



## Fourth Annual Northwest Salmonid Recovery Conference

Hosted by the Northwest Environmental Training Center  
November 4 - 7, 2003, 8:30 A.M. to 5 P.M.  
Mountaineers Conference Center, 300 Third Avenue W, Seattle, WA

**Presented by:** NOAA Fisheries, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, U.S. Forest Service, U.S. Environmental Protection Agency, B.C. Ministry of Water, Land, and Air Protection, Washington Department of Fish and Wildlife, Washington State Department of Ecology, Pacific Northwest National Laboratories, University of Washington, Washington Forest Law Center, Skagit Systems Cooperative, Center for Environmental Law and Policy, King County, Herrera Environmental Consultants, Earth Justice, Bitterroot Restoration, Pentec Environmental, Ridolfi Associates, and Washington Water Trust

**Description:** This conference is dedicated to people working to restore Pacific Northwest salmonid populations. Each session provides practical information, methods, and resources to empower attendees to better perform their salmon recovery efforts. The goal of the conference is to foster a sense of stewardship and hope by providing current fisheries science and successful solutions for salmonid monitoring and recovery.

**Intended Audience:** Professionals seeking an improved technical understanding of salmonid regulation, biology, habitat requirements, assessment, and restoration. Attendees at last years conference included biologists, ecologists, planners, engineers, tribes, regulators, research scientists, lawyers, elected officials, land owners, and nonprofit groups.

