A Strategic Vision for the College of Forestry

A World-Class Education, Research and Outreach Center
for Healthy Landscapes, Communities, and Businesses

Thomas Maness

The Big Picture

Earth's population recently passed 7 billion, all depending on the earth for their daily existence. We depend on the land for food, heat, water, oxygen, clothing, shelter and spiritual renewal. I believe that we in the College of Forestry are strategically positioned to make a difference in how people learn to live sustainably. I care very deeply about the land, and the people that live on the land. I believe that our culture is losing touch with the land that sustains us, the people that work the land, and the communities that support those people.

Our dependence on the land and rapidly increasing population make it ever more important that we care for it. Working and caring for the land creates what Aldo Leopold called "the oldest task in human history: to live on a piece of land without spoiling it." And that task is at the core of our purpose in the College of Forestry. We are stewards of the land and all that live on it.

To accomplish this task we have much to learn and much to do. We must improve our understanding of natural ecosystems, their response to a changing climate, fire, and the many other disturbances and influences that affect forest development and sustainability. We must promote water conservation, learn to control invasive species, prevent erosion and soil loss, and have even more efficient and less intrusive production methods. We need better methods for collaboration, learning and working together to prevent costly legal battles for which working people pay the ultimate price. We must develop new products from renewable materials, and obtain more energy from bio-products. Taking these and many more needed improvements into consideration, we must rebuild a globally competitive forest sector to put our rural communities back to work producing sustainable products for the future.

Water is an important key to terrestrial life, and the source of fresh water is most often a forest. Access to clean fresh water is becoming a critical issue related to natural resources management. Pollution, climate change, and population growth put enormous pressure on existing water supplies, and the depletion and spoiling of underground aquifers is proceeding unabated. Overreliance on developing countries to produce low cost commodities exacerbates this pressure. The OSU College of Forestry of the future will play a major role in developing a new understanding of the role of forests in the production and underground storage of clean, cold water to ensure survival.

Under my leadership the College of Forestry at Oregon State University will become an internationally respected institution devoted to improving the understanding of the connection between forest landscapes and society. We will broaden our reach to develop strong linkages with important forested countries along the Pacific Rim. We will strengthen our existing relationships with other units on campus, and build new linkages with the School of Public Health and the College of Business. Through proactive leadership and management we will become a more diverse and respectful community. We will be an international leader in building a new understanding of how the management of natural

ecosystems promotes healthy landscapes. Building on our existing strength, we will have the largest, most comprehensive, and best-known professional forestry education program in the world. Our research and education programs in renewable materials will lead in the innovation of globally recognized sustainable building products, and we will lead a new effort in building multi-story structures with sustainably produced advanced wood products. Our recreation and outdoor leadership programs will focus on the connection between recreation and healthy people. New program offerings in tourism will focus on healthy communities and businesses. We will promote respect for the land and the people that live and work on the land in all our efforts to accomplish the mission.

The ideas that follow present my vision for what needs to be done. The steps necessary to achieve the vision that I describe below will be implemented over the period of my deanship. Ultimately, however, achieving our goals depends on having a shared vision. Building that shared vision will be my first priority, for no vision can succeed without buy-in from both inside and outside of the College. Once we have a shared vision, my focus will turn to execution: we will align and focus our resources to achieve the shared vision.

The College of Forestry in the Future

The College of Forestry of the future will be a world-class education, research, and outreach center for healthy landscapes, communities, and businesses. Instead of duplicating what many other natural resources related programs do, we will concentrate our efforts on healthy forests, communities, and businesses at the landscape level. Our mission will be to develop the science, policies, and management techniques to protect important ecosystems, sustain communities, and put people to work producing sustainable products and services.

The figure on the next page shows the College of the future in the context of its four primary functions: ecosystems science, professional management, social science and global competitiveness. These functions aren't departments, or even collections of people. Rather, they are trans-disciplinary functions in which the College must excel in order to succeed in its mission. Everyone in the College will contribute to all four of these functions with differing levels of intensity. An important feature of the healthy landscapes, communities and businesses focus is that it pulls the College together.

