



Applying knowledge to improve water quality

Pacific Northwest

Regional Water Program

A Partnership of USDA CSREES
& Land Grant Colleges and Universities

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PNWWATER 051

Focus on Partners:

Northwest Indian College's Water Programs

Northwest Indian College (NWIC) is a 1994 Tribal Land Grant College and the only tribal college in the states of Washington, Oregon, Idaho, and southeast Alaska that conducts marine related research and education. Unlike most tribal colleges that serve only one tribe, NWIC serves 43 separate tribes and a Native American population in excess of 125,000 individuals. The college enrollment is approximately 2,000 individuals with 1,000 full time equivalent students. The main campus is located on the Lummi Nation Reservation near Bellingham, Washington. The college also has a network of 11 teaching sites located on reservations in Washington, Oregon, and Idaho.

The college employs several methods of course and seminar delivery. The NWIC satellite uplink system ties into a nationwide system permitting it to deliver programs to over 81 sites across the nation on tribal reservations (11 of which are downlink sites of NWIC) and at other tribal colleges throughout the American Indian Higher Education Consortium (AIHEC). The college also delivers programs through a video streaming statewide system (Washington K-20), via Internet based interactive media, and in the classroom at the main campus and at over 20 site locations.

The college has demonstrated a consistent commitment to the advancement of science education for Native Americans as evidenced by its growing facilities, program offerings, and increased student enrollment. The science department enjoys a 6,400 square foot science building with a Biology/ Fishery laboratory, a Chemistry/ Physics laboratory, and two computer labs. A new faculty office building with two modern classrooms was added in 1998 to provide offices for the entire science faculty. The college has also purchased 52 acres of land and will begin construction this year on a new campus.



Michael Cochrane, water scientist at NWIC.

NICMERE

The thirty-three tribal colleges belonging to the American Indian Higher Education Consortium have designated the Northwest Indian College as their primary center for aquaculture, oceanic, marine, and environmental research. NWIC has entered into a Memorandum of Understanding (MOU) with the Department of Commerce and the National Oceanic and Atmospheric Administration (NOAA) establishing the National Indian Center for Marine and Environmental Research and Education (NICMERE) that is headquartered on the college campus located near Bellingham, Washington.



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/>

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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.

The NWIC NICMERE has built three research/education laboratories:

NWIC Water Quality Lab — Conducts monthly fecal coliform sampling of 65 stations in the Nooksack River watershed since 1997. Data from this project was fundamental to the Lower Nooksack River Basin bacteria Total Maximum Daily Load (TMDL) evaluation (January, 2000), the first successful TMDL for bacteria in the CSREES Pacific Northwest region.

NWIC Geographic Information Science (GIS) Lab — In addition to teaching, the GIS lab partnered with NOAA Coastal Services Center to develop the North Puget Sound Ecological Characterization. This is a CD that contains baseline GIS coverages of North Puget Sound including high resolution aerial photography mosaics, bathymetry, species descriptions, and a 400 page narrative.

Seaponds Fisheries Laboratory — The fisheries lab is an experimental facility that contains two covered 80-foot raceways, two 40-foot circular tanks, and six 1,000 liter tanks with recycled UV-sterilized and biofiltered fresh and salt water used for aquaculture of various species. Recent additions include a photo bioreactor and pattern recognition microscope for phytoplankton research.

Links to past projects and current online water quality data are available on the NICMERE research web page at: <http://nwic-research.org>.

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.