



UNIVERSITY of WASHINGTON

School of Forest Resources

April 16, 2010

Governor Christine Gregoire
416 Sid Snyder Ave SW,
Suite 200
PO Box 40002
Olympia, WA 98504-0002

Dear Governor Gregoire,

I am writing to offer the assistance of the University of Washington's School of Forest Resources (SFR) to your efforts to bring new efficiencies to the state's natural resource agencies. There are a number of new ways in which SFR may be of service to our state, in addition to our on-going projects. In this letter we present some of the most relevant opportunities available within our School.

The current and persistent recession has had a profound impact on state revenues and agency resources, including those of the natural resource agencies and universities. You have made clear your intention to achieve greater efficiencies by directing state agencies to collaborate in meeting their scientific research needs, centralize GIS services, and reduce functional redundancies.

The University of Washington has a long history of providing relevant services through the many centers described in the attached briefing paper. State and federal agencies have sponsored a wide range of projects by these units to address important priorities. In the past, these collaborative projects have been initiated in an ad hoc and opportunistic fashion. The state's fiscal crisis creates the impetus to consider a more systematic approach.

The public research universities are enormous repositories of intellectual capacity. Past contributions by centers and cooperatives within SFR to improving natural resource management are documented in the attached summary. With the integration of SFR and other academic units into the College of the Environment (CoEnv), the potential for even greater and more systematic contributions is apparent. We are in an excellent position to offer valuable assistance in assuring that management is based on "the best available science."

SFR encompasses an impressive community of faculty, research faculty, staff, and students. The centers and cooperatives described in the accompanying briefing paper



Governor Christine Gregoire
April 16, 2010
Page 2

represent a comprehensive range of expertise, and many of our professionals have a long history of involvement in multi-disciplinary team-based scientific research. Over the years, many have worked closely with state agencies to assist with their needs.

Please review the enclosed report and let us know how SFR can be of service. We would be pleased to meet with you or any of your staff to clarify or expand on any of the points made in this letter.

Sincerely yours,



Thomas Hinckley
Interim Director, School of Forest Resources
David RM Scott Professor of Forestry

Attachment

Identify impacts and opportunities of the Washington Natural Resource Agency Reform as they relate to the UW School of Forest Resources (SFR) and College of the Environment (CoEnv)

The deep recession of the past year has had profound impact on state revenues and agency resources. As a discretionary portion of the budget, the natural resource agencies are particularly vulnerable as unprecedented deficits force dramatic reductions in state spending. In the 1980s, 4% of our state budget was dedicated to the natural resource agencies. By 2006, only 1.4% of the budget was devoted to natural resources.

The Governor's effort to reform our state's natural resource agencies opens a number of specific opportunities for the College of the Environment to help achieve greater efficiencies. The Executive Order calls for greater efficiency in the collection of scientific information and in the centralization of GIS services. She has called for agencies to uncover ways to collaborate to reduce functional redundancies. The long history of multi-disciplinary team-based scientific research demonstrated by the centers described below presents opportunities for constructive engagement by the School of Forest Resources. SFR has extensive interdisciplinary research capacities which may be systematically offered to assist the state's natural resource agencies. Research directed toward important topics of the day also creates the opportunities for richly rewarding experiential learning for UW students.

Faced with declining budgets and increased conflict over and pressure on natural resources, our state's agencies readily acknowledge their need for assistance. During the discussion of efficiency options, state managers considered seeking help from the state's public research universities. Agencies also recognize that in some circumstances they benefit from the added credibility of work conducted by researchers without agency affiliation. University research may be more readily seen as free of the perception of conflicts of interest or bias that arises when agencies monitor the outcome of their management efforts. The academic community provides the environment for rigorous peer review that improves the quality and persuasive worth of scientific work.

SFR has a long history of providing services through the many centers described in the following pages. State and federal agencies have sponsored a wide range of projects by these units to address important priorities. In the past, these collaborative projects have been initiated in an ad hoc and opportunistic fashion. The state's fiscal crisis creates the impetus to consider a more systematic approach.

