

**Provost's Council**  
**ACADEMIC REPORT for 2008–2009**  
**College of Forestry**  
**August 10, 2009**

The College of Forestry (CoF) is one of OSU's top-tier strengths, with programs and faculty known globally for distinction in teaching, research, and outreach. Over the past year, the College has supported the OSU strategic plan across all three themes. The breadth of faculty and staff expertise, interests, and programs across the spectrum of natural resources science, management, and business is impressive. In addition, the College continues to benefit from outstanding assets, such as the McDonald-Dunn Forests and the HJ Andrews Experimental Forest, that provide extraordinary opportunities for research and learning and from the strong collaborative science base across the campus community.

There are many achievements to celebrate this year. College enrollments are at the highest level since the early 1980s. CoF/Forest Research Laboratory (FRL) research programs have been productive and successfully leveraged state funds. Faculty and students are addressing timely issues such as climate, carbon, water, environmental services, industry competitiveness, bioenergy, and green building. Our research and outreach programs support the state's economy by helping to maintain competitiveness, develop new products and markets, and preserve jobs. Our diverse outreach programs are anchored by the Extension forestry program, a national role model, but include extensive strengths in K-12 education and other areas.

This was a transition year for faculty, staff, and students, as the College community made substantial progress in implementing a departmental reorganization. It was also a year of financial and organizational uncertainty as Oregon endured the effects of the global recession. Its impacts on the CoF/FRL were twofold: both tax revenues from state timber harvest and revenues from timber harvests on College forests declined, a net \$2.5 million loss in annual revenues. The legislature was also forced to cut appropriations for higher education and the Forest Research Laboratory, with implications still to be fully determined. The College was proactive in preparing for the future by completing a strategic visioning process that identified core strengths to retain during cuts and some exciting opportunities.

## **2008–2009 HIGHLIGHTS**

### **1. Programmatic Achievements—Initiatives undertaken and outcomes achieved**

#### **a. Student engagement and success**

Students in the College are supported by the Dean's Student Services staff, departmental staff, and faculty; through College support services units, such as Forestry Computing and the Media Center; and by outstanding facilities.

##### ***i. Student Services office and departmental support***

- The Student Services office (SSO) provides comprehensive support for undergraduate recruiting, orientation and, depending on the degree program, academic advising. Graduate student affairs are managed by departments. The SSO maintained community college articulation agreements and articulated transfer coursework; monitored BAC Core requirements; enrolled students in degree partnership programs; assisted post-baccalaureate student application, review, and advising; and coordinated course-based

enrollment management across the College. The SSO is responsible for the CoF Ambassador program.

- An SSO recruiter visited 100 high schools and community colleges and spoke to 14,000 students about educational options in the CoF. FE and WST are known to be “majors of discovery,” and the recruiter attempts to highlight career opportunities in these areas, in addition to more widely known degree programs. SSO staff and the student Ambassador team also made a variety of presentations to prospective students. An example was a presentation during the national Engineers Week in Coos Bay that drew more than 100 students and their parents from four area high schools.
- Student Services conducted professional development seminars and workshops covering graduate school, resume and cover letter writing, and professionalism in the workplace and facilitated other opportunities, such as Employer Information Nights and the Ambassadors Program.
- Student Services served as the employment liaison for the CoF by engaging potential employers and linking students with seasonal and permanent job opportunities; facilitating the SAF Student Job Fair; coordinating campus visits and employment interviews; managing the system to document student summer employment; and providing letters of reference for STEP/SCEP, vocational rehabilitation, and other programs to assist students with job applications. SSO efforts were supported by departmental efforts, such as the Wood Science and Engineering (WSE) and Oregon Wood Innovation Center (OWIC) successes in developing several new internships with value-added companies in Oregon.
- Departments supported professional development of graduates by encouraging and helping fund travel to professional meetings for students making presentations or presenting posters. To further improve skills, graduate students in FERM and FES each organized 1-day symposia to present their research to the College community.

## ***ii. Facilities and support units***

The CoF has outstanding facilities that support student success in many ways. Three examples are noted below:

- *Computer labs and helpdesk.* The Forestry Computing Helpdesk is unique on campus in providing support to students, faculty, and staff. This year the staff offered 20 software training workshops and maintained 50 specialized software packages required for classes; 37 of these applications are only available in the CoF student computing labs, and students have 24-hour access.
- *College Forests.* The 11,500 acres of College Forests are located 20 minutes from campus and provide outstanding opportunities to view and participate in forestland management activities. This year the Forests supported a variety of courses from the CoF and other campus departments, including two senior capstone classes; employed and mentored several students; and facilitated operations for the Student Logging Training Program, a unique and comprehensive educational program designed to help students be “work ready” upon graduation.
- *HJ Andrews Experimental Forest (HJA).* As a part of the National Science Foundation Long Term Ecological Research (NSF-LTER) program, the HJA hosts long-term field experiments and measurement programs focused on climate dynamics, streamflow, water quality, and

vegetation succession. In 2009, the HJA hosted classes from 14 colleges and universities; 3 postdoctoral trainees and 35 graduate students have been involved in research related to the HJA, with 6 students completing M.S. degrees and 4 completing Ph.D. degrees. The HJA also hosted Research Experiences for undergraduates, noted below:

- HJA scientists worked with undergraduate students from the Environmental Leadership Program (ELP) at the U of O to help enhance education and outreach programs related to old-growth forests. The students created a trail brochure, online virtual tour, and K-12 lesson plans.
- The EcoInformatics Summer Institute at OSU provided 15 undergraduate students with a 10-week interdisciplinary research experience at HJA.
- Two REU students from OSU were supported by LTER Supplement funding. One worked with Christopher Marshall (Curator, Oregon State Arthropod Collection) on a “cybertaxonomy” project; the other worked with PIs Elizabeth Borer and Charles Halpern on plant and insect community ecology.
- Four undergraduate students conducted independent research projects at the HJA during the past year. Shane Easter, who worked with Barbara Bond, presented his research as a poster at the annual meeting of the American Geophysical Union in December 2008.

### ***iii. Enrollment and graduation data***

In all, 682 undergraduate students and 137 graduate students were enrolled in the CoF in AY2009. Undergraduate enrollment is up 72% over 5 years. One hundred and thirty-one undergraduates and 52 graduate students received degrees during the year.

- Enrollment in all of FERM undergraduate degree programs increased over the past 5 years, with particularly large increases from Fall 2007 to Fall 2008. In Fall 2008, 110 students were enrolled in the Forest Management (BS) program, 59 in Forest Engineering (BS), 38 in Forest Engineering/Civil Engineering, and 34 in Forest Operations Management (initiated in 2006). Continued growth is anticipated in all programs in AY10.
- The newly formed Forest Ecosystems and Society (FES) Department assumed responsibility for 385 undergraduate majors in the Natural Resources (NR) and Recreation Resource Management (RRM) degree programs. The NR degree enrollment increased by 54 students over the previous year, with the majority of new students enrolled in the Ecampus version. The RRM program enrollment declined by about 10%.
- Fall 2008 enrollment in Wood Science & Technology and Wood Science decreased slightly, to 37 UG, in part due to students’ and parents’ perception of recessionary impacts on the future of the wood products industry. We believe this concern is misguided.
- Graduate enrollment in the CoF declined by 9% this past year. We speculate this is partly because of uncertainty associated with the college reorganization. There is also a direct relationship to the reduced faculty associated with unfilled vacancies and the size of the graduate program.

#### ***iv. Curriculum enhancement and development***

- FE and FE/CE programs in Forest Engineering, Resources and Management (FERM) were reviewed by ABET for reaccreditation, received a strong exit report, and await the final decision by the ABET Commission
- The CoF offered 35 Ecampus courses in 2009, including 17 associated with the graduate certificate program Sustainable Natural Resources.
- A Wood-based Composites Science distance-learning program was launched in spring 2009 to target place-bound industry workers. Four modules are now available through Ecampus. The plan is to develop up to 19 modules and offer a Certificate of Mastery of Wood-based Composite Science program.
- Chris Knowles and Eric Hansen developed a Scandinavian Study-Abroad course focused on climate change and natural resource management. Ten students from five colleges are registered for the September 2009 class.
- The faculty completed revisions to the RRM curriculum to accommodate changes in course availability across campus; the revised program was accredited by SAF.
- Glenn Howe and Tom Adams contributed to a campus-wide effort and report for the Provost on enhancing plant science education.
- Student Services assisted in pilot testing of Academic Success modules, along with COE and UESP.
- The CoF monitors teaching effectiveness in every class taught, using the university's SET process. Overall, 83% of undergraduates and 94% of graduate students rated their courses as Good to Excellent, and 86% of undergraduates and 94% of graduate students rated their instructors' efforts in that range. (These figures do not include scores from the Winter 2009 SET report, which was unavailable by the deadline for this report.)

