

## Department of the Interior, Northwest Climate Science Center.

Natural resource and agricultural production systems, wild lands, fresh and marine waters, and cultural resources in the Pacific Northwest are sensitive to changes or variability in climate. Climate directly affects wildfires, invasive species, bark beetle outbreaks, sea level change, and water availability. Understanding climate and other perturbations helps us develop tools for adaptation and mitigation. Adapting to future changes in climate will protect lives and property and enable economic development and community vitality.

The Department of the Interior (DoI - USGS), working with universities and other partners, has established a nationwide network of eight regional Climate Science Centers (CSCs) to provide fundamental scientific information, tools and techniques that land, water, wildlife and cultural resource managers can apply to climate adaptation and mitigation. CSCs will develop regional, landscape level strategies for understanding and responding to climate impacts.

The Northwest Climate Science Center (NW CSC), a partnership of Oregon State University, the University of Idaho, and the University of Washington, in cooperation with other universities in the region, was established in fall 2010. The Center received an initial five year grant of \$3.9 million to establish the Center's base functions at the three host universities and an additional \$750,000 in 2012 to fund a start of the science agenda. We anticipate an additional \$1-3 million per year to fund the priority science agenda.

## Accomplishments.

In its inaugural year, the NW CSC has hired a director, program manager, and communications leader, and established the Executive Stakeholder Advisory Committee. The leadership team has engaged administrators and cyber-infrastructure specialists at partner universities to foster a common, regional commitment to data management, and has coordinated with leaders of three adjacent USDol Landscape Conservation Cooperatives (LCCs) in the NW region<sup>1</sup>. The NW CSC and Great Northern LCC have been developing common networks for sharing of data and tools.

The NW CSC has funded ten research assistants at the three host universities, and three mini-

research projects with FY2010 science funds. The director and leadership team have prepared a strategic plan which includes a science agenda, and an annual science work plan for 2012. The Center's science agenda for 2011-2015, based on science assessments, stakeholder advisory oversight and technical panel reviews, contains several major topical areas:

 Developing <u>climate science and</u> <u>modeling capabilities</u> to provide resource managers information on the range of probable future climate conditions and uncertainty.



- Modeling the <u>response of physical systems</u> to historic and future temperature and precipitation, taking into consideration the effects of uncertainty.
- Modeling the <u>response of biota</u>, <u>terrestrial and aquatic ecosystems</u>, <u>and biogeochemical</u> systems to changing climate, specifically including the effects of uncertainty.
- Identifying <u>vulnerabilities</u> of physical systems, ecosystems, human health, cultural resources, and infrastructure to climate change, and identifying practices for adaptation.
- Evaluating new approaches to monitoring and observation of key physical and biological systems, and developing methods for analyzing, storing, and serving information.
- Improving data analysis, storage, modeling, forecasting, and decision-support methods.
- Developing strategies for <u>communicating</u> results to the full range of users.

## Efficiency: Inter/Intra Agency Collaboration

The NW CSC is leveraging expertise and capacity of federally-funded climate research and outreach efforts in the region (e.g., NOAA RISA and Sea Grant, NSF, Idaho EPSCoR, USDA AFRI, EPA and NASA). There is joint staffing and also coordinated stakeholder advisory processes, science agenda setting and management of data resources with other agencies.

For more information about the Climate Science Centers visit: www.doi.gov/whatwedo/climate/strategy/index.cfm