The Institute for Working Forest Landscapes

A new research institute of the Forestry Research Laboratory for dialogue, science and innovation in the management of forest landscapes

Mission of the Institute

To provide unbiased science and dialogue on issues relevant to the beneficial stewardship of forested landscapes and the communities, businesses and people within.

Overview

The Institute for Working Forest Landscapes will be the principal research engine of the Forestry Research Laboratory. Its base funding is from the State of Oregon and private companies and individuals paying harvest-taxes in the State of Oregon. Leveraged funding comes from many sources.

The ultimate goal of the research program is to provide innovative approaches to enhancing people’s lives while also improving the health of our lands, businesses and vital ecosystems, and to do so collaboratively with active involvement of multiple partners with different perspectives. In support of this vision, the College of Forestry is creating a new research institute to develop adaptive forest management techniques that integrate social, ecological and economic objectives at the landscape level.
The Institute will be founded on the premise that individual and community livelihoods are intimately linked to the health and productivity of surrounding landscapes regardless of ownership boundaries. It will seek to develop and test new active management models that bridge public and private forestlands in support of sustainable economic, biological, and social conditions that are the signature characteristics of healthy working landscapes and their associated communities.

Moreover, the Institute will advance the public’s awareness of the importance of active management in support of broad scale healthy working landscapes by establishing a demonstration research forest where on-the-ground research will explore how pro-active, management of forest lands can provide employment stability and public access in rural communities, ecological integrity, and long-term protection of key environmental attributes.

**Vetting Process**

The new institute has been fully vetted with college faculty & staff as well as external stakeholders over the last year in the following process.

1. Idea of the Institute was first presented in the Dean’s 7-point vision for the college, June 2012.
2. A formal proposal (ver 1) was introduced and reviewed at Forestry Research Lab Advisory Board Mtg, Apr 30, 2013
3. The proposal was then presented and reviewed at a facilitated All-College Meeting, May 3, 2013
4. A modified proposal (ver 2) was reviewed with the Oregon Congressional Delegation, Washington DC. July 2013.
5. Forestry Executive Council held a retreat to work on proposal, Aug 12, 2013
6. FEC endorsed a revised (ver 3) proposal the following week
7. Revised proposal was then reviewed with Oregon Forest Industries Council President and Chair, and revised again (ver 3.1).
8. The revised proposal was reviewed with Oregon Forest Industries Council Operating Board October.
9. Proposal (ver 3.2) sent to college faculty for extensive email comment period.
10. Revised proposal discussed at All College Meeting, October 11.
12. Final draft (ver 4) reviewed and adopted at the Forestry Research Lab Advisory Board Meeting, November 15.

This proposal has been extensively reviewed by faculty, students and external stakeholders through four major rewrites. It was adopted by the Forestry Research Laboratory Advisory Board on November 15, 2013.
**Key Opportunities the Institute will Address**

1. **Increasing Public Trust in Active Management of Public & Private Lands**
   
The reservoir of public trust that forestry is conducted in a socially and environmentally responsible manner has been greatly diminished over the past two decades, giving rise to legal challenges and calls for greater regulation. Restoring broad scale public understanding and trust entails more than compliance with existing laws. It requires proactive, transparent, and collaborative land management so that multiple interests are vested in the outcomes sought. Today, nearly all interests see the need to rebuild public trust in active management of forestlands toward broadly supported outcomes. The Institute will provide forums for that to occur.

2. **Improving the Health of Rural Communities and Citizens**
   
Many Northwest rural communities have lost opportunities for family-wage jobs that drive local economies, provide basic public services, and support a healthy social structure. One consequence is disappearing manufacturing infrastructure that would otherwise support future forest restoration activities on public lands. The economic base and future opportunities of these communities can be strengthened by a more diverse economy that is interwoven with a fully functioning, working landscape that produces merchantable timber. New research endeavors will explore the linkages between healthy working landscapes and healthy people, and examine how development of new forest products associated with restoration activities, markets for ecosystems services, and tourism-based markets can be integrated with active land management to augment efforts to revitalize our rural communities.

3. **Increasing the Competitiveness of Oregon’s Private Landowners and Businesses**
   
While Oregon remains the largest lumber producer in the US, a more robust and profitable value chain can be established by producing higher quality, value-added products that capitalize on the quality timber our forests produce. Healthy buildings and building materials, certification systems, manufacturing, renewable materials and wood engineering and design all have a role to play in expanding markets that offer great opportunities for growing Oregon’s economy. Research partnerships with private sector manufacturers can drive the innovation necessary for resurgence in the Oregon wood products sector just as has occurred in Canada, New Zealand, Chile, and the southeastern U.S.

4. **Enhancing Ecosystem Health with a Landscape Approach**
   
Factors important to the ecological health of forest landscapes cross all ownerships – catastrophic fires, at-risk species habitat, water quality of rivers and streams, wildlife populations. None of these distinguish between public and private lands, yet management decisions for each are often quite different and with significant implications for the other. Many of our most intractable challenges can be addressed, and our greatest opportunities for meaningful conservation realized, by implementing a landscape scale approach to forestland management based on partnerships and collaboration. The institute will conduct fundamental research to increase our understanding of ecosystem dynamics, and applied research to refine, validate, and scale a suite of adaptive management techniques. The Institute will also provide
on the ground demonstration projects to highlight management techniques on public lands to move us forward.

**Proposed Institute Structure and Thematic Areas of Research**

| Director: Thomas Maness, Dean of the College of Forestry, Reporting to the Provost. |
| Associate Director: Steve Tesch, Director of Research, College of Forestry |
| Advisory Board: The State Mandated Advisory Board of the Forestry Research Laboratory |

The basic and applied science conducted by the institute will be organized in four broad thematic areas framed to promote the College’s vision for healthy forest landscapes. Each area will have a research budget and an annual call for proposals.

