



Chesapeake Bay Program
A Watershed Partnership

Urban Stormwater Workgroup Meeting Tuesday, October 20, 2015 10:00 AM to 3:00 PM

Minutes

Summary of Action and Decision Items

DECISION: The USWG approved the September meeting minutes.

ACTION: The USWG Governance document will be revised to explicitly state the role of the advisory committees as interested parties.

ACTION: David will put out a call to signatory members to confirm or change their primary and alternative USWG representatives.

ACTION: Marcus will send a link to Opti's library of resources to the USWG. The USWG will discuss how to address smart-BMP enhancements during their November meeting.

ACTION: Tom will share the spreadsheet of the WinSLAMM model run results with Greg Busch.

ACTION: The panel will provide an expanded explanation in the report of why credit will only be available for streets that possess curbs and gutters.

ACTION: The panel will provide an expanded explanation of why they recommend the elimination of the hopper credit in their response to comments.

ACTION: USWG members should send any other comments to Tom Schueler (watershedguy@hotmail.com) by COB Friday, October 23. The panel will put together a response to comments document, which will be forwarded to the Watershed Technical Workgroup for their review at their December meeting.

ACTION: Reid will send his list of references to David to post on the meeting calendar page.

Welcome and Review of September 15 Meeting Minutes. Norm Goulet, NVRC Attach A

DECISION: The USWG approved the September meeting minutes.

Announcements

- CSN's New [MS4 Portal](#)!
 - CSN has created new space on website called the MS4 Portal, where MS4s and regulators can go to get technical resources. It is currently being populated, and CSN is designing a survey of their MS4 members to determine their needs and preferences to help inform the site.

- Norm recommended a section with training links.

State Verification Protocols Update Rich Batiuk, CBPO Attach B-F

- Rich provided an overview of the review process conducted to date for the jurisdictions' draft BMP verification program plans that were submitted at the end of June 2015. Rich summarized the stormwater verification related feedback from the reviews, discussed expectations for the submissions of the jurisdictions' revised program plans which are due November 16, 2015, and expected implications for implementation of the verification process over the next two years.

Discussion:

- Goulet: I saw a very heavy reliance on MS4s, and very few program plans mentioning unregulated stormwater, which concerns me because of the amount of the watershed that is considered unregulated stormwater. Was there criticism on that during the Panel's review?
 - Batiuk: There was a recognition of that, but most states are depending on that MS4 piece to meet their WIPs and load reductions. We are hearing that it is a resource issue from the jurisdictions. During the 2-year ramp-up period, we want to see how localities are addressing unregulated stormwater and communicate it. We will come back to the USWG and look at it again more closely.
- Tom Schueler (CSN): There is a 2 year window to ramp-up or you lose a lot of credit. What do you see as the role of the USWG for sharing techniques for addressing verification? Should it be an ongoing item on USWG agendas?
 - Sebastian Donner (WV DEP): I think it would be good to touch on it regularly so we can see what other states are doing. The USWG would be a good forum for that every once and a while, maybe not every meeting.
 - Jennifer Orr (PA DEP): I agree that it would be very useful, especially as far as unregulated urban. We would definitely be interested in sharing that information and continuing the dialogue with other states.
- Goulet: What is the process if the revised plans still are not good enough?
 - Batiuk: If they still have minor holes but are mostly on track, EPA will likely provide a conditional approval. They need to be fully approved for implementation funds to be granted. Alternatively, we would return to the jurisdictions with specific comments that need to be addressed.
- Karl Berger (MWCOG): Is there a companion piece for federal stormwater practices?
 - Batiuk: We have more work to do on that. Most federal agencies follow the procedures of the states within which the facility is located, but there is definitely more to be done. The expectation in the framework is that if they want credit towards their facility targets, they need to have verification in place.
- Ken Murin (PA DEP): As part of our verification efforts, we are trying to eliminate old, inefficient BMPs to clear out acreage to find space for newer, more effective practices.

Phase 6 Tree Canopy Land Use Categories Update N. Goulet, NVRC

- Norm provided an update on the final determination on the tree canopy land uses as was discussed at the September 28 WQGIT meeting.

