

**Virginia Stormwater Best Management Practice (BMP) Clearinghouse
Stakeholder Meeting**

DEQ Piedmont Regional Office
4949-A Cox Road, Glen Allen, VA 23060
April 17, 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

Chris Allen, Oldcastle
Tommy Branin, Colonial Construction Materials, Inc. (CCM)
Ranee Buck, Lane Enterprises
Sandy Camargo, Advanced Drainage Systems (ADS)
Scott Crafton, Virginia Department of Transportation (VDOT)
Jacob Dorman, Contech Engineered Solutions
Chris French, Bioclean Environmental
Normand Goulet, Northern Virginia Regional Commission
John Keenan, Clark Nexsen
Jared MacKenzie, Oldcastle
Brad Martin, American Engineering
Mark Miller, AquaShield, Inc.
Doug Moseley, GKY & Associates, Inc.
Alain Nshuti, Exact Stormwater Management
Sheila Reeves, Timmons Group
John Rotondo, Rotondo Environmental Solutions
Brian Rustia, ADS/BaySaver
David Scott, HydroInternational
Corey Simonpietri, ACF Environmental
Frank Sisk, Oldcastle
Terry Siviter, Rotondo Environmental Solutions LLC
Ginny Snead, AMT
Diana St. John, City of Virginia Beach
Jill Sunderland, Hampton Roads Planning District Commission (HRPDC)
Kevin Utt, City of Fredericksburg
Matt Valencia, StormTrap

Jeff Waldon, CSI Inc.
Darryl Walker, City of Petersburg
Wei Zhang, Tree Diaper

Call to Order & Introductions

Jaime Robb of DEQ called the meeting to order. Everyone introduced herself or himself.

Minutes from November 29, 2018 Meeting

A stakeholder raised three points with the minutes from the previous meeting.

- (1) He requested a word change to a sentence on page 4 so it now reads, “A third representative of a MTD [manufactured treatment device] manufacturer stated that 20% TP removal is likely too generous so suggested that DEQ develop a policy that revisits the rating and data criteria.” The stakeholder thought he was the individual referenced and wanted to clarify his point. He asked about the technical basis for 20% as the credit limit for hydrodynamic devices because he wants the set level to be based on “good science;” he does not want DEQ to arbitrarily select a credit level.
- (2) The stakeholder suggested changes on page 12. He offered that although MTD testing provides limited data sets, Washington’s TAPE (Technology Assessment Protocol - Ecology) program uses robust statistics to come up with the highest probabilities associated with the data set. He added that the Chesapeake Bay Program uses the same statistical methods for data gaps in the Chesapeake Bay modeling system. He offered that consistency is particularly important if using the information to meet TMDL (total maximum daily load) goals. A solid understanding of complex statistical methods is necessary for any evaluation program.
- (3) The third comment was in reference to a question by DEQ at the November meeting about whether or not to develop guidance or regulations. The stakeholder stated that in discussions he had with others following the November meeting everyone he spoke with thought we should be heading towards a regulatory process. He did not believe the minutes conveyed this outlook.

Ms. Robb described her recollection of the November meeting in that DEQ would attempt to develop guidance and allow the stakeholders the opportunity to review the draft guidance. If the path appeared to be more regulatory in nature, DEQ would need to consider how best to proceed. A stakeholder added that page 3 of the minutes includes Ms. Davenport’s request that stakeholders let DEQ know early in the process if they believe the document should be regulations. Ms. Davenport mentioned that she asked for a show of hands in support of starting the regulation process and recalled minimal support for regulations. Another stakeholder added that many felt that regulations would be needed, but at this time, we would start by drafting guidance. Ms. Davenport added that if DEQ starts down the regulatory path, it would still need updated guidance during the regulatory development period. Ms. Robb added that DEQ has also been waiting on the development of a national program and a regional Bay program. DEQ does not want to get too far ahead of them by establishing its own regulations. Ms. Davenport offered that guidance is not binding so it leaves room for people to make case-by-case arguments.

