



# OREGON FORESTS REPORT







***Using a grant from the Oregon Department of Forestry, students and neighborhood volunteers working with the non-profit group Friends of Trees planted trees at an elementary school to create shade and make their Portland neighborhood more livable.***

# OREGON FORESTS REPORT



"STEWARDSHIP IN FORESTRY"

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## Cover Photo Credits

1 & 2 - ODF files

3 - Burned timber near Round Lake, B&B Fire area, Metolius Basin, Mike McMurray

4 - Ponderosa Pine, Santiam Pass, Rod Nichols, ODF

5 - Fishing Pond on private forest land property, Scio Oregon, Cynthia Orlando, ODF

6 - Ponderosa Pine, Santiam Pass, Rod Nichols, ODF

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# Oregon Department of Forestry

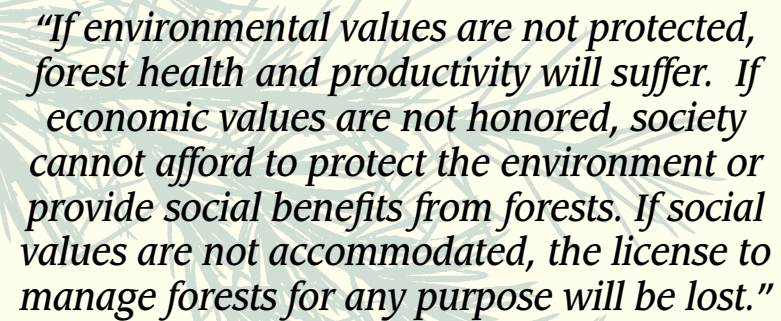
## **Mission statement**

“To serve the people of Oregon by protecting, managing, and promoting stewardship of Oregon’s forests to enhance environmental, economic, and community stability.”

# Oregon Forests Report 2005

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*“If environmental values are not protected, forest health and productivity will suffer. If economic values are not honored, society cannot afford to protect the environment or provide social benefits from forests. If social values are not accommodated, the license to manage forests for any purpose will be lost.”*

**-State Forester Marvin Brown**

## A message from the State Forester: *Recognizing diversity and moving past conflict*

In the fall of 1995, I participated in a unique tree planting ceremony in New Zealand. We stood high up on a ridge and watched as a huge Russian helicopter lifted individually harvested, mature rimu trees out of small openings in one of the country's complex native forests. The logs were promptly loaded for a truck haul to the mill. Then we descended into the forest and planted a few rimu seedlings in each of the openings that had been created.

The "we" were Montreal Process participants, a group of international colleagues who had completed what was called Criteria and Indicators for the Sustainable Management and Conservation of Temperate and Boreal Forests a little over a year earlier. We were gathered to begin sharing the lessons we had learned in trying to put the "Montreal Process Criteria and Indicators" to use. We had spent most of the week examining whether the document we had developed was providing the useful guide for the study of forest sustainability that we had hoped.

Our tree planting excursion was an opportunity to remind ourselves why we had spent countless hours writing, reading, negotiating through translators and finally agreeing to recommendations that we hoped would change how supposedly "competing" interests talk about the values they feel forests should provide. Here, a forest providing rich biological diversity, and important to the native Maori culture, was also yielding a valuable economic product.



**State Forester  
Marvin Brown**

rather than perpetuating the myth that each value is a piece of the pie to be fought over, we will be much further down the road to ensuring sustainable forests. This is a fundamental premise of the *Forestry Program for Oregon*,\* the Oregon Board of Forestry's strategic plan.

What happened in New Zealand has interesting ties to this report. For many years New Zealand has implemented a national policy that emphasizes biological values on native forests and economic values on intensively managed plantations. The tree harvest that we witnessed that day was actually somewhat unusual for a native New Zealand forest. Here in Oregon, we see a similar land allocation strategy, with a federal forest policy that seeks to emphasize biological values, while large industrial lands are managed with an emphasis on wood production, and state and other lands emphasize multiple benefits.

This was a good example of how we were seeking to define sustainability: To achieve sustainability, it must be recognized that the economic, social and environmental values of forests are all important and, in fact, interdependent. Our belief then, and my belief still, is that these values do not compete. They complement. When we act on the basis of this reality,

In this report, we talk about how that allocation can achieve sustainability across a landscape of multiple ownerships. Looking broadly across the many forest ownerships we have in Oregon – federal, state, private, tribal and others – it's easy to see the full suite of economic, environmental and social values represented.

Despite the *Forestry Program for Oregon*, unlike in New Zealand, there is no unified policy that implements this strategy in a deliberate and coordinated manner. The values that Oregon generates from its forest land are measurably more significant than those of many entire countries. Yet these values are realized through state and federal policies that often operate as if the other does not exist. At some point, our discussions about sustainability need to acknowledge this institutional shortcoming.

This report, like the *Forestry Program for Oregon*, acknowledges the diversity of forestland, and of management approaches, in Oregon. And it shows how this diversity, combined with sound, science-based stewardship, can ensure that our forests meet a broad range of needs – today and into the future.

I hope that by highlighting the ways in which forest values complement one another, we can begin to move away from conflict and toward a vision of healthy, sustainable forests.

*Marvin Brown*

\* <http://egov.oregon.gov/ODF/BOARD/index.shtml>



## Introducing Oregon's forests: *Diversity and sustainability*

Oregon's forest resource is rich and diverse.

Forests cover 28 million acres, or 49 percent of our state's land area. Near the Oregon coast, where rainfall can exceed 100 inches each year, are Douglas fir-dominated forests that rank among the most productive in the world. In drier regions, various species of pine often predominate. Beyond these broad distinctions, many variations and mixes of forest types and species exist across the landscape.

Oregon's forests are diverse in other ways as well. They are owned by a variety of public and private entities, each with different objectives and interests. Accordingly, they are managed for different mixes of the three kinds of forest benefits – economic, environmental and social.

### Four key approaches

The *Forestry Program for Oregon*, the strategic plan established by the Oregon Board of Forestry, holds that diversity in management approaches is essential for sustainable, productive forests. The *Forestry Program for Oregon* strives for healthy, resilient forests that produce a range of benefits. These include timber harvest, support for rural economies, revenue for schools and local government, clean water, recreation, education, fish and wildlife habitat, and enhancement of the quality of our cities and neighborhoods.

Although environmental protections apply to all forests, every forested acre is not managed to produce the same mix of benefits. Across all ownerships and across the landscape, this diversity is the means by which Oregon can produce a sustain-

able flow of a broad range of forest benefits.

This 2005 *Oregon Forests Report* provides an overview of the four broad management approaches at work in Oregon's forests:

- Wood production lands, where the emphasis is on providing wood fiber and jobs in ways that are consistent with environmentally sound management.
- Multiple resource lands managed to provide a broad range of forest benefits.
- Reserve lands, managed to restore and conserve natural ecosystems.
- Urban and community forests, which improve the quality of our communities and help to connect urban populations with forest issues and values.

These management approaches aren't always divided neatly along ownership lines. While most reserve lands are in federal ownership, for instance, some private landowners may manage their forests for the same values.

### Maintaining a balance

We face continual challenges in ensuring that forests provide a sustainable flow of benefits over time. For example, years of suppression of naturally occurring fires has allowed fuels to build up on some lands, posing the threat of abnormally large fires that threaten wildlife habitat and other values that we seek to conserve. These lands require investment, in the form of thinning or other management, if they are to continue to deliver the values we seek.

As this report demonstrates, careful management that recognizes the diversity of our forests, can help us produce the rich variety of benefits that Oregonians value.