#### ***v. Financial support***

CoF scholarship and fellowship programs are an essential component of our students' success. Under the management and direction of Student Services, the College awarded \$417,070 in undergraduate scholarships to 108 students and \$111,500 in graduate fellowships to 31 students for AY10. Students also received aid through assistantships and work-study programs. Additional scholarships and fellowships were awarded by the departments and other sources.

- FES awarded 11 graduate fellowships, totaling \$55,047.
- FERM awarded 11 privately funded departmental fellowships (\$176,153) to graduate students and 14 gift-funded scholarships (\$15,500) to undergraduates in the FE, FE/CE, and FOM programs.
- Twenty-two students majoring in Wood Science and Technology received departmental Richardson scholarships (\$37,150). Seven Wood Science graduate students were awarded CoF fellowships in AY09, and two students were awarded a highly competitive Oregon Lottery Scholarship by the University.
- A WST student won the \$5,000 Robert Dougherty Scholarship given by the Composite Panel Association in AY09, and another WST undergraduate will receive this award in AY10. OSU students have won this highly competitive national prize in each of the past 6 years.

- WSE faculty were awarded a USDA National Needs Fellowship Grant this year and are actively recruiting graduate students to become USDA Fellows.

#### **b. Research and its impact**

The CoF, through the FRL, conducts a mixture of basic and applied research that ranges in focus from discovery to decision support. Support for this work came from many sources over the past year. In addition to individual faculty programs, the CoF/FRL is widely known for its 10 research cooperatives that bring stakeholders to OSU with pooled resources, usually to work collaboratively to meet collective cooperator needs.

CoF/FRL scientists worked with a large group of courtesy and adjunct faculty who added significantly to the research enterprise. These interactions and collaborative efforts with extended faculty from the Forest Service, the USGS, and the EPA have made it possible to share in many excellent accomplishments and important grant resources. We have a 20+-year relationship of shared IT support with our State and Federal research partners. The services of the Forestry Computing Resources group give our partners access to resources that would otherwise be unavailable or much more costly. Likewise, CoF personnel have exceptionally efficient and seamless IT connections with their research collaborators, a fact that results in a clear record of outstanding research productivity in the College.

#### ***i. Research and scholarship productivity and impacts***

- CoF faculty obtained a total of \$14,236,917 in extramural funding in FY 2009: \$12,170,834 from 141 grants and agreements, and \$2,066,083 through the 10 research cooperatives.
- FES continued to be one of the most successful departments in the university in competing for grant funding.
- Extramural funds obtained by WSE faculty in CY2008 set a decadal record, exceeding \$3.2 million, including research cooperative funding and the WUR Special Research Grant funds. The increase is due to several sizable USDA and NSF competitive grants.
- CoF faculty published 263 refereed journal articles and 112 other non-extension publications and gave 230 presentations describing their research.

Selected examples of research funding and leadership follow:

- Barb Bond led efforts to secure NSF funds in support of the LTER6. The new work centers on the effects of climate change on forested ecosystems and the interface of human-natural ecosystems. The group is also leading preparation of an ULTRA proposal to establish urban long-term research.
- Glenn Howe continues to direct research on Douglas-fir genomics as part of a large, USDA-funded multi-university project. This work complements the efforts in poplar genomics conducted by Steve Strauss' lab. Strauss also received a large DOE grant to support his work on genomics of cottonwoods.
- Bev Law and her colleagues continue to receive support from DOE, totaling over \$2 million, to further work on understanding the effects of disturbance and climate on carbon storage and gas exchange of conifer forests in the PNW.

- Mark Harmon was coauthor on a Science article finding that tree mortality may be increasing in the western US, and the increase is due to more than just catastrophic losses such as fire.
- Bill Ripple, Bob Beschta, and colleagues continued to provide leadership in the area of predator effects on ecosystem structure and health. Their award winning work has been presented in journal articles, popular magazines, newspapers, radio, two popular books, and a documentary film.
- Randy Rosenberger's team developed models that provided critical information to the Oregon Parks and Recreation Department for identifying at-risk counties and revising development grant selection criteria to target public health problems.
- Bruce Shindler is lead scientist of a study of fire-prone communities in seven states. The group organized and led a symposium of scientists in the Wildland Fire Summit: A Decade of Social Science Research. This form of research is rare and involves surveying the same individuals in both 2002 and 2008 to determine the factors that have most influenced their attitudes and opinions about federal agency fire management.
- Claire Montgomery is participating in a major NSF grant on the computing aspects of sustainability modeling managed through Cornell University.
- John Bailey received new Forest Service funding to examine stand structure and dynamics in central Oregon dry coniferous forests, with implications for fire, forest health, and climate change.
- David Hann's ORGANON model continues to be the primary growth and yield model used to guide forest management decisions on millions of acres of private lands in western Oregon.
- Regional and national timber market models developed by Darius Adams and Greg Latta have been used to help establish policies for the western Oregon BLM Western Oregon Plan Revision, USEPA national greenhouse gas policies for forest and agricultural lands, and Oregon Department of Forestry as part of its Forestry Program for Oregon.
- Fred Kamke's digital image analysis methods for quantitatively measuring resin distribution have been widely adopted by the oriented strand board industry to reduce resin costs and improve product. Georgia Pacific Resins and FPInnovations (Canada) have constructed and marketed their own resin distribution measurement systems based on his technology. The mills that have implemented the analytical test results collectively save an estimated \$5,000,000 annually.
- Barb Lachenbruch coauthored a 2008 paper, published in Proceedings of the National Academy of Science, on hydraulic limitations to tree height. This paper had a large impact in the popular press, as well as on scientists throughout the US and Europe.
- The research of Rakesh Gupta and his students on anchoring systems for wood shear walls was used by the American Wood Council in the development of a new national design standard for wood structures subject to wind and seismic loading.

## ***ii. Research cooperative highlights and impacts***

The 10 research cooperatives seek to resolve management, business, and environmental issues in Oregon and beyond. Findings of research cooperatives have helped reduce costs, advance science, increase the efficiency of forestry operations, or provide a scientific basis for establishment of public policy. Most of the cooperatives provide a continuous program of outreach to a broad spectrum of forestland owners, agencies, and lay public groups.

- The **Utility Pole Research Cooperative** increased membership to 21, including all three of Oregon's public utilities and three national companies with treating operations in the state. In 2008—2009 they
  - Identified improved pole storage handling practices and tested the ability of various barriers to trap chemicals. Bonneville Power Administration will implement these practices in summer 2009 with future pole replacement projects.
  - Developed and evaluated Dazomet, a powdered fumigant for pole protection against decay. This widely used fumigant is safer to apply and has less risk of contaminating areas around poles than alternatives.
  - Worked with treaters to incorporate three methods for improving ground-line treatment of Douglas-fir poles into national standards; this work will be completed this summer. The availability of a nationally standardized method for improving the quality of Douglas-fir poles will make Oregon products more competitive in the marketplace.
- The **Watersheds Research Cooperative** (WRC) has three major paired watershed studies underway, with each at a different stage of progress over the past year.
  - Roseburg Forest Products completed the second harvest entry adjacent to fish bearing reaches in the South Fork of Hinkle Creek. Plum Creek initiated the first entry in the Alsea Study. By the end of summer, eight flumes will be installed in the Trask Study to measure discharge in headwater streams. The landowners (BLM, Roseburg Forest Products, ODF, Plum Creek, Weyerhaeuser, and USDA Forest Service) all remain enthusiastic and, while financial contributions are down, Oregon Forest Industries Council, Douglas County, and Roseburg BLM have contributed sufficient funds to maintain the studies during very difficult times.
  - In October 2008, a WRC Conference hosted 200 attendees to hear preliminary results from the first harvest entry in Hinkle Creek, along with key presentations from the other studies, state-of-the-science presentations, and presentations from similar studies in the PNW. One outcome of the conference was a State Board of Forestry field trip in July 2009 to Hinkle Creek to discuss policy implications.
- The **Center for Intensive Planted-forest Silviculture** (CIPS) was formally established (15 members contributing \$102,000 in dues) and the first set of funded projects was initiated in 2009. The mission to facilitate collaboration among existing research cooperatives was pursued by a project on modeling young stand development, making use of expertise and data from the Vegetation Management Research Cooperative and Nursery Technology Cooperative and modeling expertise from CIPS. Resulting growth equations transform data from designed experiments into a form more readily incorporated into client decision-making tools.

