

March 7, 2018

Mr. Normand Goulet, Chair
Urban Stormwater Workgroup
Chesapeake Bay Program Office
410 Severn Avenue, Suite 109
Annapolis MD 21403

Dear Mr. Goulet:

The Maryland Department of Transportation State Highway Administration (MDOT SHA) Office of Environmental Design (OED) is pleased to submit our *Alternative Headwater Channel and Outfall Crediting Protocol, February 2018*, for consideration under the *WQGIT Protocol for the Development, Review, and Approval of Loading and Effectiveness Estimates for Nutrient and Sediment Controls in the Chesapeake Bay Watershed Model*. We are seeking consideration as an alternative means to estimate nutrient and sediment load reductions through stabilizing and retrofitting storm drain outfalls.

This protocol proposes an alternative for headwater and outfall channels to 'Protocol 1: Prevented Sediment during Storm Flow' as described in the *Recommendations of the Expert Panel to Define Removal Rates for Individual Stream Restoration Projects*, 2014. The attached protocol and presentation provide clear definition of the practice, specific information on how it reduces nutrients and sediment, and discusses an alternative method for estimating erosion rates based on published methods for estimating equilibrium channel slope and bank angles based on the assumption that channel bed and bank incision will cease once the channel reaches equilibrium. Also attached is an Excel workbook with field data and computations included.

We would be happy to present this protocol at an upcoming USWG or expert panel meeting. If you have any questions or need additional information, please contact me at 410.545.8640 or SRam@sha.state.md.us or Karen Coffman at 410.545.8407 or KCoffman@sha.state.md.us.

Sincerely,



Sonal Ram, P.E.

Director, Office of Environmental Design

Enclosures

cc: Mr. Bill Stack, Chesapeake Stormwater Network
Mr. Tom Schueler, Coordinator USWG, Chesapeake Bay Program
Mr. Raymond Bahr, Chief Program Review Division, MDE SSDS Program
Ms. Karen Coffman, Chief Water Programs Division, MDOT SHA OED
Mr. Kevin Wilsey, Deputy Director, MDOT SHA OED