The public research universities are enormous repositories of intellectual capacity. Many of their past contributions to improving natural resource management are documented in the factsheets that follow. With the integration of many teaching disciplines into the College of the Environment, the potential is obvious for even greater and more systematic contributions. The SFR and the College of the Environment are in an excellent position to offer our state's agencies' assistance in assuring that management is based on "the best available science."

School of Forest Resources Research Centers and Cooperative Programs

Centers and cooperative programs offer unique opportunities for multi- and interdisciplinary inquiry. The School administers several interdisciplinary centers, three of them jointly with

other UW academic units. Centers at the UW generally focus on research and outreach. Although centers do not administer academic programs, they are an important resource for graduate and undergraduate student learning and research, including mentoring and funding for masters and PhD students.

Some programs, like the Stand Management Cooperative and the Precision Forestry Cooperative, are organized as research cooperatives, with members from private industry and government agencies. Others are organized as consortia or networks, drawing on the expertise and interests of faculty, students, and staff from the School and throughout the UW. The School also collaborates with Washington State University and with federal agencies. The U.S. Forest Service, the U.S. Geological Survey, and the National Park Service have personnel housed at the School who hold courtesy faculty appointments.

1. Center for International Trade in Forest Products

The Center for International Trade in Forest Products, CINTRAFOR, supports efficient export of forest products in a number of ways. The Center collects and distributes information on rapidly changing foreign markets. CINTRAFOR researchers study consumption trends, distribution channels, and trading systems. They also collect data on the codes, standards, and laws that define the regulatory environment for forestry products in other countries. The Center provides educational opportunities to forest products professionals through support of graduate level research on the international trade of forest products. The Center emphasizes work to address technical, environmental, economic, and social dimensions of resource management problems that impede exports of specific products.

Key Faculty and Staff: Ivan Eastin, John Perez-Garcia, Bruce Bare, David Briggs, Bruce Lippke, Gerard Schreuder, Rose Braden, and Joseph Roos

Website: <http://www.cintrafor.org/>

2. Center for Quantitative Science in Forestry, Fisheries, and Wildlife

The Center for Quantitative Science is a joint program of the SFR and the School of Aquatic and Fishery Sciences to promote the development of quantitative capability in both undergraduate and graduate students. Members of the faculty engage students in practical fieldwork in order to assure that graduates acquire the capability to pursue quantitative analysis in a scientific world that is increasingly quantitative in its expectations. Course curricula are designed to be relevant to prepare resource professionals for their careers.

Key Faculty and Staff: Vincent Gallucci, Bruce Bare, David Briggs, Loveday Conquest, Tim Essington, Frank Greulich, Ray Hilborn, Jay Johnson, John Perez-Garcia, André Punt, John Skalski, Eric Turnblom, and Charles Amundson

Website: <http://depts.washington.edu/cqs/>

3. Center for Sustainable Forestry at Pack Forest

The Center contributes to the development of sustainable forestland management strategies through research, demonstration and technology transfer. The Center's programs focus on forest certification, ecosystem services, and invasive species, but are not limited to forestry topics. Demonstrations at Pack Forest aim to link the practical findings of research to the every-day world of operations. Results are typically made available to the general public, industry, and forest landowners. Records of these undertakings are maintained so that ongoing information, updated as technology changes occur, can continue to be distributed.

Key Faculty and Staff: Greg Ettl and Duane Emmons,

Website: <http://www.packforest.org/>

4. The Olympic Natural Resources Center

The Olympic Natural Resources Center was created by the Washington Legislature in 1989. Its mission is to foster and support the research and education necessary to provide sound scientific information on which to base ecologically sustainable forest and marine industries. The Legislature directed that ONRC foster research and education aimed at demonstrating superior management methods that integrate both sound economic principles and ecological principles. ONRC's Forest Program focuses on landscape planning, while its marine program emphasizes research on coastal hazards and access to information.

