Keeping People in the Forestry Picture

Institute for Working Forest Landscapes researches new ways to balance ecological, social, and economic needs in rural communities

By Scott Swanson

Thomas Maness stands in a grove of hardwood trees on a slope near the South Santiam River, east of Cascadia, and gazes skyward. "This stand needs treatment," says the Dean of the Oregon State University College of Forestry, gesturing toward the boughs above. "It's a pioneer hardwood stand that has about reached its maximum age. The hardwoods will begin to die and be replaced by softwoods more typical of the mature forest in this region."

This particular grove includes lots of alder, which has "a lot of economic value," he notes. It also provides unique habitat for birds and other animals. Sites like these are not common in the Willamette National Forest, where many acres are filled with mature Douglas-firs and few hardwoods.

The hardwood stand is "atypical for this region, and something that has ecological value," Maness says. "We want to protect that and, at the same time, we are looking for ways to create more economic opportunity in the Willamette National Forest. By doing nothing we lose both the economic and the ecological value. So how can those two goals work together?"

That question is the impetus behind the creation of the Institute for Working Forest Landscapes, a "world-class research and outreach center for healthy landscapes" that the College of Forestry is in the process of establishing in various locations throughout Oregon, including in the forest east of Sweet Home. It will be done in collaboration with other universities, private landowners and managers, and the USDA Forest Service.

"It's bigger than Sweet Home," says District Ranger Cindy Glick, of the Sweet Home Ranger District. "We will be a part of it, but so will communities like Oakridge and Blue River—they're in a similar situation. We hope to be a major part of the work because of location, location, location. We are so close to OSU and we have a lot of infrastructure ready for the university to come and help us."

Maness, who spent many hours this year in Sweet Home with Oregon State faculty and Forest Service representatives to discuss the project, says the research institute will likely encompass 100,000 acres, which he hopes will include private as well as federal lands across the state.

"This is not just public lands we're talking about," he says. "The public/private interface and checkerboard structure of the landscape is vital to achieve our goals. Oregon's rural economies are forest based—forestry is the highest and best use of the land. Presently the health of our rural communities is in serious decline. We have to do something different to get different results."

The institute's purpose is to develop ways to better manage forest resources by balancing ecological, social, and economic needs. It is a response to "a change in attitude around the state," says Maness, who is working to develop innovative forest policies and practices that balance traditional production with stewardship of natural resources.

"I think the word 'holistic' is really important to what we're talking about here. And this is a new approach."

—Dean Thomas Manass

Photo by Scott Swanson

Healthy watersheds are critical for healthy forests and communities. Sweet Home District Ranger Cindy Glick and CoF Dean Thomas Maness are working with landowners, the Forest Service and community members to keep rivers like the South Santiam thriving.

Photo by Scott Swanson

Eric White, assistant professor in FERM, and Emily Jane Davis, who recently joined the college as assistant professor/ Extension specialist in collaborative natural resource management, help communities like Sweet Home collaborate on the best approaches to stewarding their forests.

"There's a new focus on working landscapes," he says. "We're looking at how to make ecosystems more resilient, and at the same time, how to make communities, particularly forest-dependent communities, healthier. The phrase 'working landscapes' does not mean that everything is logged. Instead the phrase means that our landscapes are working to produce a wide range of values from wildlife habitat to wilderness sanctuary to family wages. A forester's job is to have an intimate knowledge of the landscape—including the people living in it—and provide good stewardship."

In other words, people are a big part of the forestry picture.

"Our code of ethics as professional foresters requires that we work for future generations," Maness explains. "Everything we do must consider the impact on future generations. So professional forestry is as much about the future as it is about the present."

Though development of the institute will extend over years, and exact locations have yet to be determined, a plan has been written, outlining its basic structure and focus. The premise, Maness says, is that "individual and community livelihoods are intimately linked to the health and productivity of surrounding landscapes regardless of ownership boundaries.

"The big idea here is that we really need to change the way we think about forestry, from managing a collection of independent stands of trees to managing large complex landscapes. Communities and people are part of the landscape, not just external actors negatively impacting the landscape that need to go away."

A major goal is to develop collaborative landscape management to produce economical, biological, and socially healthy conditions that will benefit both the forests and nearby communities. Another goal is to increase public awareness of the need for good stewardship of forests, notes Emily Jane Davis, who recently joined the Forest Ecosystems & Society department as assistant professor/Extension specialist in collaborative natural resource management. She has been involved in a number of collaborative forest-management projects east of Sweet Home in the last few years.

