

# APRIL 22 TOXICS MONITORING SUBGROUP WORKSHOP IN PORTLAND



Image: Oregon FEB



COLUMBIA RIVER BASIN  
RESTORATION PROGRAM



# IF YOU EXPERIENCE TECHNICAL DIFFICULTIES...

Send a message in the chat or email to:

Jade Alvey at [Alvey.Jade@epa.gov](mailto:Alvey.Jade@epa.gov)



# MS TEAMS TIPS

Please turn camera and mic off when not speaking.



Click to turn  
video camera  
off/on

Click to turn  
microphone  
off/on

# INTRODUCTIONS



Click chat icon and introduce yourself – name and affiliation

An aerial photograph of a large, deep blue reservoir nestled in a valley. The water is a vibrant blue, contrasting with the surrounding landscape. On the right side of the reservoir, a multi-lane highway curves through a dense forest of green trees. A long train with several green and white freight cars is visible on the highway, moving away from the viewer. The background features rugged, brownish mountains with some green patches, under a clear blue sky with a few wispy clouds. The overall scene is a mix of natural beauty and human infrastructure.

# WELCOME & INTRODUCTIONS

# TMS WORKSHOP OBJECTIVES

## **Workshop Objectives:**

- Advance Basin-wide Toxics Monitoring Strategy toward finalization
- Obtain feedback on priority monitoring elements: priority chemicals, media, and locations
- Discuss collaboration options for a Basin-wide monitoring network
- Identify data gaps and opportunities for partner contributions
- Strengthen Basin-wide commitment to a shared, voluntary monitoring approach

# TMS WORKSHOP AGENDA

**9:00-9:30** Welcome, Pin Your Project on the Basin, & Framing

**9:30-10:00** Monitoring Strategy Update & Key Considerations

**10:00-10:15** Break

**10:15-11:30** Breakout Discussions on Outstanding Issues

**Technical Breakout Group** (two consecutive discussion sessions)

- Indicators: Priority Pollutant & Species Lists
- Long-Term Monitoring Network Design & Spatial Coverage

**Program Delivery Breakout Group** (two consecutive discussion sessions)

- Measuring Success
- Building Collaboration for Program Longevity

**11:30-12:00** Report Out & Synthesis

**12:00-1:00** Plenary: Adaptive Management, Early Implementation, & Future Focus

**1:00-2:00** Lunch Break

**2:00-5:00** Site Visits

# PURPOSE OF THE PROGRAM

**Clean Water Act Section 123** directed EPA to establish a Columbia River Basin Restoration Program to:

- **assess trends in water quality**, collect and assess water quality data to identify possible causes of environmental problems;
- **provide grants** to reduce pollution, improve water quality, monitor to evaluate trends, provide public education and outreach; and
- **establish a working group** to recommend and prioritize projects and review progress.