Key Research Staff: John Calhoun, Miranda Wecker, Jason Cross, Jeff Cornick, and Keven Bennett.

Website: <http://www.onrc.washington.edu/>

5. The Water Center

The Water Center was created to help resolve the controversies concerning the Management of forest, fish, wildlife, and water resources in the Pacific Northwest. It brings together expertise from engineering, forest resources, ocean and fishery sciences, public affairs, environmental science, law, urban planning, economics, and public health. Its current emphasis is on scientific research and educational outreach projects that address water resource issues and environmental health. The Center trains students to become the next generation of leaders on water issues by offering them opportunities to engage in solving local water issues. The Center's faculty are viewed as an authoritative and unbiased source of expertise; they are often called upon to conduct definitive scientific studies needed by state officials to support water policy decisions. The Center's areas of expertise include forests and riparian systems; wildlife and wildlife habitat, fish and fish; stream processes; water quality; water resources management; water policy; and water and global issues.

The Water Center's 20-year plus history ends on June 30, 2010 with some functions being assumed by the Center for Urban Waters located at the UW-Tacoma.

Key Faculty and Staff: Bob Edmonds, Jim Agree, Bob Naiman, Dave Montgomery, Marina Alberti, Timothy Nyerges, Susan Bolton, Derek Booth, Mike Brett, Sally Brown, Tom Quinn, Jeffrey Richey, Nancy Rottle, Clare Ryan, Charles Simenstad, Anne Steineman, David Stensel, Christian Torgensen, Kristina Vogt, Stephen West, Jan Whittington, Robert Wissmar, Steve Wondzell, Dennis Lettenmeir, Alex Horner-Devine, Robert Gara, Kern Ewing, Stephen Burges, Loveday Conquest, and Debbie Livingston

Website: <http://water.washington.edu/Research/research.html>

6. The Pacific Northwest Cooperative Ecosystems Studies Unit

The Pacific Northwest Cooperative Ecosystems Studies Unit (PNW CESU) is a cooperative venture between 17 leading academic institutions in the Pacific Northwest region, one state agency and nine federal land management and natural resource research organizations. The UW serves as host to PNW CESU. PNW CESU promotes direct interactions among academic institutions and resource management agencies in order to improve management and stewardship of the nation's public lands and waters. Public service is achieved through application of sound science and through responsive technical assistance. PNW CESU studies typically cross disciplinary boundaries involving the biological, physical, social, and cultural sciences needed to address complex resource issues.

Key Faculty and Staff: Chris Lauver, Gordon Bradley, Deborah Confer

Website: <http://www.cfr.washington.edu/research.cesu/>

7. Institute of Forest Resources

Although not officially formed at the time this document was drafted, the next three units, as well as others listed above, will likely fall under a broader title. At present the Precision Forestry Cooperative, the Stand Management Cooperative, and staff and archived resources associated with the former Rural Technology Initiative are under the leadership of faculty member Professor David Briggs.

7A. Precision Forestry Cooperative

The mission of the Precision Forestry Cooperative is to advance the understanding of multi-scale dynamics of landscape change through remote sensing and geospatial tools. It utilizes a trans-disciplinary approach to devise sustainable management solutions to pressing environmental issues. Research priorities have included development of practical methods for wetland and forest inventory, insect infestation and forest fire modeling, invasive species mapping, and biomass estimation.

Key Faculty and Staff: David Briggs, Megan O'Shea, L. Monika Moskal, Sandor Toth, Jim Fridley, Bruce Lippke, Peter Schiess, Luke Rogers, Andrew Cooke, Kevin Ceder, and James McCarter

Website: <http://www.cfr.washington.edu/research.pfc/>

7B. Stand Management Cooperative

The mission of the Stand Management Cooperative (SMC) is to provide a continuing source of high quality information on the long-term effects of silvicultural treatments and treatment regimes on stand and tree growth and development and on wood and product quality. SMC is composed of forest industry, state, provincial, and federal agencies, suppliers, and universities. SMC maintains a database on forest conditions in British Columbia, Washington, and Oregon. SMC sponsored studies of timber processing, and forest management. SMC disseminates research results through publications and workshops.

