

**Stormwater Act of 2007
Focus Group Meeting
Maryland Department of the Environment
Harford County Government Office Building
Bel Air, MD
January, 28 2008 9:30 AM – 12:00 PM**

Participants

American Engineering & Surveying, Inc.: Kordell Wilen, Allen Blomquist
Baltimore County Soil Conservation District: Dave Bachman
BayState Land Services: Brian Walker
Cecil Soil Conservation District: Chris Brown
City of Havre de Grace: Jeff Keithley
Forest Greens/Perryman Community Association: Glenn Dudderar
Friends of Harford: Alan Sweatman
George W. Stephens, Jr. and Associates, Inc.: Ryan Langrehr, Greg Adolph
Greenberg Gibbons Commercial: Tom Fitzpatrick
Harford County: John Gonzalez, Bruce Appell, Michael Lay
Maryland Department of the Environment (MDE): Ken Pensyl, Brian Clevenger, Stewart Comstock, Deborah Cappuccitti, Dela Dewa
Maryland Environmental Service: Megan Simon, Marisa Olszewski
Maryland Society of Professional Engineers: Ernie Sheppe
McCrone, Inc.: John Gonzalez, David Strouss
Octoraro Watershed Association: Rupert Rossetti
Straughan Environmental Services, Inc.: Eileen Straughan
Town Point Development: Bruce VanHoy
Whitney Bailey Cox & Magnani, LLC (WBCM): Michael Moore

Handouts

“The Stormwater Management Act of 2007 – Proposed Time Line for Regulation Adoption”
http://www.mde.state.md.us/assets/document/sedimentStormwater/SWM_Act_Regulation_Schedule.pdf.

Mitchie’s Legal Resources: “§4-201.1. Definitions.” and “§4-203. Duties of Department.”
http://mlis.state.md.us/asp/web_statutes.asp?gen&4-201.1

“Stormwater Management Act of 2007 Focus Group Meetings” (schedule)
http://www.mde.state.md.us/assets/document/sedimentStormwater/Focus_Group_Schedule.pdf

Introduction

Mr. Clevenger began the meeting by providing background information on the development of the draft revised Chapter 5 of the 2000 Maryland Stormwater Design Manual (Manual) as implementation of the Stormwater Management Act of 2007 (Act). Mr. Clevenger indicated that the intent of the Act, which was signed into law by the Governor in spring of 2007, is to institute Environmental Site Design (ESD)

into stormwater management practices to the “Maximum Extent Practicable” (MEP). Details of the Act were provided in handouts.

Mr. Clevenger reviewed the progress to date with regard to implementation of the 2007 Act and indicated that a one-day public outreach meeting was held in July of 2007 to gather insight from a cross-section/representative group of those affected by the change, including environmental advocates, designers, developers, plans reviewers and public works officials. As result of input from the July 2007 meeting, the Maryland Department of the Environment (MDE) developed an outline of the plan and schedule for implementation and posted the outline to the MDE website in September 2007. A draft revised Chapter 5, containing placeholders for sections to address redevelopment, retrofits, and protected waters, was also posted to the website for public input. Mr. Clevenger introduced the other primary authors of the draft revised Chapter 5 from MDE in attendance at the meeting: Ken Pensyl, Stewart Comstock, Deborah Cappuccitti, and Dela Dewa.

Mr. Clevenger stated that the current meeting is the second in a series of what MDE plans to be six focus group meetings to discuss the draft Chapter 5 revisions with interested parties. (The sixth meeting will be scheduled for sometime in the upcoming weeks and will be located in the greater Washington D.C. metropolitan area.) He explained that the draft revised Chapter 5 being presented should be seen as a dynamic document. The purpose of the focus group meetings is to accept comments and suggestions from the public and plans review and design community to help MDE develop the draft into a useful and informative document. Mr. Clevenger noted that, in addition to comments made publicly at the meeting, MDE would accept written comments, including hand-edited hardcopies of the draft Chapter 5 in addition to edits and comments received electronically. He stressed the importance of public feedback for the information and practices that had been drafted into Chapter 5 in order to determine which practices would and would not work on a practical level. Mr. Clevenger also explained that MDE and its subcontractors would be adding graphics to the document and completing situational model runs for some of the included practices.

Mr. Clevenger reviewed the evolution of Maryland’s stormwater management regulations from the policies of managing for flood protection volume (two and 10-year frequency storm events), conserving post-development peak discharge rates, and attempting to force infiltration. It was later recognized that design practices such as peak shaving often resulted in scouring of downstream banks from increased mid-bank full flows. Mr. Clevenger stated that the Manual attempted to encourage designers, planners, and developers to move away from such practices and consider reducing runoff at the source rather than relying on end of pipe treatment or ponds. However, before the Act, such practices were optional. Mr. Clevenger indicated that a narrative of the State’s perspective on stormwater regulations is available on the MDE website.

