

The Oregon Water Conference 2011: Evaluating and Managing Water Resources in a Climate of Uncertainty

Oregon State University – CH2M Hill Alumni Center – Corvallis, Oregon

OR Section, American Water Resources Association and OR Section, American Institute of Hydrology

Panel Sessions
James Ruff, Chair
Tuesday and Wednesday, May 24-25

Panel 1: Oregon's Integrated Water Resources Strategy (IWRS)

Moderator: Brenda O. Bateman, Tuesday, 1:30 – 3 PM

Panel 2: People, Beavers, Wolves, and Water: New Approaches to Restoring Complexity, Function and Water Storage Capability to Degraded Stream/Riparian Corridors on Public and Private Lands

Moderator: Suzanne Fouty, Tuesday, 3:30 – 5 PM

Panel 3: Integrating Climate Adaptation Planning and Watershed Assessments to Improve Community-Engaged Watershed Management: A Case Study from the Klamath Basin, Oregon

**Moderators: Ethan Rosenthal and Stacy Vynne
Wednesday, 8 AM – 9:30 AM**

**Panel 4: Transboundary River Governance –
The Columbia River Treaty 2014/2024 Review**

**Moderator: John Shurts
Wednesday, 10 AM – 12 noon**

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Panel 1

Panel Discussion: Oregon's Integrated Water Resources Strategy (IWRS)

ABSTRACT

During 2009, the 75th Legislative Assembly passed House Bill 3369, directing the Oregon Water Resources Department to develop a state-wide, Integrated Water Resources Strategy (IWRS) to help Oregon meet its future water quantity, water quality, and ecosystem needs, while taking into account coming pressures such as population growth, changing land use patterns, and climate conditions.

Along with the Oregon Water Resources Department, the Department of Environmental Quality, Department of Fish and Wildlife, and Department of Agriculture are key partners in these efforts. Tribes, along with public and private sector stakeholders, also have an important voice in this process, as do other local, state, and federal agencies.

The focus during 2009-2012 is on the development of a statewide framework and recommended actions that help the state better understand and meet its water resource needs. The Framework identifies several potential critical issues that could be addressed during the first iteration of this Strategy (2012-2017).

A set of recommended actions will also be developed during 2011 to address these issues. Based on input gathered thus far, such actions would presumably focus on addressing data and information gaps, integrating decision-making and planning efforts, supporting basin planning, strengthening water conservation and water management approaches, improving natural and built storage, protecting instream flows and restoration work, and more.

A panel, comprised of project participants, will discuss these potential recommended actions and invite audience input about the direction and scope of each.

Moderator and Panelist: **Brenda O. Bateman**, IWRS Project Manager
Senior Policy Coordinator
Oregon Water Resources Department
725 Summer St., NE Suite A
Salem, OR 97301
503-584-1575
Brenda.o.bateman@state.or.us

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Panelists: **Bruce McIntosh**
Fish Division Deputy Administrator, Inland Fisheries
Oregon Fish and Wildlife Department
3406 Cherry Avenue N.E.
Salem, OR 97303
503-947-6208
Bruce.A.McIntosh@state.or.us

Stephanie Paige
Renewable Energy Specialist
Oregon Department of Agriculture
635 Capitol St NE
Salem OR 97301
503-986-4565
spage@oda.state.or.us

Eugene Foster, Manager
Watershed Management Section
Oregon Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
503-229-5325
eugene.p.foster@state.or.us

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Panel 2

Panel Discussion: People, Beavers, Wolves, and Water: New Approaches to Restoring Complexity, Function and Water Storage Capability to Degraded Stream/Riparian Corridors on Public and Private Lands

ABSTRACT

Variability is a defining principle of our global climate and stream/riparian ecosystems and species developed in the presence of that reality. Species life cycles and survival strategies, combined with complex, widely-distributed, stable water-rich ecosystems, allowed species to survive even when local groups disappeared. Beavers were key in the development of those ecosystems, and as the work in Yellowstone National Park shows, so were wolves. However, the rapid and systematic removal by Euro-Americans of both these animals, combined with later land uses, triggered a series of changes that transformed stream/riparian ecosystems and corridors in function and appearance. Stripped of their vegetative and channel complexity, their stream-valley floor hydrologic connections and water storage capabilities, stream/riparian corridors have become highly responsive to climate variability and their watersheds increasingly water-poor.

Given the magnitude of the historic degradation, restoration of watershed health and function requires large-scale changes in public and private land-use patterns, priorities and management, in State beaver trapping policies, and in attitudes about wolves and beavers. Incorporating beavers back into the story fundamentally alters our science and perceptions of how healthy stream/riparian systems should look and behave. Incorporating wolves back into the story presents political and social challenges, but is needed ecologically to release riparian vegetation at a landscape scale from the relentless browse pressure of elk and deer – vegetation needed by beavers to build and maintain their dams. These dams in turn lead to diverse, ecologically stable, water-lush stream/riparian corridors capable of providing water during periods of drought years and flood control during wet years.

The panel will present examples from private and public lands of how beavers and/or wolves are restoring water abundance, water quality, and ecosystem services and complexity across a diversity of landscapes, the speed of those changes, and factors limiting accelerated restoration.

