

Future Monitoring Needs in the Columbia River

Phase 1 Framework for a
Long-Term, River-Wide,
Contaminant Trend
Monitoring Program

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Overview

- Background
- Opportunities - legal & grant funding
- Our team
- Monitoring vision
- Seeking your input

Background



Along the US portion of the Columbia River, effects of pollution have contributed to

- declines in fish runs
- $\geq 70\%$ of mainstem Columbia has fish consumption advisories
- Multiple CWA 303(d) listings throughout basin



Figure 3.4: State-issued fish consumption advisories are in effect throughout the Columbia River Basin for certain contaminants and species. Not all waters have been tested, so the absence of an advisory does not necessarily mean it is safe to consume unlimited quantities of fish from untested waters.

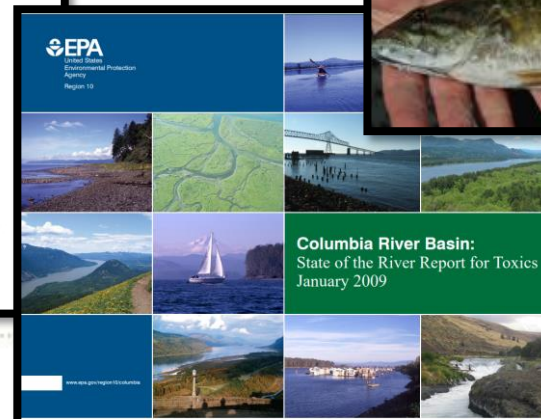
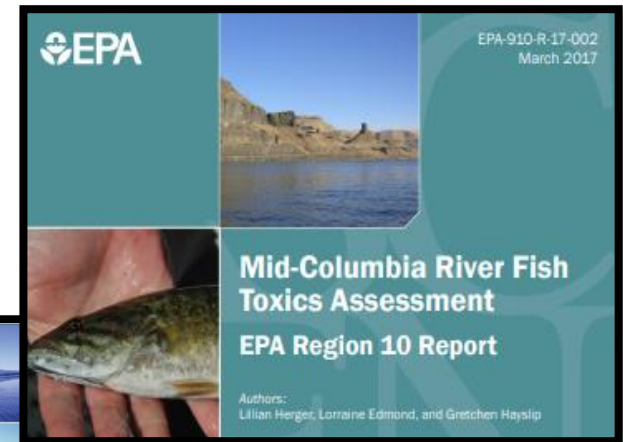
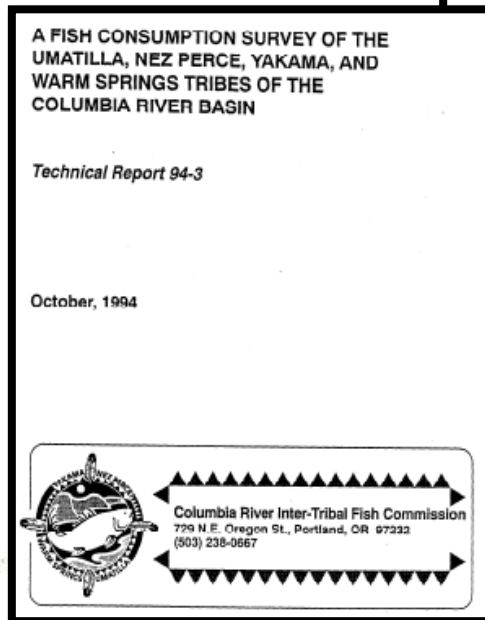
Background



“Is it better or worse?” - Yakama Leadership

Despite decades of effort, we still cannot fully answer this question.

- Significant investment in:
 - monitoring and toxicity studies
 - cleanup and prevention
- Yet the data is not widely comparable because of different analytical methods, spatial and temporal issues, study purpose/bias





Opportunities

LEGAL

- 2016 Clean Water Act, Section 123 (33 USC 1275) - required EPA to establish Columbia River Basin Restoration Program

GRANT FUNDING

- FY2020 - \$2,053,903 & 14 recipients
- Future - additional grant opportunities expected

BUILDING ON PAST WORK



Our Team - Roles

- Yakama Nation – Grant Lead
- United States Geological Survey (USGS) – Technical Lead
- Washington Department of Ecology – Technical Assistance
- Columbia River Inter-Tribal Fish Commission (CRITFC) – Technical Assistance



Monitoring Vision - GOAL



Conduct long-term monitoring to assess the spatial and temporal status and trends of toxics in fish, water, sediment, invertebrates and other potential media in the Columbia River mainstem in perpetuity.



Monitoring Vision



CURRENT PHASE (largely decoupled from funding)

- PHASE 1 - FY2021 - 2022
 - Collaboration
 - MONITORING DESIGN FRAMEWORK
 - Research lessons learned from large watersheds
 - Evaluate historical data
 - Provide recommendations - sampling methods, alternatives, cost estimates, priorities
 - OUTREACH – draft plan



Monitoring Vision



NEXT STEPS (highly dependent on funding)

- PHASE 2 - 2023 to 2025
 - Planning - long-term funding, program housing, permits, site reconnaissance
 - WORK PLAN
 - PILOT SCALE IMPLEMENTATION
 - OUTREACH

- PHASE 3 - 2026
 - Planning – funding, staffing, equipment procurement
 - LONG-TERM MONITORING PLAN IMPLEMENTATION
 - Assess the status and trends of contamination
 - Provide estimates of risks to receptors (human and ecological)
 - OUTREACH



Monitoring Vision



■ Spatial

- Columbia River Mainstem
- Canadian Border to Bonneville Dam (~1,050 river km)

■ Media

- Fish tissue
- Water Quality
- Sediment
- Biota

- Temporal - TBD (ex. repeat every 5-10 yrs)

- Contaminants - TBD (ex. mercury, DDx, PCBs, PBDEs, PAHs)



Seeking your input -

Columbia River Long-Term Monitoring Program

- Objectives:
 - Your ideas?
 - Highest priorities?
- Resources:
 - What is needed - funding, staffing, other?
 - What resources would your organization contribute (if no limitations)?
 - What resources does your organization have to offer currently?
- What are topic areas we should work on?
- Outreach
 - What audiences should be included in outreach efforts?
 - Outreach recommendations - programs, products, methods?



Please respond to
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by June 9, 2021.



HONOR. PROTECT. RESTORE.

Yakama Nation