



## Urban Stormwater Workgroup Meeting

**Tuesday, April 17, 2018**

**10:00 AM to 12:00 PM**

**Meeting Materials:** [Link](#)

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### Summary of Actions and Decisions:

**ACTION:** The USWG will work with the CAST team to add an interim disclaimer to the shoreline management BMP definition explaining the change in nutrient crediting. The revised nutrient credits for shoreline management will be included in a revision to the expert panel recommendations for publication later in 2018. The shoreline management BMP Expert Panel report and recommendations are available on the April USWG [calendar page](#).

**ACTION:** The USWG jurisdictional representatives will contact Norm Goulet ([ngoulet@novaregion.org](mailto:ngoulet@novaregion.org)), Tom Schueler ([watershedguy@hotmail.com](mailto:watershedguy@hotmail.com)), David Wood ([wood.csn@gmail.com](mailto:wood.csn@gmail.com)) and Michelle Williams ([williams.michelle@epa.gov](mailto:williams.michelle@epa.gov)) by **COB Tuesday, May 1** with comments on paths forward for including outfall restoration crediting as a Bay Program Partnership-approved BMP. Options include establishment of a full expert panel for a separate BMP, establishing an ad-hoc group to add an additional protocol to the Stream Restoration BMP Expert Panel Report, or using the existing Stream Restoration Protocol 1 for the proposed outfall crediting protocol. The USWG will hold further discussion and approve a path forward for recommendation to the WQGIT at the May 15 USWG conference call.

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### **10:00 Welcome and Review of March Meeting Minutes.**

Norm Goulet, Chair. Attach A.

### **10:05 Announcements**

- Upcoming CSN Webcasts (Wood)—Available on the CSN website. There is one coming up on pond management on May 11, and is open for registration.
  - Webcast on CAST training has also been done and the guide will be presented today.
- Non-Regulated Stormwater Update (Schueler)—The memo has been redrafted following meetings with individual states. Tom and David are scheduled to present to WQGIT on June 11.
- Conservation Landscape Update (Schueler)—no updates yet. Discussions with VA are ongoing.
  - Norm Goulet: There was general agreement with the idea, but acknowledgement that there will be a number of challenges for this. We will decide how best to move forward in talks with VA.
- Other Announcements:

- Workshop on Biochar will be August 23 in Wilmington DE.
- Welcome to Michelle Williams, CRC—also staffs WQGIT, WWTWG and other WQGIT workgroups.
- Lew Linker: Session proposals are open for the Chesapeake Research and Modeling Symposium.

**10:15 Shoreline Restoration Nutrient Credit** (Lewis Linker, EPA and Bill Stack, CWP)  
Attach B.

Lewis and Bill discussed the updated nutrient reduction recommendations for the shoreline management BMP. Bill Stack gave an overview of the history of the shoreline management expert panel process and protocols recommended. Baltimore county determined reduction rates for their shoreline sediment reductions. The WTWG investigated the relationships between these shoreline nutrients and algal blooms in the Bay and determined that the nutrient credits for shoreline management should be revised.

*Discussion:*

- Stack: We have some loose ends to tie up for this protocol now that the nutrient bioavailability question has been investigated. We need to make sure this report reflects the study done by the Modeling Team and represents the most recent science.
- Schueler: As a point of order, last summer, these recommendations were approved by the WQGIT and WTWG, so we are just cleaning up these credits and not re-drafting the report.
- Linker: We have found that these shoreline nutrients are mostly inert but can provide some value in shoreline management practices. The executive summary and technical appendix C have been updated based on our findings.
  - Schueler: The right numbers are now in CAST, and CSN is willing to help clean up the report and get the correct version up on our website in early summer.
- Norm Goulet: We may want to have a disclaimer in the descriptions on CAST that the nutrient credits in the report do not reflect the current values in CAST. We want to make sure that disclaimer is available for anyone who has questions before the report is made available at the end of this year.
  - Schueler: We may also want to note that this report was amended in summer 2017 to the updated values.
- Linker: It's an overall good report, it just needs an update to the nutrient credits, which was information we did not have at the time the report was drafted.
- Tom Schueler asked about the impact of sea level rise on the shoreline practices for living shoreline. Is that accounted for in design of these practices, or are these threatened under sea level rise conditions?
  - Lew Linker: Part of the design of living shoreline practices involve stabilizing the shoreline in place so that there is no longer shoreline recession at that site. There might be some questions to ask about in whether natural sediment accretion can keep up with sea level rise, but we hope that with proper maintenance we will be able to keep these practices performing in conditions of rising sea levels.