- The **Hardwood Silviculture Cooperative** has been providing information for foresters interested in hardwood management for over 20 years. Red alder is poised to become the next extensively managed timber species in the PNW largely because of the work of this group.
  - Work with ORGANON, the forest growth and yield modeling system, is nearing completion of a plantation alder version. With this tool, foresters will be able to see the productive potential of red alder and make informed decisions about its management.
  - The cooperative continues to maintain the oldest and most extensive red alder growth database in existence.
- The **Swiss Needle Cast Cooperative (SNCC)** was established in January 1997 to conduct research on Douglas-fir productivity and forest health in the presence of Swiss needle cast (a native fungus) and other diseases in coastal forests of Oregon and Washington. The 2009 aerial survey found over 300,000 acres visibly impacted by the disease in Oregon, but the impacts are spread over 2,000,000 acres.
  - SNCC recently developed an integrated pest management strategy for Douglas-fir forests in the Oregon Coast Range. This strategy is based on 14 years of aerial survey data and on-the-ground growth impact plot data, as well as new models that predict growth impacts from existing tree growth models (ORGANON). Results are being applied in land management decisions by forest companies, ODF, USDA Forest Service, and BLM.
  - The epidemiology of the disease is closely associated with weather, so current efforts include modeling the spread of disease given various climate change scenarios and the economic implications of these changing disease thresholds.
  - Collaborations with the Pacific Northwest Tree Improvement Research Cooperative are resulting in identification of needle cast tolerant families of Douglas-fir.
- The **Pacific Northwest Tree Improvement Research Cooperative (PNWTIRC)** has been instrumental in the formation of three large national and regional research collaborations, with each relying on cash and in-kind support from members.
  - The goal of the Taskforce on Adapting Forests to Climate Change is to develop strategies that forest managers can use to maintain healthy and productive forests in the face of climate change.
  - The Conifer Translational Genomics Network is a USDA-funded project that seeks to bring marker-based breeding to application in US tree-breeding programs within the next five years.
  - The Center for Advanced Forestry Systems is a multi-university project within the National Science Foundation Industry/University Cooperative Research Program. The mission of this project is to optimize genetic and cultural systems for producing forest products by integrating research at the molecular, cellular, individual-tree, stand, and ecosystem levels.
  - Although wood stiffness is important to the forest products industry, it has been difficult to measure and improve wood stiffness in tree breeding programs. Recently, the cooperative demonstrated that new 'acoustic' tools can be used by



breeders to rapidly and reliably estimate wood stiffness on standing trees or logs in genetic tests. Breeders are now using these tools to improve wood stiffness in operational breeding programs.

- The **Northwest Tree Improvement Cooperative** members have decided to proceed to a third cycle of breeding and testing coastal Douglas-fir and western hemlock, and five third-cycle breeding orchards have been grafted. This is a historic moment, given that the first cycle ran from 1966 to about 2000, while the second cycle began around 1990 and continues to the present. NWTIC has measured and analyzed age-15 data for a Realized Genetic Gain Verification trial for Douglas-fir on six sites in the North Oregon Cascades and shown that realized gains in block-plot trials match gains predicted from progeny tests at the same age.
- For the last 17 years, the **Vegetation Management Research Cooperative** has focused research and outreach on the establishment of high performing forest plantations. Studies have pioneered knowledge on the relationships between plant competition for limited site resources and seedling survival and growth across Oregon and Washington. A recent finding demonstrated that 3-year growth of Douglas-fir seedling volume could be increased over 400% when competing vegetation was reduced below 20% for the first two years after planting. Cooperators have utilized results to create more cost effective plantation establishment prescriptions that exceed legal reforestation requirements and that help keep forest products from the Pacific Northwest competitive in the global marketplace.
- Since 1982, the **Nursery Technology Cooperative** has conducted research and outreach focused on growing vigorous seedlings and improving their performance after planting. Current projects range from wetting agents on seedlings prior to planting to dormancy issues in nursery grown Douglas-fir seedlings. A new project is examining the cold tolerance of seedlings in forest nursery beds. The Forest Service is building a unique freezer that can be placed over seedlings to help study the impacts of freezing. In some years many nurseries pay a heavy price for seedlings lost to sudden frosts.
- After 15 years, the **Tree Biosafety and Genomics Research Cooperative** completed a plan to shift its main focus to eucalyptus, the world's most widely planted forest tree. Recent research has shown that newly tested genes created at OSU can increase the rate of growth of poplar trees in the greenhouse more than 100% and field trials are underway. New collaborations with China will allow field tests of OSU-produced genetically engineered trees that have become too costly to undertake with the growing strict regulations in the USA. The Coop focus is on biosafety, particularly the reduction of ecological and social concerns about gene dispersal from genetically engineered trees.

### ***iii. Commercialization and licensure***

- Fred Kamke, Kaichang Li, and Joe Karchesy were awarded patents in AY09. Kamke's patent is on the VTC technology; Li's, on adhesives; and Karchesy's, on natural pest control chemistry. John Simonsen and colleagues filed a disclosure on a nanocomposite membrane that could be used as a battery separator.
- The commercial success of Kaichang Li's wood adhesive continues to expand, along with increasing royalty payments to OSU. Some signs of impact:

- Despite the severe downturn in the building materials industry, the principal patent licensee has not closed manufacturing plants that utilize this technology. This reflects growing demand, and 30 million hardwood plywood panels have been produced with the technology since its introduction. Expansion of the technology to other products and users should increase significantly in 2010 as a result of new California regulations on air emissions from interior wood products.
- A new startup company has been formed and funded by a private investor to commercialize additional OSU adhesive technology.

**c. Outreach and engagement**

The college is serious about our land grant mission to complement teaching and research with a strong outreach component. College faculty and staff planned and delivered a rich suite of programs that communicate research, experiential, and decision support information to a wide assortment of stakeholders that includes professionals, woodland owners, public, policy makers, and K-12 teachers and students. This effort is amplified by an in-house publication group that supports the information delivery process and complements scientists’ efforts to publish in journals.

The Forestry and Natural Resources (FNR) Extension Program, the largest and arguably the strongest program of its type in the US, had 35 total employees this year, with 15 agents covering 24 counties and 8 statewide specialists covering a wide variety of subjects. The FNR Program is also home to projects such as the Oregon Natural Resources Education Program (ONREP), the Oregon Master Naturalist Program, the Oregon Master Woodland Manager Program, and the Oregon Wood Innovation Center.

CoF extension faculty led 43 workshops, gave 197 outreach presentations, and produced 37 outreach publications this year. These numbers likely under represent the level of activity by county-based faculty.

The following are some examples of the accomplishments and initiatives over the past year.

***i. FNR Program***

- In 2008–2009, three Tree Schools were held, in Oregon City, Ashland, and Roseburg. A total of 111 classes attracted 867 participants this year. A variety of partners help to make these programs successful, including the Oregon Forest Resources Institute, Oregon Small Woodlands Association, Jackson/Josephine Small Woodlands Association, Clackamas County Farm Forestry Association, Forests Forever, Inc., Clackamas Community College, Umpqua Community College, and Southern Oregon University.
- The Master Woodland Manager (MWM) Program was recognized in 2008 as the most outstanding forestry extension program in the US by the National Woodland Owners Association and the National Association of University Forest Resources Programs. Funded by the Oregon Forest Resources Institute (OFRI), MWM volunteers provided 2,500 hours assisting other woodland owners and reached 7,000 people. Other partners include the Oregon Department of Forestry, the Oregon Department of Fish and Wildlife, the Oregon Small Woodlands Association, and local watershed councils.
- “Pest Scene Investigators” (PSI) is a new outreach program that trains lay persons to identify common arboreal pests and aid landowners in determining treatment. PSI operates through the Master Woodland Manager program of the FNR Extension Program.

With a grant from OFRI, Extension Foresters designed the program and trained a total of 46 PSIs in Roseburg, Eugene, La Grande, and Baker City. Advanced trainings in Benton County and Clackamas County attracted another 30 volunteers. Other partners included the Oregon Department of Forestry, the USDA Forest Service, Starker Forests, and the University of Washington.

