



Applying knowledge to improve water quality

Pacific Northwest

Regional Water Program

A Partnership of USDA CSREES
& Land Grant Colleges and Universities

Fall 2004
PNWWATER 047

UI Paradise Creek Project to Assess Conservation Measures



US Department of Agriculture Secretary Ann M. Veneman announced that the University of Idaho was awarded a \$640,000 three-year grant to study the effectiveness of conservation practices to protect water quality in the Paradise Creek Watershed. Paradise Creek is in Latah County and runs through Moscow and the University of Idaho campus. This was one of only four projects funded nationally through the Conservation Effects Assessment Project (CEAP). The other three projects funded by this competitive program are in Iowa, Ohio, and Utah. "These four funded projects will expand the scope of USDA's efforts to understand how conservation practices affect water quality in agricultural watersheds," Veneman said.

This project was written and is led by environmental water quality engineer Jan Boll. Boll has focused his research efforts on Paradise Creek since joining the University of Idaho faculty in 1996. Other investigators on the grant are

J. D. Wulffhorst and Murat Isik, both assistant professors in Agricultural Economics and Rural Sociology, and Bob Mahler, professor and water quality coordinator in Soil Science. The Palouse-Clearwater Environmental Institute (PCEI), Latah Soil and Water Conservation District, and USDA-Natural Resources Conservation Service (NRCS) are major partners in this effort.

Through CEAP, USDA will study the environmental benefits of conservation practices implemented through the following 2002 Farm Bill programs:

- ◆ Environmental Quality Incentives Program (EQIP)
- ◆ Wetlands Reserve Program (WRP)
- ◆ Wildlife Habitat Incentives Program (WHIP)
- ◆ Conservation Reserve Program (CRP)
- ◆ Conservation Security Program (CSP)
- ◆ Conservation Technical Assistance (CTA)

CEAP is composed of two basic parts: a nationwide assessment of conservation benefits and more in-depth studies of these benefits as they directly impact the watershed selected for each study.

"This grant awarded to Dr. Boll at the University of Idaho by the USDA Cooperative State Research, Education, and Extension Service (CSREES) is a vital part of the watershed component of the USDA Conservation Effects Assessment Project," said Dr. Mike O'Neill, National Program Leader for Water Quality at



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 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
Jan Seago at 206-553-0038 or
seago.jan@epa.gov

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.

USDA-CSREES. Lisa Duriancik, Program Specialist for the Natural Resources and Environmental Unit at USDA-CSREES added, "These competitively funded projects also include valuable outreach components to their partner agencies and farmer cooperators critical to the longer term refinement to further improve the effectiveness of practices."

"Paradise Creek is an ideal location for a CEAP study because more than 25 years of existing data show stream conditions before and after the major stream improvement efforts were implemented," Boll said. In addition to the evaluation of physical water quality measurements, this study will survey landowners and others about their perceptions and examine the economic impacts of the stream improvement project. This project will enable Boll's team to show water quality improvements that can be traced to farm bill programs and also to better understand why some conservation practices may not show water quality improvements at the watershed outlet.

Over the past 20 years the USDA has spent billions of dollars on conservation programs designed to improve water quality in watersheds across the country. The USDA-NRCS and USDA-CSREES jointly have put substantial research dollars into the CEAP program to determine if the tax dollars spent on conservation programs are well spent.



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.