



**Chesapeake Bay Program
Watershed Technical Workgroup (WTWG)
Conference call**
Thursday, March 3, 2016
10:00 AM to 12:00 PM

MINUTES

Summary of Action and Decision Items

ACTION: WTWG members should send questions or comments on the tree canopy land use relative loading rates to Julie Mawhorter (jmawhorter@fs.fed.us) and Justin Hynicka (justin.hynicka@maryland.gov).

ACTION: Matt will work offline with WTWG members to develop recommendations on a capping procedure for mass reduction BMPs that can be applied in the Phase 6 Model. The topic will be discussed during an upcoming WTWG call.

DECISION: The WTWG did not reach consensus on the approval of the street sweeping and storm drain cleaning BMP expert panel report. A poll of members yielded one objection and one abstention. The report will be elevated to the WQGIT for consideration.

ACTION: Matt will work with Peter Claggett (USGS) to discuss land use mapping methodologies and possible changes to land use change BMPs for the Phase 6 Model. Proposed changes will be presented to the WTWG at an upcoming meeting for review and approval.

ACTION: Jurisdictions should submit their harvested forest and construction acres by June 1st so they can be included in the July model calibration

Welcome and Introductions – Ted Tesler, Chair

Tree Canopy Relative Land Use Loading Rates – Justin Hynicka, MD DNR

Justin Hynicka provided a brief summary of the work to develop tree canopy loading rates. These rates are relevant to the overall credit that will be given for tree canopy in the Phase 6 Model. The tree canopy BMP report and technical appendix will be available for WTWG review in the coming months.

Discussion:

- Matt Johnston (WTWG): In the next month or two, the WTWG will receive the BMP panel report on tree canopy, which proposes a simple land use change crediting method, so we wanted to bring forward this update early. We aren't approving the loading rates, but this is a heads-up as far as what we expect to see from the panel report down the road.
- Bill Keeling (VA DEQ): Are we being asked to approve this?
 - Johnston: No. The Urban Stormwater Workgroup, Forestry Workgroup, Modeling Workgroup and Water Quality Goal Team will be asked to approve this.
- Marty Hurd (DOEE): Buildings and other impervious have a lower total phosphorus (TP) relative loading rate than tree canopy over impervious. Is that correct?
 - Hynicka: Yes, because most tree canopy occurs over roads, rather than buildings and other. This method applies tree canopy 90% over roads and 10% over buildings and other.
- Keeling: Did you turn off evapotranspiration effects in the winter months?
 - Hynicka: Yes.

- Keeling: Are you accounting for leaf litter as a nutrient input during the fall?
 - Hynicka: Not for tree canopy over pervious. For tree canopy over impervious, it would be net zero, because there is a benefit from interception of rainfall, offset by the increase in load from leaf litter
- Keeling: There is literature that says leaf litter is a source of nutrients in the fall.
 - Hynicka: Yes, but the increase is only in the fall. The trees are reducing nitrogen and phosphorus loads the rest of the year. Over the course of the whole year, the net effect is zero.
- Keeling: I see problems with how we will have to distribute BMPs across these new land uses using assumptions.
- Hurd: You did the original and adjusted tables. There wasn't one for sediment. Is there a reason, or is that available?
 - Olivia Devereux (DEC): We aren't doing targets for sediment the same way as nitrogen and phosphorus. Peter Claggett (USGS) is addressing sediment relative loading rates with a separate methodology using RUSLE. That is why they are not included.
- Hurd: Do we know the original turf grass loading rate for sediment? Can we expect a percent reduction from turfgrass to tree canopy over turfgrass for sediment?
 - Hynicka: That would be the correct way to interpret it. We could include that in the next few presentations.
- Johnston: What is the avenue for folks here to provide comments? Is it to brief their colleagues who sit on the other workgroups?
 - Sally Claggett (USFS): Yes, or we would be happy to take your comments directly as well.

ACTION: WTWG members should send questions or comments on the tree canopy land use relative loading rates to Julie Mawhorter (jmawhorter@fs.fed.us) and Justin Hynicka (justin.hynicka@maryland.gov).

