Northwest Power and Conservation Council

January 9, 2007

DISCUSSION MEMORANDUM

TO: Council Members

FROM: Jim Ruff, Manager, Mainstem Passage and River Operations

SUBJECT: EPA's Presentation on Columbia River Toxics Reduction Strategy

PURPOSE

Mike Gearheard, the Director of the U.S. Environmental Protection Agency (EPA) Region 10 Office of Water and Watersheds, and Mary Lou Soscia, EPA's Columbia River Coordinator, will present information to the Council on EPA's Columbia River toxics reduction strategy and work efforts (see attached slide presentation).

DISCUSSION

On September 30, 2006, EPA designated the Columbia River as a Great Water Body in EPA's 2006-2011 Strategic Plan, which was transmitted to Congress. Because of this recent priority designation, the Columbia River Basin joins the ranks of Chesapeake Bay and the Great Lakes as a national great water body to focus attention for water quality restoration and protection. As a part of this designation, EPA has committed to a collaborative Columbia River Toxics Reduction Strategy. EPA has set accountable targets for toxics reduction over the next five years to restore habitat and wetlands, clean up contaminated sediments and reduce contamination in fish and water, all of which are important for Columbia Basin salmon restoration.

EPA has a long historical commitment to restoring the water quality and ecosystems in the Columbia River Basin, focusing on public health and salmon restoration. Note that this is consistent with a biological objective identified in the 2003 Mainstem Amendments to meet state and federal water quality standards. Increasing evidence has emerged in the past decade on toxics problems in the Columbia River. Many Columbia River tributaries, the mainstem, and the estuary are declared 'impaired' under section 303(d) of the Clean Water Act. EPA studies, and other federal and state monitoring programs, have found significant levels of toxins in fish and the waters they inhabit, including dichloro-diphenyl-trichloroethane (DDT), PCBs, and dieldrin.[i] Approximately 13 years ago, EPA funded the Columbia River Inter-Tribal Fish Commission to survey tribal members' fish consumption rates. This survey found Columbia River tribal people eat significantly greater amounts of fish than the general population. A follow-up 2002 EPA fish

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contaminant study found significant levels of toxins in fish that tribal people eat. Court-ordered clean up plans, called Total Maximum Daily Loads (TMDLs), are currently underway to address this toxic pollution.

To address this problem, EPA Region 10 is working closely with the states of Oregon, Washington, Idaho, Columbia Basin tribal governments, the Lower Columbia River Estuary Partnership, local governments, citizen groups, industry, and other federal agencies to develop and implement a coordinated strategy to reduce toxics in fish and water in the Columbia River Basin. Specific actions are focused on removing contaminated sediments, bringing back native anadromous fish, restoring water quality, and restoring and protecting habitat. With a modest investment, EPA, states, and tribes are systematically expanding key monitoring activities in fish, water, and sediment; pesticide stewardship partnerships; targeted pesticide/toxics collections; and precision agriculture. Implementation of TMDLs is addressing sediment reduction and restoring riparian areas. Other key activities include clean up work in the Portland Harbor and at the Hanford Nuclear Reservation, Lake Roosevelt, and Bradford Island at Bonneville Dam.

The Lower Columbia River Estuary Partnership, one of EPA's National Estuary Programs (NEP), also plays a key role in addressing toxics and restoration of critical wetlands in the Lower Columbia River estuary. Since 1996, EPA has provided significant financial support to the Lower Columbia River Estuary Partnership (LCREP). LCREP developed a management plan in 1999 that has served as a blueprint for estuary recovery efforts including a monitoring design. This lower Columbia River and estuary monitoring effort, which is supported through the Council's program, is critical for better understanding the lower river and estuary, including toxics and habitat characterization, information that is essential for Columbia River salmon restoration. EPA has also provided supplemental funding to the LCREP program through EPA's Targeted Watershed Grant program to enhance this monitoring work.

EPA is planning to build on the monitoring work done in the Lower Columbia River and develop and implement, collaboratively with other partners, a long-term monitoring effort above Bonneville Dam for fish, water and sediment, to further understand and characterize toxics in the river. EPA's Office of Research and Development, located at in Corvallis, is providing technical support for the monitoring design. In 2007, EPA will provide funding to support additional monitoring in the Columbia River through its Regional Environmental Monitoring and Assessment Program. EPA is also launching the development of a "State of the Columbia River Report," which is scheduled to be released in the fall of 2008 to assess and characterize toxics in the Columbia River.