- The Ties to the Land Program was developed by the FNR Extension Program to assist forest owners in achieving a successful intergenerational transition of forestlands. Team members made three presentations at conferences in the US and Canada, and the team received three national awards. The curriculum has already been adopted for use in at least two states, with inquiries from Extension colleagues in five other states and Maritime Canada; 1,278 workbooks have been sold and shipped to 21 states. The American Forest Foundation has provided a \$510,000 grant to spread the Ties to the Land educational program nationally. Brad Withrow-Robinson led an effort to partner with the Austin Family Business Program at OSU.
- Forestry Instructional Media Center faculty worked with the OSU Austin Family Business Center and Bart Eleveld (Agricultural Resource Economics) to produce a facilitated, DVD-Based "workshop in a box" on succession planning for ranch and farm owners. This project, "A Family Legacy: Succession Planning for Ranch and Farm Owners," builds on "Ties to The Land" materials. Funding was from the USDA Risk Management Agency.
- With a grant from the Oregon Department of Forestry, the Oregon Master Naturalist Program started up in June, 2009 with the hiring of the program's first coordinator. The program is now developing a training curriculum and setting up partners to conduct the training. The first Oregon Master Naturalist volunteers should be at work by June 2010. Other partners include the Oregon Extension Service (Agricultural Sciences and Natural Resources, 4H Youth Development, and Sea Grant), Oregon Department of Fish and Wildlife, Oregon Department of Parks and Recreation, Portland Metro Regional Government Parks and Green Spaces Department, OFRI, World Forestry Center, Marion County Soil and Water Conservation District, Siskiyou Field Institute, Oregon Zoo, Clackamas Community College, Oregon Coast Aquarium, and the Oregon Environmental Education Association.
- Viviane Simon-Brown completed and published the *Living Sustainably* guide and the accompanying teacher guide. She also modified the existing 11-week Climate Master at Home curriculum for Benton and Linn county audiences and maintained and expanded the existing website to accommodate the Climate Master programming.

#### **ii. Oregon Wood Innovation Center (OWIC)**

- The Oregon Wood Innovation Center (OWIC) is an initiative of the Oregon Forest Research Lab and the Extension Service. It serves as the principal outreach program of the WSE department and seeks to improve the competitiveness of Oregon's wood-products industry by fostering innovation. In 2008-09, OWIC
  - completed a needs assessment of Oregon's wood products industry, which is being used to formulate a strategic plan in concert with an industry advisory board
  - expanded a web-based *Forest Industry Directory* focused on small-to-medium sized businesses that connects buyers and suppliers. Impact assessments demonstrated

up to 15% increases in business through the directory. It received over 2.5 million hits in 2008.

- conducted three workshops for over 130 industry participants
- together with WSE faculty, completed a number of technical assistance and market assessment projects for small Oregon businesses. Selected examples include the following.
  - A report done on the properties of second-growth hemlock allowed an Oregon company to successfully compete against foreign competitors for \$200,000 per month of new business. This success was highlighted for the Oregon Legislature by the Statewide Public Service agencies.
  - Results of mechanical tests of black cottonwood enabled the sponsor company to obtain a tenfold increase in sales of the species.
  - Seismic testing of an innovative wine rack system enabled an Oregon company to market a new product line in Southern California. This work generated considerable regional and national press.
- David Smith represented CoF on a campus committee sponsored by Sun Grant to develop a series of workshops around the theme “Biofuels, Bioenergy, and Bioproducts—What is Oregon’s Niche?” The first of these, “Liquid Transportation Fuels”, was held on June 29.

### ***iii. Other College /FRL outreach activities***

- John Bailey leads the College’s delivery of the USDA Forest Service’s National Advanced Silviculture Program module on Inventory/Monitoring and Decision Support.
- Mark Harmon designed and implemented a 3-day short course on the management of forest carbon with Olga Krankina and Badege Bishaw.
- Glenn Howe organized a workshop, “Managing Climate Change Risk in Forests: How Can We Use Silviculture and Genetics to Minimize Potential Problems?”
- CoF hosted the 7<sup>th</sup> Biennial Conference on University Education in Natural Resources. The conference brought 200 university educators from the US, Canada, and the world to Corvallis.
- FERM faculty provided leadership for the Council on Forest Engineering. Jeff Wimer organized the 2008 Western Region COFE meeting in Eugene in partnership with the Associated Oregon Logger annual meeting, with nearly 200 attendees.

### ***iv. Engagement and leadership***

Numerous faculty in every CoF department serve their professions, nationally and internationally, as editors of scientific journals, members of professional working committees, and officers of professional scientific societies. They also serve on many University committees and as advisors to student groups. Some selected examples, among many, follow:

- Barb Bond was part of a team organized by INR Director Gail Achterman that met with city planners and leaders in Portland to discuss climate change.

- Bev Law became a member of the Science/Technology Committee of the Oregon Global Warming Commission and provided advice on quantifying and verifying greenhouse gas emissions in a report to the Governor. She wrote and presented House testimony in Washington DC on the same topic.
- Mark Harmon wrote and presented testimony at a Congressional hearing on forest carbon management.
- Eric Hansen served on the Executive Committee of the Softwood Export Council.
- Loren Kellogg served as Principal Research Fellow, University of Melbourne, Australia.
- Robin Rose became the editor of *Tree Planter's Notes*, which has been published by the USDA Forest Service for several decades. The Forestry Communications Group assists Rose with technical editing. Their contribution is supported by funding from the USDA Forest Service.
- The Director of College Forests served on the Benton County Prairie Species Habitat Conservation Plan Strategic Advisory Council.
- FERM has a close working relationship with the Oregon Logging Conference. The department hosts a booth and an alumni lunch attended by 80 alums and friends. Jeff Wimer is a board member.

**v. K-12 student and teacher education efforts**

- The Oregon Wood Magic Program, with Jeff Morrell as program leader, had a stellar year of delivering educational programs about wood and related resource issues to 3<sup>rd</sup> and 4<sup>th</sup> grade students in Oregon. This program is supported by WSE, the World Forestry Center, and the Oregon Forest Resources Institute. Over the past year,
  - the campus program in Corvallis and the program at the World Forestry Center in Portland reached about 2000 students, teachers, and parents
  - the Wood Magic Traveling Show made 440 presentations to about 13,200 students, teachers, and parents at 172 public and private schools in AY09
  - WSE faculty and staff took portions of the Wood Magic Program to “Kids Day for Conservation” in Benton County and AgFest in Salem. Over 10,000 people passed the booth in those two programs.
- Highlights of 2008-2009 for the Oregon Natural Resources Education Program (ONRE) include the following:
  - Workshops attracted 1,439 K-12 educators from 15 counties in Oregon. These educators will reach 54,687 students each year.
  - The University Pre-service Faculty Consortium brings 13 faculty from 6 universities (OSU, WOU, SOU, EOU, PSU, and University of Portland) together twice a year to focus on the integration of natural resource materials into methods courses. This year, ONREP hosted a 1-day summit for Oregon and Washington university pre-service faculty.
  - The Teachers as Researchers project is a collaboration with the HJA LTER field site, Oregon Forest Resources Institute (OFRI), and the Oregon Department of Education

(ODE). Working with scientists at three premier field-based research sites, secondary school teachers participated in a series of 2-day workshops. They learned about current research, discussed with researchers how field research lines up with the science inquiry project required of their high school students, and explored opportunities for bringing authentic field-based science into the classroom.

- CoF Student Services staff conducted a number of “special sessions” at the request of K-12 classes visiting OSU—individually and as part of formal OSU programs.

**vi. CoF/FRL internal publications**

- Forestry Communications Group (FCG) initiated a new, peer-reviewed publication series, Contributions in Outreach and Education (CEO), with the publication of CEO 1, *An Illustrated Guide to Fire in Central Oregon Forests*. The CEO series is the fourth of the Forest Research Laboratory publication series, which also includes Research Contributions, Papers in Forest Policy, and Case Studies.
- A new “Carbon Series” has been added to the existing FCG set of Notable Notes (research briefs for K-12 classrooms). The six-part series introduces concepts of carbon cycling, including forest respiration, carbon-based life forms, and carbon storage in living plants and animals and in woody debris on the forest floor. To date, three are complete and available online.

**d. Community and diversity**

The College has worked hard on creating community over the past several years through its “building community” committee and departmental efforts. There has been a concerted effort within the new FERM and FES departments to establish new departmental communities of interest post college reorganization. The College Student Services group has been increasingly active in sponsoring community-building activities that include students. Enhancing tenured and tenure track faculty diversity has been a challenge without funds for replacement of departing faculty or new initiatives.