Mr. Clevenger noted that the planning, design, and review workloads following the release of the draft regulations will most likely increase, especially for those in county planning and permitting offices. In addition, to the increased workload, the transition will require a paradigm shift in thinking. He noted the challenge of defining MEP and achieving practical compliance coherence between newly required ESD and competing county planning codes and ordinances. In conflict with ESD, which would reduce impervious surface in an attempt to maximize infiltration and reduce stormwater runoff, such ordinances often require increased impervious surface area to accommodate citizens with disabilities, emergency response vehicles, and the like. Mr. Clevenger also noted the difficulty that MDE had determining the

appropriate scale for ESD practices regarding design simplicity and providing the appropriate level of guidance to meet MEP. MDE anticipates that there will be disagreement between designers and plans reviewers on the minimum requirements. As the new regulations are drafted, MDE will try to strike an appropriate balance between defining a minimum standard and still allowing for flexibility in design.

Mr. Clevenger introduced the “Sandbox” issues that had been recorded at the meeting in Salisbury and at a prior “in house” planning meeting at MDE. The issues included were:

- Conflicts in defining MEP
- Increase in plans review workload
- Increase in construction maintenance and inspection workload
- Appropriateness of including currently exempt (in some counties) agricultural buildings in ESD requirements
- Incentives for higher design standards in recognition that time is money
- Conflicts with local ordinances and planning codes
- Including forestation/aforestation and other state/federal considerations in planning

Open Discussion

A participant stated that Maryland has some of the most stringent stormwater management standards in comparison to other states and asked Mr. Clevenger and others from MDE to address what MDE is doing to coordinate stormwater management efforts with adjacent states in recognition of the cumulative effects of stormwater runoff on the Chesapeake Bay. Mr. Clevenger mentioned that the Chesapeake Bay Program is working with Pennsylvania and Virginia to reduce nutrient pollution from agriculture. In addition, he noted the ability of the Maryland Department of Natural Resources (DNR) Tributary Strategies initiative and the Federal Clean Water Act to aid in cross-jurisdictional efforts to minimize stormwater runoff and associated pollutant loads to Chesapeake Bay. However, the intent of the current focus group meetings is to refine current Maryland regulations and supporting documents to implement the Act.

Other participants expressed concern over the difficulties in reaching consensus on designs from the various county permitting agencies presenting a roadblock to the implementation of ESD. They asked if the General Assembly or MDE had established a time frame for counties to reevaluate their Department of Public Works standards to accommodate the new Stormwater Management Act requirements.

Mr. Clevenger noted that he anticipates that MDE will offer their assistance to counties to facilitate the transition. A representative from Cecil County suggested that MDE send letters to the Department of Public Works’ offices for the counties indicating their responsibilities under the new law as soon as possible. Mr. Clevenger indicated that such a letter from MDE, including the general timeline would be considered. In addition, representatives from the Maryland Department of Planning were invited to the July public meeting and are aware of the discrepancies between the requirements of the Act and local codes. A participant mentioned that the Cecil Soil Conservation District (SCD) includes stormwater considerations in conservation plans. The discussion led to the suggestion, similar to what had been proposed in Salisbury, that it may be helpful to have city and county jurisdictions come together to decide on regional policies that would limit the conflict between codes, plans, and regulations.

The discussion that followed highlighted a general desire for decision-makers in the development process to come together and find ways to streamline the plans approval process because coordination would encourage higher quality site design. A developer noted that the time involved in plans review, in particular is an issue. He stated that, currently, developers cannot “hold” a project long enough to get innovative stormwater design plans approved. The participant stated that developers would fund pilot projects with facilitated plans review. A participant suggested that a pre-plan review conceptual meeting including representatives from the local zoning office should be mandatory. Another participant suggested that permitting should be facilitated where impacts can be demonstrated to be unavoidable and minimization of impacts can be demonstrated as maximized. It was also suggested that waivers and variances should be the results of out-of-the-mold circumstances, not as a credit for innovative design.

A participant from the Carroll County planning department discussed his county’s process of Environmental Site Delineation, which he indicated as helpful in identifying a property’s unique development constraints (e.g. slopes, biological resources) and opportunities to maximize existing site features (e.g. forested buffers, wetlands) before a project begins. He explained that the process includes a technical review committee’s presentation of the conceptual design to the public and completing a full plans review by the Department of Public Works prior to the planning department’s final review and plan approval. He noted that, although it sounds like a cumbersome process, it takes approximately 10 business days to complete and is one that, developers especially, have come to appreciate because it immediately identifies potential problem areas, so much so that some developers submit their plans prior to purchasing the property to be developed. In addition, the process allows for environmental concerns associated with a project to be addressed in a narrative forum for transparency and public buy-in. A participant offered written comments on how to implement such systems into the State stormwater program.