### Oregon Forest Management Classification

Proportion of all forestland in each major management class



#### Reserve

##### Not open for timber production

- City and county parks
- State
  - Wildlife refuge
  - Parks
  - Recreation area
  - Wayside
  - Game management area
- National
  - Park
  - Monument
  - Wildlife refuge
  - Wilderness areas
  - Botanical areas
  - Ecological emphasis area
- Late-successional reserve (LSR)
- Administratively withdrawn
- Area of critical concern
- Natural areas
- Research natural areas
- Proposed research natural areas

#### Multi-Resource

##### Restricted timber production is allowed. Land is managed for other resources as well

- State
  - Research areas
  - Forest
  - Scenic waterway
  - Other
- National
  - Scenic area
  - Recreation area
- USFS and BLM
  - Matrix\*
  - Adaptive management
- Cooperative management area

#### Wood Production

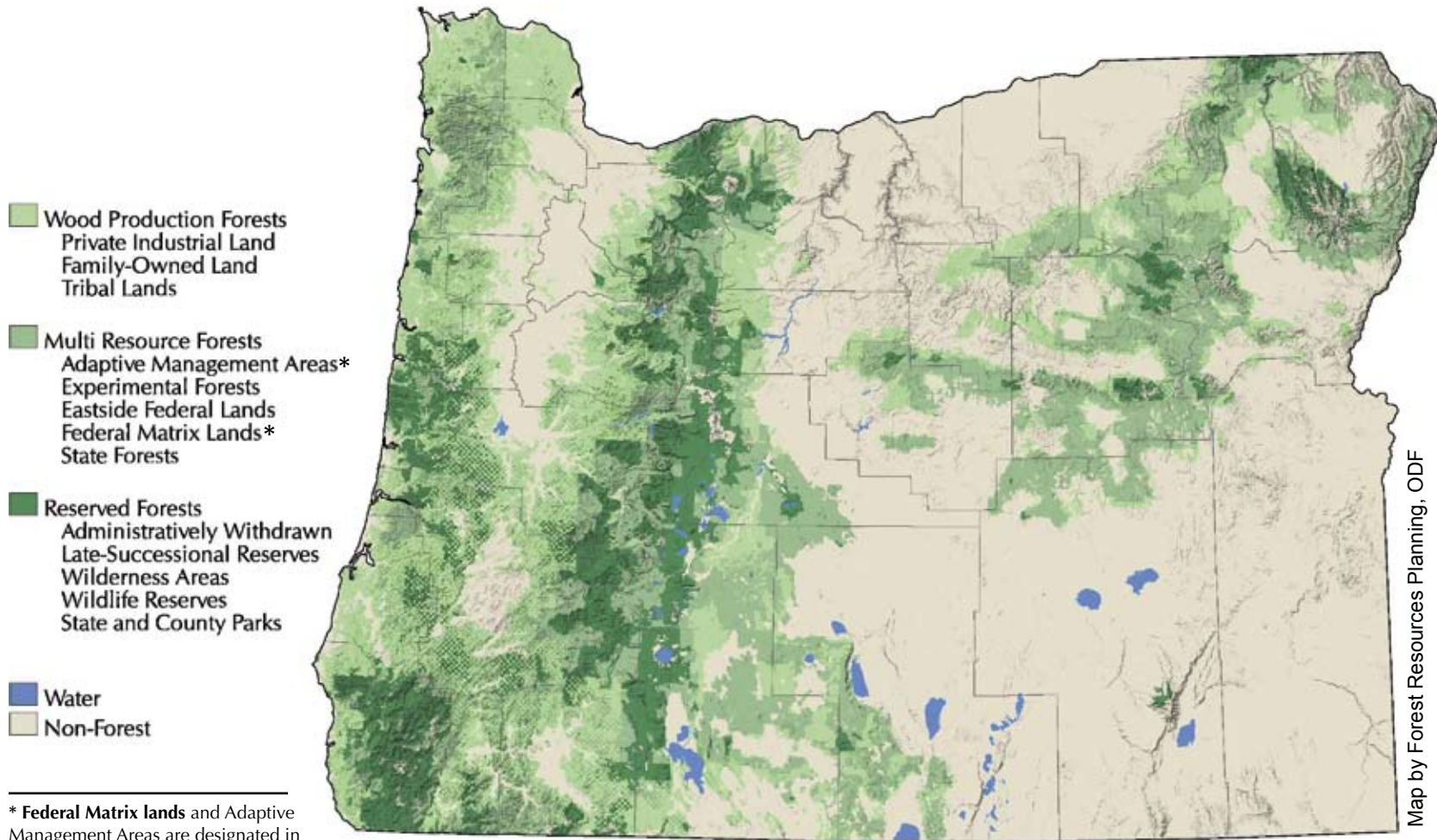
##### Actively managed for wood production

- Tribal lands
- Private industrial lands
- Family-owned lands

\* For info on matrix lands, see facing page

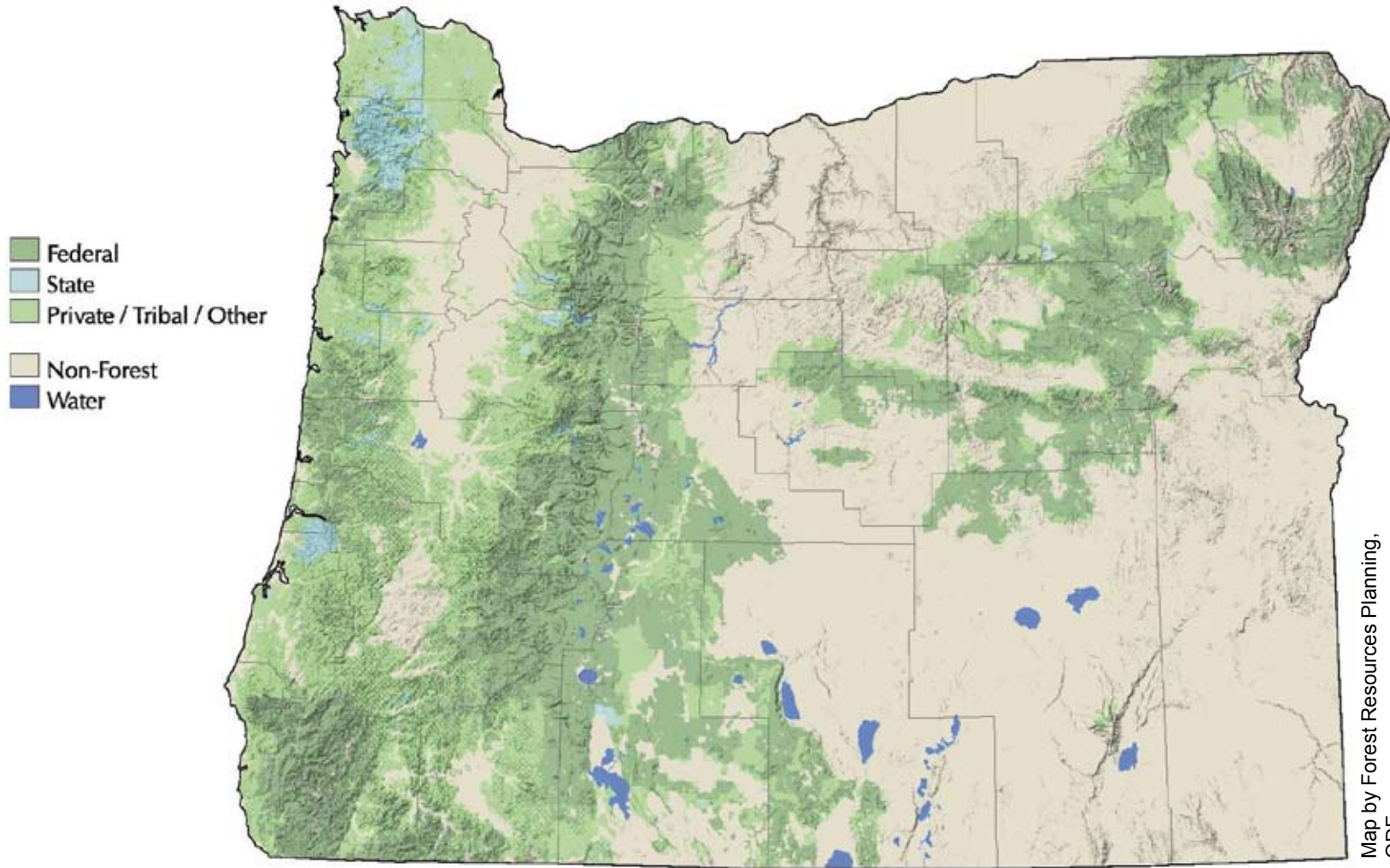


### Three Types of Management Emphases on Forest Lands in Oregon: Reserve, Multi-use and Wood Production



The three types of management emphasis on forest lands in Oregon today. Maintaining a balance of strategies for diverse outcomes across the landscape achieves multiple goals, and is thus more likely to sustain a broad range of values over time.

### Forestland Ownership in Oregon



Oregon's forests are owned by a variety of public and private entities, each with different objectives and interests.



## Reserve lands: Strategy seeks to develop and maintain older forest stands

Some Oregon forestlands have been allocated as reserves, with a priority on the development of older forest structure. Most of these reserves occur on federal lands, the result of wilderness designations and efforts under the Northwest Forest Plan to protect habitat for wildlife species that use older or mature forests.

About 8.8 million acres of forestland in Oregon are currently managed under reserve strategies, and are closed to commercial timber harvest except in rare cases that benefit the values in the reserve.

Reserve areas on Oregon's national forests can play an important role, including providing habitat for threatened and endangered species such as the marbled murrelet and the northern spotted owl, which favor late-successional forests. These lands also contribute scenic, recreational, aesthetic and other values.

Studies developed recently, on the 10-year anniversary of the Northwest Forest Plan, show a net gain of about 600,000 acres of large-diameter trees on reserve lands. However, it remains unclear whether the reserve approach will provide the full range of desired ecological benefits over time.

