



Chesapeake Bay Program
Watershed Technical Workgroup (WTWG)
Conference Call
Thursday, September 6, 2018
10:00 AM to 12:00 PM
Calendar Page: [Link](#)

Meeting Minutes

Action and Decision Items:

Decision: The WTWG approved the July 19th meeting minutes with the corrections discussed (corrected and posted 9/18/18).

Action: Those interested in becoming an official WTWG member can reach out via email to Ted Tesler (thtesler@pa.gov) and Jeff Sweeney (JSweeney@chesapeakebay.net).

Action: Jeff Sweeney will reach out to Greg Sandi, MDA, and PA regarding the proposed xml schema change. Further questions can be directed to Greg Sandi (gregorio.sandi@maryland.gov) and Bill Keeling (william.keeling@deq.virginia.gov).

Decision: The WTWG agreed there are many questions left unanswered for this interim BMP that will need to be addressed by the Mortality Management Expert Panel. Additional comments or questions can be directed to Loretta Collins (lcollins@chesapeakebay.net). An update for this item will be discussed at the next WTWG meeting.

Introductions and Announcements – Jeff Sweeney, EPA CBPO

- Ted Tesler could not attend today's call; Jeff Sweeney will run today's meeting.
- **Decision:** The WTWG approved the July 19th meeting minutes with corrections of conservation landscaping efficiency values from 35% to 25% P, typo of "V-Cap" corrected to "BCAP" Program, and Alana Hartman corrected agency.

WTWG membership/ roles update

- The only jurisdiction without representation is NY, and we are currently trying to get them more involved. If anyone that calls in regularly wants to be an official member of the WTWG, reach out to Ted Tesler and Jeff Sweeney. More than one representative from the same jurisdiction is not a problem.
- **Action:** Those interested in becoming an official WTWG member can reach out via email to Ted Tesler (thtesler@pa.gov) and Jeff Sweeney (JSweeney@chesapeakebay.net).

Update on BMPs for progress and planning (forest buffers, boat pump-out)

- As of August 21, 2018, CAST upgrades were made including denitrifying ditch bioreactors, saturated buffers, conservation landscaping, and septic for WIP development. The 2019 release will include most, but not all of these for progress reporting as well.
- Keeling: Are these septic BMPs in NEIEN?
 - Rigelman: I don't believe they are in there now, but should be in as draft.
 - Keeling: Since we are supposed to be in lockdown with NEIEN, I would prefer we leave the appendix as is until we are through annual reporting.
 - Sweeney: That's fine. Remember NEIEN is for progress reporting, so you could not get credit for these as draft, but are available in CAST for planning purposes.

- There are several new downloadable reports available on CAST including loading rates. The sector graphs include more divisions, wastewater delivery factors are included in the source data table, and adding land policy BMPs is easier allowing multiple selections. We are still working on land policy BMPs being developed directly with the GIS team.
- Keeling: In the base conditions report, the linear feet of stream and shoreline are not provided. In the next upgrade, can that be included in the base condition data?
 - Rigelman: Yes, I will put that on the list.
- Boat Pump-Out has not gone through the approval process, there were many questions raised which bumped it back to the Wastewater Treatment Workgroup. They are considering revising the BMP panel analysis based on comments that came up. This is not yet available for planning or progress.
- With regards to submissions for 2018 progress due December 1st, this is the first year where reported BMPs are to follow BMP verification program plans. Submitted documents are reviewed by EPA, most are final, but some are still considered conditional for approval. Those states should be aware of next steps to finalize their QAPPs. States are expected to update this for the BMPs you will be submitting for credit in the model for 2018 progress. The exception is nutrient management, jurisdictions are given an extra year to have details of compliance for 2019 progress. More information on BMP verification is available in the [BMP Verification Guidance](#), and each jurisdiction's [BMP Verification Program Plans](#).

Revision of NIEIN XML Schema – WTWG discussion

The group discussed Greg Sandi's proposal for changes to the process for submitting to NIEIN. Greg could not join today's call.

- Sweeney: Currently, submissions in MD involve a lot of data tracked from various agencies. Greg is seeing redundancy and fields that are currently required that he feels should be optional instead. The reasoning behind this proposal is outlined below.
 - Code descriptions should not be necessary, there's a reason to use codes and that is so a description is not needed in the data.
 - The NPSBMP Type Code is not necessary as the sector which a BMP is attributed to is now baked into the BMP Name, making this a redundant data element.
 - NPS BMPName TypeCode is not necessarily anymore as the definition of who implements this BMP is now baked into the Implementation Qualifier codes (i.e. IMFW or IMNFW).

