

Virginia Stormwater Best Management Practice (BMP) Clearinghouse Stakeholder Meeting

DEQ Piedmont Regional Office
4949-A Cox Road, Glen Allen, VA 23060
August 24, 2017

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

Jaime Bauer, DEQ-Central Office
Robert Cooper, DEQ-Central Office (via conference call)
Fred Cunningham, DEQ-Central Office
Pantea Westermann, DEQ-Central Office

Virginia Water Resources Research Center Personnel Present

Jane Walker, Virginia Water Resources Research Center (VWRRC)

Stakeholders Present

Ed Coccari, BioClean Environmental
Sandy Camargo, Advanced Drainage Systems (ADS)/StormTech
Jacob Dorman, Contech Engineered Solutions
Britton Dovel, Rotondo Environmental Solutions LLC
K.C. Filippino, Hampton Roads Planning District Commission
Ken Freeman, Lane Enterprises, Inc.
Paul Gallant, HydroInternational
Dave Garrett, ADS
Chris Gorman, Oldcastle Precast Stormwater Solutions
Norm Goulet, Northern Virginia Regional Commission
Jeff Hancock, Virginia Department of Transportation (VDOT)
Paul Jackson, Site Innovations Group, Inc.
Greg Johnson, City of Virginia Beach
Mark Miller, AquaShield, Inc.
Jonét Prévost-White, City of Richmond
Dave Scott, HydroInternational
Kateri Shreve, Luck Ecosystems
Corey Simonpietri, ACF Environmental
Sean Simonpietri, Exact Stormwater Management
Brian Stokes, Campbell County
John Woodburn, Goochland County

Call to Order & Introductions

Fred Cunningham of DEQ called the meeting to order. He introduced Jamie Bauer, DEQ's new Stormwater Manager. Jamie comes to the position having served as DEQ's Municipal Separate Storm Sewer System (MS4) team leader, former permit written with the DEQ Piedmont

Regional office, and other positions with DEQ. Mr. Cunningham offered that Ben Leach has transitioned to DEQ's plan review section and works on standards and specifications for erosion and sediment control and stormwater management. At this time, his primary focus has been on gas transmission pipelines.

Everyone introduced herself or himself.

Minutes from March 22, 2017 Meeting

No one provided additions or corrections to the minutes of the previous meeting. The final version of the minutes will be posted on the Virginia Regulatory Town Hall website.

Update: DEQ Stormwater Program

Mr. Cunningham followed up on several 2017 legislative issues mentioned at the previous meeting.

- [HB 1774: An Act to amend and reenact the tenth enactments of Chapters 68 and 758 of the Acts of Assembly of 2016 and to direct the Commonwealth Center for Recurrent Flooding Resiliency to convene a work group relating to stormwater and erosion control; local rural development growth areas; volume credit program; regional stormwater best management practices banks (<https://lis.virginia.gov/cgi-bin/legp604.exe?171+sum+HB1774>).]

DEQ's Melanie Davenport has been serving on the work group associated with HB 1774, which is considering alternative methods of stormwater management in rural Tidewater localities. Currently, the work group members are gathering information. Jaime Bauer added that thus far, the work group has met once and held two subcommittee meetings. The next work group meeting is scheduled for August 30, 2017. The work group aims to have recommendations in November [Results of the group's efforts are due by January 1, 2018]. In response to a question, DEQ personnel explained that although the focus of the work group is on rural Tidewater, the resulting recommendations could be applicable elsewhere. A stakeholder commented that local TMDLs (total maximum daily loads) could limit the ability to purchase credits. He suggested that a quantity trading program could become more like the quality trading program. Mr. Cunningham concluded that there is potential for new legislation to result from the work group's efforts.

A stakeholder asked if DEQ has taken steps with implementing the recommendations made in the report for resolution 587 (2015), concerning seasonal high groundwater tables. Mr. Cunningham reported that DEQ has not received any comments on the final report [published December 21, 2016]. He added that Robert Cooper would discuss DEQ's efforts in meeting the recommendations later in the meeting when reporting on the nonproprietary BMP specifications.

- [HB 2009: An Act to amend and reenact § 62.1-44.15:27, as it is currently effective and as it shall become effective, of the Code of Virginia, relating to stormwater and erosion management; administration of program by third party (<https://lis.virginia.gov/cgi-bin/legp604.exe?171+sum+HB2009>).]

DEQ incorporated language from HB 2009, which authorizes the hiring of certified third-party professionals to administer the Virginia Stormwater Management Program (VSMP) or Virginia Erosion and Stormwater Management Program (VESMP). The language was adopted by the State Water Control Board (SWCB) at its July meeting.

- [HB 2076 and SB 1127: An Act to amend and reenact § 62.1-44.15:28, as it is currently effective and as it shall become effective, of the Code of Virginia, relating to stormwater management programs; regulations. The intent is to provide language in the regulation that would require that all final plan elements, specifications, or calculations whose preparation requires a license under Chapter 4 (§ 54.1-400 et seq.) or 22 (§ 54.1-2200 et seq.) of Title 54.1 be appropriately signed and sealed by a professional who is licensed to engage in practice in the Commonwealth (<https://lis.virginia.gov/cgi-bin/legp604.exe?171+sum+HB2076>).]