- Robin Pellicano (MDE): It would be good to go into more detail on how you arrived at the relative loading rate reductions that are presented in the table.
 - Devereux: I have a presentation for the urban stormwater workgroup that provide further detail. It is based on a weighting process.
- Pellicano: So the tree canopy over turfgrass isn't just calculated from turfgrass?
 - Devereux: Tree canopy over turfgrass is calculated just from turfgrass. The tree canopy over impervious is calculated from roads as well as buildings and other, using a weighting approach.
- Pellicano: My concern is that when you have BMPs on a tree canopy land use, you have to be very careful that when you apply those BMPs that they don't lower the urban pervious loading rate to below a forest loading rate.
 - Johnston: That is a good point. That can happen the way the Phase 5.3.2 Model is currently set up, just as it can happen in Phase 6. I think that is something we should talk about as a partnership. It has more to do with the BMP efficiencies assigned than with the land use loading rates.
- Keeling: I know that BMPs are recorded as urban or impervious, and I've not given information on where they are relative to tree canopy. Virginia's BMPs will be applied to those land uses based on assumptions that I am not sure I would support.
 - Johnston: If a state reports a BMP on urban pervious, it will get distributed proportionally to urban pervious and tree canopy over turfgrass in the geographic area. That's the same way we handle BMPs that are reported to just "row crops" for instance. They are proportioned across all of the row crops land uses.
- Claggett: My concern is that these two land uses are being treated differently than many other land uses.

Street Sweeping and Storm Drain Cleaning BMP Panel Report – Tom Schueler, CSN

Tom Schueler and Matt Johnston reviewed the comments received by WTWG members and provided responses to the comments, including changes to the technical appendix.

Discussion:

- Schueler: VA DEQ provided comments by the February 19 deadline that we requested during the February WTWG call. Those comments have been compiled and responded to.
- Keeling: I want to make sure it is clear that my comments were specifically about when we have a explicitly calculated reduction and we are applying it to an implicitly captured load. It is more for the mass reduction calculations than the efficiency BMPs.
 - Johnston: That is a good point, thank you.
- Greg Busch (MDE): Could a cap be based on a forest normalized load for a watershed?
 - Johnston: I think the WTWG could certainly look at an approach like that.
 - Keeling: Whatever we do with BMPs, theoretically, the best we can do is get things back to a pristine loading, which would be a forest load in the model.
 - Mike Hickman (PA DEP): If we set the cap at the forest load level, we would need to be able to cite some literature.
 - Busch: I would argue that you need more literature justification to support a cap any lower than forest loading. I think getting to forest would be easier to justify.
 - Johnston: I think we could do that mathematically, but I would like to work on that with some of you offline and bring it back to the next meeting.

ACTION: Matt will work offline with WTWG members to develop recommendations on a capping procedure for mass reduction BMPs that can be applied in the Phase 6 Model. The topic will be discussed during an upcoming WTWG call.

- Johnston: What would the initial recommendation for now?
 - Hickman: I am hesitant to so say it would load at a forest condition if it could theoretically load lower. I can't justify that at the moment, though.
 - Keeling: I agree.
 - Johnston: We can keep it at zero for now, and know that we can work on a general rule.
 - Keeling: Can we ask the Modeling Workgroup to see if they can take this up?
 - Johnston: Yes.
- Tesler: Is Scenario Builder going to do the calculations for load reductions?
 - Johnston: It is a load reduction calculation that happens before NEIEN. The panel provided enrichment factors states can use to calculate the reductions for the storm drain cleaning practice, so you could apply those before you report.
- Busch: I think that the language you provided on the fine grain vs. coarse grain sediment issue is a very good representation of our concern. It is good to work on in general, especially for this practice. I will take this recommendation on the WTWG's behalf to the MWG for consideration.
- Johnston: We are looking for approval of the report and technical appendix.
- Keeling: Will states be able to report mass loading for the street sweeping practice?
 - Schueler: It is addressed in comment 3 of the VA DEQ compiled comments document, as well as in the original response to comments document (Appendix G). The panel strongly feels that mass loading for street sweeping needs to be phased out. That is an area where the panel is in universal agreement.
 - Keeling: Then I am not authorized to approve this report.
- Tesler: Are there any other comments or objections to the report?
 - Greg Sandi (MDE): Maryland will not accept or reject the report at this point. We would like to hear back from the MWG with regards to the sediment particle size issue.