Norm Goulet updated the group on the progress of the Bay Program in developing a MTD evaluation program. He noted that the technical side is almost complete but hang ups are occurring with the program administration side. No state wants to administer it. Ms. Davenport added that the Bay partners might not want one state to administer it. Mr. Goulet added that the group is looking to STEPP (Stormwater Testing and Evaluation for Products and Practices), WEF (Water Environment Federation), and ASTM to see if they can collaborate to administer the program on a regional basis. The technical document needs to go through several workgroups before going out for public review and comment. In response to a question, Mr. Goulet added the next workgroup meeting would be in the spring or early summer. In response to other questions, he offered that the technical document draws from TAPE, TARP (Technology Acceptance and Reciprocity Partnership), and VTAP (Virginia Technology Assessment Protocol) and establishes protocols for testing phosphorus, nitrogen, and sediment.

Another stakeholder added that STEPP has three active subgroups, one of which focuses on administration and finance. There will be a STEPP meeting for the full work team in Fort Lauderdale, Fl. in conjunction with the Stormwater and Green Infrastructure Symposium in May 2019. The subgroups will give reports, and representatives from the affiliated groups will attend (ASTM, TAPE, and ITRC [Interstate Technology & Regulatory Council]).

Ms. Davenport noted that since the other programs are developing slowly, Virginia needs a stopgap. A stakeholder stated that the closer Virginia aligns with whatever the Bay Program and/or STEPP develop, the better. Ms. Davenport offered that they would need to adopt these programs in regulations in order to ensure that everyone follows them.

Getting back to the discussion of the November meeting minutes, the stakeholder who originally proposed changes stated that the meeting minutes, from his perspective, do not reflect that the majority of stakeholders believe regulations are needed. Ms. Robb asked if the stakeholder wanted an addition to the minutes, such as, “A quick poll was taken, and the majority of the people in attendance believe DEQ will eventually need to go through the regulatory process. However, as a stopgap, the agency should develop better guidance.” The stakeholder stated that his concern is that the guidance development process is not transparent. The stakeholder added that the agency should just develop a rule set that everyone can follow so everyone can do the same thing. DEQ staff noted that even with consensus in developing guidance, some applicants will believe that it does not apply to them for a particular reason.

A different stakeholder stated that in 2015, a group of stakeholders got together and made suggestions to DEQ’s Director Paylor for how to improve the guidance document. DEQ has not incorporated those suggestions into the draft guidance document. This stakeholder added that the November meeting minutes lack the tone of frustration expressed by stakeholders. The stakeholder initially requesting changes to the minutes supported this statement. He added that as the process has evolved, there is no committee of diverse experts. Local government representatives lack a voice in the process. A lack of meetings and communications adds to the frustration.

Ms. Robb noted that the comments on the November meeting minutes have been heard and changes to the minutes will be made to reflect what was heard. The stakeholder who originally requested changes to the minutes offered to send proposed edits.

Update: DEQ Stormwater Program

Ms. Robb reported that the State Water Control Board (SWCB) met on Monday (April 15, 2019) and approved three General VPDES (Virginia Pollutant Discharge Elimination System) Permits: Discharges of Stormwater from Construction Activities, Stormwater Discharges Associated with Industrial Activity, and Nonmetallic Mineral Mining. These permits are set to expire June 30, 2019. The staff at DEQ is working quickly to have the reissuances done in time for the new effective date of the permits.

The SWCB directed the agency to look into adopting a turbidity standard. DEQ plans to move forward through its Triennial Review process. Ms. Davenport stated that developing instream water-quality turbidity standards requires original science and thought. Thus, she envisions that DEQ may need technical assistance. She noted that Maryland has a turbidity standard. DEQ staff have little information at this time. A stakeholder noted that from a monitoring perspective, there is a big difference between having a “turbidity standard” and developing a standard that incorporates TSS (total suspended solids) and/or SSC (suspended sediment concentration).

