Chesapeake Bay Program
Watershed Technical Workgroup (WTWG)
Meeting Minutes
Thursday, April 6, 2023
10:00 AM to 12:00 PM
Meeting Materials

Summary of Actions and Decisions

Decision: The WTWG approved the March Meeting Minutes.
Tentative Decision: The WTWG tentatively (due to absence of several voting members) confirmed that the existing Chesapeake Bay Program QA/QC documentation and processes for the Phase 6 model inputs, reviewed by the group Feb – March 2023, provide sufficient safeguards in response to PSC Decision #3. Formal recommendations to the WQGIT on additional QA/QC protocols or documentation for Phase 6 model inputs are not needed at this time. (*Note: this decision item only refers to Track 1 of the proposed path forward to address Aug 29 PSC Decision #3/MB Charge. It does not refer to the processes and documentation regarding Track 2, which the WTWG will pursue as needed*).
Action: The WTWG leadership will follow up with voting members who weren't present to confirm their votes on the above decision.
Action: WTWG members, especially those who missed the April meeting, please review the attached Draft CAST Review Process Outline document (presented at the April meeting) in preparation for continued discussion and feedback on this topic at the May meeting.

Meeting Minutes

10:00   **Introductions and Announcements** – Cassie Davis, NYSDEC (15 min).
- People posted their affiliations in chat/verbally
- Cassie asked for approval of the March Meeting Minutes, and they were approved. She introduced Sushanth, the new staffer.
- Helen announced that last month's CAST Webinar is now on the CAST page. The upcoming webinar for April will be on April 20th and talk about BMP targeting maps and other tools for BMP targeting. Link: https://cast.chesapeakebay.net/Learning/FreeTrainingVideos
- Olivia gave an overview of efforts to improve the technology behind BMP reporting. Olivia will present next month or the month after on details on this process. Olivia explained that Jeff finished the verification process and is communication with CBP leadership. Olivia explained what Austin has been working on regarding documentation.
    o   Here is a copy of Jeff's presentation
- Cassie mentioned that Bill Keeling presented to WQGIT on DO and Eutrophication Units. Cassie explained that she thought the reception was good, and Bill agreed that he thought there was a

positive response. Cassie explained that Jeff had an emergency so couldn't present this month but directed people to look over his PowerPoint on the website (link?) and email him if they have questions in the interim.

- **Decision:** Approval of <u>March Meeting Minutes</u>.
- Previous and Upcoming CAST Webinars – Helen Golimowski, Devereux Consulting
- Progress Update/Announcements – Olivia Devereux, Devereux Consulting
- BMP Reporting Transparency and Updates to NEIEN node – Olivia Devereux, Devereux Consulting
- Update on Dissolved Oxygen (DO) Equivalent Factor / Eutrophication Units – Cassie Davis, NYSDEC

10:15 **PSC Decision Charge on Phase 6 Data Processing Protocols** – Ruth Cassilly, UMD/Coordinator (45 min).

Ruth reviewed materials and previous discussion relating to **Track 1** of the PSC charge in preparation for asking for a decision on Track 1.

<u>Decision requested</u>:

The WTWG confirms that the existing Chesapeake Bay Program QA/QC documentation and processes for the Phase 6 model inputs, reviewed by the group Feb – March 2023, provide sufficient safeguards in response to PSC Decision #3. Formal recommendations to the WQGIT on additional QA/QC protocols or documentation for Phase 6 model inputs are not needed at this time.

Cassie went through the decision making process (consensus continuum) and asked everyone present for their vote:

DC, NY, PA, WV, EPA: Endorse (EPA voted after the meeting via email)

DE, MD: were not present. MD has since voted "Agree with Reservations"

VA: Stand aside

At Large: Norm (NVRC) agreed with reservations, other members were not present, following up

- <u>Track 1 inventory</u> reviews what is in place and what has been revised since November 2022

Ruth then continued discussion on **Track 2**, (post model output review protocols) by presenting a ***Draft CAST Updates Review Process*** **document** for WG review and input. The document outlines proposed protocols/steps and timeline for CAST data input and output review during the model update process. Briefly, the proposed CAST review process includes a data inputs & methods review and approval period (data inputs are summarized in the CAST Data Updates Frequency excel), extends model review periods, and adjusts the timing of the jurisdictional review period. Both the CAST Review document and Model Updates Frequency excel are included as email attachments and posted to the

calendar page. We will be going over this information again at the May meeting to give an opportunity for questions and additional input since so many members missed the April meeting. We will also revisit the discussion on the need for guidance on scientifically validating persisting perceived anomalies or contentions of unreasonable model outputs.

Discussion Concerning Track 1:

Bill Keeling: I'm not going to say I'm a stop or a hold, I've just got a question or a comment. So obviously there was the issue in CAST 19 where somebody missed a step somewhere with fertilizer. What we're saying is that there was sufficient QA documentation, but somebody dropped the ball, and they didn't follow the documentation. And that's why we don't think we need to make any changes for phase 6? Just want to be clear on how to answer that question.

