



Chesapeake Bay Program
Watershed Technical Workgroup (WTWG)
Meeting Minutes
Thursday, September 8th, 2022
10:00 AM to 12:00 PM
Calendar Page: [Link](#)

Summary of Actions and Decisions

Decision: WTWG approved the August Meeting Minutes.

Action: Jeremy Hanson will share the updated Ag Mortality BMP Expert Panel Technical Appendix with the WTWG before their next meeting in October.

Action: The WTWG Leadership, with Greg Sandi, will continue the discussion on whether to continue with current model update time period (2 years) or to lengthen the time frame between model updates, how this will impact Phase 7, and how to communicate this information with implementers. Other interested WTWG members are encouraged to participate. This will be brought back to the WTWG at a future meeting to discuss further with a goal of approving a recommendation.

Agenda

10:00 AM – **Introductions and Announcements** – Cassandra Davis, NYSDEC

- Approval of August Meeting Minutes– Cassandra Davis, NYSDEC
 - **Decision:** WTWG approved the August Meeting Minutes
- Ag Mortality BMP Expert Panel Update – Jeremy Hanson, CRC
 - Progress made on Technical Appendix. Will be shared before the next WTWG meeting in October.
 - **Action:** Jeremy Hanson will share the updated Ag Mortality BMP Expert Panel Technical Appendix with the WTWG before their next meeting in October.
- August PSC Meeting on CAST-21 – Cassandra Davis, NYSDEC.
 - The PSC reached consensus on three different items:
 - Address unaccounted loads post- 2025 (figure out unexpected loads and how they will be accounted for)
 - Address fertilizer issues (MB charged to form a committee to develop short-term resolutions and bring this back at the next PSC meeting)
 - Develop a process for dealing with data abnormalities
 - Tune in to the MB meeting on September 15th:
https://www.chesapeakebay.net/what/event/management_board_meeting_september_2022
- Updated USGS NTN Monitoring Data for Watershed Gage Stations – Cassandra Davis, NYSDEC
- 2022 Progress Submission – Vanessa Van Note, CBPO EPA
 - Special thanks to all the Jurisdictions for submitting data!
- Other announcements

THIS MEETING IS BEING RECORDED

- *CAST Webinars:* The next webinar is on September 15th at noon, and they will discuss monitoring. October's webinar will focus on behavioral change.
- Link: <https://cast.chesapeakebay.net/Learning/FreeTrainingVideos>

10:15 AM – Nontidal Network Trends – Chris Mason, USGS

Chris Mason will present the recently released Nontidal loads and trends for 1985- 2020. He will focus his presentation on [Nitrogen and Phosphorous in Water Years 2011–2020](#). There will be time for questions and comments at the end of the presentation.

Discussion

Olivia Devereux: ultimately, we look at listing and delisting waters based on monitoring data, and we use this data in CAST. Is the map from the CB RIM page going to be made clickable?

Chris Mason: we are transitioning away from that webpage interface. For this round of updates, we used the story map as an interactive tool instead of the web tool on the CB RIM page. You can get to the story map from the URL in the presentation.

Olivia Devereux: have you thought about doing something more transparent for conveying decreasing and increasing trends? There are existing tools from USDA that use different icons to convey this information (<https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/air/quality/?cid=stelprdb1044982>).

Doug Moyer: Thanks for the comments. The CB RIM page has a new page. We now have a drupel interface, which limits some of the functionality from the old page. We will make sure the Story Map is linkable. The up and down icons have been intensely vetted. We will continue to look at this and accept feedback.

Olivia Devereux: the other comment I hear is that long-term trends are not getting better but short-term trends are improving. It's important to remember to look at both of those.

Chris Mason: we will continue to provide trends for different time windows.

11:00 AM – 2022 Progress Submission Kick Off – Cassandra Davis, NYSDEC, and Vanessa Van Note, EPA-CBPO

The WTWG will review the timeline for submitting jurisdictional and federal BMP data to NEIEN and lead an open discussion for workgroup members to ask questions.

Discussion

Cassie Davis: can jurisdictions request an error report at any time and what is the process?

Jess Rigelman: Yes, send me an email and I will get that to you.