Moderator and panelist: **Dr. Suzanne Fouty** (Hydrologist)

Panelists: **Dr. Robert Beschta** (Professor Emeritus, Oregon State University)

Rick Demmer (Wildlife Biologist-Bureau of Land Management, Prineville District)

Leonard Houston (Beaver Advocacy Committee)

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Panel 3

Panel Discussion: Integrating Climate Adaptation Planning and Watershed Assessments to Improve Community-Engaged Watershed Management: A Case Study from the Klamath Basin, Oregon

ABSTRACT

The Klamath Basin is rich in history, culture, and biological diversity. Upper Klamath Lake is fed primarily by the Williamson and Sprague rivers. Below the lake's outlet, the Klamath River begins a 263 mile journey, cutting through both the Cascade and Coast mountain ranges to the Pacific Ocean. The Basin drains 15,571 square miles and encompasses parts of three Oregon and five California counties. The Klamath Basin provides a habitat for numerous fish and wildlife species, energy generation for local communities, an irrigation source for the extensive agricultural systems, recreational opportunities for locals and visitors, and plays a strong role in the cultural traditions of many Native American communities living in the region. The Klamath Basin has faced ongoing catastrophic droughts, competition for water resources, and loss of key habitat for fish, birds and other wildlife. While major strides have been made to improve management and reduce competition over water resources, climate change will bring even greater stress with increased temperatures, loss of snowpack, and reduced stream flow. This panel will discuss how watershed partnerships, state agencies, and local stakeholders can use climate change adaptation assessment and watershed assessment processes to inform stakeholder discussions and management efforts in the region. Lessons learned from Klamath Basin efforts will be presented to demonstrate how local climate projections can be used in conjunction with watershed assessments to improve watershed management in other areas of the state and across the country.

Co-moderator: **Ethan Rosenthal** (David Evans and Associates, Inc.)

Co-moderator: **Stacy Vynne** (Climate Leadership Initiative)

Panelist: **Ken Bierly** (Deputy Director-Oregon Watershed Enhancement Board)

Panelist: **Terry Fisk** (Hydrologist-U.S. Fish and Wildlife Service, Klamath Falls office)

Panelist: **Greg Addington** (Director-Klamath Water Users Association)

Panelist: **Nathan Jackson** (Director-Klamath Watershed Partnership)

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Panel 4

**Panel Discussion: Transboundary River Governance –
The Columbia River Treaty 2014/2024 Review**

ABSTRACT

The Columbia River Treaty (CRT) between Canada and the United States is an example of international cooperation enabling flood control and hydropower benefits affecting both countries. The CRT required the construction and operation of three large dams in the upper Columbia River Basin in British Columbia, and allowed the U.S. to construct Libby Dam in Montana. CRT dams more than doubled the amount of reservoir storage in the basin, which has greatly increased downstream hydropower generation and flood control, providing billions of dollars of benefits for the two countries. Signed in 1961 and implemented in 1964, the CRT is known throughout the world as one of the most successful transboundary water treaties based on equitable sharing of downstream benefits of hydropower generation and flood risk management. Unfortunately, the broader impacts to ecosystem function were not recognized or considered during the negotiation of the CRT, nor were the tribes in the United States or the First Nations in Canada consulted regarding the potential effects of the CRT on their natural and cultural resources. The benefits of coordinated power generation and flood risk management came at substantial costs to other ecosystem functions. The costly and detrimental effects of the implementation of the CRT on the river ecosystem and cultural resources are now better understood, but the ability to secure substantive changes to the CRT or its implementation in a manner that adequately addresses these impacts is limited.

The CRT has several provisions that are enabled only after September 2024, including changes to flood control obligations and an option for either government to terminate the CRT if at least 10-years prior notice is given. These provisions, and changing needs and obligations for hydropower, ecosystem restoration, resident and anadromous fish, and other water uses, make the future of the CRT uncertain. The Canadian and U.S. Entities, the agencies that implement the CRT, initiated a 2014/2024 Columbia River Treaty Review (Treaty Review) process in 2008. The purpose of the Treaty Phase I Review was to examine the CRT's 2024 provisions and develop hydro-regulation studies to help understand the post-2024 conditions with and without the CRT from the narrow perspective of the two purposes of the CRT, power and flood control, and inform the process for developing future studies. The Treaty Entities published their Phase I report last summer. Notwithstanding the CRT, the U.S. portion of the hydropower system is still subject to domestic laws and obligations, such as the Endangered Species Act (ESA). The Federal Columbia River Power System (FCRPS) was reviewed for its impacts on fish listed under the ESA and a Biological Opinion was issued by NOAA Fisheries. The U.S. Entity (the Administrator of Bonneville Power Administration as Chair and Northwestern Division Engineer for the U.S. Army Corps of Engineers as Member) published a Supplemental Report in September 2010 that overlaid an analysis of the obligations of the Biological Opinion requirements on the Phase I studies. Neither the joint Phase 1 Report nor the U.S. Entity's

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Supplemental Report undertook a baseline analysis of the effects of the CRT on other ecosystem functions or cultural resources.

The U.S. Entity is currently engaged throughout the region in a public outreach program to better understand sovereign and stakeholder interests and define Phase II studies regarding various scenarios of potential Treaty futures. As a consequence of expected changes to Canadian flood control obligations under the CRT, the Corps has initiated studies that will examine the need for, and potential changes to, basin-wide flood risk management. Values in the region have changed over the last 50 years, continuing trust obligations to tribes in the U.S. are now recognized, and new issues need to be considered that were not part of the Treaty debate 50 years ago. The U.S. Entity is establishing management structures to engage and address the interests of other Federal agencies, regional sovereigns and non-sovereign stakeholders to develop a recommendation to be provided to the State Department in fall 2013.

Moderator and Panelist: **John Shurts** (General Counsel-Northwest Power and Conservation Council)

Panelist: **John Hyde, P.E.** (Technical Lead, Columbia River Treaty Review-Bonneville Power Administration)

Panelist: **Matthew Rea** (Program Manager, Columbia River Treaty-U.S. Army Corps of Engineers)

Panelist: **Paul Lumley** (Executive Director-Columbia River Inter-Tribal Fish Commission)

Panelist: **Kindy Gosal** (Director, Water and Environment-Columbia Basin Trust)