- Student Services staff sponsored a number of special events to foster student engagement and build community, including the Annual Ring orientation for new students, the Student Awards Banquet, the Commencement Breakfast, the Student Photo of the Week contest, a weekly Fernhopper Newsletter, several Free Coffee and Student Clubs days, and several community building Peavy Courtyard clean-ups.
- CoF supported Latino summer camps and provided funds and staff support for 4-H Program efforts with Latinos.
- The FES Department Head has completed “safe-space” training, and the department will host a training session next fall.
- John Bliss’ class, Communities and Natural Resources, attracted students from Human Development and Family Sciences, Political Science, Wood Science and Engineering, Anthropology, Sociology, and other departments and included two students from Mexico. The class lived for 3 days on the Warm Springs Indian Reservation and had life-changing experiences interacting with residents. They also spent an afternoon learning from Gwen Trice, an African-American daughter of a logger in Wallowa County, about growing up Black in Eastern Oregon.

- The College Associate Dean for academic affairs, Ed Jensen, is an OSU Diversity Mentor.
- The FES Department received a Graduate School Laurel's block grant that will provide fellowships to Forest Resources graduate students based on diversity and merit.
- The departments host a variety of monthly potlucks, coffees, welcome picnics for new students, and a spring awards picnic.
- The majority of WSE faculty and graduate students, and others from the CoF volunteer their time to support delivery of Wood Magic programs—making them a community-building activity, as well as a core outreach education program.
- One third of WSE graduate students and 20% of WST undergraduates are women. WST hosts quarterly lunch meetings of all WSE women to support them and their professional development.
- In FES, more than 50% of graduate students and 67% of professional faculty are women. Women make up 27% of the professorial faculty.
- Over the past 5 years, the enrollment of women, minorities, and nonresident international students has grown in all of FERM's undergraduate programs. The proportion of these underrepresented groups in total enrollment was 32% last year.

**e. International-level activities and accomplishments**

CoF faculty take pride in the international leadership they provide for forestry and natural resources education, science, and management issues around the world, and in the networks of colleagues they engage. One result is a rich set of experiences that faculty bring into the classroom for the benefit of students; another is attraction for students to come to OSU for education. Some examples of that engagement follow:

- CoF faculty have been active internationally, with little to no financial support from state funds beyond their salaries.
  - Eight FES faculty visited 12 countries to do research, study or deliver papers; FES faculty are involved in four international research projects; and two FES members received Fulbright or other international awards.
  - Three FERM faculty visited 12 countries to do research, study, or deliver papers. FERM faculty are involved in two international research projects, and two FERM members received Fulbright or other international awards.
  - Twelve WSE faculty visited 15 countries to do research, study, or deliver papers, and most are very engaged with a myriad of international activities.
- The CoF continues to have a strong international flavor in its student body and visiting scientists and trainees.
  - WSE was home to 18 international graduate students and 1 undergraduate student from 8 countries. WSE also hosted at least 16 international scholars and trainees from 11 countries.
  - FES hosted 19 visiting or permanent international scholars, 14 international graduate students, and 3 international undergraduates, coming from 13 countries.

- FERM had 11 visiting or permanent international scholars, 5 international graduate students, and 1 international undergraduate, coming from 16 countries.
- The CoF received notification that it was accepted as a Peace Corps Masters International (PCMI) Program, the only such program in Oregon. The program will be accepting new students during the fall of 2009, with David Zahler, himself a returned Peace Corps volunteer, as coordinator.
- The CoF is active in the United States–Mexico Training, Internships, Exchanges, and Scholarships (TIES) Project, funded by USAID through Higher Education for Development. The University of Guadalajara is the primary cooperater and the focus is on increasing capacity of Mexican institutions to provide M.S. degrees in sustainable forestry, wood products processing, and forest products marketing and to teach new skills in forestry and wood production to local forest-dependent communities. Since 2007, eight workshops have been taught in Mexico, involving over 250 people from rural indigenous communities.
- Specific international faculty activities include the following examples:
  - Barbara Lachenbruch served as a member of a 3-person team for the first Society for Wood Science and Technology accreditation review of an international undergraduate program at the Universidad de Bio-Bio, Concepcion, Chile.
  - Jeff McDonnell has undertaken a project on ecohydrological coupling in upland humid watersheds, sponsored by the International Atomic Energy Agency in Austria.
  - Darius Adams is a member of the International Science Advisory Board, Finnish Forest Research Institute.
  - Kevin Boston serves as a faculty advisor to Engineers without Borders, which provides design experiences and opportunities for working in the developing world.
  - Loren Kellogg instructed five workshops while on sabbatical in Australia. He also served on the Commonwealth Research Center Forestry Research Program Review Committee in Tasmania.
  - Robin Rose was a Visiting Scientist at the Jane Goodall Institute, Shanghai, China.
  - Jeff McDonnell was a Visiting Professor at the Nanjing Hydraulic Research Institute, China and is a member of the UNESCO PUB-HELP-FRIEND Technical Working Group.
  - John Nairn was awarded a visiting professorship to teach a course on modeling of composites at École Polytechnic Fédérale de Lausanne in Lausanne, Switzerland.
  - Claire Montgomery served as an Official Opponent for the Doctorate, at the University of Copenhagen. She also instructed at a workshop in Concepcion, Chile, on Human, Physical, and Natural Capital Investment in Patagonia: A Predictive Approach under the Sustainability Criterion.
  - John Sessions serves as Senior Advisor to the International Selection Committee for the Wallenberg Prize, the Nobel equivalent for forestry.
  - Jo Albers is developing two new projects in Tanzania that target the intersection of policies concerning rural poverty, forest management, and biodiversity protection in developing countries.



- Matt Betts is continuing work to assess effects of forest fragmentation on tropical hummingbirds.
- Badege Bishaw is working to finalize a cooperative education program with Wondo-Genet University in Ethiopia. The current effort is to develop a Ph.D. training program in Natural Resources Management and Climate Change. Partner institutions are Oregon State University (USA), Wondo Genet College of Forestry and Natural Resources Addis Ababa University, and Hawassa University (Ethiopia), Swedish University of Agricultural Sciences (Sweden), Wageningen University (Netherlands), University of Helsinki (Finland), and Bangor University (UK)
- Two Forestry Computing Resources staff spent two weeks assisting computing staff at Wondo Genet with installation of equipment and software, and with staff training.
- Barb Bond led a workshop in Argentina to try to stimulate development of an “LTER-like” program in the northern Patagonia area;
- Olga Krankina organized workshops in Russia and Germany, and gave a keynote presentation at the Conference of the International Boreal Forest Research Association in Harbin, China.
- Bev Law and her student, Fabio Goncalves, a Fulbright Fellow from Brazil, are conducting research in Brazil on remote sensing of forest biomass. She is a panel member of the Food and Agriculture Organization/World Meteorology Organization Global Terrestrial Observing System–Terrestrial Carbon Observations (GTOS\_TCO).
- Kreg Lindberg is co-PI on a successful grant proposal “Sustainable Tourism in Norwegian National Parks,” funded by the Norwegian Research Council.
- Klaus Puettmann led development of a course at the University of Freiburg as part of the International Masters of Science in Forest Ecosystem Management and began as subject editor (silviculture) for the European Journal of Forest Research.
- Jeff Miller and other HJ Andrews scientists collaborated with professional scientists, professors, and students in Taiwan. These activities are designed to establish a field-sampling protocol for global projects on biodiversity.
- Barbara Bond led a workshop in Bariloche, Argentina on long-term ecological research for northern Patagonia. It was supported by NSF’s Office of International Science and Education.
- Don Lee, visiting scientist from Seoul National University and a world-renowned forest scientist, is spending a year-long sabbatical in the CoF. He is the President of the International Union of Forest Research Organizations, one of the largest international forestry associations in the world. Dr. Lee will also host the 2010 IUFRO World Forestry Congress in Seoul.
- Kaichang Li was appointed an adjunct faculty member at South China University of Technology and is assisting them to develop a renewable materials science program.

