



Chesapeake Bay Program  
A Watershed Partnership

**Urban Stormwater Workgroup Meeting**  
**Tuesday, January 19, 2021**  
**10:00 AM to 12:00 PM**  
**Meeting Minutes**

*\*This meeting is recorded for internal use to ensure the accuracy of the meeting minutes\**

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### Summary of Actions and Decisions

**Decision:** USWG approved the October and December meeting minutes.

**Decision:** USWG approved the ICR Memo and leaving it as a land use change BMP. This will go before the WTWG and WQGIT next.

**Action:** USWG members should provide comments to Norm Goulet and David Wood on the Climate and Stormwater Management by *COB February 16, 2021*.

### Meeting Minutes

**10:00 Welcome and Review of October and December Meeting Minutes.**

Norm Goulet, Chair. Attach A & B.

- **Decision:** USWG approved the October and December meeting minutes.

**10:05 Announcements and Updates**

- BUBBAs Update (Best Urban BMP Awards)
- Runoff Rendezvous
  - *Usually, CSN does a Stormwater Retreat. Instead, they will be doing a virtual event and spread it out over a month. There will be 7 different panels for the month. Registration will open in early February and is free to attend.*
- Support for STAC Water Temperature Workshop
  - *STAC workshop on water temperature. As any relevant updates come forward will make the workgroup aware of them.*
- Modeling climate change updates:
  - *Looks like temperature will have a significant impact and will be a major driver for some of these TMDLs.*
- Other Updates:
  - *None at this time.*

**10:20 CAST Optimization Update.** Kalyan Deb, Pouyan Nejadhashemi, and Gregorio Toscano, Michigan State University.

Under direction of the Modeling Workgroup, progress has been made toward an optimization tool for CAST Phase 6 applications. The Michigan State University (MSU) Team leading the work will present the USWG with an update on the principles of optimization, and how they will be applied to the CAST System with the CBP objectives of least cost or greatest nutrient reduction.

**Discussion:**

*Norm Goulet:* Much of the planning that occurs on the urban side is at the developmental level. The implementation of BMPs etc is constrained by profitability etc. It's up to the developer of the land. I get lost in how an optimization model like this could filter down into the real world.

*Kalyan Deb:* It depends on how good the model is. CAST is already present. As you are trying to improve and modify the CAST system, we will just be running this in the background. As long as CAST is close to what the actual numbers should be.

*Pouyan Nejadhashemi:* In general, we have no power of forcing any group to enforce or implement BMPs. What is happening here is how we can better design your policy so that it's more viable. Or how to design at the policy at the farmer level so that there is a higher chance of adoptability. There is another concept called the multi- criteria decision making. The final results is not going to be the cheapest solution but the solution with the highest adoptability. What innovative approach to better design the policy in the future. We do this in a way so that farmers are 70% aware of what practices they could implement but only 10% would be likely to implement it.

*Lew Linker:* everything is constrained in the urban developed environment. There may be to some extent and still taking Pouyan point into consideration and thinking at the county and state level the question could be how much do we want to do stream management, how much do we want to do for cover crops, and what can we do for storm management? A lot of the stormwater could be taken as given in the stormwater.

*Norm Goulet:* I think of this as the WIPs. The WIPs laid out what would need to be done, but if we look at what is actually occurring, we see that these are not being met. No offense to CAST, but CAST is not the best at being able to track. Its used to develop policy.

*Olivia Devereux:* I am responding to Norm's original concern. Design considerations etc. are not in CAST. We don't have a targeting layer that would enable us to determine what projects would provide the most benefit. Optimization as designed won't solve that problem, however it could be complimentary to solving that problem. Optimization engine as described could take this information when we get other pieces in place.

*Norm Goulet:* I would agree completely. We are getting push back now on projects on public land.

*Lew Linker:* This has not been applied at this scale before, ever. We will learn together and have a product that we can use for a multitude of purposes. We are just going to have to learn as we go and learn together.

*Kalyan Deb:* If certain BMPs are not implementable at certain places we can put that in the model so that it never shows up. This will show us what is possible even within those constraints. This will give us some policy and some ideas.

*Pouyan Nejadhashemi:* This is the first time we have had a chance to talk and we are open to one-on-one conversations. At the end of the day we have six years to learn and grow with each other.

*Karl Berger:* One other concern with state optimization and stormwater regs: let's say there is a geographic point to it, how do you regulate that when it says that county A and B have to do the same amount of impervious cover removal? It sets up a potential equity concern between county A and B. It doesn't mean that optimization isn't a great too, it just means we need to have a lot of policy conversations at the state level.

*Links to papers:*

## **10:45 Finalizing ICR Decision.** David Wood, CSN. Attach C and D

In October 2020, the USWG approved a memo detailing a process for cleaning up the various ICR BMPs. Among the recommendations was converting the original ICR practice from a land use change to an efficiency BMP. Following review and discussion with the WTWG, a new proposal is on the table for final decision. David will review the primary concerns raised by the WTWG and will ask USWG members how they would like to proceed.

### **Discussion:**

*Cassie Davis:* currently in the model when the BMP is applied does the turf grass have the same load value, are we getting a reduction moving from Impervious to turfgrass?