Discussion:

- Goulet: The USWG brought forward recommendations from each signatory to the WQGIT. Similar concerns were raised at the WQGIT meeting and an alternative approach was agreed upon. The decision was to include the proposed tree canopy land use categories in the Beta version of the Phase 6 Watershed Model, but the loading rates for those tree canopy land uses would be set equal to the underlying land use loading rate. The Forestry Workgroup was asked to work to answer the questions posed by the states, and come back with answers prior to the final calibration of the Phase 6 Model. Discussions are ongoing, and there will be another opportunity to review.

USWG Governance Policy. N. Goulet, NVRC Attach G

- Norm presented a draft governance policy for the Urban Stormwater Workgroup on the procedures for polling workgroup membership for determining recommendations.

Discussion:

- Mary Gattis (LGAC): Could you please explicitly address the role of the advisory committees in order to make it clear where they fall within the membership structure. I assume they would fall under the “interested parties” category.

ACTION: The USWG Governance document will be revised to explicitly state the role of the advisory committees as interested parties.

- Schueler: In terms of next steps, we will get approval of this membership structure from the WQGIT in November, and then we will solicit membership nominations after it is approved.

ACTION: David will put out a call to signatory members to confirm or change their primary and alternative USWG representatives.

Urban BMP Interpretations. Marcus Quigley, OptiRTC Attach H

- Mr. Quigley provided an overview and discussion of the current state of the practice for data driven and real-time Stormwater controls systems and options for integration of these technologies into solutions for water quality and hydrologic restoration of the Chesapeake Bay.

Discussion:

- Schueler: This is essentially a BMP conversion, for instance, from a dry pond to a wet pond. One type of retrofit that has been a struggle for jurisdictions has been BMP enhancement. My advice is that if there are any rules or algorithms that can be offered to help us with how to map these or apply them to our existing BMPs, we would appreciate that guidance.
 - Goulet: I'd second that. We are definitely open to any suggestions, because this is the future of BMPs. I would definitely be open to any suggestions for either how to modify the curves, or add another line to the curve for associated optimization of a facility.

- Quigley: I'm not sure one generic approach is feasible, and I think continuous monitoring could be the gold standard to help with that.
- Jeremy Hanson (VT): Do the monitoring systems provide nutrient and sediment data directly?
 - Quigley: There is potential for that, depending on the constituent. Real time nitrate sensors are costly, but that won't always be the case. We can do TSS effectively now.
- Steve Stewart (Baltimore County): What are the costs associated with these technologies?
 - Quigley: We have done extensive cost analysis in a WERF report. It is the least expensive thing you can do to improve water quality and to improve hydrology because the practice aspects are already in the ground. You would find the facilities that match up with this technology, and it wouldn't involve any additional construction.
- Schueler: The value of the smart BMP approach is you don't have to dig the retrofit.
- Greg Busch (MDE): Do you have experience with installing these on a watershed scale?
 - Quigley: We don't, but at that scale there are different enhancement choices to help you optimize that situation.

ACTION: Marcus will send a link to their library of resources to the USWG. The USWG will discuss how to address smart-BMP enhancements during their November meeting.

Fertilizer Credit Update. N. Goulet, NVRC and Karl Berger, MWCOG

- Norm and Karl provided a brief update on the expiration date for the existing fertilizer credit per the UNM panel report as well as some potential options for going forward.

Discussion

- Goulet: The urban fertilizer credit will go away very soon if no more information is provided by the jurisdictions. This will be the last agenda where we discuss this.
- Berger: The Urban Nutrient Management expert panel report provided substantial credit and took effect about 2 years ago. The panel also indicated that because the credit was based on a limited set of data, they recommended the reductions be verified by actual fertilizer sales data or else the credit would be eliminated in 2016. Maryland has a new reporting system for this fall that may capture 2015 data, Virginia said they were working but had no timetable, and Delaware had some data. The Bay Program's Scenario Builder team looked at the Delaware example, which had highly fluctuating data, and said they could use a trend line but they would need at least 3 years of data and preferably 5. I think we have an extreme time crunch because I don't think that kind of data is ready. We only have old AAPFCO data that CBP has been using all along. Getting better data is essential if you want to maintain that load reduction credit through the end of the Phase 5.3.2 Model and if you want better data to inform Phase 6.
- Schueler: Do you have a recommended option for how to proceed?
 - Goulet: I'm not sure. Jurisdictions had 3 years to get this data. If there were to be any decision about how else to deal with this credit, it would need to happen at a level above us.
- Schueler: Maybe this is considered a verifiable BMP, and the 2018 deadline for verification ramp-up would be an appropriate cut-off.

