

Virginia Stormwater BMP Clearinghouse Committee Meeting

Virginia Department of Forestry (DOF) Building, Training Room
Charlottesville, VA
April 19, 2010

Meeting minutes by Jane Walker

Committee Members Present

Doug Beisch, Williamsburg Environmental Group
Colleen Collins, Vanasse Hangen Brustlin, Inc. (VHB)
Joanna Curran, University of Virginia (UVA)
Mike Goatley, Virginia Cooperative Extension Service (VCES)
Lee Hill, Virginia Department of Conservation and Recreation (DCR)
Julia Hillegass, Hampton Roads Planning District Commission (HRPDC)
Greg Johnson, Patton Harris Rust & Associates (PHR&A)
Roy Mills, Virginia Department of Transportation (VDOT)
Madan Mohan, Prince William County
Scott Perry, Imbrium Systems Corp.
David Powers, Michael Baker, Jr. Inc.
David Sample, Biological Systems Engineering and Occoquan Watershed Monitoring
Laboratory, Virginia Tech
James Talian, City of Lynchburg
Kevin Young, Department of Civil and Environmental Engineering, Virginia Tech

Department of Conservation and Recreation (DCR) Staff Present

Lloyd Edwards
Ved P. Malhotra
John McCutcheon

Virginia Water Resources Research Center (VWRRC) Staff Present

Jane Walker

Others Present

Joe Battiatia, Center for Watershed Protection (representing David Hirschman)
Tom Grizzard, Department of Civil and Environmental Engineering, Virginia Tech
John Olenik, VDOT
Glen Payton, Filterra
Dan Wilson, Imbrium Systems Corp.

Call to Order and Introductions

Lee Hill of DCR called the meeting to order and thanked everyone for coming. Each person introduced herself or himself. A sign-in sheet and document with contact information were distributed. Each member was asked to review and correct their contact information. Jane Walker offered to update any changes and provide the updated contact information to the committee members.

Lee Hill provided a special welcome to the Clearinghouse Committee members just starting the 2010-2012 term: Colleen Collins, Mike Goatley, Roy Mills, Madan Mohan, and Scott Perry. Others who have agreed to serve but were not present include: Dean Bork of Virginia Tech and Jae Yoon of Old Dominion University. Lee added that he would like to invite another manufacturer to serve on the committee and requested that names of individuals representing manufacturers be sent to him.

Comments on Minutes from Meeting on January 25, 2010

No changes were received regarding the January 25, 2010 meeting minutes. The official minutes will be posted on the Virginia Regulatory Town Hall Website: <http://townhall.virginia.gov/>.

Stormwater Regulations Update

Lee Hill provided an update concerning Virginia's process of establishing new stormwater regulations. He explained that on December 9, 2009, the Virginia Soil and Water Conservation Board adopted revisions to the Virginia Stormwater Management Program (VSMP) Permit Regulations Parts I, II, and III (4 VAC 50-60). Within the 30-day final adoption period, 25 petitions were received requesting an additional public comment period. The Board therefore voted to suspend the regulations in accordance with the Administrative Process Act to allow for a 30-day public review and comment period on the changes made since the original proposed regulation was approved on September 24, 2008. This public comment period ended on March 17, 2010 and the regulations currently remain suspended in order to address legislation passed during the 2010 General Assembly Session.

The 2010 Virginia General Assembly passed two identical bills, House Bill 1220 and Senate Bill 395, that will delay the effective date of the stormwater regulations under consideration. Pursuant to the legislation, the regulations shall become effective within 280 days after the establishment by the United States Environmental Protection Agency of a Chesapeake Bay-wide Total Maximum Daily Load (TMDL) but in any event no later than December 1, 2011. The bill also directs the Virginia Soil and Water Conservation Board to establish an advisory panel of stakeholders to review the regulation and make recommendations to the Board on revisions to the regulations necessary to, among other things, comply with such TMDL. (<http://leg1.state.va.us/cgi-bin/legp504.exe?ses=101&typ=bil&val=hb1220>) (<http://leg1.state.va.us/cgi-bin/legp504.exe?101+sum+SB395>)

Lee Hill commented that due to the Chesapeake Bay TMDL timetable, DCR will not have much time to receive input from the regulatory advisory panel and to update the regulations before they are scheduled to go into effect no later than December 1, 2011. Lee further added that the EPA modelers are having validation issues with the TMDL models so even though a draft implementation plan is expected in June 2010, it may be delayed (subsequently delayed to September 1, 2010).