The NOIRA (Notice of Intended Regulatory Action) to implement the Consolidation of Virginia Erosion Control and Stormwater Management Programs was published on February 4, 2019. The comment period ended [March 6, 2019]. DEQ will communicate with individuals who offered to participate on the regulatory advisory panel (RAP) by the end of the week or next week.

Several stormwater-related bills floated through the General Assembly this year. One change was made in the budget language. Now in addition to DEQ, VSMP (Virginia Stormwater Management Program) authorities are authorized to charge a voluntary fee of \$30,000 for an expedited stormwater impact review for sites with land disturbance equal to or greater than 100 acres. Once the voluntary fee is paid, the total government review time cannot exceed 45 days (excludes the applicant's time in responding to questions). The expedited review only guarantees a decision, not approval.

DEQ has scheduled four outreach sessions with VSMP authorities. It has been five years since the VSMP began. DEQ staff want to meet with local government personnel to learn their needs. They also want to know what works and what does not work. In response to a question, Ms. Robb explained that at this time DEQ does not plan to invite consultants to participate in the meetings because of space constraints. Stay tuned. If the meeting space can accommodate consultants, they would be welcomed.

Virginia published its Draft Phase III Watershed Implementation Plan (WIP) for the Chesapeake Bay TMDL on April 5, 2019. The 60-day comment period is open [ends June 7, 2019]. Ms. Davenport reported that there are not any significant technical changes in dealing with regulated stormwater. There is a big push to get a handle on stormwater in unregulated areas, so areas

outside MS4 (Municipal Separate Storm Sewer System) regions. DEQ hopes stakeholders will review and comment on the plan. [DEQ will host a webinar on May 13, 2019, at 9 a.m. and repeated at 6 p.m., to share information about the Draft Phase III WIP. For more information, see <http://townhall.virginia.gov/l/ViewNotice.cfm?GNID=974>].

MTD Evaluation Protocol

Robert Cooper stated that the draft guidance document distributed prior to the meeting was developed following the discussions from the November 29, 2018 stakeholder meeting. It is based on input received from stakeholders at the November meeting and other MTD testing protocols, specifically TAPE, VTAP, and the North Georgia (Metropolitan North Georgia Water Planning District) protocol. The developed document was based on what is thought to work best in Virginia from lessons learned during past evaluations.

TP Credit Cap on Filters

A stakeholder noted that there was much discussion at the November meeting regarding Virginia's credit cap on MTDs. He asked specifically why Virginia proposes capping filters at TAPE's pass/fail level. Mr. Hammond stated that he wants to see what credits the Bay Program will award to MTDs. A different stakeholder asked what the scientific basis is for capping the credits to MTDs. He asked, "Where is the science to back these numbers up?" Ms. Robb responded that if the vendors want stormwater data to back up the credits, it would take much longer than three years to develop anything.

A stakeholder then asked why some nonproprietary BMPs receive credits higher than 50% for TP when DEQ caps MTD filters at 50% for TP. Mr. Cooper added that he has addressed this question numerous times at previous meetings. Mr. Cooper explained that nonproprietary BMPs have been in use much longer (30-50 years), and in that time, researchers have collected a plethora of data. The Center for Watershed Protection (CWP) reviewed the results from numerous studies to propose volume reductions and credit limits for nonproprietary BMPs. In contrast, when reviewing MTDs, evaluators generally have one site with 12-15 data points. Most MTD testing is not performed in Virginia. Furthermore, most MTDs were tested in conditions with different rainfall characteristics than Virginia has. Most MTD studies do not have a plethora of data to show how well the device functions over a long period. For these reasons, a cap is in place to provide a conservative estimate of what MTDs are believed to provide in treatment. Mr. Cooper added that Virginia is in line with what other states provide to MTDs.

