Columbia River Basin Toxics Reduction Working Group Meeting

May 7, 2019
9:30 AM – 4:00 PM

Fort Dalles Readiness Center
402 East Scenic Drive
The Dalles, OR 97058

Meeting Attendees:

Ken Bailey, Orchard View Farms
Dianne Barton, Columbia River Inter-Tribal Fish Commission
Paula Calvert, Oregon DEQ
Julie Carter, Columbia River Inter-Tribal Fish Commission
Catherine Corbett, Lower Columbia Estuary Partnership
Tim Counihan, U.S. Geological Survey
Bryan DeDoncker, Clark County Public Health
Laura Gephardt, Columbia River Inter-Tribal Fish Commission
Tom Hausmann, National Oceanic and Atmospheric Administration
Heather Hendrixson, Hood River Soil & Water Conservation District
Garth Herring, U.S. Geological Survey
Susan Hess, Columbia Insight
Will Hobbs, Washington Dept. of Ecology
Gina Hoff, Bureau of Reclamation
Ben Jarvis, Idaho DEQ
Jessica Keys, Office of Senator Jeff Merkley
Darrin Kron, Montana DEQ
Karen Lamson, Wasco County Soil and Water Conservation District
Cindy Marchand, Confederated Tribes of the Coville Reservation
Kevin Masterson, Oregon DEQ
Alec Maule, Independent Scientific Advisory Board, NPCC
James McAteer, QA/QC Solutions, LLC
Dave McBride, Washington Dept. of Health

Heidi McMaster, Bureau of Reclamation
James Medlen, Washington Dept. of Ecology
Ken Merrill, Kalispell Tribe of Indians
Jennifer Morace, U.S. Geological Survey
Nancy Munn, National Oceanic and Atmospheric Administration
Elena Nilsen, U.S. Geological Survey
Sage Park, Washington Dept. of Ecology
Mark Peterschmidt, Washington Dept. of Ecology
Laurie Porter, Columbia River Inter-Tribal Fish Commission
Karl Rains, Washington Dept. of Ecology
Kevin Scribner, Salmon Safe
Keith Seiders, Washington Dept. of Ecology
Laura Shira, Yakama Nation Fisheries
John Sirois, Upper Columbia United Tribes
McClure Tosch, Yakama Nation Fisheries
Steve Waste, U.S. Geological Survey
Denise Troxell, U.S. Dept. of Agriculture

Bert Garcia, U.S. EPA Region 8
Lon Kissinger, U.S. EPA Region 10
Peter Murchie, U.S. EPA Region 10
Mary Lou Soscia, U.S. EPA Region 10
Michelle Wilcox, U.S. EPA Region 10
Ashley Zanolli, U.S. EPA Region 10
David Gruen, (ORISE Fellow) U.S. EPA Region 10

PowerPoint slides for the following presentations are available online:

1. **Summary of Recent Contaminant Monitoring Efforts in the Columbia River Basin**

2. **Future Monitoring Needs in the Columbia River: Vision for a Long-Term, River-Wide, Fish Tissue Contaminant Trend Monitoring Program**
3. **Toxics Reduction in Idaho**
4. **Toxics Reduction Status Update: Major Accomplishments & Significant Needs**

Welcome/Introduction
Mary Lou Soscia thanked the attendees for traveling to the Dalles and welcomed Bert Garcia, EPA Region 8's Deputy Assistant Regional Administrator and Darrin Kron, Montana DEQ's Monitoring and Assessment Section Supervisor, who were representing their respective organizations to the Working Group. Mary Lou invited them to each give brief remarks to the group.

Bert highlighted that 17% of Montana's land lies within the basin and the Columbia River headwaters in the state are impacted by coal and legacy hard-rock mines. Specifically, he highlighted the coal plants that contribute selenium to the Elk River in Canada which ultimately flows into Montana. In addition, there are an estimated 3,800 abandoned hard-rock mines in the state, including approximately 100 sites that are known to be significant sources of heavy metals to local waterways. Darrin gave a brief overview about his work leading the monitoring of rivers, lakes and streams in Montana. In the past, Darrin participated in Working Group conversations on monitoring and database needs/objectives in the basin and he was excited to reconnect with the group.