Lee Hill offered that DCR may establish an advisory subcommittee associated with the TMDL stakeholder advisory group to look at the issues of assigning load allocations (LA) and waste-load allocations (WLA) in the TMDL that are associated with urban development. Lee explained that the TMDL requires that source loads of the pollutants (phosphorus, nitrogen, and

sediment) be divided into LAs and WLAs. The LA component includes non-point sources, e.g., septic systems and runoff from agriculture, forestry, and stormwater discharges. The WLA component includes point sources, such as those that are permitted (e.g., industrial waste discharges, construction permit discharges). Lee explained that it will get complicated in assigning LA and WLA as land use changes; the LA will need to be converted to a WLA as a site is developed and construction permits are issued.

Lee Hill offered that the stormwater regulations currently focus on total phosphorus (TP). With the Bay TMDL, loads for nitrogen and sediment will also need to be established. Thus, DCR may need to incorporate nitrogen and sediment control in addition to phosphorus control in the new stormwater regulations.

Lee Hill added that the fees (Part XIII) closely associated with the new stormwater regulations and published in the *Virginia Register of Regulations* on January 4, 2010 (Volume 26, Issue 9) are not part of the suspended Sections I, II, or III. The regulations establish permit fees for: Municipal Separate Storm Sewer Systems (MS4), general permits for construction activity, individual permits for construction activities, modifications or transfers for construction, and annual permit maintenance fees for MS4 and construction activities. Thus, on February 3, 2010, revisions to the VSMP Regulations (4 VAC 50-60) regarding MS4 permit maintenance fees became effective. The revisions established annual permit maintenance fees for regulated small MS4s covered under individual and general VSMP permits. The revisions also modified the maintenance fee for large and medium MS4s covered under individual permits.

The fees are based on the time determined to be necessary for different-sized projects. The fees cover the time spent by local stormwater management programs to conduct a plan review, inspections (including stormwater pollution prevention plan [SWPPP] review and reinspections), enforcement, technical assistance, and permit coverage (72% of the fee). The fees also cover the time for DCR to provide oversight, program review, complaint response, and enforcement actions (28% of the fee). With approval of the Virginia Soil and Water Conservation Board, lower or higher fees could be established by a specific locality.

One member commented that although the fees are finalized, they do not go into effect until the Soil and Water Conservation Board approves the qualifying local program (the program includes the plan reviews, inspections, maintenance agreements, etc.).

Someone asked the timeframe for when localities would need to begin complying with the new stormwater regulations once they are no longer suspended. Lee Hill replied that according to current law, that localities have 15-21 months to prepare after the regulations are adopted. Localities may start earlier, and they are also allowed to ask for an extension. Someone else asked, "What if a locality doesn't adopt the regulations in that time?" Lee Hill explained that under those circumstances, DCR will step in and adopt the program for the locality. The disadvantage to the locality in DCR taking this step is that the locality will not fully be in control of the development process in their locality. DCR has a longer period to review plans (60 days), and DCR staff will need to conduct the inspections. Until a permit is granted, a developer will not be able to break ground. Thus development approvals may take longer in areas where DCR implements the program.

One member asked if the new regulations encourage sprawl. Lee Hill offered that some claim it will. Lee added that developers consider numerous aspects of a potential development site – road access, water/sewer infrastructure, community school system, etc. He is unaware of a situation where a developer chose a site based on meeting stormwater control requirements.

Lee Hill explained that EPA is taking an active role with regard to managing stormwater in Virginia and nationwide.