The left side of the diagram shows the strength in ecosystem science in the College. This builds on the College's historic connection with a cluster of federal research laboratories such as the USGS Forest and Rangeland Ecosystem Science Center, HJ Andrews Experimental Forest, the USFS Forest Sciences Lab and Federal granting bodies such as the National Science Foundation. Ecosystem science is not the exclusive domain of any one department, but it is centered in the Department of Forest Ecosystems and Society. The FES graduate program inherits the strong legacy of the Forest Science graduate program and now also emphasizes the important connection between ecosystems and people. The ecosystems science function serves as the core of the College's biological sustainability mission. The function is mainly concerned with natural ecosystems, many of which are parts of working landscapes that produce a wide variety of ecosystem products and services like water, critical habitat, wood products, recreation and many others. The ecosystem science function collaborates closely with a number of units across the

Earth Systems Science Division at Oregon State University, including the College of Earth, Oceans and Atmospheric Science, and the departments of Fisheries and Wildlife, Botany, and Horticulture.

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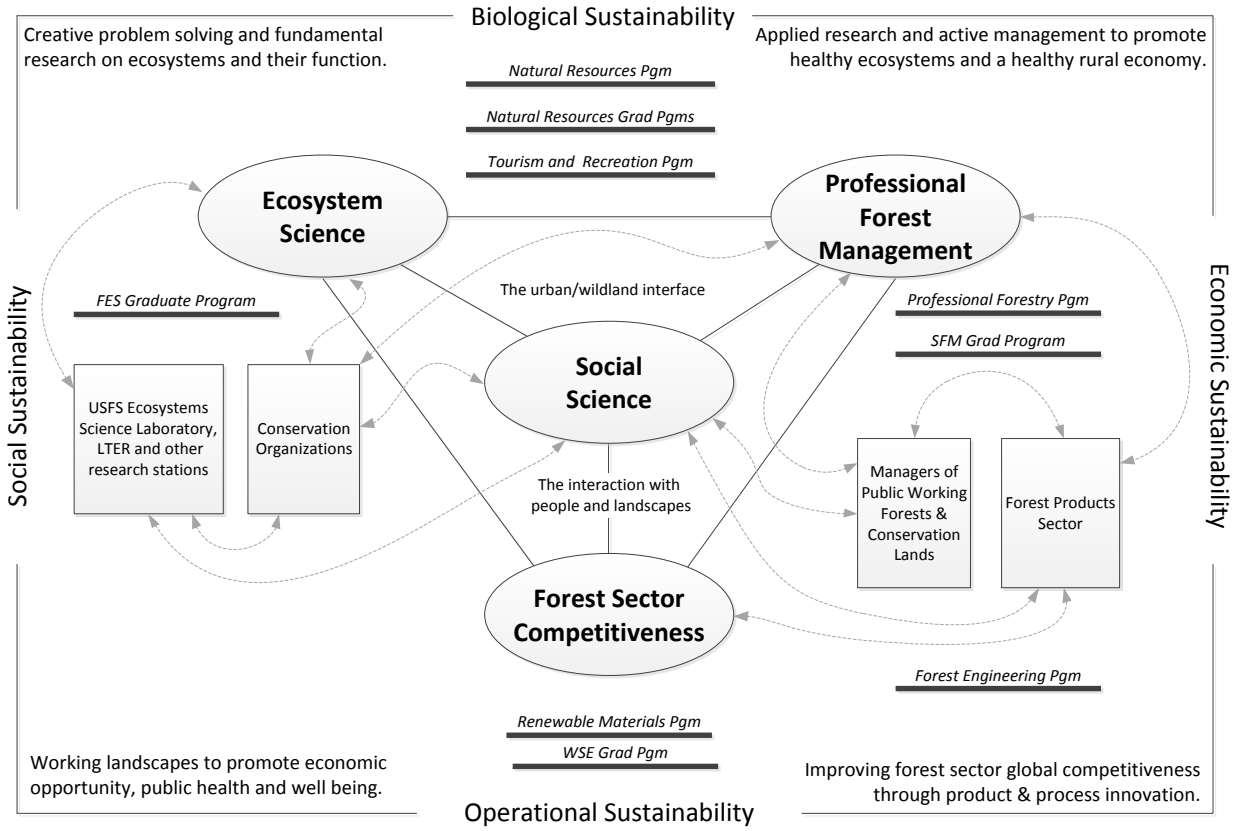

The College of Forestry of the future will focus its efforts on the landscape level, with a common mission that involves everyone in the college.

