Chesapeake Bay Program's
Toxic Contaminants Workgroup (TCW)
Meeting Minutes
Wednesday, March 8, 2023
1:00 - 3:00 PM
Meeting Materials

Summary of Action Items

Action: Please contact Greg Allen (allen.greg@epa.gov) if you would like to be part of planning for the next Cross Program Contaminant Working Group PCB Symposium, which will focus on source identification.

Action: TCW leadership will contact scientists doing mercury monitoring to potentially re-form a mercury monitoring network. Contacts include: Cindy Gilmore (SERC), Mark Cohen (NOAA), Mark Castro (University of Maryland).

Action: Greg Allen (EPA) and Alex Gunnerson (CRC) will update the mercury story maps, then ask for verification from jurisdiction representatives. Vicki Blazer (USGS) will assist with text on panel one.

Action: Emily Majcher (USGS) will ask speakers presenting at the Fish Forum on how to use WQX/WQP for PFAS data to speak to the TCW on how the CBP can utilize this.

Action: Please let Emily Majcher (emajcher@usgs.gov) know if you have topics for the next Quarterly PFAS Meeting, or on the format for the meeting.

Action: Rebecca Whiteash (PA DEP) will reach out to Amy Williams (PA DEP) and see if their PFAS data is ready for public viewing for next PFAS Quarterly.

Action: Mark Richards (VA DEQ) will reach out to Bryant Thomas (VA DEQ) and see if he has any input for the next PFAS Quarterly.

Action: The final STAC PFAS report will be available by next meeting, and Greg will have more information on the next Ecoregion PCB meeting (April 12th, 2023).

Action: Let Emily (emajcher@usgs.gov) know if you would like to have a side conversation about analytical methods for PFAS. August Goldfischer (CRC) will bring the topic of PFAS data analysis quality assurance to the Data integrity Workgroup.

Meeting Minutes

1. Introductions and Announcements

- University of Washington Cross-Program Symposium on approaches to PCB clean up and management strategies. The topic for next Symposium, based on participant interest, will be source tracking within source water. (For example: MD guidance on source tracking where there is an MS4 and a PCB TMDL with controllable sources.)
- **Action:** Let Greg (allen.greg@epa.gov) know if you want to be part of planning that or wish to present something.
- **Action:** Find relevant presentations from the Fish Forum agenda and invite presenters to speak at the TCW.
- Sushanth Gupta will be joining as a new staffer on 3/20 and staffing the TCW.
- Interactive PFAS map may inform TCW's work going forward doing mapping and/or data collection for PFAS in the CB watershed.
- The PFAS STAC workgroup report awaits approval from STAC. By TCW's April meeting it should be approved and ready for release.
- Scott Phillips, an influential voice for toxic contaminants, is retiring. Here is the Kudoboard for Scott. Scott's retirement party is March 23rd from 4-7pm at the UMCES IAN office in Eastport, Annapolis, MD.
- Mark Hoffman: We are in the middle of legislative sessions and frequently have bills that deal with toxics. This year there were two bills related to PFAS. House Bill 319 would require any pesticide to be certified PFAS free before it is approved by MDA (Maryland Department of Agriculture). That bill is still in committee. House Bill 499, sponsored by commission members, which would set standards for wastewater treatment facilities to do PFAS monitoring in their effluent and biosolids. However, that bill was withdrawn due to pushback.
- Marel King: In PA, Senator Yaw reintroduced his legislation banning PFAS in firefighting foam used in training. He also has a cosponsor memo out introducing a bill to ban PFAS in food packaging. The legislation on firefighting foam has been enacted already in MD and possibly VA. PA is following their lead. The foam would be legal for fires but not training until there are sufficient substitutes for actual fires.

2. A multi-level assessment of biological effects associated with mercury concentrations in smallmouth bass from the Chesapeake Bay watershed – Dr. Vicki Blazer, USGS

Discussion:

- Greg Allen: The TCW is interested in recent trends in concentrations and loadings. Is there a time series that has continued and what is the most recent data on concentrations in fish and deposition rates?