Olivia Devereux: Dr. Boyd sent out an email with a reminder to the Federal Agencies about the December 1st deadline.

Ted Tesler: PA just started their data call. We are waiting for data to come in before we can get it packaged up. Possibly a tangent: MS4 program is upping its game on illegal discharges. Is there planning to be able to do that reporting going forwards?

Jess Rigelman: they should be reported, but they won't be included in CAST. They are in CAST21 but since it hasn't been approved, they are still draft.

Bill Keeling: is there an updated NEIEN appendix?

Jess Rigelman: yes, it was updated at the last meeting and is on the CAST webpage.

11:45 AM – Free Discussion Topics – WTWG

The WTWG will spend the last 15 minutes of the meeting discussing topics of interest to the group.

- Should we update the model every two years, or should the model be updated in a longer time frame? Will interim P6 model changes impact our ability to provide an adequate review for Phase 7? As the partnership discusses additional time frames for keeping the model consistent, we should begin having these conversations.

Discussion

Greg Sandi: with CAST21, do you want to discuss increasing the time that we lock out the model for assessment purposes? I think we are finding as we incorporate better science that it creates a lot of confusion, especially when you try to talk with non-technical audiences. I wanted to put out what potential options there could be for different timelines for locking out the model and when we would want to reassess. Even a 2-year basis is a lot of work for everyone.

Bill Keeling: The standard policy was keeping the models locked down till they required another calibration. We departed from that, and I would contend that the changes we do every two years would require a recalibration. I don't know if it's always better science/ information it's just different numbers. Trying to describe the different numbers and constant changes are confusing to describe and it could work against us.

Vanessa Van Note: the model didn't change between phases?

Bill Keeling: When we had Phase 4.3, it was locked down till Phase 5 and each version of Phase 5 was locked until we did another calibration. We've kind of gotten away from the actual hydrologic model. If we were using a regular model, it would require a recalibration and we are not recalibrating we are just changing numbers. For me what I see from CAST2017 d, CAST 2019, and CAST 2021 is just 3 sets of numbers. I can't tell you which one is more right or wrong because we've never done an uncertainty analysis, so we don't have a gauge if we are improving or making something worse.

Greg Sandi: what was the relative gap in the timeline between phases?

Bill Keeling: Phase 5.30 was used in 2010 for WIP I and Phase 5.32 was used in 2012. I would argue that we are not being served by the constant changes. It's a lot of labor for the jurisdictions to make changes and comment on changes and communicate with farmers that the numbers have changed. Sometimes there's benefits to stability.

Jordan Baker: working with on-the-ground partners, I've seen a shift where the focus is on the model instead of implementation. It makes these conversations very hard. We've seen partners flare out because they can't trust the process since it keeps changing. We've wasted so much time trying to explain all this to on the ground folks.

Norm Goulet: I agree with everything that has been said so far. A lot of the on-the-ground folks have checked out of using CAST. I would say if we changed the timing of the model, we would need to address how we get new BMPs into CAST. Right now, we lock it down and don't allow new BMPs, if we increase that interval, then we will need to address getting new BMPs into CAST in years when the model is locked down because that would also work against us if we can't do that.

Greg Sandi: Would that require another calibration? I don't want to trade one set of rules for another that we don't agree with.

Norm Goulet: you would undermine the practitioners if we can't get credit for BMPs that are being submitted. We should not have to run calibrations for a new BMP unless it is creating a new source.

Bill Keeling: Particularly if it is a brand new BMP and there is no real history of it. It's not like you are redoing a buffer that's been in the BMP history for decades and would alter how you do buffers for the enter time. Because it doesn't have a history then it wouldn't affect the calibration at all.

Olivia Devereux (in chat): The model calibration ran through 2013 and included BMPs. Data post 2013 is not part of the calibration. New BMPs and changes to BMPs before 2013 would have an impact on the calibration unless we make some sort of adjustment.

Jeff Sweeney: a little bit of history – the governors were the ones who decided on the 2-year milestone period, and it took the Bay Program 3 years to establish how we would do this. So really, we've just gotten started with using this system. There was a milestones WG that dove into the pros and cons of this system. You want to use the updated science and new data, but you don't want to keep changing the targets and the representation of where we are with respect to those targets. If you do want to change the milestone period, it would probably take another 3 years.