Ruth Cassilly: Not exactly, because the documentation that covers the QA/QC of that particular data input, the fertilizer, was modified in November of 2022 and that is what we refer to as the UMCES QAPP, but it covers all those model inputs and actually had additional protocols added to it to ensure that what happened with the fertilizer data was rectified. So, it puts those safeguards in place to ensure that there's a process followed for double checking all that so it shouldn't happen again. So, there were additional actions taken to edit that document that's posted in the materials on the WTWG and what was added to the document is in red under that section.

Norm Goulet: The problem with QA/QC is that its constantly evolving. As we discover more errors we have to go back and revise the QA/QC. I think my reservation is that this not be set in stone and we need to revisit this topic every once in a while.

Cassie Davis: Maybe that can be part of Track 2, to set up a check in on our timeline to see if we still feel confident with our QA/QC documentation processes.

Bill Keeling: That's kind of why I'm standing aside because just look at land use and how that's changed over the years with the processes and what's done to create it. If you're changing your collection process your QA may need to be different and Norm's point about it maybe needing to evolve is a good one.

Ruth Cassilly: We'll have to do a lot of follow up on Track 1. (many absent members)

> **Tentative Decision:** The WTWG voting members will be asked to confirm that the existing Chesapeake Bay Program QA/QC documentation and processes for the Phase 6 model inputs, reviewed by the group Feb – March 2023, provide sufficient safeguards in response to PSC Decision #3. Formal recommendations to the WQGIT on additional QA/QC protocols or documentation for Phase 6 model inputs are not needed at this time.

Discussion Concerning the Draft CAST Review Process Outline and Additional Protocols-Track 2

Dave Montali: So, the shifting of schedules from when the new version comes out, normally around November 1st will shift to February with potentially more time for the internal CBP staff to evaluate model output. The previous timeline doesn't ring true with me. My recollection for CAST 21 was the model became available about November 1st. Jurisdictions were given until November 30th to review it

and that review at least up front said make sure that there's no data errors and that CBP staff followed established protocols. There was not an opportunity to look at those model results and do this illogical assessment, I think. So, whatever we come out with we ought to be able to say what is fair game for folks to evaluate. My first question is do I have it right relative to the timeline, there's a four or five month shift and in that time there's potentially more time for the CBP internal staff to evaluate the change.

Ruth Cassilly: You have it right with the shift. There is more time for review. The idea was to give the partnership more time for review. The idea was also to make the review happen when the data for that progress year was finalized and available so that you're not reviewing the model based on the previous years data and then we approve it and then the new data comes out and then you have to re-run everything again to see what's happening. One important change is that the data for progress for that current year would be available and finalized. The CBP internal staff review is still happening before that data is available to look for processing errors and Olivia and Jess can both speak to that process much better than I can. That's still happening within a shorter window, but we did adjust when the jurisdictions are reviewing, and the timing is twice the amount of time to do the review as was previously given. If you say it was only a month then it's even longer because I thought it was for two months.

Dave Montali: I don't know. I do recall something coming out around November 1st and an expectation to submit comments by November 30th. But that's irrelevant at this point. My internal review stuff I was thinking the [WQ]GIT approved all the changes on September 1st and between September 1st and November 1st the internal staff had those two months to set it all up, put it out and put out the model output. It seems like now its November 1st until approximately February 1st for that stuff. If that is the case, then maybe there's some time for an internal illogical review before we even see it.

Ruth Cassilly: Hopefully yes. Yes, I agree with you. I think that that's also part of this whole process. The idea that it's trying to give everyone more time for review. The WQGIT more time, the SSWGs more time before the data is finally approved. And then once the data is actually incorporated on Nov 30th more time for internal review with the existing progress year data just to work out any processing issues that might be happening and then an extended review with the final data for that progress review and hopefully during that time the Feb 8th through the May 31st there's that same process of jurisdictions reaching out to the IET team and saying we're seeing this do you have any idea why this might be happening and them working together in an informal process to look at some of the things that don't look right and then fix those issues. I know that process is already occuring and so the idea is to keep that happening but give more time for it and do it with the data that's finalized.

Dave Montali: The idea of putting a new model out with new progress also introduces change from the new progress data. Somebody needs to think about apples to apples, where a previous progress could be looked at under an old model versus the new model.

Ruth Cassilly: I think you're right and hopefully in this process here on the right-hand side between November 30th and January 31st that CAST CBP review will be done with previous years data, the

progress data that exists, because the new data won't be available. Hopefully that data can be made available to jurisdictions, and those runs can be made available to jurisdictions so they can look and be comparing apples to apples as well. The idea is that once that new data comes out, we would do the process again with more time and with the newly finalized progress data. It's not perfect and it's never going to be but there was an attempt to respond to some of the jurisdictional concerns.

