD manufacturer suggested that about 90% of the companies do. Several local government representatives offered that they require verification from the MTD manufacturers that the specified drawing is consistent with the product manual. Mr. Hammond asked the engineers in the room if localities are asking for verification from the MTD manufacturers regarding the designs. An engineer responded that it varies; some localities do, and some do not.

MTD Evaluation Protocol

At the last stakeholder meeting, DEQ agreed to distribute its proposed guidance document for comments for 45 days. [Following the meeting, these items were distributed to all on the BMP Clearinghouse listserv: 2014 Interim Guidance (GM14-2009), 2019 Draft Guidance, and three documents developed by stakeholders in 2015 (letter addressed to DEQ's director David Paylor, "Importance of MTD Sizing Criteria linked to Performance Verification," and "Stakeholder Recommendations for MTD Sizing Guidance in Virginia").] DEQ personnel expressed a desire to know stakeholders' thoughts on whether or not Virginia was heading down a path that was more regulatory in nature than guidance.

Mr. Cooper summarized that he received comments from 10 or so individuals. The comments were fairly consistent. There was a clear consensus that the maximum total phosphorus (TP) removal rate for hydrodynamic devices should be left at 20%. Some commented on the cap (i.e., the maximum TP removal credit provided). Several commented that there are too many pathways for approval. Other comments concerned treatment trains, having a transition period, etc.

Ms. Davenport stated that if DEQ were to address the issues raised in the comments, it would need to be in a regulatory context, not guidance.

David Sample offered that the efforts of the Chesapeake Bay Program (CBP) are primarily following the Stormwater Testing and Evaluation for Products and Practices (STEPP) program. STEPP, a nationwide program, proposes to adopt the NJDEP (New Jersey Department of Environmental Protection) / NJCAT (New Jersey Corporation for Advanced Technology) laboratory protocol for testing sediment removal. That proposal is going out through ASTM's public comment process on September 1, 2019. The STEPP program is proposing a two-track system, where they are looking at Washington State's TAPE (Technology Assessment Protocol – Ecology) for field evaluations. STEPP is beginning the comment process with the simpler lab protocol and plans to follow with TAPE. In the Chesapeake Bay region, Norm Goulet (Northern Virginia Regional Commission), Carmine Balascio (University of Delaware), and David Sample (Virginia Tech) are heading up the protocol development efforts. Dr. Sample described the Bay's approach as "TAPE Plus." They have identified items that are specific to the Chesapeake Bay region and intend to add to TAPE to address these specific items (e.g., hydrology of Washington state vs. Bay region, nitrogen, etc.)

In response to a question, a stakeholder explained that ASTM has an agreement with STEPP. ASTM will have a standalone Stormwater Committee that is intended to serve as the protocol generator for STEPP. STEPP has decided to use the NJDEP protocol and the Washington State TAPE protocol. STEPP's goal is to be active by next year. They plan is to start with NJDEP's lab protocols and then TAPE's field protocol. He estimated that it would be 2-3 years before all of the protocols are integrated into the STEPP program. It will be up to the states to decide what to do with data validated through the STEPP program. States will also need to establish sizing, etc. He offered that if Virginia wants TP data, they will need to rely on field-based testing (TAPE protocol).

A different stakeholder offered that STEPP is hoping the Interstate Technology & Regulatory Council (ITRC) will help with the communication aspects for how states could use the data.

A third stakeholder offered that TAPE recently updated its protocols. The TAPE protocol now requires the water-quality parameters in the Chesapeake Bay TMDL: sediment, phosphorus, and nitrogen. [The new 2018 *Technical Guidance Manual for Evaluating Emerging Stormwater Treatment Technologies Technology Assessment Protocol – Ecology (TAPE)* is available at <https://fortress.wa.gov/ecy/publications/documents/1810038.pdf>. New required screening parameters include total Kjeldahl nitrogen, nitrate-nitrite, and bacteria.]

Ms. Davenport stated that she still struggles with Virginia's regulation regarding reciprocity. Ms. Robb added that DEQ has decided to allow reciprocity from other states; thus, if approved by New Jersey or Washington, the MTD would be approved in Virginia.

