Stormwater Act of 2007
Focus Group Meeting
Maryland Department of the Environment
Charles County Commissioners Chambers
La Plata, MD
February 1, 2008 9:30 AM – 12:00 PM

Participants

American Communities Property Trust: Mark MacFarland
Anne Arundel County: John Peacock
ATCS, P.L.C.: James Whitehead
Charles County: Bob Harrington, Karen Wiggin, Elsa Ault
Charles Soil Conservation District: Luis Dieguez, John Downs
Chesapeake Bay Foundation: Bruce Gilmore
Constellation Energy: Ed Miller
Contech Construction Products, Inc.: Aimee Connerton
D H Steffens Company.: Herbert N. Redmond Jr., Mike Bailey
Deborah Schwab L A, ASLA: Deborah Schwab
Drum, Loyka & Associates.: Allyson De Matteo
John E Harms, Jr. & Associates, Inc.: Asko Miljkovic
KCW Engineering Technologies, Inc.: Mark Tsitlik
Lane Enterprises: Ken Freeman
Little Silences Rest, Inc.: Wayne Hunt
Loiederman Soltesz Associates, Inc.: Andrew Der
Lorenzi, Dodds, & Gunnill, Inc.: Dennis Riggs, Matt Garraux
Maryland Department of the Environment (MDE): Ken Pensyl, Brian Clevenger, Stewart Comstock, Deborah Cappuccitti, Dela Dewa
Maryland Environmental Service: Megan Simon, Marisa Olszewski
MPPT: Vince Berg
Naval Support Facility – Indian Head: James Humphreys, Will Bullard, David Cotnoir
P F Summers Development: Pat Mudd
Pautuxent Riverkeeper: Jennifer Bevan-Dangel
Port Tobacco River Conservancy: Joe Selden, Don Zimmer, Sharon Zimmer, Joe Tieger, Debra Murphey, Joyce Dean
Prince George's County: Rey de Guzman, May Rea
Southern Maryland Oyster Cultivation Society: Len Zuza
St. Mary's County, Dept. of Public Works & Transport: Peggy Lewis
St. Mary's River Watershed Association: Robert W. Paul
University of Maryland – Baltimore (UMB) School of Law: Lewis Taylor
USDA – Natural Resources Conservation Service – LaPlata field office: Gail Myers
Whitman, Requardt & Associates, LLP: Bill Guy

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 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 a 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, which was posted on their 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 fourth 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 will 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 will 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 county planning and permitting officers. 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 regarding 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 three meetings prior, as well as from one "in house" planning meeting at MDE. The issues included were:

- Conflicts in defining MEP
- Plans review workload increase
- Construction maintenance and inspection workload increase
- Expedited review incentives for higher design standards in recognition that time is money
- Conflicts between ESD requirements, local ordinances, and planning codes
- Including considerations for forestation/aforestation and other State/Federal law in planning
- Rules for redevelopment
- Conflicts with local ordinances and planning codes
- Including currently exempt (in some counties) agricultural buildings in ESD

Mr. Clevenger then opened the meeting for public comment.

Open Discussion

A representative from the Maryland Stormwater Consortium introduced a document the group had produced for the stormwater community, entitled "Core Principles". He offered to share the

document with anyone interested. He also noted that he would like for the group to discuss how to best define MEP.

A participant from Anne Arundel County indicated that Anne Arundel County has a policy of incorporating stormwater management to the MEP in their codes and a corresponding policy procedure manual, which is "good on paper, but not in practice." The participant shared his frustration with inadequate maintenance of lot-by-lot controls that are unpopular with homeowners in his county due largely to aesthetics. He explained that while his department receives complaints from environmental advocates indicating that more stormwater controls are necessary, they simultaneously observe homeowners "undoing" practices installed for stormwater management on their properties. Mr. Clevenger responded that the participant's experience in Anne Arundel County highlights the difficulties of lot-by-lot controls and speaks to a need to plan for such problems. Some possible solutions discussed at prior meetings included placing ESD practices in easements and coordinating practices among multiple lots (for example, building one rain garden to serve as runoff control for three lots and placing the rain garden in an easement). A participant added that negative aesthetics are less of a problem on commercial properties where there is more room to incorporate the practices into the site design.

Ms. Cappuccitti brought up the need to educate homeowners (as had been discussed at the meeting held in Bel Air) to give them a better understanding of structural practices, especially beyond the first property owner following ESD installation. This began a larger conversation with many in attendance agreeing that education is the key to successfully adapting users to the need, use and maintenance of ESD in order to receive a public "buy-in" to the concept. It was noted that local watershed groups such as the CBP and Port Tobacco Riverkeeper are a resource to coordinate an effort to educate the public. The watershed groups present offered to work with MDE to educate people, especially homeowners, about the reason for and maintenance of new stormwater management practices using roundtable discussions, newsletters and other public forums.

