TESTIMONY

*Presented Before the*

Committee on Environment and Public Works

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*Submitted by*

Debrah Marriott

Executive Director

Lower Columbia River Estuary Partnership

States of Oregon and Washington

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Good morning Madame Chairman and members of the Committee.

My name is Debrah Marriott, and I am the Executive Director of the Lower Columbia River Estuary Partnership. I am here today representing the Columbia Basin which includes the study area of the Estuary Partnership.

Thank you for your invitation to appear before you today to speak in support of the Columbia River Restoration Act. This bill recognizes the Columbia Basin as one of the nation's great water bodies. It opens the path to reduce toxic contaminants, improve ecosystems in the Columbia Basin, add significant jobs and begin long term improvements to public health and our economic stability.

The river needs investment. The significance of the Columbia River for many of us began in 1803 with President Jefferson's Lewis and Clark Expedition. To many others, the Columbia has been home for over ten thousand years. From its early days with humans, the Columbia has provided unprecedented fish and sustenance, then trade, and today it continues as the economic, environmental, cultural and historic lifeline of the region and nation. The Columbia is big – the fourth largest river in North America and drains 258,000 square miles.

Over 8,000,000 people live in the Columbia Basin and all depend on it to different degrees for their livelihood and overall quality of life. The Columbia flows through the largest urban area of Oregon and the second largest in Washington. Over 2,000 species of wildlife live in it during some part of their life. The 14 hydropower dams on the mainstem Columbia provide over 75% of the power for the Northwest, more than any other river in North America. Half of the 7.3 million acres of income producing farm and ranch land in Idaho, Oregon, and Washington are irrigated with the Columbia River: sales from these exceed $10 billion annually. The river's five deep water ports are the nation's primary terminals for several importers of manufactured goods and the major depot for the export of the nation's grain: it carries 39% of all the wheat in the US and the Port of Portland is the largest importer of Toyotas in North America. The river carried cargo worth $13 billion in 2005; barge shippers saved over $38 million over what the same shipments would have cost by rail. Shipping is more fuel efficient and is less polluting: a ton of commodity can be moved 514

miles by ship compared to 202 miles by train or 59 miles by truck. (Port of Lewiston, Idaho) The Columbia Gorge is the wind surfing capital of the world and is a National Scenic Area. Hundreds of thousands of residents and visitors hike, fish, bike, and boat on its waters and along its shores all year long.

### The Health of the Columbia

The Columbia River is impaired from the Canadian border to the Pacific Ocean.

- Fish tissue and sediment contain PBDEs, PCBs, DDT and mercury.
- EPA identified 92 priority pollutants in Columbia Basin waters.
- 100% of the Columbia mainstem (including reservoirs) is impaired.
- 135 water segments on the Columbia have been identified by the state of Washington as impaired.
- In Oregon's portion of the Basin, 81% of assessed streams and lakes are impaired.
- 61% of Idaho's assessed waters are impaired and 99% of assessed lakes are impaired including reservoirs on the Snake River.
- Contaminants include a range including Mercury, Ammonia, Bacteria, DDE, DDT, Dioxin, PCBs and Arsenic.
- Temperature and dissolved gas level exceed levels safe for species survival.
  (Source: EPA)
- More than twenty species of salmon or steelhead in the Basin have been listed under the Endangered Species Act (ESA) as threatened or endangered.

### In the lower river……

- More than half of the lower Columbia River's estuarine wetlands have been lost since the late 1880s, for certain types more than 75 percent.
- Thirteen species of salmonids in the lower river have been listed under the ESA as threatened or endangered.
- Toxics, many banned in the 1970s, are still present in water, sediment and fish today. DDE, DDT, PCBs in salmon tissue and sediment and PAHs present in salmon prey exceed thresholds for delayed mortality, increased disease susceptibility, and reduced growth.
- Contaminants in flame retardants, pharmaceuticals and ingredients in personal care products are present that cause male fish to essentially morph to female within their life cycles. The toxins affect their ability to reproduce, avoid predators, and resist disease, all of which inhibit recovery of the ESA-listed species.
- Legacy contaminants have impaired the reproductive organs of male river otters and thinned eggshells of osprey and bald eagles.
  (Source: Estuary Partnership, 2007)

All the problems of the basin drain into the lower river and estuary. Contaminants that originate far up in the upper basin are deposited at lower river sites.