Discussion:

- Keeling: If we look at the Data Exchange Template, there is redundancy in all of this. If you provide a code that is for example, agricultural, we don't need to then describe that the code AGR means agriculture. It adds a lot of lines of xml data every time we submit. We are in the same boat as MD in that we have many different agencies reporting and creating these xmls is increasing the size of the xml with no apparent benefit. If we change these to optional status, it doesn't affect how anyone would create their xmls. Those that are nimble enough will be able to exclude these, and if they are turned optional it would not reject the submission at validation.
- Sweeney: If you're working on submissions now for 2018 progress, it wouldn't matter if you did this or not, it will still take submissions whether the fields are filled in or not. This proposal is just changing fields from required to optional.

- Rigelman: My assumption is we are in a lockdown period, meaning this wouldn't occur until 2019 progress.
 - Sweeney: Yes, there are a few reasons why we can't just make this change immediately. We must make sure we can easily do this on our side. I am concerned about not hearing from PA about this yet, because they have a lot of records as well.
- Hartman: I'm encouraged by the fact that it's optional and won't affect us in WV.
 - Sweeney: Yes, the size of your data is much smaller.
- Sturgis: We met with Greg a couple weeks ago and went over this with him. I think we would be fine with it, we are all for simplifying, but I would defer to Lori Brown for the final say.
- Sweeney: We just need to touch base with PA and Greg or Jason regarding the Ag data, so it seems like we are on board with this proposed change.
- Keeling: This is not really changing the schema, it's just changing the template and whether fields are required or optional.
 - Ravi: We aren't adding or removing any new fields, but we are changing the required or optional fields, so it is still considered a change to the schema. Even though it is minor, I'm not sure if the lockdown applies for this change.
 - Keeling: I thought the lockdown applies to changes in BMP names and measures. For VA, we have an update to our warehouse reporting application, but those upgrades won't occur until next year.
 - Rigelman: The schema changes are minor. The issue is the code on our end that processes the data from the xml is looking for these fields now, so it will take some time to change. This likely will not get in for 2018 progress.
- **Action:** Jeff Sweeney will reach out to Greg Sandi, MDA, and PA regarding the proposed xml schema change. Further questions can be directed to Greg Sandi (gregorio.sandi@maryland.gov) and Bill Keeling (william.keeling@deq.virginia.gov).
- Keeling: If PA has questions, they can be directed to myself since the reporting is basically a PA version of the VA application.
 - Sweeney: Who have you been working with on this? Do they go directly through your IT department?
 - Keeling: My section puts together a proposal for the IT division, and once it gets approval, it is hired out. Worldview Solutions was the contractor that initially created the application and did the second round of updates. I can't guarantee it would be them for the next update, but it would make sense for them as the developers of the application. I'm sure other IT firms could do the same work, maybe with a learning curve. My understanding is PA adopted this same system modified specifically for PA's needs.

Update on Progress and Phase III WIPs – Jeff Sweeney, EPA CBPO

- There will be no progress submissions on version 5 of the model, everything is now phase 6. Resources are available for the last [Progress model assessment with Phase 5.3.2, 2017 progress](#) and the [EPA Final Evaluation](#).
- You will see all the Phase 6 progress runs from 1984 to 2017 progress on [CAST](#). There are two versions of WIP 2 available that were run through the Phase 6 model for both 2010 and 2025 background conditions.
- For each scenario in Phase 6 there is a wealth of information available. Many of these pieces were hard to find in Phase 5 and now in Phase 6 there are many more useful reports and data.

- Schedule for updating WIPs:
 - July 9, 2018 – Release of final Phase III planning targets
 - April 12, 2019 – Draft Phase III WIPs posted on jurisdictions' websites
 - June 7, 2019 – Partners and public stakeholders' feedback on draft Phase III WIPs due to jurisdictions
 - August 9, 2019 – Final Phase III WIPs posted on jurisdictions' websites

Discussion:

- Hartman: I have a question about the link shared of the previous version of the model. CBF published a document people were asking me about that showed whether each sector had met its goal for 60% of the way by 2017. I didn't think that was available on the EPA TMDL website, I only found it looking back at one of your presentations from a while back. Now I understand how CBF had that information if it's available publicly on Chesapeake Progress.
 - Keeling: I thought milestones were all sectors combined hitting the targets.
 - Sweeney: Generally, first and foremost that is what EPA looks at in the evaluation, but EPA does dive into individual sectors, particularly if the goal is not being met overall. The concern is there is a lot of buffer on the waste treatment facilities. For CBF, I know they like to get something out in early spring.