### Conference Schedule

Session I - Stock Status, Recovery Science, and Recent Developments Tuesday, November 4, 2003, 8:30 A.M. - 5 P.M.	Session II - Habitat and Population Assessment and Monitoring Wednesday, November 5, 2003, 8:30 A.M. - 5 P.M.	Session III - Restoration Science, Criteria, and Activities Thursday, November 6, 2003, 8:30 A.M. - 5 P.M.	Session IV - Habitat Restoration Site Field Tour Friday, November 7, 2003, 8:30 A.M. - 5 P.M.
<b>Morning Plenary Sessions</b>			
<b>Session I-A: Focusing on the Big Picture. 8:30 A.M. - 10 A.M., Tahoma Room</b> King of Fish - The 1,000 Year Run of Salmon <b>Dave Montgomery, Ph.D., University of Washington</b> A Salmon-Centric View of the 21st Century in the Western United States <b>Robert T. Lackey, Ph.D., U.S. EPA</b>	<b>Session II-A: Perspectives on Watershed Health and Restoring Our Bioregion 8:30 A.M. - 10 A.M., Tahoma Room</b> Restoring Northwest Watersheds: Past, Present, and Future Perspectives on Our Bioregion <b>Terry Williams, Tulalip Tribes</b> Understanding Stream Health: Beyond the Basics <b>James R. Karr, Ph.D., University of Washington</b>	<b>Session III-A: Life History Approaches to Restoration 8:30 A.M. - 10 A.M., Tahoma Room</b> Searching for a Life History Approach to Salmon Escapement Management <b>Eric Knudsen, Ph.D., U.S. Geological Survey (retired)</b> The Role of Estuaries in the Recovery of Pacific Salmon in Puget Sound <b>Kurt L. Fresh, NOAA</b>	<b>Session IV: Tour of Green River Basin Restoration Sites, 8:30 A.M. - 4:30 P.M., bus loading at 8:45 A.M. (meet in Tahoma Room for continental breakfast and socializing)</b> Lower Duwamish River - Estuarine Habitat Restoration Howard Hanson Dam - Engineered Log Jam Site Howard Hanson Dam - Fish Passage Project Codiga Farms - Tidal and Riverine Hydrology Restoration Lones Levee - Channel Restoration Site <b>Noel Gilbrough and Mike Padilla, U.S. Army Corps of Engineers</b>
<b>Refreshment Break - Plenary Sessions Continue</b>			
<b>Session I-B: Recovery Status and Viability. 10:15 A.M. - Noon, Tahoma Room</b> Population Recovery Status Report from the Technical Recovery Team <b>Mary Ruckelshaus, Ph.D., NOAA</b> Approaches to Viability Criteria for ESA Listed Salmon and Steelhead <b>Paul McElhany, Ph.D., NOAA</b>	<b>Session II-B: Assessment Protocols and Ecological Indicators. 10:15 A.M. - Noon, Tahoma Room</b> Inventory and Health Assessment for Riparian and Wetland Habitats <b>Paul Hansen, Bitterroot Restoration, Inc.</b> Ecological Indicators - Evaluating the Biological Community Using the Tiered Aquatic Life Use (TALU) Framework <b>Robert Plotnikoff, WA Dept. of Ecology</b>	<b>Session III-B: Juvenile Fish Passage and In-stream Flows. 10:15 A.M. - Noon, Tahoma Room</b> Riverine Habitat Requirements of Juvenile Salmonids - Designing Restoration and Mitigation Measures with Juveniles in Mind <b>Roger Peters, Ph.D., U.S. Fish and Wildlife Service</b> Creating Habitat by Restoring In-stream Flows <b>Al Wald, WA Dept. of Fish and Wildlife</b>	
<b>Afternoon Concurrent Sessions</b>			
<b>Session I-C: Management Tools and Supplementation. 1 P.M. - 2:15 P.M., Pinnacle Room</b> The Essential Management Tools for Restoration Success <b>Bobbi Wallace, King County Parks</b> The Biology Behind the Hatchery Debate <b>Michael Ford, Ph.D., NOAA</b>	<b>Session II-C: Fish Passage and Habitat Utilization Recovery. 1 P.M. - 2:15 P.M., Pinnacle Room</b> Culvert Test Bed - What Juvenile Salmon Are Telling Us About Fish Passage <b>Walter H. Pearson, Ph.D., and Gary E. Johnson, Pacific Northwest National Laboratory</b> Snohomish River Habitat Utilization Study <b>Mindy Rowse, NOAA</b>	<b>Session III-C: Basin Scale Restoration Approaches 1 P.M. - 2:15 P.M., Pinnacle Room</b> Valley-Scale Habitat Restoration for Salmon <b>Tim Abbe, Herrera Environmental Consultants, Inc.</b> Green Duwamish River Basin Restoration - Cooperative Approaches to Basin-Scale Restoration <b>Noel L. Gilbrough, U.S. Army Corps of Engineers</b>	
<b>Session I-D: Law Suits, Money, and Getting It Right the First Time. 1 P.M. - 2:15 P.M., Tahoma Room</b> Points of Legal Conflict & Their Implications for Salmon Recovery <b>Patti Goldman, J.D., Earthjustice</b> The Dollars and Sense of Salmon Recovery Planning <b>Mark Plummer, Ph.D., NOAA</b>	<b>Session II-D: Dam Removal and Retrofitting for Salmon Recovery. 1 P.M. - 2:15 P.M., Tahoma Room</b> Predicting Ecosystem Response to Dam Removal on the Elwha River, WA <b>George Pess, NOAA</b> Department of Energy's Advanced Turbine Design Program - Fish Passage at Hydropower Projects, Tradeoff for Water Use <b>Dennis Dauble, Pacific Northwest National Laboratory</b>	<b>Session III-D: Fish Passage Engineering and Beyond 1 P.M. - 2:15 P.M., Tahoma Room</b> Restoration Beyond Fish Passage - Engineering for Biological Results <b>J. Patrick Klavas, Washington Department of Fish and Wildlife</b> Engineering Fish Passage at Howard Hanson Dam - Bringing salmon home after 90 years <b>Mike Padilla, U.S. Army Corps of Engineers</b>	