The threatened and endangered species use the lower river twice during their life cycle; first as juveniles traveling to the ocean and next as adults returning to spawn.

The economic viability of ports and the maintenance of navigation channels are at risk because of limitations to safe disposal of millions of cubic yards of contaminated dredged materials.

Loss of fish has decimated our commercial fishing industry. Oregon State University reports that in 1976-1980 the commercial salmon fishing industry provided $41 million in personal income dropping to a low of just $4 million by 1998.

Columbia River tribal people eat 9 -12 times more fish than others, posing a significant environmental justice issue. (Source: EPA-CRITFC, 1994)

The NOAA Columbia River Estuary Recovery Module for Salmon and Steelhead alone calls for over $500,000,000 to recover threatened and endangered species.

**The Progress**

While partners in the lower 146 miles have restored nearly 16,000 acres of habitat since 1999, this is only about half what has been lost since 1880. The number does not calculate what we are losing while we are restoring. To recover threatened and endangered species, habitat restoration will now need to be more complex and include toxic contaminant assessment and removal. One tributary in the Northwest invested millions of dollars in habitat restoration and no fish returned. It was then tested and showed extensive contamination in fish tissue, sediment and water. This resulted in a huge mis-investment of resources.

**We have conducted many one time studies** at varying locations in the Columbia Basin; they give only a snapshot about the contaminants at that moment in time. Scientists and community leaders have knit those studies together to identify the next steps for the Columbia Basin.

**We have advanced knowledge** about the river. We have learned how threatened and endangered species use the estuary. We have surveyed the entire 630 miles of shoreline of the lower river and classified landscapes and functions to more strategically restore critical habitat. We have completed an assessment of dredge material disposal needs for twelve lower river ports.

**The planning has been done**. Several regional plans have been completed, unified and updated.

- Lower Columbia River Estuary Partnership Comprehensive Conservation and Management Plan (1999, updated 2001 and 2009)
- Columbia River Basin Toxics Reduction Action Plan ( EPA 2009)
- Water Quality in the Willamette Basin, Oregon, 1991-95 (USGS 1998)
- Water Quality in the Yakima River Basin Washington, 1999–2000 (USGS 2000)
- Water Quality in the Upper Snake River Basin Idaho and Wyoming, 1992-95 (USGS, 1998)
- Federal Columbia River Power System Biological Opinions.( NOAA 2000, 2004, 2008)
- Northwest Power and Conservation Council Fish and Wildlife Lower Columbia Province Plan (2004, 2008)
- NOAA Recovery Plans: Columbia River Estuary Recovery Plan Module for Salmon and Steelhead (2010), Middle Columbia River Steelhead Recovery Domain, Upper Columbia Recovery Domain, Snake River Domain, White Salmon Domain
- Oregon, Washington and Idaho State Recovery Plans

All the actions identified in each planning process, even with all emerging science, call for reducing hydrosystem effects, restoring habitat, addressing toxic contaminants, slowing the introduction of non-native species, reducing predation, and managing uncertainty.

**We have the regional collaboration** and a fifteen year track record of working together across political boundaries with federal, tribal, state, local, industry, agriculture, fishing and recreation using ecosystem performance based management to assess how we are doing. EPA has brought together hundreds of stakeholders in the middle and upper basin to define an action plan. The planning and the research is done. With EPA as the lead partner, the Estuary Partnership gives EPA the organizational structure and capacity to complete the work in the lower river and link this work with EPA's efforts in the middle and upper basin.

**There has been investment** to restore habitat and reduce toxics in the Columbia Basin, but it is less than a few million dollars a year and focused on habitat restoration or one time isolated studies. The magnitude of the problems exceeds what this level of investment can accomplish. Oregon and Washington invest heavily in the Willamette River Basin and Puget Sound. The Columbia does not share that level of financial support.

The problems are big, they have taken decades to reach this point; they come from not one individual action, not one industry, not one community, not even one state. The problems are the results of hundreds of different sources and hundreds of different activities that have occurred over a very long time that move over time. They cannot be corrected in one or two years with short term, small monies, section by section.

