

Columbia River Mainstem Fish Tissue and Water Quality Monitoring Program Development

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The Current State

Poor fish health and water quality throughout the Columbia River

Despite decades of hazardous waste cleanup and environmental regulations:

- Many reaches of the Columbia River fail to meet Washington, Oregon, and federal water quality standards
- Fish consumption advisories exist on the entire mainstem Columbia River
- Fish runs continue to decline

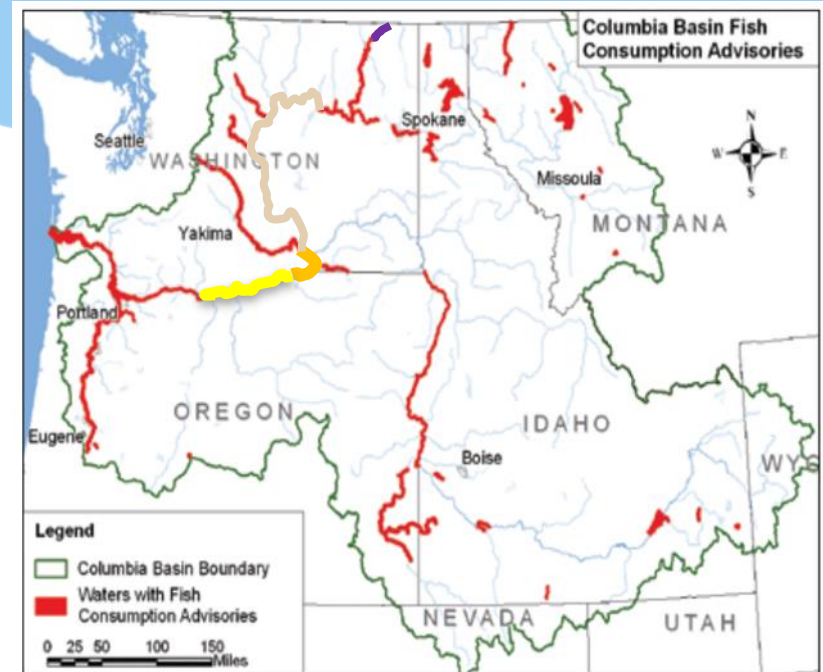


Figure 3.4: State-issued fish consumption advisories are in effect throughout the Columbia River Basin for certain contaminants and species. Not all waters have been tested, so the absence of an advisory does not necessarily mean it is safe to consume unlimited quantities of fish from untested waters.

Are contaminants in Columbia River fish getting better or worse?

Answer: We don't know

- Insufficient Data
- Incomparable data collection methods
- Lack of a consistent and collaborative monitoring program

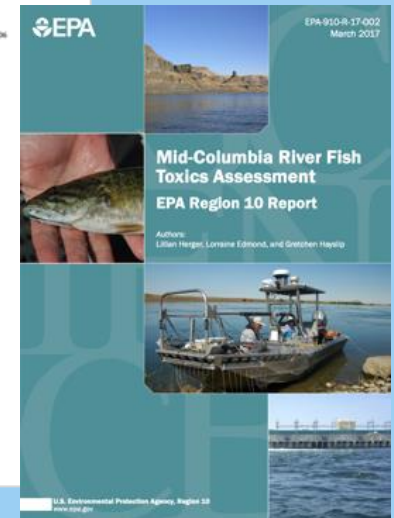
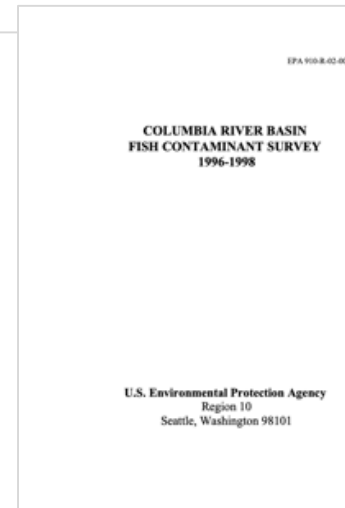
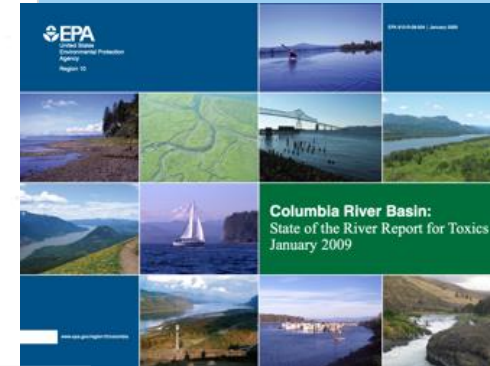
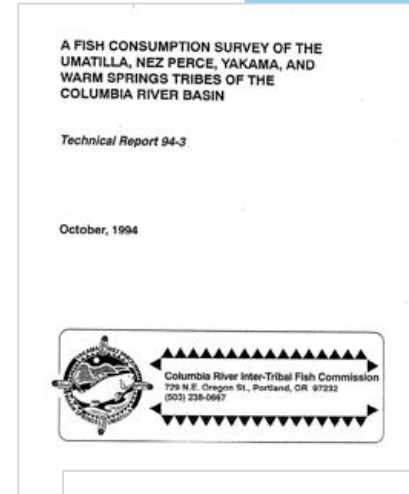
Model programs include:

- Nation-wide air quality program
- Monitoring of Large Aquatic Ecosystems (LAEs)



Insufficient data & data collection methods

- Data collection is scattered across multiple organizations and not standardized
- Comparing data is difficult
 - Differences in analytical methods, spatial and temporal issues, study purpose/bias
- Inconsistent methods make identifying trends impossible
- **Funding is needed** for
 - Consistent, long-term monitoring;
 - Better spatial coverage, and;
 - Priority contaminant analysis across all media.