#### **f. Other appropriate initiatives**

- The CoF, in cooperation with the BLM, initiated a “Diversity in Forestry” program to recruit, retain, and eventually employ diversity students. The program, launched with a \$25,000 contract from BLM, is an expanded version of the Latinos in Forestry program that was initiated in 2003 with support by Weyerhaeuser Company to foster a more diverse workforce. This effort will utilize OSU EOP and CAMP program staff for recruiting and mentoring students to leverage the forestry and NR support from the CoF. Jim Kiser has been recognized for the leadership and commitment he provided for the Latinos in Forestry program and in setting the stage for this next phase.
- Randy Rosenberger is leading the effort to develop a partnership with Oregon Parks and Recreation Department (OPRD). We now have a formal relationship between the College (RRM faculty) and OPRD. A joint organizing committee has established internship opportunities for OSU students and is exploring opportunities for minority recruitment and for research collaboration.
- Bruce Shindler is leading an 18-member team of the nation's top social scientists in an assessment of current research for the Joint Fire Science Program.
- A team of faculty from FERM and WSE prepared a proposal for the Oregon Innovation Council on innovation and competitiveness throughout the value supply chain in the forest sector. The proposal was broadly endorsed by the forestry community and the Council for \$2.6 million initially. The Governor included it in his budget proposal to the Legislature. Unfortunately, financial circumstances killed funding in this session. This was an outstanding faculty effort to build this initiative and it was widely supported.
- Fred Kamke’s Viscoelastic Thermal Compression (VTC) technology received a \$200,000 grant from the Oregon Built Environment and Sustainable Technologies Center (BEST) to build a pilot plant in 2010. Kamke is partnering with the Corvallis Tool Company and has made a proposal to the Oregon Way for federal stimulus funding. This proposal has been approved at state-level and is pending a final decision.
- Mike Milota has been representing the CoF on a campus group planning a biomass demonstration facility. The Legislature approved \$8 million to locate this facility next to the new Energy Center.
- College Forest staff have leveraged internal resources with external funding to enhance public education on the Forest, support the Corvallis community efforts to manage community ecosystems, and be a good neighbor within the community.
  - The College Forests received \$24,000 from the Oregon State Weed Board to treat invasive weed species, completed over \$800,000 of work on roads and drainage systems in support of the Oregon Plan for Salmon and Watersheds, and completed a management plan to restore oak habitat that will serve as the basis for grant applications to implement the plan.
  - In partnership with the Luckiamute Watershed Council, the College Forests received an Oregon Watershed Enhancement Board grant to remove one fish passage barrier culvert and replace another.
  - The US Fish and Wildlife Service fully funded removal of invading Douglas-fir trees to restore an important prairie habitat in the College Forests.

- A grant from the Oregon Forest Resources Institute enabled design and construction of kiosks on the College Forests to help recreationists understand forest and forest management activities.
- A strong recreation volunteer program leveraged staff and operating budgets and facilitated strong relationships between the College Forests and Oregon Equestrian Trails, Corvallis Trail Runners, City of Corvallis Youth Volunteer Corps, Leadership Corvallis, and many individuals.

## **2. Brief assessment of unit's efforts in areas in (1): what worked; areas that need improvement; major barriers**

This was a year of contrasts for the College of Forestry. Our faculty, staff, students, and programs enjoyed some wonderful successes. This report has summarized highlights of those accomplishments across our instruction, research, and outreach mission areas. We also made good progress in implementing the reorganization of departments.

It was also a frustrating year for the College community as we struggled with the impact of the recession and its impacts on funding and our ability to respond to it. The College community is resigned that the current path of declining budgets will lead to fewer T/TT faculty and a smaller college without intervention from the university. The College was proactive about positioning itself for the future by completing a new strategic visioning exercise, but it is challenged to craft an implementation plan without more clarity on financial resources. The current path of reducing costs by attrition is not strategic, and the lack of availability of tools to be more strategic is stressful. CoF cannot meet its projected budget reductions without either obtaining over \$2 million in annual recurring revenues while reversing revenue losses from timber harvests or strategically eliminating up to 15 T/TT positions within 3-4 years.

### **a. On College reorganization**

The newly formed FERM and FES Departments recruited new leadership, worked to establish new communities of interest, and fine-tuned new administrative processes and structures. Dr. Brenda McComb arrived in April to lead the FES programs, and Dr. Thomas Maness will arrive in October to lead the FERM Department. These two national searches worked out well and bode well for the future of the departments. The FES Department has worked diligently to build community among the ecosystem and social scientists. Some challenges remain in developing effective processes for administering the Forest Science and Forest Resources graduate programs and for co-managing the Forest Management undergraduate degree program across departmental boundaries. The College must resolve inequities for students in the FR and FS graduate degrees and difficulties in delivering FM from two departments; major tasks for the coming year.

### **b. On student engagement and success**

College UG enrollment continued to grow, in part due to strength in traditional majors, but also due to an emerging new Forest Operations Management degree program and blossoming distance delivery of the Natural Resources degree. Our recruiting efforts have been successful in making Oregon high schools aware of the educational opportunities offered within the College. The availability of the distance NR degree, and the high-quality advising we provide to distance students is helping attract a new group of students to the College. We need to increase the focus on attracting students to the RRM program, and faculty are committed to that effort. The WST

program enrollment is temporarily hampered by the perception that the wood products recessions will have a long-term effect on career opportunities. We believe that is an incorrect view of future opportunities. The economy did affect employment for our students and graduates. This was true for both seasonal internships and for permanent employment.

The downside of increasing enrollment, especially for on-campus courses, is the demand for additional sections of courses at a time when we are attempting to reduce costs of fixed term instructors and asking T/TT faculty to teach more courses. Analyses indicate that the College cannot afford to teach the number of courses currently offered; at least not in the manner they are currently delivered.

#### **c. On research**

College faculty were engaged in research that is recognized by science peers valued by land grant stakeholders and has commercial application. Several faculty received awards for their science and innovation leadership; others were called upon by policymakers to share their expertise. We were generally successful in competing for funding in a mixed recessionary and stimulus environment. The WSE Department had a record-setting year in grants. We foresee challenges in maintaining our funding success as the number of T/TT faculty in the College declines through retirement and attrition and we ask research-oriented faculty to do more teaching. We will also have fewer faculty to advise and support graduate students.

The College's 10 research cooperatives continue to lead the way in working with collaborators in industry and government to apply research results to solve problems and adapt results to meet stakeholder needs. All cooperatives received sufficient funding from cooperators to maintain science and outreach programs, despite very difficult business conditions for many members. This is a testament to the value cooperators perceive from the research they help fund.

On the federal level, Tom McLain and Steve Tesch provided leadership to secure funding for the Wood Utilization Research program special grant from the USDA. The earmark survived this past year, but funding for OSU continues to decline. The HJA worked to implement the next phase of the LTER program after receiving funding another 6 years in 2008. The group of scientists affiliated with the HJA programs was very successful in connecting undergraduates from OSU and other campuses to this research.

WSE faculty received funding to expand their initiative in wood composites and have been successful in efforts to commercialize their work. FERM faculty made progress in scoping a new initiative in forest transportation. The initiative was part of a comprehensive proposal to the Oregon Innovation Council that received support from the Governor going into the Legislative session.

#### **d. On outreach and engagement**

The College's outreach and engagement efforts reached far and wide over the past year in connecting with K-12 students and teachers, environmental writers, family business planners, government officials and policy makers, and new professional audiences. Our forestry Extension faculty provided a rich slate of programs for woodland owner and community audiences through Tree Schools, Master Woodland Manager and Naturalist programs, and "Pest Scene Investigators," in addition to leadership in connecting with the College of Business as a partner in the now national "Ties to the Land" program. The WSE Department's Wood Magic program educated another 15,000 young students about the uses of wood in their lives, and ONREP reached more than 1400 of their K-12 teachers. The Oregon Wood Innovation Center has gained greater visibility

among wood related businesses and entrepreneurs over the past year, and some of its value was highlighted to the Legislature in Statewide testimony.

Attendance at fee-based short courses was sharply down as a result of the recession, and sponsorship for outreach events by organizations such as the Oregon Forest Resources Institute declined due to reductions in their budgets. We hope this is temporary. Faculty engagement in events of others depended on funding by sources other than E&G, but in reality this is not much different from other years for College faculty.

**e. On community and diversity**

The College community came together for a variety of community building events and causes this year. Once again, a group of staff provided inspiring energy to rally the College around the Linn Benton Food Share fundraiser event, securing Top Banana for the ninth straight year. Our Student Services office staff was very creative in hosting events that engaged students and built their connection to the College. They also did a superb job in bringing the College faculty, staff, and students together for Annual Ring to welcome new students, the College Awards night that recognized students for achievements, and the Commencement brunch.

The College diversified our leadership team with the hiring of Brenda McComb to head the FES Department. No further progress was made in professorial faculty diversity, as there were no new hires. We are sharpening our focus on minority recruiting with a new partnership with OSU EOP and CAMP that expands on our Latinos in Forestry Program, which has languished recently. The BLM will partner with us in this effort for next year and we have a goal to explore additional agency and private partners.

It is increasingly apparent that the College is a rich melting pot of backgrounds and interests with respect to natural resources issues. There is still much to do in bringing the College community together to value that diversity.

