Urban Stormwater Workgroup Meeting Summary

Tuesday, September 18, 2018
10:00 AM to 12:00 PM

Meeting Materials: [Link](#)

Summary of Actions and Decisions:

Action: EPA Region III USWG members will discuss partnering with DC DOEE on local stream restoration monitoring.

10:00   Welcome and Review of June Meeting Minutes.
           Norm Goulet, Chair. Attach A.

Decision: The USWG approved the June Meeting Minutes

10:05   Announcements

➢ Mid-Point Assessment and Final WIP Loads. (Wood)
   o The stormwater sector is seeing progress in fertilizer bans, but loads are increasing in urban sectors with population growth. Stormwater practices might need re-evaluation for Phase III and the new load targets. Practices could expand to target non-regulated stormwater by including voluntary programs or expanded regulatory authority.
   o Final planning targets are available here: https://www.chesapeakebay.net/what/publications/phase_iii_wip_planning_targets
   o Norm Goulet discussed an updated analysis of stormwater regulated area in the watershed: 67% of the urban land in the watershed is un-regulated. 60% of the N load is coming from un-regulated land. Actual acres of regulated land have not changed since 2009. Unregulated land is most in flux from undeveloped to developed land. PA, VA have the highest acreage, and DC has the least amount.
      ▪ Jamie Robb: Is that 60% not part of an MS4 area? Is there no stormwater regulation at all in those areas?
      ▪ Norm Goulet: It is non-MS4 land. All urban land in the Bay is semi-regulated through new construction regulations. But there is little regulation after construction is completed. Though there may be post-construction maintenance agreements, those agreements are not routinely enforced.
➢ CBP BMP Reference Guide Now Available! (Hanson, Attach B)
   o A one-stop shop that puts important information all in one place for BMPs in Phase 6. Includes priority urban practices and agriculture practices, although there are still some practices yet to be added. The agriculture sector and forestry sector have found this useful. CSN also has resources on urban BMPs that may be more useful for practitioners, but this may be useful for WIPs and communications purposes.
   o Tom Schueler likes the high-level overview of ag practices that are not necessarily in urban sectors but still useful to know about in Bay Program work.

- o Available [here](#) and on today's calendar page.
  - o Credit also to Matt Johnston, Olivia Devereux in assistance and guidance in developing guides.
- ➢ Upcoming CSN Webcasts this Fall (Wood)
  - o Includes archive from citizen stewardship.
  - o Upcoming webcasts in bacteria management, and roadside ditch management.
  - o Launching new newsletter (MS4 monthly).
- ➢ MTD Project Update (Goulet)
  - o Still trying to schedule a conference call, want to get CBTAP done by end of the year. Will be circulated to USWG as a working product for review.
- ➢ Stream Restoration Proposal for WQGIT funding (Goulet)
  - o Originally 3 proposals, no vote within WQGIT. Will be voted on in full review Sept 20.
  - o Now a 4th proposal from Forestry Workgroup, also transmitted for full voting.
- ➢ 8/31 PA BMP Verification Meeting (PA DEP)
  - o Ted Tesler re-emphasized verification needs for co-development with Phase III WIPs, and outcomes from verification meeting.
- ➢ Roadside Ditch Management Guidance Update (Wood)
  - o Design guidance almost ready for review on Ditch stabilization and ditch elimination.
  - o Want to wrap up project by end of calendar year.
- ➢ Conservation Landscape Credit Update (Attach C1/C2)
  - o Approved by WTWG and WQGIT. WTWG recommended that credits be reduced by 50% for N and P. This practice is now available for use in WIP development.
- ➢ Matt Johnston: stream restoration calculator
  - o Will likely be used in PA for stream restoration credit calculations. Hoping to expand across the watershed, and looking for input on streamlining this process further in implementation and reporting.
  - o This is already in the protocol, just making it easier to develop calculations using the protocol.
  - o Ted Tesler is supportive of use and sharing of this restoration calculator.
- ➢ Karl Berger updated the USWG on the joint WWTWG and USWG briefing for October 2 WWTWG call.
  - o Discussing land use projections for 2025, including WIP II conditions, and projections on stormwater performance.
  - o Review of BMPs associated with growth between now and 2025 may be useful for informing future projections of land use, including septic and sewer.

10:30   Data and BMP Deadlines for Watershed Model Progress Runs (Wood) Attach D

Bay Managers have invoked a watershed model lockdown period on new BMPs and model inputs to ensure certainty and stability for the partners. David reviewed some of the key impacts of this policy decisions on the urban sector going forward.

