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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NWIC Update:

Natural Resource Curriculum Opportunities for Native Americans in the Pacific Northwest

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.

Northwest Indian College is accredited through the Northwest Commission on Colleges and Universities and currently offers two-year degrees. The college has purchased 52 acres of land and begun construction of a new campus across the street from the current main Lummi campus.

Along with the beginning of construction for the new NWIC campus, an administrative mandate exists for development of four-year curriculum and accreditation. Such a four-year curriculum development was part of the new strategic plan developed in cooperation with USDA CSREES in March 2005. This strategic plan has quantified the strength, weakness, and significant problems of the four-year institutional program development, provided direction for the program, defined curriculum needs, and provided long term realistic and comprehensive analysis of the goals and objectives desired. Full development and formal accreditation of a new four-year curriculum is of necessity a long-term process that was initiated this year and is expected to be completed in 2008.

The NWIC has developed an array of delivery methods for distance education, including self-paced courses, independent learning contracts, and instruction via satellite and remote video links. More than sixty percent of the college's full-time enrolled students take courses in 19 centers in Washington, Oregon, and Idaho. Ten of these centers are linked by satellite to classroom studios on the main Lummi campus.

Each of the 43 Northwest tribes has fisheries and natural resources departments. Although tribally controlled, non-natives dominate the professional positions within these departments. Unfortunately, there are few Native Americans with B.S. or graduate degrees in natural resource science. Recently, the Northwest Indian Fisheries Commission (NWIFC) conducted a survey of tribal hatchery managers of the commission's 19 member tribes, 75 percent of which have NWIC off-campus sites. The survey indicated 90 percent of the aquaculture managers requested degree programs and training for their aquaculture technicians. Clearly there is a need for agriculture related education for Native Americans in the Pacific Northwest. NWIC is the only land grant college where the agricultural emphasis is on aquaculture.

Washington State University
Oregon State University OSU
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A Legacy of Leading
Northwest Indian College
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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, 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.

It is apparent that many of the students who would be potentially interested in agriculture education from NWIC are also unlikely to attend courses on the main Lummi campus. Most of these individuals are employed by their tribes, or work independently in a resource-related endeavor (e.g. tree planting or commercial fishing). Thus, bringing education to the student must be a priority of NWIC's natural resource program. As mentioned, over 60 percent of NWIC's full-time equivalent students are enrolled at off-campus sites though a video streaming statewide system (Washington K-20).

The worldwide web and TV stations are compelling alternatives for curriculum delivery that has not been well explored at NWIC. Web courses can be self-paced, taken at a schedule that fits the needs of the student and accessed at any location with availability to the Internet. Figures and lecture notes can be easily downloaded. Web courses can be the gateway to vast quantities of information.

The development of agriculture-related natural resource curriculum at NWIC is also being enhanced by creation of upper-division web based classes. During the last year, six sustainable agriculture classes (horticulture crops, field crops, livestock, energy and agriculture, freshwater aquaculture, and saltwater aquaculture) as well as a class in renewable energy and one in phycology have been constructed. These classes reside on the NWIC Research web page http://www.nwic-research.org as generic Extension information offered for the edification and enjoyment of anyone interested and may be incorporated into four-year natural resource curriculum at the completion of the accreditation process in 2008.

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.