Despite knowing the extent of the problems, **there is no sustained monitoring on the mainstem Columbia and no concentrated toxic reduction efforts.** In fact in the past fifteen years, as we learned more about the extent and levels of contaminants throughout the Basin, we invested less and less and measured fewer and fewer sites. There is now just one site on the lower river that is monitoring consistently. Scientists and community leaders determined that a minimum of 29 sites is needed to give an accurate assessment.

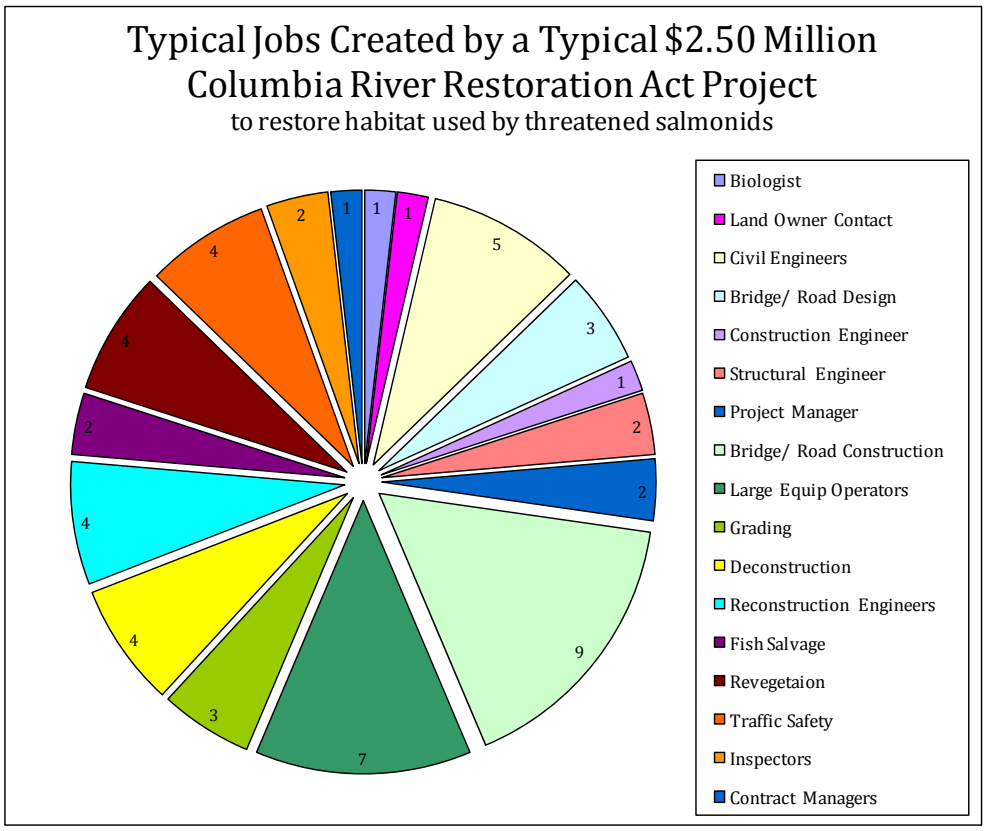
We cannot target reduction activities without monitoring contaminants. We are unable to assess the impact of contaminants on fish and habitat used by fish or to evaluate effectiveness of habitat restoration projects. There are no resources to remove contaminants, measure changes over time or assess how they move in the system. We do not know their full impact on human health or the survival of threatened and endangered fish.

**We Know What We Need to Do:**

- **Collect and analyze samples from water, sediment, salmon, river mammals, and birds** at the **same locations at regular intervals** over time **to get a comprehensive picture of contaminant sources and patterns**. This includes measuring over 130 emerging contaminants (such as estrogen compounds and personal care products); approximately 50 commonly used insecticides, herbicides and fungicides; banned agricultural chemicals; over 130 moderately used pesticides; nearly 20 trace elements (including mercury and lead); and PCBs, PAHs, and flame retardants.
- **Expand agricultural toxics reduction activities.** Provide financial assistance and technical support to farmers, ranchers,soil conservation districts, and watershed councils to install best management practices to reduce soil erosion and toxics into the Columbia River.
- **Expand pesticide stewardship take back programs.** Collect pesticides and other waste to ensure proper disposal of pesticides, solvents, batteries, electronics, PBDE-containing materials to licensed hazardous waste facilities. Previous programs in Oregon, Washington and Idaho have recovered toxic chemicals, including thousands of pounds of DDT, banned in the 1970's.
- **Expand mercury collection events.** Provide the public with safe disposal options for excess mercury and mercury containing products. There is a special need for these work efforts on tribal lands. Each year, the emergency response unit in EPA responds to one or more elemental mercury releases, often in schools or households.
- **Conduct pharmaceutical collection events.** Collect unused pharmaceuticals to keep from entering water bodies. Pharmaceutical collection also helps prevent accidental poisonings and teen access to these drugs.
- **Develop consumer education and information.** Certain ingredients in personal care products cause hormone disruption in fish. Providing consumers, especially high risk populations, with information can help keep some of these contaminants out of the system.

