

## **Virginia Stormwater BMP Clearinghouse Committee Meeting**

Date: March 13, 2008

Location: Board Room, Virginia Department of Forestry  
Charlottesville, Virginia

Sponsored by Virginia Department of Conservation and Recreation (DCR) and Virginia Water Resources Research Center (VWRRC)

Minutes by Jane Walker, VWRRC

### **Virginia Stormwater BMP Clearinghouse Committee Members Present**

**Scott Crafton (substitute Committee Chairperson for Lee Hill)**, Virginia Department of Conservation and Recreation

**Joseph G. Battiata**, CONTECH Stormwater Solutions Inc.

**W. Douglas Beisch, Jr.**, Williamsburg Environmental Group, Inc.

**Gary Boring**, New River Highlands RC&D Council

**Dean R. Bork**, Virginia Tech, Department of Landscape Architecture

**Joanna Curran**, University of Virginia, Department of Environmental Engineering

**David J. Hirschman**, Center for Watershed Protection

**Mary E. Johnson**, Thomas Jefferson Soil and Water Conservation District

**Roy Mills**, Virginia Department of Transportation, Location & Design Division

**Douglas H. Moseley III**, GKY & Associates, Inc.

**David B. Powers**, Michael Baker Jr., Inc.

**David W. Rundgren**, New River Valley Planning District Commission

### **Virginia Stormwater BMP Clearinghouse Committee Members Not Present**

**Rishi Baral**, County of Stafford, Planning Department, E & S Plan Review

**Brian Benham**, Virginia Tech, Department of Biological Systems Engineering

**Larry Coffman**, Filterra

**Michael Gerel**, Chesapeake Bay Foundation

**Gregory Johnson**, Patton Harris Rust & Associates

**Randy Sewell**, Vanasse Hangen Brustlin, Inc.

**James S. Talian**, City of Lynchburg

**Scott J. Thomas**, James City County Environmental Division

**Kevin D. Young**, Virginia Tech, Dept. Of Civil and Environmental Engineering

### **Virginia Department of Conservation and Recreation (DCR) Staff Present**

**Chuck Dietz**

**John McCutcheon**

### **Virginia Water Resources Research Center (VWRRC) Staff Present**

**Stephen Schoenholtz**

**Tracey Sherman**

**Jane Walker**

## **Others Present**

**Tom Fitzpatrick**, Hydro International

**Barrett Hardiman**, Home Builders Association of Virginia

**Scott Perry**, Imbrium Systems, Inc.

Scott Crafton, DCR, called the meeting to order. Everyone introduced herself or himself. A special welcome was extended to the new members of the Clearinghouse Committee. Those members whose terms are being renewed or who have replaced departing members include:

Rishi Baral, County of Stafford, Planning Department, E & S Plan Review

Doug Beisch, Jr., Williamsburg Environmental Group, Inc.

Brian Benham, Virginia Tech, Department of Biological Systems Engineering

Joanna Curran, University of Virginia, Department of Environmental Engineering

David Hirschman, Center for Watershed Protection

David Powers, Michael Baker Jr., Inc.

David Rundgren, New River Valley Planning District Commission

The members above are serving a term on the Clearinghouse Committee that begins in 2008 and ends in 2010.

(Note: Linda Blum with the University of Virginia and Burt Tuxford with the Virginia Department of Environmental Quality completed their one-year terms in December 2007 but did not choose to participate on the committee for the 2008 – 2010 term. Additionally, Cynthia Linkenhoker with the City of Portsmouth has found it necessary to resign from the committee.).

The minutes from the December 12, 2007 meeting were accepted without comments or additions.

None of the subcommittees have met since the December 12, 2007 meeting. Progress has been made by the DCR and VWRRC concerning several activities associated with the Clearinghouse Committee. Updates on these activities were discussed and feedback was provided as described below.

## **Web Site**

Scott Crafton informed the group that the development of the stormwater BMP clearinghouse web site will be delayed because resolutions are first needed concerning the stormwater regulations. Using the Virginia Tech templates, Tracey Sherman, VWRRC, developed a draft design of the stormwater BMP clearinghouse web site. Tracey showed PowerPoint slides of the pages she developed using the Virginia Tech templates and Scott Crafton's notes distributed at the December meeting. She showed several options and asked for preferences and opinions from the group.

One member commented that the site looks too much like a Virginia Tech web site and not a site for statewide access to stormwater regulations and information. Another member offered that the site could be mistaken for a program at Virginia Tech. It was suggested that stormwater should be the most prominent aspect of the website, particularly in the banner, and that the Virginia Tech logo should be moved to the footer.