Many of the reserve-status forests are in conditions that are much altered from their natural state, largely because of past harvesting practices and the suppression of fire - a natural element in forest ecosystems.

The changes have been the greatest in the drier forests of southern Oregon and east of the Cascades. Historically, wildfires burned frequently

in these forests, clearing smaller vegetation and helping to produce generally open stands of trees. Today, however, many of these stands are overcrowded, laden with branches, logs and other fuels, and vulnerable to insects, disease and abnormally intense, destructive fires.

These factors threaten the wildlife habitat and other values that reserve lands are intended to sustain. Major fires, including the Biscuit Complex in Southern Oregon in 2002, and the B & B Complex in 2003, already have burned important wildlife habitat areas.

The National Fire Plan and the Healthy Forests Restoration Act have made headway in reducing fuel loading on some federal lands, but millions of acres of overgrown forest in Oregon and the West remain vulnerable to unnaturally intense fires.

These issues have prompted debate about the effectiveness of the reserve strategy in developing and sustaining long-term ecological values in some types of forest.

In an October 2004 address to the Oregon Board of Forestry, Gov. Ted Kulongoski said, "All of us must also understand that the word 'sustainability' also includes some timber harvest in late-successional reserves to develop old-growth conditions."

He also directed the board to become more actively involved in federal land issues, working with a broad cross section of Oregonians to craft

a vision for the management of those lands. The board is preparing plans to carry out this direction.

This process is certain to include consideration of the most effective ways to develop and maintain older forests and the values they contribute.

Indeed, just as management practices on wood-emphasis or multi-emphasis forestlands must be continually refined in response to new knowledge, scientific evaluation and public discussion about the management of areas now in reserve status will continue.



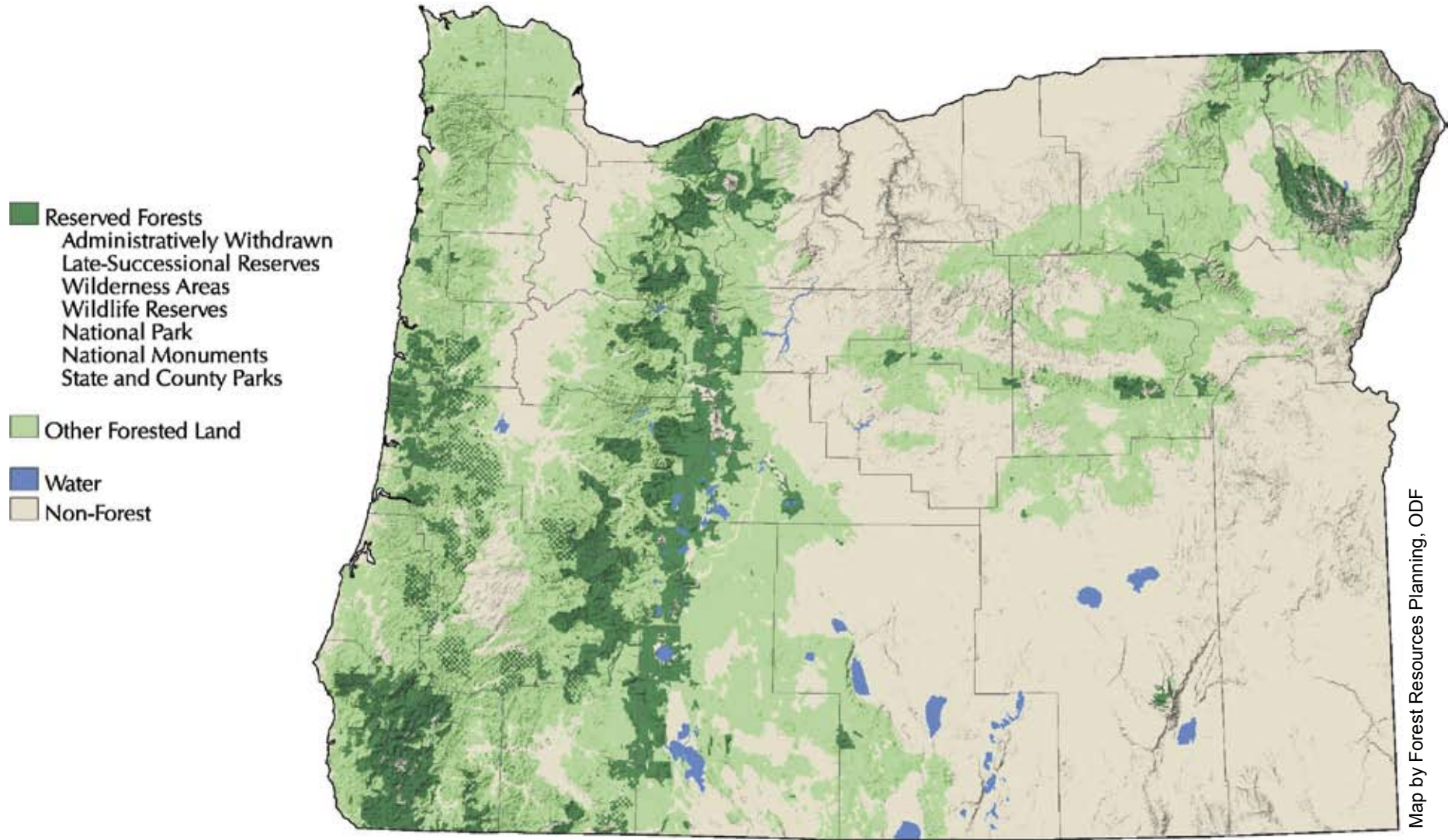
Photo by Mike McMurray

*"What is the use of a house if you haven't got a tolerable planet to put it on?"*

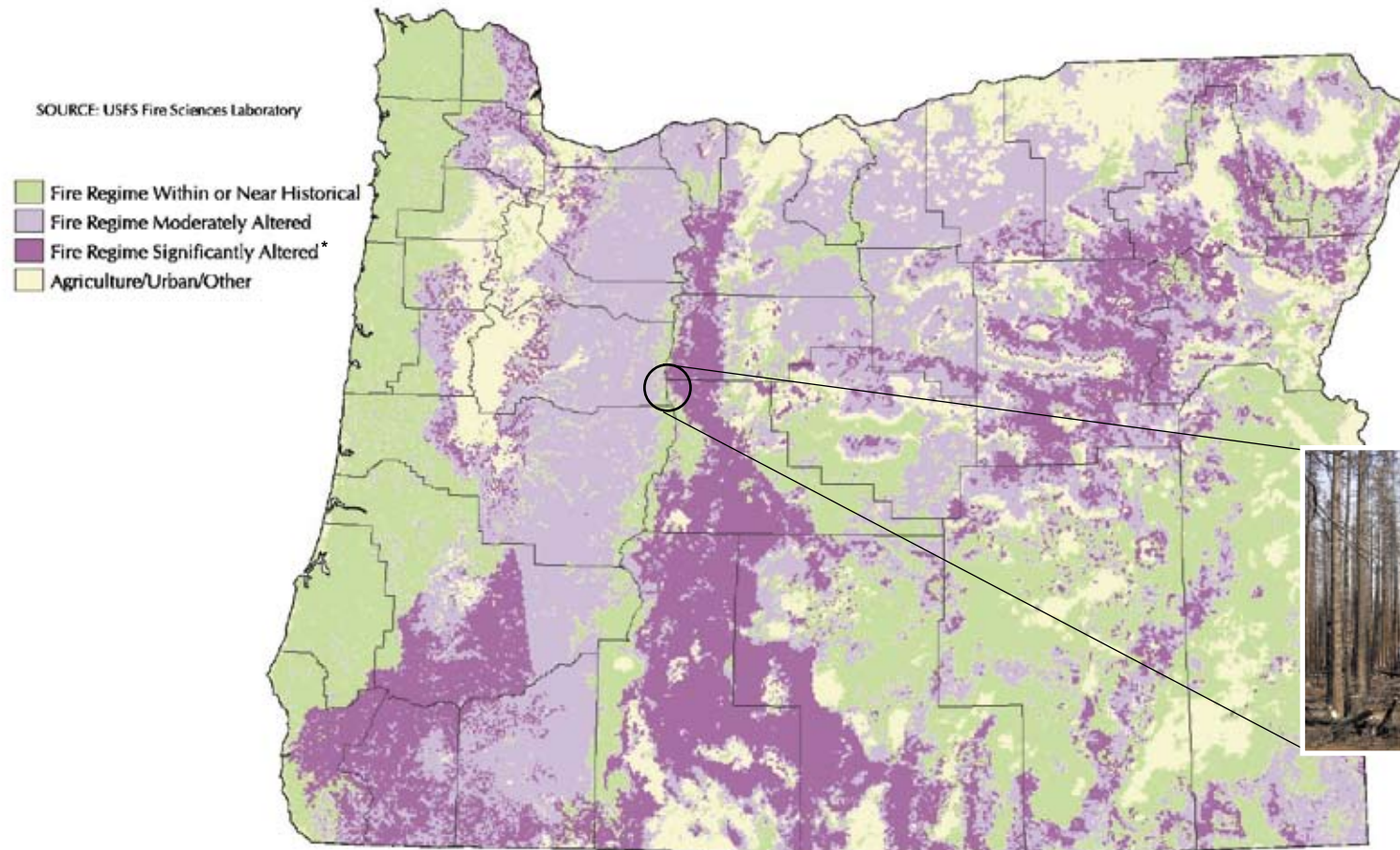
*-Henry David Thoreau*



### Forest Management Classes



## Areas of Heightened Fire Danger



*"The fires have destroyed endangered species habitat, degraded watersheds, affected air quality and turned magnificent back-country recreation areas into black char."*