"I think stewardship is more important today than ever, because there are a lot of competing demands for our forests, and conversion, loss of working forest land, climate change—these are some of the things that threaten the productivity and health of forest lands," she says. "And we also are living with the legacy of some past forest management decisions that today pose a lot of restoration challenges. It can be really complicated to figure out: What's the best approach? How should we restore this landscape to make it a more resilient forest and ensure its productivity?"

Collaboration is a key facet of the entire plan. "This is a holistic, broad-scale research institute for the College of Forestry that's designed to pull everyone together to work on all parts of the project simultaneously," Maness emphasizes. "I think the word 'holistic' is really important to what we're talking about here. And despite what you may hear, this is a new approach. We often hear the word holistic strictly applied to the biotic ecology of a landscape. However, It isn't holistic management unless it also includes the important economic and social considerations of the region."

Eric White, an assistant professor in the Forest Engineering, Resources & Management department who specializes in the economics of human interactions with natural resources, believes that expertise drawn from members of the local community will be an invaluable contribution to the success of the institute. "Sweet Home has so much knowledge of the land from people in the forest sector," he says. "This is a great resource and one I think will really be helpful."

Both Davis and White emphasize that the focus of the institute will be feet-on-the-ground practicality that involves as many players as possible. Maness and Glick note that university faculty and students, together with Forest Service experts, local communities, and individuals will play a vital role as well. Glick adds that the goal is to initiate discussion that will produce positive results for the forest and its communities.

"Sometimes there's disagreement in science," she says. "So how do you work on that, other than

at the same table? That's what we're really hoping, to get everybody to bring their science and figure out what is the best management practice for the South Santiam Watershed."

The institute also supports research into what constitutes a healthy ecosystem. The goal is to determine how forests contribute to everything, from their effects on climate change to clean water to biodiversity protection and mitigation. Maness says research will focus on developing forest management strategies that will "strengthen the connection between communities, people, and the landscapes they inhabit."

In March, Maness attended a meeting with U.S. Secretary of Agriculture Tom Vilsack, where Vilsack announced a new $1 million program to help train architects, engineers and builders about the benefits of advanced wood building materials, as well as USDA plans to invest up to $1 million in a forthcoming prize competition to design and build high-rise wood demonstration projects that could use materials manufactured in Oregon and the U.S. Vilsack has invited Maness to join the select team that will design and evaluate the competition.

Maness, a forest economist, explains that with innovations in state-of-the-art sawmills, the demand for labor is far lower than it used to be. "This isn't a malicious design by industrialists, it is what you have to do to be competitive globally," he says. But manufacturing advanced wood building materials offers additional opportunities for workers. "What we really need is a deeper supply chain—more people employed for every tree we harvest. The challenge is to do this in a globally competitive context."

That's why the institute also focuses on research into competitive and innovative products, Maness explains. The goal is 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."

The institute will partner with the University of Oregon's College of Architecture as well as Oregon State's colleges of Engineering, Business, and Public Health and Human Sciences in developing composites and other new products that contribute to a growing market for "natural" building materials, and researching how they contribute to public health.

In addition to product development assistance and testing services for Oregon wood products companies, College of Forestry scientists have also been involved in developing new commercial uses for western juniper in southeastern Oregon and the development and testing of wood composites.

"The college has a great history of looking at wood products and new technologies," White says. "I think looking at new ways to use traditional resources or added resources that have value will be part of this."

Forums in which stakeholders can discuss the research needs for successful stewardship of working forests will be a key element to successful forest management, Maness says. "All forests are working forests, even congressionally designated wilderness areas. All stakeholders are involved in this. That's why dialogue is good. We just want to make sure that's done respectfully.

"For the last quarter of a century in this country we have focused exclusively on what you can't do. Rural communities have paid the price for this way of thinking. Now, what we're realizing is that the problems that we face are landscape-level issues, and people are part of the landscape. We need to look at the big picture, and we need to start thinking about what we can do."

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Sweet Home District Ranger Cindy Glick leads a discussion of prairie habitat management, First Foods, and other Tribal interests on a public field tour in the Willamette National Forest.

Photo by Emily Jane Davis