Lower Columbia River Estuary Partnership

July 30, 2007

The Honorable Christine Gregoire
Governor
State of Washington
PO Box 40002
Olympia, WA 98504

The Honorable Ted Kulongoski
Governor
State of Oregon
160 State Capitol
900 Court Street
Salem, OR 97301

The Honorable Arnold Schwarzenegger
Governor
State of California
State Capitol Building
Sacramento, CA 95814

Dear Governor Gregoire, Governor Kulongoski and Governor Schwarzenegger:

Thank you for the opportunity to comment on the *West Coast Governors' Agreement on Ocean Health, Discussion Paper Regarding the Seven Priority Areas, Assessment of Possible Actions* (March 15, 2007). It is very exciting to see the Discussion Paper, it offers great opportunity for improvements in natural resource protection here in the Pacific Northwest.

The Lower Columbia River Estuary Partnership (Estuary Partnership) is uniquely positioned to assist the Governors in meetings their goals:

- We are working with the federal action agencies to implement on-the-ground actions to recover threatened and endangered salmonid species.
- We are ecosystem based, focused on impacts to all species including humans.
- We are the only entity instituting long term monitoring, toxic reduction activities, habitat restoration, and marine debris removal projects along the Columbia River, augmenting the states' expanding efforts in toxic reduction in their water bodies.
- We are a collaborative partnership of both public and private organizations with a twelve year record of building the capacity of existing efforts and filling gaps, including accessing over $8,000,000 for the region for habitat restoration, over $4,000,000 for monitoring impacts on salmonids, and raising over $2,000,000 to deliver environmental education programs.

Lower Columbia River Estuary Partnership

The lower Columbia River and estuary was designated an "Estuary of National Significance" in 1995, one of only 28 in the nation to receive the distinction. The National Estuary Program was authorized in the 1987 amendments to the Clean Water Act and is administered by the US Environmental Protection Agency. Its purpose is to protect nationally significant estuaries that have been degraded by human activity. Using a watershed approach, the Estuary Partnership works over an area that stretches 146 miles from Bonneville Dam to the Pacific Ocean. The

Lower Columbia River Estuary Partnership is a public-private 501(C)(3) non-profit corporation with a Board of Directors representing the diverse interests and geography of the lower river. The Estuary Partnership is the leading two state entity working with the private sector and local, state, federal, and tribal governments to address issues in the lower Columbia River.

The Estuary Partnership goals are to:

- **Protect the ecosystem and species** by restoring 16,000 acres of wetlands and habitat by 2010 and promoting improvements in stormwater management.
- **Reduce toxic and conventional pollution** by conducting long term monitoring and advocating to eliminate persistent bioaccumulative toxics (PBTs), bringing water bodies up to water quality standards, reducing hydrocarbon and heavy metal discharges and reduce bacterial contamination.
- **Provide information about the river to a range of audiences** by providing applied learning programs for children and building federal, state, local, public and private coordination.

EPA, the States of Oregon and Washington, NOAA, USGS, Bonneville Power Administration, over 55 corporations and foundations, as well as hundreds of individual citizens, are key participants and provide support to the Estuary Partnership.

Great Water Body

In 2006, EPA designated the Columbia River Basin as one of the nation's seven Great Water Bodies. The elevation to Great Water Body provides important recognition to the Columbia River and comes in part as a response to still threatened and endangered species that rely on the river. EPA and state monitoring programs have found significant levels of toxic contaminants in fish and water within the basin, and a host of other continuing problems. EPA recently launched a toxics reduction strategy in close cooperation with the Estuary Partnership, state and tribal partners, local governments, and others to actively reduce toxics. Currently, the Columbia River Basin is the only Great Water Body that is receiving no funds in the draft FY08 Congressional budgets.

Estuary Partnership Study Area

The Estuary Partnership's study area is the tidally influenced portion of the lower Columbia River, which stretches 146 miles from the Pacific Ocean (downstream of Astoria) upstream to Bonneville Dam. This includes the area at the mouth of the Columbia where fresh water and salt water mix, the lower, tidally influenced portions of tributaries to the Columbia (including the lower Willamette River in downtown Portland), and the Columbia River up to Bonneville Dam.

The lower river and estuary form a unique and beautiful ecosystem that, among other things, sustains endangered salmon during a critical stage in their life cycle. Some juvenile salmon forage in the shallow wetlands of the estuary for weeks or months, until they have grown large enough to survive at sea and have made the physiological transformation from freshwater to ocean-going fish. Other populations use the low-salinity, nutrient-rich plume waters in a similar way. To some extent, salmon serve as bellwethers of the overall health of the ecosystem. Other species also use the lower river and estuary. White and green sturgeon, Pacific lamprey, bald eagles and osprey, river otter, Columbian white-tailed deer, and many other native species rely on healthy estuarine habitats in the Columbia as places to feed, rest, take refuge from predators, and reproduce.

