

# Stream Restoration Forum

## The Practice, the Protocols and Their Verification

Joint meeting of the  
Stream Health and Urban Stormwater Work Groups

*Monday, June 4, 2018*  
*Annapolis, MD*

### *Meeting Summary*

#### **Session 1:**

#### **Panel: Technical Issues with Crediting Protocols**

*Moderator:* Tom Schueler, CSN

*Panelists:* Joe Berg, Biohabitats; Jeff White, MDE; Jim Morris, JMT; Doug Beisch, Stantec; Liam O'Meara, EQR; and Scott Lowe, McCormick Taylor

#### Summary of Key Points:

##### Protocol 1 Issues:

- While the Expert Panel report emphasizes the need to document functional uplift and improved ecosystem services, there has not been enough enforcement of the qualifying conditions to prevent implementation of bank armoring projects
- Bank armoring projects are, in part, encouraged by default sediment reductions based upon linear feet restored. There should be more focus on reducing stream energy and improving floodplain reconnection by redefining thresholds
- More guidance is needed to define bank armoring and other metrics numerically, or at least more precisely, to help improve project review and acceptance
- There is a need for more long-term verification guidance
- Clarification/standardization is needed on the use of defaults, including bulk density, bank erosion curves, etc.

##### Protocol 2 and 3 Issues:

- Consider adding wetland function and value to the credit earned in Protocol 3.
- Improve documentation of crediting options for legacy sediment removal projects
- Crediting mechanisms should consider a project's position in the landscape more than they do. Where the inputs and storage areas are should impact management decisions and crediting.
- Protocol 3 provides little credit compared to Protocol 1, and is difficult to calculate, providing a barrier to those who wish to implement better floodplain reconnection projects.

**ACTION:** Two teams will be established. The first will look at Protocol 1, and the second will focus on Protocols 2 and 3. Volunteers will contact Tom Schueler ([watershedguy@hotmail.com](mailto:watershedguy@hotmail.com)) and work over the next few months to develop recommendations that will provide guidance on better application of the protocols.

Session 2:

**Panel : Post-Permit Project Inspection/Verification**

*Moderator:* David Wood, CSN

*Panelists:* Tom Schueler, CSN; Tim Schueler, Hazen and Sawyer; and Kathy Hoverman, KCI

Summary of Key Points

- Tom and Tim have drafted a proposed approach to simplifying long-term inspection and verification of stream restoration projects past the end of their permit.
- The general approach was supported, but there was agreement that a lot of work and care would be needed in refining the methodology
- The verification process should be as simple as possible, but well-defined to minimize variability in interpretation by inspectors
- Project “success and failure” should be determined by how well the stream restoration achieves the goals of functional improvement and ecosystem uplift, rather than long-term adherence to the original design. This includes methods that are mindful of channel evolution, and whether changes are trending towards degradation or stability.
- There will be a need for project owners to balance when to fix a project, and when it is more cost effective to simply abandon it and restore a new site.

**ACTION:** Tom and Tim Schueler will revise the memo and distribute it to interested parties for review and feedback in the coming weeks.

**ACTION:** A team will be established to refine the proposed verification methodology. Volunteers interested in serving on the team should email Tom Schueler ([watershedguy@hotmail.com](mailto:watershedguy@hotmail.com))

Session 3:

**Panel: Key Permitting Issues**

*Moderator:* Josh Burch, DOEE and Matt Meyers, Fairfax County

*Panelists:* Nick Ozburn US ACE; Eric Michelsen, Anne Arundel County

Summary of Key Points:

- Improvements have been made to help simplify and streamline the permitting process for stream restoration projects. This includes the establishment of a

Chesapeake Bay TMDL regional general permit, and improving communication with applicants prior to project submission.

- The increase in pooled monitoring activity has been helpful for some localities in supporting project site selection and design justification.
- Quarterly meetings between MDE/US ACE and potential permit applicants have been helpful because they provide a venue for applicants to lay out design constraints and describe the project benefits. The meetings also provide a venue for applicants and project managers to build relationships with regulatory staff earlier in the process.
- There are still some regulatory disincentives to do projects that involve Protocols 2 and 3, and it can be a struggle to demonstrate the nuances between development impacts and restoration impacts.

**ACTION:** The Stream Health Workgroup (SHWG) will be distributing a survey in the coming weeks. Please complete the survey to help characterize your challenges and successes and help prioritize future needs and support.

Session 4:

**Panel: Integrating Functional Uplift in TMDL Projects**

*Moderator:* Neely Law, CWP

*Panelists:* Rich Starr, EPRUSA; Joe Berg, Biohabitats; Chris Ruck, Fairfax County; Matt Meyers, Fairfax County

Summary of Key Points:

- It is really important to get more than 1 year of pre-project monitoring data to help capture baseline IBI and inter-annual variability
- The SHWG workplan has an emphasis on functional uplift and it ties in nicely with the verification panel earlier. We want to link monitoring effort to changes in processes and function. Verification efforts should also be linked to functional uplift assessment.
- Fairfax County has developed a stream asset management scorecard to help define when to put in a work order or when to do a whole new capital improvement project. They will share it with the group in order to help with the verification effort.
- Some thought should be placed towards how frequently floodplain reconnection should occur. Often, the design is for once every 1.5 years, but it may be best for it to be more frequent.