



Chesapeake Bay Program

Science. Restoration. Partnership.

Toxic Contaminants Workgroup

Wednesday, June 10th, 2026

1:00 – 2:25 PM

[Visit the meeting webpage for meeting materials and additional information.](#)

Purpose: This is the monthly meeting of the Chesapeake Bay Program’s Toxic Contaminants Workgroup (TCW), which included confirmation of at-large member nominees, an update on Management Strategy development, and two technical presentations on 6PPD-Q.

Minutes

I. Welcome and Announcements

Lead: Tony Timpano, TCW Co-Chair and Keith Bollt, TCW Coordinator

Tony gave an overview of today’s agenda and Keith shared announcements, including:

- Acid Mine Drainage Action Team under CBP Fish Habitat Outcome is looking for a chair and signatory and at large members. Please send nominations to Keith Bollt (bollt.keith@epa.gov) and Chris Guy (chris_guy@fws.gov).

Decisions:

1. TCW members approved the [May 2026 TCW Meeting Minutes](#)

II. Confirmation of At-Large Member Nominees

Lead: Keith Bollt, TCW Coordinator

A call for nominations was sent in November 2025 to fill the 5 vacant at-large member positions and 1 vacant co-chair position on the TCW. 3 nominations for at-large positions were received, confirmations for which were postponed until CBP structure and governance changes were more solidified. The three nominees – Katie Davis (EPA), Carys Mitchelmore (UMCES) and Anna Robuck (EPA) -- introduced themselves and were confirmed. The call for nominations will remain open for anyone who wishes to submit for a vacant position – TCW Co-Chair and two more at-large members.

Decisions:

1. TCW confirmed three at-large voting members – Katie Davis (EPA), Carys Mitchelmore (UMCES) and Anna Robuck (EPA) – for terms through December 2027.

Materials: [Nominee Bios](#)

III. **Monitoring the fate and transport of tire-derived pollutants in urban systems**

Lead: Ashley Dann, University of Maryland

This study investigates the biogeochemical drivers governing the fate and transport of 6PPD-Q and examines how Dissolved Organic Matter (DOM) composition, along with other environmental controls such as pH and dissolved oxygen, may influence the attenuation of this emerging contaminant of concern. Using high-resolution spatial and temporal sampling, they monitored urban streams across Washington D.C. (Hickey Run), Maryland (Rock Creek), and New York City to study the fate and transport of 6PPD-Q in relation to road density, impervious surface, restoration features, and sewer outfalls. Results showed 6PPD-Q had significant positive relationships with redox-sensitive elements (Fe, Mn), humic DOM fractions (C, M, A), and protein DOM fractions [(T, B), $p < 0.05$]. This study will inform strategies for managing 6PPD-Q through stream restoration, and potentially through DOM management.

Actions:

1. If you have any questions for Ashley Dann (adann11@umd.edu) about her research, please reach out. Note: the research is ongoing and the presentations is not available for public posting.

Materials: [Abstract](#)

Discussion:

- Tony Timpano, VADEQ asked: Given how consequential microbial processes can be to the fates of these kinds of chemicals and, as we consider the design of BMPs, what are the co-benefits to the microbial community and then indirectly to 6PPDQ reduction?
 - Ashley responded that in the scope of their lab they cannot measure microbes directly. However, Biochemical Oxygen Demand (BOD) can be measured to understand how much oxygen is being used by microbes to understand these processes. Ashley noted road salt application affects oxygen take-up. You can also compare microbially-derived DOM vs. terrestrially-derived DOM.
- Tony asked about potential temporal lags.
 - Ashley responded that their lab performs long-term monitoring that eventually may be able to see those patterns.
- Tony asked about the impact on filter feeders and how temporary sinks are for 6PPD-Q.
 - Ashley responded that when these pollutants adsorb onto organic matter, it makes it less bioavailable for other organisms to use it within the system.
- Mike LaSala, Land Studies asked (in chat): Posted abstract called out 6PPD-Q has been found highly toxic to salmon. Have any other studies or research identified other species of concern? Trout?
 - Ashley responded that work with the EPA Region 2 office found toxicity with brook trout and rainbow trout as well.
 - Ryan Van Manen, EPA (in chat): There's some good resources here on acute toxicity to other species: <https://6ppd.itrcweb.org/1-introduction/>

IV. **6PPDQ Across the Hydrograph: A sampling of storm flows across the Anacostia River Watershed**

Lead: Tristan Mohs, USGS

Throughout 2025, scientists from the MD-DE-DC Water Science Center collected 6PPDQ measurements over eight storm events in the Hickey Run and Northwest Branch Anacostia watersheds. Their use of autosamplers allowed for the examination of concentrations of 6PPDQ on the rise, peak, and fall of the hydrograph to determine when the best time to collect accurate amounts of this emerging contaminant would be. Concurrently, they have been working on a localized version of the national 6PPD-quinone Source Heat Map for the Anacostia watershed as a dashboard for Anacostia River watershed managers.

Actions:

1. If you have any questions for Tristan Mohs (tmohs@usgs.gov) about his research, please reach out. Note: the research is ongoing and the presentations is not available for public posting.