Dave Montali: My vision is that yes it needs to be scientifically supported to some degree; you have to show that it is not representative of real change that has occurred from the previous version and whoever has that belief should be forced to describe it under those constraints and have the partnership come back and agree with them or not. I you make the case and this group agrees yeah, its illogical, it's not imperfect, its illogical then there needs to be a step to say can we fix it promptly. And if we can't, then what happens then. The West Virginia guy that put this in front of the PSC called it an off ramp and his vision was if you've got something that's illogical that you can't fix in the timeframe you've got to go back to the way it was in the last model.

Ruth Cassilly: Ok those are great comments. Anyone else have thoughts on that particular setting up of protocols?

Norm Goulet: I agree with Dave, there does need to be some kind of off ramp. My other comment is more of a soapbox issue than anything else. I've noticed over the years we've become so date driven that when issues do arise, the aspect of date is brought up and the issues never truly get resolved or they get pushed off. I understand there have to be dates, but I think we've become too date driven. The information is sometimes more important than meeting a specific timeframe.

10:40 **Review Revised Oyster BMP Expert Panel Technical Appendix** – Olivia Carretti, Oyster Recovery (30 min).

Olivia presented the revised technical appendix to be voted on for approval at the May WTWG meeting. Materials and informational webinars associated with this BMP can be found on the Oyster BMP calendar page.

Discussion

Bill Keeling: The issue I'm having with the measurement "site area" is we've hard coded that into our BMP warehouse related to the stormwater practices, that is, the measurement for the runoff reduction stormwater treatment BMP. So, I'm a bit concerned about that exact phrase being used with oysters and cross wire coding and my application. Can I request that that be changed to something other than "site area"?

Olivia Caretti: I think that's definitely possible. The only challenge is that "BMP site area" is a term that's defined in the report and used throughout the report. So as long as people are OK with the terms in the report not necessarily matching the terms in the technical appendix then that's probably acceptable.

Bill Keeling: I guess what I'm asking is you can still have one of the rows in the NEIEN BMP appendix say "site area" as long as there's another one for the same BMP that says something like "area treated" so that there's another option. It's all gonna get processed as acres, right?

Olivia Caretti: Yeah

Bill Keeling: As long as there's an option for my reporting so that I can code my application in a way that doesn't conflict with other coding.

Jessica Rigelman: Bill, we definitely can give you a second measurement name for that. So, I will email you after and we can pick a name that works for you. That is perfectly fine.

Cassie Davis (in chat): Restoration Site area?

Bill Keeling (in chat): Or Area Restored

11:25   **Recap of Actions and Decisions** (5 min).

12:00   **Adjourn**

==Next Meeting:== **Thursday, May 4, 2023, from 10:00am-12:00pm.**

Participants

Alana Hartman, WV DEP	Kimberly Dagen, SRBC
Alicia Ritzenthaler, DC DOEE	Lisa Beatty, PA DEP
Arianna Johns, VA DEQ	Mark Dubin, UMD
Bill Keeling,	Nicole Christ, MDE
Dave Montali, Tetra Tech WV	Normand Goulet, NVRC
Emily Dekar, USC	Olivia Caretti, Oyster Recovery Partnership
Eugenia Hart, Tetra Tech DE	Olivia Devereux, Devereux Consulting
Fernando Pasquel, Arcadis	Ruth Cassilly, UMD
Helen Golimowski, Devereux Consulting	Samuel Canfield, WVDEP
Jackie Pickford, CRC	Sushanth Gupta, CRC
Jessica Rigelman, J7 Consulting	

Acronym List

BMP: Best Management Practice	CRC: Chesapeake Research Consortium
CAST: Chesapeake Assessment Scenario Tool (user interface for the CBP Watershed Model)	DO: Dissolved Oxygen
	DC DOEE: [DC] Department of Energy and Environment
CBP: Chesapeake Bay Program	

EPA: [U.S.] Environmental Protection Agency
MB: Management Board
MDE: Maryland Department of the Environment
NEIEN: National Environmental Information
    Exchange Network
NVRC: Northern Virginia Regional Commission
NYSDEC: New York State Department of
    Environmental Conservation
PA DEP: Pennsylvania Department of Environmental
    Protection
PSC: Principals' Staff Committee
QA/QC: Quality Assurance / Quality Control
SRBC: Susquehanna River Basin Commission
SSWG: Source Sector Work Group
UMCES: University of Maryland Center for
    Environmental Science
UMD: University of Maryland
USC: Upper Susquehanna Coalition
VA DEQ: Virginia Department of Environmental
    Quality
WQGIT: Water Quality Goal Implementation Team
WTWG: Watershed Technical Workgroup
WV DEP: West Virginia Department of
    Environmental Protection