**Action:** The USWG will work with the CAST team to add an interim disclaimer to the shoreline management BMP definition explaining the change in nutrient crediting. The revised nutrient credits for shoreline management will be included in a revision to the expert panel recommendations for publication later in 2018.

**10:45 Outfall Restoration Credit Proposal** (Ray Bahr, MDE and Karen Coffman, Kelly Lennon, and Scott Lowe for MDOT SHA) Attach C1 protocol, C2 presentation.

Ray and Karen, Kelly and Scott discussed a new, proposed protocol for determining pollutant load reductions for headwater channels and outfall restoration projects. The protocol has been conditionally approved by the Maryland Department of the Environment (MDE) for MDOT SHA MS4 permit impervious restoration and Bay pollutant load reductions. The USWG was asked to weigh in on next steps for the proposal.

*Discussion:*

- Ray Bahr discussed the conditionally approved protocol for outfall crediting, including what structures and practices should be credited. These practices can be conceptualized as something between upland practices and stream restoration practices. It is also somewhat similar to shoreline stabilization where you are preventing further erosion of sediment.
- Bahr: We would like to know if we can fit this in with existing stream restoration BMP protocols or whether we should consider a full BMP expert panel for this as a new practice.
- Kelly went over drivers of development of the outfall restoration crediting protocol, analysis and example case studies around MD. Scott summarized the crediting analysis and methods. Several case studies were done, including along 210, I-270 and I-97.
- Tom Schueler asked for clarification on the sources of calculated credits in these practices.
  - Lennon: We are taking credit for the sediment loss prevented overall. It's just the amount of further sediment loss that we are preventing, we are not recapturing sediment that's already been lost.
  - Karen Coffman: We are keeping the sediment in the ground with the structural fix and that's what we calculate in the design process.
- Scott: We are wondering if there is potential for this practice to be integrated with stream restoration BMP protocols or other BMPs that can be included in the watershed model. And we are wondering how this relates to the stream restoration protocol since we derive a lot of our methods from that practice. We are also looking at downstream impacts of these outfall restorations.
- Goulet: Tom and I met with SHA last week, and we handled my questions then.
- Schueler: This is a lot of information and we are not asking for a decision today, but we would like a sense of what you think about the consistency of this approach with stream restoration, or whether you think this is a different enough practice to consider expert panel formation for a new practice.