*-Oregon Governor  
Ted Kulongoski*



Photo by Mike McMurray

**Some of the forest lands that were scorched by the B & B Complex Fire in October, 2003.**

Generally speaking, some forestlands in Oregon – including lands where fire suppression or exclusion has taken place – have been moderately or significantly altered from historical conditions and ranges.

These lands present moderate to high fire risks and the potential of losing key ecosystem components to fire. In central and eastern Oregon, the historical regime of frequent, low-severity fires has shifted to a high-severity regime primarily due to fuel buildup.

\* "Significantly altered" are lands whose vegetation attributes have been significantly changed due to fire exclusion, harvesting of large, fire-resistant trees, and past and present land use, resulting in larger fuel loading and greater potential for high intensity wildfires.



*With innovation, federal lands can play valuable role in transcending conflict*

For decades, conflict over the management of Oregon's federal forestlands has polarized citizens and crippled the state's economy. Then in the late 1990s, the Siuslaw National Forest adopted a visionary approach aimed at resolving the political and legal paralysis. The new focus on watershed restoration has accomplished what many observers previously thought unattainable: a management regime broadly supported by the public that balances social, economic and environmental uses of the forest.

The cooperators that make up today's highly successful Siuslaw River Basin Restoration Partnership could well have become opposing litigants—private landowners, environmental organizations, state and federal agencies. But instead of staking out their traditional positions, these diverse interests sought to build a foundation of common interest through innovative thinking and the accumulation of small points of agreement.

On the ground, this meant finding ways to harvest timber on the 630,000-acre National Forest that would provide logs for

the mills and protect sensitive wildlife habitat. Siuslaw managers met the challenge. They prescribed thinning operations in young plantations that had been established on clearcut sites. This opened up the stands, improving forest health and accelerating tree growth.

To alleviate the concerns of environmental groups, the foresters invited their members to assist in timber sale preparation. Today, environmentalists help with the thinnings by marking trees for harvest.

The Siuslaw River Basin Restoration Partnership won the 2004 Thiess International Riverprize, which honors excellence in river management. The award was well-deserved recognition for a project that provides a model strategy for transcending conflict and achieving balanced management – a benefit to the forest and to all Oregonians.



Photos courtesy USDA Forest Service

***Students planting trees along a restored stream channel.***



***Monitoring success on Knowles Creek.***



## Wood production lands: *Maintaining a productive forestland base*

**W**ood production is the primary emphasis on much of Oregon's privately owned forestland. The timber industry helps support a strong, diversified state economy, and is particularly important to rural economies.

Federal lands once produced the largest single share of Oregon's timber harvest. With the decline of federal harvests in the past decade, due largely to legal decisions and changing public policies, private lands now represent the bulk of Oregon's timber harvest.

However, lands managed to emphasize wood production produce benefits that go beyond economics.

For instance, managing forests to maintain timber productivity also helps to reduce forest health problems and the buildup of forest fuels that can lead to catastrophic wildfires. The Oregon Forest Practices Act helps protect water quality, sensitive wildlife habitat and other environmental values during harvest. It also requires reforestation so that private and state forests remain well stocked.

In addition, management of land to produce wood products helps protect Oregon's forest land base, by reducing conversion of forest land to development and other uses. These benefits can be lost or reduced, however, if private landowners are unable to manage their lands profitably.

### Challenges faced

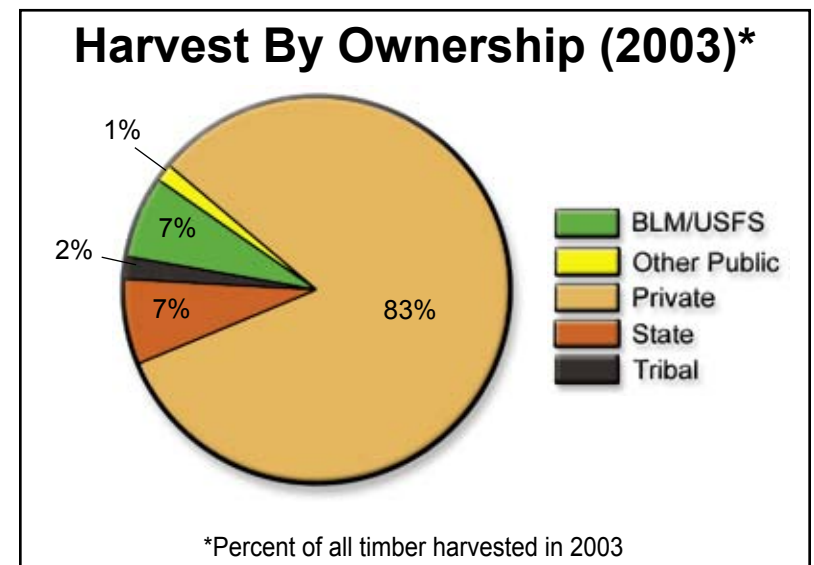
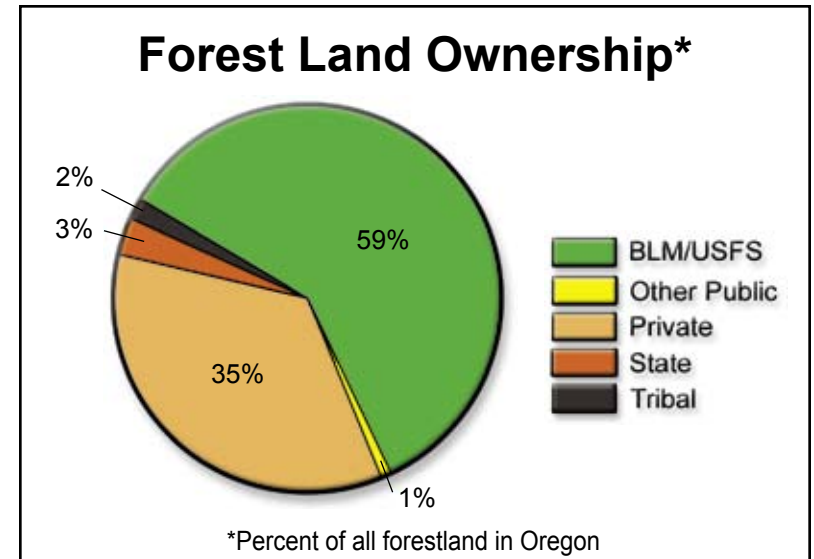
Financial hardships caused by inflexible forest regulations can be particularly difficult for owners of smaller parcels. Incentives may be more

effective than increased regulation in keeping these ownerships in forest production.

Forest landowners in Eastern Oregon face especially difficult challenges. Reduced timber supply, primarily due to lower harvests on federal lands, has diminished the infrastructure of mills and skilled workers necessary for a viable timber industry. The results: less competition for logs, lower timber prices, higher transportation costs to more-distant mills, and lower returns for landowners. Scarcity and unpredictability in timber supply also discourage reinvestment in existing mills, diminishing the local industry's ability to compete regionally and globally.

Beyond the decline in the timber industry, there are increasing incentives to convert timberland to other uses. More people and capital are shifting from the East and West coasts to the Intermountain West. This trend is evident in Central Oregon, where population

Privately owned forest land accounts for 35% of the forested acreage in Oregon (upper pie chart), but accounts for 83% of the timber harvest (lower pie chart).



growth and development pressure have caused a loss of forestland.

**A broader view**

Changes in forest management in Oregon may affect national and international forest products markets, as well as social, economic and environmental conditions elsewhere in the nation and the world. For instance, decreased timber production in Oregon could intensify harvest pressures in nations with fewer environmental protections to ensure forest sustainability.

