

**Chesapeake Bay Program  
Urban/Suburban Stormwater Workgroup  
June 12th, 2012 Meeting**

**ACTION ITEMS & DECISIONS**

**DECISION:** The April 30<sup>th</sup> meeting minutes were approved.

**ACTION:** Members will review the members list and indicate official members of the USWG. Updates should be sent to [Molly Harrington](#).

**ACTION:** Gary Shenk will provide examples of how other sector BMPs are handling nitrate leaching issues and evaluations.

**ACTION:** Members will send written comments to [Molly Harrington](#) 1 week after receipt of Gary Shenk's information on methods used in other sectors.

**ACTION:** Members to send any revisions, recommendations, or additions on the Critical Stormwater Management Consideration document to [Lucinda Power](#).

**ACTION:** Members with specific BMP expertise/interest, please review Urban BMP Unit Costs spreadsheet and send comments to [Kevin DeBell](#).

**ACTION:** Kevin DeBell will send members an email detailing the requested review process regarding the Urban BMP Unit Cost Study

**ACTION:** Members to provide feedback on the Draft Decision Framework to [Lucinda Power](#), focusing on challenges/gaps present and methods to work through these.

**ACTION:** Members interested in further development of the USWG Decision Framework Document to contact [Lucinda Power](#).

**ACTION:** Molly Harrington will send the WG the WQGIT Draft Decision Framework and associated PowerPoint for reference.

**ACTION:** VA will send Tom Schueler nominations for VA Enhanced Erosion and Sediment Control panel member.

**ACTION:** USWG approves upcoming ESC and IDDE Expert Panel rosters pending addition from VA

**ACTION:** USWG agrees that next Expert Panel is on Street Sweeping (based on feedback from localities and states) and bump Disconnection Panel to 2013.

**MINUTES**

**Welcome, Updates, and Review of Meeting Minutes: Norm Goulet, Chair**

**DECISION:** The April 30<sup>th</sup> meeting minutes were approved.

- CBP BMP Verification Protocol updates: Norm and Tom will be attending a 6/19<sup>th</sup> meeting with the BMP Verification Committee, providing thoughts on USWG's position on BMP verification.
- Reminder to review [USWG membership list](#) on CBP website.

**ACTION:** Members will review the members list and indicate official members of the USWG. Updates should be sent to [Molly Harrington](#).

- Recap of 4<sup>th</sup> Annual Bay-Wide Stormwater Partners Retreat
  - This event helps the Chair to set the focus of USWG agenda highlights over the next few years and receive feedback on prior efforts.
  - Break-out session: Clean Streets, Green Streets
    - Feedback was provided on street sweeping BMP
    - Potential for developing/reconvening the Street Sweeping BMP panel to add a modification to credit bulk cleanout. Norm Goulet will present more information on this at the end of the call.

### WTWG Recommended Revisions on Expert Panel Reports: Tom Schueler

- See also memo: [Proposed Revisions to Urban BMP Expert Panel Reports](#).
- Watershed Technical WG endorsement of the expert panels' retrofit and state performance standards recommendations, pending modifications.
  - WTWG key revisions include making nitrate leaching from pervious land more consistent with the CBP models.
- Slide 3: Unit loading rates for total N by Bay State Chart
  - Historically, loading rate evaluated by lbs/ac/yr from impervious areas; however, model considers a fairly significant load from pervious surfaces as well.
    - Panel developed a removal rate applicable to both pervious and impervious areas. This removal rate was the basis of the WTWG's concerns.
- Slide 4: Conceptual graph created by Gary Shenk
  - Two land uses (impervious and pervious).
    - When a retrofit or new BMP has been installed, some proportion of the load is stored within the BMP or undergoes uptake by plants, soil; some denitrification occurs; some proportion infiltrates into groundwater (eventual opportunity to enter streams). In large event, retrofit or new BMP is overwhelmed and direct bypass into stream may occur.
    - WTWG focused on red boxes and developed modified recommendations focused on escaped N
      - Proportion leaving the retrofit/BMPs
      - Proportion never reaching the retrofit/BMPs due to infiltration in the DA prior to the BMP
- Slide 5: Shows new total N removal rate curve, which lowers the curve for runoff reduction practices by ~18% on average compared to original removal rate curve.
  - New curve reflect nitrate moving into groundwater.
- Slide 6: comparison of stream data for long-term ecological research sites in Baltimore, MD.
  - Provides empirical evidence of escaped N
- Slide 7: Correction equation showing N that never reached the retrofit/BMP
- Slide 11: Decreased N removal percentage for new retrofit facility
  - Inversely proportional – pervious cover: N removal rate.
  - Use of multiple BMPs (e.g. fertilizer management to reduce nitrate) will increase N removal rate.
  - Suspended sediment and P removal rates not affected.
- Reduced N rates also reflect many expert panelists' concerns that the N rates were too generous because of the use of the unitization equation.
- 2 other recommendations from the WTWG:
  - Redevelopment removal rate reporting units changed to impervious acres from pounds reduced
  - States provide generic retrofit and new BMP removal rate for use in CAST and MAST for the short term, and modelers have agreed to develop integration of these tools into the Model for the long-term approach.
- Slide 17 (BMP Restoration Credit):
  - Qualifying condition that the BMP must at least be restored to the original design/effectiveness of the era constructed.
- Majority of the expert panelists are generally accepting of the changes recommended by the WTWG.
  - These modifications are still under review
  - Next steps to be determined

