



Applying knowledge to improve water quality

Pacific Northwest

Regional Water Program

A Partnership of USDA CSREES
& Land Grant Colleges and Universities

Water Policy and Economics

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PNWWATER 027

A recent survey conducted by land grant universities in the Pacific Northwest indicate that over 90 percent of residents consider clean drinking water, clean rivers and clean groundwater as high priority issues. An additional 84 percent of survey respondents indicate that having enough water for agriculture is high priority despite the fact that over 80 percent of Pacific Northwest residents live in urban areas. Over two-thirds of Pacific Northwest residents indicate that water for power generation, water for economic development, wetland protection, prevention of salmon extinction, and watershed restoration are also high priority issues.

Water is undeniably one of the most important natural resources found in the western United States. It is fundamental to the survival of our native flora and fauna and the survival of our own species as well. Here in the West, water laws have evolved in a climate of scarcity which has made friendly neighbors bitter enemies, caused the desert to bloom and caused the demise of many a fishery, including some of the largest salmon runs in the world.

Because water rights have historically protected users not rivers, it is important for river conservation efforts to focus on ways to put water back into our river systems.

The understanding of western water law hinges on the doctrine of prior appropriation, which allocates water based on seniority. "First in time, first in right" is a central theme when water is scarce; most "senior" user rights have the first go at the water trough. Prior appropriation rights are very specific about water use — amounts, locations and duration.

Under current western law, water rights can be issued to anyone who is putting the water to a "beneficial use." "Beneficial uses" include human consumption, irrigation and hydropower. In some Northwest states, "beneficial use" does not include the preservation of streamflow, which benefits fisheries, wildlife and riparian corridors of significant biological diversity. Water rights are transferable and can be bought, sold or leased.

Western water rights have a requirement that is referred to as "use it or lose it," which mandates that appropriated water must be used or it will be considered abandoned and the water right can be lost permanently. Under this system, water users such as farmers, are not encouraged to conserve water. Some water rights holders have been persuaded to temporarily transfer their water rights to instream flow (for example under contract with Oregon Water Trust) in order to avoid permanent loss of their water right when faced with the "use it or lose it" policy, where water right holders must use their right or sell/lose it to another user.

The Pacific Northwest land grant universities have a long history of curricula and research in resource management and economic issues, including water policy and water economics. These issues interface with programs in agriculture, wildlife and fisheries, soil conservation, forestry, sociology, land use policy, and urban



Pacific Northwest Regional Water Quality Coordination Project Partners

Land Grant Universities

Alaska

Cooperative Extension Service
Contact Fred Sorensen:
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<http://www.uaf.edu/ces/water/>

University Publications:

<http://www.alaska.edu/uaf/ces/publications/>

Idaho

University of Idaho
Cooperative Extension System
Contact Bob Mahler: 208-885-7025

<http://www.uidaho.edu/wq/wqhome.html>

University Publications:

<http://info.ag.uidaho.edu/Catalog/catalog.html>

Oregon

Oregon State University
Extension Service
Contact Mike Gamroth: 541-737-3316

<http://extension.oregonstate.edu/>

University Publications:

<http://extension.oregonstate.edu/catalog/>

Washington

Washington State University
WSU Extension
Contact Bob Simmons:
360-427-9670 ext. 690

<http://wawater.wsu.edu/>

University Publications:

<http://pubs.wsu.edu/>

Northwest Indian College
Contact Dan Burns:
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<http://www.nwic.edu/>

Water Resource Research Institutes

Water and Environmental Research
Center (Alaska)

<http://www.uaf.edu/water/>

Idaho Water Resources
Research Institute
<http://www.boise.uidaho.edu/>

Institute for Water and
Watersheds (Oregon)
<http://water.oregonstate.edu/>

State of Washington
Water Research Center
<http://www.swwrc.wsu.edu/>

Environmental Protection Agency

EPA, Region 10
The Pacific Northwest
<http://www.epa.gov/r10earth/>

Office of Research and Development,
Corvallis Laboratory
<http://www.epa.gov/wed/>

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The Project

Land Grant Universities, Water Research Institutes, and EPA Region 10 have formed a partnership to provide research and education to communities about protecting or restoring the quality of water resources. This partnership is being supported in part by the USDA's Cooperative State Research, Education, and Extension System (CSREES).

Our Goal and Approach

The goal of this Project is to provide leadership for water resources research, education, and outreach to help people, industry, and governments to prevent and solve current and emerging water quality and quantity problems. The approach to achieving this goal is for the Partners to develop a coordinated water quality effort based on, and strengthening, individual state programs.

Our Strengths

The Project promotes regional collaboration by acknowledging existing programs and successful efforts; assisting program gaps; identifying potential issues for cross-agency and private sector collaboration; and developing a clearinghouse of expertise and programs. In addition, the Project establishes or enhances partnerships with federal, state, and local environmental and water resource management agencies, such as by placing a University Liaison within the offices of EPA Region 10.

development. Many Extension educators include water policy and economics in workshop content.

Desired Outcomes

- Increased in-stream flow supports habitat protection and restoration efforts
- Landowners and managers who practice water conservation are rewarded by improved water policy
- Water users recognize the economic value of water
- The public has increased knowledge of all sides of issues related to water policy and economics

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National Water Quality Program Areas

The four land grant universities in the Pacific Northwest have aligned our water resource extension and research efforts with eight themes of the USDA's Cooperative State Research, Education, and Extension System.

1. Animal Waste Management
2. Drinking Water and Human Health
3. Environmental Restoration
4. Nutrient and Pesticide Management
5. Pollution Assessment and Prevention
6. Watershed Management
7. Water Conservation and Management
8. Water Policy and Economics

CSREES is the Cooperative States Research, Education, and Extension Service, a sub-agency of the United States Department of Agriculture, and is the federal partner in this water quality program.