The Stormwater Management Act of 2007
Preliminary Responses to 13 Core Principles Document
May 2008

Principle 1: Increase Onsite Runoff Reduction Volumes.

A separate sizing criterion should be developed to ensure post-development runoff replicates pre-development (e.g., forested conditions) levels. Recommends altering current Unified Sizing Criteria to a pre/post development runoff reduction for the one-year design storm.

- A new sizing criterion is being developed to promote greater runoff reduction using Environmental Site Design (ESD). A minimum level of water quality implementation will be established using ESD. Pervious areas can then be used to capture and store runoff in interconnected practices for volume control.

Principle 2: Require a Unified Early ESD Map.

A unified ESD map and concept plan should be required and considered early in project development.

- MDE intends to incorporate a natural resource mapping component into the Design Manual and a concept plan approval review step into the Code of Maryland Regulations (COMAR).

Principle 3: Establish Nutrient-Based Stormwater Loading Criteria.

Numeric performance criteria for each site should be developed using an approach being considered in Virginia.

- Virginia's approach is based on limited pollutant removal data, uses structural BMPs to meet design criteria, and encourages, but does not require ESD. The Stormwater Act of 2007 (Act) requires ESD in Maryland to the maximum extent practicable (MEP). ESD, if properly implemented and maintained, is presumed to be more protective of water quality. MDE is investigating using the current practice design criteria that is based on impervious area to develop the runoff reduction sizing requirements described in Principle 1 above.

Principle 4: Environmental Site Design Applies to Redevelopment.

New development requirements should be applied to redevelopment projects.

- Focus group meetings produced comments that were wide ranging in scope and often conflicting in nature (e.g. smart growth vs. treat all as new development).

- An informal advisory group to offer local perspective on redevelopment has been assembled to help develop future direction. All suggestions and concerns from local governments, developers, and environmental groups will be considered carefully throughout the process. The participants' list of this advisory group can be found on MDE's web page. Details of discussions will be posted according to revised schedule.

Principle 5: Integrate Erosion and Sediment Control and ESD Together at Construction Sites.

Nonstructural ESD practices should be used for construction sites. These include construction phasing, steep slope restrictions, preserving vegetation, stabilizing rapidly, etc.

- Chapter 5 planning section will be expanded and COMAR will be modified to include a conceptual plan requirement. MDE has enlisted the help of county plans review agencies and the Soil Conservation Districts (SCDs) to develop a policy that can actually be implemented. Development of that policy, including outreach is ongoing. A list of those participating in this work can be found on MDE's web page.

Principle 6: Provide Adequate Financing to Implement the Act and Technical Assistance and Incentives for Early Adopters.

Adequate resources for research, implementation, and staffing should be provided. Incentives should be provided as well for early ESD adopters.

- Significant increases in staff or resources are not anticipated in the short-term. Because of a relative absence of ESD performance efficiency data, contracted and in-house (MDE) hydrologic modeling will allow confident transition to ESD design by project engineers and local plan reviewers.

Principle 7: Develop an ESD Ordinance that Truly Changes Local Codes.

A model ESD ordinance must be used to change planning, zoning, and public works codes to allow ESD to be more easily used.

- Focus group meetings identified numerous ESD implementation impediments (e.g., minimum street widths and cul-de-sac radii, mandatory curb and gutter).

- The Act requires codes to be changed. The Act's authority and an altered model stormwater ordinance to be available September 1 will be used to affect changes.

Principle 8: Strengthen Design Standards for ESD and Stormwater Practices.

The Design Manual should include more stringent performance and design criteria, use current research to integrate ESD standards, be revised every three years, and be reorganized completely to promote ESD first.

- The Design Manual is incorporated by reference and holds the same force as COMAR. All available research has and will continue to be incorporated into Chapter 5 for appropriate design criteria and COMAR for policy implementation. The breadth of changes currently under consideration may require reorganization of the Design Manual. Sweeping reforms at the scale suggested may delay the adoption of the more immediate changes needed to implement ESD.

Principle 9: Ensure that all ESD Practices can be maintained.

Traditional maintenance procedures should be followed for ESD (e.g., bonds, legal agreements, and inspections). Nonstructural ESD planning techniques (e.g., forest preservation, buffer protection, open-section roads) require little maintenance and will be self-sustaining over time.

- Existing procedures will be continued; education of engineers, reviewers and especially property owners is vital.

Principle 10: Devise an Enforceable Design Process to Require ESD.

A flowchart was submitted by the Stormwater Consortium to serve as an enforceable mechanism to ensure that the use of ESD is maximized.

- COMAR and the Design Manual provide sufficient enforcement authority. MDE will use the submitted flowchart as a model to develop guidance to implement design criteria for implementing ESD.

Principle 11: Establish Turbidity Standards for Construction Sites.

Numeric turbidity standards should be implemented for construction sites to improve the quality of erosion and sediment control.

- Reviewed research suggests technical problems affecting monitoring usefulness; several states that use turbidity standards were investigated and most have limited oversight of individual projects; proper inspection and enforcement are critical; MDE's general permit that is currently being developed through a separate stakeholder process will address this issue as determined to be appropriate.

Principle 12: Craft Special Stormwater Criteria for Sensitive Waters.

More stringent criteria are needed to protect sensitive waters, trout streams, nontidal and tidal wetlands, shellfish harvesting areas, and reservoirs.

- Implementing ESD practices to the MEP, including infiltration where appropriate, will provide better protection for impaired and sensitive waters. A sensitive waters section of Chapter 5 is being developed that will identify areas of concern and how ESD may be used to address other State resource protection programs (e.g., Critical Areas, Forest Conservation, Wetlands).

Principle 13: Develop a Statewide ESD Training and Certification Program.

Design engineers and plans reviewers should be ESD certified through enhanced green card classes or similar professional training. Third party inspectors should be used for inspection to ensure compliance.

- Education, training, outreach, and monitoring are essential for the successful implementation of the program. This requires sufficient resources.