The right side of the diagram shows the strong history of professional forest stewardship through research, education and outreach and illustrates the core of the College's economic sustainability mission. It represents the professional know-how to put cost-effective management techniques into practice to achieve desired goals. In order to reach these goals there are important connections with departments of Agricultural and Resource Economics, Biological and Ecological Engineering, Civil and Mechanical Engineering, and the College of Business. While this function is the traditional strength of The Department of Forest Engineering and Resource Management, this is also a shared responsibility across the College.

One of the primary missions of the professional forestry function is to educate the next generation of land stewards, engineers, and scientists devoted to active land management and healthy businesses. The Professional Forestry and Forest Engineering programs focus on the active management of forests,

and build from a long history. The Natural Resource program focuses on resource management more broadly. These programs are now separate and distinct. Under my leadership these programs will be more closely linked to promote mutual respect and collaboration.

The center of the diagram represents the College's strength in social sciences which place humans in the landscape as drivers of change, inhabitants, stewards, and stakeholders. This component of the College focuses on understanding the coupling of human and natural systems, building more sustainable communities, exploring effective policy formulation, measuring the effectiveness of those policies over time and improving linkages between nature and healthy people. Recreation Management, Outdoor Leadership and Tourism are important education programs that can be fostered by this function of the College. I would lead the College to build closer connections with School of Public Health through focused research, and by co-developing certificate programs available for students in the forestry and health sciences fields. Other important connections within the University are the Schools of Applied Economics and Public Policy. As Dean, I will be working very closely with related schools and departments to create shared opportunities for success instead of duplicating efforts.

The lower portion of the diagram represents the College's strength in promoting forest sector competiveness. This is a vital function of the College that at present is in need of strengthening and aligning with the other functions of the College. A competitive forest sector provides the resources for developing and maintaining a healthy rural landscape. While typically considered the domain of the Department of Wood Science and Engineering, the competiveness function needs closer collaboration with the social science and forest management functions. Together these functions anchor the operational sustainability mission of the college, providing the innovation engine that develops new products, makes processes more efficient, and opens new markets.

Successful collaboration between all four of these core strengths is required for well thought out natural resource policies that put land management ideas into practice. We must be able to collaborate amongst ourselves if we are to develop the collaboration techniques required for the profession to manage ecosystems that meet human needs. I have already been very active in the College to promote good working relationships between these functions, and will make this a priority in the future.

An important aspect of economic and operational sustainability is a wider understanding of business cycles and the impact of downturns on communities. It is well known that the forest products sector is highly impacted by the business cycle. An important area of research is to develop ways to diversify community economies and space out the cycle of operational work to balance employment through the business cycle. One way to do this is to invest in a healthy-forest restoration fund during business cycle highs, and to use these funds on restoration or new product or process capital improvement operations during business cycle lows.

The College of Forestry must have a high degree of credibility and integrity to affect change. Therefore, we must tackle the most important problems of our time with open, inquisitive minds. As leader of the College, I will create an atmosphere that encourages our researchers to employ the best possible science in the pursuit of excellence, and the academic freedom to explore and publish their ideas in a

respectful team environment. I will also work closely with College stakeholders to communicate the importance of the College's credibility, and the role of peer-reviewed science in building greater understanding that results in effective and efficient natural resource policies and practices.