*Discussion:*

- Norm Goulet- Split feelings on these recommendations. Concerned that this will be a big hit to the removal rates
  - Recommendations may be beyond the extent of current knowledge of the BMP.
- Ken Murin – Finds the WTWG recommendations problematic due to:
  - The orders of magnitude difference between tracking stormwater on the ground (site-by-site basis) and what the Model does. Concerned about accuracy.
  - Wrong message about encouraging BMP implementation and BMPs effects due to overly conservative numbers. Dilutes credits and message about stormwater BMPs.
  - Feels this approach is not consistent with work conducted in other sectors (e.g. other sectors' BMPs are not corrected to this extent in the Model).
- Stu Comstock – Feels these recommendations are a step in the right direction for N removal rates.
  - Similar approach to transport evaluations for loss from drain fields to edge of stream for septic systems.
  - Requests more time to review WTWG recommended modifications.
- Scott Crafton – Tom included a paragraph about the distinction between making this change to improve model results vs. downgrading new BMP specifications. But this distinction? is still not clear.
  - Significant investment in BMP specifications, both financially and in presenting to public.
    - Concern if performance of BMPs is lowered, this will send the wrong message to the public at a critical juncture of local implementation.
  - Feels that other sectors are not held to these standards of refinement.
  - Issues of states making investments, then BMP credits are decreased by EPA.
- Bill Stack – Studies indicate this issue of leakage, but question of where to make the adjustments remains. At or after the BMP level?
- Gary Shenk: Other sectors are also considering these changes in loading rates, as loading is not just from surface runoff, but total runoff including groundwater.
  - Certain amount enters the BMPs; ~30% leaves the BMP through normal flow out of BMP.
    - ~50% of pervious load never reaches the BMP; therefore, shouldn't be reduced by the BMP
    - If specifically designing BMPs to put more water into the ground, it will have some [N].
  - Important to understand that Model is predicting the total load coming off a land use, and these BMPs are only treating a certain amount of that load.
    - For accurate accounting, certain assumptions must be made to avoid biased high estimates.
  - Open to other suggestions, but must conceptually account for the other streams of loading.
- Ken Murin – Feels that other sectors may be looking at this, but not at the same level proposed here.
  - Concerned about adding an additional layer of conservative values.
  - This will decrease interest in stormwater BMP implementation.
  - Doesn't want the Model driving bad decisions.
- Norm Goulet – Agreement on non-Nitrate issues?
  - Ken Murin – Not prepared to vote on other recommendations at this time.

**ACTION:** Gary Shenk will provide examples of how other sector BMPs are handling nitrate leaching issues and evaluations.

**ACTION:** Members will send written comments to [Molly Harrington](#) 1 week after receipt of Gary Shenk's information on methods used in other sectors.

- Compiled comments will be reviewed again by the WTWG; options will be developed and presented for the WQGIT's final vote.