The stakeholder responded that the report by CWP often relies on best professional judgment. Another stakeholder offered that the CWP looked at what design features work for non-proprietary practices and what do not work; they only incorporated effective design features into the specifications. The stakeholder who first responded cited bioretention as an example, noting that the International Stormwater BMP Database shows bioretention to be an exporter of TP. He added that CWP awarded 80% runoff reduction to bioretention when there are only three or four studies that showed higher than 80% reduction. Mr. Cooper stated that Level 2 bioretention receives [50%] TP treatment credit (the same as the TP treatment cap for filters). The stakeholder offered that other non-proprietary BMPs are awarded higher TP treatment credits

than are offered to filtering MTDs. It was suggested that DEQ could lower the credit given to nonproprietary BMPs to level the playing field.

The stakeholder suggested that DEQ set a cap across the board for all practices. Mr. Hammond summarized that the stakeholder is suggesting that the highest treatment credit that DEQ provides to nonproprietary BMPs should be the treatment cap for MTDs. The stakeholder offered that DEQ could set a high bar for MTDs by basing testing on a robust protocol, such as that in TAPE. Mr. Cooper stated that VTAP offered a means to receive higher than 50% credit if there was an intense study that tested at three sites in Virginia. The stakeholder noted that Virginia would stifle innovation if it does not award better performing devices higher credits than it does for lower performing devices.

Ms. Davenport stated that the VTAP language was designed for use with regulations, and this is guidance. She offered that Virginia could say in its guidance that DEQ would consider higher than 50% TP removal if go through “X” protocol, but DEQ cannot make someone do it, and there is no guarantee that DEQ will award what the vendor requests. She offered that if DEQ specifies the use of a particular protocol, someone would likely say the guidance document should be regulations.

Proposed Field Testing Protocol

A stakeholder offered that instead of Virginia developing its own untested field protocol, it should just adopt TAPE. Mr. Cooper offered that the group discussed this subject at the November meeting. He stated that TAPE has changed in the past and will change in the future. Mr. Cooper added that the proposed protocol aims to align with the current version of TAPE. He requested that stakeholders call attention to anything in the draft guidance document that is not consistent with TAPE and/or VTAP.

TP Credit Cap on Hydrodynamic Devices

Mr. Cooper explained that hydrodynamic devices capture big particles in runoff, and phosphorus tends to be associated with small particles. He therefore proposed taking hydrodynamics off the BMP Clearinghouse and only allowing their use as pretreatment. Because stakeholders were concerned that the Tidewater region relies on the use of hydrodynamics, the proposed guidance document allows for their use when certified through New Jersey. New Jersey has established a lab testing protocol based on TSS. Mr. Cooper offered that there exists literature that attempts to relate TSS to TP, but it is not conclusive. He explained that the 10% proposed cap is a conservative estimate and is not based on science. A stakeholder added that because testing is for TSS instead of TP, the testing warrants a conservative number.

A stakeholder asked if DEQ would award more than 10% TP credit if a vendor held a GULD from Washington State for TP testing. A different stakeholder offered that grandfathered devices tested using older versions of TAPE have GULDS. TAPE is on its fourth iteration, and the GULD does not specify the version of TAPE used to receive the award. He would recommend that DEQ only accept GULDS that meet the current protocol. The stakeholder stated that he believes the 10% TP removal is likely closer to reality for hydrodynamic devices.

A stakeholder explained that he wants scientific consistency for all BMPs. He wants the MTD evaluation rating process to be consistent with the process used for rating nonproprietary BMPs. He stated that there are many studies of MTDs in the International Stormwater BMP Database; however, he noted that the studies use various designs as the devices have evolved. He offered that the designs of nonproprietary BMPs have also changed over the 40 years. Thus, although we have 40 years of data for nonproprietary BMPs, the designs have changed in that time. Ms. Robb noted that the nonproprietary BMPs must meet minimal design specifications. Ms. Davenport added that the disputes are between the manufacturers; DEQ receives complaints from manufacturers against other manufacturers. A stakeholder offered that the higher DEQ sets the bar for consistency, the less room people will have to complain.

Several stakeholders commented that the discussion on proprietary vs. nonproprietary practices is a repeat from previous discussions. They want the discussion to focus on how to improve the guidance document.