Mortality Freezers Interim BMP – Loretta Collins, UMD

- The AgWG wanted to address the issue of animal mortality management in the Phase 6 model. In 2016, MD and DE submitted a request to have an interim BMP specifically for broiler freezers, which is removing carcasses from the flock and putting them in freezer systems that are removed from the farm. The assumption is taking the N and P content in the carcasses and removing it from the system, opposed to traditional burial or composting.
- An interim BMP document was approved by the AgWG in 2016, with no specific values associated with the practice under the name of livestock mortality management. The document included an ask of the Ag Modeling Subcommittee to fill in correct efficiency values at a later date. In July, we presented a solution that included specific values associated with load reductions. The document went through the AgWG with several questions raised, but everyone felt they could live with it.
- We added a conservative factor of 50% to avoid overshooting efficiency for planning purposes. The values the AgWG approved are 27 lbs. N and 4.9 lbs. of P per ton of dead broiler carcass.

Discussion:

- Keeling: How can jurisdictions claim a manure transport credit for this? Manure transport is a separate BMP, is this proposing to be reported as manure transport?
 - Rigelman: No, it would be reported however the appendix says, but it is treated like manure transport. You report the number of carcasses transported in the manure transport file, and it works in a similar way using efficiencies of the broiler freezer BMP.
 - Keeling: I have a major problem with that. If the base condition is assuming burial on the farm, not 100% of that nutrient value is lost to the environment. You would have no runoff, you would only have what may leach out of the burial. I think you are way overestimating the value of this. To me, this is spreading on the surface, and that's not

exactly how I understand this works. As a member of the AMS, this never came to our attention.

- Sweeney: When we account for the nutrients from broilers on cropland, we use concentrations from litter and sales for the amount of birds and weight of the birds. In that calculation, we're not looking at dead birds at all. My initial thought is we would need to add nutrients from the dead birds as a source if we're going to take a reduction for freezing the birds and transporting. I don't understand this.
 - Keeling: It's one thing if it's composted and spread on the land, but if the base condition is burial, it does not make it allowable for this reduction. We would need to understand what is leached from the burial of a ton of dead birds, and that's the benefit you get from not burying them.
 - Rigelman: I know the only thing that came up regarding mortality composting in the AMS was they agreed not to address mortality composting in general because they didn't have time to add dead animals as a source. Therefore, they agreed that mortality composting could be submitted, but it made no difference in the nutrients because the source didn't exist in the model. The AMS punted on this group of BMPs in general for this version of the model, and that is all captured in AMS minutes.
- Sweeney: Why is the AgWG proposing some temporary credit when it's already been decided by AMS that this source does not exist in the model?
 - Hanson: AMS punted on defining it as a source for this version of the model, but we have discussed crediting through the feed space source. The interim BMP could be credited to that load source without having to add in dead animals as a load source. The expert panel will ultimately have to answer these questions. What is the baseline? How do we compare it to these various practices? It is just being considered as an interim BMP at this point.
- Keeling: At this point, I don't get any data on numbers or pounds of birds composted in mortality. It would seem we would have to create a whole other reporting mechanism at the state level to report this.
- Keeling: Another question is if these are going to rendering, is that in the watershed? That rendering has a discharge, is that being accounted for? Is it burial or not? Is it composted with litter and land application? How much rendered animal is discharged through a permit as a direct load?
 - Gary Felton: This is the work for the expert panel to decide.
- Dubin: This is an NRCS approved conservation practice, we have information that will come forth from NRCS of what practices are in place. Additionally, Bill there's also information you need to capture through your inspections. There is two sources of information.
 - Keeling: That's always retroactive, Mark. Sometimes inspections only take place once in 5 years.
 - Dubin: I think this will be something to look at with reporting, some other states have implementation that are interested in reporting implementation.
 - Sweeney: I wouldn't think NRCS practices have any mention of doing this for the benefit

of reducing nutrients. There are many reasons for doing this but not reducing nutrients to local water bodies.