*David Wood:* that was what I was alluding to in a previous slide. You do get a reduction but phosphorous increases due to the assumption of fertilization on turf grass.

*Dave Montali:* there was deal in the modeling with impervious surfaces being loaded at 4/3rds phosphorous loading to deal with impacts. When you finally shift from impervious to pervious. I am worried that there is a load hidden in the stream bank load.

*Olivia Devereux:* we accounted for that within the memo we wrote. The bigger issue was looking at how it stacks.

*Norm Goulet:* I think it continually proves that we still have problems with phosphorous fertilizer and until we solved that we still will have problems.

*David Wood:* it is not double counting to be able to stack them. By keeping them as a land use BMP is fine. Where that issue comes in is as. That would stay in there as inspections. Eventually Land Use will update their imagery you will get that efficiency because of the update and for the date of the conversion.

*KC Filippino:* How long would that last? If you plant a tree you get that for 10 years?

*David Wood:* one of the things we are unsure of is what the land use will be able to capture when the imagery is updated. When that imagery does come in, we can compare it against known projects, but we won't know that for a while.

*Cecilia Lane:* If we don't know it will get picked up why assume?

*David Wood:* Fairly certain that anything large than a 0.5 acre will get picked up, but we aren't sure. It would be keeping things the way they are. The larger piece is the overlap/ stacking with conservation landscaping.

*Randy Greer:* from DNREC point of view the land use change is more consistent with our regulations. For some of our disconnection BMPs it's not typical to reduce the runoff it's usually just partial reductions.

*Christina Lyerly:* We are fine leaving it as a land use conversion based on our regulatory MS4 permits are set up and credited. If you would like to push it forward the proposed change, we are okay with that too.

*Norm Goulet:* is there anyone tied with it being an efficiency BMP? Not hearing anything the consensus is to leave it as a land use change BMP.

*Randy Greer:* that is DE's preference.

*Jamie Eberl, PA DEP:* that is PA's preference

*Cecilia Lane, DOEE:* that is DC's preference.

*Norm Goulet:* I would encourage people to use this BMP and stack it with the conservation landscaping. In the meantime, I will speak with Karl Berger about his thoughts on reopening the phosphorous issue with modeling.

**Decision:** USWG approved the ICR Memo and leaving it as a land use change BMP. This will go before the WTWG and WQGIT next.

## **11:15 Climate Change and Stormwater Management.** David Wood, CSN. Attach E.

David will present a complete summary of the findings from CSN's year-long effort to synthesize the most recent local climate data projections and their potential impacts on stormwater design and management. The presentation will focus primarily on the fourth and final memo on BMP vulnerability and resilient BMP design.

### **Discussion:**

*David:* Provide feedback in 1 month from today. Will be discussed at March meeting (most likely February meeting will be cancelled). February 16<sup>th</sup>.

*Lew Linker:* we may want to explicitly look at climate change risk in one type category division- where would there be loss of efficiency and where would there be catastrophic failure. We may want a table or discussion on these two things. I think catastrophic failure would have more urgency attached to it.

*David Wood:* I think that is certainly a helpful addition. I think assessing where the highest risks are located will need to be a local and state scale because they will have that information. That can be a recommendation to conduct that type of assessment. I think it would a big undertaking for a Bay Program group to take on.

*Norm Goulet:* this is a great piece of work. It put a lot of things that people have been asking about into one place. In the future, we will need to sit down and pick apart where the WG needs to start working.

**Action:** USWG members should provide comments on Climate and Stormwater Management by COB February 16, 2021.

## **12:00 Adjourn**

### **Call Participants**

Norm Goulet, NOVA  
David Wood, CSN  
Hilary Swartwood, CRC  
Cassie Davis, NYSDEC  
Ted Tesler, PA DEP  
Christina Lyerly, MDE  
Cecilia Lane, DOEE  
James Dunbar, DOEE  
Randy Greer, DNREC  
Elaine Web, DNREC  
Dave Montali, Tetra Tech (WV)  
Alana Hartman, WV DEP  
Jeff Sweeney, EPA  
Olivia Devereux, Devereux Consulting  
Ho- Ching Fong, Montgomery County DEP  
Heather Ambrose, Fairfax County  
Chris Swanson, VDOT  
Ted Brown, Bio Habitats  
Kalyanmoy Deb, MSU  
Lew Linker, EPA  
Scott Norm, MSU  
Gregorio Toscano Pulido, MSU  
Pouyan Nejadhashemi, MSU  
KC Filippino, HRPDC  
Matt Fanghella, City of Suffolk, VA  
Alex Foraste, VDOT  
Allie Wagner, NOVA  
Lisa Ochsenhirt, AquaLaw  
Karl Berger, MWCOG  
Ginny Snead, AMT  
Jeff White, MDE  
Brenda Morgan, AA County  
Jamie Alberti, Alliance for the Bay  
Jeff Hartranft, PA DEP  
Ted Brown, Bio Habitats  
Scott Crafton, VDOT  
Ginger Ellis, MDN  
Tracey Harmon, VDOT  
Sadie Drescher, CBT  
Allan Brockenbrough, VA DEQ