If managed to maintain their health and productivity, Oregon's private timberlands should be able to continue – and increase – their economic and environmental contributions. Except



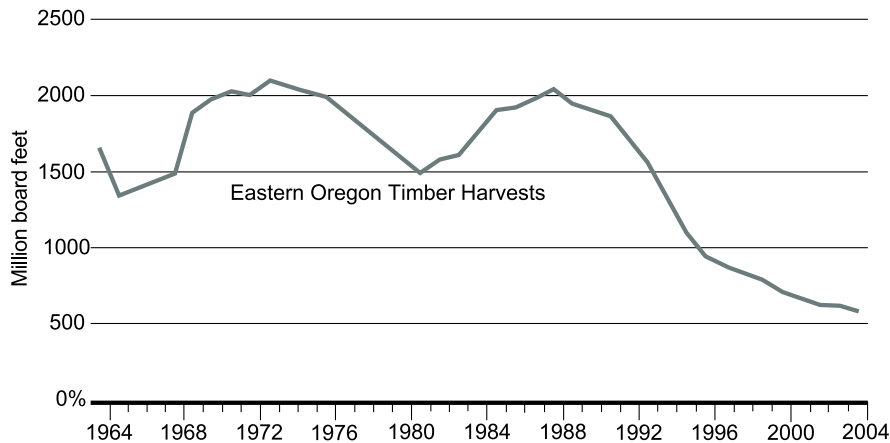
**John Rounds, a consulting forester in Central Oregon since 1987, has witnessed a loss of harvesting opportunities in the community.**

Photo by Arlene Whalen, ODF

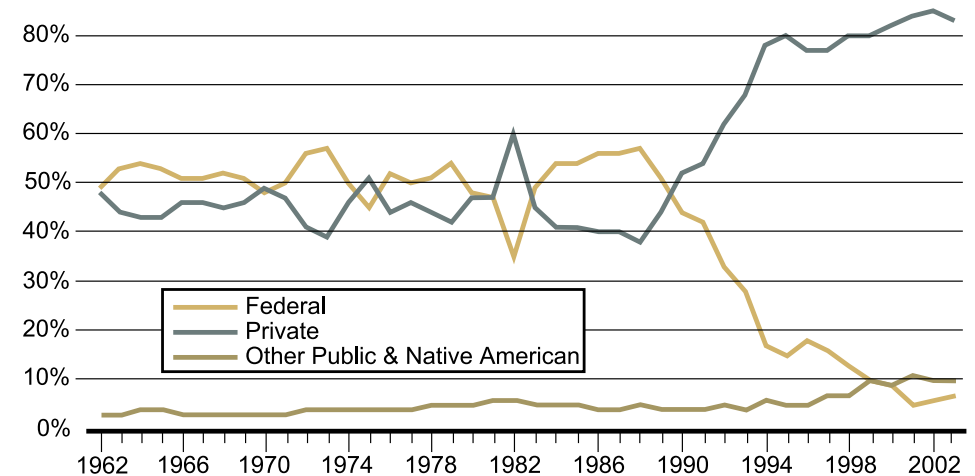
for some Eastern Oregon industrial holdings, statewide timber growth far exceeds harvest. And an Oregon Forest Resources Institute study found that Oregon's forests can be further used to spur the state's economy, while maintaining environmental protection.

*Decreased timber production in Oregon could intensify harvest pressures in nations with fewer environmental protections that ensure forest sustainability.*

**Declining Timber Harvests in Eastern Oregon, 1962 - 2003**



**Changing Shares of Timber Harvests in Oregon, 1962 - 2003**



## *Loss of harvesting opportunities hits central Oregon hard*

The loss of harvesting opportunities on federal lands has hit the Prineville area in Central Oregon especially hard. A community once laden with four sawmills, Prineville now has none. John Rounds, a consulting forester who has owned forestland in the area since 1987, has seen dramatic changes in the rural community. "If you drive between Prineville and Bend early in the morning, the traffic is bad. People are commuting to Bend to work. We used to have high paying jobs in the mills here, now we don't."

According to Rounds, folks in the area have gone from feast to famine. He admits that there may have been a time when too much harvesting was occurring in the nearby Ochoco National Forest, even though he feels cutting never exceeded the growth of new trees.

Today, however, Rounds is concerned that things have gone too far to the opposite extreme – so little harvesting is being done that it has not only affected the economic stability and livelihood of rural communities, but forest health as well. "By doing at least some harvesting, we could prevent fuels

from continually building up and help reduce the chances of catastrophic fire," said Rounds.

Rounds points out that matters are made worse when you consider that Oregon's eastside just won't produce what the west side will per acre. "And the small pine we have here are merchantable, but they aren't worth much because it costs so much to haul them to a mill – might have to haul them 100 miles away," said Rounds.

"This situation has been pretty demoralizing," said Rounds. "I've been a forester all my life. I do it because I love it and want to continue growing trees, but darn, you need some incentive."

*"If forestry in Oregon is going to remain a globally competitive enterprise, then landowners have to realize full value for their performance."*

*-Oregon Governor Ted Kulongoski,  
Board of Forestry meeting, Oct 2004*

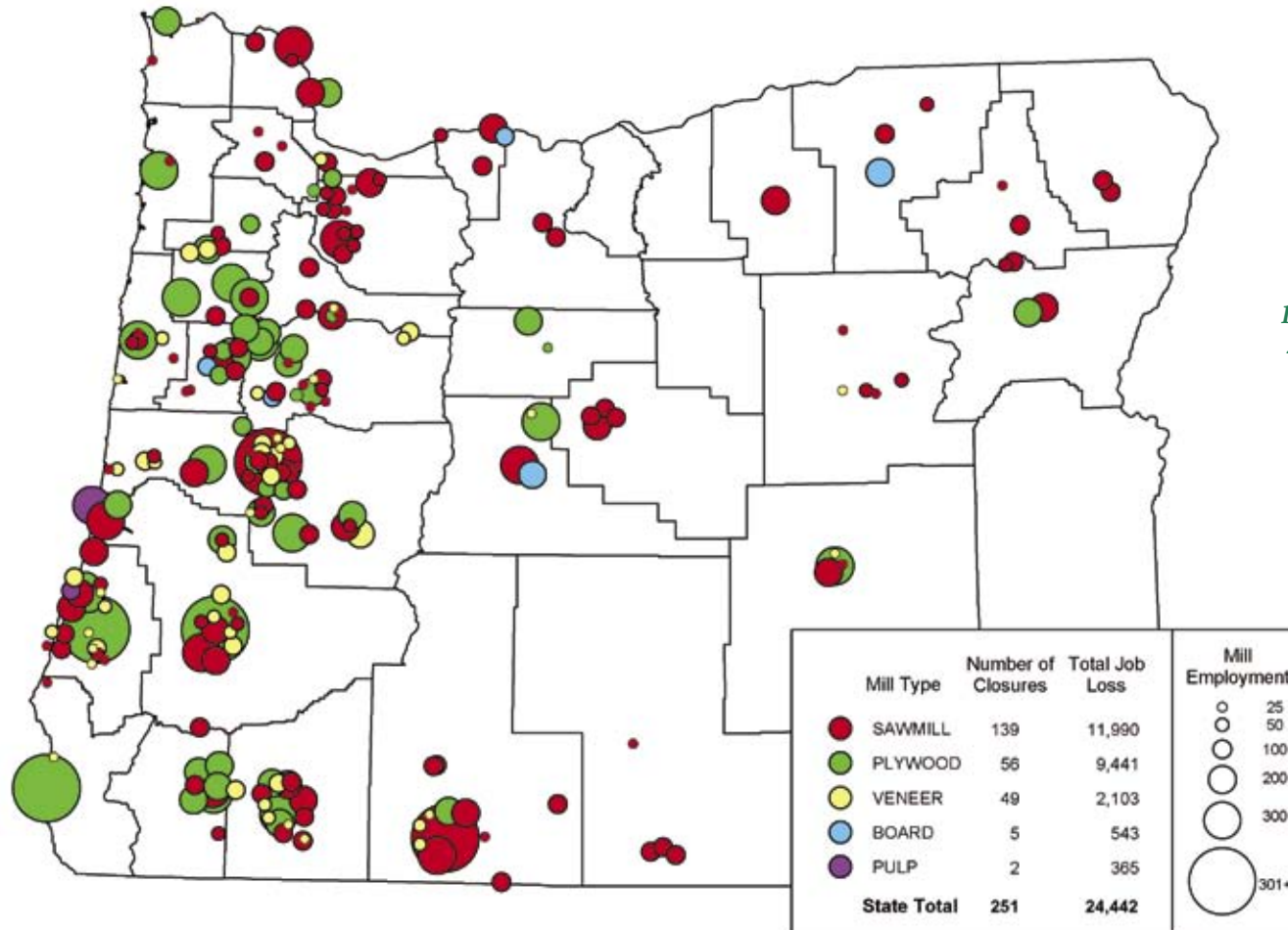


**Consulting forester John Rounds examines tree growth, displayed by widening annual tree rings, that began after he thinned his Douglas-fir stand 17 years ago.**

Photo by Arlene Whalen, ODF



### Types of Mills Closed in Oregon and Direct Job Losses. 1980-2003



*"We don't just need nature preserves or productive logging sites, we need both. Lose our global competitiveness and we'll lose our private forests - public forests will become liabilities (instead of) assets."*

*-Hal Salwasser, Dean,  
Oregon State University  
College of Forestry*

Type of mill closures in Oregon and related job losses, 1980-2003

(Source: Ehinger, Paul F. and Associates, 2003)

## *New 5,000 acre study helps develop sound forest guidelines*



A historic project is unfolding in the timbered mountains northeast of Roseburg. The Hinkle Creek Paired Watershed study will give scientists a rare opportunity to study two adjacent watersheds – one that will remain virtually untouched as a control for 10 years, and one where harvest operations will occur. The resulting data will be highly useful in helping policymakers understand how well current forest practices ensure protection for streams and fish.