Key Faculty and Staff: David Briggs, Eric Turnblom, Randy Collier, Bob Gonyea, Rob Harrison, and Bert Hasselberg

Website: <http://www.cfr.washington.edu/research.smc/>

7C. Rural Technology Initiative

The Rural Technology Initiative (RTI) was a partnership between SFR and Washington State University created by Congress to support rural communities by improving the technology available to resource professionals in these communities. RTI explored ways to accelerate technology transfer to assist policymakers facing an increasingly complex regulatory environment. Management templates developed by RTI promote riparian zone management and biodiversity within intensive even-aged forested landscapes. RTI tools were created to demonstrate the importance of thinning for reducing the risk of fires and assist managers derive an economic benefit from the wood products generated by such thinning.

RTI successfully brought together dozens of local, state, and federal agencies to develop the Washington State Parcel Database. The Database is being used by more than 30 agencies on over 180 different projects around the state. The Parcel Database is also the foundation for the Washington State Forestland Database, a tool that supports studies to establish a foundation of information on the future conditions of forest lands and forest industries in Washington State.

Although RTI's history as an independent program ended at the close of 2009, key staff, as well as its archive of web-based and other resources, will be incorporated into the Institute of Forest Resources.

Key Faculty and Staff included David Briggs, Bruce Lippke (Emeritus), Larry Mason, Kevin Ceder, Luke Rogers, Don Hanley (now retired and Affiliate), Andrew Cooke, James McCarter, and Matthew McLaughlin

Website: <http://www.ruraltech.org/>

8. Washington NatureMapping Program

The Washington NatureMapping Program's vision is environmental stewardship of communities through school, community, agency, and business partnerships. Its' mission is to protect biodiversity through data collection and dissemination. The goal of the program is to keep common animals common. Observing and experiencing wildlife helps to build an understanding that provides a greater appreciation for our natural world.

The following products are available: (1) animal fact sheets, (2) biodiversity data modules, (3) educator activities, (4) NatureTracker, (5) publications about the Nature Mapping Program, (6) Habitat codes for Washington State, (7) Washington species list, (8) Washington Species list by county, (8) web sites of interest, (9) related curriculum, and (10) field guides and references for birds, mammals, aquatic insects, fish, terrestrial insects and invertebrates, amphibians and reptiles, plants.

Website: <http://depts.washington.edu/natmap/>

9. Northwest Environmental Forum:

In 2003, the then College of Forest Resource's Dean Bruce Bare and Brian Boyle began the Northwest Environmental Forum at the UW. Its goal is to expand the UW's ability to apply science and technology research to natural resource and environmental policy issues. The Forum is a catalyst to meld disciplinary and interdisciplinary programs in the physical, biological, climate, natural resources, and other sciences to help public decision makers better understand population dynamics, resource conflicts, and their effects on the sustainability of natural systems, and an "educational observatory" where faculty and students can work, add value, and learn from the events.

Website: <http://www.nwenvironmentalforum.org/>

History of the Forum and its products:

1. November 2004: Stakeholders assembled to draft the critical issues and parts of Saving Washington's Working Forest Land Base
2. October 2005 and November 2006 Forums: research results from the College of Forest Resources studies of timber supply, industry competitiveness, and the impacts of forest land losses to development pressures were presented to a wide array of public and private stakeholders. Forum outcomes: widespread agreement among participants that we need a way to create markets for ecosystem services provided by sustainable forests, and that some method of paying for ecosystem services will ultimately be needed to keep working forests on the landscape.
3. November 2007: Addressed a state-wide strategy for working forest retention, as proposed by the 2007 legislature. Outcome: A statewide land parcel database, funded through the Family Forest Foundation to provide a base for the risk of conversion analysis.