Bill Keeling: I don't see how the milestones have anything to do with it. if you have a static model, you can still do this. Also, we aren't saying that we shouldn't be inputting new data just that the current timeframe isn't feasible.

Jeff Sweeney: what timeframe would you like?

Greg Sandi: we don't have a set timeframe to suggest right now. It could be less or more than what we are currently doing. How do we use this model to create an assessment that our partners can use in a meaningful way? How do we avoid the perception that these numbers don't mean anything?

Jeff Sweeney: the government came up with the 2-year periods because they thought if we looked at it more frequently more was likely to happen. This was a PSC decision. I agree it is a lot.

Greg Sandi: My thought is that maybe they didn't have the best idea. We have a new governor coming in for MD next year. Having additional suggestions doesn't hurt. Even if it doesn't go anywhere, we can at least bring it to their attention.

Jeff Sweeney: I think it would be useful to measure progress with monitoring and use the model for something else.

Cassie Davis (in chat): Should the CAST updates be tied to new/updated WIPs?

Greg Sandi: with monitoring, sometimes it's difficult to interpret and it's also expensive. In terms of what Cassie suggested, I think we looked at the past too. It is MD's plan to do this for the foreseeable future and reevaluate in 2025. Part of that is looking at an updated model.

Dave Montali: We can't do anything about Phase 6. But I think the door is wide open for Phase 7 and how we talk about WIPs. I think maybe two years is too short and maybe there are other ways. When we did WIP III we planned what things were going to look like on the ground for 2025. Maybe we could do a better job of trending and be more confident and use new data sources anecdotally. Maybe it's 3-4 years. People want changes to the model when we go on but then they don't want drastic changes to model outputs either. I think this is a gigantic discussion point for how we proceed with Phase 7.

Mark Dubin: Piggybacking on Norm's comments on handling new BMPs. I had similar experiences working with Ag BMPs. When we were dealing with a new load source, we looked at the history of implementation. Overall, the impacts were minimal.

Ted Tesler (in chat): Dave, agree to improve input forecasting

Vanessa Van Note (in chat): Dave, why do you feel that we can't make any changes to the process for Phase 6? Can the high level decision makers not revisit this for Phase 6?

Cassie Davis: Every time there is a new model, does the older CAST model still exist? Come 2025, would we be able to run scenarios in previous versions of CAST?

Olivia Devereux: that would be difficult because with these updates, new BMPs are approved, the BMP history changes etc. If we ran it through an old version of CAST, it would be with the old BMP history, and you wouldn't have new BMPs, and you would need to determine which NEIEN appendix to use.

Greg Sandi: If we were to lock out the model for a certain period, 6 years, for example, would we be able to modify it in the background, and adapt and have it as a separate thing for the technical WGs while maintaining the static model?

Olivia Devereux: the original premise of this discussion was to not change the model as frequently, and now it seems like you are asking if we can change the model but also not change it.

Greg Sandi: I am not saying I am married to one or another idea, but what I am trying to understand is how we account for what people want?

Olivia Devereux: it sounds like the partnership needs to decide whether they want updates or do not want updates.

Jess Rigelman: everything is technically feasible. The problem is that there are multiple versions of the same model and how to communicate that. The problem isn't that we can't do something it's whether we should do it. I feel like the issue in general is the communication of numbers.

Vanessa Van Note: revisiting something Dave mentioned about not making these changes till Phase 7. Was there any reason we couldn't make changes in Phase 6?

Dave Montali: I was thinking more along the lines of evaluating WIP III. We have CAST23 coming down the line if that occurs. I don't know what will happen with CAST 2021. We could dig into and define how this will happen in the next implementation phase.

Vanessa Van Note: if we did extend the time between updates, it would need to come from the senators?

Jeff Sweeney: it would at least need to go through the PSC.

Vanessa Van Note: I think this discussion is timely, given the PSC discussions for CAST21, because we don't want to be here again. What do we need to change as a Partnership to be more efficient and move forward as expected? How do we navigate this conversation at the right level? It's important that we motivate our implementers because that's the only way we will meet our restoration goals.

Greg Sandi: we are coming on an election year, and when we have a new governor, the PSC is switched out. The core staff can inform the new people. That's why I thought it would be appropriate to start the conversation here first.