- Norm Goulet (NVRC): I doubt the MWG will have the time on their hands to make changes at this point.
- Johnston: At this point, all we can do is forward the report to the WQGIT with our concerns listed and a statement that we could not reach consensus.
 - Tesler: That sounds correct. I have only heard the mass loading objection from Virginia, and Maryland's abstention over concerns about sediment delivery. Are there any other comments or concerns?
 - None were raised.

DECISION: The WTWG did not reach consensus on the approval of the street sweeping and storm drain cleaning BMP expert panel report. A poll of members yielded one objection and one abstention. The report will be elevated to the WQGIT for consideration.

Changes in Land Use Crediting for P6 BMPs – Matt Johnston, UMD

Matt Johnston provided the WTWG with a list of suggested changes for how Phase 5 BMPs will be credited in Phase 6 (e.g., perhaps urban forest buffers should be treated as a change from pervious to tree canopy, rather than pervious to forest).

Discussion:

Agricultural Buffer BMPs:

- Keeling: Wouldn't a full agricultural riparian forest buffer (RFB) show up as less acreage than true forest?
 - Johnston: No, Peter has told me that RFBs would show up as forest in his mapping methodology.
 - Keeling: I will have to review their methodology.
- Tesler: I'm concerned with how this would interact with the BMPs. It seems the narrow buffer credit might not be credited appropriately if this change is made.
- Keeling: I think you also ought to look at the RFB expert panel report.
 - Johnston: We would definitely have to take this through the other sector workgroups.

Manure Transport BMP:

- Keeling: Is there a presumed percent moisture for poultry litter? We have poultry litter, which includes more than just manure.
 - Johnston: You are right, which is one of the reasons we want to offer this reporting method. It is still as-excreted because we couldn't get any additional info from the poultry litter subcommittee.
- There were no objections to adding dry tons to the Phase 6 NEIEN appendix for manure transport.

Animal Waste Management Systems:

- Keeling: What if you had the actual amount of manure treated in that year?
 - Johnston: I don't think we can set it up that way because of how AWMS works mechanistically.
- Keeling: You are equating an animal units to an amount of manure, right? Instead of doing that math, we would just be cutting out a step.
 - Johnston: Ok, let me think about this. I receive the number of systems, number of animals, and the calculated amount of manure the systems are dealing with.
 - Tesler: I think you would need the flock information to do that calculation. You'd need to be able to translate and account for animals.
 - Keeling: That is a good point, it also might get back to the concern about treating an implicit load with an explicit reduction.

- Johnston: These will all come back to you and the sector workgroups for approval.
- Pellicano: Are any of these changes currently being reviewed by a panel that might come up with a recommendation?
 - Johnston: Yes, but the hope is to have rules that we can put into the next beta version of the model prior to having the panel report because we want a fix as soon as possible.
- Keeling: I still think we will need a systems default. That should be asked of the panel.
- Alana Hartman (WV DEP): Would we need to change all of the historical records?
 - Johnston: Yes, Dave Montali (WV DEP) has pointed this out to me for a long time. He is very concerned about how this is going.
- Keeling: Going back in time, all I have is systems. I don't have animal units.