Mary Lou asked participants around the room to introduce themselves and share important updates or why they attended.

Updates from Attendees:
Peter Murchie, EPA Region 10 – I manage the Geographic Program Section and have oversight over the Puget Sound, Tillamook Estuary, Lower Columbia Estuary, and the CRBRA grants program (in part).

Kevin Scribner, Salmon Safe – Salmon Safe conducts voluntary certification programs for rural and urban areas that encourage best practices to protect salmon. There are great actions happening outside the basin in Puget Sound – the City of Shoreline just became a Salmon Safe city, joining the already-certified City of Portland. Salmon Safe has developed strong urban engagement which is important to many of the growers who we work with who like to see the whole community contributing to toxics reduction efforts (not just ag). I am happy to announce Salmon Safe received funds from the Meyer Memorial Trust to work with the Grande Ronde Tribe to incorporate First Foods into our work in the Walla Walla basin. I am on the Columbia Basin Partnership Taskforce, a NOAA-hosted formal federal advisory committee looking at the entire basin to make recommendations on how to receive the 24 salmon stocks in the basin over 25, 50, and 100-year time horizons. The groups Phase 1 report was just approved by NOAA's umbrella committee and we are moving into Phase 2 efforts to develop scenario planning to test provision goals.

Ken Bailey, Orchard View Farms – I am a cherry grower in the Dalles area. I've been involved with agricultural and water issues in Oregon for 50+ years. I've served on state commissions in the past and I am currently serving on the Soil and Water Conservation Commission and local watershed council board. I am also involved with the Oregon Department of Agriculture on water quality issues.

Karl Rains, Ecology – I am a watershed planner in Ecology's eastern region. I serve on the Spokane River Taskforce.

Ashley Zanolli, EPA Region 10 – I am the new water quality specialist based out of the Oregon Operations Office in Portland. I specialize in developing innovative agricultural non point source reduction efforts and also work on water temperature and Total Maximum Daily Load projects.

Lon Kissinger, EPA Region 10 – I am a human health risk assessor in EPA Region 10. I have done work on exposure to toxics in fish around superfund sites and worked to develop water quality criteria for Washington, Idaho, and Alaska. Along with Mary Lou Soscia and Dianne Barton (CRITFC), I helped examine fish consumption behavior for tribal communities in Idaho. In addition, I collaborated with a Region 10 colleague, Burt Shephard, to model the direct uptake of contaminants by adult returning salmon. I am interested in monitoring work and studying less fat-soluable contaminants.

John Sirois, Upper Columbia United Tribes – I am an Okanagan and Wenatchi tribal member. I work on water quality issues. A recent major accomplishment was the completion of a fish passage study related to facilitating the return of salmon into their traditional spawning and rearing habitats in the upper basin above Chief Joseph and Grand Coulee dams.

Ken Merrill, Kalispel Tribe of Indians – I worked for Washington Department of Ecology for 20 years. I have been working for the Kalispel Tribe of Indians for the last 10 years. The Kalispell Tribe of Indians recently approved human health ambient water quality criteria derived from regional fish consumption studies and a carcinogenicity risk of 10^{-6}. I am concerned about the numbers being set for cleanup actions and how tribal members and fish will be protected.

Jim Medlen, Washington Dept. Ecology – I work on Ecology's Local Source Control program that offers technical assistance to address/manage stormwater discharges from homes and businesses.

Brian DeDoncker, Clark County Dept. Health – In Clark County, we have a number of programs geared at technical assistance to residential and commercial land uses (e.g. local source control program). However, there is not similar technical assistance geared at agricultural land use. Has anyone mapped the approximate percentage of land use by basin to get an idea of contaminant sources?

Tim Counihan, U.S. Geological Survey – I have spent my entire career working on Columbia River Basin monitoring projects/issues. I am the technical lead on a national group working on monitoring programs in large river basins. I have worked with my colleagues in the Oregon Water Science Center to improve the efficiency of monitoring work in the basin.

Heather Hendrixson, Hood River Soil and Water Conservation District – I am primarily working to implement the agricultural plan, including piping ditches and improving irrigation efficiency. Also working with the pesticide stewardship partnerships program in the basin over the last decade or so.