A participant spoke of his experience with the process of rewriting stormwater regulations with three separate advisory boards in Virginia and recommended the use of charrettes to develop the most practical regulations. He extended an invitation to interested parties to attend an upcoming charrette hosted by a development firm proposing a redesign of the town of Perryville, Maryland. He noted this as an example of developers being proactive in bringing affected parties and reviewers together at the conception stage of a project to get feedback at the outset. He suggested that such a model would also limit conflicts in permitting.

The group began discussing tools to determine appropriate ESD for a site. A participant suggested that considerations for morphology and stream stability should be included in the determination of appropriate ESD practices. The participant indicated that this suggestion was provided in the July 2007 public meeting in recognition that, while engineers can develop sufficient and cost effective technology, a “one size fits all” release rate and sizing criteria would be limiting. Rather, it may be more useful to determine how the receiving waters would accept the flow. Mr. Clevenger noted that the channel protection volume requirement of Chapter 5, developed for the Manual, addresses this issue. He spoke again about the evolution of stormwater management practices, noting that ESD focuses more on stormwater quality than on volume. In addition, the modeling effort will assist in determining the amount and type of ESD that is appropriate. Ms. Cappuccitti added that, while the channel protection volume is used to prevent further damage to streams with existing stability issues such as incised

channels, counties have the existing authority to request increased quantity control on development projects.

Mr. Clevenger stated that, while it would be impractical to implement designs for watershed assessments across the state, on a local level it could be beneficial to have watershed assessments available for use in planning and determining potential mitigation options. A participant suggested that the Maryland DNR's Unified Watershed Assessment is a tool for determining the potential for water quality improvements: <http://www.dnr.state.md.us/cwap/cwap.htm>. Another participant suggested that MDE review the Jordan Cove Project conducted by the University of Connecticut for a model of the effectiveness of some watershed management practices: http://jordancove.uconn.edu/jordan_cove/study_design.html. This project provides a comparison between stormwater in a conventional development vs. a "low impact development."

The group entered into a conversation about the role of redevelopment in the new regulations and the ability of redevelopment to prevent urban sprawl. Mr. Clevenger and Mr. Comstock explained that, while the redevelopment section has not been drafted, it is unlikely that complete updates to existing stormwater systems would be required at redevelopment sites because this may pose a disincentive.

After a short break, the meeting continued and Mr. Clevenger asked the participants to provide specific feedback on the 14 practices included in the new draft Chapter 5. He requested that participants with knowledge of additional practices that were not included, but were important, please send these suggestions to MDE.

Mr. Clevenger reminded the group that the design revisions will carry the weight of regulation. He referred to page 5.14 of the draft revised Chapter 5 as an opportunity to work out the legal language nuances to clarify practices that are required vs. encouraged by the new regulations and invited suggestions on language revisions here and elsewhere in the revised Chapter 5.

A participant raised a question about public health and safety with regard to the use of submerged gravel wetlands as a stormwater management practice, referencing the nuisance of mosquitoes and the increasing prevalence of West Nile virus. Mr. Clevenger explained that this practice was included in the revised Chapter 5 because it is geographically appropriate for the lower Eastern Shore. He explained that the practice included varied depths to allow room for predators and to have water moving through and frequently flushing the system to limit rises in nitrogen input and resultant anaerobic conditions that promote mosquito larvae. Ms. Cappuccitti stated that MDE had tried to include a wide array of practices that encompassed different conditions in order to accommodate the variety of geographical areas across the State.

A participant questioned the effectiveness of relying on homeowners to be responsible to maintain systems that developers installed. Mr. Comstock noted that the same question had come up in the meeting in Salisbury where it had been determined that it was not necessary or beneficial to use the practices as lot-by-lot controls. Participants at the Salisbury meeting suggested that, instead, developers might locate practices in public rights-of-way or utility easements.

Mr. Clevenger suggested the possibility of adding a plan for maintenance as a requirement to practices in Chapter 5. A participant commented that the main issue with keeping ESD practices fully functioning

for their intended purpose is a variance between the plans and actual construction and maintenance. The participant seconded Mr. Clevenger's suggestion and added that: a permanent maintenance schedule for all practices should be included in the manual; land records should be revised to reflect that ESD is present and identify the responsible party with regard to maintenance; and all practices should be bonded.