**Additionally, the EPA's Columbia River Basin Restoration Program supports two of the EPA's pillars:**

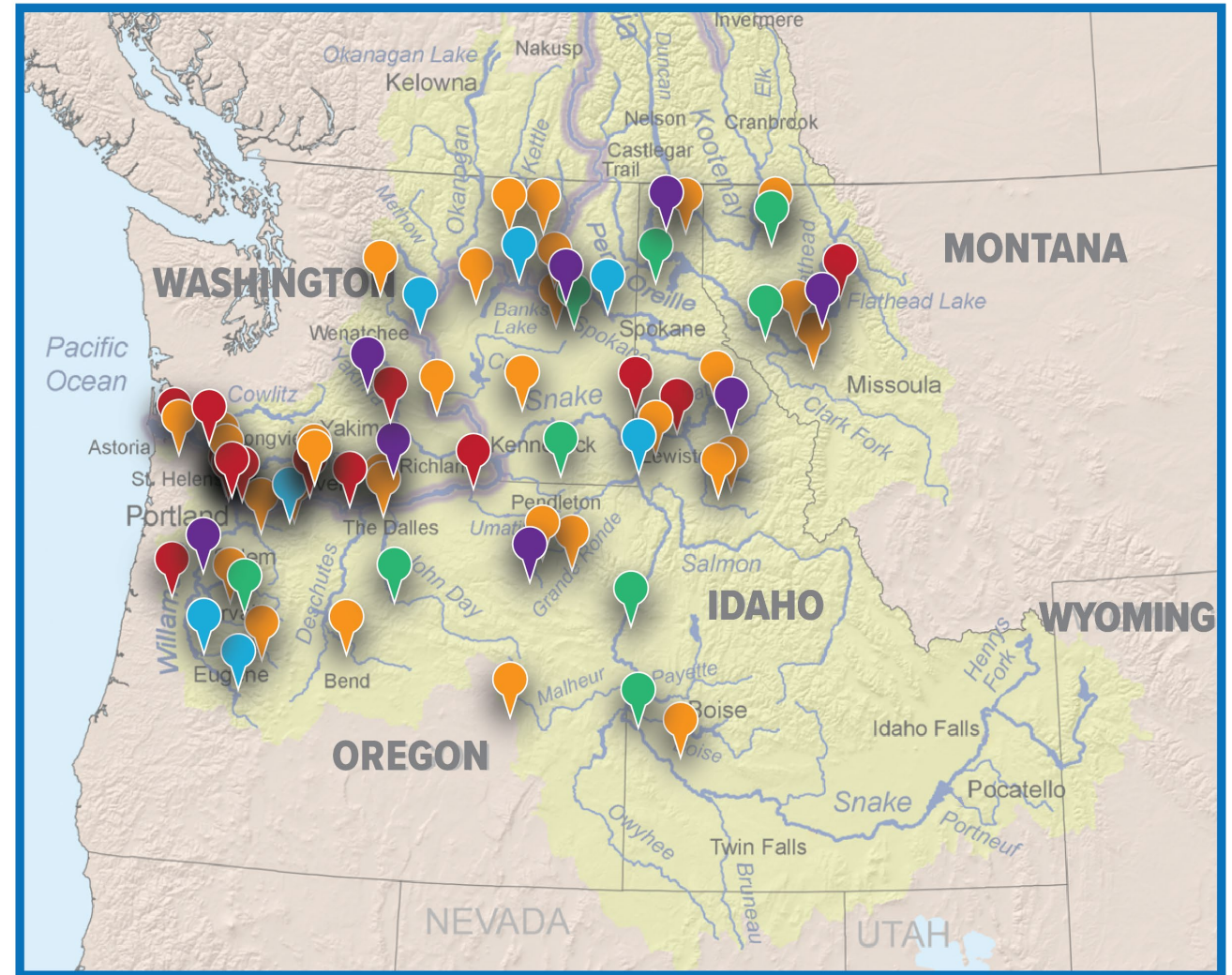
- **Pillar 1: Clean Air, Land, and Water for Every American**
- **Pillar 3: Permitting Reform, Cooperative Federalism, Cross-Agency Partnership**

The program is grounded in statutory direction, sound science, efficient use of resources.