A stakeholder that represents an MTD manufacturer requested that Virginia provide sizing guidance in its approval letter. A second representative of an MTD manufacturer voiced support for this suggestion. He offered that Virginia include in the approval letter a statement such as, "You are approved at X maximum hydraulic loading rate." It should not simply state, "You are approved." The maximum hydraulic loading rate (HLR) should be based on the study used to gain approval.

Mr. Cooper offered that there are two issues. The first is how well the device removes pollutants. For this, we need to know how much of the pollutant goes into the device and how much comes out of it. The second issue is a hydraulic or storm issue. How much of the storm bypasses the device? Knowing a maximum HLR helps with this issue. He questioned how Virginia could extrapolate hydraulic data from another state, such as Washington. He acknowledged that work is underway on getting a better handle on the rainfall characteristic issues, but added that we are not there yet.

Several stakeholders offered that the HLR is transferrable from one place to another. Mr. Cooper offered that the HLR is already provided in the approval letters from New Jersey and Washington. The stakeholders offered that not all of the testing approved by Virginia was performed in New Jersey or Washington. The HLR is not specified in some of the test data from other states. Thus, Virginia has approved devices where HLR information is unknown.

A stakeholder suggested that Virginia develop a process to take flow rates from various devices and apply Virginia conditions to them. He offered that DEQ may want to require a model run. They could have a third-party entity run the model based on the data provided by the manufacturer. Ms. Davenport offered that DEQ cannot require anything under guidance; they would need to develop regulations. She added that Virginia would need regulations to apply the ASTM protocols.

Mr. Hammond summarized that the ASTM protocols provides a consistent methodology for data collection and analysis. Part of the resulting information would be an associated loading rate. The missing piece is to get the HLR numbers to the design engineer to properly size the device. He added that Virginia could post the HLR (e.g., HLR/cartridge or HLR/sf), but that does not fix the issue of getting design verification from the MTD manufacturer and getting those verification letters to the VSMP authority. He wants reassurance that the device is sized properly to treat the 1-inch design storm.

A stakeholder stated that he is just asking DEQ to put the HLR numbers on the BMP Clearinghouse.

Ms. Robb proposed that DEQ could change its guidance and go through the new public comment period for guidance. With the new guidance, DEQ would stop doing technical reviews. Instead, DEQ would accept in reciprocity devices that have approval through NJDEP and Washington

State's GULD (general use level designation). DEQ will ask for a letter of certification that the design and sizing are appropriate for the site. A stakeholder offered that he would require the use of the reported HLRs used for testing. Ms. Davenport reminded the group that DEQ cannot require anything in guidance; regulation is needed for a requirement. Another stakeholder suggested that DEQ publish its preferred method. A different stakeholder stated that the Runoff Reduction Method (RRM) determines the volume that must be controlled; he suggested that the guidance specify that the engineer must determine the correct hydraulic flow rate based on the RRM, which is already in the regulation.

Mr. Cooper stated the need to figure out what to do with hydrodynamic separators and what to do with studies that looked at TSS (total suspended solids) removal instead of TP removal. He asked why Washington state only approves hydrodynamics for pretreatment. A stakeholder explained that the devices cannot meet Washington's 80% TSS removal requirement so can only be approved for pretreatment (which requires only 50% TSS removal). The stakeholder commented that DEQ currently accepts devices that submit studies not approved through these two protocols and gives almost as much credit to devices with no TP data as those with TP field data. He stated that getting such devices off the BMP Clearinghouse website would be a step in the right direction. Ms. Robb stated that DEQ does not intend to remove devices that are already listed on the BMP Clearinghouse. Several representatives of MTD manufacturers commented that unless DEQ removes devices not meeting the desired protocols, it will not fix anything.

Ms. Robb reminded the group that we do not have regulation. There is only a statute for reciprocity. DEQ simply intends to interpret "reciprocity" in a strict way – meeting Washington GULD and NJDEP requirements. Without going through the regulatory process, DEQ does not have the ability to revisit previous case decisions without due process in accordance with the APA.