7 Points of the Strategic Plan

1. Top Tier Professional Forestry Program

Many universities that previously had forestry programs across the country have dropped or dramatically reduced their commitment to professional forestry education. Under my leadership we will strengthen our commitment to professional forestry education and research in applied forest management. There are several reasons for this:

- Oregon is home to some of the most valuable forests in the world. On the west side of the Cascade Mountains our forests are highly prized as unique natural ecosystems, and our production forests exhibit world class growth of high value native tree species.
- Nowhere else in the world combines high value wood and fast growth with native species. The forest industry of the Pacific Northwest is a $50 billion industry.
- Washington now has no university-level professionally-accredited forestry program. California has one small program with nine faculty members at Humboldt State and another offered by the Dept. of Natural Resources Management and Environmental Science at Cal Polytech.
- Expected retirements in private companies and public agencies will result in a large demand for newly-trained professional foresters while there are fewer schools to provide graduates.
- There is a strong need for increased science and rigor in professional land management. Our forest engineering and forest management programs are professionally accredited and widely known for their rigor. They will be strengthened with the new Pro-School we have developed.
- The forest engineering program is the only one of its kind in North America and has a very strong demand for graduates.

2. Diversify the College Community

Graduates of the College of Forestry will work in diverse communities and cultures around the world. A diverse College community increases our cultural and ethnic awareness and enriches the educational experience. Working in diverse teams fosters understanding and respect for individuals and dispels stereotypes. It increases our communication skills and allows us to work better with people from many different backgrounds.

The College must simultaneously increase recruitment of diverse faculty, staff and students. We must actively work to create a more welcoming environment for people from diverse backgrounds. Reliance solely on passive recruiting efforts will not be enough to achieve a diverse College.

In particular our College must recruit women and persons of color into key faculty positions. This will require significant effort and must be stressed in our daily activities. Forestry has traditionally dominated by white males, yet we have many young women in all of our degree programs. Young men and women in our education programs need strong role models and a variety of leadership styles to fully develop into professionals capable of working in our pluralistic society.

My goal as Dean will be to create a welcoming atmosphere in the College that encourages students, staff and faculty from diverse backgrounds to choose OSU because of that atmosphere. Diversification of the College community is a necessary part to achieving the strategic plan.

3. Double Enrollment in the College

To become financially viable the College of Forestry will need to build to an enrollment of over 2,000 students -- doubling our current student population -- without significantly increasing the funding required from education and general funds. This means that the College needs a new funding model that fully supports our educations programs. Many of these new students will be recruited from neighboring states; many will be international students that require special support. Increasing enrollment to this level will also mean the College will have to undertake a number of changes to improve its operational efficiency.

Strategic Changes Required to Achieve the Enrollment Goals

Student Recruiting

- Rebrand the College to reach a broader audience. Engage the College community and stakeholders in the rebranding effort.
- Strengthen our professional forestry and engineering programs, target them to employer needs, and market them as elite programs that lead to good careers.
- Focus recruiting efforts through a core set of in-state and national community college partners and international university level partners with articulation agreements.
- Improve marketing efforts to reach a wider audience through our website and social media networks.
- Offer a set of dedicated 500-level graduate classes that appeal to College of Forestry students and students from across campus.
- Develop a national and international cooperative education program to expand the employer base. Use the network of employers to recruit new students.

Targets for Future Enrollment:

Professional Forestry	
On-campus	350
Ecampus	150
Forest Engineering	120
Natural Resources	
On-campus	250
Ecampus	700
Renewable Materials	120
Recreation, Tourism and Leadership	120
Forest Ecosystems & Society (Grad)	100
Sustainable Forest Management	
MS & PhD	75
Professional MF	25
Wood Science & Engineering (Grad)	50
Masters in Natural Resources (Grad)	50
Total	2,110

Attracting Students from Across Campus

- Associated with the rebranding, broaden our program offerings to attract students interested in landscape architecture, conservation, environmental engineering, ecotourism, public health, interior design, and building construction. Engage College community and stakeholders to design new offerings including certificate programs and minors that attract high quality students.
- Increase the number of Ecampus courses offered and use dedicated instructors and faculty advisors to manage the workload.

College Budgeting and Workload

- Be accountable to funding partners on how their funds are spent and what is accomplished.
- Increase the number of undergraduate international and out-of-state students through formal 2+2 year programs, strong educational partners, and targeted recruiting.
- Make teaching a shared responsibility for all faculty members.
- Make all new teaching/research faculty appointments at 0.75 FTE (or 9 months), with maximum of 0.5 FTE appointments for any outstanding research faculty that don't teach.
- Use dedicated instructors for classes and labs that are creatively funded from sources like Ecampus revenues and instruction endowments.
- Use large lecture classes with labs coordinated by dedicated instructors and graduate TAs.