#### **Stormwater Targeting in EPA Chesapeake Bay Watershed Grants: Lucinda Power**

- See [Critical Stormwater Management Considerations](#) document
- EPA provides two types of non-competitive grants to Bay jurisdictions under sec. 117 of CWA, totaling \$20 M/yr
  - Chesapeake Bay Implementation Grants (CBIGs)
    - Funds implementation of projects related to the Chesapeake Bay Agreement among EPA and the states
  - Chesapeake Bay Regulatory and Accountability Program Grants (CBRAPs)
    - WIP development
    - Enhancement of regulatory programs
- To comply with Executive Order commitments, EPA is working towards better targeting these grants to focus on WIP implementation, priority practices effective in reducing loads to the Bay, and/or priority watersheds where activities will have greatest impact.
- Critical Stormwater Management Considerations document reflects initial discussions only, and is not inclusive of all existing priority practices (e.g. practices recently reviewed by expert panels like stream restoration, urban fertilizer management and street sweeping).
  - Reflects recommended priority practices to be included in 2013 grant guidance, not required practices.
  - Document will be revised over the next month.
  - What other priority practice would members like to see included in grant guidance?
  - Agriculture practices and agriculture priority watersheds have been identified. What would USWG members consider as urban priority watersheds, if any?

**ACTION:** Members to send any revisions, additions, or comments on the Critical Stormwater Management Consideration document to Lucinda Power.

#### **Update on EPA Stormwater Unit Cost Study: Kevin DeBell**

- See spreadsheet [Urban BMP Unit Costs](#).
- Leading a study of the costs of implementing the TMDL, alongside a study of TMDL benefits conducted by the EPA Office of Policy, National Center for Environmental Economics.
- Study will be delivered to DA Perciasepe by end of 2012, then will be reviewed by Congress.
- Examined WIPs: consider cost of practices and geographic scope to evaluate per unit cost
  - $\text{Cost} * \text{\#acres of BMP implementation} = \text{per unit cost}$ .
  - \$/ac/yr. Provides annualized cost associated with WIP implementation.
- Study does not aim to develop more cost-effective mix of BMPs, but evaluating those identified in the WIPs.
- Urban stormwater sector is challenging to determine costs
  - Up to this point, worked with updated 2010 numbers from CWP data, land costs, and data from MDE (Dennis King).
- Want to ensure specificity and accuracy of data through review by WG members.
  - Seeking review of data, evaluations, and alternative methods of calculation.
- Watershed information on spreadsheet not as informative as individual worksheets, unless state specific costs were not available.
- Individual worksheet on each type of BMP

**ACTION:** Members with specific BMP expertise/interest, please review Urban BMP Unit Costs spreadsheet and send comments to [Kevin DeBell](#) by 7/15/12.

#### *Discussion:*

- Ginny Snead – Who received this sector information when it was sent out?

- Kevin DeBell – The information was sent in November to individual contacts; this spreadsheet was also sent to state representatives at the Management Board level.
  - Norm Goulet – Suggests sending the WG an email describing the review request and process.
- ACTION:** Kevin DeBell will send members an email detailing the requested review process regarding the Urban BMP Unit Cost Study.
- Tom Schueler – Strong WG interest in the benefits side of the study.
    - Kevin DeBell – Group from Center on Environmental Economics working closely with the cost analysis study to maintain consistent methods and plan to present both sets of findings in one report.
      - Benefits evaluated include: benefits transfer, revealed benefits, and stated preference (e.g. level of willingness to pay for a clear Bay)
      - David Simpson (leading the Benefits Study) will be happy to give an update on a later call, possibly 8/14 call.
    - Norm Goulet – As unit costs increase, the benefits of practices becomes increasingly important.
      - Concern that there will not be enough review by the WGs prior to release of the Study.
      - Kevin DeBell – Although no well-defined process of moving the report to Congress exists, he will raise the issue of external review.

**Draft Urban Workgroup Decision Framework Outline: Lucinda Power**

- See [USWG Draft Decision Framework](#)
- Document provides an outline for applying the Decision Framework to USWG activities.
  - Purpose: to develop a useful document that acts as a workplan, increasing the effectiveness of decision-making and decreasing uncertainties.

**ACTION:** Members to provide feedback on the Draft Decision Framework to [Lucinda Power](#), focusing on challenges/gaps present and methods to work through these.