Ben Jarvis, Idaho DEQ – I am a pollution prevention specialist at Idaho DEQ and will be presenting more about my work this morning.

Kevin Masterson, Oregon DEQ – I am the toxics coordinator and work across programs (water, air, land). We recently updated DEQ's toxic reduction strategy which includes a lot of the actions that we will be talking about today. Looking for synergies between our work at the CRBRA work.

Paula Calvert, Oregon DEQ – I am DEQ's Columbia River Coordinator. Over the last several years, we've been working to revise the Willamette River Mercury Total Maximum Daily Load (TMDL). Currently we are conducting an internal review of the TMDL draft and watershed management (implementation) plan. We hope to release the documents for public comment in the summer.

Jessica Keys, Office of Senator Merkley – I am the eastern Oregon field representative. Senator Merkley first introduced CRBRA legislation in 2010 and the Act passed in 2016. Congress appropriated $1 million to implement the Act in January 2019; the Act has annual authorizations of up to $30 million dollars in next couple of years. Senator Merkley supports this work and is hoping to get $1 million appropriation next year.

Keith Seiders, Washington Dept. of Ecology – I help coordinate WA Ecology's freshwater fish contaminant monitoring work and will share updates during our presentation this morning.

Susan Hess, Columbia Insight – I help publish the Columbia Insight. I cover stories on the natural resource issues in the Basin and have been following the Working Group for a long time.

Laura Gephart, Columbia River Inter-Tribal Fish Commission – I work on water quality projects with member tribes, as well as work related to cold water refugia and fish tissue monitoring.

Laurie Porter, Columbia River Inter-Tribal Fish Commission – I am a Pacific Lamprey Biologist and Project Lead. I am the technical lead for a working group started to study toxic contaminants in Lampreys. Our goal is to increase Lamprey populations to healthy levels so that they can be harvested for subsistence and ceremonial uses. I am interested in looking at sampling in the Hood River basin and the work that Lon Kissinger (EPA Region 10) is working on involving the direct uptake of contaminants in returning adult salmon and if there are opportunities to collaborate/integrate Lamprey in such a study.

Michelle Wilcox, EPA Region 10 – I previously worked at the Washington Department of Ecology. I now work out of EPA's Washington Operations Office in Lacy, WA. I work on non-point source issues in Washington and on implementing the CRBRA with Mary Lou Soscia (EPA Region 10). My background is in contaminated sediments, habitat restoration, large scale ecosystem recovery efforts.

Dianne Barton, Columbia River Inter-Tribal Fish Commission – I am the chair of the national toxics council working with the office of pollution prevention. I work closely with Toxic Substances Control Act (TSCA) which was reformed 3 years ago. In the last month or so, the latest group of toxic substances to be evaluated under the new TSCA was released. TSCA evaluations require data from the field – it could be useful for Working Group members to incorporate monitoring for the new substances to inform TSCA work. The EPA released a notice two weeks ago about raising the level of toxics that a business would need to use before they would be required to report their use to a national database. I encourage Working Group members to submit comments to the EPA. Comments are due by mid-June.

Bob Schwartz, Oregon DEQ – I work with the U.S. Army Corps of Engineers to clean up PCBs at Bradford Island.

Jim McAteer, QA/QC Consulting – I am working to help reprioritize toxics. I work with risk assessors to identify analytical methods to identify contaminants. A lot of my work is "behind the curtain" looking at the data and ensuring its quality.

Nancy Munn, NOAA Fisheries – I have worked on water quality issues in the Basin for many years. Currently working on climate change issues.

Garth Herring, U.S. Geological Survey – I work with Colin Eagle-Smith (USGS) looking at the impact of toxic contaminants on wildlife.

James Willacker, U.S. Geological Survey – I am a toxicologist working mostly on mercury. I do a lot of work on the Snake River and the Hells Canyon complex. Our lab also works on the mainstem Columbia, Willamette River and other rivers in the United States, including Chesapeake Bay and we also collaborate with the U.S. Park Service on contamination issues on their lands.