- Vicki Blazer: I don't have time series for mercury. The fish used were collected in either 2013 or 2016 in the spring.
- Greg Allen: It's important as the partnership decided the first two pollutants to prioritize are PCBs and mercury because they drive most of the fish consumption advisories. The CBP mercury strategy has been to expect concentrations in fish will decrease due to improved controls on coal fired electrical power generators and market forces shifting the market to natural gas. Those are the loads dominating inputs, so the strategy was to wait to see and atmospheric deposition comes back over time. However coal usage has shot back up over the last couple years and worldwide there has been the largest use of coal for power generation ever. What is known about recent deposition and concentrations in fish to see if the trends are reversing and make that information available to policy makers and regulators? There used to be an informal mercury monitoring network among academics and NOAA researchers with stations at Frostburg and around the watershed. However, not sure if they are still working.
- Vicki Blazer: I would have to consult the Collin paper to see what range of years he used. I know they used state collected data.
- Greg Allen: I'm also interested in knowing if there is mercury monitoring going on that would tell us about atmospheric deposition rates over the last few years. That was the kind of data this network of researchers were capturing in the past but it's been about 8 years since they met. We want to know, does the strategy of waiting still hold up?
- Dave Whitall: There is the mercury deposition network which is a national program with sites in the region. Mark Castro at University of MD collected data in forests and streams.
- **Action:** Contact some of those scientists still doing those work. Cindy Gilmore at Smithsonian Environmental Research Center (SERC) does monitoring and Mark Cohen at NOAA Silver Spring does mercury modeling. Maybe get those folks back together.
- Greg Allen: Are there follow up plans or is the study concluded?
- Vicki Blazer: For the data from 2016, Cheyenne Smith has immune function assays and gene expression tests. It would be interesting to do in vitro exposures to see if you get the same results. Another thing would be to look at the young of year small mouth pass since mercury sometimes accumulates in the eggs and can be passed on. It would be good to know if it has an effect on the young developmental stages. I don't have funding for any of this currently, though.
- Dave Whitall (in chat): Also, I know Mark Cohen (NOAA-Air Resource Lab) a bit (he's the Hg modeler you mentioned) so if you want me to engage him as a resource for the group, let me know.

3. Mercury Story Map: Future Updates – Greg Allen, EPA.

- Greg Allen: The mercury Story Map is coming up for an update. The last update was June 2019. The PCB Story Map was recently updated. We start with mapping the mercury impairments taken from states' Integrated Assessment Reports that happen every 2 years and include the 303d list. From that we extract mercury impairments and put them on the map. Metadata can be accessed by left clicking.
- Emily Majcher (in chat): FYI - For our last update to LAP, MD indicated they only have one remaining listing in MD (continued sampling there).
- Greg Allen: There were not many TMDLs put in place as of 2017. In the Story Map we're saying the loads are trending down and we expect concentrations are trending down. That's why we thought it was important to add to the Story Map because it tells a strategic story and why TCW is not doing much more on this front.
- Greg Allen: How should we enhance this Story Map? Get it more up to date, more compelling as how it tells the story of conditions in the watershed? If left as is, we would need to work with jurisdictions to make sure it's updated. We have all but one of the 2022 Integrated Assessment Reports. We can update the impairment listings effectively in panel one. That also should provide the information about TMDLs. The difference between those two can be calculated as places with an impairment but no TMDL. That's the bare minimum that would need to be updated (plus if there are any impairment removals). With the reports, we can do the first cut and then send to jurisdiction leads to then double check to make sure we're representing it properly.
- Greg Allen: Are there are other elements that should be added? Some of what Vicki presented on could be added. Removals should be evident in the integrated assessment reports. In panel 5 maybe it's about reconnecting with the research network. It may be possible to have a follow up on what everyone has on deposition data. It would also be good to go back to National Emissions Inventory and update Figures 2-4 using that information.
- Greg Allen: I have most of the information needed to make the updates. Once that is together, if the monitoring group hasn't gotten back together, I can look for an update on the National Emissions Inventory and get that done. Staffer Alex Gunnerson is helping us with the portfolio and he is fantastic.
- Greg Allen: There was a 2018 update to the indicator, and we are working on the 2020 update. Then we'll do a 2022 update. The preliminary information being reviewed showed that full or partial segments with listed impairments will go down in the 2020 update. There have been some de-listings. There will be a new category that appears on

the map which is PCBs and PFAS because of a segment in MD that is on the 303d list for PFAS.