Discussion:
- • April 30 2019—last date for new BMPs to be added to the Phase 6 model. Anything that we want to include must be submitted and approved by the WQGIT by April 30. After

that, the next opportunity for new BMPs will be in 2021. This memo is posted to the WQGIT page.
- June 1- September 2019: workgroup review of model changes.
- Matt Johnston: We will come to the USWG between June and September to discuss fertilizer sales and implications for updates to the Phase 6 model.
- Tom Schueler: This means no new BMPs between April 30 2019 and 2021. As long as there are no new classes of BMPs, could we submit additional sub-protocols?
    - Johnston: During the milestone periods, if we change BMPs, we will get concerns from state representatives about changing BMPs that have been in the model for 20 years.
    - Schueler: We need to understand, from the perspective of the BMP implementation, how that tracking will change in the model, and making sure that everything still makes sense with the managers. When we do update the model, we will not be expecting to dramatically increase our implementation.
    - Olivia Devereux: If you changed the meaning of a BMP, that would be incompatible with the model lockdown. You can submit an interim BMP in that period, however.
    - Schueler: Is there a place where we can get that guidance in writing?
    - Johnston: We need to look at this question as a Partnership, to understand what that means in terms of the lockdown.
    - Devereux: We can make changes to the model, but it was a Partnership decision to lock down the model. So we need to understand as a Partnership how to interpret that. This decision was made to ensure that the model would not be shifting during the planning process.
    - Schueler: There is the planning versus implementation issue. If we come out wiith new BMPs that would better allow us to meet our goals, if we have to wait for a couple of years to include those new practices in the model, that hinders our implementation ability. USWG primarily works on BMPs, so there is no point in us meeting every month if we are not developing new BMPs
    - Norm Goulet supports development of guidance or memo document that details available actions and limitations during the model lockdown period.

10:50   Work Group Update on Bacteria Management in Urban Watersheds
(Wood/Brown) Attach E).

A subgroup of the USWG has been working on a review of loading rates, source areas, and watershed management practices to control fecal indicator bacteria in impaired watersheds. David and Ted described some of the initial findings of the group. Bacteria management is a big challenge for local communities, and basis of local TMDLs. Charge of the bacteria management group is to re-visit the research out there to understand bacteria loads and analysis techniques to assist MS4 jurisdictions in analyzing and addressing bacteria pollution. Includes source analysis, land use loading rates, and BMP performance data. There has not been a good resource for managers and practitioners since the late 1990s, so the group compiled updated literature into useable information for managers and practitioners. Findings include:

➢ Source tracking: IDDE programs are effective, emerging science and PCR techniques that are less dependent on DNA source libraries. Developing new indicators for human sewage.
➢ Land use loading rates could be coupled with BMP removal efficiencies to mimic TMDL implementation structure. There are some land use predictors of bacteria loads (impervious cover, high sediment yielding land uses, low density residential areas—aging septic systems)
➢ BMP co-benefits: Performance research limited to just a few BMPs, although some removal mechanisms may translate but there is little research to base translations on. Research available on BMP removals include bioretention, LID practices, constructed wetlands, and stormwater ponds. Swales and dry ponds may be a source—highly variable removal efficiencies and are often negative. BMP practices also have highly variable conditions. Tree pits, buffers and filter strips may have some potential as well.
➢ There are variable methods used in these field studies, and bacteria removal efficiencies depend on environmental conditions and research methods

Discussion
- Schueler: It's hard to meet standards for removal, even though there may be some removal with those practices. That's the story with swales and dry ponds, and there are limited numbers of studies.
  o Wood: There also tends to be a lot of wildlife use of dry ponds and swales, which may contribute to difficulties measuring BMP efficiencies in bacteria reduction.
- Norm asked about influent vs effluent studies.
  o Wood: Most of the studies did that influent effluent concentrations, and if there were more bacteria in the effluent vs the influent, the BMP was considered a bacteria source. There was also not a lot of source tracking to determine where the bacteria have come from.
  o Schueler: That is a huge limitation since we don't know whether bacteria is coming from wildlife or human sources.
- Liz Ottinger: We got funding to do that study in DC with microbial source tracking. We may have results in two years, but that might be helpful in coming years to add to that knowledge base for managers and practitioners. These are in the MS4 areas in order to separate influences from CSO areas. That's in collaboration with ORD as well. We want to come out with an article and some trainings for EPA and local practitioners.
  o Tom Schueler asked to see the original proposal.
  o Liz agreed.
- Takeaways: CSN's perspective on what the literature review might imply:
  o Not a lot has changed in past 10 years with new studies.
  o More field-scale studies needed on BMP performance and range of BMPs.
  o We have better basic understanding of fecal indicator bacteria (FIB), but don't yet know how to better manage FIB. This basic understanding may help with source tracking and monitoring, and management can build off of monitoring findings.
  o Source tracking is still the best method of management, along with outreach and technical assistance for septic upgrades, pet waste management, etc; programmatic focuses are still the best management method to date.