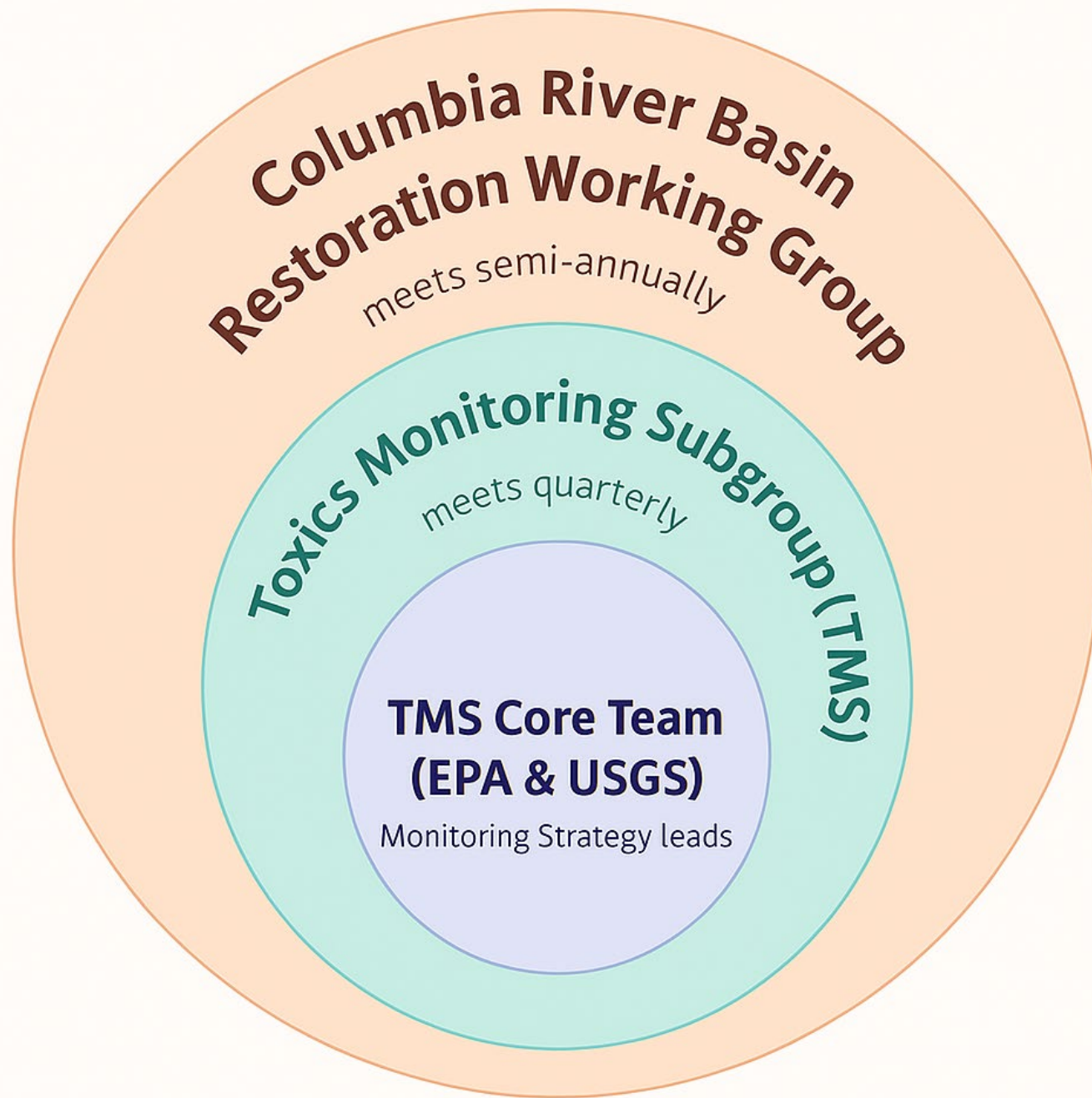


# SPECIFICS OF THE GRANT PROGRAM

- Since 2020, the Columbia River Basin Restoration Program has awarded **64 grants totaling almost \$91 million** (including incremental funding yet to be awarded), to state, Tribal, and local governments, universities, and nonprofits. This does not include over \$119 million in leveraged funds from partners within the Basin.
- Eighteen **Toxics Reduction Lead and Tribal Lead cooperative agreements** are underway, with \$10 million in new **Science and Monitoring awards** underway.
- **Focus:** on-the-ground toxics reduction work.



ROUND 1 GRANTS | ROUND 2 GRANTS | TOXIC REDUCTION LEAD GRANTS | TRIBAL LEAD GRANTS | SCIENCE AND MONITORING LEAD GRANTS



## Toxics Monitoring Subgroup

- Subgroup of Working Group
- Shares information on monitoring, and leverages activities within and outside of EPA funded grants

## Core Team Members

- Patrick Moran, USGS
- Mark Jankowski, EPA
- Lisa Kusnierz, EPA
- Meghan Dunn, EPA
- Ashley Zanolli, EPA
- Sarah Dunn, USGS

Contact us anytime!

