

## Proposed Charge for the Urban Shoreline Erosion Control Expert Panel

11-27-2012

EXPERT BMP REVIEW PANEL: Urban Shoreline Erosion Control		
Panelist	Affiliation	e-mail Contact
TBD	TBD	TBD
Sadie Drescher	CWP (facilitator)	sdrescher@chesapeakebay.net

### **Background**

Urban shoreline erosion control practices are used throughout the Chesapeake Bay and are defined in Scenario Builder (2012) as, “protection of shoreline from excessive wave action by creating a marsh or an offshore structure such as a sill, breakwater or sand containment structure.” In 2003, the CBP approved nitrogen, phosphorus, and sediment removal rates for urban shoreline erosion control practices (see Table 1).

In the current Chesapeake Bay Watershed Model (CBWM) version 5.3.2, nutrient and sediment removal rates for urban shoreline erosion control practices are equal to the urban stream restoration practice. This removal rate is based on a single stream restoration study and is expressed in pounds of sediment or nutrient reduction per linear foot per year. The “Expert Panel to Define Removal Rates for Individual Stream Restoration Projects” proposed four general protocols to define pollutant load reductions for individual stream restoration projects. While these protocols are currently under review the panel overwhelmingly concluded that the use of the existing removal rate is inappropriate given the range of stream conditions and available restoration options.

Table 1. Removal Rates for Urban Shoreline Erosion Control Practices			
	TN (lb per foot per year)	TP (lb per foot per year)	TSS (lbs per foot per year)
Existing CBP-Approved Rate	0.02	0.0025	2
Scenario Builder (2012) Available online at <a href="http://www.chesapeakebay.net/documents/SB_Documentation_V24_11_01_2012.pdf">http://www.chesapeakebay.net/documents/SB_Documentation_V24_11_01_2012.pdf</a>			

This conclusion supports the need to reevaluate whether the existing credit is still suitable for urban shoreline erosion control practices. The initial charge of the panel is to review all of the available science on the nutrient and sediment removal performance associated with urban shoreline erosion control practices.

### ***Expert Panel Charge***

The panel is specifically requested to:

- Evaluate how urban shoreline erosion control practices are simulated in the context of CBWM version 5.3.2.
- Review available literature on the nutrient and sediment loading rates associated with urban shoreline erosion control practices and the effect of urban shoreline erosion control practices in reducing them.
- Provide a specific definition of what constitutes an urban shoreline erosion control practice, describe the urban shoreline erosion control practices' geographic boundary, and determine the qualifying conditions under which a locality can receive a nutrient and/or sediment reduction credit.
- Evaluate whether the existing CBP approved removal rates for urban shoreline erosion control practices are suitable for qualifying projects or whether a new protocol needs to be developed to define improved rates. In doing so, the panel should consider project specific factors such as physiographic region, landscape position, stream order, and/or type of urban shoreline protection practices employed.
- Define the proper units that local governments will report urban shoreline erosion control practices to the state to incorporate into the CBWM.
- Recommend procedures to report, track and verify that urban shoreline erosion control practices are actually being implemented and maintained during construction and after construction.
- Critically analyze any unintended consequences associated with the nutrient and sediment removal rates and any potential for double or over-counting of the credit.

While conducting its review, the panel shall follow the procedures and process outlined in the Water Quality Goal Implementation Team (WQGIT) BMP review protocol (2010 with 2011 addendum).

### ***Panel Support***

Hannah Martin will support the expert panel (Chesapeake Bay Program support to the Habitat Goal Implementation Team (GIT-2)).

### ***Panel Schedule***

- CWP and Panel Members (select) to conduct initial literature review (January 2013)
- First teleconference call in February 2013 to review panel charge, scope the work ahead, and review the literature synthesis and identify additional research needs
- Second teleconference call in March 2013 to report progress and chart future timeline
- Continue teleconferences and/or face to face meetings in the summer/early fall of 2013 until a consensus is reached

### Questions for USWG

1. Who should be on the panel? See Table 2 for potential panel members.
2. Is there a CBP working definition for urban shoreline erosion control practices other than the one provided here?
3. Are there other issues of concern we should be aware of for this expert panel?

### Potential Panel Members

*Convene a review panel.* The source sector Workgroup, in consultation with the WTWG and WQGIT Chair, will identify and convene a panel of experts on the relevant topic. Each request for review should include suggestions for such panel members. The panel must include at least six individuals; three recognized topic experts and three individuals with expertise in environmental and water quality-related issues. It is also important that the review panel has appropriate geographic representation (WQGIT BMP review protocol, p. 2).

<b>Table 2. Potential Panel Members, Groups, and Geographic Representation for WQGIT Consideration and Input</b>		
<b>Name</b>	<b>Affiliation</b>	<b>State</b>
Jeff Halka	Director MD Geologic Survey	MD
Scott Hardaway	Director VIMS Shoreline Studies Program	VA
Karen Duhring	VIMS Center for Coastal Resource Management (CCRM)	VA
Mike Drummond	US Fish and Wildlife Service	VA
Bill Wolinski, PE	Talbot County DPW	MD
Steve Stewart	Baltimore County Department of Environmental Protection and Sustainability	MD
Bill Stack, PE	EPA CBPO/CWP	MD*
TBD	Habitat GIT	MD*
Ron Bowen	Director Anne Arundel DPW	MD
Daniel Proctor	Senior Engineer, Williamsburg Environmental Group	VA
David Basco, PhD.	Director, Coastal Engineering Center, Old Dominion University	VA
Sandra Y. Erdle	Coastal Training Program Coordinator, Chesapeake Bay NERR	VA
Michael Langland	USGS	PA
Albert McCullough, PE	Ecological Engineer, Sustainable Science, LLC	MD
Jana Davis, PhD.	Executive Director, CBT	MD*
Lewis Linker, PhD.	EPA CBPO	MD*
TBD	Hampton Roads area – local gov't	VA
TBD	South River Federation	MD
TBD	Sea Grant Extension and/or NERRS	TBD
TBD	NOAA – CSC, CPO, etc.	TBD
TBD	Permitters	MD & VA
*Chesapeake Bay wide perspective and knowledge base.		