Mark Peterschmidt, Washington Dept. of Ecology – I work on the east slopes of the Cascade Range. I am involved in a number of cleanup projects in the Yakima, Wenatchee and other basins.

Dave McBride, Washington Dept. of Health – I am the lead toxicologist working with the fish advisory department. I am working with the EPA on the Upper Columbia River fish, including crayfish and mussels – the good news is those species we are testing are fairly clean in the Upper Columbia. I am also investigating populations of Northern Pike in the Upper Columbia, which are increasing despite impacts from mercury contamination. Our next research project will focus on white sturgeon in the lower Columbia.

Cindy Marchand, Confederated Tribes of the Coville Reservation – I work on Upper Columbia issues, including on Teck Resource's coal mines that are a source of selenium contamination. The Colville Tribes filed certs with the Supreme Court on Monday, May 6th and hope to prevail in its case, which will be decided as early as June or following the court's summer break. I have also done work for the Colville Tribes on fish consumption surveys. I serve as Trustee Council lead on boundary water issues in my role as CERCLA Coordinator, and I hope to start work on remediation projects soon.

Alec Maule, Independent Scientific Advisory Board, NPCC – I am retired from the U.S. Geological Survey and am now the Chair of the Independent Science Advisory Board at the Northwest Power and Conservation Council (NPCC). I began working as a fish biologist on the Columbia in 1979. I am not actively involved with toxic contaminants, but it is a part of the NPCC Program. Bonneville Power Administration (BPA) doesn't fund much in the way of contaminants, and there are unlikely to be big changes in the NPCC Program update. We recently completed a big report on salmonid predation on the Columbia River. One of the big take-a-ways that intersects with this work is the need to look at the issue from a whole-system level. The main impetus for the predation study was the Northern Pike moving down the Columbia; Northern Pike on the Pend Oreille River have high levels of contamination.

Heidi McMaster, Bureau of Reclamation – I am the regional HAZMAT and IPM coordinator. I am primarily focused on regulatory commitments to get facilities into compliance following the court settlement related to discharges from Grand Coulee Dam. I am working with BOR's water quality department to determine the focus of additional water quality sampling that needs to be done. I also work on the spill response team.

Gina Hoff, Bureau of Reclamation – I am the Columbia River Basin Water Quality Specialist. I work on automated information system (AIS), grants, invasive species, and water quality monitoring. I am currently working on the Okanagan with BPA and Tribal Governments on a restoration project on BOR property in anticipation of salmon returning to the system.

Jennifer Morace, U.S. Geological Survey – I work out of the Oregon Water Science Center on water quality/toxics in the Basin.

Elena Nilson, U.S. Geological Survey – I work out of the Oregon Water Science Center. I've been working on toxics in the Basin since 2005/6. I want to mention several new projects: 1) I am working with the Warm Springs Tribe and CRITFC on an assessment of juvenile Lamprey contamination levels, 2) I am looking at sampling fish tissue from the Columbia Slough to investigate PFAS compounds beginning this summer, and 3) I have colleagues who are looking at harmful algal blooms in reservoirs on the Willamette River.

Catherine Corbett, Lower Columbia Estuary Partnership – LCEP is hosting a workshop on June 21st in Vancouver, WA focused on reducing single use plastics. At 5 sentinel locations in the estuary, LCEP is collecting data looking at contaminant burdens of chinook salmon and other wildlife. The project was previously being funded by a NOAA ecotoxicology lab, but it no longer being funded from that source. We had been the single entity doing sustained toxics sampling in the lower estuary. The sentinel locations were collecting data on harmful algal blooms – we are finding increasing frequency and duration of blooms in the estuary. Given the warm temperatures already, this year could potentially be similar to 2015. LCEP is working to develop a climate smart/resilient restoration program. We mapped out cold water refuges in the estuary. Our analysis identified a ~50-mile gap between the Lewis River and Eagle Creek above Bonneville Dam. We are investigating the feasibility of building flow deflectors at certain tributary mouths to improve/increase cold water refuge habitat. In addition, we are incorporating estimates of sea level rise into strategic/project plans to improve resiliency in the face of climate change – but currently no organizations/foundations are funding this type of work.

