



Applying knowledge to improve water quality

# Pacific Northwest

## Regional Water Program

A Partnership of USDA NIFA  
& Land Grant Colleges and Universities

Summer 2010  
PNWWATER 184

### 10 Years of Regional Progress:

## Drinking Water and Human Health

### Surveys

Drinking water issues were included in the regional surveys in both 2002 and 2007. Clean drinking water continues to be the highest identified priority of those surveyed (99 percent in both surveys). About 70 percent of the survey respondents identified city water systems as their source of water (~30 percent wells) and 90 percent felt their water was safe to drink yet between 34-43 percent did not know if their water was contaminated or not.

### Domestic Water Use: Resources Guide for Extension

Extension offices throughout the region are contacted by the public with questions concerning drinking water and other domestic water issues. There were no consistent region-wide resources available that would provide a central source for these common questions. A resource guide of over 400 pages in 14 chapters covering the common concerns on Domestic Water Use was produced and both a hard paper and CD version distributed to every county Extension office in the four state region. Included in the guide were references to over 70 publications from the Pacific Northwest and other regions.

Complete web site references on materials used were also provided. The document was later included in its entirety on the regional web site. Requests for additional copies of the CD version were made from other agencies such as county health departments and EPA.



### Fact Sheets

Specific drinking water pollutants of concern within the region were identified and addressed through Fact Sheets that were developed and distributed throughout the region through hard copy and downloadable from the regional web site. At this time three of these Fact Sheets have been produced: Iron, Nitrates, and Radon and Arsenic is in development. These documents are designed with eventual publication through the PNW multi-state publication series.

### Regional Wells & Septic System Programming

Wells as a source of drinking water was identified by 30 percent of those surveyed in the region. In almost all cases homes with wells have septic systems. Because of the close proximity of septic systems to wells they are also a major cause of pollution. Wells and septic systems are close in geographic proximity and in the minds of homeowners. It makes sense to tie together educational programming for both. Regional educational programming, resources (including hardcopy and web based), and regional workshops have been and continue to be developed and implemented. There is a separate regional web page on wells and septic systems. Single state and multi-state workshops have been presented to homeowners, realtors, and agency personnel on wells and septic systems.

### Regional Expertise Directory: Drinking Water & Human Health

A series of directories were produced and updated that identified experts within the region by state that clientele could contact on specific issues including Drinking Water and Human Health. These directories were developed for our local, state, and federal partners and listed research and Extension contacts within each state and the published resources available from the land grant institutions they serve.



## Pacific Northwest Regional Water Quality Coordination Project Partners

### Land Grant Universities

#### Alaska

Cooperative Extension Service  
Contact Fred Sorensen:  
907-786-6311

<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.htm>

#### 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 Charlotte Clausing:  
360-392-4319

[cclausing@nwic.edu](mailto:cclausing@nwic.edu) or

<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/>

For more information contact  
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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 National Institute of Food and Agriculture (NIFA).

### 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.

### Protecting Family Drinking Water in Rural Alaska

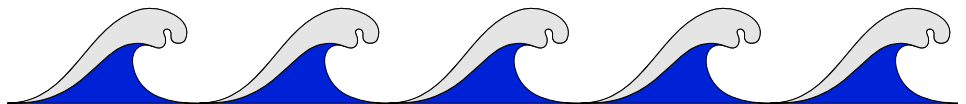
One of the concurrent 406 projects supported by the regional team was a study of drinking water safety in a remote rural village in Alaska. Without central plumbing drinking water and human waste are transferred through literally 'buckets'. This project studied the survival and transmittance of pathogens within the village water 'system' and developed an educational program for in-home sanitation techniques to separate the drinking water from the human waste stream.

### Groundwater Regional Conference

What we do on the surface of the land has a direct effect on groundwater, a source for drinking water and surface water bodies. That was the theme for one of the regional bi-annual conferences. Over 220 professionals attended this conference in 2005. Issues covered included the interaction of groundwater and surface water, hydrology of groundwater, and groundwater policy including exempt wells.

### Updates

The regional team has produced and distributed over 180 "updates" to a mailing list of over 300 individuals regionally and nationally. This list includes legislators within the four states and Washington D.C. and includes the administrators of the land grant institutions we serve. Included in the topics were issues with drinking water such as Pharmaceuticals and Personal Care Products, Bottled Water, Testing Water, Water Standards, to the History of Drinking Water and the State of Drinking Water now.



### 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 National Institute of Food and Agriculture.

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

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