4. November 2008: Assessed strategic linkages for biodiversity and critical working forest land retention strategies. Specific recommendations were generated and provided to the 2009 Washington State Legislature.
5. October 2009: Eastside forest health challenges and solutions
6. November 2009; Sustaining and restoring the health of Washington's working forest lands: creating an ecosystem services marketplace.

See <http://www.nwenvironmentalforum.org/reports.html>.

Key Staff: Brian Boyle and Ellen Matheny

10. University of Washington Botanic Gardens

The UW Botanic Gardens was established in 2005 to unite the gardens and programs of the Washington Park Arboretum and Center for Urban Horticulture. As part of the School of Forest Resources and College of the Environment, UW Botanic Gardens is an international hub for plant science and ecosystem research, teaching, and stewardship. The nationally renowned living plant collection contains over 10,000 specimens.

Website: <http://depts.washington.edu/uwbg/>

Key Faculty and Staff: Ms. Sandra Lier (Interim Director), Mr. Fred Hoyt, Professor Sarah Reichard

10A. Otis Douglas Hyde Herbarium

The Hyde Herbarium collection of plant specimens is comprised primarily of specimens from the Washington Park Arboretum, and horticulturally significant plants and weeds. The collection is currently ~16,500 specimens. Its collection is continually expanded through active collecting by volunteers and by trading with other herbaria.

Website: <http://depts.washington.edu/hydeherb/index.shtml>

Contact: Professor Sarah Reichard

10B. Elisabeth C. Miller Library

Over 15,000 books on gardening techniques, selecting and growing ornamental plants, vegetable and herb gardening, pests and diseases, garden design and history, gardens to visit, horticulture in an urban environment, botany and plant ecology, and native flora from around the world makes the Miller Library the most extensive horticulture collection of any Pacific Northwest library open to the public.

Website: <http://depts.washington.edu/hortlib/index.shtml>

Contact: Mr. Brian Thompson

10C. Rare Plant Care and Conservation Program

The Washington Rare Plant Care and Conservation Program (Rare Care) partners with federal, state, and local land holding agencies to monitor rare plant populations across the state and has completed more than 870 reports. In 2003 the only state-of-the-art climate controlled storage and lab facility for seeds of Washington's rare plants was built at UW Botanic Gardens. The Miller Seed Vault currently stores seeds of 70 rare Washington species and has received 4,009 accessions (seed lots).

Website: <http://courses.washington.edu/rarecare/>
Contact: Professor Sarah Reichard

10D. Restoration Ecology Network

The UW-Restoration Ecology Network (UW-REN) is a tri-campus program, serving as a regional center to integrate student, faculty and community interests in ecological restoration and conservation. This program is open to UW students from all disciplines. UW-REN is creating new interdisciplinary curricula and undergraduate research/capstone experiences in the realm of restoration that bridge across the three UW campuses. The core of the UW-REN mission is to advance higher education in restoration while helping the Pacific Northwest region meet the growing needs and challenges of ecological restoration.

Website: <http://depts.washington.edu/uwren/>

Contacts: Professors Kern Ewing, Jim Fridley (UW-Seattle), Warren Gold (UW-Bothell), and John Banks (UW-Tacoma).

10D. Washington Park Arboretum

The Washington Park Arboretum is jointly managed by UW and the City of Seattle; its 230 acres are a dynamic assortment of plants found nowhere else. The City owns the land and the UW owns all of the trees and plant collections. In terms of care, maintenance, and management, the City takes care of the park-like functions (trails, benches, garbage) and the UW Botanic Gardens takes care of the gardens, trees, and plant collections.

Website: <http://depts.washington.edu/uwbg/gardens/wpa.shtml>

Key Staff: Sandra Lier (Interim Director), Fred Hoyt