A participant from Anne Arundel County stated that in his experience, educational outreach is often ineffective. The participant explained that Anne Arundel County conducted a mass distribution of educational flyers to inform homeowners about the critical area buffer, but has seen a static number of violations in subsequent years. Mr. Clevenger responded that it is still helpful to make educational efforts, even though not everyone you try to educate will respond, some will and such efforts can have an effect. A participant suggested that a productive educational effort would include give-aways. For example, at a grant-funded event held by Calvert County, rain barrels and native plants were offered to participants. The participant reported that turnout and response for the event had been very good.

A participant stated that more work may be required than simply educating homeowners on how to maintain stormwater practices. The participant recommended that stormwater practices be recognized in covenants and disclosure/disclaimer statements for real estate transactions – that, just as property lines and houses are displayed on lot plans, utilities, easements, and any other stormwater structural practices should be shown as well. A participant responded that this method would increase the paperwork burden on title companies and potentially increase settlement costs. Another participant recommended that stormwater management systems

should be shown and explained to potential property purchaser *before* settlement to limit additional paperwork. A participant suggested printing a statewide brochure to be distributed to new homeowners and homeowner associations explaining the various stormwater management practices and how to maintain them. Still another participant suggested issuing a written notice to the purchaser of any property with stormwater infrastructure that the purchaser must sign to confirm that they understood their responsibilities and obligation to maintain the practice(s).

Another participant noted the importance of avoiding technical jargon in any attempt to educate the general public about stormwater in order to increase the efficacy of the effort. He also thought that the real estate community is in the best position to take a lead role in this education. Another participant added that repetition is the key to a successful educational campaign.

Mr. Clevenger asked the group to shift the focus of the discussion to the planning section of the draft revised Chapter 5. He noted that planning would be a critical component of the overall design effort for the new stormwater practices. He added that scale is an issue in planning as well with regard to determining the ideal placement of ESD to establish a treatment train, especially on flat, paved lots. It was noted that scale concerns are even greater on water front lots and lots with wells, septic systems and slope restrictions. A participant asked if there was a threshold below which ESD practices may be too small to connect to a treatment train. Mr. Comstock stated that input is requested on this topic.

A participant stated that St. Mary's County is requiring use of MEP as defined by the revised Manual, although the document is still being drafted. Of particular concern is the fact that two separate treatment trains – one leading to a treatment facility and one leading to the natural resource - may be needed. Mr. Clevenger recommended treating volume requirements before the confluence of the treated and untreated stormwater lines for efficiency. Mr. Comstock offered to speak with the participant after the meeting to offer some additional guidance on meeting the requirements. A participant added that a smaller discussion forum, consisting of representatives from MDE, St. Mary's County plans review office, and local developers may be needed to develop practical guidance for immediate use.

Mr. Clevenger also commented that if a jurisdiction does not currently include a conceptual (mapping and) plans review stage, one will have to be added, which could create an initial workload burden for jurisdictions. This led to a brief conversation with two of the county officers in attendance about their current process and how it may have to adjust to the new requirements. Participants from county offices indicated that their workloads are already high with some Counties processing 350 to 400 low detail plans per year. Other participants indicated that Charles, St. Mary's, and Anne Arundel counties already have some form of a concept review stage included in their planning process.

In response to a concern that the mapping requirement (Section 5.6) was too much work to expect from a water resource engineer, Mr. Comstock explained that, throughout the planning section, MDE attempted to encourage a team design process. This process would, in turn, result in a more comprehensive site design and ultimately be less of a burden on any individual county code official.

A participant stated that there should be controls to assure that conceptual design details carry over through the review phases into construction. A participant from the Maryland Stormwater Consortium stated that if the site's natural resources are recognized and utilized as instructed in the Core Principles document, ESD will be less likely to be dropped from the plans. Mr. Clevenger added that the site-mapping component of the process is detailed on page 5-16 of the revised Manual.

Mr. Clevenger noted that the list of 14 ESD practices included in the draft revised Chapter 5 is not exhaustive and that MDE welcomes recommendations for additional practices. Mr. Clevenger stated that MDE also appreciates feedback on the modeling results from the engineering community once the modeling effort is completed.

A participant asked why gravel is no longer credited as a pervious surface in the draft Chapter 5 revisions. Mr. Clevenger responded that it has become evident that, at best, gravel lots lose their ability to infiltrate as they become compacted over time. At worst, their purpose is lost and the lots are later paved with asphalt. Another participant mentioned that it was also possible for gravel to get ground up to the point that it became sediment runoff instead of infiltrating runoff. Mr. Comstock stated that geo-grids may be an effective alternative to gravel. It was also suggested that inspections would serve as a mechanism to assure that, if gravel lots were paved over, another ESD is installed to replace the function of the impervious surface.