- Bevin Bucheister (CBC): Would this a Management Board decision as far as when the credit would expire? The Panel said 2016, but if it went by the verification timeline it would be 2018.
 - Goulet: Yes, I think either the WQGIT or Management Board.
- Joe Wood (CBF): I've been working with Larry Nichols at VDACS. I think there is a lack of understanding from their perspective about this data not being adequate. They do have data similar to the chemical data for non-farm phosphorus and it does show a decline, although it isn't as large of a decline as the panel's credit provided. Communication about why that isn't adequate would be required.
 - Cecilia Lane: They presented what they had during the September USWG meeting, which was the AAPFCO data, which shows a much smaller decline than the expert panel data so it wouldn't prevent the current credit from expiring.
- Stewart: We should find a way to break out fertilizer sales from fertilizer formulation. If there is no more phosphorus in the fertilizer, that should drive a decrease in P regardless of sales.
 - Schueler: That is why I think this is a verification issue.
- Goulet: It is up to the states to get the Bay Program their data so that an informed decision can be made. If someone wants to bring this to a higher level, so be it.
- James Davis-Martin (VA DEQ): VDACS is working on the issue and know they need it in time for 2016 progress. I actually think we are on track here in Virginia. I will schedule a meeting to go talk to VDACS to make sure of that. My concern is that if they collect this data, it will be over the last year of sales and it will be compared to some data point back in history that we know is unreliable. I know it is the only comparison point we have, but you have to consider that.

Consideration of Street Sweeping and Storm Drain Cleaning Recommendations. Tom Schueler, CSN, Attach I.

- Tom presented the key findings and consensus recommendations from the expert panel that reviewed the existing street sweeping credit and proposed a new credit for storm drain cleaning.

Discussion:

- Greg Busch reviewed the four comments submitted by MDE.
 - Schueler: We will get more detailed responses from panelists published to ensure all comments are directly addressed. In short, when the WinSLAMM model predicts solids reduction, it is based on the material that can move through the system, predominantly fine grained clays and silts.
- Busch: Is it possible to look at the spreadsheets that informed the reductions?
 - Schueler: We have a spreadsheet of the outcomes of the 960 runs that we can share with you.

ACTION: Tom will share the spreadsheet of the WinSLAMM model run results with Greg.

- Murin: Pennsylvania provided comments in writing yesterday. Is the panel recommending that credit only be given to streets and roads that possess a curb and gutter? Since the nutrient and sediment reduction is "modest", why limit it to only

roadways with curbs and gutters? We would prefer to provide credit to all roadways that are swept/cleaned. Especially with a proposed change in land use, this may be one of the only viable BMPs for roads and we feel it should be given to all roads that implement the practice to assure maximum crediting to these difficult to treat (and with less diffuse, more disruptive BMPs, too) areas.

- Schueler: Yes, there is a scientific reason for that distinction. All sweepers have a mechanical brush, but when using that against a non-fixed curb, it increases the sediment that is pulled from the pervious area and onto the street. There is a lot of research on that but we can document it more clearly in the report.
- Mike Hickman (PA DEP): Could we have a list of the journal articles from which that conclusion was based?
 - Schueler: Yes, I think we can address that comment.

ACTION: The panel will provide an expanded section on why credit will only be available for streets that possess curbs and gutters.

- Hickman: I wonder if keeping the hopper credit would be a way to continue providing credit for the majority of our MS4s, which don't have curbs.
 - Schueler: The panel was adamant that the hopper credit for street cleaning was not worth pursuing. The difference between the hopper and the storm drain cleaning is that the material has a very high probability of reaching the stream if it is collected from the storm drain system.
- Hickman: Can you also provide journal articles or papers that show the rationale for removing the hopper credit?
 - Schueler: In the response to comments, we can add a section about why the panel came to the conclusion to remove the hopper credit. It was a unanimous decision by the panel.

ACTION: The panel will provide an expanded explanation of why they recommend the elimination of the hopper credit in their response to comments.