- In 2010, EPA is auditing the stormwater management programs of six MS4 localities in Virginia: Norfolk, Hampton, Henrico, Chesterfield, Chesapeake, and Portsmouth.
- EPA has established nationwide effluent limitation guidelines (ELG) to control turbidity at new construction sites. The new rule sets an average numeric turbidity criterion of 280 Nephelometric Turbidity Units (NTUs), which may be difficult to meet if the soils have high clay content. The ELG applies to construction activities that disturb 10 or more acres of land at one time. In Virginia, it is likely that the new criterion will take effect in 2014.
- EPA lists stormwater as one of four key pollutant sources on which the agency is focusing its attention with regards to the Chesapeake Bay TMDL. An EPA letter sent to Virginia and the other government entities in the Bay watershed states that EPA "may take any, or all, of a variety of actions or 'consequences' should the jurisdictions not meet EPA's expectations." EPA spokespersons continue to stress that the agency is prepared to take actions to ensure that the TMDL goals are met.

Lee Hill emphasized that there will be much work related to developing stormwater regulations in Virginia after the Chesapeake Bay TMDL is established.

Review of Virginia Technology Assessment Protocol (VTAP) Sections 6+

A report concerning field monitoring and reporting protocols for use in the VTAP was written by a panel of experts in stormwater management and distributed prior to the meeting. The panel was led by Clearinghouse Committee member David Sample of Virginia Tech and included Allen Davis of the University of Maryland, Thomas Grizzard of Virginia Tech, Rob Roseen of the University of New Hampshire, and John Sansalone of the University of Florida. The panel members provided reviews of two proposed drafts of the VTAP Section 6 (and above) and then developed a new, recommended version of the VTAP Section 6. (A copy of the report is available by contacting Jane Walker at janewalk@vt.edu; please request the "VTAP Expert Panel Report.")

Lee Hill emphasized that the Clearinghouse Committee members received the report as submitted to DCR (with one minor change to the title page). DCR staff has not reviewed the report. The report is being provided to the members of the Clearinghouse Committee for their feedback. In an effort to provide a completely open process, all submitted documents were given to the members and comments are welcomed on any section.

David Sample outlined the information provided in the report and appendices. He explained that the report is a primer for understanding the VTAP Section 6 consensus document developed by the panel of experts (Appendix C in the panel's report). He noted that the document is geared

towards phosphorus since phosphorus is the parameter of interest in Virginia's stormwater regulations.

The report addresses stormwater quality inflow characteristics, assessing the performance of phosphorus removal, measurement methods, statistics, treatment processes, estimating treatment reliability, and more. The four appendices to the report include the following:

- Appendix A: Comments by the expert panel members about the Research Protocol Subcommittee's VTAP Draft Sections 6-8;
- Appendix B: Comments by the expert panel members about the Manufacturers' VTAP Draft Section 6;
- Appendix C: Expert panel's recommended VTAP Section 6;
- Appendix D: Unit operation and process phenomena associated with phosphorus separation.

David Sample summarized some of the recommendations of the expert panel. He commented that the panel removed most lab protocols from the document since the Division of Consolidated Laboratory Services has established a program, Virginia Environmental Laboratory Accreditation Program (VELAP), to certify environmental laboratories that perform tests, analyses, measurements or monitoring required pursuant to the Commonwealth's air, waste and water laws and regulations. Any lab aspects covered by VELAP requirements were therefore omitted. The panel of experts also removed the requirement that samples be sieved at the 250 μm level prior to particle size distribution analysis. The panel recommends that 24 rain events be monitored and offered their views on the best methods for compositing samples. In the selection of parameters, the panel recommends the use of total phosphorus (TP) and total soluble phosphorus (TSP) in most situations and recommends soluble reactive phosphorus (SRP) with applicable treatment methods such as sorption. David explained that the panel believes that collection of total suspended solids (TSS) measurements should be required, and that, at the option of the applicant, suspended solids concentration (SSC) may be submitted. In some cases, SSC may be a superior method to TSS, however, TSS is required for regulatory purposes; and SSC poses challenges that will need to be addressed in the sampling program.

