Applying knowledge to improve water quality



Pacific Northwest

Regional Water Program

A Partnership of USDA NIFA & Land Grant Colleges and Universities

Extension Successes in Oregon

A new water quality testing laboratory in Tillamook, Oregon and collaborative conversations between Klamath County residents of different vested interests regarding water are among the benefits of the Watershed Stewardship Education Program (WSEP) sponsored by the Oregon State University Extension Service and Extension Sea Grant. Throughout the state, neighborhood streams are cleared of invasive species and trash. These are examples of the accomplishments of a growing corps of watershed stewards who spend their weekends slogging through neighborhood streams and learning about wetlands.

WSEP is a four-month educational program taught by OSU faculty and local experts focusing on eight different aspects of watershed stewardship, from soil erosion and water quality monitoring to building community awareness and cooperation. Participants who complete a 40-



hour community project in addition to the education program become Master Watershed Stewards.

"The main purpose of the Watershed Stewardship Education Program is to provide people with principles that they can put into practice," said Derek Godwin, OSU Extension watershed specialist. "A community of watershed enhancement involves everyone from volunteers, to city representatives to landowners. This is the educational piece of a very big vision."

In just three years, over 600 people in Oregon have participated in the program, including teachers, farmers, foresters, neighborhood groups and watershed council members. Of those, about 400 master watershed stewards have completed community projects, donating 16,000 hours toward watershed stewardship across the state.

"The Watershed Stewardship Education Program adds tremendous value to what watershed councils can accomplish," said Ken Bierly, deputy director of the Oregon Watershed Enhancement Board. "It provides a common scientific background for council members and a common base of understanding for enhancement projects undertaken by private or public groups. Despite the political noise surrounding water issues, volunteers from this program have waded in and quietly



accomplished things, working together without a huge amount of money or political uproar."

In Tillamook County, for example, water problems can come in floods, when bacteria-laden pollution is washed into streams and estuaries. For years, a watershed council volunteer named Gale Ousele collected water samples throughout the Nestucca-Neskowin watersheds and drove the samples to a distant lab for analysis. "I realized that if water sampling and analysis were more visible, it would be more meaningful," said Ousele, who became a master watershed steward through the OSU program. Ousele is now the driving force behind setting up a water quality testing lab in a local school, where students and residents can be a part of monitoring local water quality.















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

<u>Oregon</u>

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 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/

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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, indivudual 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.

Harder to measure but equally important is WSEP's ability to increase tolerance among people with different values. In Klamath County, for example, water issues can be divisive. In 2001, an ever-worsening drought heightened conflicts over unresolved water rights. With not enough water to go around, irrigation was curtailed for the growing season.

"It seemed like the timing was right for people to learn more about an issue that was a concern in the community at the time," said Denise Buck, watershed educator at the Klamath County office of OSU Extension Service. Buck hosted the watershed program. To her surprise, the program filled to capacity, with teachers, farmers, agriculture and tribal representatives, activists and skeptics. There were so many people interested that Buck filled a second program later in the year.

Despite their eagerness, participants weren't speaking to each other at the beginning of the first class. "The single most amazing outcome, besides the high level of education, was that by the last field trip, everyone sat together and talked." Participants learned the complexity of water use issues and why people have different opinions.

The Watershed Stewardship Education Program is offered each year in several places throughout the state. For information, call toll free, 877-652-0302, or check the website at: http://seagrant.oregonstate.edu/wsep/

The 19-chapter publication, *Watershed Stewardship: A Learning Guide*, is available to the public for \$42 plus \$6 shipping and handling through OSU Extension and Experiment Station Communications, 422 Kerr Administration, OSU, Corvallis, OR, 97331-2119.

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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