

# Columbia River Basin

## Large Aquatic Ecosystem (LAE)



The **Columbia River Basin** program covers a major portion of North America including parts of seven U.S. States and British Columbia. The basin provides drainage through an area of more than 260,000 square miles into a river near 1,200 miles in length. The Columbia River Basin provides an important North American backdrop for urban settlement and development, agriculture, transportation, recreation, fisheries and hydropower.

The Columbia River Basin's unique ecosystem is home to many important plants and animals. Columbia River salmon and steelhead runs were once the largest runs in the world. The tribal people of the Columbia River have depended on these salmon for thousands of years for human, spiritual, and cultural sustenance.

### Challenges

The Columbia River Basin provides great environmental, economic, and social benefit to many public and private interests. The Basin is a dynamic economic engine for many industries vital to the Pacific Northwest, including sport and commercial fisheries, agriculture, transportation, recreation and with many hydropower dams, electrical power generation. However, many of these same activities have disrupted natural processes and impaired water quality in some areas to the point where human health is at risk and historic salmon stocks are threatened or extinct. Recent studies and monitoring programs have found significant levels of toxic chemicals in fish and the waters they inhabit, including DDT, PCBs, mercury, and emerging contaminants, such as PBDEs and endocrine disrupting flame retardants.

### Priorities

The goal of the Columbia River Basin program is to protect public health and the environment by reducing toxics in fish, water, and sediment of the Columbia River Basin and by increasing toxic reduction actions and implementing a collaborative monitoring and research strategy to understand toxic loads, emerging contaminants, and overall ecosystem health. This is being done by a collaborative effort of Oregon, Washington, Idaho, Montana, Columbia Basin tribal governments, the Lower Columbia River Estuary Partnership, local governments, citizen groups, industry, and other federal agencies in efforts to restore water quality, remove contaminated sediments, bring back native anadromous fish, and preserve, protect, and restore habitat. These actions include:

- Developing regulations to better protect human health and the ecosystem.
- Implementing total maximum daily loads through sediment reductions, riparian restoration, and nutrient reductions.
- Implementing aggressive stormwater controls to reduce toxic loads.
- Working locally with agriculture producers to reduce pesticide use through the Pesticide Stewardship Partnerships.
- Providing opportunities to collect legacy and banned toxics and pesticides; and unused pharmaceuticals.
- Cleaning up the Portland Harbor Superfund site and other clean-up sites.
- Restoring wetlands and reducing toxics through the Lower Columbia River Estuary Partnership.
- Remediation and restoration of the Upper Clark Fork River basin in Montana from 130+ years of hard rock mining resulting in heavy metals contamination.



## Accomplishments

- The Columbia River Toxics Reduction Working Group is continuing to bring local communities, non-profits, tribes, industry, states, and federal government agencies together to develop and implement an action plan for reducing toxics in the Columbia River Basin.
- EPA completed a **Columbia River Basin State of the River Report for Toxics** in January 2009: <http://yosemite.epa.gov/r10/ecocomm.nsf/Columbia/SoRR/>, which describes the current understanding of toxic contamination and identifies actions to restore this magnificent ecosystem. This report is stimulating public dialogue on enhancing and accelerating toxics-reduction in the Columbia River Basin.
- Oregon's Pesticide Stewardship Program in the Walla Walla Basin has shown a 70% decline in bioaccumulative organophosphate pesticides in 2006-2008 data.
- In May 2009, the Washington Department of Health lifted the Yakima River DDT fish advisory because of the success of collaborative efforts of the agricultural community, Washington Ecology and others to reduce soil erosion into the Yakima River.

## Future Direction

The Columbia River Basin Program is currently developing a Columbia River Basin Toxics Reduction Action Plan which is expected to be completed by Spring 2010. This action plan builds off the State of the River Report and identifies 5 major initiatives to accomplish toxics reduction in the Columbia River Basin.

In the EPA 2009 Strategic Plan, the program established numeric targets for wetland restoration, sediment clean up, and toxics reduction in fish and water to reach over the next 5 years.

- By 2014, protect, enhance, or restore 16,000 acres of wetland habitat in the Lower Columbia River watershed.
- By 2014, clean up 85 acres of known highly contaminated sediments, primarily in Portland Harbor.
- By 2014, demonstrate a 10 percent reduction in mean concentration of certain contaminants of concern found in water and fish tissue in 5 locations in the Columbia River Basin.

EPA Region 10 is leading many partners in the Columbia River Toxics Reduction Strategy to achieve these three goals and other actions to better understand and reduce toxics in the Columbia River Basin.

### **The Columbia River Basin Facts**

Watershed Size: 260,000 square miles  
Waterbody Size: 1,200 mile river (4th largest river in North America)  
Population: 8 million  
EPA Regions: 8 and 10 (British Columbia, Canada)  
Director: Mary Lou Soscia

**The Columbia River Basin Program** was designated a member of the US Environmental



Protection Agency's Large Aquatic Ecosystem Council (LAE) in 2008. The Columbia River Basin Program joins nine other geographic-based efforts that focus on protecting and restoring the health of critical aquatic ecosystems. The LAE Council seeks to merge geographic-based efforts with national water programs to advance the health of the nation's large aquatic ecosystems and strengthen national water programs.

### LAE Program Web Sites

**Chesapeake Bay Program**  
[www.chesapeakebay.net](http://www.chesapeakebay.net)

**Columbia River Basin**  
[www.epa.gov/region10/columbia](http://www.epa.gov/region10/columbia)

**Great Lakes**  
[www.epa.gov/glnpo](http://www.epa.gov/glnpo)

**Gulf of Mexico Program**  
[www.epa.gov/gmpo](http://www.epa.gov/gmpo)

**Lake Champlain Basin Program**  
[www.lcbp.org](http://www.lcbp.org)

**Long Island Sound Study**  
[www.longislandsoundstudy.net](http://www.longislandsoundstudy.net)

**Pacific Islands Office**  
[www.epa.gov/region09/islands](http://www.epa.gov/region09/islands)

**Puget Sound - Georgia Basin**  
(Under Construction)

**San Francisco Bay Delta Estuary**  
[www.epa.gov/region9/water/watershed/sfbay-delta.html](http://www.epa.gov/region9/water/watershed/sfbay-delta.html)

**South Florida Geographic Initiative**  
<http://epa.gov/region4/water/southflorida/index.html>

Office of Wetlands, Oceans,  
and Watersheds

[www.epa.gov/owow/oceans/partnerships/large\\_aquatic.html](http://www.epa.gov/owow/oceans/partnerships/large_aquatic.html)

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