Attachment

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[i] See U.S. Environmental Protection Agency. 2002. *Columbia River Basin Fish Contaminant Survey:1996-1998* (EPA, 910-R-02-006). Seattle, Washington, USEPA Region 10, Risk Evaluation Unit: http://yosemite.epa.gov/R10/OEA.NSF/af6d4571f3e2b1698825650f0071180a/c3a9164ed269353788256c09005d36b7?OpenDocument. See also Fixed Station and Seasonal Monitoring of Conventional and Toxic Contaminants on the Lower Columbia River Estuary Partnership (LCREP) internet site: http://www.lcrep.org/eco_water_qual.htm#fixed. Also see Johnson, A. and D. Norton. March 2005. *Concentrations of 303(d) Listed Pesticides, PCBs, and PAHs Measured with Passive Samplers Deployed in the Lower Columbia River*, Ecology Publication No. 05-03-006. Olympia WA: Washington State Department of Ecology. http://www.ecy.wa.gov/pubs/0503006.pdf.

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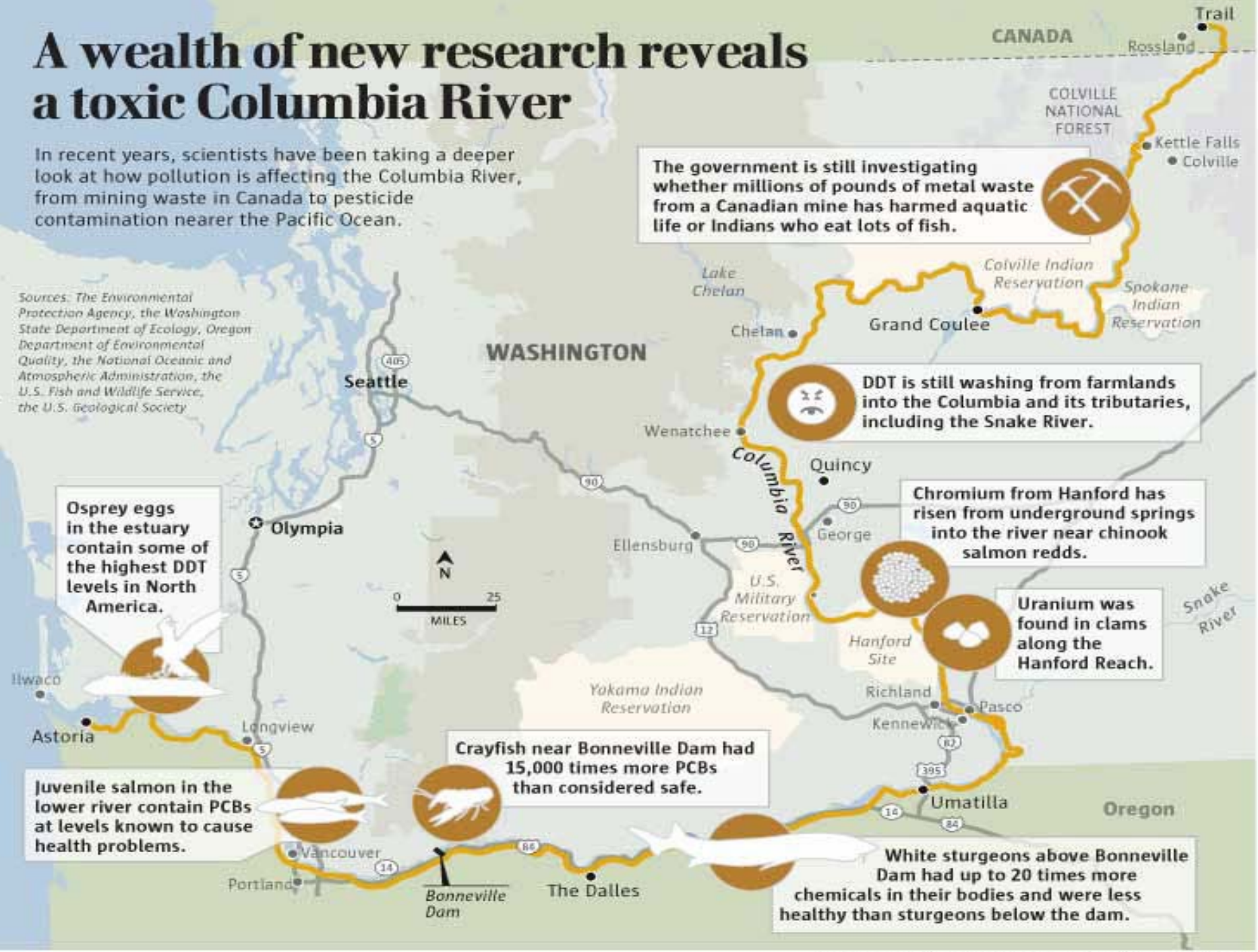
Columbia River Basin: An EPA National Priority