Paired watershed studies are costly and complex, and are rarely conducted. The last significant study in Oregon occurred in the Coast Range from 1959 to 1973.

Much has changed in Oregon's forests since then. The earlier study primarily involved forests of 120- to 140-year-old Douglas firs. In those days, trees typically were harvested right up to stream banks, with methods that allowed one end of the logs to drag along the ground. The trees at Hinkle Creek are younger and smaller, as is typical of private forestlands using modern forest practices. They will be harvested with today's techniques, including forested buffers along streams, and use of cable systems that fully suspend logs, reducing effects on the soil.

The study covers about 5,000 acres of Roseburg Forest Products land. Scientists will study stream flow, sediment, water temperature and other indicators, and will track movement of fish that have been implanted with tiny electronic tags. Insects and amphibians will also be studied. The study, coordinated by Oregon State University's College of Forestry Watershed Research Cooperative, involves many partners, including the Oregon Department of Forestry, other state and federal agencies, and forestry companies.

Scientists are looking for opportunities for other paired watershed studies, to supplement the Hinkle Creek results and to continue to develop the data necessary for sound, effective forest practice rules.



*Roseburg Forest Products has provided some 5,000 acres of prime forestland for a new paired watershed study. To measure the impact of current forest practices, half of the watershed will undergo intensive timber harvest while the other half will remain untouched for 10 years.*



## Multi-use lands: *Providing a range of values for Oregonians*

**M**ulti-use forestlands provide a blend of economic, environmental and social benefits. A variety of public and private landowners use this approach. State forests are a working example of multi-use forest management that reflects the unique interests of the counties that deeded those lands to the state.

### **Timber revenue, wildlife habitat, recreation**

Timber harvests provide revenue for counties, schools and local taxing districts, while also developing diverse wildlife habitat and supporting recreational opportunities.



***Tillamook State Forest is managed for a variety of benefits, including recreation and timber.***

Four long-range management plans are in place to guide operations on the 780,000 acres of state forestland (see Appendix, page 22). The plans have been crafted with extensive public input, and are intended for ongoing adjustment in response to new information and evolving public needs.

The Tillamook State Forest, just 35 miles west of Portland in the northern Oregon Coast Range, offers scenic drives, a place to pitch a tent, trails for trekkers on foot, on wheels and on horseback, and hunting and fishing. Funding to develop and maintain the trail system and eight campgrounds comes from timber harvest revenue.

The Tillamook is a relatively young forest, planted 40 to 60 years ago in a massive reforestation project after several catastrophic fires left the land charred and barren. Many landowners walked away from their “worthless” lands in the Tillamook Burn.

Property that came into county ownership through tax foreclosure was later transferred to the Oregon Department of Forestry (ODF), with an agreement to share future timber harvest revenues with the counties. This partnership with the counties continues today, with two-thirds of timber revenue going to counties, schools and local taxing districts where the timber harvesting



***Cyclists enjoy a trail on the Tillamook State Forest.***

occurs. The department retains the rest to finance its state forest management activities.

### **Working forest**

This dense, man-made forest is being managed to help restore its former diversity and its value to a range of wildlife species. Various forms of management are used in this working forest. For example, thinning helps to promote growth of large trees, and develops canopy layers of large and small trees.

Such characteristics, along with snags (standing dead trees) and decaying logs provide much-needed habitat for northern spotted owls and marbled murrelets, both threatened species. ODF



actively manages the forest to produce this structure (see sidebar on page 16).

**Ability to adapt**

By law, the Tillamook and other state forest lands must be managed to secure the “greatest permanent value,” defined as “healthy, productive, and sustainable forest ecosystems that over time and across the landscape provide a full range of social, economic, and environmental benefits to the people of Oregon.”

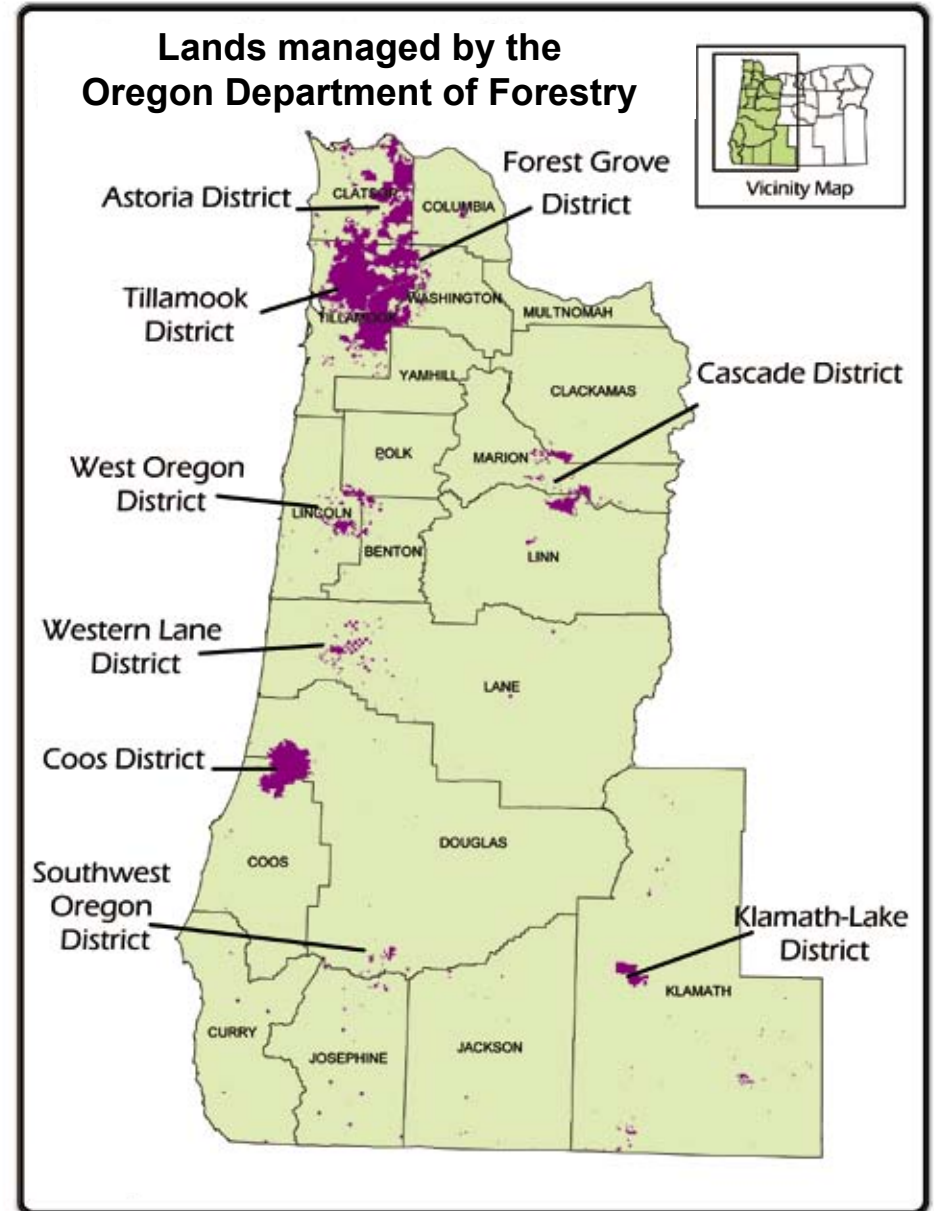
Using the best available science, and taking into account prevailing public needs and interests, the state forests are managed to do just that.