<b>Refreshment Break - Concurrent Sessions Change</b>			
<b>Session I-E: Recovery Science. 2:30 P.M. - 3:30 P.M., Tahoma Room</b> Habitat Analyses for Salmon Recovery Planning on the Lewis River: The integration of field data, models, and remotely sensed data to link potential management actions with fish populations <b>Ashley Steel, Ph.D., NOAA</b> Recovery Planning for Ocean-type Chinook Salmon in the Skagit River: Results from a decade of field studies <b>Correigh Greene, Ph.D., NOAA</b>	<b>Session II-E: Fish Tracking and Monitoring. 2:30 P.M. - 3:30 P.M., Pinnacle Room</b> Combining an Infrared Fish Counter with an Alaskan Style Weir to Estimate Salmonid Escapement <b>JD. Wikert, U.S. Fish and Wildlife Service</b> Movements of Coastal Cutthroat Trout in the Lower Columbia River - Tributary, Main-stem, and Estuary Use <b>Joe Zydlewski, U.S. Fish and Wildlife Service</b>	<b>Session III-E: Nutrient Enrichment. 2:30 P.M. - 3:30 P.M., Pinnacle Room</b> Nutrient Enrichment for Restoring Lake/Reservoir and Stream Salmonids - B.C. Experiences and US Barriers <b>Ken Ashley, Ph.D., B.C. Ministry of Water, Land, and Air Protection</b> Salmon-Derived Nutrients in Freshwater Food Webs: Implications for Restoration <b>Mark S. Wipfli, Ph.D., U.S. Forest Service</b>	
<b>Session I-F: Washington State Policy Impacts on Recovery. 2:30 P.M. - 3:30 P.M., Pinnacle Room (concurrent session)</b> WA Forest Practices and Salmon Recovery - Past, Present, Future <b>Peter Goldman, J.D., WA Forest Law Center</b> Latest Developments and Status of Shoreline Management Policy in Washington <b>Peter Skowlund, WA Dept. of Ecology</b>	<b>Session II-F: Contaminants in Northwest Watersheds - Impacts and Solutions. 2:30 P.M. - 3:30 P.M., Tahoma Room (concurrent session)</b> Intro to Salmonid Toxicology: How chemicals harm fish and bioaccumulate <b>Tracy Collier, Ph.D., NOAA</b> Protecting Salmon from Pesticides - National and local policy changes to keep pesticides out of water <b>Erika Schreder, WA Toxics Coalition</b>	<b>Session III-F: Estuarine and Near Shore Habitat Restoration 2:30 P.M. - 3:30 P.M., Pinnacle Room (concurrent session)</b> Wild Chinook Dependence on Non-natal Pocket Estuaries in Skagit Bay: An emerging priority for restoration <b>Eric Beamer, Skagit Systems Cooperative</b> Restoration of Tidal Off-Channel Habitat on Lower Hylebos Creek <b>Colin Wagoner, Ridolfi Associates</b>	
<b>Refreshment Break - Concurrent Sessions Change</b>			
<b>Session I-G: Nutrient Science and Policy. 3:45 P.M. - 5 P.M., Tahoma Room (concurrent session)</b> Nutrients in Salmonid Ecosystems: Sustaining Production and Biodiversity <b>Ken Ashley, Ph.D., B.C. Ministry of Water, Land, and Air Protection</b> Status of Nutrient Criteria Development - National and Regional Perspectives <b>Ralph Vaga, U.S. Environmental Protection Agency</b>	<b>Session II-G: Fish Tracking and Monitoring - Part II. 3:45 P.M. - 5 P.M., Pinnacle Room (concurrent session)</b> Development of Microacoustic Tags for Improved Salmon Monitoring <b>John Ferguson, NOAA</b> Pair Trawls and PIT Tags - Combining Old and New Technologies to Sample Juvenile Salmonids with Known Migration Histories in the Columbia River Estuary <b>Richard D. Ledgerwood, NOAA</b>	<b>Session III-G: Nutrient Enrichment - Part II. 3:45 P.M. - 5 P.M., Pinnacle Room (concurrent session)</b> A Large-Scale Salmon Carcass Enrichment Case Study in the Clackamas and Sandy River Basins - Whole watershed treatment and effectiveness monitoring <b>Daniel R. Shively and Burke Strobel, U.S. Forest Service</b> Evolution of Nutrient Enhancement Loading Rates in Washington, and Comparison with Management Escapement Goals <b>Hal Michael, WA Dept. of Fish and Wildlife</b>	
<b>Session I-H: Washington Water Policy Impacts on In-stream Flows. 3:45 P.M. - 5 P.M., Pinnacle Room (concurrent session)</b> Washington State's Water Management Practices: Fish out of water? <b>Karen Allston, J.D., Center for Environmental Law and Policy</b> Buying Water for Fish: A Market Based Strategy for Improving Instream Flows <b>Yolanka Wulff, Washington Water Trust</b>	<b>Session II-H: Contaminants in Northwest Watersheds - Impacts and Solutions - Part II. 3:45 P.M. - 5 P.M., Tahoma Room (concurrent session)</b> Death, Disorientation, and Bad Decisions in Mixed-Use Watersheds <b>Nat Scholz, Ph.D., NOAA</b>	<b>Session III-H: Estuarine and Near Shore Habitat Restoration - Part II. 3:45 P.M. - 5 P.M., Pinnacle Room (concurrent session)</b> Union Slough Restoration Project, Snohomish County, WA <b>Cory R. Ruedebusch and Jonathan P. Houghton, Ph.D., Pentec Environmental</b> Eelgrass Restoration for Salmon Recovery <b>Ronald M. Thom, Pacific Northwest National Laboratory</b>	