Virginia Stormwater Best Management Practice (BMP) Clearinghouse
Stakeholder Meeting
Virginia Department of Fire Programs (VDFP)
Training and Development Center (Training Rooms 1&2)
1005 Technology Park Drive, Glen Allen, VA 23059
May 2, 2018

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
Jaime Robb, DEQ-Central Office

Virginia Water Resources Research Center (VWRRC) Personnel Present

Jane Walker, VWRRC

Stakeholders Present

Derek Berg, Contech Engineered Solutions, LLC
C.J. Bodnar, City of Virginia Beach
Ranee Buck, Lane Enterprises
Sandy Camargo, ADS/Stormtech
Scott Crafton, Virginia Department of Transportation (VDOT)
Jacob Dorman, Contech Engineered Solutions, LLC
Brad Eldred, BioClean
K.C. Filippino, Hampton Roads Planning District Commission (HRPDC)
Paul Gallant, HydroInternational
Norm Goulet, Northern Virginia Regional Commission (NVRC)
Jeff Hancock, VDOT
Chris Kuhn, Stantec
Gene LaManna, Terre Hill Stormwater Systems
Mark Miller, AquaShield
John Rotondo, Rotondo Environmental Solutions
Brian Rustia, ADS/BaySaver
David Scott, HydroInternational
Kateri Shreve, Luck Ecosystems
Corey Simonpietri, ACF
Terry Siviter, Lane Enterprises
Jeff Waldon, Concrete Specialties, Inc.
Mark Williams, Luck Stone
Joe Wood, Chesapeake Bay Foundation
John Woodburn, Goochland County

Call to Order and Introductions

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

Minutes from August 24, 2017 Meeting

There were no 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

Ms. Robb announced that Fred Cunningham retired from DEQ in February.

General Permits

Ms. Robb offered that DEQ's Stormwater Program has been quite busy. In the fall, the agency regionalized its plan-review process. Prior, all plans for erosion and sediment control (E&S) and stormwater where DEQ is the authority were coming to DEQ's Central Office for review. Plans should now be sent directly to the pertinent regional office. It is DEQ's expectation that this new process will cut down on the time it takes for reviews. The Central Office is still handling the Construction General Permit coverage.

The Construction General Permit Technical Advisory Committee (TAC) started meeting early this year. There have been four meetings thus far. The TAC is looking at Part IIC applicability to make sure that the new Construction General Permit covers what criteria apply. The current permit expires June 30, 2019. DEQ expects to get a final regulation before the State Water Control Board for a vote this winter and hopes it can start receiving registration statements in spring 2019.

Legislative Update

Melanie Davenport offered that some stormwater-related regulations in this year's General Assembly Session were tied to the study group organized last year by Delegate Keith Hodges [House Bill 1774 (2017) Stormwater Workgroup] and were thus connected to legislation in rural, Tidewater localities.

- One piece of legislation that resulted from the study is that rural, Tidewater localities can accept signed and sealed plans for land-disturbing activities between 2,500 square feet and an acre without review.
  [From http://lis.virginia.gov/cgi-bin/legp604.exe?181+sum+HB1308 -- HB 1308 Stormwater management; local plan review, acceptance of signed and sealed plan in lieu of review. Authorizes any rural Tidewater locality, whether or not it has opted out of administering a stormwater or erosion and sediment control program, to require that a licensed professional retained by the applicant submit a set of plans and supporting calculations for land-disturbing activities that disturb 2,500 square feet or more but less than one acre of land. The bill requires the plans to bear a certification and to be signed and sealed by the professional. The locality is authorized to accept such plans in satisfaction of the local plan review requirement. The bill also directs the DEQ to examine the possibility of expanding the use of the agreement in lieu of a stormwater management plan, currently authorized for use in the construction of certain single-family residences, to include any nonresidential development site of less than one acre in a rural Tidewater locality.]
- DEQ heard from rural, Tidewater localities that the engineering and calculations associated with the post July 1, 2014 quantity calculations (energy balance equation) are