DEQ issued a notice of intended regulatory action (NOIRA), as a result of HB 2076 and SB 1127, to expand professionals to include professional soil scientists. Comments are due by October 6, 2017, and DEQ intends to bring the matter before the SWCB at its December meeting.

- There are no updates regarding the two nutrient trading bills that passed the 2017 General Assembly Session (HB 1619 and HB 2311).

General Permits

Ms. Bauer reported that DEQ has had nine technical advisory committee (TAC) meetings on the MS4 General Permit from October 2016 to May 2017. The agency aims to propose a final general permit regulation to the TAC members and the Environmental Protection Agency (EPA) with the goal of getting it to the SWCB this fall. DEQ intends to accept public comments and hold a public hearing this winter. The final version will hopefully be presented to the SWCB at its March 2018 meeting. The current MS4 General Permit expires July 2018.

In response to a question about the impacts of the 2020 census, Ms. Bauer explained that the MS4 General Permit will be reissued in 2018. New localities that fall under the MS4 regulations as a result of the 2020 census will be notified.

Ms. Bauer offered that the current Construction General Permit expires June 30, 2019. DEQ will issue a NOIRA and invite individuals to participate on the TAC to help develop the permit. DEQ intends to have its first TAC meeting in November 2017.

Update: Manufactured Treatment Device (MTD) Sizing

Robert Cooper offered that he developed an Excel summary spreadsheet that included information about each approved MTD, particularly information from the performance reports submitted for review. The manufacturers reviewed the spreadsheets and commented that the document included too much information for the public. They expressed concern that the spreadsheet could cause confusion. Mr. Cooper then limited the spreadsheet to a few key items: MTD name, total phosphorus (TP) removal efficiency assigned by DEQ, certifications, report

titles, field/lab testing, constituent tested, model tested, peak flow rate, and hydraulic loading rate. He also developed a separate document that provides background information pertinent to the spreadsheets. He developed a third document from information in the 2013 draft Stormwater Handbook on converting treatment volume to peak flow rate [Chapter 11, Section 5.3 Water Quality Design Tv Peak Flow Rate]. DEQ intends to post this information on the BMP Clearinghouse website.

A stakeholder asked for clarification as to whether or not the Rational Method could be used to establish peak flow rate. Mr. Cooper responded that it is not DEQ's recommended approach. Use of the Rational Method would likely call for a larger BMP size, which would result in more treatment, but the BMP would not be credited for the additional treatment.

A representative of a MTD manufacturer offered that most engineers do not use the method recommended by DEQ. The Chapter 11 method gives two to three times the flow rate as would HydroCAD and other methods. Thus, different methods provide significantly different results.

In response to a question, Mr. Cunningham offered that the method recommended by DEQ would be rolled out as guidance. It would not be a regulatory requirement. Mr. Cunningham offered that the Virginia Runoff Reduction Method (VRRM) is listed in the regulations and is used to identify treatment volume. Thus, to properly use the information from the VRRM, people need to use the recommended calculation. Mr. Cunningham suggested revising the information to be posted on the BMP Clearinghouse website to more prominently show its connection with the VRRM. The document could more clearly explain that if users do not follow this method, they will need to justify their reason for not using it.

A stakeholder added that we need to educate people on the use of the curve number (CN) and *Technical Release 55: Urban Hydrology for Small Watersheds (TR55)*.

A stakeholder offered that every study should have a hydraulic loading rate associated with it so there should be no blanks in the spreadsheet for this column. Mr. Cooper explained that the data in the spreadsheet was provided in the report. A blank indicates that the report did not provide the information.

The stakeholder suggested that Virginia describe a more conservative flow rate that is tied to TP removal. He offered that if multiple flow rates are posted, people will use the one that is most advantageous (i.e., the one that results in the smallest unit being installed). The posted flow rate needs to be tied to TP removal (not TSS, etc.). If this information does not exist for a MTD, it should receive a lower removal efficiency rating.

A stakeholder reminded the group that at the last meeting, DEQ personnel suggested that if a MTD does not have TP removal data, they could assess it for pretreatment use only.

Mr. Cooper explained that DEQ wants to post the data it received so the public can see the same information viewed by DEQ. DEQ cannot weigh in on details or advice. DEQ can only provide information. Mr. Cunningham offered that the spreadsheet is just to be used to help screen the

MTDs so designers can focus on MTDs that are most appropriate for their site. They then need to work with the MTD manufacturer.

A representative of a MTD manufacturer offered that New Jersey has established a standard lab protocol for evaluating hydrodynamic devices. New Jersey has assigned a surface loading rate for each model based on the most recent lab testing. Virginia could use this published information. He added that for filters, Virginia's guidance that 80% TSS removal equals 40% TP removal may not be rational. Field tests that show 80% TSS removal likely equate to 40% TP removal, but lab test results showing 80% TSS removal may not equate to 40% TP removal. Mr. Cooper offered that all filter applications that Virginia has received have been tested in the field using TP removal. Furthermore, field studies that monitor TP removal are recommended in DEQ's guidance.

