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Chesapeake Bay Program
Watershed Technical Workgroup (WTWG)
Meeting Minutes
Thursday, October 6, 2022
10:00 AM to 12:00 PM
Calendar Page: Link

Summary of Actions and Decisions

Decision: The WTWG approved the September Meeting Minutes

Decision: The WTWG approved adding the septic BMPs to the NEIEN Appendix. Jess Rigelman will let the WTWG know when this change is finalized (*post meeting note:* the septic BMPs were added to NEIEN).

Action: The WTWG leadership will confirm the CBP's meeting recording policy. If the Integrated Watershed TMDL indicator presentation recording cannot be shared, interested parties are encouraged to set up a meeting with Gary Shenk (GShenk@chesapeakebay.net) to go over this information. This presentation will also be made at a future WQGIT meeting.

Action: The WTWG will continue their discussions on the DO (dissolved oxygen) equivalent at a future workgroup meeting.

Agenda

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

- Approval of September Meeting Minutes– Cassandra Davis, NYSDEC
  - ***Decision:*** *The WTWG approved the September Meeting Minutes*
- Ag Mortality BMP Expert Panel Update – Jeremy Hanson, CRC
  - *No updates currently*
- September MB Meeting Update on CAST-21 – Cassandra Davis, NYSDEC
  - *The next meeting to discuss CAST 21 with MB and WQGIT is October 19th: https://www.chesapeakebay.net/what/event/cast-special-meeting*
  - *There will be an additional meeting in November*
- Upcoming CAST Webinar – Helen Golimowski, Devereux Consulting
  - *Link to an upcoming webinar on tributary summaries: https://cast.chesapeakebay.net/Learning/FreeTrainingVideos*
- Thank you, Vanessa! New Coordinator for WTWG – Cassandra Davis, NYSDEC
  - *The new Coordinator is not yet finalized but will be by the November meeting*
- Thank you, Hilary! – Cassandra Davis, NYSDEC
  - *Jackie Pickford will be staffing the WTWG moving forwards*
- Other announcements
  - *Bill Keeling: for septic practices that were left out of the NEIEN appendix- do we need a vote to amend the NEIEN appendix?*

- *Cassie Davis: there were septic BMPs left out of the NEIEN appendix, and Bill requested this be fixed.*
- *Bill Keeling: if this is just an oversight that needs to be corrected, can't Jess Rigelman just add them to the NEIEN appendix and repost it to the website? It was basically any of the ones that had a drip irrigation system.*
- *Olivia Devereux: it was missed before Jess took over the NEIEN Appendix, but it should be added.*
- *Bill Keeling: I am bringing it up because November may be too late for VA to submit this.*
- *Cassie Davis: the change would be just adding these BMPS into the NEIEN appendix. No concerns were voiced out loud or in the chat.*
- ***Decision:** The WTWG approved adding the septic BMPs to the NEIEN Appendix. Jess Rigelman will send out the updated appendix once this change is finalized (post meeting note: the septic BMPs were added to NEIEN).*

10:15 AM – **2022 Progress Submission Update** – Cassie Davis, NYSDEC

- When do jurisdictions plan to submit data for 2022 Progress?
- WIP Assistance Funding and BMP Reporting

Discussion:

- *DC (Alicia Ritzenthaler):* we are trying to reconcile with some of the Federal Agencies
- *PA (Ted Tesler):* we have about a dozen program records to assess and test. When does the WIP assistance funding become available?
  - *Cassie Davis:* the last time this occurred was in 2020, so I am not sure when that will be available.
  - *Ted Tesler:* I wasn't sure if it was an open call or if there were proposals.
  - *Jeff Sweeney:* normally they pick a few topics, and each jurisdiction submits a proposal related to those topics. I am pretty sure in the past, every jurisdiction was funded.
  - *Ted Tesler:* next time, it would be nice to get the word out on it more.
- *WV (Alana Hartman):* we will submit a test in the next coming weeks. We also got submittals from federal facilities, and we are waiting for the USDA records which we will have in early November.
- *DoD (Jessica Rodriguez in chat):* The DoD submitted the BMP submissions to all jurisdictions. If any of the jurisdictions have any concerns with the DoD data, please feel free to reach out me (jessica.m.rodriguez@navy.mil) and I will be happy to address them/ help resolve any issues.

Additional Questions/ Comments:

- *Olivia Devereux:* at the end of the year both agencies (NRCS and FSA) close their records and do updates. Once that is done, we provide it to the states
- *Leon Tillman:* on the NRCS side, we expect to have data by no later than next week.
- *Olivia Devereux:* it takes my team a couple of weeks to turn that around and we do expect to have that data by November 1st.

