Columbia River Basin Restoration Program Toxics Monitoring Subgroup Meeting

September 26, 2023 | 10:30 - 12:20 PM PACIFIC

MEETING SUMMARY

ATTENDEES

- Dianne Barton, Columbia River Inter-Tribal Fish Commission
- Jennifer Bayer, U.S. Geological Survey/Pacific Northwest Aquatic Monitoring Partnership
- Peter Brumm, U.S. Environmental Protection Agency
- Maria Chaney, Kootenai Tribe of Idaho
- Sam Cimino, U.S. Geological Survey/Pacific Northwest Aquatic Monitoring Partnership
- Catherine Corbett, Lower Columbia Estuary Partnership
- Tim Counihan, U.S. Geological Survey
- Kelli Daffron, North Coast Watershed Association
- Megan Dethloff, U.S. Geological Survey/Pacific Northwest Aquatic Monitoring Partnership
- Margaret Drennan, Washington State Department of Agriculture
- Sherrie Duncan, Yakama Nation Fisheries
- Meghan Dunn, U.S. Environmental Protection Agency
- Crystal Elliot, Trout Unlimited
- Cindy Fields, U.S. Environmental Protection Agency
- Quinnell Flanagan, U.S. Geological Survey
- Jill Fullagar, U.S. Environmental Protection Agency
- David Gruen, Oregon Department of Environmental Quality
- Elizabeth Herrmann, University of Idaho
- Sierra High-Eagle, Nez Perce Tribe
- William Hobbs, Washington State Department of Ecology
- Stan Hoffman, Washington State Department of Health
- Mark Jankowski, U.S. Environmental Protection Agency
- Colin Kelly, EcoSPEARS
- Lisa Kusnierz, U.S. Environmental Protection Agency
- Tate Libunao, University of Idaho
- Kevin Masterson, Oregon Association of Clean Water Agencies
- Lauren Mcdaid, U.S. Environmental Protection Agency
- Patrick Moran, U.S. Geological Survey
- Mason Murphy, Confederated Tribes of the Umatilla Indian Reservation
- Clay Patmont, Anchor QEA
- Sean Payne, U.S. Geological Survey
- Laurie Porter, Columbia River Inter-Tribal Fish Commission
- Amy Puls, U.S. Geological Survey/Pacific Northwest Aquatic Monitoring Partnership
- Karl Rains, Washington State Department of Ecology
- Katia Rar, U.S. Environmental Protection Agency
- Jalen Ray, U.S. Environmental Protection Agency
- Janell Shah, Yakama Nation Fisheries
- Meryl Storb, U.S. Geological Survey
- Dorie Sutton, City of Vancouver
- Nicole Taylor, U.S. Environmental Protection Agency
- Yvonne Vallette, U.S. Environmental Protection Agency
- Ian Waite, U.S. Geological Survey
- David Wark, University of Washington Tacoma
- Sarah Whitney, Long Tom Watershed Council
- Thea Wickersham, Idaho Department of Environmental Quality
- Michelle Wilcox, U.S. Environmental Protection Agency
- Shawn Young, Kootenai Tribe of Idaho
- Ashley Zanolli, U.S. Environmental Protection Agency

MATERIALS

Meeting slide deck: https://gaftp.epa.gov/columbiariver/TMS/2023-09-26/

To request a link to the meeting recording, email gs-crbtoxmon@usgs.gov

WQX 101

Jill Fullagar (U.S. EPA) gave a short overview on the Water Quality Exchange (WQX) including how data in WQX are used and how to get started if you want to add your data to the publicly accessible STORET data warehouse using the WQX framework. She also shared links to a list of online resources (below) as well as the different opportunities to get help and who to contact (slide 23 in the slide deck). Feel free to contact Jill (Fullagar.jill@epa.gov) with any WQX related questions, and if she can't answer them, she will connect you to someone who can.