Mr. Hammond stated that the discussion reminds him of the experience of VDH (Virginia Department of Health) and on-site wastewater systems. VDH faced many similar issues that DEQ is facing with approving MTDs. He offered that VDH finally accepted any testing by the manufacturer with an engineer's signature and seal. Several stakeholders indicated they would not want to follow that path.

Ms. Davenport requested that no one lose sight of the goal: to protect water quality. She accepts there is not absolute certainty with the process. However, DEQ's priority is to protect water quality, not settle marketing issues among MTD manufacturers.

Suggested Improvements to Guidance

A stakeholder commented that the guidance document does not address the sizing issue. He suggested that DEQ look at the stakeholder letter submitted several years ago and address the issues it raises. Mr. Cooper voiced a difference of opinion; he noted that DEQ has already addressed the sizing issue.

Mr. Hammond asked the stakeholders which document serves as a better starting point: 2014 Interim Guidance or 2019 Draft Guidance. A stakeholder asked that in recognizing the complexity of the issues and the diversity of stakeholders, should the process be more formalized and include more diversity of stakeholders? He noted that homebuilders are absent from the meeting. Mr. Hammond responded that based on his experience the homebuilders association and other stakeholders are not interested in attending such meetings to discuss the details of the process. Ms. Davenport offered that DEQ could send the information to its mailing list of VSMP administrators for input. She added that the final draft would go out for public notice. Mr. Hammond added that local governments could further restrict whatever DEQ accepts through their local ordinances and noted that some have done so.

A stakeholder noted a lack of communication from the state level, jurisdictional level, and regulatory authority to the people with boots on the ground. Mr. Hammond asked if the BMP Clearinghouse has enough information on it for local governments to decide whether to select a MTD. Several representatives of local governments responded that it does. One added that they

look to the state as the certifier of MTDs. Another local government representative stated that the local reviewer is not comfortable with MTDs because they do not understand them, which is why they look to DEQ. He suggested DEQ ask the VSMPs if the BMP Clearinghouse provides enough information for them to do their job during the upcoming VSMP outreach meetings.

A stakeholder said there is more than enough information on the Clearinghouse, which is part of the problem. He suggested that designers focus on decreasing stormwater volume so buying credits is an easier option. If credits are bought, designers do not need MTDs so water quality treatment is not addressed.

Mr. Hammond asked the MTD representatives which is a better starting point: 2014 Interim Guidance or 2019 Draft Guidance. A representative of a MTD manufacturer offered that the first guidance was a good attempt but then DEQ did not stick to it. Ms. Davenport responded that DEQ cannot enforce a guidance document because it is not regulation. A different representative of a MTD manufacturer stated that testing at multiple sites is impractical and a market barrier. He offered that the draft put forth today is moving in the right direction. He suggested DEQ work in a method for how to apply for a higher rating than 50% for filters and 10% for hydrodynamic devices. He added that there are missing parts. Most are looking for a recipe for how to test. The current document is moving in that direction.

Mr. Cooper stated that what led to the development of the 2019 Draft Guidance is that there are more than 30 MTDs on the BMP Clearinghouse and DEQ was seeing some creep in the data. DEQ personnel heard from the stakeholders that they wanted a more robust guidance. A representative of a MTD manufacturer offered support for a more robust protocol. He supported the reciprocity aspects of the draft document. He suggested that DEQ let TAPE, which the agency accepts for reciprocity, be the starting point for the performance review protocol. He stated that otherwise there are two unequitable paths for getting approval.

Ms. Robb suggested that Virginia could only allow entrance via reciprocity. Other DEQ personnel reminded the group that stakeholders without certification petitioned DEQ's director for a means to get on the BMP Clearinghouse.

A second representative of a MTD manufacturer stated that TAPE and the other protocols are always changing. If DEQ picks New Jersey's protocol for hydrodynamics and Washington State's protocol for filters as a means of entrance via reciprocity, they should follow them for the performance review unless there is a technical reason for not doing so. He added that sizing is the missing piece in the latest draft document. How does Virginia take the information from New Jersey and Washington and build it into something specific for Virginia's rainfall characteristics.