**f. On international activities**

Many College faculty remained committed to research, education, and outreach activities around the world, in many cases providing key leadership. The College and its faculty remain widely respected and valued in many disciplines globally. Virtually all support for faculty activities is entrepreneurial, as our funding for international programs has been reduced to a minimal level that enables us to be a reasonable host for international visitors. The College remains a popular destination for visiting faculty on sabbaticals and for foreign graduate students. This year we were accepted as a Peace Corps Masters International (PCMI) Program that will support the graduate education of returning Volunteers, and assuredly will enrich the College community with their experiences. A FES Department faculty member is collaborating with faculty at the University of Freiburg as part of the International Masters of Science in Forest Ecosystem Management. WSE faculty have organized a study abroad trip to Scandinavia for this fall. Our Extension forestry faculty have been taking woodland owners on such trips for many years, but this is the first in many years devoted to students.

**g. On development**

The College enjoyed another excellent year of private support for our programs despite the effects of the recession on some prospective major gifts. Total gifts for the year exceeded \$7 million. The Dean's Capital Campaign Board of Visitors is developing into a strong advisory and ambassadorial group for future gifts. Forestry is nearing its initial campaign goal, \$31.5 million, and there is now an initiative to seek a major naming gift at the \$50 million level. The Giustina and Knudsen Professorships were sufficiently funded in the past year to begin a faculty selection process. As of

July 1, Professor Doug Maguire was selected as the initial Giustina Professor of Forest Management. The Knudson Professorship recipient will be selected shortly and will be focused on excellence in undergraduate teaching.

The recession has had a significant impact on our students. As a result of the drop in Foundation account values, the College elected to reduce scholarship and fellowship awards for next year by 25 percent. We may face challenges with accounts that support endowed faculty positions if the recession persists.

#### **h. On budget**

Our biggest challenge remains the College/FRL budget. The College of Forestry and FRL have been working for several years, even before the current economic recession, to resolve a looming \$4 million imbalance between revenues and expenditures. We had closed half the gap by last year with a combination of expenditure reductions and appropriation and harvest tax increases. This year, with declines in timber harvest in the state and little ability to offer timber sales on our College Forests, we are experiencing an additional \$2.5 million loss in revenues until timber markets rebound. We had to reduce the staffing of our forests by five positions to reduce costs. Nevertheless, our initial \$4 million plus challenge has come back.

The legislative session has ended, and the outcome was perhaps better than it could have been. There is much uncertainty, however, about future state revenues and potential voter recall of tax increases. The reductions to the FRL and Harvest tax receipts have forced us to reduce investments in initiatives that support forest watersheds, intensive forestry, forest health, and climate change. Reductions will also affect the Forestry Extension program funds coming to the College via the Extension Service.

At present, the College appears to have reserves to last through the biennium. Projections for a recovery in timber harvests that would benefit Harvest Tax receipts or our ability to conduct economically viable timber sales on our forests are uncertain in timing. This scenario was widely discussed throughout the legislative session.

The College is discussing cost management measures and investments for the future that move us towards a balanced budget. There is much risk for serious damage to the nation's foremost forestry academic program. The lack of tools available from OUS and OSU to enable a strategic process is frustrating. The university's proposed responses to reduced budgets may help refocus OSU for the future, but in the short term the uncertainty is really tough on morale. With current financial forecasts suggesting a smaller College faculty in the future, new initiatives will depend on external resources.

### **3. Brief summary of major faculty and student awards**

<b>Faculty</b>	<b>Award</b>
John Bliss	Honorary Professor, University of Queensland, Australia
Charles Brunner	Aufderheide Teaching Award
Liz Etherington	2008 OSU Exemplary Employee Award
Lisa Ganio	Dean's Award for Outstanding Achievement in Advising and Mentoring

Eric Hansen	Dean's Award for Outstanding Achievement in International Affairs
Jim Kiser	Mentor of OSU
Chal Landgren	Dean's Award for Outstanding Achievement in Extended and Continuing Education
Scott Leavengood and co-authors	Silver Award for Excellence in Journal Publications, Southern Region Extension Forestry Program
Kaichang Li	Runner-up, 2008 Wall Street Journal Technology Innovation Award
	Entrepreneurs and Innovators Award, OSU Austin Entrepreneurship Program
Doug Maguire	Xi Sigma Pi Mentor Award. College of Forestry
Master Woodland Manager Team (Rick Fletcher and Nicole Strong, leaders)	2008 Family Forests Education Award, Society of American Foresters
Tom McLain	2009 Distinguished Service Award, Society of Wood Science and Technology.
Jeff McDonnell	University Distinguished Professor
	Dalton Medal, European Geophysical Union
	Honorary DSc, University of Canterbury, New Zealand
Lori Elkins, Jeffrey J. Morrell, and Robert J. Leichti	Second Place, George Marra Award for Excellence in Writing, International Society of Wood Science and Technology
John Nairn	Visiting professorship, École Polytechnic Fédérale de Lausanne, Switzerland
Bill Ripple	2009 Annual Science Award, Defenders of Wildlife
Randy Rosenberger	Dean's Award for Outstanding Achievement in Research and Scholarship
Steven Strauss	Fellow of the American Association for the Advancement of Science (AAAS), 2008
	2008 Forest Biotechnologist of the Year, Institute of Forest Biotechnology
Student Services staff (Kira Hughes, Sarah Johnson, Kama Luukinen)	Dean's Award for Outstanding Achievement in Service
Kim Stutzman	Dean's Award for Outstanding Achievement in Support
Hailemariam Temesgen	Mentor of OSU
	2009 Phi Kappa Phi OSU Emerging Scholar
Ken Vance-Borland	Dean's Award for Outstanding Achievement as a Faculty Research Assistant
Brad Withrow-Robinson	Dean's Award for Outstanding Achievement in Extended and Continuing Education

## Students

WSE 458 (Design of Wood Structures) students, Rakesh Gupta, professor	Second prize, National Timber Bridge Competition
Michael Conroy	Pack Essay Award
Laura Cummings	Paul and Neva Dunn Outstanding Senior
Dan Donato	Most Outstanding Graduate Research, Ecological Society of America
Talia Filipek	Harold Bowerman Leadership Award
Kathleen Guillozet	OUS international fellowship for study in Ethiopia
Tara Hudiburg	Graduate Research Environmental Fellowship, US Department of Energy Global Change Education Program
Guenter Modzel	Second Place, 2009 Society of Wood Science & Technology Student Poster Competition
Claire Philips	Sulzman Award for the best student oral presentation, American Geophysical Union
Keri Sadler	Harold Bowerman Leadership award
Michael Shew	Robert Dougherty Scholarship, Composite Panel Association, AY2008-2009
Arijit Sinha	Wood-based Composite Center Fellowship First Place, 2009 Society of Wood Science & Technology Student Poster Competition
Jeff Vaughn	Robert Dougherty Scholarship, Composite Panel Association, AY2009-2010

## RESULTS AND OUTCOMES

1. Performance on college-level metrics  
See attached tables.

2. Initiatives to leverage E&G and other base resources and to improve administrative efficiencies

- Reorganization of College departments from four to three was implemented, with commensurate reductions in number of department heads and office managers.
- College research cooperatives collectively yielded over \$ 2 million in coop support and grants for about a \$650K investment of faculty FTE to provide leadership. WSE is exploring a new cooperative for FY 10 that has potential to generate significant grants funding.
- The collaboration between OSU, the USDA Pacific Northwest Research Station, and the Willamette National Forest leverages OSU faculty FTE against large in-kind support of research facilities and infrastructure and access to a scientist network that is experienced and successful in competitive grant funding. The LTER6 proposal to NSF for the HJ Andrews program was funded, thanks to the efforts led by Barb Bond. The group is also leading



preparation of a complementary ULTRA proposal to NSF to establish urban long-term research.

- The Wood Utilization Research Special Research Grant, in which OSU is one of 13 national partners, has leveraged the federal investment by an average of 2.5-fold with nonfederal sources of funds. The national consortium has launched an effort to convert this program from a Congressional earmark to a line in the Administration's budget, with a nearly 3-fold funding level request.
- The WSE wood-based composites research initiative is progressing well and supported the high level of competitive grant success in 2008 (\$1.3M). OSU remains a senior partner in the national Wood-Based Composite Center based at Virginia Tech. This industry-supported national center is funding a PhD Fellow at OSU in 2009.
- John Sessions, Kevin Boston, and Marv Pyles launched a new initiative on forest transportation issues. With seed money from the Wood Utilization Research Center, they held two focus groups meetings with landowners, trucking contractors, wood product manufacturers, and associations industry and agency representatives to refine the research agenda. They have established an advisory committee to help leverage funding and guide research and outreach. Initial estimates indicate cost reductions of 7–12% are possible through improved forest road construction, road management, and fleet logistics. Forest products transportation within Oregon costs more than \$200 million annually. One outcome of the scoping effort is the establishment of a self-supporting research cooperative, with capacity to leverage dues and in-kind support with grant and appropriated funding.