The Estuary Partnership includes 28 cities, nine counties, 38 school districts and the states of Oregon and Washington. Over 2,000,000 million people live here. It includes the City of Portland, Oregon's largest population center, and Clark County, the State of Washington's fastest growing region.

The Agreement Goals	Estuary Partnership Activities
Clean coastal waters and beaches	**Habitat restoration** for multi-species is a primary activity. The Estuary Partnership is receiving seven years of funding from Bonneville Power Administration (2003-2010) for habitat restoration, focused on salmonid recovery. We have received six years of funding from NOAA (2004-2010) for multi-species, ecosystem habitat restoration.
Healthy ocean and coastal habitats	We are receiving funds from NOAA, with funds pending from BPA, for **marine debris removal projects**. The first pile dike removal project is schedule for September 2007. We have developed with federal action agencies and other partners, a multi-year strategy for a large scale removal program. Since 1999, we have: ▪ Restored 4,204 acres of habitat with 85 partners at 30 sites including 1,244 acres acquired for future restoration and 550 acres of historic floodplain reconnected to tidal fluctuation and opened 31.5 miles of stream habitat. ▪ Completed shoreline inventory and classification of conditions on over 630 miles of shoreline. ▪ Developed a GIS-based framework and evaluation criteria to assess restoration projects to enhance success.
Reduced impacts of offshore development	
Expanded ocean and coastal scientific information, research, and monitoring	**Reducing the impact of toxic contaminants** on public health and ecosystem health is one of the Lower Columbia River Estuary Partnership's primary goals. Understanding the current and past conditions of the lower Columbia River is a critical part of the Estuary Partnership's efforts in toxic reduction. The Estuary Partnership's predecessor program, the Lower Columbia River Bi-State Water Quality Program (Bi-State Program), investigated toxic contaminants and similar water quality issues in the lower river and estuary from 1989 to 1995. The Bi-State program generated a great deal of scientific data about contamination and other threats to the health of the lower Columbia. With hundreds of sampling sites monitored for several years, the Bi-State Program demonstrated that water and sediment in the lower Columbia and its tributaries have levels of toxic contaminants that are harmful to fish and wildlife (Tetra Tech, Inc. 1996). Contaminants of concern included dioxins and furans, heavy metals, polychlorinated biphenyls (PCBs), and organochlorine pesticides such as DDT. Results from the Bi-State Program studies—and the degradation the studies identified—supported the lower Columbia River and estuary's nomination to and acceptance into the U.S. Environmental Protection Agency's (USEPA) National Estuary Program in 1995, creating the Estuary Partnership. Other smaller scale investigations have supported the Bi-State Program findings. The presence of toxic contaminants in the lower Columbia River is one of seven priority issues identified in the Estuary Partnership's guiding document, the *Comprehensive Conservation and Management Plan (Management Plan*, Estuary Partnership 1999a*)*. Approximately one-third of the actions called for in the *Management Plan* are designed to reduce or eliminate toxic and conventional contaminants in the lower river. Actions address a range of needs, from sustained long-term monitoring, assessment of trends, and identification of sources of toxic contaminants to specific actions to clean up hazardous waste sites, reduce polycyclic aromatic hydrocarbons (PAHs), eliminate toxics generated during manufacturing, and prevent impacts from accidental spills, such as requiring marinas to have spill prevention and cleanup plans in place.

The *Aquatic Ecosystem Monitoring Strategy for the Lower Columbia River (Monitoring Strategy*, Estuary Partnership 1999b*)* was developed to implement the monitoring called for in the *Management Plan.* The *Monitoring Strategy* focuses on seven key topics: monitoring oversight; data management; conventional and toxic contaminants; habitat monitoring; exotic species; nutrients; and primary productivity and food web dynamics. This regional, collaborative, ecosystem-based strategy directs all monitoring efforts spearheaded by the Estuary Partnership. Having the strategy in place allows the Estuary Partnership to put the funds we secure directly to monitoring – and producing results. The Estuary Partnership provides a forum for coordination to improve regional efficiencies and avoid duplication of investments and efforts.

From 2003-2007, the Estuary Partnership worked with its partners on a specific monitoring project in the *Monitoring Strategy* that examines both habitat and water quality as a way of assessing the lower river's health and important habitats for salmonid species. The project is known as the Ecosystem Monitoring Project.