4. Broaden the Secure Funding Base

Private giving has been an important source of funding for the college. To support our goals of becoming a world-class center of excellence for healthy landscapes, the College must broaden this secure funding base to include private foundations that actively support conservation science. Private foundations will also support research chairs, professorships, and fellowships.

Keys to success:

- Involve key individuals from foundations in College advisory boards and steering committees.
- Increase faculty service on foundation and conservation organization boards.
- Contribute to foundations and conservation organization resource management by translating research findings into accessible briefing papers and reports.
- Demonstrate how the College's research findings help to achieve conservation goals.
- Capitalize on heavy recreation use in the southern MacDonald-Dunn forest to demonstrate to citizens how research findings are incorporated in evolving approaches to managing forests on the urban fringe.
- Acquire additional forest land for research, education and demonstration.

5. Strengthen our Forestry Research Lab

As Dean I propose to transform the Forestry Research Laboratory into an international center of excellence devoted to improving our understanding of the linkage between healthy forest landscapes, sustainable communities, and globally competitive businesses. The center will be focused on Pacific Northwest issues in the context of the Pacific Rim and would be named the *Pacific Forest Science Center*. The center will be comprised of four research institutes aligned with the four College functions. Somewhat similar to a research co-op, each institute would have a leader and advisory board. However, the institutes will differ from research co-ops in three

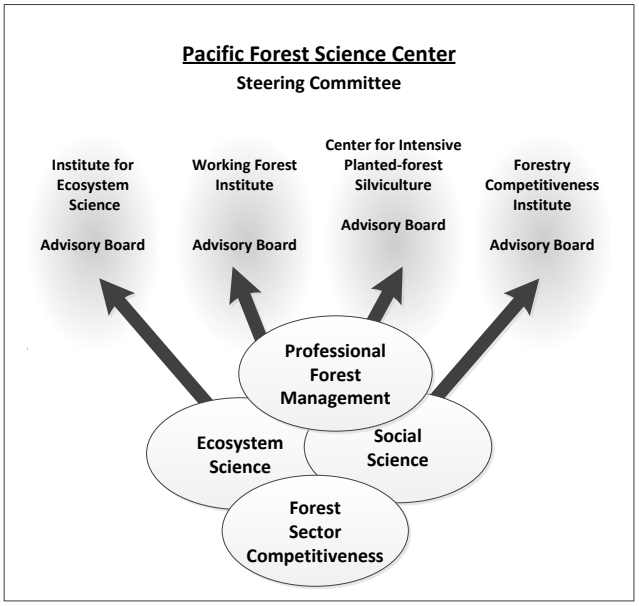

Diagram of the Pacific Forest Science Center. The institutes will have technical advisory boards and collaborate closely with one another. The activities PFSC will be guided by a steering committee.

important ways. First, the institutes will be international in reach and scope, attracting visiting scientists from around the world. Second the institutes will be organized as flexible trans-disciplinary research groups that have important connections to other groups inside and outside the College. Third, the institutes will be collectively guided by a steering committee that develops strategic research priorities and ensures goals are met. College Research Coops will be aligned with institutes.