- Chris Thompson, VDOT: We have a similar challenge in that we don't have a perfect fit for these kinds of practices in the model. This is similar to protocol 1 for stream restoration and that's what we use when we put scenarios into CAST. This might be good as a separate practice for planning purposes—infrastructure protection and TMDL crediting would then be additional incentives to implement these practices. We are still reviewing the computations—VA has similar practices but they typically stop around step 9. Our review so far is favorable however. We think they give an idea of what the true crediting might be. Our biggest decision is whether to let maintenance teams do regular rehabilitation work or do we address this as an extra step towards restoration and enhancement? If this existed as a practice, we would use outfall crediting more than we do now. We would like to get this in with an existing practice, perhaps as a new protocol for stream restoration, rather than start a new panel for timing and expediency.
- Goulet: Yes, that's the question in front of us. Personally, reviewing the information so far, I am leaning towards a new expert panel, but hopefully it won't be as onerous as other panels have been in the past.
- Norm Goulet asked if SHA has requested any interim credits for TMDL implementation in the model.
  - Ray Bahr: We have some flexibility in that we have some independence in MD for our MS4s. We do find that this protocol deserves credit under MS4s. We have not approached the Bay Program yet, but Scott and Kelly have touched on how we can use existing Bay Program stream restoration protocols to estimate those credits, and I'm sure SHA's Bay implementation plans use those to calculate credits. Where the reductions are shown to be greater than the current BMPs, those are where we might consider adding a new BMP, and that has to do with our impervious surface calculations.
- Goulet: We have had issues with the capping aspect before where sediment crediting threw off the model estimates. That's something that we would have to work closely with the Modeling Workgroup on.
- Olivia Devereux: For planning purposes you would need some kind of default loading to use as an estimate.
  - Lennon: We looked at a variety of sites, but if we were to use straight averages I might go with the estimates used in stream restoration protocols. It won't be exactly the same, but it would be close enough.
- Devereux: You would also need to consider the stream restoration aspect—stream restoration credits are applied to stream loads, and these aren't exactly streams. You'd be applying the sediment reduction to the stream load.
  - Goulet: That's one of the reasons it interferes with the model, because outfalls aren't represented as a load source in the model.
  - Schueler: It's a curious regulatory zone as well.
- Tom Schueler suggested reaching out to the Stream Health workgroup for advice as well. Tom indicated he was comfortable with either approach—it would be up to the workgroup to provide that feedback.
- Jeremy Hanson: VT has resources to do a few more panels, but looking at what has already been done, I wonder what the value added would be of another panel if it seems like we already have this information available from previous work. If the

question is on the modeling and Partnership side, we can work with the Modeling team and CAST team on this.

- Devereux: This data is only based on MD data as well. More work would need to be done to get credits across the watershed if this were to be included in CAST as a separate practice.
- Goulet: This is in a grey area, so we are wondering how to go about this in an institutional way. Normally this would be work that Tom takes on, but Tom does not have the capacity and this is in a grey area. If we decide to go with a panel, then we have a formal process and a group who can work on this.
- Hanson: The AgWG sometimes forms ad-hoc expert panel establishment groups (EPEGs), which are smaller and determine whether an expert panel is needed for a particular practice. For instance, they did that for ag stormwater but there are differences between those circumstances and this one. There are strong similarities between stream restoration protocol 1 and this practice, so there may be good justification to do an EPEG as an ad-hoc measure.
- Goulet: I need to hear from the voting members what their position is on this issue. In the meantime I will discuss offline with WQGIT leadership. We will decide at the next meeting where we go with this. Jurisdictional representatives to the USWG, please send me your comments on what direction you'd like to see this go.
  - Randy Greer: I am leaning towards fitting this under the stream restoration BMP protocols. It seems like these would be a good fit at first glance.
  - Goulet: The outfall crediting report and presentation are available on today's [calendar page](#), and I would encourage the workgroup members review the stream restoration BMP expert panel report, available on the [CSN website](#). One option could be to add a protocol 4 to the stream restoration BMP and form an ad-hoc group to investigate that. We will come back to this at the May meeting for a decision.

**Action:** The USWG jurisdictional representatives will contact Norm Goulet ([ngoulet@novaregion.org](mailto:ngoulet@novaregion.org)), Tom Schueler ([watershedguy@hotmail.com](mailto:watershedguy@hotmail.com)), David Wood ([wood.csn@gmail.com](mailto:wood.csn@gmail.com)) and Michelle Williams ([williams.michelle@epa.gov](mailto:williams.michelle@epa.gov)) by **COB Tuesday, May 1** with comments on paths forward for including outfall restoration crediting as a Bay Program Partnership-approved BMP. Options include establishment of a full expert panel for a separate BMP, establishing an ad-hoc group to add an additional protocol to the Stream Restoration BMP Expert Panel Report, or using the existing Stream Restoration Protocol 1 for the proposed outfall crediting protocol. The USWG will hold further discussion and approve a path forward for recommendation to the WQGIT at the May 15 USWG conference call.

**11:45 2017 Progress** (Jeff Sweeney, EPA). Attachment D: 2017 progress presentation.

Jeff provided an overview of the 2017 Progress results.