The Forest Research Laboratory Advisory Committee established in Oregon law will serve as the Institute’s advisory board. Along with the Dean of the College of Forestry, this committee will assume an oversight role, help develop annual research priorities, and seek to establish active, collaborative research partnerships.

Additional institute scientists will be composed of research associate from related institutes and universities. Every scientist in the Institute can have association with any or all of the four thematic areas. Over time, incentives will drive project teams to build collaborations that overlap multiple themes.

**Research Themes**

- **Intensively Managed Forests**
  Research will focus on increasing the productivity, resilience, value and marketability of private and industrial lands. The work of the Center for Intensive Planted Forest Silviculture, Vegetation Management Research Coop, Swiss Needle Cast Coop, Northwest Tree Improvement Coop, and the Pacific Northwest Tree Improvement Research Cooperative will be included in this thematic area.

  Project initiatives will examine issues like financial management of plantations, growth and yield modeling, reforestation, forest operations and biodiversity management, as well as how private lands can be managed more effectively to achieve overall landscape management goals by using markets for ecosystems services and other incentive-based systems. Research in this area will form a strong connection to the “Resilient Ecosystems” and “Competitive and Innovative Products” themes.

- **Healthy People and Communities**
  Research will focus on the myriad of ways that local economies and people’s lives are interconnected with public and private working landscapes, and how these economies and lives can be improved by actively utilizing forest ecosystems to provide both timber and non-
timber forest products from our public lands (including ecosystem services, recreational uses, and tourism) via new and innovative collaborations among varied interests and stakeholders. Social scientists will explore how conservation collaboratives can work effectively, how community forests can improve rural livelihoods and access to natural resources, and enhancing the impacts of recreation uses of forest lands on local economies. This theme is strongly connected to the “Resilient Ecosystems” theme, providing the research to help rebuild trust in public and private land management.

- **Resilient Ecosystems**
  The science undertaken in this thematic area will learn how the components of the ecosystem work, individually and together, such that we have a deeper understanding of what constitutes a healthy ecosystem. This fundamental knowledge will help us develop and refine active management techniques to improve ecosystem health, resilience, and function. Research will take a broad, landscape view to not only develop management strategies that meet vital ecosystem-health goals, but also strengthen the connection between communities, people and the landscapes they inhabit.

  Because intensively managed private lands are often present in a mosaic on the landscape, research in this thematic area will be closely connected to the “Intensively Managed Forests” theme with researchers examining how these lands can be affectively co-managed, or how land swaps could take place to improve overall landscape and community health. Fire ecology and ecosystems management are two critical tools in this theme.

- **Competitive and Innovative Products**
  Research will examine and partner with industry to develop new products that are well suited to Oregon’s natural resources and competitive position in the global markets that now define manufacturing and sale of wood and other renewable materials. This thematic area seeks to not only increase the value of Oregon’s natural resources, but also enhance the overall value added in products manufactured in Oregon’s communities.

  Healthy buildings and building materials, certification systems, management science, manufacturing, and wood engineering and design will be important components of this research area, as well as identifying innovative mechanisms for expanding current markets. University of Oregon’s College of Architecture will be a natural partner, as will the OSU Colleges of Engineering and Business. We will also study the impacts of natural building materials on public health in association with the College of Public Health and Human Sciences. Research in this thematic area will overlap with both Intensively Managed Forests and Healthy People and Communities.

*Components of the Institute*

1. **Research Priorities Roundtable** – A formal mechanism for both receiving key stakeholder input on research priorities necessary for the annual call for proposals in the four themes, and monitoring success of the research programs of the Institute.
2. **Research Network** – A network of research scientists that include faculty from the OSU College of Forestry as well as faculty associates from other universities, colleges and related research institutes.

3. **Granting Program** – An annual call for proposals with research funds from public and private sources with advisory board and scientific panel oversight. Researchers will also apply for competitive grants through NSF, USDA, AFRI, NIH, and other granting agencies as well as foundations and private sources.

4. **Research Forest** – The College of Forestry maintains approximately 15,000 acres of forests in Oregon for the purpose of conducting teaching and research. Additionally the College is seeking an additional research forest of mixed federal, state and private ownerships designated as a research area and actively managed in a holistic way for long-term social, ecological and economic studies. Activities on the forest will be guided by a collaborative board of stakeholders based on clearly defined protocols set forth in a long-term research plan.

5. **Forum on Working Forests** – A public forum for dissemination of research results, white papers, open discussions and consensus building on active forest management in the Pacific Northwest. The goals are to increase awareness of the multitude of benefits provided by our working landscapes, and to provide a sounding board for public input into the management of northwest forests.
## Five Year Funding Plan:

### Oregon State University

Statewide Operations - Forestry Research Laboratory
FY12-13 Actual, Projection FY14 to FY18
(Thousands of dollars)

<table>
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<tr>
<th></th>
<th>FY12 Final</th>
<th>FY13 Final</th>
<th>% chg</th>
<th>FY14</th>
<th>% chg</th>
<th>FY15</th>
<th>% chg</th>
<th>FY16</th>
<th>% chg</th>
<th>FY17</th>
<th>% chg</th>
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<td><strong>Total Revenue</strong></td>
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<td>Total Salaries and OPE</td>
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<td>154</td>
<td>( 100)</td>
<td>( 234)</td>
<td>( 587)</td>
<td>( 812)</td>
<td>( 338)</td>
<td>( 535)</td>
<td>( 766)</td>
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<tr>
<td><strong>Net Increase (Decrease) in Fund Balance</strong></td>
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<td>128</td>
<td>434</td>
<td>250</td>
<td>( 73)</td>
<td>( 238)</td>
<td>( 491)</td>
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