Northwest Power and Conservation Council
January 17, 2007

Mike Gearheard, Director, Office of Water and Watersheds
Mary Lou Soscia, Columbia River Coordinator
Socorro Rodriguez, Director, OR Operations Office
Michael Cox, Manager, Risk Assessment Unit
Lower Columbia River Estuary Partnership
EPA Corvallis Laboratory

A wealth of new research reveals a toxic Columbia River

In recent years, scientists have been taking a deeper look at how pollution is affecting the Columbia River, from mining waste in Canada to pesticide contamination nearer the Pacific Ocean.



MICHELE LEE MCMULLEN / THE SEATTLE TIMES

EPA's Long Columbia River History

- Early work on Total Dissolved Gas
- 1991 -- EPA completes Dioxin TMDL
- 1996 - Designation of Lower Columbia River into the EPA's National Estuary Program
- Superfund
  - Hanford
  - Portland Harbor
  - Upper Columbia/Lake Roosevelt
- CRITFC – Fish Consumption and Fish Contamination
- Today

EPA Strategic Plan - Columbia R.

- **<u>Goal:</u> By 2011, prevent water pollution, and improve and protect water quality and ecosystems in the Columbia River Basin to reduce risks to human health and the environment.**
- **<u>Targets:</u>**
  - **By 2011, protect, enhance or restore 13,000 acres of wetland habitat and 3,000 acres of upland habitat in the Lower Columbia –** Baseline - 96,770 acres
  - **By 2011, clean up 150 acres of known highly contaminated sediments -** from EPA and OR DEQ Portland Harbor and other acreage #s
  - **By 2011, demonstrate a 10 percent reduction in mean concentration of contaminants of concern found in water and fish tissue**

Columbia River Baseline & Monitoring

- **Baseline – OR, WA, ID, and LCREP Developed – Next 5 Years**
  - **Lower Columbia Wetlands restoration**
  - **Contaminated Sediment Clean-Up**
  - **10% Contaminant Reduction**
    - WA TMDL implementation - PCBs and DDT
    - OR Pesticide Stewardship Partnership work - Walla Walla – Organophospates
    - 1-2 sites in the Columbia River mainstem - DDT and PCBs

- **Monitoring Design – Long Term Monitoring Needs**
  - EPA ORD Corvallis- developing a monitoring design for the Columbia R. above Bonneville Dam - build on Lower Columbia work
  - EPA and LCREP leading a collaborative work group coordinate future monitoring work. Broad participation of feds, tribes, states and others including Council staff.
  - EPA REMAP funds will be made available in 2007 for monitoring

Toxic Reduction Actions

- **WA TMDL implementation - 5 toxics TMDLS - Okanogan, Yakima, Walla Walla, Wenatchee and Similkameen – Spokane underway**
- **OR – Pesticide Stewardship Partnerships – Hood River funded by Council and recognized nationally - Walla Walla in 2007**
- **OR - Walla Walla Legacy Agriculture Pesticide Collection Based on successful events in OR's Pudding River – collected 800 pounds of DDT – 2007**
- **Idaho – potential work in progress – Pesticide Stewardship Partnerships proposed for the Clearwater Watershed**

Opportunities to Work Together

- Ongoing dialogue to share information and work efforts on toxics reduction
- Continued Support for
  - Critical Monitoring – build on LCREP work
  - Projects like award winning Hood River Orchards work