Oregon State University  
Academic Program Review  
College of Forestry  
1999-00 through 2008-09

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-2008	2008-09	% Change '07 - '09
<b>Faculty FTE</b>											
Professional	86.7	83.1	86.8	79.5	78.1	80.1	78	63.9	58.5	62.7	-1.9%
Non-Professional	106.8	107.1	119.3	109.8	112.3	114.7	122.1	134.4	133.2	123.6	-8.0%
<b>Total Faculty FTE</b>	193.5	190.2	206.1	189.3	190.4	194.8	200.1	198.3	191.7	186.3	-6.1%
<b>E&amp;G Tenured/Tenured-Track Faculty Headcount</b>									5.4	8.0	-
Professional	93	88	94	86	84	86	81	69	65	67	-2.9%
Non-Professional	112	113	116	117	120	122	130	144	140	130	-9.7%
<b>Total Faculty Headcount</b>	205	201	210	203	204	208	211	213	205	197	-7.5%
<b>E&amp;G Tenured/Tenured-Track Resources (Fiscal Year)</b>									7	8	-
<b>E&amp;G - Initial Budget (\$)</b>	2,097,017	2,182,101	2,204,568	2,351,353	2,263,151	2,575,008	2,764,595	2,834,320	3,209,935	3,251,980	14.7%
<b>Annual Private Giving (\$)</b>	-	-	-	-	-	-	-	-	-	4,163,291	-
<b>*Awards from Grants and Contracts (#)</b>	152	153	140	149	168	161	157	138	125	118	-14.5%
<b>*Awards from Grants and Contracts (\$)</b>	10,623,272	11,751,300	10,136,827	8,101,750	14,074,018	11,566,572	12,814,264	9,488,854	10,830,135	12,170,834	28.3%
<b>Total R&amp;D Expenditures (\$)</b>	-	-	-	-	-	-	-	-	20,577,008	-	-

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-2008	2008-09	% Change '07 - '09
<b>SCH by Course Level (Academic Year)</b>											
Undergraduate	9,177	8,438	8,187	8,090	7,406	7,673	8,379	7,977	8,550	9,180	15.1%
Lower Division	2,945	2,213	2,278	2,086	2,134	2,294	2,440	2,054	2,270	2,284	11.2%
Upper Division	6,232	6,225	5,909	6,004	5,272	5,379	5,939	5,923	6,280	6,896	16.4%
Graduate	4,832	4,970	4,959	4,894	4,981	4,866	5,282	4,911	5,336	4,551	-7.3%
First Professional	-	-	-	-	-	-	-	-	-	-	-
Other	60	0	0	0	0	0	0	0	0	0	-
<b>Total SCH</b>	14,069	13,408	13,146	12,984	12,387	12,539	13,661	12,888	13,886	13,731	6.5%
<b>Enrollment by Major (Fall Term)</b>											
Undergraduate	396	382	353	350	362	387	453	458	586	652	42.4%
Graduate	146	154	140	136	146	157	167	149	153	150	0.7%
First Professional	-	-	-	-	-	-	-	-	-	-	-
<b>Total Enrollment</b>	542	536	493	486	508	544	620	607	739	802	32.1%
<b>Degrees (Academic Year)</b>											
Bachelor	88	85	77	86	82	61	79	106	124	132	24.5%
Master	26	28	34	36	29	33	33	28	30	28	0.0%
Doctorate	9	14	14	15	17	14	10	15	11	22	46.7%
First Professional	-	-	-	-	-	-	-	-	-	-	-
<b>Total Degrees</b>	123	127	125	137	128	108	122	149	165	182	22.1%

**Notes:**

1) Numbers in *Italics* are estimates.

2) For FY03-FY08, the number of awards is equivalent to the number of accounting transactions made under a college's award index, rather than the number of awards received by the college.

3) Tenured/tenured-track faculty headcount and FTE include faculty funded by E&G funds at 50% and greater.

4) In 2007, seventy-seven (77) students who were previously allocated to the Natural Resources degree in the CAS were reallocated to COF. This reallocation should be considered in the interpretation of enrollment, degrees awarded, retention, and SCH data.

\* For 2004-05, two USDA grants for the Center for Wood Utilization Research were eliminated based on the definition, which states that awards include only external competitive awards. The two awards deleted from the Forestry totals were basically provided to a number of universities on a formula basis. Data for other years may contain non-competitive grants/contracts and Federal formula funds.

Oregon State University  
Academic College Metrics

	A	B	C	D	E	F	G	H	I	J
1	College of Forestry									
2										
3										
4	Meirio #		Actuals (AY/FY)							College Targets
5			2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2012-13
6										
7										
8		<b>Goal 1: Provide Outstanding Academic Programs</b>								
9		2004-05 Theme: increase research and outreach								
10		increase diversity								
11										
12	1.1	Total R&D Expenditures	-	-	-	-	-	\$20,577,008	Jan-10	
13	1.2	Invention Disclosures*	2	5	2	2	4	3	0	
14	1.3	% of Faculty, Staff, and Students Comfortable with Climate for Diversity	N/A	68.3	N/A	N/A	N/A	N/A	N/A	N/A
15	1.4	% of U.S. Minority Students of Total College Enrollment	7.1	5.7	5.5	7.3	7.2	7.3	7.5	
16	1.x.1	External Funds Generated per State Dollar Invested in Statewide Public Services (FRL)	6.25	6.80	6.81	6.63	6.02			
17										
18		<b>Goal 2: Improve the Teaching and Learning Environment</b>								
19		2004-05 Theme: improve student success and retention								
20		increase diversity								
21										
22	2.1	First Year Retention Rate (% Within College / % Within University)	75.0 / 80.0	69.4 / 85.1	70.5 / 81.8	63.3 / 73.5	66.7 / 82.2	61.8 / 83.6	Jul-10	
23	2.2	6-Year Graduation Rate (% Within College / % Within University)	37.7 / 59.0	41.2 / 56.9	46.8 / 68.1	52.5 / 62.5	55.2 / 69.0	62.5 / 72.6	Jul-10	
24	2.3	Undergraduate Degrees Awarded	86	82	61	79	106	124	132	
25	2.4	Graduate Degrees Awarded	51	45	47	43	43	41	50	
26	2.5	% of Seniors Participating in Student Engagement Activities / Number of Respondents	N/A	75.0 / 8	93.3 / 15	N/A	80.7 / 62	N/A	N/A	
27	2.6	Student Primary Major to Faculty FTE Ratio / Student Course to Faculty FTE Ratio	14.1 / 10.2	13.0 / 9.0	14.3 / 9.3	21.1 / 12.9	20.5 / 11.7	27.7 / 15.7	22.0 / 13.0	
28										
29		<b>Goal 3: Increase Revenues</b>								
30										
31	3.1	Awards from Grants and Contracts (# / \$) * 2	49 / \$8,101,756	68 / \$14,074,011	1 / \$11,566,577	7 / \$12,814,218	8 / \$9,488,815	5 / \$10,830,113	1 / \$12,170,834	
32	3.2	Annual Private Giving	-	-	-	-	-	-	#####	
33										
34		* Invention Disclosure data for FY 2005 and 2006 is reported based on fiscal year, while data for 2002-03 and 2003-04 are based on calendar years. This change was made for '05 and '06 so that the numbers correspond to the data period requested by the annual Association of University Technology Managers (AUTM) survey, completed by the OSU Office of Technology Transfer.								
35		† For 2004-05, two USDA grants for the Center for Wood Utilization Research were eliminated based on the definition, which states awards include only external competitive awards. The two awards deleted from the Forestry totals were basically provided to a number of universities on a formula basis. Data for other years may contain non-competitive grants/contracts and Federal formula funds.								
36		‡ For FY03-FY08, the number of awards is equivalent to the number of accounting transactions made under a college's award index, rather than the number of awards received by the college.								
37		Notes: 1) For FY 2003, 2004, and 2005, all awards affiliated with both a campus department and the OSU Extension Service were reported under the affiliated campus department. Beginning FY 2006, these awards will be reported under the OSU Extension Service and not the campus department or college. College of Forestry award metrics include Forest Research Lab (FRL). 2) In 2007, Seventy-seven (77) students who were previously allocated to the NR degree within CAS were reallocated to COF. This reallocation should be considered in the interpretation of enrollment, degrees								
38										
39		*N/A* -- Not Applicable								
40		Numbers in Italics are estimates.								