- Dubin: It is a part of mortality management system, which is required through CAFO permits, and NRCS is looking at producers to meet those expectations.
- Collins: From the AgWG minutes, MD had a question about how nutrients are accounted for in the model. The other question was if you're removing N from carcasses in the system, is that reintroduced via N fertilizer? Are the farmers supplementing that loss of N with additional fertilizer applied to the land?
 - Sweeney: If you give this interim practice credit now, and the conclusion of the panel ends up giving no credit, they will already be in WIPs and we want to avoid that.
 - Collins: Yes, we want to avoid that. There are many questions that are not resolved, and the expert panel will have to address these questions.
- Keeling: I'll reiterate, to just have the total amount of N and P in a ton of birds, to me is overestimating what would be lost if the baseline is burial. I think with interim, we should approach this extremely cautiously. I'd be surprised if it was even 10% of the total loss, depending on how deep the burial is.
 - Jeremy: They did use a 50% conservation factor. If we wanted to bump that up to 90% that is up to the workgroups.
- Gary Felton listed several questions and comments for the expert panel.
 - When we use an animal waste storage unit, we have a nutrient loss factor already in that, so will we be double counting?
 - Are we going to have some nutrients in the model world lost in the storage facility and then lost again in the BMP?
 - If you apply compost to a soil, the hydrologic conductivity increases, surface runoff decreases, the soil water holding capacity increases. If we take this compost away, we will have to replace it with urea and that will change those soil factors, and will that be captured in the model?
 - When we send things to plants for rendering, some can be sent out as animal feed (in or out of the watershed), some in air discharge, some in wastewater discharge, it is unclear how much specifically.
 - The change in N form will probably cause higher urea use, because you will apply as much fertilizer as legal.
 - This is an alternative to farmers who don't like to compost or compost poorly.
 - If you're composting and then transporting litter, won't it be double counting if I report x tons of manure litter transported, and that litter has mortality composted in it? How does that work? I would ask a litter broker to answer that question.
- **Decision:** The WTWG agreed there are many questions left unanswered for this interim BMP that will need to be addressed by the Mortality Management Expert Panel. Additional comments or questions can be directed to Loretta Collins (lcollins@chesapeakebay.net). An update for this item will be discussed at the next WTWG meeting.

Expert Panel: Animal Mortality Management – Jeremy Hanson, VT

In April the CBP, under its Expert Panel Management Cooperative Agreement with Virginia Tech (VT), released an RFP to solicit proposals to convene an expert panel to consider BMPs for routine animal (livestock and poultry) mortality management. Jeremy presented the selected proposal from Oklahoma State University along with updates resulting from the July Partnership review period.

- We received comments requesting the panel membership contain more expertise from within the watershed, so Bud Malone was added to the panel.

Discussion:

- Keeling: Back when we developed the expert panel protocol, we wanted the panels to align with science. I have a concern that when we put a panel together, they feel like they must develop an efficiency reduction, even if they are just guessing. It is acceptable for them to make a recommendation for further research if they cannot reach a decision on the benefit.
 - Hanson: Speaking for myself, I certainly communicate that to panel members.
 - Hartman: Wasn't there an EPEG that determined there was enough research to convene a panel for this?
 - Hanson: There was an EPEG and their [recommendation](#) to form a panel on these practices was approved back in March.
 - Keeling: There have been other EPEGs in the past with a scant amount of scientific research to base recommendations upon. I will remind the group there is language on page 7 of the protocol stating that the panel is not to engage in any discussions of promoting, or endorsing the incentivizing of BMPs. The charge of the panel is to evaluate the scientific research.
 - Hanson: I agree.
- Hanson: The goal is to have a report released within a year, ideally around October 2019. There are many questions we have collected today that need to be answered, and I appreciate all the feedback.
- Hanson announced that the [BMP guide](#) is available for approved BMPs. It has almost all approved BMP practices, except for septic, some types of storm water controls, and practices addressing, mostly, erosion in the "natural" sector. It will be a living document moving forward that will be updated periodically.
 - Keeling: You still need to add some storm water?
 - Hanson: There are still some left for me to do, but I included retrofits, performance standards, street sweeping, urban tree planting, and urban nutrient management.
 - Keeling: We get a lot of questions of specific definitions of particularly storm water practices, is this a model world definition? Or more geared toward the layperson to understand what the BMP is?
 - Hanson: I provide the CBP definitions. There is some introductory text for these BMPs so there is some general information about what the BMPs are. The main focus is Bay Program definitions.
 - Hartman: I think this product is great, it's exactly what we asked you to do, so thank you.

Next Meeting: Conference Call, November 1st from 10 AM – 12 PM

Meeting Participants:

Jeff Sweeney	EPA CBPO
Allie Wagner	CRC
Jessica Rigelman	J7 LLC
Victor Clark	Greener Solutions, LLC
Jeremy Hanson	VT
Brittany Sturgis	DNREC
Alana Hartman	WV DEP
Bill Keeling	VA DEQ
Loretta Collins	UMD
Gary Felton	UMD
Mark Dubin	UMD
Sucharith Ravi	UMCES
Matt Johnston	UMD