

# **U.S. ENVIRONMENTAL PROTECTION AGENCY CHESAPEAKE BAY PROGRAM GRANT AND COOPERATIVE AGREEMENT GUIDANCE**

## **"Priority Approaches and Practices for Stormwater"**

### *Priority Practices: General*

Priority practices are those proven, cost-effective practices that reduce or prevent the greatest nutrient and sediment loads to the Chesapeake Bay. Grant recipients should refer to the following resources for a representative list of proven, cost-effective practices that can reduce nutrients/sediment:

- EPA *Guidance for Federal Land Management in the Chesapeake Bay Watershed* (see attachment 12 for the summary document; the full *Guidance* is located at <http://www.epa.gov/nps/chesbay502/>) – provides a list of proven, cost-effective tools and practices that can reduce water pollution from nonpoint sources. Although this document was developed for federal lands, the same set of tools and practices are appropriate for both nonfederal land managers to restore and protect the Chesapeake Bay.
- EPA 202(a) Report– provides a list of priority practices to address nutrient loads to the Chesapeake Bay (<http://executiveorder.chesapeakebay.net/file.axd?file=2009%2F11%2F202a+Water+Quality+Report.pdf>).
- Chesapeake Bay Watershed Model BMPs – provides a list of all practices approved for credit in the model with their effectiveness estimates.

While all of these resources should be considered by grant recipients, EPA acknowledges that states may include other proven Best Management Practices in their Work Plan with appropriate justification that includes the following information:

- The priority practices that will be implemented with the grant funds
- A short justification as to why each practice is a priority for the location in which it is to be implemented
- A short justification of the nutrient and sediment reductions associated with the practice
- A brief description of the strategies being undertaken to ensure effective implementation of the practice.

CBIG and CBRAP grants cannot support practices that the Chesapeake Bay Program has determined do not result in nutrient and sediment reductions. Further, only priority practices associated with federal, state, and/or local regulatory programs may be included in the CBRAP work plan content. It should be noted that the implementation of voluntary best management practices, including cost-shared practices, are not an eligible activity under CBRAP grants.

### *Priority Approaches and Practices for Stormwater*

Approaches to stormwater management have changed notably in the past few years from extended detention approaches (big basins) to on-site retention. These approaches has been advocated by the National Research Council (Urban Stormwater Management, 2008) and subsequently advocated by EPA in a variety of technical documents (e.g. Guidance for Federal

Land Management in the Chesapeake Bay Watershed, Chapter 3 Urban and Suburban, 2010; Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act, 2009) and policy memos (see a collection at: [http://water.epa.gov/infrastructure/greeninfrastructure/gi\\_regulatory.cfm](http://water.epa.gov/infrastructure/greeninfrastructure/gi_regulatory.cfm)). As a result, there is now a clear expectation that stormwater management practices should be held to the performance objectives of replicating predevelopment (natural) hydrology on the site. For those jurisdictions that rely heavily upon their MS4 permitting process to achieve their target load reductions, EPA expects jurisdictions to utilize the July 2010 MS4 guidance entitled, Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed.

Many of the last generation of stormwater practices (extended detention, in-line swirl systems, filters, separators, or end-of-pipe treatment) do not achieve effective on-site retention to replicate predevelopment hydrology. Green infrastructure approaches, such as land conservation/preservation of natural features, trees, green roofs and green streets, bioretention, water harvesting, permeable pavers, bioswales, and other such practices are designed to keep water on-site and/or utilize it in a way that prevents run-off from all small storms and reduces it from the occasional large storm event. See:

[http://www.epa.gov/owow/keep/NPS/chesbay502/pdf/chesbay\\_guidance-all.pdf](http://www.epa.gov/owow/keep/NPS/chesbay502/pdf/chesbay_guidance-all.pdf).

However, EPA does not wish to stipulate a short list of management practices that could possibly hamper innovation, particularly in those areas that are not covered under an MS4 permit. With the submission of the Phase II WIPs, the Chesapeake Bay jurisdictions have committed to implementing a variety of BMPs to achieve their respective nutrient and sediment reduction goals. Several of these BMPs, such as Erosion and Sediment Control, Urban Stream Restoration, and Urban Nutrient Management, are in the process of being adopted by the Partnership through the BMP Panel process. In addition, the Partnership has initiated an effort to develop a BMP verification framework whereby we can have both expanded tracking and reporting of practices and verifiable confidence in the outcome of those implemented practices. EPA expects projects intended to support the development, implementation, and maintenance of BMPs to have undergone both the Partnership's BMP Panel and verification processes.

*Part 438 of the Energy Independence and Security Act:*

In December 2007, Congress enacted the Energy Independence and Security Act of 2007. Section 438 of that legislation establishes strict stormwater runoff requirements for federal development and redevelopment projects. The provision reads as follows:

**“Storm water runoff requirements for federal development projects.** The sponsor of any development or redevelopment project involving a Federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.”

The intent of Section 438 of the Energy Independence and Security Act of 2007 (EISA) is to require federal agencies to develop and redevelop applicable facilities in a manner that maintains or restores stormwater runoff to the maximum extent technically feasible.

Implementation of Section 438 of the EISA can be achieved through the use of green infrastructure/low impact development (GI/LID) practices that retain stormwater on site. The intention of the statute is to maintain or restore the pre-development site hydrology during the development or redevelopment process. To be more specific, this requirement is intended to ensure that receiving waters are not negatively impacted by changes in runoff temperature, volumes, durations and rates resulting from federal projects.

In 2009 EPA, in consultation with other federal agencies, issued guidance on the implementation of this requirement: [http://www.epa.gov/greeningepa/documents/epa\\_swm\\_guidance.pdf](http://www.epa.gov/greeningepa/documents/epa_swm_guidance.pdf).

*Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed:*

In July 2010, EPA Region III issued the *Urban Stormwater Approach*

([http://www.epa.gov/reg3wapd/pdf/pdf\\_MS4AOs/MS4GuideR3%20final07-29-10.pdf](http://www.epa.gov/reg3wapd/pdf/pdf_MS4AOs/MS4GuideR3%20final07-29-10.pdf)),

describing an approach for National Pollutant Discharge Elimination System (NPDES) permitting authorities to follow in developing and issuing permits and implementing regulations for discharges from municipal separate storm sewer systems (MS4) in the Mid-Atlantic Region and Chesapeake Bay Watershed. The approach consolidates and optimizes many of the tools and authorities available to permitting authorities, and outlines EPA's expectations for stormwater permitting programs.

Among the priorities are:

- Establishing performance standards for new and redevelopment that preserve or restore stable site hydrologies.
- Establishing requirements for retrofits in order to address impairments from existing discharges.
- Reducing impacts from turfgrass fertilizers.
- Including robust accountability mechanisms in regulatory programs.
- Including specific limitations to meet water quality standards, or schedules of compliance, consistent with all approved TMDL wasteload allocations.
- Establishing water quality monitoring requirements that provide relevant, interpretable and statistically significant data.
- Issuing permits with clear, measurable and enforceable provisions.