The left-hand side of the site contains a hierarchy of links to the web sites of the partnering organizations. Virginia Tech is listed first, followed by the VWRRC, DCR, and the stormwater site. It was suggested that Virginia Tech not be listed in the hierarchy. Furthermore, the importance of DCR and VWRRC should be minimized in comparison to the stormwater BMP clearinghouse site. Scott noted that DCR's presence on the site is important so that people will know the information is approved by DCR. In reference to a question about the approval process, Scott offered that DCR's upper management would scrutinize the information. Tracey Sherman offered that the design elements of the Virginia Tech templates can be altered. Having Virginia Tech's logo as a footnote and changing the colors are acceptable changes. One member offered that a logo or letterhead used for the stormwater handbooks could be incorporated into the look of the site. Scott offered that such a logo does not exist and would be costly to develop. He doubted that funding would be available for logo development.

Scott Crafton added that the organization of the web pages may change somewhat. The BMPs may be divided into different categories than currently proposed or simply included as one long list.

Another suggestion was that the menu items be nested so that the navigation bar expands as users go deeper into the site. Alternatively, a "cookie trail" could be developed so that users will know where they are within the web site as they navigate deeper into the site.

As initially developed, the site has two search engines that are listed only on the first page. It was suggested that the search engines be included on every page. One search engine currently searches all of the VWRRC's web pages. Once populated with information, Tracey will try to establish a search engine specific for the Clearinghouse site. Tracey explained that the site also has a direct link to Google Search. A member commented that titles for PDF documents would need to be carefully developed because the search engine will not find words within the document but merely search the titles.

A member asked if documents included as PDFs could also be developed in HTML format so users would have an option for how best to obtain the material depending on their computer. A request was made to provide a link to Adobe so that users could easily download the software if they did not have it already installed.

It was also suggested that the site contain separate PDF files for the individual chapters or sections of long documents as well as one complete PDF file for such documents.

One member asked what resolution is used for the site. Tracey said that she used the resolution set for the templates and offered to check the exact resolution.

Tracey requested photos that could be used on the site. Scott Crafton said that photos could be sent to him for DCR's review first. Selected photos would then be sent to Tracey Sherman.

It was suggested that anchors be used on the pages with many different sections so that users can find the information at the bottom of the page more easily. Chuck Dietz said that DCR uses this approach on its web site, and it works well.

One member requested that links be provided to other pertinent pages within the site when referring to specific BMPs. As an example, if the selection tool being developed by Kevin Young and David Kibler is incorporated and specific BMPs are listed at the end of the process, it would be helpful if the site provided links directly to information within the site that describes the particular BMPs. Such links could be used to take the users to information about the construction and maintenance of the specific BMPs.

Tracey Sherman showed two possible formats using the home page as an example. She asked if the group had a preference for using a two-column or three-column format. The group reached a general consensus that the two-column format would likely work better for this site.

Tracey provided several examples of headers that could be used. One person voiced his preference for including navigational buttons under any photo used on the header. He suggested that the photos would likely change, possibly making it difficult to read the navigational buttons depending on the lightness and darkness of the photo in the header. Others suggested that changing photos not be incorporated into the header so that an established look would be developed for the site.

Tracey explained that when the pages print, the heading showing the title “Virginia Stormwater BMP Clearinghouse” will print.

## **Stormwater BMP Standards**

### Update on Stormwater Notice of Intended Regulatory Action

Scott Crafton updated the committee on the stormwater management notice of intended regulatory action (NOIRA). He reminded the group that the initial NOIRA was withdrawn in September 2007. A new NOIRA will be soon be reissued to receive public comments [NOTE: The NOIRA public comment period opened February 18<sup>th</sup>, it was published in the Virginia Register on March 17<sup>th</sup>, and the 60-day public comment period closes on April 16<sup>th</sup>]. Scott anticipates that the stormwater technical advisory committee (TAC) will be reinstated and that more engineers will be added to the group to increase the technical feedback. He expects that the draft regulations will go to the Virginia Soil and Water Conservation Board in September 2008. The draft regulations will go through the administrative review process, which includes approval from the Secretary of Natural Resources and the Governor, and then be open for public comment. The final regulations will likely not be approved until summer of 2009 and are expected to go into effect in late 2009.

To improve the water quality of the rivers feeding the Chesapeake Bay, Virginia needs to focus on controlling nutrients in its stormwater runoff. The proposed regulations submitted in September 2007 had a phosphorus limit for development sites with impervious areas less than or equal to 40% and a nitrogen limit for sites with impervious areas greater than 40%. The 40% boundary was arbitrarily set. Because developers might be tempted to increase the impervious

percentage of the site to meet a perceptively less strict nitrogen standard, the TAC advised that DCR just focus on having phosphorus standards regardless of the imperviousness of the site. DCR is currently proposing that a total phosphorus load of 0.28 pounds/acre/year will apply for all regulated development sites.

Based on work by the Center for Watershed Protection, a spreadsheet-based methodology has been developed that will show the reduction in total phosphorus achieved as a result of the BMPs chosen for both runoff volume reduction and pollution reduction purposes.

The channel protection piece still needs to be developed. Scott Crafton anticipates the development of a small water-quantity-standards workgroup to focus on the development of proposed channel protection standards.