The Solution

The Columbia River Mainstem Fish Tissue and Water Quality Monitoring Program

Program Objective

Provide an **unbiased and permanent** way to monitor toxic substances and evaluate status and trends.

This Program will guide cleanup and restoration of the Columbia River to support natural resources, provide healthful foods, and sustain cultural practices.



Implementation team

- Columbia River Inter-Tribal Fish Commission (CRITFC)
- Yakama Nation
- U.S. Geological Survey (USGS)
- Washington Department of Ecology
- Oregon Department of Environmental Quality
- Washington Department of Fish and Wildlife (WDFW)

Program Goals

Evaluate

- Contaminant status and trends over time and space
- Impacts to human and ecological health

Identify

- River segments in need of cleanup or source control
- River segments for restoration and protection

Inform

- Prevention, cleanup, protection, and restoration efforts
- Education and outreach
- Recovery of threatened and endangered species
- Adaptive management
- Larger Columbia River Basin efforts

Provide

- Data interpretation and recommendations
- Data compatible with the larger Columbia River Basin efforts

Initial Program Logistics

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 years)

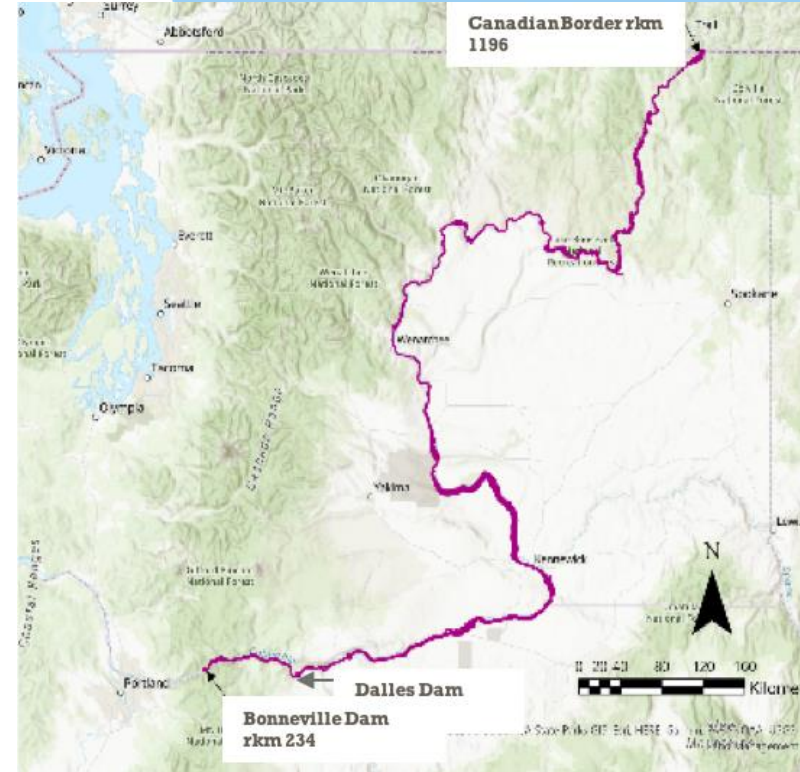
Contaminants

- Mercury
- PCBs
- Pesticides (DDT)
- PBDEs
- Others identified through adaptive management and emerging science

Three-Phased Approach

Phases 1 and 2: 2020 - 2024

- Engage stakeholders
 - Collaborated with the Columbia River Basin Restoration Working Group (350+ members)
 - Included representatives from federal, state, and regional governments, health experts, Tribes, universities, NGOs
- Define initial project area:
 - 600-mile stretch of the Columbia River—from the Bonneville Dam to the Canadian Border
- Conduct a toxic monitoring pilot study in Bonneville Pool
- Identify a Program Lead, house, and permanent funding



Three-Phased Approach

Phases 3: 2025 and beyond

- Implement Monitoring Program and Adaptive Management
- Confirm who will lead and house the program
- Secure funding - codified, reliable, long-term funding source

Thank You

“Not much less necessary than the atmosphere they breathed”

— Justice Joseph McKenna in the Supreme Court Decision *United States v Winans*
(198 U.S. 371)

The Columbia River Mainstem Fish Tissue and Water Quality Monitoring Program

A collaborative effort being implemented by Tribal, federal, and state agencies with input from many organizations.

Collect, manage, evaluate, and publicly share data and report on toxic substances in Columbia River water, fish, and sediment.

Welcome new partnerships and the expansion of monitoring to compliment Basin-wide efforts and needs.