*“In nature, there are neither rewards or punishment – there are consequences.”*

*Robert G. Ingersoll  
(1833-1899)*



**State forests are a working example of forest management that provides social, economic and environmental benefits, and that meets the unique interests of the counties that deeded land to the state.**



## Structure – not age – defines habitat

Age alone is not always the best indicator of a forest's ability to provide high-quality wildlife habitat. The forest's *structure* is essential.

Managing stands for multiple resource values involves harvesting timber not only for economic benefits, but also to develop diverse habitat and maintain healthy forests.

Structure-based management seeks to emulate nature, acknowledging that forest landscapes are constantly changing – from new to old to new again. Historically, these varying stand types were the result of natural disturbances such as fire, insect or disease infestation, wind, floods and landslides.

Leaving key structure components such as snags (standing dead trees) and decaying logs after a harvest helps the next generation of timber stands to begin with structural complexity.

Harvesting is based on targeted, long-term goals for naturally diverse forest types across the landscape. These range from open areas after clearcuts to dense, regenerated stands to thinned stands in which the remaining trees are allowed to grow large. Native wildlife depend on all of these stand types.

Old growth-like stands – those with the most complex structure – have multiple canopies of large and small trees. About half the Tillamook forest is targeted for these complex stands. As more of the forest develops into this complex structure stage, exceeding the 50 percent goal, existing mature stands will become available for harvest, thereby moving these mature stand structures across the landscape over time.



Photo by Mike McMurray

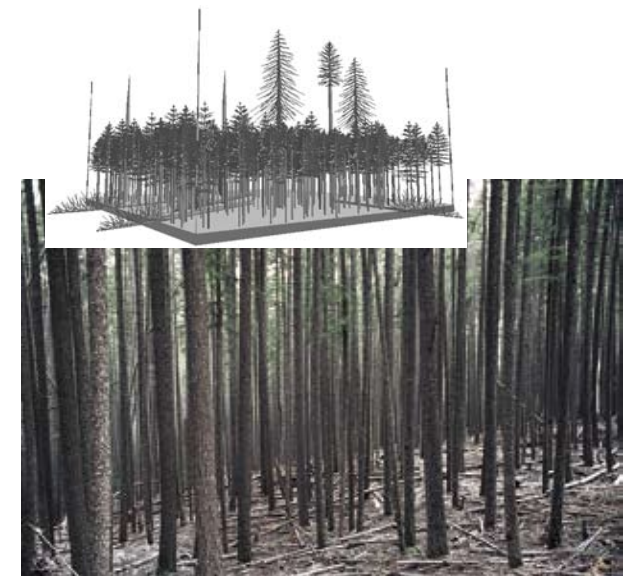
## Stand Types

### Type 1 – Regeneration

(Goal: 5-15 percent). Occupied primarily by tree seedlings or saplings, and herbs and shrubs. Trees can be conifers or hardwoods. Vigorous herbs, shrubs and/or grasses cover up to 80 percent of land. Also, snags, residual trees and down wood are present. Begins when disturbance – timber harvest, fire or wind – has killed or removed most or all larger trees.

### Type 2 – Closed Single Canopy

(Goal: 10-20 percent). Trees fully occupy site and form a single, main canopy layer with little or no understory vegetation. Later, as less competitive trees die, snags and down wood appear.





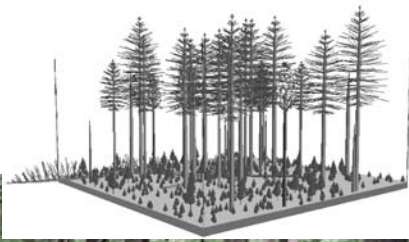


Photo by Mike McMurray

**Type 3 – Understory**

(Goal: 15-35 percent). Gaps in tree canopy of branches from one tree to another provide adequate light to reach ground to allow shade-tolerant, diversified understory of shrubs and herbs to grow.



Photo by Mike McMurray

**Type 4 – Layered**

(Goal: 20-30 percent). Tree canopy of two or more layers, with extensive layering of diverse shrubs and herbs in understory. Trees that are 18 inches in diameter and 100 feet tall mixed with younger trees at least 30 feet tall.

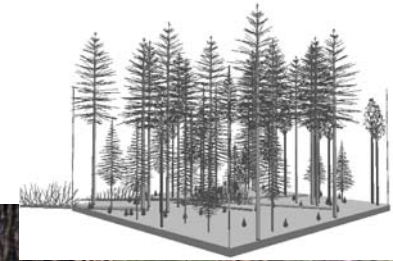


Photo by Mike McMurray

**Type 5 – Older Forest Structure**

(Goal: 20-30 percent). A minimum of eight trees per acre with at least 32-inch diameters. Two or more canopy layers with shade-tolerant species. At least six snags per acre. Substantial down wood at various stages of decay. Diverse understory.



## Many types of landowners emphasize multiple values

Steve Woodard, Oregon's 2004 Tree Farmer of the Year, plants 6,000 to 7,000 trees each year. "My wife jokes that she considers herself a 'tree planting widow' from December through April or May, because I'm out there planting all of those trees myself," he said. "It's a great experience, though, being able to work out in the woods."

Woodard, a retired Oregon State University Extension forester from Cottage Grove, is one of many private landowners who use sustainable practices to manage their lands for a variety of values.

He harvests a quantity of conifers from his 200-acre tree farm every year, while diligently reforesting with mixed conifers, and under-planting thinned areas with shade-tolerant western red cedar and coastal redwood. The soils on his property can grow 800 board feet of lumber per acre per year, and most of the conifers are sold to local mills.

Providing habitat for wildlife is also important to Woodard. He has created ponds on his property in wetland areas to improve habitat for ducks, deer and other species. Three of his 11 ponds also act as a resource

for fire protection, and a number of trails on his property provide improved fire-protection access, and recreation for hunters.

Woodard actively promotes tree farming by hosting tours for the Oregon Forest Resources Institute, a research and education organization, and for forestland owners and foresters from other countries.

"I've shown off Oregon's mills, tree nurseries, old growth forests and tree farms to folks from South and Central America, Japan, Australia, New Zealand and elsewhere," he said. "I have a registered business called 'Woods Quest-helping others know the West.' It's not for profit, but a way for me to help educate others."

*"The elders were wise. They knew that man's heart, away from nature, becomes hard; they knew that lack of respect for growing, living things, soon led to lack of respect for humans, too."*

*-Chief Luther Standing Bear,  
Lakota Sioux*



Photo courtesy Woodard family

**Steve Woodard uses sustainable practices on his private forestland. Woodard earned Oregon's "Tree Farmer of the Year" title in 2004.**

## Urban forests: *Forests add value in urban and suburban settings*

Oregon's economic and environmental health is tied to trees and forests. Lumber and other wood products remain an important component of our economy. Oregon's forests provide a wide array of scenic and recreational opportunities, watershed protection, and other environmental benefits. Trees – in the form of nursery stock – are the state's number one agricultural export.

Although Oregon is often seen as a primarily rural state, recent population studies reveal that 68 percent of all Oregonians live in cities. Living in an urban environment, it is easy to become disconnected from the forest – to take trees and their benefits for granted. Although most Oregonians don't live in a traditional rural forest, many live in a different kind of forest – an urban forest.

The trees and vegetation in our cities and communities comprise this urban forest – a resource that produces economic, ecological, and social benefits that contribute to the quality of life Oregonians enjoy. Recent research by the U.S. Forest Service reveals that for every dollar that cities invest in managing their urban trees, \$2.70 is returned in the form of community benefits, such as increased property values, cleaner air, stormwater runoff control, shade, and economic development. The Oregon Department of Forestry (ODF) is committed to helping people make connections with the trees and forests, both urban and rural, that impact our quality of life.

### **Oregon's Urban Forestry Program**

In 1991, ODF created the Urban and Community Forestry Assistance Program in partnership

with the Forest Service. A small staff of three professionals provides technical, financial, and educational assistance to Oregon cities, public agencies, and non-profit organizations. Each year, ODF staff provides over 500 assists ranging from teaching continuing education classes to city employees to providing grants for cities to conduct tree inventories. ODF helped 38 Oregon cities achieve Tree City USA status during 2004. The Tree City USA award is given to cities that meet minimum requirements for the management of their public trees.

During 2004, ODF conducted a survey of Oregon's 240 incorporated cities (see sidebar) in order to collect information about the state of Oregon's urban forests, and to gauge the effectiveness of the state urban forestry program. Nearly 52 percent of respondents reported that they had received assistance from an ODF Urban and Community Forestry staff member. Cities that have received assistance are statistically more likely to have a local program, to say they need a program if they don't already have one, and to have urban forestry program components such as ordinances, inventories, and tree advisory committees.