[gs-crbtoxmon@usgs.gov](mailto:gs-crbtoxmon@usgs.gov)

# Scope of Monitoring Strategy

## What's In Scope vs. Out of Scope

### **Monitoring Strategy Focus:**

Consistent with Clean Water Act Section 123, the strategy addresses status and trends assessment in water quality, including what to monitor, where, and how.

### **The Monitoring Strategy DOES NOT:**

- Identify implementation responsibilities
- Connect monitoring results to toxics reduction actions
- Monitor for BMP effectiveness
- Communicate to public audiences
- Address long-term funding needs



# Current Status and Engagement Process

- **Spring 2025:** Engaged 21 partner organizations and grantees in listening sessions (Thank you!)
- **Received feedback at June and December 2025 TMS workshop and WG Meeting** as part of ongoing engagement
- **Strong support emerged** for voluntary, high-level Strategy providing coordination
- **Responded to feedback and developed updated Strategy** Fall 2025 – Spring 2026
- **Spring 2026 TMS Workshop** to make progress in finalizing CRB Toxics Monitoring Strategy
- **Multiple feedback opportunities:** Written feedback through Slido, meeting discussions, future meetings and review panels



# SETTING THE STAGE

# The Toxics Monitoring Strategy Vision



A comprehensive, collaborative approach for monitoring toxic pollutants to assess trends and inform water quality protection and restoration activities across jurisdictions and sub-basins in the Columbia River Basin.

## 2026-2046 Monitoring Strategy Goals

1. Sustain and grow the **partnership to monitor** toxic pollution across the Basin.
2. **Identify and prioritize pollutants** in Columbia Basin waters by evaluating risk to humans and aquatic life.
3. Assess the **status and trends** and locations of priority pollutants in water, sediment, and/or fish.
4. Utilize **new tools and approaches** to evaluate legacy, emerging chemicals, and mixtures.

# Proposed Success Framework



## Coordinated Monitoring

Basin-wide implementation enhancing knowledge



## Integration

Research informs toxics reduction actions



## Communication

Clear reporting of status and trends, identification of environmental problems per CWA § 123