- Orr: Our second comment is that we are hesitant to approve the proposed land use change for impervious cover associated with transport land uses in the Phase 6 of the CBWM without knowing any further details regarding how the loading rates/ratios will be altered and to what extent. We feel that further information from the land use committee (projections and sensitivity analyses of the change) is integral to evaluation of this change. Otherwise, we support no change in the modelling categories.
 - Berger: This comment strikes me as outside the scope of the panel report, but we can supply you with the information on why roads have a different loading factor that is higher than non-roads impervious.
- Orr: We really are looking for the impact of changing the land uses on the different loads.
 - Schueler: I agree that this is an issue outside the scope of this expert panel report. And there are a number of practices that can be applied to the roads land use, not just street cleaning.
 - Goulet: We will provide you the information we can to the best of the ability, but some of the questions are outside the scope of the panel and outside the scope of

the USWG, and are decisions that have already been made. When the beta version of the Phase 6 Model is run, that is when some of that analysis will be available.

- Murin: Our third comment is that the verification of this annual practice is onerous, especially since, as stated throughout the document, the credit for the nutrient and sediment reduction will be modest. The initial measurement/estimation as identified on page 47 is feasible, however the subsampling recommendation is burdensome. Therefore, we do not support the verification portion of the document without modification.
 - Schueler: I disagree that the verification recommendation is onerous, but the decision regarding how to verify these practices is ultimately up to the jurisdictions. This is just a recommendation by the expert panel.
- No comments from Virginia, Delaware, New York, or the District of Columbia.
- Donner: I just want to point out that MS4 programs and the Bay TMDL are different and jurisdictions can choose to accept certain practices for MS4 credit even if they are not recognized by the CBPO model.

ACTION: USWG members should send any other comments to Tom Schueler (watershedguy@hotmail.com) by COB Friday, October 23. The panel will put together a response document after a week, and the responses to comments will be forwarded to the Watershed Technical Workgroup for their review at their December meeting.

- Busch: We would like an opportunity to see the responses to the comments. We are alright with doing that over email.
 - Goulet: That is not a problem.

Stream Sediment Source Modeling Reid Christensen, CWP.

- Reid updated the USWG on the efforts CWP has been leading to identify exactly how much sediment is contributed from urban streams. He also presented the key recommendations that were made to the CBPO modeling workgroup for incorporation to the next phase of the model.

Discussion:

- Stewart: Did you take into account physiographic province?
 - Christensen: No, the studies were all in the piedmont. Coastal plain information isn't completely available yet.
- Stewart: Is there a way to capture stream corridors that act as a sediment trap?
 - Christensen: Yes, you're correct, they can act as a trap and it is very apparent in the USGS and WVU effort. We didn't consider that for small urban stream corridors.

ACTION: Reid will send the list of references to David to post on the meeting calendar page.

- Berger: Will these impact the stream restoration efficiencies?
 - Schueler: The only way it would interact with the stream restoration BMP is if it creates a maximum sediment load that can be reduced. I don't think that impact will be large.

Other Business and Adjourn. N. Goulet

- Murin: Pennsylvania would like to change its official USWG representation.

Adjourn

List of Meeting Participants

Member	Affiliation
Norm Goulet (Chair)	NVRC
Tom Schueler (Coordinator)	CSN
David Wood (Staff)	CRC
Steve Stewart	Balt. Co.
Bevin Bucheister	CBC
Ann Jennings	CBC
Justin Shafer	City of Norfolk
Cecilia Lane	CSN
Bill Stack	CWP
Reid Christensen	CWP
Neely Law	CWP
Marty Hurd	DOEE
Rich Batiuk	EPA, CBPO
Rebecca Hanmer	FWG
Scott Crafton	HRPD
Mary Gattis	LGAC
Greg Busch	MDE
Greg Sandi	MDE
Karl Berger	MWCOG
Marcus Quigley	OptiRTC
Jaime Lefkowitz	OptiRTC
Ken Murin	PA DEP
Jennifer Orr	PA DEP
Mike Hickman	PA DEP
James Davis-Martin	VA DEQ
Jaime Bauer	VA DEQ
Jeremy Hanson	VT, CBPO
Sebastian Donner	WV DEP
Alana Hartman	WV DEP
Dave Montali	WV DEP