In discussing pervious concrete, Mr. Clevenger noted that it would be up to the local jurisdiction to determine limits on its use. He recognized that MDE would have to work out the difference between their credit of pervious concrete with MD DNR, as it was brought up that the Critical Areas Commission does not consider it to be a 100% pervious material. Mr. Clevenger noted that some codes will have to be changed to allow room for incentives.

Responding to a participant's question regarding the effect of the use of porous pavement on minimum landscaping requirements, Ms. Cappuccitti advised using the natural site features and drainage patterns to the benefit of landscape needs, rather than trying to force the use of porous pavement.

In response to a question about the role of stormwater volume control in the Act and Manual, Mr. Comstock responded that it could be possible to use enough management practices to eliminate the need for quantity management. He also noted that this was another reason that MDE is modeling the various practices: to better understand the stormwater volume reductions provided by each ESD practice.

A participant asked for clarification on the discontinuation of the former practice of crediting sites that used Environmentally Sensitive Design with stormwater treatment value determinations of "woods in good condition." Mr. Clevenger explained that the credits had been used as incentives to increase the use of practices, which at that time were optional. Mr. Clevenger explained that MDE found the practices in fact did not protect channels from degradation to the effect of the "woods in good condition" to which they were credited. However, the question of how to address volume had also arisen in the Salisbury meeting and it seems that MDE may consider continuing the use of Environmental Site Design to this end.

A participant asked if stream restoration could be considered as a last resort to provide the channel protection volume required for a project where ESD could not be incorporated. Mr. Clevenger responded that this would be a circular exercise because successful stream restoration addresses the cause of the bank failure, which would likely indicate a need to restore natural site hydrology. However, the establishment of a fund for stream restoration would at least assure that funds collected for mitigation on projects where the integration of ESD is not feasible stayed with associated projects and supported the general intent of the Act.

Mr. Clevenger explained that there are instances in which it is not possible to use ESD. He explained that MDE often reviews projects from the State Highway Administration where, due to the long, liner shape of the project, it is not feasible to incorporate ESD. He explained that, in these instances, MDE often has State Highway Administration fix old, failing stormwater infrastructure (best management practices) as a system of trades for what they were unable to do on their own site. Mr. Clevenger recommended this method to municipalities facing similar challenges.

A participant expressed concern about not being able to "sell" the new ESD practices to developers who would see their installation as too expensive. Ms. Cappuccitti responded that, in addition to assisting in the draft revised Chapter 5, she was putting together a cost list to provide more guidance to affected parties. She noted that she was finding that there could be long-term cost savings for many of the practices. For example, a potential for project savings exists in the lack of a need for expensive infrastructure and increase in building space that will not be occupied by structural treatment facilities and ponds. Mr. Clevenger responded that, as had been discussed in Salisbury, a system of incentives might be beneficial in getting cooperation from all parties for better design plans. A designer from Salisbury indicated that she would be able to create higher quality plans from a stormwater management perspective if there were a guarantee for an expedited plans review and permitting process. A participant stated that he believes that Maryland Stormwater Consortium's decision-making flow chart is a helpful tool in encouraging shared goals between designers and the environmental community.

A brief discussion on the topic of inspection ensued in which a participant asked about the feasibility of requiring designers to inspect their sites after they are built to determine if the site had been constructed to the intent of the design. It was also suggested that a professional engineer or landscape architect's seal should appear on the "as-built" drawings for approved designs to certify that they were built as planned. It was also suggested that ESD plans should be reviewed during a National Pollutant Discharge Elimination System (NPDES) permit inspection. Mr. Clevenger noted that MDE had discussed certifying its own inspectors for an "as-built" process. However it had appeared infeasible based on staffing and budget shortfalls. He explained that the current system involves a third party inspector. Participants commented that enforcement is as pertinent to successful long term ESD maintenance as education. A participant suggested that increasing the visibility of enforcement with high profile cases is a stimulus to increased compliance.

Concluding Remarks

Mr. Clevenger drew attention to Section 5.14 as an example of wording that still needs to be adjusted for the document to be ready for incorporation. He reminded everyone that the Manual would be incorporated into the law by reference so that all of the italicized language would hold the authority of law.

Mr. Clevenger explained the schedule for the remainder of the process of adopting the regulations of the 2007 Stormwater Management Act, which is available on the internet at: http://www.mde.state.md.us/assets/document/sedimentStormwater/SWM_Act_Regulation_Schedule.pdf. He reminded everyone to submit their comments and suggestions on the draft Chapter 5 to MDE. Electronic mail submissions can be sent to Brian Clevenger: Bclevenger@state.mde.md.us or Stewart Comstock: Scomstock@state.mde.md.us. Mr. Clevenger suggested that those interested continue to monitor the webpage for updates on the process.

The meeting was adjourned.