THIS MEETING WAS RECORDED

CBP Water Quality Goal Implementation Team
Toxic Contaminants Workgroup
Meeting Minutes

Date: *Wednesday, January 12, 2022*
Time: 1:00 - 3:00 PM
Location: Conference Call (remote only)
Calendar Page: Link.

Agenda Item and Desired Outcome	Time	Background Docs, Notes, and Action Items
1. Introductions and Announcements • PCB Monitoring Executive Summary and Discussion Paper submitted to STAR (Projects and Resources, Toxic Contaminants Workgroup | Chesapeake Bay Program) • Integrated science for the study of perfluoroalkyl and polyfluoroalkyl substances (PFAS) in the environment—A strategic science vision for the U.S. Geological Survey (usgs.gov) • CRC PFAS Roundtable webinar recording: CRC Roundtable | December 2021 – Chesapeake Research Consortium • STAC Workshop RFP – Proposals due February 16 STAC Workshop Protocol Adopted 7.18.11_Revised 9.13.16.pdf (chesapeake.org) • CBT Pooled Monitoring/Restoration Research RFP – Proposals due January 27 CRC Roundtable | December 2021 – Chesapeake Research Consortium • PFAS information request for STAC workshop 2022 PFAS STAC workshop and Request for Information - Web Survey Tools | QuestionPro Survey	1:00	• Complete the toxic contaminant indicator • Update the PCB Story Map • ~~TCW leadership will reach out to contact leads for EPA's Executive Council on PFAS to share information / invite them to participate in STAC PFAS Workshop.~~ • TCW will be added to an upcoming AgWG agenda to present on TCs in Ag watersheds.
2. The statistical power to detect regional temporal trends in riverine contaminants in the Chesapeake Bay Watershed, USA – Ty Wagner, USGS Pennsylvania Cooperative Fish and Wildlife Research Unit, Pennsylvania State University	1:15	• The statistical power to detect regional temporal trends in riverine contaminants in the Chesapeake Bay Watershed, USA - ScienceDirect
3. State of the Workgroup – Emily Majcher, USGS and Revisiting TCW Meeting Frequency – Greg Allen, USCBPO- EPA • Look back at 2021 • Mentimeter questions • Looking ahead to 2022 and SRS updates	1:45	• PowerPoint presentation • Mentimeter and Jamboard

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4. Wrap Up and Adjourn	2:45	• ***Next meeting:*** **Wednesday, February 9, 2022**

Summary of Actions and Decisions

Meeting Minutes

1. **Introduction and Announcements**
   - CB Monitoring Executive Summary and Discussion Paper submitted to STAR (Projects and Resources, Toxic Contaminants Workgroup | Chesapeake Bay Program)
   - CRC PFAS Roundtable webinar recording: CRC Roundtable | December 2021 – Chesapeake Research Consortium
   - STAC Workshop RFP – Proposals due February 16 _STAC Workshop Protocol Adopted 7.18.11_Revised 9.13.16.pdf (chesapeake.org)
   - CBT Pooled Monitoring/Restoration Research RFP – Proposals due January 27
     i. *There are PCB topics in the RFP that is currently out. Please share within your networks.*
   - CRC Roundtable | December 2021 – Chesapeake Research Consortium
   - PFAS information request for STAC workshop 2022 PFAS STAC workshop and Request for Information - Web Survey Tools | QuestionPro Survey
     i. *Please complete by January 31, 2021, and forward to your networks.*
   - USGS releases strategic science vision for PFAS: Integrated science for the study of perfluoroalkyl and polyfluoroalkyl substances (PFAS) in the environment—A strategic science vision for the U.S. Geological Survey (usgs.gov)
     i. *Comprehensive document outlining the state of the science, science needs, data gaps, opportunities for research, which includes sampling analysis, environmental sources, environment occurrence, fade and transport, ecotoxicology, to name a few. Also provides an integrated science framework for a variety of scales.*
   - Other:
     i. *Washington post ran an article on PFAS fish consumption advisory in the Great Lakes. One species, rainbow smelt, is 1 meal per month for PFAS, which seriously impinges on tribes long standing tradition of subsistence fishing.*
     ii. *Special thanks to indicator contacts for their input on impairments in the tidal Bay. Next step is updating PCB story map with 2018 data. Then we will look at other story maps for updates maybe transition to a geo-narrative.*
     iii. *Have a contact from the EPA's executive council on PFAS so they are connected to the workshop.*
     iv. *When we talk about the coming year, working with AgWG could be part of that effort.*

2. **The statistical power to detect regional temporal trends in riverine contaminants in the Chesapeake Bay Watershed, USA**
   - **Discussion:**
     i. *Greg Allen:* was the model you used in this analysis novel? Or has it been applied before?
     ii. *Ty Wagner:* we've used s similar type of model to questions related to contaminants. It's a flexible approach and I think it's underutilized. The variant partition approach and approach to power I have been using since my PhD work.
     iii. *Greg Allen:* Slide 16 had the 4 panels of trend, the PCB data where there was a large set of results from early 70s and then large data from 2018-19- why the gap and does the gap hinder the power?

iv. *Kelly Smalling:* I am not sure I can speak to the gap in data, a lot of the data we pulled from the status and trends folks.
v. *Emily Majcher:* we pulled from everyone, and this was what was provided; I am not sure either. I am skeptical of data from the early 70s, I am not sure it adds value. One way we got around that is we totaled PCBs, so obviously that introduces some error. We excluded error core methods and that could be one reason. Compared to fish data there isn't a ton of sediment data.
vi. *Ty Wagner:* yes, this will influence power. This at least helps guide future research. If more data came available, we could redo this and could change the power analysis results. The other approach is people take their best guess at what the variance would be. We consider this kind of a pilot analysis.
vii. *Greg Allen:* are there any conclusions we could start to claim? Can we conclude that metalcore and atrazine trends are heading down? If so, that is interesting to our annual pesticide conference folks. Is this robust enough to conclude that downward trend?
viii. *Ty Wagner:* those are the two that are statistically significant and there is, on average, a downward trend reported.
ix. *Dev Murali:* I guess we are saying that the 5-year monitoring is too short? For PCBs in sediment? What would be an ideal number?
x. *Ty Wagner:* we didn't run a scenario long enough to determine that. I think it's fair to say that power is going to be low because of lack of data and the data that we do have is not a lot, so our estimates of the variances aren't as good. 5 years isn't sufficient, and 20 years might work but as you get new data this might change. Going to all sites every year/ other year etc. is expensive. So maybe you rotate through sites that allocates resources more consistently. You don't need to go out and have a fixed design, the power won't reduce if you don't sample every year.

3. **State of the Workgroup**
   - *Notes captured in Mentimeter*

Call Participants
Greg Allen, EPA
Hilary Swartwood, CRC
Emily Majcher, USGS
Mark Richards, VA DEQ
Leon Tillman, NRCS
Dave Whitall, NOAA
John Cargill, DNREC
Rebecca Whiteash, PA DEP
Ty Wagner, USGS
Vicki Blazer, USGS
John Maleri, DOEE
Kelly Smalling, USGS
Doug Austin, SEE- EPA
Matt Kundrat, PA DEP
Dev Murali, DOEE
Kang Xia, Affiliation unknown

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