The Institutes

- *Forestry Competitiveness Institute*. The FCI will focus on applied research in investment analysis, forest operations, new product development, supply chain management, manufacturing and marketing that helps make the Pacific Northwest forest sector more globally competitive. A principle objective of the FCI would be to conduct research into designing and using advanced wood products to produce multi-story buildings, making Oregon a showcase for the use of wood products in major structures. The institute will be funded by harvest tax research dollars, endowments, private research grants, and competitive grants.
- *Center for Intensive Planted-forest Silvilculture*. CIPS will be strengthened to provide fundamental and applied research in plantation silviculture along the Pacific Rim. Examples of research areas of primary importance to CIPS are forest soil nutrition, regeneration, plantation establishment, growth and yield, wood quality, and forest health. The center will be funded by harvest tax research dollars, private research grants, and competitive grants.
- *Working Forest Institute.* The focus of the WFI is healthy landscapes, communities and businesses. Its role is to integrate the research of the other institutes, and to holistically manage a 25,000 hectare long-term experimental working forest for a full range of ecosystem products and services. The working forest will be a mix of public and private ownerships under active management. Long term experiments on continuously managed lands will provide the science behind policies aimed at environmental protection, vibrant communities, and competitive business. The WFI will be an international hub for research and outreach related to active forest management, with visiting scientists in residence, ongoing student & faculty projects, and a teaching and demonstration area. University programs in neighboring states will be encouraged to participate in the research programs. The institute will be funded by public and private membership funds, state FRL support, harvest tax research dollars, private research grants, international foundation support, and competitive grants.
- *Institute for Ecosystem Science.* The IES will conduct fundamental and applied research on forests, streams and watersheds. The institute will be closely aligned with work at the Andrews Experimental Forest, the USDA Forest Sciences Lab and other federal, state and private labs. The IES will also work closely with the WFI experimental forest to conduct fundamental and applied research on working forests that leads to better and less costly methods to conserve ecosystems. The institute will be funded by state FRL support, harvest tax research dollars, private research grants, international foundation support, and competitive grants.

Returned overhead will be an important source of funds for the Pacific Forest Sciences Lab, and these funds will be used to support research infrastructure shared by the four institutes. As Dean I will work with all of our funding partners to ensure that fair and equitable overhead charges are returned to the College.

6. Internationalize the College, Particularly on the Pacific Rim

I believe that Oregon has much to learn from other regions or the world; we also have much to offer in return. Oregon has similar climate and forest conditions to a number of countries along the Pacific Rim such as Canada (British Columbia), Chile, Australia and New Zealand. We also have close business ties with Asian countries. Consequently we have more in common with the Pacific Rim than with other forested regions like Brazil, Uruguay and Northern Europe.

As Dean, I will place a strong emphasis on developing working partnerships with institutions that can measurably strengthen our college. I will create opportunities for student, faculty and staff exchanges with important Pacific Rim countries. I will emphasize raising funds for international research activities that strengthen our abilities to answer research questions vital to our region, and that make us more competitive.

To accomplish this task we, as a College must become more culturally aware. We must emphasize language education early in a student's academic career, and create meaningful opportunities for our students to learn abroad.

7. Strengthen the Public / Private Partnership

The Pacific Northwest is not a global low-cost producer. Maintaining a competitive forest sector will require continuous investment and research in a number of areas. Firms must carefully manage the value chain to get the highest value from the forest resource and produce superior products that are in high demand. New, more efficient operating methods along the entire value chain must be developed to reduce the cost of grade sawing larger logs. Forest plantation management and automated small log manufacturing must be refocused on value recovery instead of volume recovery. We will focus on producing higher value wood products that lead to new architectural designs and structures that promote the use of wood, helping to make Oregon a showcase for healthy, sustainable buildings. More efficient biomass collection and transportation will reduce energy costs and provide increased revenues along the supply chain.

Keys to Success

- Develop strong research and education programs that support industry competitiveness.
- Develop strong linkages with architecture, interior design and manufacturing engineering.
- Focus on excellent communications to keep partners informed of activities.
- Engage industry stakeholders in setting priorities and gauging success.
- Provide timely and accurate reporting of deliverables and expenditures to partners.
- Produce smart, technology-savvy graduates who will be research receptors in private firms.
- Make graduates into lifelong partners of Oregon State University through continuing education, research partnerships, and philanthropic giving.

Final Remarks

The seven-point plan outlined above is ambitious. It describes a College that will exist at the end of my Deanship – not the early period. It represents a vision for the College that addresses many issues that currently hold us back. However, my leadership style is just as important as my vision. That leadership style supports development of a shared vision—the key to our success as a College. We need a vision that excites our stakeholders and motivates our faculty, staff, and students.

My leadership is guided by strong principles. My strengths are that I listen and adapt, I bring people together instead of creating camps, and I stick with it until the task is accomplished. I build trust by making commitments and then keeping them. To succeed we need constancy of purpose instead of "flavors of the month." I have patience when patience in needed, and impatience when energy is needed. I believe in people, and I believe that good leadership can bring out the best in people.