- o May be helpful to showcase successful bacteria management programs for CSN communities.
  - o There is still a need to isolate key design factors that could improve BMP performance (hydraulic factors, media, vegetation, retention times, etc).
- Report will be circulated to USWG with literature list, webcast coming soon. www.Chesapeakestormwater.net/events All webcasts are recorded and added to CSN website archives.
- Schueler: We are also interested in work to look at trace metal removal rates and other contaminants that are focus of local TMDLs.

11:20 Update on Stream Restoration Crediting (Goulet and Schueler), Attach F/G).

Norm and Tom discussed the status of stream restoration issues since our two meetings in June of 2018. Key updates will be provided on:

- USWG Comments received on June EPA R3/MDDNR Research Presentations (Attach F)
- Three Step Procedure for Determining Load Reduction Discount (Wood)
- Verification Group: Next Steps in Selecting Visual Indicators for Stream Projects (G)
- Outfall Group: Next Steps for the Outfall Stabilization Work Group (G)
- Methods Group: Establishing Standards for Applying Protocol 1 (G)
- Floodplain Group: Clarifying Applications of Protocol 2 and 3 (G)

Discussion

- Tom reviewed the proposed membership lists for each stream restoration group.
  - o Group 1(Verifying Stream Restoration Practices): three membership slots remaining.
  - o Group 2 (Outfall Stabilization): Will plan to have initial recommendations from Outfall stabilization group by March 2019.
  - o Group 3 (Stream Restoration Protocol 1): stream restoration Protocol 1 for stream restoration will be reviewed and more guidance will be provided.
  - o Group 4 (Adjusting Protocol 2/3 for floodplain reconnection): Proposed membership list and charge still under development.
  - o Group 5 (Planning a Bay-Wide Stream restoration meeting): CBT grant proposal out. If awarded, meeting planning will go forward.
- Dianne McNally: EPA is interested in participating in groups 3, 4, and 5, given that there are membership size limitations. Can you elaborate on justification to limit size?
  - o Schueler: In general, the fewer members on panels, the quicker decisions can be reached. This is not policy or permitting or regulatory, just technical issues and guidance for practitioners.
- McNally: I also want to put out the request for interested partners to work with us on continuous monitoring
  - o Norm Goulet asked if there is a funding mechanism for this monitoring?
  - o McNally: We have funding for equipment and staff, and we are looking for a local partner.

- o   Cecilia Lane: DC would be happy to work with Region III on that monitoring.
- Ted Tesler: Is the Wetlands Workgroup going to be involved in groups 3 or 4? I think their technical expertise would be helpful.
  - o   Schueler: We want to involve the Stream Health Workgroup and wetlands workgroup. Wetlands does not meet very regularly, but we do want to involve habitat-focused partners.
  - o   Margot Cumming: Wetlands workgroup is on hiatus, but I am happy to pass on materials to the wetlands workgroup or provide any resources between this group and Wetlands and Habitat.
- Goulet: If you have comments on these charges, please send those to me. Technically Tom was involved in developing the grant proposal so there may be a conflict of interest.
- Schueler: There is a lot of good science to digest here, and we can work on reviewing these protocols that are consistent with the model and protect habitat.

Action: EPA Region III USWG members will discuss partnering with DC DOEE on local stream restoration monitoring.

12:00 Adjourned

Attachments.
- Attach A. June Meetings Minutes
- Attach B. BMP Reference Guide
- Attach C. CBP Approved Credit for Conservation Landscaping
- Attach D. BMP and Input Data Deadlines for Watershed Model Progress Runs
- Attach E: Draft report: FIB Management and Science Review
- Attach F. Consolidated Comments on June Research Presentations
- Attach G. Memo on Status of the Four Stream Groups

Call Participants:

Norm Goulet, NoVA Regional Commission
Tom Schueler, Chesapeake Stormwater Network
David Wood, Chesapeake Stormwater Network
Michelle Williams, CRC
Jeremy Hanson, VT
Matt Johnston, UMD
Randy Greer, DNREC
Elaine Webb, DNREC
Adrienne Kotula, CBC
Alana Hartman, WV DEP
Ari Engelberg, MDNR
Christina Lyerly, MDE
Jeff White, MDE

Kate Bennet, Montgomery County, MD
Cecilia Lane, DOEE
Jamie Robb, VA DEQ
Ruth Minich-Hobson, EPA Region III
Janis Markusic, Anne Arundel County WPRP
Douglas Griffith, Anne Arundel County WPRP
KC Filipino, HPRDC
Marty Hurd, Fairfax County
Michelle Price-Fay, EPA Region III
Rebecca Cope, EPA Region III
Karl Berger, MWCOG
Julienne Bautista, DC DOEE
Ginny Snead, AMT
Ted Brown, Biohabitats
Natalia Sanchez, EFC
Sebastian Donner, WV DEP
Chad Thompson, WV DEP
Ted Tesler, PA DEP
Olivia Devereux, Devereux Consulting
Lauren Townley, NYS DEC
Liz Ottinger, EPA Region III