Another representative of a MTD manufacturer asked if DEQ wants copies of new certifications from other states. Mr. Cooper offered that DEQ would consider these submissions; he cited that some manufacturers have submitted updated reports and certifications. In response to a suggestion, Mr. Cooper offered that DEQ is willing to add new studies as an addendum to an approval.

Other MTD manufacturers offered that they could provide the hydraulic loading rate (gpm/ft²) for their approved devices. Mr. Cooper provided reasons why the rates can vary between studies, e.g., some data removed, different testing constituents, etc.

A local government representative suggested that DEQ expand the perimeters of data it wants and not approve devices unless it receives the desired information. Others pointed out that Virginia has decided not to develop its own protocol but to instead, accept other studies that follow different protocols.

Some stated that the discussion is going around in circles. Another offered that the manufacturers present have consensus on providing their MTD's hydraulic loading rate to DEQ; another individual offered that since not all manufacturers are represented, someone needs to communicate this request to those not in attendance.

A representative of a local government stated that he wants one number for each device so he can tell the maximum flow that would be treated by the device (not bypass treatment). A representative of a MTD manufacturer stated that at a prior meeting, it was suggested to post the hydraulic loading rate on the BMP Clearinghouse and walk away.

Mr. Cooper offered that DEQ has gone as far as it can using the guidance, reciprocity, and best professional judgment. Mr. Cunningham asked if DEQ should post the spreadsheets in their current form. There was consensus that DEQ should not post the spreadsheets in their current form. Representatives of localities and MTD manufacturers stated that the spreadsheets are not helpful. Mr. Cooper suggested that DEQ receive input from engineers to see if they find them helpful.

A local government representative summarized that the spreadsheet in its current form is useless to local governments. The purpose of simplifying the spreadsheets was to make them useful to the engineers and local governments that review plans. If DEQ cannot get the needed information from the manufacturer, the device should not be approved.

Another local government representative stated that he likes that DEQ sets a TP removal rate for each device. He would like the agency to also establish the appropriate flow rate and sizing criteria for each device.

Ms. Bauer recommended that stakeholders send their comments on the documents during the next two weeks to Robert Cooper. DEQ will look over the comments and decide whether or not to go forward.

Nonproprietary BMPs Specification

Mr. Cooper reported that progress has been slower than anticipated. He is receiving assistance from the Office of Training Services; they are developing a template to use for each BMP. For example, each BMP will have a one-page summary of the main points needed to consider for determining if the practice will work on a site.

Mr. Cooper stated that he has looked through the Handbooks of other states. He commented that the West Virginia specifications look like a third edition of Virginia's specifications. Clarifying language in the West Virginia specifications will be helpful for Virginia. However, Virginia cannot simply update its specifications to those used by West Virginia because West Virginia's regulations are based on volume whereas Virginia's are based on TP removal.

DEQ intends to utilize a small technical group to discuss the issues and review the specifications. Ms. Bauer explained that the work group needs to be small to function effectively so if too many people want to provide initial input, DEQ will need to jump to the public comment stage. The public will be able to comment on the specifications.

A stakeholder asked if DEQ intends to glean additional removal efficiency from BMPs during the update. Mr. Cooper stated that the purpose of the update is to clarify the language and make the specifications clean and concise. He added that the TP removal efficiencies seem to be rather solid, however review of the runoff reduction credits is ongoing.

Another stakeholder asked about the timeframe for publishing the BMP specifications. DEQ personnel answered that it intends to get the specifications out as soon as possible. The stakeholder then asked about the process for providing technical feedback. Mr. Cunningham stated that DEQ is working with four to five individuals to develop an initial draft. Once an initial draft is developed, the process will move to a more formal comment period where it will be provided to the public.

Next Meeting Dates

The next meeting date is set for November 14, 2017. Mr. Cunningham stated that the DEQ Piedmont Regional Office is unavailable that day due to building renovations. Ms. Walker

offered to check on the meeting location and send reminders to all on the BMP Clearinghouse mailing list.

General Comments

Jeff Hancock with VDOT stated that VDOT intends to post its approved list of MTDs in early September. He stressed that products are not approved by VDOT until its Approved Products List (APL) is published on the VDOT website. All applicants will be notified once the APL is published, and the web link will be provided. VDOT will use DEQ's removal efficiency and sizing criteria. VDOT is still working on the cost data. Once the APL is published, VDOT will: (1) develop a generic specification for MTDs and (2) conduct value engineering. Once an MTD is approved by DEQ, it is the cost associated with the device that determines VDOT's use. VDOT is looking at initial installation costs and maintenance costs. It is basing the costs on a 50-year operational cycle. The APL will be dynamic and changes can be made to it as more data are generated.

Adjournment

With no further business, Mr. Cunningham thanked everyone for participating and adjourned the meeting.