## Partnership

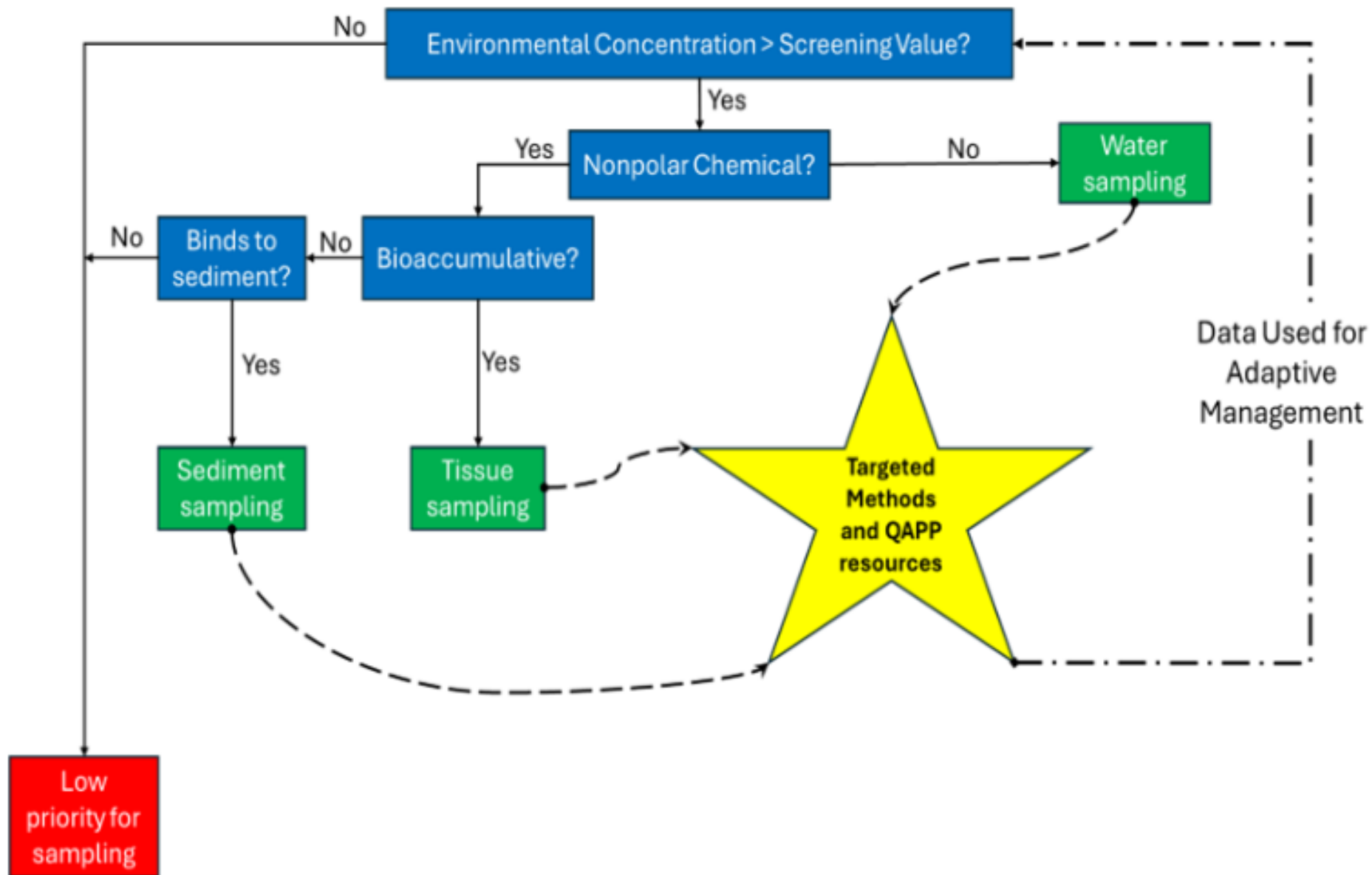
Highly engaged regional collaboration

## Moving Forward Together

A **risk-based, adaptive approach** that balances scientific rigor with practical implementation, ensuring our monitoring efforts generate **status and trends** of priority pollutants and **actionable information** for toxics reduction

A scenic landscape photograph of a valley with a river, mountains, and a dam. The text "PROPOSED INDICATORS" is overlaid in the center. The image shows a wide river flowing through a valley, with a dam visible in the distance. The surrounding area is covered in dense evergreen forests, and the mountains in the background are partially covered in snow. The sky is blue with scattered white clouds. The text is in a large, white, sans-serif font.

# PROPOSED INDICATORS



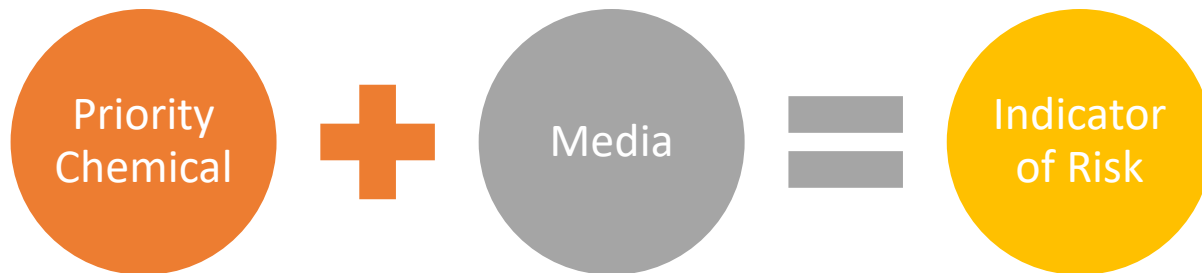
**Notes:**

- Flow chart is for one chemical at a time
- Water sampling may include passive samplers
- Identification of "indicator species" to sample will be subject to focused TMS discussion
- Identification of "indicator pollutants" will be subject to focused TMS discussion



# Technical Breakout Group | Round 1A: Priority Indicators of Risk

Leads: Mark Jankowski & Patrick Moran



## Priority Chemicals

Given limited budgets, how should the Strategy:

1. Prioritize risk to humans, aquatic life, or 50:50?
2. Factor in pathway considerations?
3. Determine temporal frequency and spatial representation for each priority chemical?