- **Action:** Greg and Alex will get started on updates to the mercury Story Map, then come back to jurisdictions to verify. They may ask Vicki for some help with the text on panel one.

4. **PFAS Quarterly Meeting Follow Up** – Emily Majcher, USGS.

- **Action:** If you have people to add to the PFAS Quarterly Meeting list send them to Emily.
- There are 2 talks at the Fish Forum tomorrow on how to use Water Quality Exchange/Water Quality Portal (WQX/WQP) for PFAS data.
- **Action:** Bring these speakers to the TCW to talk about how the CBP can utilize this.
- Emily Majcher: We don't want to have to maintain databases ourselves.
- **Action:** If you've had a negative experience with WQX/WQP please let Emily know.
- Emily Majcher: It is a challenge to compare results and methods retrospectively so if we can figure out how to do so going forward it will be beneficial long term. We need to discuss what to do when data comes back to the lab such as best practices for processing and interpretation. Also, some jurisdictions have raised a need to look at data comparisons between labs for the same methods. There was some concern voiced there is some variation. Given the low thresholds that need to be met for compliance makes this important.
- August Goldfischer: This might be a good to bring this topic to the DIWG and they have that on their radar.
- **Actions:** Let Emily know if you would like to have a side conversation about analytical methods. Bring the topic of PFAS data analysis quality assurance to the Data integrity Workgroup.
- Emily Majcher: It's important to narrow the gap between the researchers and practitioners. Should we be collecting a list of needs and allow people to react to them, or do we want to compile science needs from the research community and partnership and figure out the best ways for practitioners to capitalize on that? For example, John Cargill (DNREC) said that DNREC has collaborated with some academic researchers to do some nontargeted analysis with their targeted analysis. Maybe if a researcher knew you were going to sample a particular region or fish in a given study they could tag along and collect other data or provide additional insights.
- Emily Majcher: We have a follow up inquiry to talk about potential enhanced monitoring ideas.

- **Action:** Let Emily know if there are any priority items you'd like to hear about at the next PFAS Quarterly Meeting or feedback on its format, please let her know.
- Greg Allen: The group was wondering if there would be any new fish tissue PFAS data by the date of the next meeting. They are waiting for the data from the past few years to be made available by jurisdictions. They would like to maybe tell a story on how we're using the data.
- John Cargill: DNREC has data but is behind on viewing. It's not yet ready for prime time sharing but we have been collecting it. We have data sets from 2019 in Sandy Canal and datasets from 2017 and 2018 in Nanticoke River and other tidal areas. Regarding use of the data – without the federal numbers and reference numbers everything is in limbo. I've been on the fish forum and lots of PFAS talks. Many problems are the same – when the reports say any concentration is too much and we're finding it in every sample the messaging to the public becomes difficult when we're still trying to deal with other legacy toxic contaminants. From my jurisdiction's point of view we're cautious about the timing of information release because context is needed in order to not sound alarmist.
- Emily Majcher: Let me know if communication strategies are a more important topic right now than having a technical talk.
- John Cargill: It is an important factor that every jurisdiction will have to face and PFAS requires a different communication strategy than any other legacy topic.
- Rebecca Whiteash: PA DEP is also collecting PFAS data. I will check in with those collecting that data - Amy Williams in water quality is leading that process and Tim Wirtz is leading fish data. Last time I spoke with Amy it wasn't ready for public consumption.
- Emily Majcher: Please also ask Amy and Tim if they have thoughts on what would be important for the next PFAS meeting.
- Mark Richards: I'm not too involved with PFAS monitoring. At a high level, data are available to be shared. Bryant Thomas is in charge of that program, and he participated in the first quarterly meeting. In VA there's a significant effort targeted at collecting water samples. I will talk to Bryant and plug him into this conversation.
- Greg Allen: A future quarterly topic could be communicating PFAS risk.

Participants

August Goldfischer, CRC
Cargill IV, John G. DNREC
Charlie Brown
cpd
Doug Austin, EPA
Dave Whitall
Emily Majcher
Greg Allen
Lisa Ochsenhirt
Lorie Baker
Marel King, CBC
Mark Hoffman
Mark Richards, VA DEQ
Matt Kundrat PA DEP
Raffaela Marano

Rebecca Whiteash
Tom Parham
Vicki Blazer