problematic for them. It was proposed to use a sliding scale of volume analysis and reduction based on percentage of imperviousness in the specified rural localities. The volume reduction is based on the percentage of impervious cover: <5%, ≥5% - <7.5%, ≥7.5%. This effort was not flushed out in statute so DEQ will need to incorporate it into regulatory revisions.
[From: http://lis.virginia.gov/cgi-bin/legp604.exe?181+sum+HB1307 -- HB 1307 Stormwater management; rural Tidewater, tiered approach to water quantity technical criteria. Allows any rural Tidewater locality, as defined in the bill, to comply with water quantity technical criteria for certain land-disturbing activities based on the percentage of impervious cover in the watershed…. The bill allows any such locality to apply one of the following three standards for managing water quantity to any new development project: (i) if the site, as indicated on the map, has less than 5.0 percent impervious cover, the standard shall be a particular State Water Control Board regulation; (ii) if the watershed has 5.0 percent or more but less than 7.5 percent impervious cover, the standard shall be the one-year, 24-hour release method; and (iii) if the watershed has 7.5 percent or more impervious cover, the standard shall be the energy balance method. The bill provides that any project whose construction would cause the watershed in which it is located to step up to the next higher tier shall be evaluated under the energy balance method or a more stringent alternative. The bill also directs DEQ to use an appropriate new or existing Regulatory Advisory Panel to assist in clarifying the interpretation and application of the MS-19 standard.]

DEQ personnel reported on efforts associated with the consolidation of the Stormwater Management, E&S, and Chesapeake Bay Area programs. The changes will go into effect the later of July 1, 2018 or 30 days after DEQ develops regulations. DEQ hopes to move forward with developing regulations later this year. Development of the regulations can follow a truncated APA (Administrative Process Act) process if changes are only associated with the consolidation of these three programs. The NOIRA (Notice of Intended Regulatory Action) will soon be announced, and interested individuals can serve on the Regulatory Advisory Panel (RAP). Norm Goulet offered to serve on the RAP.

Ms. Davenport reported that Senator Bill DeSteph of Virginia Beach proposed legislation that would have removed the named version for BMP design specifications and the Runoff Reduction Method spreadsheets within the regulations, but the bill did not move forward. A stakeholder asked if the regulations include an option for the Director of DEQ to write a guidance memo that would establish the version to use. Ms. Davenport responded that a new regulation will require DEQ to put its guidance out for public notice. [The new law regarding the public notice of guidance documents becomes effective January 1, 2019.]

In response to a question, Ms. Davenport explained that an Executive Order (EO) from Governor Northam has asked DEQ to do an initial analysis of existing regulations and guidance to determine where it is not utilizing the full authority of the law. The order also asks DEQ to look at existing laws, staffing, permitting delays, etc. There is a component of the order to look at improving transparency and public participation. DEQ will hold stakeholder listening sessions. There will be an opportunity for input from the public regarding DEQ's analysis. [EO 6 (April 3, 2018) is available at https://governor.virginia.gov/executive-actions/.]

Ms. Robb stated that the Small MS4 (Municipal Separate Storm Sewer System) General Permit goes to the State Water Control Board for vote at its next meeting. Registration statements are due to DEQ by June 1, 2018. DEQ's MS4 staff is sending out notices today. If approved by the Board, the new permit will go into effect September 1, 2018. [More information is available from the Virginia Regulatory Town Hall: http://townhall.virginia.gov/L/ViewAction.cfm?actionid=4583]

Later in the meeting, Ms. Davenport reported on another piece of legislation that passed: If needing to conduct maintenance on an upland BMP, a VWP (Virginia Water Protection) Permit is not required. Ms. Robb added that the legislation memorializes guidance already developed by DEQ. [From: https://lis.virginia.gov/cgi-bin/legp604.exe?181+sum+HB377 -- HB 377 Virginia Water Protection Permit; exception for stormwater management facility on dry land. Exempts from the requirement to obtain a Virginia Water Protection Permit any impact to a stormwater management facility on dry land. The bill directs the DEQ to adopt guidance to ensure that any project claiming this exemption creates no more than minimal ecological impact.]

BMP Updates

New BMP Clearinghouse Website

Robert Cooper announced that the Stormwater BMP Clearinghouse website is in the process of being updated. The intent of the new site is to make BMP pertinent information more easily accessible.

Manufactured Treatment Devices (MTDs)

Information needed for MTD sizing, including DEQ's preferred method to convert treatment volume to flow, will be posted on the new BMP Clearinghouse website. Also, to be included on the new site is a summary spreadsheet of all approved devices listed on the website. The purpose of the summary spreadsheet is to allow people to look at basic information as described in the applications submitted to DEQ. A stakeholder voiced support for including the summary spreadsheet on the website.

Mr. Cooper offered that DEQ has plans to establish final guidance for the evaluation of MTDs. Virginia has more than 30 approved devices, more than any other state. He has noticed a creep in devices that stretch the integrity of the assessment intent. He offered that DEQ wants to tighten up its approval process. For example, DEQ would like to further review the appropriateness of the use of TSS (total suspended solids) as a surrogate for TP (total phosphorus), which is how the hydrodynamic devices were tested. DEQ is considering a proposal to remove all hydrodynamic devices and just allow their use in pretreatment.