Mr. Hammond repeated his question regarding the agency's path forward. Is the pathway forward, the 2014 Interim Guidance with incorporation of the suggestions in the letter to the director or the 2019 Draft Guidance document with input from the group? DEQ needs to ensure that local governments have what they need to do plan reviews, and design engineers have enough information to make a decision on the use of MTDs.

Ms. Davenport suggested that the BMP Clearinghouse stakeholders get first crack at providing input. Then the VSMP authorities can provide input. Once DEQ reviews the comments and tweaks the document, it will go out for a 30-day comment period. A stakeholder suggested that DEQ provide all of the documents (2014 and draft 2019 guidance documents and letter from stakeholders to director) and then schedule another meeting after everyone has read and examined all of the documents. At that meeting, DEQ can ask which path to follow. Ms. Davenport commented that the meetings seem to be going over the same information.

A different stakeholder summarized that the main themes are to (1) tighten the creep in data, (2) address the sizing issue, and (3) address the TP cap. In response to a question, the stakeholder offered that the 2019 Draft Guidance does not sufficiently address the items in the 2015 letter from stakeholders to the director.

The same stakeholder asked about a transition from the current guidance to the enhanced guidance. Will DEQ set a hard date or a several-month window? DEQ personnel will need to think about it. Ms. Davenport stated that DEQ would not take credit away. Ms. Robb explained that there are two issues: (1) what to do with people who are currently in the process of testing their devices and (2) MTDs that are currently on the BMP Clearinghouse. Mr. Hammond requested that stakeholders provide advice based on their needs and experience with other localities. The stakeholder requested that DEQ add the explanation of the transition to the guidance document.

Ms. Robb sought clarification on Washington State's process for when it updates TAPE. Stakeholders explained that MTDs with the GULD do not need to be recertified using the updated protocol.

DEQ staff requested written input from stakeholders on the guidance documents. One stakeholder requested a longer time for review. Someone suggested 45 days, and the group accepted this review period. Another stakeholder asked if DEQ could provide the received comments. DEQ personnel offered that they could summarize the comments.

A stakeholder requested to amend Section 2.3.1 to allow third party testing. He suggested that DEQ accept only independent, third-party data.

Mr. Cooper asked if anyone had comments about the protocol requiring a site that is representative of conditions found in Virginia. Testing performed outside Virginia needs to compare the rainfall pattern to what Virginia has, etc. A stakeholder offered that this issue gets to his suggestion to just use TAPE and New Jersey's protocols for performance testing, the same as used for reciprocity. Another stakeholder offered that testing could use models to account for differences in rainfall patterns, etc. He noted that in developing the runoff reduction model, CWP used data from outside the country, e.g., Europe, New Zealand, etc.

A stakeholder asked if DEQ has to respond to the comments provided about the guidance. Ms. Davenport explained that the agency does not need to respond to received comments.

DEQ personnel summarized the process going forward:

- DEQ will provide stakeholders with the 2014 Interim Guidance, the letter from stakeholder in 2015 to DEQ's Director Paylor with suggestions for improvements to the 2014 Interim Guidance, and the 2019 Draft Guidance.
- DEQ will allow 45 days for comments from stakeholders and VSMP administrators.
- DEQ will review the comments and distribute a summary of the comments.
- DEQ will use its best professional judgment to make changes to the document.
- Another stakeholder meeting will be held to receive input on the revised document (but not to rehash today's discussions), and as DEQ determines, additional changes will be made to the guidance.
- DEQ will distribute the tweaked document for a final 30-day APA (Administrative Process Act) comment period.
- Once Ms. Davenport signs the document, DEQ will post it on the DEQ website to replace the 2014 Interim Guidance.

Next Meeting Dates

The next quarterly meeting should be in July or August.

Adjournment

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