## Media (water, sediment, species)

Should we prioritize media/species/tissues for which we have Screening Values (SV)s, represent a Human Health (HH) exposure pathway, or for detection probability? For example:

1. Water sample compared to passive sample
2. Fish filet compared to fish liver

## Initial Near term (5-year) Indicators?

1. Persistent Bioaccumulative Toxics (PBTs) in game fish filet (indicator of HH risk)
2. Other compounds in water samples
3. Or: Other compounds via passive sampling (indicator of priority chemical presence)

*DELIVERABLE: Partner-supported perspectives on these questions to aid in prioritization (next slide)*

# Proposed Priority Chemicals for Monitoring

List subject to change as informed by five-year status and trend reports.

Category		Chemicals	Media	Temporal and Spatial Sampling Considerations	Pathways*	Indicates?
PBTs	Banned	PCBs, DDT	Fish tissue	Spatially distributed and slow to change	I, M, U/S	Human and aquatic life risk
	Current	MeHg		Spatially distributed; ecological drivers; moderate change rate	All	
Metals		Zn, Cd, Cu, Pb, Se, As, Co	Based on flow chart	Spatially distributed, moderate change rate	All	Aquatic life risk
Pesticides		Atrazine, 2,4-D, glyphosate, neonicotinoids, pyrethroids, carbamates, organophosphates	Based on flow chart	Near sources, <u>potential</u> rapid rate of change	Ag, U/S, F	Aquatic life risk
Tire-wear compounds		6PPD-Q, <u>TBD</u>	Water or sediment	Ephemeral subject to dilution in water; present in some sediments	Urban or rural roads	Aquatic life risk
Phthalates		TBD	Water		I, U/S	Aquatic life risk

\*Pathways: Urban/stormwater (U/S), Agricultural (Ag), Mining (M), Industrial (I), Atmospheric (Atm), Forestry (F)

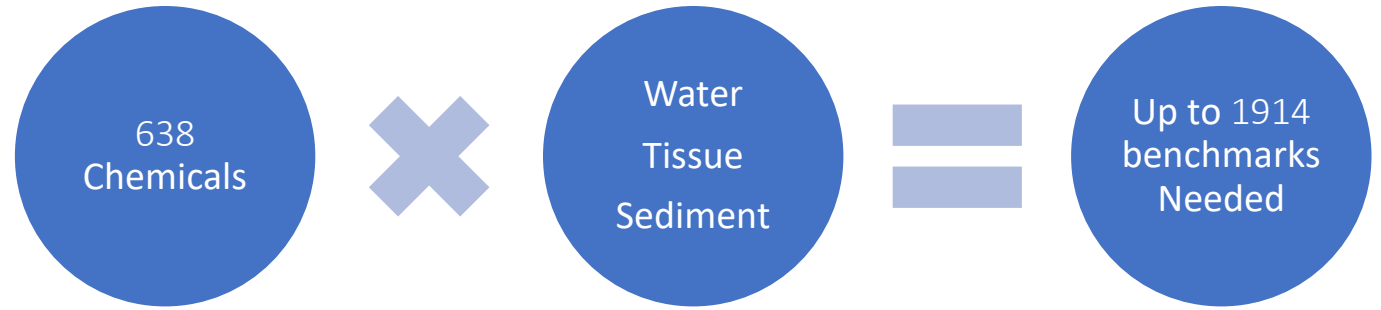
# Initial Priority Media Proposed for the Measurement of Prioritized Chemicals

