

Chesapeake Bay Program
Watershed Technical Workgroup (WTWG)
Meeting Minutes

Thursday, March 2, 2023

10:00 AM to 12:00 PM

[Meeting Materials](#)

Summary of Actions and Decisions

Decision: The WTWG approved the [February Meeting Minutes](#).

Action: Olivia Devereux will present on the future updates to reporting to NEIEN and the timeline for those changes at a future meeting.

Action: Please reach out to Jeff Sweeney (sweeney.jeff@epa.gov) with additional questions about the Transportation Settlement Emission Reduction BMP. The WTWG will vote on this at a future meeting.

Action: Reach out to Jackie or Ruth with any additional feedback regarding Track 1 & 2 of the QAQC Data Processing Protocol [presentation](#). The feedback from the group will be consolidated and a formal vote on the path forward will occur at the April WTWG meeting.

Action: Please provide feedback on oyster BMP technical appendix to Olivia Caretti (oysterBMPresponse@oysterrecovery.org) by March 23rd. She will return in April to present a revised draft and the WTWG will vote to approve the technical appendix in May.

Meeting Minutes

10:00 **Introductions and Announcements** – Ruth Cassilly, UMD/CBPO, Coordinator (15 min).

- *Please put your name and affiliation in the chat box for attendance purposes. Thank you!*
- **Decision:** Approval of [February Meeting Minutes](#).
- Previous and Upcoming CAST Webinars – Helen Golimowski, Devereux Consulting
- Progress Update/Announcements - Olivia Devereux, Devereux Consulting
- Update on Dissolved Oxygen (DO) Equivalent Factor / Eutrophication Units – Ruth Cassilly, Coordinator
 - Bill Keeling and Gary Shenk will be presenting this topic at the 3/27 WQGIT meeting to familiarize members with this concept and give an example of how it can be applied in planning/prioritizing watershed restoration efforts.
 - Jackie Pickford (in chat): N:P exchange ratios are already on CAST in the Planning Targets excel workbook, found here:
<https://cast.chesapeakebay.net/Documentation/PlanningGoals>
 - Jackie Pickford (in chat): EU calculator will be added to CAST- estimated timeline for that by end of calendar year 2023
 - Bill Keeling: The WQGIT leadership said we don't need official approval for this change from the WQGIT.
- New WTWG Staffer onboarding 3/20
- Bill Keeling requested more technical information for what it means that NEIEN will not be used anymore.

- **Olivia Devereux:** NEIEN will not be going away. It just needs an update. Planning to do an update that could involve moving that functionality into CAST, but it won't change whether or not you submit the xml schema or that format - just where you submit it.
- **Lisa Beatty:** Can we get a timeline for when that change will be made?
- **Olivia Devereux:** Sure we can do that.

Action: Olivia Devereux will present on the future updates to reporting to NEIEN and the timeline for those changes at a future meeting.

10:15 Quantifying the Effects of Car Manufacturer (e.g., Volkswagen) Settlement Actions as a BMP – Jeff Sweeney, EPA, All (30 min).

Jeff Sweeney returns to the WTWG to discuss the proposed BMP associated with atmospheric emission and deposition reductions from Volkswagen settlement funding and how to quantify load reductions to the Chesapeake Bay from estimates of atmospheric emission controls of nitrogen. After the February meeting, voting members were asked to complete a "straw poll" to indicate their preference of the two proposals presented. Jeff reviewed the poll results and addressed the comments and questions raised about the proposals, allowing time for discussion among the group. The WTWG will be asked to vote on this decision item at a future meeting.

Discussion

Greg Sandi: Why is there not a better varying degree of where the concentrations are coming from because of prevailing wind conditions, etc. ? VW settlement actions will be concentrated in hyper urban areas so how do we account for that?

Jeff Sweeney: Each state's plan is different, not every state focuses on spatial targeting. The model can do a lot of what if scenarios to focus on specific areas. But it's difficult because the reductions and emissions are not limited to just within the watershed. Are you saying that MD has a way to track what the emission reductions would be in a particular area?

Greg Sandi: Yes, we have estimates of quantifiable benefits of NOx reductions.

Jeff Sweeney: For verification, the only concern would be that it would have to be using the funds from the settlement, not other funding sources already accounted for in your WIPs.

Greg Sandi: Yes, we are tracking everything paid for by the settlement specifically. Another concern I have is trends in electric markets. Being that we're an area where people are adopting more electric vehicles, how do we account for that moving forward? Want to make sure that's being captured separately from this, but I know that's separate from this discussion.