Tom Hausmann, NOAA Fisheries – I work on the lower Columbia River Estuary drainages. I help evaluate the disposal of dredged sediments.

Will Hobbs, Washington Dept. of Ecology – I work on toxics as part of Ecology's assessment program out of Olympia, WA. I focus on shorter-term source identification and characterization projects.

McClure Tosch, Yakama Nation Fisheries – I am the technical lead for the superfund section. I am working to prioritize hazardous waste sites on the Columbia. We have identified and actively track 70 sites between the river mouth and the Wenatchee watershed, with a particular interest in a dozen high-priority sites.

Laura Shira, Yakama Nation Fisheries – I work closely with McClure Tosch on water quality/toxicity issues.

Steve Waste, U.S. Geological Survey – As the Director of the Columbia River Research Lab, I help coordinate the lab's fundamental research on water quality/quantity, aquatic/terrestrial species, hydrogeology, etc. I've tried to participate in the Working Group from its inception. The Working Group's theme of building community and providing a collaborative forum to share information across the basin is great.

Sage Park, Washington Dept. of Ecology – I am the regional director of Ecology's Central Region. I am here to represent Ecology's executive leadership team. In my role, I have a unique opportunity to look at toxic reduction through all of our programs – my colleagues who are giving a presentation on monitoring are only presenting one portion of our agency's work. In Washington's last session, the legislature passed several bills on toxics and toxic reduction. The state is going to identify priority chemicals of concern and develop rules on their use and/or potentially ban their use. The state's safe child act was expanded to include additional chemicals.

Denise Troxell, U.S. Dept. of Agriculture – I am a National Resource Conservation Service (NRCS) agronomist based out of the Portland, OR office. I provide assistance to growers in western states and train staff to carry out NRC's 9-step conservation process and to design and implement practices with producers. I work primarily on a voluntary basis with producers. Our environmental quality program is locally-driven – we convene work groups in local communities to tailor our work/recommendations.

Summary of Recent Contaminant Monitoring Efforts in the Columbia River Basin
Presenters**:** Keith Seiders, Will Hobbs, and Jim Medlen, Washington Dept. of Ecology

Washington Department of Ecology staff presented a summary of recent contaminant monitoring efforts in the Columbia River Basin, including an introduction to the contaminants of concern, drivers of monitoring efforts, and a high-level description of their sample collection methodology and the searchable environmental information management (EIM) database. Additionally, the presenters provided an overview of Ecology's Freshwater Fish Contaminant Monitoring Program from 2001-2018, including sample results on the Snake River in 2009 and the Yakima River in 2014. Ecology presented results from source tracking/characterization studies in the Wenatchee Basin (PCBs), Walla Walla Basin (Toxaphene, a legacy pesticide) and in the Spokane River (PCBs). Finally, Ecology presented a description of its local source control (LSC) partnership monitoring program that provides free technical assistance to small commercial dischargers.

Future Monitoring Needs in the Columbia River: Vision for a Long-Term, River-Wide, Fish Tissue Contaminant Trend Monitoring Program
Presenter: Laura Shira and McClure Tosch, Yakama Nation Fisheries

McClure and Laura presented the Yakama Nation Fisheries program's and the Washington Department of Ecology's vision for long-term, systematic monitoring of the U.S. portion of the mainstem Columbia River for priority toxics, including PCBs, DDT and its breakdown products, and mercury, among others. There are fish advisories in effect for 100% of the mainstem Columbia – the Yakama Nation wants to be able to answer the question "is it [getting] better or worse?" The monitoring vision is

currently being developed/finalized. The Yakama Nation wanted to receive feedback from the Working Group on its ideas and to initiate collaborative discussions with entities/organizations in the basin with aligned interests.

Toxics Reduction in Idaho
Presenters: Ben Jarvis, Idaho DEQ

Ben presented on his work to prevent pollution by controlling new sources of the priority toxic contaminants in the state of Idaho. To address mercury, Idaho DEQ has worked to promote the development of household hazardous waste collection programs and mercury collection drives targeting recreational suction dredge miners. Further, IDEQ is working to remove mercury from classrooms by promoting green chemistry principles. For the legacy pesticide DDT and its breakdown components, the Idaho Department of Agriculture (IDA) runs ~3 pesticide take-back programs per year. In addition, IDA promotes on-farm conservation practices, such as no-till drilling, to reduce erosion of soil containing legacy DDT products from fields and works to provide pesticide training for applicators to minimize pesticide drift of actively-used pesticides.

