



Applying knowledge to improve water quality

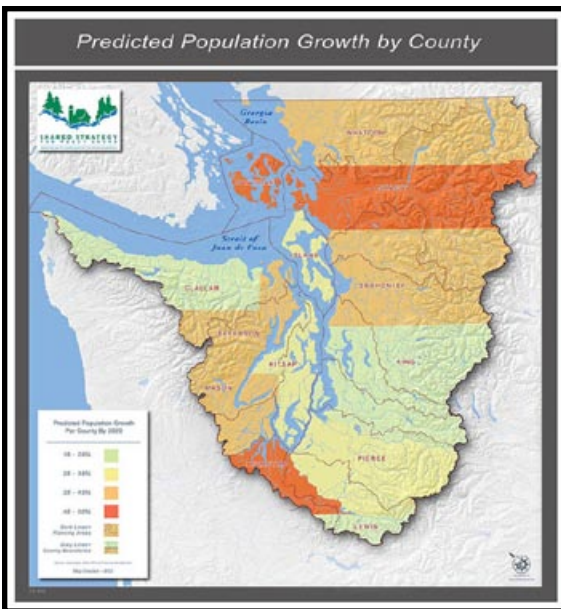
# Pacific Northwest

## Regional Water Program

A Partnership of USDA CSREES  
& Land Grant Colleges and Universities

Summer 2004  
PNWWATER 043

### Helping Washington Weather the Storm Water of Growth

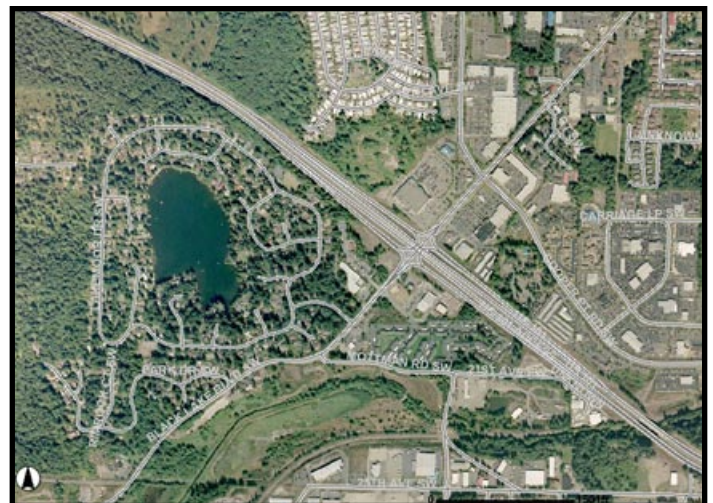


Dark and light orange denote a rapid rate of population growth while yellow and green denote the slowest rates of population growth.

The face of the landscape in western Washington is rapidly changing. As our population has grown, our forested landscapes have changed to developed landscapes that have increased the amount of impervious surfaces, such as rooftops, driveways, roads, landscaped areas, and parking areas, as well as compromised fish and wildlife habitat. Impervious surfaces increase the amount of water running off the land, which ends up delivering pollutants such as oils, pesticides, pet wastes, sediment, and heavy metals to our waterways. Other impacts from increased storm water runoff include: flooding; erosion and stream scouring; siltation of streambeds; reduced recharge of groundwater; and insufficient stream-flow during late summer and early fall. Increased storm water runoff is one of the primary causes of water quality and aquatic habitat degradation in this region.

Washington State University (WSU) Extension provides a range of programs to educate key audiences on ways to reduce storm water or mitigate its impacts. One program, the “Water Resource

Education Program for Real Estate Professionals” educates developers and real estate professionals on how to avoid increasing storm water runoff from sites as they are developed, as well as provide certified clock hours toward their professional license renewals. These programs provide developers and real estate professionals with a background in water resource issues so they can make informed and environmentally suitable decisions regarding development practices, as well as educate their clientele about land stewardship, water quality, and aquatic habitat issues.



## 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.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:  
360-392-4328

[dburns@nwic.edu](mailto:dburns@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 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.

WSU Extension also provides focused programs on "Low Impact Development" techniques. During the past 3 years, over 1,200 local decision-makers, planners, site development engineers, and landscape architects have participated in our programs. WSU is also actively researching and monitoring which techniques are most effective in this region.

Storm water issues have also been incorporated into the Master Gardener and Watershed Steward volunteer training programs so these volunteers can educate their communities on methods to reduce storm water runoff and its impacts. Extension also works with forest landowners and farmers to improve their economic viability, which helps to ensure that these landowners are able to keep their lands in uses that have minimal storm water runoff.

The WSU Thurston County Extension Office has established the Native Plant Salvage Project. The project's main mission is to promote the retention and re-establishment of plants so that our water resources are protected by the natural role that plants take in slowing water runoff and encouraging water to soak into the ground. Over the past decade the project has established over a dozen demonstration gardens and learning landscapes with area schools and businesses, provided training programs on landscape restoration and ways to best manage storm water on individual lots.

### 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.*