Jeff Sweeney: We have to talk about that with our modelers in research triangle park that do these forecasts with the national model. It accounts for everything forecasted in the future from all sources of emissions, and then we ask them to run specific scenarios to determine how much returns to the state vs other areas. It's possible to determine that if we have the funds to run those scenarios in the air model. I would keep tabs on the modeling WG to see what they're doing with that for Phase 7.

Gary Shenk: We are getting new runs that reflect the differences within different sectors. Values we have now are from runs done years ago. The CMAQ folks have completed runs for different regions in the watershed (e.g., eastern shore), and within those there are EGUs, mobile sources and ag sources, so we'll have a reduction from each one of those sources, and differentiate between east and west. Referring to this as source apportionment. Could approve the method of applying this now in the WTWG and then when we get those runs this summer we could

update the factors for Phase 6. Also working on base model of atmospheric deposition for Phase 7.

Greg Sandi: Are the new models accounting for increased precipitation in the area?

Gary Shenk: Running on more recent precipitation data so that would be inherent. I don't remember the exact years. Overall climate change assessment there was not a great effect on concentration but additional rainfall meant additional deposition.

Greg Sandi: Overall concern is that if we do start seeing more atmospheric strategies that we'd expect a better return of investment because of that. But I understand that it's difficult to quantify a lot of this.

Norm Goulet, USWG (in chat): Does CMAQ build in the assumptions of conversion to electric?

Gary Shenk: I think Lew Linker would have to answer that question.

Norm Goulet: Need to know what is in these scenarios and what is not. If something is included in this then we can't count it towards individual BMP reductions. Need to know what is being built into the air reduction assumptions in the CMAQ model, anything above and beyond that could potentially be included for BMP reductions.

Jeff Sweeney: It's really difficult to determine that. Need to be able to track this through expenditures from this particular funding source (the settlement).

Norm Goulet: If the acceleration of the state implementation plans is built into CMAQ then this is all for naught. Need to know what's built into CMAQ.

Jeff Sweeney: Most of this would not be built into CMAQ already, but should be mindful as we make updates to CMAQ.

Ruth Cassilly: Please let us know if you have more input on this.

Action: Please reach out to Jeff Sweeney (sweeney.jeff@epa.gov) with additional questions about the Transportation Settlement Emission Reduction BMP. The WTWG will vote on this at a future meeting.

10:45 **Charge from the Water Quality GIT/Management Board on Phase 6 Data Processing Protocols**
– Ruth Cassilly, UMD/Coordinator (45 min).

Last month, Ruth presented on the proposed path forward for addressing the Management Board charge to the Water Quality GIT/WTWG: *“Work with the **Watershed Technical Workgroup** and others as appropriate in the development of a policy for the partnership regarding safeguards, triggers, and protocols to prevent future data analysis variations and how they are applied (Addresses PSC 8/29/22 Decision #3).”*

This month, Ruth reviewed the feedback received from the WTWG on the proposed path forward, reviewed the existing QA/QC documentation, and led the group through a Mentimeter exercise to provide additional input on Track 1, focusing on the following questions:

- Do we want to pursue Track 1?
- Is existing QA/QC sufficient?
- If not – what else do we need to address this part of the charge?

She also presented scenarios where Track 2 protocols would be needed to better illustrate the purpose/charge of Track 2. The WTWG was asked to provide feedback on key terms and next steps.

Discussion

Norm Goulet (in chat): Just to set the record correct, the USWG has not adopted a new methodology as of yet.

Dave Montali: As we move along with Track 2, we will find data entry problems and then be able to ask ourselves why something occurred and address QAQC problems then if we need to. Will be difficult to address things that haven't come up yet. I think we have to focus on scenario 1 for Track 2. West VA has two good examples of illogical results in the past two versions of the model (turfgrass example and cropland doubling example). Need to change the CAST timeline and schedule to incorporate a few months for the review of model results. Will be very difficult to specifically define what counts as illogical results.

Jeremy Hanson: This should act as an "off ramp" for us so that we have a better sense of where we can "pull off", pause, and reevaluate. Don't need to articulate every possible issue that may arise.

Greg Sandi (in chat): It would be nice to have a set period of time, say a year or so before roll out of a new model for us to review changes. Rather than running up on the end of a milestone period to have everyone scramble to review such large and complex issues at the last minute.