A Perspective from a Grower
Presenter: Ken Bailey, Orchard View Farms

Ken Bailey of Orchard View Farms spoke to the group about his long-time involvement with water quality issues in Oregon. Ken and his family grow cherries on ~3,500 acres in and around The Dalles, Oregon. Ken spoke about the effectiveness of Oregon's Pesticide Stewardship Partnerships. He was one of the earliest participants in the program ~20 years ago. Overall, Ken considers the program to be a huge success and he has witnessed improving water quality trends in the basins he works in. In Ken's experience many of the recommended actions are cost-effective, simple to implement (i.e. changing pesticide sprayer nozzles) and provide both on-farm and environmental benefits. The voluntary nature of the program is key to its success. Monitoring of water quality is important to help convince agricultural growers to participate and to demonstrate what actions are effective or not in reducing pollutant loads.

Update from EPA on Columbia River Basin Restoration Act Implementation
Presenters: Mary Lou Soscia, EPA Region 10

Mary Lou gave brief remarks to summarize actions since the last Working Group meeting in October 2018, including Congress' allocation of $1 million dollars to the EPA to implement the CRBRA, including the formation of a representative Working Group and the establishment of a competitive grant program. It is likely that many of the entities and individuals who have been active in the current working group will be invited to participate in the new Working Group. Mary Lou then provided a high-level overview of EPA's work to receive individual feedback to inform EPA's selection, and introduced David Gruen and Ashley Zanolli to present on the results of the "Status Update" effort.

Toxics Reduction Status Update: Major Accomplishments & Significant Needs
Presenters: David Gruen (ORISE Fellow) and Ashley Zanolli, EPA Region 10 Water Division

David and Ashley presented the preliminary results of their work to survey entities throughout the basin on the major accomplishments related to toxics reduction actions since the publication of the 2010 Columbia River Basin Toxics Reduction Action Plan and the most significant needs moving forward in the basin. Thirteen (13) entities provided their individual opinions in ~30-minute interviews. Some of the major accomplishments cited by interviewees include the passage of the CRBRA, the ongoing meetings and work in the Columbia River Toxics Reduction, voluntary toxics reduction programs, Oregon's Pesticide Stewardship Partnerships, the Polycyclic Aromatic Hydrocabons (PAH) Map, and site-specific cleanup efforts. Interviewees reported that the most significant needs for addressing toxics in the basin include improving monitoring and data-sharing, promoting agricultural BMPs, investing in green infrastructure, dealing with legacy mining impacts, and increasing public education and outreach efforts. EPA is seeking interviews with additional entities throughout the basin and is developing a Status Update Summary document that is expected to be released in the summer.

Establishment of CWA Section 123 Grant Program
Presenter: Peter Murchie, EPA Region 10

Peter said that EPA is working on developing a competitive grant program for the $1 million appropriation. Working Group members were encouraged to carefully read the text of CWA Section 123 to learn more about the statutory requirements of the program, such as the geographic distribution (a minimum of 25% of grant funding must be in the Lower Columbia River Estuary from Bonneville Dam to the Pacific Ocean and a minimum of 25% of grant funding to the Middle and Upper Columbia Basin above Bonneville Dam including the Snake River Basin). Peter suggested that EPA would hold one or more public webinars to provide interested parties with specific information on the grant program structure, criteria, and schedule. He also recognized that entities will require sufficient time to understand the grant program and develop comprehensive proposals.

Next Steps & Meeting:
Following the last presentation, Mary Lou Soscia discussed that EPA would be planning another face-to-face Working Group meeting in the Fall, also in The Dalles, since that seemed to be a convenient central location. Mary Lou also said that EPA would be holding 2 webinars in the Summer to engage the broader Working Group in information sharing as the EPA moves forward on Section 123 implementation.