*Discussion:*

- Karl Berger: Is this based on final 2017 Progress or is that scenario still subject to modification? Are the progress runs considered final in CAST yet?
  - Devereux: Progress is not yet final. These are draft progress results.
  - Devereux: This is draft for the Phase 6 Model in CAST.
- Jeff Sweeney: Some of the states have submitted final data, and some states are still working on changes to their progress submissions. EPA has finished their review of the submitted progress, the states will have a chance to comment on the EPA review, and then the results will be made public. The PSC will have a meeting in June where this final progress and 2025 planning targets will be finalized. The Phase 6 model is not being used to evaluate the 60% progress goal, that is what we are using Phase 5.3.2 for. Phase 6 is what we are moving to finish out to 2025 and the two-year milestones.
- Norm Goulet: We need to have good communications for this information. In the urban sector, we can meet P and sediment reduction needs although it is a challenge, but N reductions can't be met since we are up against chemistry here—urban practices don't hold N long enough for denitrification to happen in achieving those needed reductions in N.
- Schueler: This does show the progress being made. The P and sediment story is good, but the N removal is not as much as we would like in the urban sector. We need to find new ways to reduce N in the landscape.
- Goulet: We also need to look at the mix of BMPs chosen in the Phase II WIPs and what we committed to do. The Phase III WIPs will have to have a different mix.
- Sweeney: To get the reductions needed on urban sectors, it needs management on new development, but also significant retrofits of existing developments. And those are costly to implement.
  - Goulet: What we need to do is retrofits—that will be required to get to our needed reductions by 2025.

**12:10 CAST How-To Guide for Local Governments** (David Wood, CSN) Attach E. CAST How to Guide

David introduced a new “How-To” guide, focused on helping local governments answer scoping questions about their communities and develop pollutant reduction plans using CAST.

*Discussion:*

- David Wood: This how-to guide was presented at a recent CSN webinar, and both the webinar and guide are available on [CAST](#). It will be available this week on CSN's website as well. It goes step by step and includes going from exploratory scoping questions to application of those scoping questions in development of scenarios and plans in CAST.

**12:20 Joint Meeting with Stream Health Workgroup** (Norm Goulet, Chair) Attach F: Stream Health Joint Meeting Draft Agenda

Norm will discuss the proposed agenda for a joint meeting between the USWG and Stream Health Workgroup scheduled for June 4, 2018.

*Discussion:*

- Goulet: There was some interest in doing a joint meeting for the Stream Health Workgroup and the USWG. We are planning for Monday, June 4 for this meeting. This draft agenda is also posted on today's meeting page for review.
- Schueler: The USWG will do the items before lunch, and Stream Health will do the items after lunch. Tim and Tom Schueler will co-present at this meeting.

**12:30 Adjourned**

**Attachments.**

- Attach A. March Meeting Minutes
- Attach B. Shoreline Restoration BMP Expert Panel Report
- Attach C. Alternative Headwater Channel and Outfall Crediting Protocol
- Attach D. 2017 Progress Presentation
- Attach E. CAST How-To Guide for Local Governments
- Attach F. Draft Agenda for Joint SHWG/USWG Meeting

Call Participants:

Norm Goulet, NoVA Regional Commission

Tom Schueler, CSN

David Wood, CSN

Michelle Williams, CRC

Lew Linker, EPA CBPO

Karen Coffman, MDOT SHA

Scott Lowe, McCormick

Kelly Lennon, MDOT SHA

Christina Reilly, MD

Ray Bahr, MDE

Bill Stack, CWP

Chad Thompson, WV DEP

Jeff White, MDE

Ginny Sneed, Alliance for the Bay

Nathan Faran, Baltimore County

Jesse Maines, Alexandria

Julienne Bautista, DOEE

Kate Bennett, Montgomery County MD

Lisa Oschenshirt, VAMSA/MAMSA

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Ruth Minich-Hobson, VA DEQ  
Medessa Burian, UMD  
Karen Ogle, Baltimore County  
Sadie Drescher, Chesapeake Bay Trust  
Tracy Harmon, VDOT  
Chris Swanson, VDOT