Urban Riparian Forest Buffers:

- Keeling: If a 35 foot agriculture forested buffer creates an acre, why wouldn't an urban buffer of the same size?
 - Johnston: Good question, we should raise that with Peter.
- Goulet: It is my understanding that if it meets the definition of forest, it will be forest.
- Pellicano: If we reported urban forest buffers and we say .5 acres, it would go to tree canopy but if we reported 1.1 acres it would go to forest?
 - Johnston: No, it would have to be one or the other. My understanding is that just based on the mapping procedures used by Peter, most of these plantings that would be picked up in the land use imagery as tree canopy. I will bring this back again once I have talked more with Peter.
 - Pellicano: I don't know that that is true in the real world.
- Keeling: I am concerned about localities lumping tree installations and reporting 2 acres even though they weren't contiguous acres.

ACTION: Matt will work with Peter Claggett (USGS) to discuss land use mapping methodologies and possible changes to land use change BMPs for the Phase 6 Model. Proposed changes will be presented to the WTWG at an upcoming meeting for review and approval.

Updates from Panel Members – Group

- Sandi: The impervious surface disconnections panel has put out a draft report for the panel, and they are still reviewing it and developing efficiencies.
 - Johnston: Any idea what the credit will look like yet?
 - Sandi: I don't know the efficiency, but Jeremy and I have stressed that we are looking for something that conforms to the stormwater performance curve. We want to make sure they don't ask for too much in terms of the reporting requirements.
- Keeling: The conservation tillage panel has not met in quite some time.
- Jeremy Hanson (VT, CBPO): We are working to get the manure treatment technology panel wrapped up soon and should be bringing a Scenario Builder appendix forward at an upcoming meeting. We are also hoping to have reports drafted for the tree canopy panel and wetlands panel soon with reports out in April or May.
 - Johnston: How do you see the tree canopy and wetlands credits working out?
 - Hanson: For tree canopy the panel is definitely doing a simple land use change BMP. The wetlands panel is also considering land use change BMPs. For tidal wetlands, they have a clear sense of the direction. For non-tidal wetlands it is looking like a land use change for restoration practices, but they don't have a direction yet for creation practices.
 - Keeling: There is a lot of error in the NWI data in terms of determining the land uses.

- Hanson: Yes, I think that is still the best we have in some jurisdictions.
- Sarah Lane (MD DNR): The floating treatment wetlands panel reconvened last month and I think the goal is to wrap up in June or July.

Progress and Milestones – Jeff Sweeney, EPA and Matt Johnston, UMD

Jeff Sweeney and Matt Johnston briefly reviewed the timelines for release of 2015 Progress and Milestones evaluations.

Discussion:

ACTION: Jurisdictions should submit their harvested forest and construction acres by June 1st so they can be included in the July model calibration.

- Sandi: Do you know which trend line we would be evaluated against?
 - Johnston: I am not sure, you would have to check with Jeff.
- Keeling: Is the Phase 6 node ready to receive data? I am hoping to overwrite some of the old files with the data that came in late.
 - Johnston: Yes, it is ready to go. There will be about 48 hours in the next week or two that we will need to shut it down so we can move it over to the cloud. That doesn't impact you, but I will let you know as soon as I know those dates.
- Keeling: On a future agenda, I'd like to discuss the NEIEN appendix as far as what changes we are planning.
 - Tesler: Good idea, I know Pennsylvania has one request.
 - Johnston: I think our goal is to have something approved by June 1.
 - Keeling: I was thinking more for progress for Phase 5.3.2.
 - Johnston: Let's target the May meeting for that discussion.

Adjourned

List of Call Participants

Member Name	Affiliation
Ted Tesler (Chair)	PA DEP
Matt Johnston (Coordinator)	UMD, CBPO
David Wood (Staff)	CRC
Tom Schueler	CSN
Olivia Devereux	DEC
Tyler Monteif	DE DNREC
Marty Hurd	DOEE
Jeff Sweeney	EPA
Sarah Lane	MD DNR
Alisha Mulkey	MDA
Greg Busch	MDE
Greg Sandi	MDE
Robin Pellicano	MDE
Justin Hynicka	MD DNR
Jill Whitcomb	PA DEP

Mike Hickman	PA DEP
Norm Goulet	NVRC
Sally Claggett	USFS
Bill Keeling	VA DEQ
Jeremy Hanson	VT, CBPO
Alana Hartman	WV DEP