A stakeholder asked if a hydrodynamic device is evaluated using TP, could it be listed on the BMP Clearinghouse website? In other words, could it earn more credit than just pretreatment? Mr. Cooper responded that he would need to think more about it, as there are other factors to consider. For example, most hydrodynamics were tested in the laboratory instead of in the field.

A stakeholder voiced support for DEQ's plan to tighten the rules related to the approval of hydrodynamics. He suspected this action would halt the creation of strange treatment trains [e.g., installation of hydrodynamic devices after filters and other BMPs].

Mr. Cooper reported that DEQ wants to tighten up its reciprocity acceptance. Applicants will need to have final approvals/certificates based on TP results in hand instead of only under review (e.g., GULD [General Use Level Designation] certification from TAPE [Technology Assessment Protocol – Ecology]).

A stakeholder noted that the Chesapeake Bay Program is expected to have a BMP evaluation protocol developed by the end of the year that is based on VTAP (Virginia Technology Assessment Protocol), TAPE, and TARP (Technology Acceptance and Reciprocity Partnership). When asked, he responded that the proposed evaluation protocol does not address the issue of reciprocity.

Ms. Robb cautioned that DEQ's efforts will likely be a slow process. A stakeholder suggested that the protocol be specific, as required in other states.

A different stakeholder asked where DEQ stands with devices currently under consideration. Ms. Robb explained that DEQ will move forward with these evaluations. Mr. Cooper added that because DEQ is tightening up its requirements, the devices will be examined with more scrutiny.

A stakeholder offered that to avoid creep, DEQ must consistently implement its evaluation program.

Another stakeholder asked if DEQ plans to tighten up its requirements for filtering devices. He noted that some filters have been approved based on TSS data. He suggested that DEQ also examine these devices with more scrutiny to re-level the playing field.

A stakeholder suggested that DEQ use caution with reciprocity. Another stakeholder offered that TAPE will likely be rolled into the national STEPP (Stormwater Testing and Evaluation for Products and Practices) program. Discussion ensued regarding the pace of development of the STEPP program. Someone offered that Seth Brown has become reengaged in heading up STEPP development, which is open to input from stakeholders.

Ms. Robb asked if the Bay Program protocol and STEPP program are aligning. A stakeholder familiar with both efforts stated that there have been discussions about marrying the two programs, but the administrative aspects are proving to be the hang up. Neither is a regulatory program; the Bay Program is just developing a protocol that can be supported by all of the Bay states. He cautioned that DEQ not move from interim guidance to permanent guidance too quickly.

Ms. Davenport suggested that DEQ could start building the regulatory framework outside of protocol development. The regulations are not detailed and can refer to a generic protocol. Ms. Davenport stressed that DEQ would welcome input from a larger group of stakeholders.

Ms. Robb suggested that the next stakeholder meeting could incorporate a brainstorming session to help DEQ develop an outline for creating a more permanent process. A stakeholder voiced support for this suggestion. He added that regulatory development is a two-year process.

A stakeholder offered that when the stormwater program was under leadership of the Virginia Department of Conservation and Recreation (DCR), personnel there were not in agreement in including the BMP evaluation program in its regulations. Also, they did not get input from the larger community.

Mr. Cooper explained that in evaluating the data received, the agency has accepted a wide range of values. As part of its tightening up process, DEQ will consider what is too high and too low for input into the BMP. A stakeholder asked if the evaluations would be based on concentrations or mass. Mr. Cooper replied that he envisions that DEQ will continue to evaluate devices based on event mean concentrations (EMCs). Another stakeholder offered that such questions get back to asking what protocols would be acceptable.

Mr. Cooper added that the new website does not split the BMPs into non-proprietary and proprietary categories. Instead, the proprietary devices are currently listed as practices 16 (hydrodynamic devices) and 17 (filtering). DEQ will write a specification for these devices and will expand its list for pretreatment.

Mr. Cooper offered that in the interim, DEQ will be tightening up its evaluation process because it wants more defensible data. Ms. Robb clarified that DEQ will go back to its roots for expectations of what to review. It will take a closer look at submitted data.

A stakeholder asked if DEQ would review the devices already approved and listed on the BMP Clearinghouse website. Ms. Robb replied that DEQ would not be reevaluating approved devices at this time. However, DEQ may require recertification as part of the new regulatory effort.

The same stakeholder then requested that DEQ communicate its data requirements, e.g., acceptable concentration ranges, number of samples, field vs. laboratory studies. Mr. Cooper offered that DEQ will need to pull together those requirements, and then as vendors and manufacturers call, DEQ will reply on a case-by-case basis. Once the information is finalized, it will be posted on the BMP Clearinghouse website.

