Modifications to the Expert Panel on Shoreline Management Practices

Presented to the Watershed Technical Work Group

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Bill Stack, P.E.

Shoreline Management Expert Panel Chair



EPA CBPO Sediment Reduction and Stream Restoration Coordinator Center for Watershed Protection, Inc.

Concerns raised at the 1/12/15 WQGIT Meeting regarding the default rate.

Default rate based on stream restoration protocol default rate minus the sediment delivery factor and times a percent sand reduction fraction as in Protocol 1.

Solution is to use Chesapeake Bay average fine sediment shoreline erosion mass loading (Cerco et al., 2010) as a default value.

Annual	MD	VA
Length (total) – (meters)	2,912,000	4,060,000
Length (unprotected) – (meters)	1,993,000	3,276,000
% Protected	32	19
Loading MT/yr - total	2,733,000	1,500,000
Fines	1,503,000	506,000
Coarse	1,153,000	994,000
Organic	77,000	-
Loading (kg/m/day) - total	2.43	1.01
Fines	1.34	0.34
Coarse	1.02	0.67
Organic	0.07	
m = meters MT = metric tons		

Cerco, Carl F., Sung-Chan Kim, and Mark R. Noel. 2010. The 2010 Chesapeake Bay Eutrophication Model: A report to the US EPA CBPO and to the USACE Baltimore District. US ACE and Development Center. Vicksburg, MS.

Rationale for new rate

- It brings the estimated loadings of fines from the WQSTM into alignment with the default rate of Shoreline Management Report.
- Using the WQSTM to cap the loads of fines and as a default for the loads of fines is consistent with the approach of using of the WQSTM estimates of nutrient loads associated w/ shoreline erosion that are now being developed by the Modeling Workgroup.

Comparison of existing and proposed rates (Default rate assumes a 50% load reduction factor similar to Protocol 1)

	Existing Default Rate	Proposed Default Rate Assuming 50% reduction factor as per protocol 1.
Maryland	137 lb TSS/lf/yr	164 lb TSS/lf/yr
Virginia	87 lb TSS/lf/yr	42 lb TSS/lf/yr





Questions/Comments

Bill Stack, P.E.

bps@cwp.org or wstack@chesapeakebay.net

410.461.8323 xt 222 or 410-267-5717