10:30 AM – **Proposed CBP Integrated Watershed TMDL indicator– Gary Shenk, USGS, and Qian Zhang, UMCES**

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Gary Shenk and Qian Zhang will provide an overview of a proposed CBP Integrated Watershed TMDL indicator and related products for the watershed data dashboard.

Discussion:

Norm Goulet (in chat): I really think you need to add in the climate response. As we heard yesterday from Marjorie, it accounts between 10-30% loss of implementation.

Gary Shenk: the increase in the total amount of reduction – we could separate those out so you could see it.

Norm Goulet: I think that would be helpful if this will be a public facing indicator.

Chris Brosch: on the last slide you have three different implementations, but on this slide, it looks like it's two. I am not sure how this illustration (proposed public indicator slide) shows that.

Gary Shenk: In this case, we have implemented seen, implemented with lag, and there is a third which is implemented and not yet seen in monitoring. For Phosphorous, all three of these are present, for nitrogen, the implemented and not yet seen in monitoring was not shown. This is a lot of information. The red bar is essentially the difference in what we expect (implemented, lag time, etc.) and what we monitor.

Cassie Davis: does the phosphorous include climate change too?

Gary Shenk: yes, it does.

Cassie Davis: for the RIM load that is 65% TN and 69% TP, could it be broken out by wastewater RIM and nonpoint source?

Gary Shenk: we could do that.

Karl Berger (in chat): can you do several overall indicator graphs: one for Susquehanna and one for all the other RIM stations. The Conowingo effect remains somewhat confusing to understand.

Gary Shenk: yes, we could also do that. That is a good idea to look at that. At the end of the day, we want something that is aggregated up, but it would be helpful to look at that individually

Alana Hartman: thank you for this presentation, and I like the 4 colors. It helps so much to see the marrying of monitoring with modeling.

Cassie Davis: I would like to second that. It's a new way to looks at it, and I feel like I got a good grasp after this presentation

Bill Keeling: In an earlier slide it said that we are almost done implementing. In VA, I don't see VA ever being done with implementation. Maybe it shouldn't be characterized as "done with implementation" but that we hit the implementation target level.

Dave Montali: there is an issue with annual practices etc. and you must make sure you use the right words as you explain.

Cassie Davis: I appreciate the "behind the curtain" view of this.

Gary Shenk: I imagine that we will be presenting this multiple times before we are ready to make this available to the public.

Chris Brosch: An initial reminder alongside these illustrations would be helpful about the non-point source and point source.

Ted Tesler (in chat): next time spend more time explaining the "RIM expected by not monitored classification."

Lisa Beatty: Is it possible to have the recording of the presentation or the transcript sent to PA? Hilary, can you get back to me about the recordings?

Hilary Swartwood: yes, I will verify what the policy is and let you know.

Action: The WTWG leadership will confirm the CBP's meeting recording policy. If the Integrated Watershed TMDL indicator presentation recording cannot be shared, interested parties are encouraged to set up a meeting

with Gary Shenk (GShenk@chesapeakebay.net) to go over this information. This presentation will also be made at a future WQGIT meeting.

11:30 AM – **Free Discussion Topics** – WTWG

The WTWG will spend the last 30 minutes of the meeting discussing topics of interest to the group.

- The use of the DO Damage number to represent any given scenario's impact on DO and comparison to the target DO Damage number.
- Follow up from last month's discussion topic (if there is time)

Discussion:

Bill Keeling: when we set up a model, we run a variety of scenarios. The estuarine model predicts the DO at different places and depths. The role of those various scenarios can calculate the quartile numbers that relate to nitrogen, phosphorus, and what effect that has on DO in critical segments (deep channel where anoxia is the biggest issue) where if we fix those segments then everything else should be met (as we understand it). It dawns on me that we can calculate that damage number pretty precisely and apply the quartile numbers to calculate the damage to DO or are you close to attaining the target number. If we take the current target and calculate that it gives us the level of oxygen that follows our standards. That is the original target we developed based on information from before. In VA it has been an issue because we never hit the scenario precisely and it's always been difficult to figure out if that is good enough. In VA there are 18 sets of number to figure out if we are hitting targets and that is difficult to explain to higher ups who are not in the weeds as much. For us, we are going to look at things in absolute pounds and the DO damage number and compare that to the target. It gives us one number that the VA scenario is meeting/ exceeding or close to the target and then VA doesn't have to juggle 18 sets of numbers and try to explain them to people who aren't in the modeling world. Would anyone else find this useful? If it is of interest, I would propose having an actual agenda item where we discuss in more detail.

Greg Sandi: I would be interested in learning more about this since I don't know as much about the DO damage number. I would be interested to see how this impacts MD.

Vanessa Van Note:

Greg Sandi: we don't have as much difficulty communicating numbers but any time, we can provide more clarity is good

Bill Keeling: we always thought that we needed to hit each of the targets and that's not really the case. You can have a scenario where you are hitting nitrogen and phosphorus but not hitting the other targets in a basin.