Lee Hill requested comments on the report (39-page document) and Appendix C of the report (82-page document) by May 7, 2010. He offered to accept comments via email or fax. Members were encouraged to mark up the document and submit the marked-up copy as a scanned or faxed document. One member suggested that the title of the report is confusing and should be renamed by removing the word "protocol" since the report itself does not provide a protocol; a suggested title was simply "Expert Panel Report." David Sample and Jane Walker offered to work together to update the referenced appendices to their respective correct designation (references to Appendix Q of TARP, Appendix Y of TARP, and Appendix Z of TARP are not correct).

David Sample made a special request to the committee members that they vet the list of requirements in the technical evaluation report (page C-39). Another member suggested that the committee make certain that information is provided in the final document regarding the required status reports (Section 7 of the subcommittee's version of the VTAP).

One member asked if the expert panel recommends allowing lab testing or if field testing is required. David Sample replied that the panel did not provide a recommendation regarding lab versus field testing because the decision to require field testing to receive a conditional use designation (CUD) and general use designation (GUD) was already decided by the Clearinghouse Committee and documented in Sections 1-5 of the VTAP. The expert panel only reviewed Section 6 (and above) of the VTAP. Someone asked if there were still unresolved issues in Sections 1-5 of the VTAP. Jane Walker offered to resend the latest version of Section 1-5 of the VTAP to the committee members for final comments.

Development of subcommittee to review VTAP

Lee Hill extended an invitation for members of the Clearinghouse Committee to join a subcommittee to review the comments received on the VTAP. The subcommittee will pull together a final document. The subcommittee will meet June 21, 2010 in Charlottesville at the DOF building if a room is available. The meeting will be from 10 am-4 pm. The following agreed to serve on the subcommittee: Doug Beisch, Joanna Curran, Lee Hill, Greg Johnson, Ved Malhotra, Scott Perry, David Sample, and Jane Walker. Others were also welcomed to serve on the subcommittee.

Review of Questionnaire for Registry of Manufactured Treatment Devices in Virginia

As currently envisioned, a registry of manufactured treatment devices installed in Virginia would be posted on the Clearinghouse Website as an online form. Manufacturers could go online and complete the questionnaire for their products installed in Virginia. Local government staff could then go online and review the responses for various devices they are considering to install. The Registry Webpage would contain a disclaimer that the information in the registry has been completed by a representative of the manufacturer and is not approved or endorsed by DCR, VWRRC, or the Clearinghouse Committee.

Jane Walker offered to send the latest draft of the questionnaire to the committee members. Lee Hill requested that the committee members review the questionnaire and provide comments and suggestions to him by Friday, May 7, 2010. Comments will be accepted by email or fax.

General Comments

A member of the Clearinghouse Committee asked what the next steps would entail once a final draft of the VTAP was approved by the Clearinghouse Committee. Lee Hill offered that the VTAP would then be submitted to the DCR Director for review and approval and then be submitted to the Soil and Water Conservation Board for their review and approval.

A member asked if the expert panel supported basing the ratings on the percent removal efficiencies. David Sample acknowledged that the panel members believe that another method, one that is more robust, is needed. For the time being, however, "We are stuck with percent removals."

Ved Malhotra asked what the expert panel recommended in the way of measuring flow. He added that debris tends to affect the measurements determined from weirs. David Sample offered that primary flow measurement devices include control sections such as weirs and flumes that create a known stage-discharge relationship. David added that the expert panel prefers the

use of flumes but does not require that flumes be used. Tom Grizzard of Virginia Tech who served on the expert panel explained that weirs may be contraindicated where the existing channel has been sized to a design flow and the weir installation may reduce the capacity and resultant accuracy by an unacceptable amount. Flumes, in particular the Palmer-Bowlus flume does not have this disadvantage. Weirs may be used in some instances where limited or no solids are present and thus there is a low probability of clogging. In cases where weirs or flumes cannot be conveniently installed, velocity-area meters and the cross-sectional area may be used.

The next meeting of the Clearinghouse Committee is scheduled for July 19, 2010. With no further business, the meeting was adjourned.