Date: June 6, 2018

To: Urban Stormwater Work Group

From: Tom Schueler

Re: Proposed Charge and Team to Define an Outfall Stabilization Credit

Introduction:

At its April 17, 2018 meeting, the Urban Stormwater Work Group considered a joint proposal by MDE and MD SHA to consider sediment and nutrient reductions from qualifying outfall stabilization projects under the protocols for the Stream Restoration BMP (USR EP, 2013) – specifically under Protocol 1 for prevented sediment. There was agreement that while outfall stabilization has major similarities to the stream restoration practice there may be a need to create a fifth protocol. Under the WQGIT's BMP Review Protocol the workgroup determined that a full BMP expert panel is not necessary. Rather, a small ad hoc team can effectively provide the USWG with documentation and recommendations of how outfall stabilization can be credited within the partnership modeling tools in accordance with the BMP Review Protocol. The ad hoc team will consider a new protocol that utilizes an alternative method to estimate prevented sediment from outfall stabilization projects needed to prevent severe erosion in zero order streams (MD SHA, 2018).

In May, the USWG agreed to establish such an ad hoc team to evaluate the feasibility of such a crediting protocol, and directed the stormwater coordinator to create a team and a charge for the effort. The proposed team is provided below.

Outfall Stabilization Crediting Team; Revised 6/18/2018		
Name	Affiliation	E-mail Address
Ray Bahr	MDE	Rbahr@mde.state.md.us
Stephen Reiling	DOEE	Stephen.reiling@dc.gov
Tracey Harmon	VDOT	tracey.harmon@vdot.virginia.gov
Karen Coffman	MD SHA	KCoffman@sha.state.md.us
Ryan Cole	MD SHA	
Elizabeth Ottinger	US EPA Region 3	Ottinger.elizabeth@epa.gov
Carrie Traver	US EPA Region 3	Traver.carrie@epa.gov
Ted Brown	Biohabitats	Tbrown@biohabitats.com
Erik Michelsen	Anne Arundel County	pwmich20@aacounty.org
Neil Weinstein	LID Center	nweinstein@lidcenter.org
Kelly or Scott from McCormick Taylor as resource experts, possibly some VDOT consultant support, as well, Jeremy Hanson (VA Tech) and David Wood and Tom Schueler (CSN) will facilitate the team toward consensus. Jeff Sweeney, CBPO, will be consulted on an as-needed basis.		

It is anticipated that the team will have three or four calls over the next six months, and submit its recommendations to the USWG by the end of the 2018. At that point the USWG will consider these recommendations for approval and subsequent submittal to the Watershed Technical Workgroup and WQGIT for their respective consideration and approval. Under partnership timelines for WIP and milestones this means the outfall stabilization protocol, if approved, would be available for development of 2020-2021 milestones, but not for Phase 3 WIPs.

Charge for the Group:

The group is asked to review the MD SHA (2018) outfall crediting proposal to determine if it they can develop a consensus recommendation on whether it can be adapted to calculate sediment and nutrient reduction associated with this class of projects.

In particular, the team is asked to:

- Provide a very clear definition of the specific channel conditions that apply to the new protocol (i.e., zero order streams) and whether any of these channels are potentially jurisdictional and therefore subject to further environmental review and permitting

- Outline any other conditions that must be satisfied to receive credit, and justify whether the existing 100 foot minimum project reach condition used for the other protocols can be relaxed for this class of projects.

- Work with the CBPO modeling team to determine the appropriate land use in the Phase 6 model where the load reductions would be taken (e.g., upland turf grass, upland transport IC or streambed/banks).

- Address comments provided by DOEE (provided separately)

- Decide whether the prevented sediment calculations should be adjusted to (a) exclude coarse grained sediment particles that would not be delivered to the Bay or (b) exclude some fraction of the sediment mass in the post-construction channel cross-section that would not be eroded if the stabilization project were not built (c) or apply the same 50% efficiency rate utilized in Protocol 1.

- Determine whether soil samples need to be collected to define key parameters for the prevented sediment calculations, and if so, the specific methods for collecting and analyzing them

- Evaluate any unintended consequences associated with the practice, with an emphasis on the quality of downstream ecosystems, and issues regarding iron flocculation.

- Determine the extent to which functional uplift will be measured and achieved by the practice.

References:

MD State Highway Administration (SHA). 2018. Alternative Headwater Channel and Outfall Crediting Protocol. Maryland Dept of Transportation

Urban Stream Restoration Expert Panel (USR EP, 2013). Recommendations of the Expert Panel to Define Removal Rates for Individual Urban Stream Restoration Practices. Approved by the CBP WQGIT. March 2013.