Chris Brosch (in chat) DDA would be interested. I like the concept of a single value and also the clarity of "damage" vs load/reduction concepts where directionality can be more easily confused.

Dave Montali: I understand what you are saying. I would like to learn more about DO damage. Does it target what you need?

Cassie Davis: I've heard the term DO equivalent as well.

Gary Shenk: I think I came up with the term on the spot when I was communicating with Bill.

Bill Keeling: for VA we calculate exchanges because I thought that we needed to even out everything and hit nitrogen and phosphorous in every basin. These numbers indicate you would multiply, for example, the York by the fault line. I would do the same with phosphorous. Let's say the target was 450 for VA, and I sum my basins up and it's at 460. Well, that means we are short and that means I need to go back and do more work to get that scenario closer to 450.

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Gary Shenk: There is a little bit of a wrinkle when exchanges are part of the original 2010 TMDL. When you do an exchange, it's a modification of a planning target and you need to ask EPA first. If you roll it up to a single number, you will have the same calculated effect in the deep part of the Bay. If you do the exchange you need to officially ask for it.
Bill Keeling: the exchanges were explained that if you come up short, you can exchange in that basin or between basins to make up for that. It was a shoring up of a scenario. Different versions of CAST reduce different absolute pounds. The target is the target and if it is distilled down to a DO number it is what we need to attain to fix anoxia in the deep water /deep channel. I would've taken the DO damage number that are WIP produced and compare that to the target or the modified climate target and use that to determine if we are good or need to do more. As far as I know we've never compared the WIPs to the target that directly.
Olivia Devereux (in chat): We are planning to add in a basin to basin and nitrogen to phosphorus exchange calculator to CAST for the next round of developing WIPs.
Gary Shenk: there was a 2018 planning target set by the PSC and the WIPs came in and said they needed these exchanges and then EPA released a letter with updated targets that included the WIP exchanges.
Bill Keeling: had VA looked at this we would've not submitted any exchanges.
Gary Shenk: I understand that point. I think it's just a crossing of the Ts and crossing of the Is. I don't think it makes a difference on the ground.
Bill Keeling: I am not saying that we need to go back and change anything. We are gearing up for Phase 7. This would be one more tool I could use so we can evaluate to see if we've met DO.
Norm Goulet: I am trying to understand this, Gary kind of lost me. When we put the VA WIP together, we did a lot of trading between the basins. If I am understanding this correctly, then Gary, I think you are wrong.
Gary Shenk: I agree with what you said, because it does matter. I was saying that the targets are the same.
Bill Keeling: In other words, when we calculate that in our WIP it seems the climate change number is the DO. Had we known that we would've backed off on implementation, particularly in expensive sectors.
Norm Goulet: I think this is something we need to account for in the Phase 4 WIP. I am in favor of trying to explore this more at a future WTWG.
Cassie Davis: we would like to see this as an agenda item? I see there are thumbs up in the Webex. I do like the idea of thinking about this before Phase 7 and WIP IV.
Bill Keeling: To Gary's Point, mathematically, you get to the same overall target number if you did the math for the climate change adjustment for the DO equivalent. There is really an infinite number of basin calculations that could result in the attainment of DO.
Cassie Davis: I see what you are saying.

Action: The WTWG will continue their discussions on the DO (dissolved oxygen) equivalent at a future workgroup meeting.

12:00 PM – ***Meeting Adjourn***

Next Meeting: November 3, 2022, from 10:00 to 12:00 PM

Call Participants

Hilary Swartwood, CRC
Gary Shenk, USGS
Chris Brosch, DDA
Cassie Davis, NYSDEC
Dave Montali, Tetra Tech (WV)
Jeff Sweeney, EPA
Jessica Rodriguez, DoD
Norm Goulet, NRVA (USWG)
Olivia Devereux, Devereux Consulting

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Tom Butler, EPA (AMT)
Qian Zhang, UMCES
Arianna Johns, VA DEQ
Alicia Ritzenthaler, DOEE
Bill Keeling, VA DEQ
Eugenia Hart, Tetra Tech
Greg Sandi, MDE
Helen Golimowski, Devereux Consulting
Alana Hartman, WV DEP
Jess Rigelman, J7 Inc.
Karl Berger, MWCOG
Karl Blankenship, Bay Journal
Leon Tillman, NRCS
Lisa Beatty, PA DEP
Loretta Collins, UMD
Nicole Christ, MDE
Jeremy Hanson, CRC
Julie Wakeling, DOEE
KC Filippino, HRPDC
Mark Dubin, UMD
Ted Tesler, PA DEP
Vanessa Van Note, EPA
Fernando Pasquel, Arcadis

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	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
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	WWG – Wetlands Workgroup