<u>Media</u>	<u>1<sup>st</sup> Tier</u>	<u>2<sup>nd</sup> Tier</u>	<u>3<sup>rd</sup> Tier</u>
<b>Biota</b>	Commonly consumed fish species	Juvenile salmon, Sturgeon, Lamprey	Invertebrates including shellfish
<b>Water</b>	Aqueous	Passive sampler	NA
<b>Sediment</b>	Top 10 cm	Passive sampler	NA

# Monitoring Strategy Appendices in Development

<b>Appendix A</b>	Indicators
<b>Appendix B</b>	Historical Context
<b>Appendix C</b>	Quality Assurance Framework and QAPP Templates
<b>Appendix D</b>	Screening Values Framework

# Screening Values Update

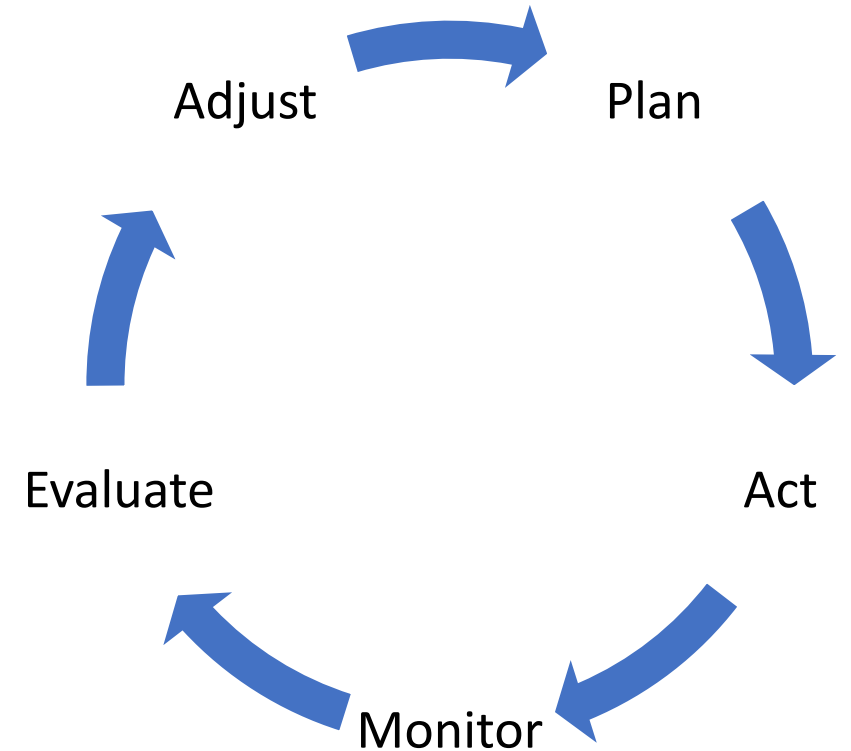


- Need for consistent screening values to aid with interpretation of monitoring data across the basin for prioritization and adaptive management activities
- Started with ecological screening values, but crossover with human health is possible
- Program QAPPs have been reviewed: 638 chemicals being monitored
- Have identified resources to acquire benchmarks for 37% of these 638

# Plenary Session Discussion

## Adaptive Management – 5-7 year cycle

- Consider results from CRBRP grants
- Collaborate with TMS partners on monitoring efforts
- Seek partner input on adaptive management decision and continual improvement
- Consider how monitoring data and reported status and trends point to areas for further investigation



Share updated draft Toxics Monitoring Strategy as background for TMS workshop

TMS Workshop April 22 and Working Group Meeting April 23, 2026 in Portland, OR

TMS meetings and possible panels to finalize strategy appendices Summer/Fall 2026

Finalize CRB Toxics Monitoring Strategy & Year 1 Monitoring Plan – targeting Winter 2026/2027

Timeline

Break until 10:15 PT / 11:15 MT



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# TMS WORKSHOP AGENDA

## **10:15-11:30 Breakout Discussions on Outstanding Issues**

### **Technical Breakout Group** (two consecutive discussion sessions)

- Indicators: Priority Pollutant & Species Lists
- Long-Term Monitoring Network Design & Spatial Coverage