Olivia Devereux: I agree that it's good we are discussing this, and it would be great if this group could reach consensus on a recommendation.

Vanessa Van Note: the WTWG leadership will work with Greg to come to more of a decision.

Greg Sandi: is this something that should be brought back to the group? Or should there be some offline conversations before bringing this back? Should there be a special committee out of this workgroup?

Vanessa Van Note: we can work on this between meetings and solicit input from other WTWG members to see who is interested in participating in those conversations.

Bill Keeling: I can only imagine that for them, being presented with three versions of CAST could be very confusing.

Jessica Rodriguez (in chat): I think this is a valid discussion to continue at the WTWG because won't we have the same two-year CAST update rotation for Phase 7. Or at least that will probably be the default to start the conversation.

Vanessa Van Note: this is the appropriate group to be discussing this because you are the ones who face these communication challenges head-on.

Kaylyn Goodman: I think this communication piece is going to be a big part of my job and I see this as an opportunity for growth.

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12:00 PM – Meeting Adjourn

Next Meeting: October 6, 2022, from 10:00 to 12:00 PM

Call Participants

Hilary Swartwood, CRC

Vanessa Van Note, EPA

Cassie Davis, NYSDEC

Bill Keeling, VA DEQ

Chris Mason, USGS

Clare Sevcik, DNREC

Doug Moyer, USGS

Dave Montali, Tetra Tech (WV)

Emily Dekar, USC

Jess Rigelman, J7 Inc.

Jessica Rodriguez, DoD

Kaylyn Goodman, EPA

Leon Tillman, NRCS

Lori Brown, DNREC

Mark Dubin, UMD

Greg Sandi, MDE

Jordan Baker, HRG

Norm Goulet, NRVA

Olivia Devereux, Devereux Consulting

Ruth Cassilly, UMD

Ted Tesler, PA DEP

Tom Butler, EPA (AMT)

Jeff Sweeney, EPA

Vanessa Van Note, EPA

Eugenia Hart, DNREC

Helen Golimowski, Devereux Consulting

Loretta Collins, UMD

Julia Wakeling, DC DOEE

John Jastram, USGS

Jeremy Hanson, CRC

Jennifer Walls, DNREC

James Webber, USGS

Alana Hartman, WV DEP

Holly Walker, DNREC

Alicia Ritzenthaler, DOEE

Common Abbreviations/Acronyms	
AgWG- Agriculture Workgroup	BMPVAHAT- BMP Verification Ad Hoc Action Team
BMP- Best Management Practice	CBP- Chesapeake Bay Program
CAST- Chesapeake Assessment Scenario Tool (user interface for the CBP Watershed Model)	CRC- Chesapeake Research Consortium
CBPO- Chesapeake Bay Program Office (houses EPA and myriad contractors and grantees working towards CBP goals)	DOEE- [DC] Department of Energy and Environment
CBW-Chesapeake Bay Watershed	EPA- [United States] Environmental Protection Agency
DNREC- [DE] Department of Natural Resources and Environmental Control	FFWG- Federal Facilities Workgroup
DoD- [United States] Department of Defense	MB- Management Board
FWG- Forestry Workgroup	NFWF- National Fish and Wildlife Foundation
LUWG- Land Use Workgroup	PA DEP- Pennsylvania Department of Environmental Protection
NEIEN- National Environmental Information Exchange Network	PSU- Pennsylvania State University
NYSDEC- New York State Department of Environmental Conservation	UMCES- University of Maryland Center for Environmental Science

THIS MEETING IS BEING RECORDED

PSC- Principal Staff Committee	USDA-ARS- United States Department of Agriculture- Agricultural Research Service
STAC- Scientific & Technical Advisory Committee	States Department of Agriculture-Natural Resources Conservation Service
UMD- University of Maryland	VA DEQ- Virginia Department of Environmental Quality
USDA-NASS- United States Department of Agriculture-National Agricultural Statistics Service USDA-NRCS- United	WTWG- Watershed Technical Workgroup
USWG- Urban Stormwater Workgroup	WV DEP- West Virginia Department of Environmental Protection
WQGIT- Water Quality Goal Implementation Team	