- **Evaluate the habitat restoration projects to ensure fish are using habitat.**
- **Create a dredge material disposal and sediment plan.** Dredging is needed to allow ports to maintain activities that directly impact local economy.
- **Implement habitat restoration projects.** Increase the number and quality of restoration projects for recovery of threatened and endangered species.
- **Hire technical experts for local watershed councils and local governments.** Provide technical assistance to local entities and habitat restoration partners who are unable to afford it. (Engineering, geotechnical, soils, hydrology, and other technical skills required to scope, design, and build large, complex restoration projects.)

**Investing Federal Tax Dollars.** The Columbia River is a federal navigable waterway and a shared resource. It is a multi-state, international shipping channel. Twenty-four treaty tribes have rights to the Columbia River. Addressing habitat loss and toxic contamination bolster the local economy by immediately keeping all ports operational, supporting jobs for technicians, fishers, boat crew, maintenance specialists, law enforcement officers, construction engineers, construction laborers, large equipment operators, contractors for bridge and culvert replacement, watershed ecosystem experts, fisheries biologists and foresters. It gives financial assistance and technical support to farmers, ranchers, soil conservation districts, and local watershed councils to install best management practices, reduce soil erosion and toxics. These projects open a market for local supplies and services for equipment, plant stock from local nurseries, lumber, soil, rock, road building materials. The multiplier effect of all these jobs on our economy is vital. They are citizens paying taxes, buying groceries, paying mortgages.




Future economic benefit is achieved by protecting navigational jetties, fishery habitats and beaches from ongoing erosion. Keeping contaminants out of the system is more economical than clean up.

Twice the US EPA has acknowledged that addressing ecosystem degradation in the Columbia River is a national priority. First by designating the lower Columbia River and estuary an estuary of national significance in the National Estuary Program in 1995 and in 2006 by elevating the entire Columbia River Basin to the status of a Great Water Body (now called Large Aquatic Ecosystem). The Columbia River Basin joined the Great Lakes, Lake Champlain, Long Island Sound, Chesapeake Bay, Gulf of Mexico, South Florida Ecosystem, San Francisco, Pacific Islands and Puget Sound.

**The Columbia Basin is the only Large Aquatic Ecosystem to receive no appropriations pursuant to this designation.** We have worked for many years to raise the understanding about the Columbia beyond the basin. The need could not be clearer.

This authorization meets five federal priorities: EPA's targets for toxics reduction and habitat restoration; USGS National Water-Quality Assessment Program; the West Coast Governors' Oceans Agreement; the Federal Columbia River Power System Biological Opinion; and NOAA Recovery Plans. It also implements key actions in Salmon Recovery plans in Idaho, Washington and Oregon.

In 1987, Congress took the bold step of creating the NEP to support the protection and restoration of estuaries around the nation that are important for their economic, environmental and cultural significance. Even bolder was how you shaped the National Estuary Program. You called for it to be locally driven, to cross established political boundaries, to convene diverse interests, to use science and to get actions on the ground that would improve this ring of estuaries. You acknowledged local thinking--empowering citizens to engage, take responsibility and be accountable to you and to future generations. And you got results. In the Columbia Basin, we have extended this approach to all the geographies of the Basin because the river system does not stop at a dam.

We can solve the Columbia River problems. Whether we intended to or not, we put these contaminants in the river. We have the plans, the science, the collaboration and the track record now to remove them. This authorization holds us accountable and gives us the opportunity to leave a legacy to the seventh generation of our children's children of which we can be most proud.

Thank you for the opportunity to speak in support of the Columbia River Restoration Act.
I would be glad to answer any questions you may have.