Key Monitoring Findings

- Contaminants banned in the 1970s are still detected in sediment and fish. These include pesticides, (dichlorodiphenyltrichloroethane, DDT) and compounds used as coolants and lubricants (polychlorinated biphenyls, PCBs).
- PCBs in salmon tissue and PAHs present in salmon prey exceed estimated thresholds for delayed mortality, increased disease susceptibility, and reduced growth.
- Coincident to their detection in fish, almost half of the types of PCBs were found on suspended sediment.
- Exposure to flame retardants (PBDEs) is on the rise throughout the Pacific Northwest, and salmon in the vicinity of Portland have levels within the top 10% of those reported for resident fish in the region. Flame retardants were also found on the suspended sediment with concentrations of two of the most toxic forms, penta-BDE and deca-BDE, the highest.
- Copper was detected in the water at concentrations known to interfere with the normal function of key sensory systems in fish, such as imprinting, homing, schooling, shoaling, predator detection, predator avoidance, and spawning behaviors in salmon.
- Juvenile Chinook salmon collected from the Portland area have abnormal levels of an estrogen-regulated yolk protein. Water samples from the same area contain a known endocrine disruptor. This is an indication that pharmaceuticals and wastewater products may be interfering with the endocrine system of salmon.

Using these results, the Estuary Partnership is focusing next actions on:

- Securing additional funding for monitoring to ensure long term and sustained monitoring to assess trends;
- Initiating some on-the-ground actions as a start, including take back programs and investigate cleanup options for small contaminated sites;
- Disseminating our data, in an integrated way that makes sense to range of audiences, from school children to scientists, and everyone in between;
- Initiating Comparative Risk Process to look at current issues in the river and continue the science to policy to implementation discussion.

Increased ocean awareness and literacy among the region's citizens	Estuary Partnership programs integrate classroom lessons, educational field trips, and service learning projects to increase students' understanding of the environment, expose them to natural ecosystems, and empower them to believe that individual stewardship can positively impact the environment. The applied outdoor learning experiences provided by the Estuary Partnership help students develop an understanding and appreciation of the natural world through direct experiences. Programs provide education plus the spark that cultivates curiosity and the desire to learn and experience more. All programs meet Oregon and Washington benchmark requirements and build on classroom science curriculum. All Estuary Partnership Environmental Educators have extensive classroom and field experience and are committed to education, the environment, and providing a high quality experience to teachers and students. We are one of the only organizations that both develops the curriculum with teachers and delivers it in the classroom and field. Since January 2001, 80,680 students with 853 teachers have received applied learning programs presented by the Estuary Partnership, and 14,405 citizen volunteers have worked on Estuary Partnership volunteer projects throughout the study area, planting over 21,600 native trees and shrubs at 18 restoration sites and sampling over 200 sites for water quality annually.
Sustainable economic development of coastal communities	We are funding sediment management planning for the Lower Columbia Solutions Group to develop a long term, regional sediment management plan. This is critical for two reasons: sediment movement and quality is directly impacting recovery of threatened and endangered species and there are numerous sites along the lower river where economic development is impeded due to transport of contaminant sediments to them. Sources of contaminants cannot be identified but current owners cannot develop the properties and in some cases will be put out of business if disposal plans are not developed – and supported by a larger community.

Needs

Currently, BPA and NOAA (to a much lesser degree) are the only entities supporting habitat restoration in the lower Columbia River. BPA funds are targeted at salmonid recovery.

Monitoring and toxic reduction efforts are currently underfunded and largely unacknowledged. There is no sustained monitoring on the lower mainstem river and there is no ecosystem-wide monitoring. Only BPA is currently investing funds in long term monitoring; those funds ($625,000 per year) are solely targeted at salmonid recovery and include monitoring at only six sites, compared to the 500 sites monitored during the Bi-State Program. There needs to be not only more investment, but more funding partners.

The Estuary Partnership estimates that in order to sustain an ecosystem-wide monitoring program that begins to build on the Bi-State Program, an investment of $2,300,000 annually for approximately six years (in addition to the BPA investment) would begin to generate a database that provides the trend analysis and the source data that is necessary to move to full scale reduction efforts. The Estuary Partnership will invest over 93% of the $2,300,000 requested in our FY08 appropriations requests to monitoring, data collection and analysis. Less than 7% will go to staff and overhead.

Sediment management in the lower Columbia River is directly related to toxic reduction. As noted, there are several sites along the lower river where the condition of sediment is inhibiting economic health. More effort and funding needs to support these efforts, both to develop a regional plan that all parties agree to and also to assist in funding toxic contaminant removal at small sites.

Sincerely,

Debrah Marriott
Executive Director

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