**ACTION:** Members interested in further development of the USWG Decision Framework Document to contact [Lucinda Power](#).

- Tom Schueler – Will participate in the formulation of the USWG Decision Framework.

**ACTION:** Molly Harrington will send the WG the WQGIT Draft Decision Framework and associated PowerPoint for reference.

**Update on Proposal for Land Use Workgroup: Norm Goulet**

- During the 6/11 WQGIT conference call, proposed the formation of a Land Use WG
- Larry Merrill (Chair of WQGIT) agrees generally with the concept, but staffing/administrative/oversight concerns remain.
- Norm Goulet is working with Larry Merrill to develop a formal proposal, which Norm will present at the next WQGIT call on 7/16.

**Discussion Item: Re-convening the Street Sweeping Panel: Norm Goulet**

- Suggests review of Street Sweeping Panel recommendation of qualifying condition of 26 captures/yr.
  - Received a great deal of feedback on this issue at the Bay-Wide Stormwater Partners Retreat, iterating that this is very difficult to meet qualifying conditions.
- Formulated concept of reconvening Street Sweeping Panel to add an additional BMP.
  - Additional BMP: Bulk removal credit.
    - Credit receivable by any jurisdiction for bulk removal processes, including catch basin clean-outs, street sweeping practices that don't meet the qualifying criteria.
    - Incentive based BMP: Part of the requirement would include the jurisdiction completing a nutrient and sediment analysis on the material every time.

- Incentive-based because dependant on analysis completion.
    - From nutrient and sediment analysis, a database would be established to expand analysis of street sweeping outside the 26 captures/yr.
- Norm Goulet will write a formal proposal for the expert panel, but would like to hear feedback on the idea today, especially regarding the incentive-based aspect.
- CBP accountability protocol necessitates this proposed analysis to determine credit and also to populate database, increase scientific knowledge, and eventually end the need for the analysis on bulk removals.
- Ginny Snead – Welcomes idea based on feedback from localities.
  - Possible decrease amount of future analysis (set time limit) to increase the incentive for the practice.
  - Norm Goulet – Language could possibly include: once variability decreases, analysis frequency will decrease. However, unable to determine a timeline now.
  - Tom Schueler – This would fall under the purview of the expert panel.
- Tom Schueler – If WG does vote to reconvene Street Sweeping Panel, other panels (Impervious Cover Disconnection) would need to be postponed.
  - Norm Goulet – Feels the Street Sweeping Panel would take precedence due to jurisdictional concerns and existing programs.
- Steve Stewart – Fairly significant variability exists naturally. Possibly, analysis could be examined regionally and determine a median number?
  - Norm Goulet – Expert panel to determine reporting requirements, WG to approve.
- Bill Stack – Will this include leaf collection?
  - Norm Goulet – Believes that it is a separate issue.
- Norm Goulet – Suggests the panel to reconvene after the Illicit Discharge and Erosion and Sediment Control Panels, sometime in the fall.

**Update on Other Expert Panels: Tom Schueler**

- Stream Restoration Panel: consensus to move forward with draft recommendation document. Will need a few more meetings to reach a final draft.
- Urban Fertilizer Management Panel: consensus has not been reached, especially on the issue of P ban. Next meeting on 6/15.
- Illicit Discharge Panel: panel membership is now full. Panel will begin in July.
- Enhanced Erosion and Sediment Control Panel: panel membership almost full:
  - Membership missing a MD representative, VA representative, and local government representative.

**ACTION:** VA will send Tom Schueler nominations for an Enhanced Erosion and Sediment Control panel member.

- Floating Wetlands and Algal Harvesting Workshop:
  - Workshop planned for July 25<sup>th</sup> at CBPO in the Fish Shack from 10 am – 3pm.
  - Due to limited space, planned as a teleconference.
  - Top researchers to discuss latest technologies and nutrient reductions.

**ACTION:** USWG approves upcoming ESC and IDDE Expert Panel rosters pending addition from VA

**ACTION:** USWG agrees that next Expert Panel is on Street Sweeping (based on feedback from localities and states) and bump Disconnection Panel to 2013.

**NEXT MEETING: August 14<sup>th</sup>, 2012 Conference Call**

## Participants

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