Discussion:

- Mike LaSala, Land Studies asked (in chat): Was a correlation established or seen between the dry-weather period timeframe before the rain event and the measured rise in 6PPD-Q? As in, were higher concentrations encountered with longer period of time between the measured rain event and the previous rain event?
 - Tristan responded that the largest value measured was after a storm after an almost 2-month dry period.
 - Tony Timpano, VADEQ asked about any seasonal patterns.
 - Tristan responded that is something to look into in the future. Their focus now is on 6PPD-Q in waterways and methodology. Rachael Lane and Rebecca Gorney are looking more into those types of questions.
- Dev Murali, DC DOEE asked (in chat): What are the sources at Hickey Run?
 - Tristan responded that Hickey Run is buried for most of its length, so most of the source is stormwater runoff into the sewer system and directly into the stream.
- Tony commented that the hydrographs and this study highlight the need to ensure that monitoring strategies capture the most relevant information to address these effects (which may involve more high-frequency/storm sampling).
 - Tristan responded that, in light of growing interest in high-frequency/storm-response sampling, they are investigating important considerations for planning such sampler deployments, including: rates for 6PPD-Q sorption to sample containers, tubing material needs, refrigeration requirements, etc. Refrigerated units and glass bottles are more expensive, so they are trying to get an estimated percent of return that you can expect based on what you're putting forward into your auto samplers.
- Keith Bollt, EPA CBPO asked (in chat): Question for both Tristan and Ashley: With an eye for today's audience, any recommendations for scientists looking for future research focuses, or federal and state policymakers?
 - Ashley responded that future studies should look at 6PPD-Q in benthic sediment within the stream, because 6PPD-Q adsorbs onto DOC, which adsorbs onto sediment.

- Tristan added that they are beginning to examine salt correlation. 6PPD-Q is hard to sample because you need to sample the water directly, so if a surrogate for 6PPD-Q can be monitored through EXO, for example, then it could make monitoring of something like this a lot easier.
- Tony asked about the viability of passive samplers.
- Tristan responded another future step is applying this in more natural areas, like National Parks, since this involves leaving glass bottles out there. Understanding the sorption rates can help determine the impact of the materials being used and make it as easy as possible for the field side to then support the science moving forward.
- Paul Mayer, EPA (in chat): Rhea Smith of Washington Ecology has used passive samplers extensively in Seattle area. Pros and cons of using passive samplers.
- Tony posed the possibility of using benthic organisms as passive samplers.
 - Tristan noted there is some research into how 6PPD-Q is interacting with the microbiome in China.
- Keith asked (in chat): One more quick one, is there currently an economically viable industry alternative for tires to 6PPDQ?
 - Tristan responded that some people are starting to look at alternatives, but he doesn't think its economically viable yet.
 - Paul Mayer (in chat): Tire manufacturers are testing alternatives. None available yet.

V. **TEC Management Strategy Update**

Lead: TCW Leadership

Tony noted that Management Strategy development is occurring, with discussion at the CWGT-level at their [June 23rd](#) meeting. TCW leadership was asked to provide initial considerations for our Management Strategy components in a worksheet. Petra noted the worksheet response includes suggestions from the May TCW meeting, the Research 2025-2026 Workplan, and a memo from the start of the Beyond 2025 process. Writing will occur in a small group with volunteers, but we will continue to solicit feedback at the workgroup particularly on the higher-level decisions around scope and indicators. Keith noted that a workplan will also need to be developed following the Management Strategy drafting.

Actions:

1. A Management Strategy worksheet was shared with CWGT leadership to receive feedback on the Toxic and Emerging Contaminants Outcome-level component of the CWGT Management Strategy, and a call to help draft a response was made at the May TCW meeting - thanks to Kelly Somers and Sushanth Gupta for volunteering. Initial thoughts will be presented to the CWGT for feedback at their [June 23rd](#) meeting. If you have any feedback or comments, please review the attached worksheet and share them with Keith, Tony and Petra.
2. The July 8th TCW meeting time will serve as a small group work session on Management Strategy development. There will not be a full workgroup meeting. If you would like to join the work session, please reach out to Petra (Baldwin.Petra@epa.gov). Moving forward, TCW meeting frequency will shift to approx. every quarter, with opportunities for workplan implementation projects between.

Materials: [Management Strategy Worksheet](#)

V. Wrap-Up & Adjourn

Lead: Petra Baldwin, TCW Staffer

Next Meeting: July 8, 2026 - Management Strategy Working Session

Attendees:

Tony Timpano, VADEQ (TCW Co-Chair)
Keith Bollt, EPA CBPO (TCW Coordinator)
Petra Baldwin, CRC (TCW Staffer)
Ashley Dann, UMD
Tristan Mohs, USGS
John Cargill, DNREC
Sakinat Ahmad, DNREC
George Onyullo, DC DOEE
Len Schugam, MDE
Nick Murray, WVDEP
Cassie Davis, NYSDEC
Marel King, CBC
Charles Brown, EPA
Sushanth Gupta, MWCOG
Katie Davis, EPA
Carys Mitchelmore, UMCES
Anna Robuck, EPA
Emily Majcher, USGS
Erin Sonnenburg, CRC
Kelly Somers, EPA R3

Suzanne Trevena, EPA R3
Sarah Brzezinski, EPA CBPO
Kaylyn Gootman, EPA CBPO
John Healey, EPA
Madeline Lambrix, EPA
Steven Hohman, EPA
Paul Mayer, EPA
Ryan Van Manen, EPA
Tami Sundquist, EPA
Mike LaSala, LandStudies
Sujay Kaushal, UMD
Nathalie Lombard, UMBC
Tom Parham, MD DNR
Amanda Shaver, VADEQ
Tish Robertson, VADEQ
Gretchen Mikeska, DC DOEE
Dev Murali, DC DOEE
Ellen Egan, AquaLaw
Bella Konchar