Ruth Cassilly: So maybe step 1 wouldn't be defining the terms, but determining a timeline for review. If there is a result that is questioned, we would have a protocol in place to decide where this should be worked on in the appropriate WG and give a timeline for making that decision (e.g., if a jurisdiction is questioning a result, explaining this is why, this is the WG that should work on it, have protocols in place for them to follow.). If we are ready, we will formally vote as a group at the April meeting if we want to deal with Track 1 at all or if we want to head straight into Track 2.

Dave Montali: Initially for West VA, the consultation was with CBPO staff to figure out what is going on and why we were seeing this illogical result. The most efficient way is to first understand why they are seeing this result. Might need to push it to CBPO staff to determine that as a first step.

Sarah Lane (in chat): Key evaluative terms could be defined by the impact of the change to progress. x# of acres changed or pounds. x% of a change in acres or pounds.

Action: Reach out to Jackie or Ruth with any additional feedback regarding Track 1 & 2 of the QAQC Data Processing Protocol [presentation](#). The feedback from the group will be consolidated and a formal vote on the path forward will occur at the April WTWG meeting.

11:30 **Briefing on Draft Oyster BMP Expert Panel Technical Appendix** – Olivia Caretti, Oyster Recovery (20 min).

Olivia presented an overview of the draft technical appendix associated with the Oyster BMP expert panel report and the expectations of how the BMPs will work in CAST/NEIEN. The WTWG will be asked to approve the technical appendix at a future meeting. All materials and informational webinars associated with this BMP can be found on the Oyster BMP [calendar page](#).

Discussion

Jeremy Hanson (in chat): technical appendix on today's calendar page:

<https://d18lev1ok5leia.cloudfront.net/chesapeakebay/documents/Oyster-BMP-panel-2->

[DRAFT Technical-Appendix_all-practices_28Feb2023_for-WTWG-review.pdf](#)

Action: Please provide feedback on oyster BMP technical appendix to Olivia Caretti (oysterBMPresponse@oysterrecovery.org) by March 23rd. She will return in April to present a revised draft and the WTWG will vote to approve the technical appendix in May.

11:50 **Recap of Actions and Decisions** (10 min).

12:00 **Adjourn.**

Next Meeting: Thursday, April 6th, 2023, from 10:00 AM – 12:00 PM.

Participants

Jackie Pickford, CRC	Bill Keeling VA DEQ
Ruth Cassilly, UMD/CBPO	Eugenia Hart, Tetra Tech, DE
Jeff Sweeney, EPA/CBPO	Dave Montali, tetra tech, wv, mwg
Olivia Caretti, Oyster Recovery	Jen Walls, DE DNREC
Scott Heidel PA DEP	Sarah Lane, MD DNR
Tom Butler, EPA	Mark Dubin, CBPO/UM
Alicia Ritzenthaler (DC DOEE)	Olivia Devereux, Devereux Consulting
Helen Golimowski, Devereux Consulting	Jeremy Hanson, CRC, CBP WQGIT Coordinator
Samuel Canfield, WVDEP	Auston Smith, EPA
Leon Tillman, USDA-NRCS	Lisa Beatty, PA DEP
Kevin McLean, VA DEQ	Holly Walker, DE DNREC
Emily Dekar, Upper Susquehanna Coalition	Call-in-user 3
Nicole Christ, MDE	Douglas Austin, EPA
Gary Shenk USGS@CBPO	Julia Wakeling
Normand Goulet, NVRC	Karl Berger, MWCOG
Clare Gooch, DE DNREC	Greg Sandi, MD
Jessica Rigelman, J7 Consulting	Alana Hartman, WVDEP
Arianna Johns VA DEQ	

Acronym List

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

PA DEP: Pennsylvania Department of Environmental
Protection
PSC: Principals' Staff Committee
PSU: Pennsylvania State University
QA/QC: Quality Assurance / Quality Control
STAC: Scientific & Technical Advisory Committee
TMDL: Total Maximum Daily Load
UMCES: University of Maryland Center for
Environmental Science
UMD: University of Maryland
USDA-ARS: U.S. Department of Agriculture -
Agricultural Research Service
USDA-NASS: United States Department of
Agriculture-National Agricultural Statistics

Service
USDA-NRCS: U.S. Department of Agriculture -
Natural Resource Conservation Service
USWG: Urban Stormwater Workgroup
VA DEQ: Virginia Department of Environmental
Quality
VW: Volkswagen
WQGIT: Water Quality Goal Implementation Team
WTWG: Watershed Technical Workgroup
WV DEP: West Virginia Department of
Environmental Protection
WWG: Wetlands Workgroup
WIP: Watershed Implementation Plan