Another stakeholder asked as DEQ dissolves the barriers between proprietary and non-proprietary BMPs, would it be awarding runoff reduction credits to approved proprietary devices? Mr. Cooper responded that he cannot answer that question at this time, and noted that the question leads into the next area of discussion.

<u>Hybrid BMPs</u>

Mr. Cooper requested input regarding manufactured devices (e.g., vaults) that use North Carolina's or Virginia's soil media mix. He explained that if the BMP is considered "bioretention [1]," it receives a removal of TP by treatment of 25% but if considered a "manufactured filtering device," it can receive up to 50% TP treatment removal credit.

Stakeholders added that non-proprietary bioretention BMPs also receive credit for runoff reduction, which is not allowed for proprietary devices.

Discussion ensued regarding issues related to using Virginia's media mix. A stakeholder offered that it is difficult to make Virginia's media mix in a consistent manner. Others added that the variability associated with soil media is of great importance. It was noted that it is hard to maintain soil media results. A stakeholder commented that DEQ will also need to figure out how to handle BMPs with media that include biochar, etc.

A stakeholder stated that the discussion of hybrids brings up the issue of BMP equivalency, which he personally does not want to see opened because it creates many headaches. Another stakeholder suggested that if DEQ develops a test for hybrid devices, it should set the bar high. If someone is able to show that a hybrid is equivalent in performance to a non-proprietary BMP, the hybrid should be granted credit at the same level as the non-proprietary practice.

In response to a question, Mr. Cooper offered that the credits granted to non-proprietary BMPs stem from literature searches conducted by the Center for Watershed Protection. They focused on research studies pertaining to BMP performance. A stakeholder added that some of the research is dated.

There was general consensus among the meeting participants that a BMP should be evaluated based on the entire system and not on one component of the system. A BMP should not be considered a MTD simply because public domain media is placed in a manufactured vault. The media is only part of the design. The totality of the BMP should be evaluated.

BMP maintenance issues were also discussed, specifically how a vault containing Virginia's media mix would be properly maintained. Someone commented that maintenance is a huge component as it affects performance. A representative of VDOT stated that the agency will be verifying maintenance numbers given for MTDs on its approved list (at this time, VDOT has accepted all MTDs approved by DEQ); however, three to five years down the road, VDOT may delist devices if found not to function long-term.

A stakeholder asked if MTD testing accounts for the maximum accumulation of phosphorus that can be removed by the device. Another stakeholder added that this is not just an issue for MTDs; leaching of phosphorus by bioretention practices has been shown to last for years and has resulted in changes to design specifications in some states. Someone offered that regular maintenance is expected to prevent leaching. A different stakeholder offered that if a system leaches, it should show up within one year's worth of testing.

Another stakeholder stated that if a hybrid BMP meets all of the design criteria for a non-proprietary BMP, it should be able to receive credit at the level awarded to the non-proprietary BMP.

<u>Non-proprietary BMPs</u>

Mr. Cooper stated that updating the design specifications for the non-proprietary BMPs is occurring more slowly than expected. The new specifications have a new format that has less

text. For example, the minimum components needed are included within a table. DEQ staff has also removed language that has caused confusion. Mr. Cooper offered that the goal of the new design specifications is to make them more helpful to engineers.

Ms. Robb requested that any stakeholder who wants to review the draft specifications, submit his or her name to Jane Walker. DEQ is looking for a small group of people to provide review so will reach out to some who express interest at this time. Jeff Hancock with VDOT offered that he would be interested in reviewing the document. [The public will have an opportunity to review the document prior to finalization.]

Mr. Cooper added that DEQ is considering how filtering devices could fit in with the infiltration practices. If possible to do so, these devices could earn more credit. Stay tuned.

In response to a comment by a stakeholder, Mr. Cooper noted that he has been investigating what other states are doing to update their BMP design specifications.

A stakeholder asked about the progress on updating the Handbook. Mr. Cooper replied that the design specifications would be incorporated into the Handbook, as done in other states.

Next Meeting Date

Ms. Walker will poll stakeholders on a suitable date for having a brainstorming session. The meeting will run from 10 a.m. to 3 p.m. with a break for lunch.

Ms. Robb offered that DEQ would create a bulleted list of items on which it wants feedback. She suggested people bring their ideas to the table for DEQ's consideration.

General Comments

A stakeholder commented that he is pleased to learn about the various activities that are underway at DEQ.

Another stakeholder requested that draft minutes be provided soon. Ms. Robb offered to try to get the draft minutes out within a month of the meeting.

Adjourn

With no further comments, Ms. Robb adjourned the meeting.