The participants discussed various options for enforcing of the proper maintenance of stormwater management techniques. A participant suggested that the counties write into their code a stipulation for all subsequent plan reviews to be held indefinitely until violations are rectified. Another participant noted that Harford County places a "stop work" order at any development found to be in violation of any county code. While Harford County will remedy code violations of homeowners, the County recovers the cost of repair by adding it to the homeowner's property tax bill.

The conversation then moved to the need to offer better education to homeowners about stormwater management practices and how to maintain them. It was noted that there are several opportunities to educate homeowners about ESD and their responsibilities, including prior to the sale of the property or afterwards through informational packages and press releases from regulatory agencies. A participant noted that in New Castle County, Delaware, every homeowner must visit their local office of planning and learn about county codes, zoning regulations, etc. before purchasing property.

A participant suggested including ESD practices for large-scale, linear development projects, such as highways, in the Manual. Mr. Comstock explained that MDE discusses plans for roadways with the State Highway Administration (SHA). However, MDE has another program that oversees these projects. Mr. Clevenger added that the program includes a water quality bank that allows for offsets in cases where stormwater management practices do not fit in the project footprint.

The group discussed incentives for the use of ESD. A participant asked whether the use of ESD credits in the current Chapter 5 would continue in the re-written chapter. The participant explained that currently, if nonstructural practices can be used to adjust the runoff curve number to reflect that the drainage area is equivalent to that of "woods in good condition", no quantity control structures are necessary. The participant questioned why, in the re-draft of Chapter 5, utilizing the various ESD practices only results in a credit equivalent to "lawn in good condition" rather than "woods in good condition" as was previously assumed. Mr. Comstock explained that when the practices in Chapter 5 were optional, there was a need to add incentive for using them, so practices were given more credit toward reducing runoff than they actually provided. Now that the practices are mandatory, it is more important to be accurate about their value toward reducing runoff. The modeling of the efficacy of select ESD practices, to be conducted by MDE subcontractors, will assist in these determinations.

Mr. Clevenger asked for feedback on the suggestion of an expedited plan approval for stormwater management purposes if complete disconnection can be demonstrated in the site plans. Additionally, he asked the group to think about how they might implement requiring additional ESD practices for quantity control on large development projects. Mr. Clevenger added that MDE requests the participants' specific input on where and how MDE should provide guidance and flexibility in the implementation of the Act.

A participant stated that consideration of existing site conditions is especially important with regard to determining runoff curve numbers for flood control issues: in particular, overbank flood protection volume requirements (Q_p) and extreme flood volume (Q_f). The participant stated that current practices for new development do not consider these issues and also equate any new development as an improvement to agricultural land, which is not necessarily the case.

Mr. Clevenger also requested feedback on potential mitigation options for instances where ESD would not work for its intended purpose due in karst topography or other unique site features. He indicated that MDE is open to the idea of a water quality bank, which would allow for improvements in other locations in these instances. He noted that MDE has been criticized in the past for the use of “buy-out” programs. However, these programs may have their place if the approach is programmatic (i.e. case-by-case with no blanket exemptions) and the funds collected are used to provide solutions to existing infrastructure problems. MDE requested input on the context for making decisions concerning mitigation. A Cecil County representative indicated that Cecil County currently allows for mitigation on sites that are five lots or less. Several participants commented that a credit system is necessary.

Concluding Remarks

Mr. Clevenger stated that different ESD practices are preferable for water quality control versus volume control. However, the overall goal is to promote a treatment train that reduces the need for structural end of pipe controls. In addition to the modeling effort, MDE will be conducting an in-house literature search and review on the efficacy of ESD practices. Mr. Clevenger invited the participants to form regional groups to advise MDE on local conditions and regional standards should they find it appropriate. He reminded everyone to email their comments and suggestions on the draft Chapter 5 to MDE and added that comments will be accepted indefinitely. Email can be sent to Brian Clevenger at Bclevenger@state.mde.md.us or Stewart Comstock at Scomstock@state.mde.md.us.

Mr. Clevenger explained the schedule for the remainder of the process of adopting the regulations of the Act, which is available on the internet at: http://www.mde.state.md.us/assets/document/sedimentStormwater/SWM_Act_Regulation_Schedule.pdf. Essentially, once MDE has received public input on how the new requirements should be outlined in COMAR and completed the draft regulations, there will be an informal review process, at which time there will be an opportunity for the public to provide further written comments. The formal regulation promulgation process is forecasted to begin around Labor Day. MDE will also provide a model ordinance supplement that will address the treatment of the recharge volume, water quality volume, or channel protection volume. Mr. Clevenger suggested that those interested continue to monitor the webpage for updates on the process. He and Ms. Cappuccitti added that MDE will provide guidance on the project-wide savings potential associated with the use of ESD to assist with the educational effort via the website.

MDE thanked the participants for their continued input. The meeting was adjourned.