A stakeholder commented that if only applied to future evaluations, we are wasting our time. Everything that exists is already on the BMP Clearinghouse. There is a major problem that needs to be fixed.

Mr. Hammond explained to the group that DEQ was told by the G.A. that it would be stifling innovation if it required that devices be tested through TAPE. Not all companies can afford the costs of testing through the TAPE process. He offered that at this time DEQ could course correct for new submittals. There may be an opportunity for another course correction as ASTM establishes national protocols. Once we know how these protocols could be applied and credit achieved with the Chesapeake Bay model, DEQ could "draw a new line in the sand." He stated that if the agency were to reevaluate the approved devices, he would recommend that all be repealed. That way, all would need to resubmit their applications for review under the new guidance.

The stakeholder stated that Virginia has "screwed things up" on both ends. The cap provides no incentive for innovation. Why would anyone want to innovate when their device only gets a little more credit than one tested without any TP data? Ms. Davenport offered that the cap would go away under the new guidance. It, however, would only apply to new submissions. Mr.

Hammond offered that DEQ could consider a process whereby devices give up their current certification and reapply for higher credit.

The same stakeholder voiced his frustration that every other state can update and make changes to their approval process easily, but Virginia cannot. He does not understand why. Ms. Davenport explained that the agency cannot make changes without going through a regulatory process, which takes years. In Virginia, only if the G.A. were to direct DEQ to start from scratch and tell them what to do going forward could DEQ implement changes quickly; under that scenario, DEQ would not need to go through the regulation process.

A different stakeholder offered that Virginia seems to have a path forward for new products, but it does not solve the problems for the existing devices. Mr. Hammond suggested two pathways forward for the existing devices. For devices previously certified in Virginia, the MTD manufacturer could provide the removal efficiency from TP testing under the TAPE program (Washington State's GULD) and its associated HLR, and request that DEQ amend or update the certification. DEQ then needs to consider what to do with previously certified devices without certification from another state; there is a difference if talking about 5 products versus 50 products. DEQ could revisit the approvals in accordance with the APA.

Ms. Davenport asked if the market will take care of the issue if the cap is removed. Devices with TP testing could get higher removal rates. Additionally, she wanted to know how many different types of devices are used in the world. A stakeholder added that it is likely in the 100s.

Several local government representatives voiced that they just want options. Sometimes non-proprietary BMPs will not work for a given site so MTDs are needed.

At the request of stakeholders, DEQ personnel recapped the proposed path forward.

Step 1: Modify/amend the guidance document. The new guidance would define DEQ's interpretation of "reciprocity" to mean acceptance of certifications from NJDEP and/or Washington GULD. In the new guidance, the caps would go away. DEQ would need to establish an implementation date for use of the new guidance.

Step 2: Allow devices currently certified that have NJDEP and/or TAPE GULD certification to resubmit under the new guidance to request higher removal rates.

Step 3: DEQ will take a look at how many devices currently on the BMP Clearinghouse do not have certification through NJDEP and/or TAPE GULD. Devices currently on the BMP Clearinghouse without NJDEP and/or TAPE GULD would not be granted higher removal rates. DEQ suspects that they cannot do anything with these products (i.e., move credit up or down or remove device completely) unless it makes changes through the APA process.

Information to be posted on the BMP Clearinghouse includes the device name, Virginia's approval letter, certification letter(s) from NJDEP and/or Washington state's GULD, and loading rate associated with the testing used for certification. A stakeholder added that obtaining the HLR might be tricky for devices that used different rates for different tests to obtain certification.

Ms. Robb added that it is incumbent on the design engineers and MTD representatives to work together on each specific site to ensure that the sizing and design are correct to meet site conditions. Mr. Hammond commented that he is not hesitant to ask the licensing board the following question: “Does appropriate sizing of an MTD, given this document, constitute the practice of a P.E.? Who is it on?”

Next Meeting Date

Ms. Robb offered that stakeholders would receive an email about possible future meeting dates.

Adjournment

With no further business, Ms. Robb thanked everyone for participating and adjourned the meeting.