- Links to resources from Jill's presentation:

Topic Area	**Resource Links**
Open Water Data Resources / Links	Water Quality Exchange (WQX) [Data In] The Water Quality Portal (WQP) [Data Out] How's My Waterway (HMW) [Info Out] Central Data Exchange (CDX) [Data Held] Exchange Network (Node Submissions to CDX)
WQX Nuts and Bolts	Upload Resources Page Glossary of Terms Business Rules Data Exchange Template (List of Available Elements) Domain Service (Acceptable Values)
Using WQX – Getting Started	Introduction to WQX, WQX Web, and WQP (5 min video) Quick WQX Web User Guide (PDF Guide) User Guide Version 3.0 for Water Quality Exchange Web Getting Started with WQX Web: How to Gain Access WQX Web Basics – Two-part session--Day 1 WQX Web Basics – Two-part session--Day 2
Using WQX – Templates	Water Quality Exchange Web Template User Guide | US EPA Link to Web Templates Web Templates Overview Video
Using WQX – Import Configurations	WQX Web Import Configuration Options Translations via Expert Mode

Using WQX – Best Practices	Best Practices for Sharing Benthics Data WQX Metals Best Practices Guide WQX Nutrients Best Practices Guide
Using WQX - Other	Water Quality eXchange Factsheet Common Errors Resolution WQX Program Information

- Adam Griggs (U.S. EPA) has an 8-part webinar series that steps through all of WQX and uploading data of different types that will soon be available on YouTube, but in the meantime you can request access to them on SharePoint: https://usepa.sharepoint.com/sites/WQXWQPTrainingResources.

CRB TOXICS MONITORING DASHBOARD(S)

Ashley Zanolli (U.S. EPA) presented initial ideas for a dashboard that would display toxics monitoring project information tied to an interactive map. EPA has limited resources they could put toward development of a dashboard if Toxics Monitoring Subgroup members express an interest and need for such a tool. Jen Bayer (USGS/PNAMP) facilitated discussion and live polls to get feedback on the utility of various dashboard ideas and potential features individuals would want.

- Feedback from meeting participants included:
  - It would be helpful to see the methods that people are using.
  - From a state regulatory perspective, it would be useful to tie monitoring data back to state water quality standards, attainment of the standards, and assessment units. This could be an opportunity to use geographic information systems to go beyond a simple dot on a map.
    - Only some parameters have standards. Some parameters just have screening values.
    - Oregon also has narrative toxic standards that are not parameter specific
  - The utility of a dashboard to me is looking at the project information spatially - who is doing what, what are they measuring
- Live poll results
  - Question 1: Should we pursue building a dashboard to access and display toxics monitoring project information or is the matrix spreadsheet sufficient?
    - 80% said “A dashboard would be useful”
    - 13% said “The matrix spreadsheet is sufficient”
    - 7% said “Not sure”
  - Questions 2: If we were to build an interactive dashboard to access and display toxics data from WQX, would you use it?
    - 0% said “Yes, often”
    - 57% said “Yes, occasionally”
    - 14% said “No”
    - 29% said “Not sure”

- EPA will put together a project dashboard prototype to share at the December TMS workshop. They won't attempt a complicated data dashboard unless there's a strong demonstrable need from this subgroup with clear questions we're trying to answer.

ASK THE AUDIENCE

One benefit of a community of practice, like the Toxics Monitoring Subgroup, is the ability to tap into the collective knowledge of the group to help each other problem solve and learn from one another. The TMS core team received an email about a grantee that was looking for guidance on how to report on fish tissue toxicity data and if there were criteria to measure the data against. During the meeting, we put those questions to the group and received the following feedback:

- Marc Mills (Mills.Marc@epa.gov) with EPA's Office of Research and Development in the Great Lakes is an excellent resource. His team is looking at a wide variety of metrics and putting them all together in a type of weight of evidence analysis.
    - Beneficial Use Impairments for the Great Lakes Areas of Concern (https://www.epa.gov/great-lakes-aocs/beneficial-use-impairments-great-lakes-aocs)
- Columbia River Intertribal Fish commission (CRITFC) worked collaboratively with multiple organizations to develop a lamprey consumption flyer (https://critfc.org/2022/10/05/lamprey-advisory/).
- Regional Screening Levels (RSLs) Calculator from EPA (https://www.epa.gov/risk/regional-screening-levels-rsls). It is not straightforward, might want to consider training on how to use it.
- EPA's 2020 aquatic life benchmarks for registered pesticides (https://www.epa.gov/pesticides/epa-updates-aquatic-life-benchmarks-registered-pesticides).
- Environmental Residue-Effects Database (ERED), developed by the U.S. Army Engineer Research and Development Center Environmental Laboratory, is useful for comparing measured tissue concentrations from a bioaccumulation test to published information that describes the relationship between contaminant tissue concentration and the likelihood of an adverse effect (https://ered.el.erdc.dren.mil/).
- Washington State Department of Health fish consumption advisories (https://doh.wa.gov/community-and-environment/food/fish/advisories).
- Washington's Water Quality Assessment Listing Methodology to Meet Clean Water Act Requirements (https://apps.ecology.wa.gov/publications/documents/1810035.pdf), see APPENDIX 2. Tissue Exposure Concentrations (TECs) and Drinking Water Exposure Concentrations (DWECs) for Assessment of Tissue and Water Data.
- Live poll results
    - Question 1: Are you currently collecting fish tissue toxicity data?
        - 44% said "Yes"
        - 17% said "Not now, but I have in the past"
        - 22% said "I haven't before, but I might in the future"
        - 17% said "No, and I have no plans to in the future"

- Questions 2: Do you want to discuss this topic further?
    - 0% said "No"
    - 45% said "Yes, let's talk about this at the December workshop"
    - 0% said "Yes, but December is too late for my needs"
    - 55% said "Yes, but it can wait until the spring"

LIGHTNING TALKS

To help support the subgroup's goal to provide a forum to exchange toxics monitoring information, discuss challenges, and coordinate monitoring activities, today's meeting featured two lightning talks from subgroup members. Additional details about their toxics monitoring projects can be found in the meeting slide deck.

Lake Chelan DDT Conceptual Site Model, Clay Patmont (Anchor QEA)

- Question: Are you actively pursuing the DDT demonstration pilot?
    - Answer: We are not funded at this point. We do have a landowner that is willing to donate the land, we have a lot of volunteer help, we have a plan and a budget, but we need external funding.
    - Comment: The wave of the future is to implement or test Best Management Practices (BMPs) while we remediate the problem.
    - Comment: Cooperation from landowners is key.
    - Comment: This is a big problem throughout the region and may not easily be solved in our lifetimes.
- Question: What is your sense of DDT exposure risk to wetland organisms (frogs, birds, insects) if using that approach?
    - Answer: The primary pathway is avian exposure or fish consumption. There doesn't appear to be an issue in the wetland systems – no biomagnification until it reaches these lakes/rivers.
- Comment: We did a monitoring project on DDT reduction before/after a restored wetland on Brender Creek. MDrennan@agr.wa.gov if you want to discuss!

PFAS Monitoring at Public Water Systems in Washington State, Stan Hoffman (WA DOH, Office of Drinking Water)

- Question: What lab are you using for your PFOS water samples?
    - Answer: The public water systems get to pick the lab they want to use as long as the lab is certified to perform the analysis in Washington by the Department of Ecology.
- Comment: Wanted to thank your staff who have helped on a RESES PFAS pilot project with EPA's Office of Research and Development. There will be a presentation at the broader working group meeting on the initial results from a prioritization model that was developed in the basin to help identify PFAS contamination in fish tissue and surface water where there's likely occurrence. They identified 6 industrial sources that are most likely to be linked to higher occurrence potential. And to tie it back to

the earlier presentation from Jill, WQX data is automatically updated in EPA's PFAS Analytic Tools (PAT). The new version of PAT released 9/18/23 now includes UCMR data and GHG emissions data.

  - Link to publication: Using Geospatial Data and Random Forest To Predict PFAS Contamination in Fish Tissue in the Columbia River Basin, United States
  - Details on the October 31, 2023 Columbia River Basin Restoration Working Group Meeting: https://www.epa.gov/columbiariver/columbia-river-basin-restoration-working-group

- Question: Has Washington used or are they planning to use any PFAS screening methods (e.g., Adsorbable Organic Fluorine) to determine if there may be PFAS that aren't detected by 537.1?
  - Answer: In drinking water it hasn't happened. It's purely been focused on 533 or 537.1, and I haven't heard about using a screening test for organic fluorine.
    - Comment: Marc Mills (EPA ORD) is lead PI on a pilot to develop a screening method.