### **Program Delivery Breakout Group** (two consecutive discussion sessions)

- Measuring Success
- Building Collaboration for Program Longevity

**11:30-12:00** Report Out & Synthesis

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**1:00-2:00** Lunch Break

# 10:15–11:30 | Breakout Sessions – Choose One: Technical OR Program Delivery

Two groups × two 35-min rounds | Report out at 11:30



## TECHNICAL GROUP

*Facilitators: Mark Jankowski & Lisa Kusnierz,  
Patrick Moran & Will Hobbs*

### Round 1A — Indicators

- Priority pollutant & indicator chemicals list
- Indicator species list & tissue selection

### Round 1B — Monitoring Network

- Long-term monitoring network design
- Spatial coverage & gap analysis



## PROGRAM DELIVERY GROUP

*Facilitators: Ashley Zanolli & Robin Parker,  
Laura Shira & Sherrie Duncan*

### Round 2A — SMART Success Metrics

- 5-year & 20-year milestones for each goal
- Metrics tied to funding level scenarios

### Round 2B — Collaboration for Program Longevity

- Partner contributions & mutual benefit framework
- Program delivery structure

# Plenary | Adaptive Management

*Facilitator: Greg Frey | Full group discussion*

## Review cycle

How often should the Strategy be formally reviewed?  
Proposed: 5-7 year cycles aligned with status & trends reporting.

## Grantee learning

How could the results from CRBRP awards (including Toxic Reduction and Tribal Leads, Science and Monitoring grants, as well as Rounds 1 and 2 grants) feed into monitoring strategy learning cycles?

*Deliverable: Partner input on how to adaptively manage the Monitoring Strategy and resulting status and trends reports.*

# Plenary | Future TMS Focus Areas

Facilitator: Greg Frey | Full group discussion



## Current TMS Portfolio

- CRB Toxics Monitoring Strategy
  - Year 1 Monitoring Plan
  - 5-year Status and Trends Report addressing CWA §123 mandate
  - Monitoring Matrix and Dashboard
  - Screening Values
  - QA Framework and QAPP Template
- TMS Meetings: Three virtual meetings and one annual workshop
  - Learn from CRBRP grantees and other partners monitoring in the Basin
  - Presentations from grantees and other experts on emerging science and efforts to further toxics monitoring in the Basin
- Training for publishing data to the Water Quality Exchange (WQX)

*Discussion: Partner input to prioritize focus areas and discuss potential TMS projects to add/remove*

# Plenary | Year 1 Monitoring Plan — What Do We Do First?

*Facilitator: Greg Frey | Full group discussion with individual feedback and dot voting |  
Build on Technical and Program Delivery Breakout Group Outputs*



3–5 highest-priority actions the TMS and partners could take in Year 1 (2027-2028)?

- Which sites, media, and chemicals are high priority in Year 1?
- Which species/guilds are high priority in Year 1?



What planned monitoring efforts can the Basin-wide monitoring network leverage?

TMS Workshop April 22 and Working Group Meeting April 23, 2026 in Portland, OR

Core Team works with TMS volunteers to develop appendices and support participants in uploading data to WQX

TMS meetings and possible panels to finalize strategy appendices Summer/Fall 2026

Finalize CRB Toxics Monitoring Strategy & Year 1 Monitoring Plan – targeting Winter 2026/2027

## Next Steps



# THANK YOU FOR ATTENDING!

In-person TMS Workshop  
Wednesday, April 22, 2026  
DoubleTree Lloyd Center in Portland

Reach out to us anytime!

## The TMS Core Team

- Patrick Moran (USGS)
- Mark Jankowski (EPA)
- Lisa Kusnierz (EPA)
- Meghan Dunn (EPA)
- Ashley Zanolli (EPA)
- Sarah Dunn (USGS)

Questions?

Want to join the TMS distribution list?

Email us at [gs-crbtoxmon@usgs.gov](mailto:gs-crbtoxmon@usgs.gov)

# WRAP UP



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