#### Proposed BMP design checklist criteria and design charrettes

Scott Crafton updated the Clearinghouse Committee on progress being made with the design charrettes. The American Society of Civil Engineers (ASCE) is co-sponsoring the events. The first charrette was held March 11, 2008. The next one is scheduled for April 1 as a workshop at the Environment Virginia Conference. The third charrette will be April 29<sup>th</sup> at the Hampton Roads Planning District building, and the final charrette will be in Fairfax County on May 12<sup>th</sup>. Each charrette begins at 9:30 am and ends at 4:00 pm. More information about registering for the charrettes is available at the ASCE web site.

At each charrette, participants work on example site plans where they design BMPs to control stormwater and see if the planned site is able to meet the proposed stormwater regulations. Through the process, DCR hopes to find that the proposed standards are achievable and make useful refinements to the criteria and procedures.

The participants of the charrettes provide feedback to DCR on the process. Based on the feedback received, DCR plans to update the spreadsheet at the conclusion of the four charrettes. This process is helping DCR to identify weaknesses that can be addressed. A second round of charrettes will be used to present the refined version.

The charrettes introduce the process to design professionals. By the time the regulations get to public comment, it is expected that many professionals will have already been exposed to the proposed regulations and will understand the criteria and procedures.

One of the members of the Clearinghouse Committee attended the first charrette. He commented that the charrette was too short in terms of time, offering that it was difficult to summarize the process in the allotted time. Furthermore, more background information was needed for several assumptions made. He found it to be a phenomenal planning tool and thought it was great way to provide an introduction early into the process. He cautioned however that justification will not come out of the tool. The tool is a good starting point only. Scott Crafton agreed that methodology does not remove the need for detailed designs, and DCR hopes to help people understand the limitations of the tool as well as its applications. David Hirschman with the Center for Watershed Protection (CWP) offered that the CWP is developing a technical memo

that will be available soon to explain the research information and assumptions upon which the methodology is based.

Scott Crafton commented that Tom Schueler is working with all the Chesapeake Bay states and noted that all the states are in the process of updating their stormwater regulations. This connection is likely to be beneficial for firms that work across states.

One member commented that it would be particularly helpful to get feedback regarding the integration of the water quantity and quality components. Another member agreed that the integration of these two components is important. He recommended that it would be good to have alternate site plans with an off-site component. He also suggested that it would be good to evaluate market-driven trading. He offered that a document being developed by EPA provides an introduction to the concept of “no net impact,” which incorporates all aspects of stormwater science, requires accountability for impacts of land use change, and brings new and effective ideas to the forefront. Furthermore, a strawman paper entitled “Net Benefit” was developed in February 2008 and focuses on application of no net impact specifically to the Chesapeake Bay Watershed. The objective of “net benefit” is “to achieve, maintain and restore the stormwater water quantity and water quality at or better than the existing site conditions” to support the aquatic life use of the Chesapeake Bay and its tributaries and to protect human health by implementing various regulatory programs.

### **Research Protocol**

The comments and suggestions incorporated into the TARP-TAPE comparison table that was distributed at the December 12, 2007 meeting were added to the TARP protocols. This process raised as many questions as it addressed. The draft document was distributed to the subcommittee members, but the subcommittee has not met to discuss the comments. Since the subcommittee has not discussed the document, it was thought to be premature for the entire Clearinghouse Committee to discuss it. One member of the subcommittee stated that the recently developed document provides a good starting point for discussions.

David Hirschman with the CWP offered that their organization is developing a tool for local governments with a checklist of questions to ask manufacturers before beginning an evaluation. This product is to be applicable nationwide and generic so that all practices are on an even playing field.

### **Other Items of Business**

Scott Crafton asked members to let him know about localities that are developing new low impact development (LID) regulations. Frustrations have been expressed by some localities concerning the process and delay of the new state stormwater management regulations. The development timing of the state regulations is not matching with the timelines that localities are placing on regulations concerning LID. Scott offered that the work by Tom Schueler in developing BMP specifications and standards for all Chesapeake Bay states is a step in the right direction.

It was mentioned that the Northern Virginia Regional Commission is developing a low impact development (LID) guidance document that has a uniform sizing criteria. The practices described, however, are not comprehensive because of limited funding available for the project. One member offered that it is a good product but cautioned not to make the guidance manual more than it is (i.e., a guidance handbook).

Scott Crafton offered that the state standards will apply statewide and are integrated. He envisions that the different work groups can capitalize on what others are doing. Tom Schueler has looked over the Northern Virginia handbook and believes it is similar to what DCR's TAC is planning. DCR has agreed to continue discussions with the Northern Virginia Regional Commission on this document.

Scott Crafton reminded everyone of the future meetings:

June 12, 2008,  
September 11, 2008, and  
December 11, 2008.

With no further business, the meeting was adjourned.