Municipal urban forestry issues in Oregon encompass a wide variety of topics around natural resource management, including salmon recovery, riparian area management, stormwater runoff management, and hazard tree management. The 2004 survey results are evidence that the investments of state technical, educational, and financial assistance have paid valuable dividends at the



Photo by Paul Ries, ODF

***Trees in downtown McMinnville help attract shoppers and visitors.***

local level in improving the health of urban forests and the quality of community life.

*“A town is saved, not more by the righteous men in it than by the woods and swamps that surround it.”*

***-Henry David Thoreau***



## Survey finds Oregon cities doing a better job managing trees

More cities in Oregon are taking a proactive approach to dealing with tree issues, according to a new ODF report. Among the 240 Oregon cities surveyed, 37 percent of the respondents reported having a tree planting or tree care program in their city, up from 26 percent in a similar 1992 survey.



Photo by Paul Ries, ODF

**Urban streams, such as this one in downtown Ashland, are a vital part of our green infrastructures.**

The survey results provide valuable insights into how cities are dealing with tree issues. For instance:

- Nearly 1.5 million people, or 63 percent of the people in Oregon's incorporated cities, live in a community with a tree planting and care program.
- Over 62 percent of cities have a municipal tree ordinance, 38 percent have tree advisory committees, and nine percent have community forest management plans.
- Cities reported aggregate expenditures of \$7.8 million on urban forestry activities during 2003, an increase over the \$1.2 million reported by communities in the 1992 survey.
- Cities' top three urban forestry concerns are hazard trees (73 percent), root conflicts or problems (51 percent), and tree preservation or protection (46 percent).
- Primary benefits of managing trees in cities were reported as community pride, attractiveness, image ( 82 percent); enhancing community appeal to new residents, businesses, shoppers (71 percent); and shade (44 percent).



Photo by Paul Ries, ODF

**The urban forest makes our cities more livable.**

- Most commonly cited negative aspects of trees in cities were hazardous trees (57 percent); the financial cost of maintaining trees (54 percent); and tree/utility conflicts (54 percent).

The Oregon Department of Forestry will use the urban and community forestry survey results in its strategic planning efforts to address cities' needs. A copy of the full report is available on the agency website listed below:

[http://egov.oregon.gov/ODF/URBAN\\_FORESTS/docs/04SurveyRptfinal.pdf](http://egov.oregon.gov/ODF/URBAN_FORESTS/docs/04SurveyRptfinal.pdf)

## Law addresses fire issue

The wildland-urban interface is that growing area, often around the fringes of urban or suburban communities, in which homes and other structures are scattered through forestland. This mix of land uses can complicate firefighting, making it more difficult to protect both the structures and the forest.

The Oregon Forestland-Urban Interface Fire Protection Act of 1997 seeks to make homes in interface areas less vulnerable to destruction by wildland fire. Fuel breaks, which are required around most structures and along some driveways, will create an environment in which firefighters may operate more safely and effectively. Additionally, the Oregon Department of Forestry (ODF) is training and certifying accredited assessors to help property owners evaluate their fuel-reduction needs and perform necessary work.

ODF continues to implement the Act, also known as Senate Bill 360. The owners of approximately 30,000 wildland-urban interface



***A mix of land uses can complicate firefighting, making it more difficult to protect both the structures and the forest.***

properties in Deschutes County were contacted in late 2004, and the owners of an additional 12,000 properties in Jackson County have been contacted in early 2005.

prune lower branches from trees, and prune or thin vegetation along driveways to improve fire truck access. Property owners have two years in which to comply with the standards and to certify to ODF that they have done so.

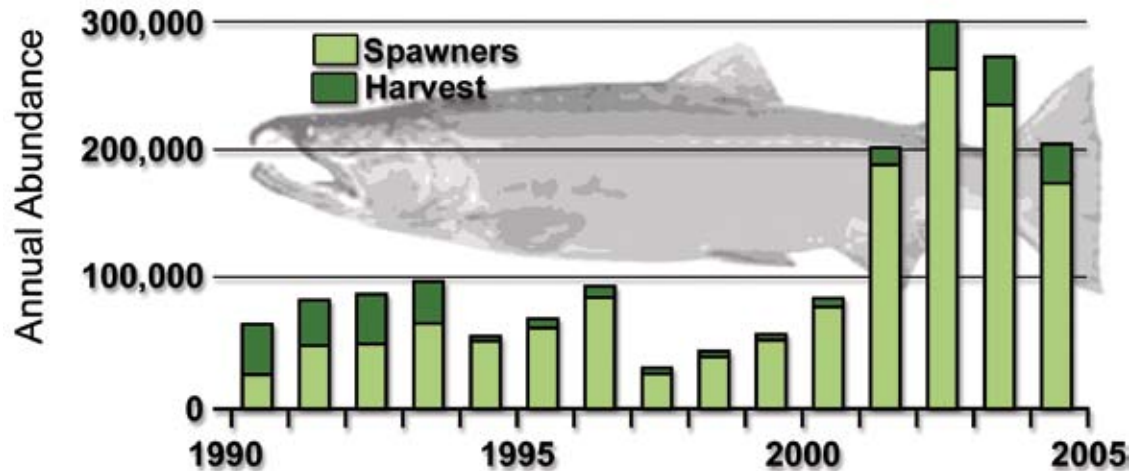
Implementation of the Act is scheduled to begin soon in Douglas and Klamath counties and in four to six other counties of eastern Oregon, where destructive wildfires are most likely to occur, based on fire history records maintained by ODF.

Most of the funding for implementing and administering the Act has come from the National Fire Plan, a federal program designed to respond to the growing problem of severe wildland fires and their impacts on communities. The fuel-reduction and other standards are described in the Act's administrative rules.

Photo by Cynthia Orlando, ODF



## Oregon Coast Coho Abundance Trend



Recently released data show that the number of coho spawners over the last three years is at the same level it was in the early '50's.

Note: Data for 2004 - 2005 is preliminary and subject to revision. Data courtesy Oregon Department of Fish and Wildlife.



Photo by Cynthia Orlando, ODF

Johnson Creek, located on private land in ODF's West Lane District, is home to coho salmon and other fish.



### QUICK FACTS: Oregon's Forests

Acres of land in Oregon: 62 million

Acres of forestland in Oregon: 30 million

Acres of federal forestland in Oregon: 17.7 million (59% of total)

Acres of industrial private forestland: 6 million (20% of total)

Acres of non-industrial private forestland (including tribal lands): 5 million (16% of total)

Acres of state forestland: 962,000 (3% of total)

Number of seedlings planted in Oregon each year: 100 million

Fish passage projects completed between 2002-2003: 391

Stream miles reported (2002-2003) as newly accessible to fish populations: 691

Number of acres ODF protects from wildfire: 15.8 million

Year Oregon enacted first comprehensive, mandatory Forest Practices Act in the U.S.: 1971

## Four management plans guide operations on state forestland

The purpose of this section is to provide data described by ORS 526.255, which requires that the State Forester submit a biennial report to the Governor and to committees of the Legislative Assembly with responsibility for forestry matters. Required information includes discussion of forest management plans, data about the volume and value of state timber harvests, and reports on receipts distributed to counties and to the Common School Fund.

The Oregon Department of Forestry has four long-range management plans in place to guide operations on the 781,712 acres of state forestland. These plans address legally required management directives for both Board of Forestry Lands and Common School Forest Lands.

Board of Forestry Lands were deeded to the state by counties, usually following tax foreclosure. They must secure the greatest permanent value, defined to mean “healthy, productive, and sustainable forest ecosystems that over time and across the landscape provide a full range of social, economic and environmental benefits to the people of Oregon.”

Common School Forest Lands were granted by the federal government at statehood. They are directed by the state constitution to be managed by the State Land Board “with the object of obtaining the greatest benefit for the people of this state, consistent with the conservation of this resource under sound techniques of land management.” The Department of State Lands contracts with ODF to manage the forestlands.

### Northwest & Southwest Plans

Management plans for the state forests in northwest and southwest Oregon use timber harvesting - variations of thinnings to clearcuts - to produce revenue and develop habitat. The plans, both adopted in 2001, have “structure” targets that prescribe diverse forest conditions, ranging from open spaces following clearcut harvests to old growth-like stands after multiple thinnings.

*Board of Forestry Lands must secure the greatest permanent value, defined to mean “healthy, productive, and sustainable forest ecosystems that over time and across the landscape provide a full range of social, economic and environmental benefits to the people of Oregon.”*

**Northwest Oregon State Forests Management Plan:** Tillamook State Forest managed by Tillamook (westside) and Forest Grove (eastside) districts. Clatsop State Forest managed by Astoria District. Santiam State Forest managed by North Cascade District. Scattered tracts of forestland in Benton, Lincoln and Polk counties managed by West Oregon District. Scattered tracts of forestland in Lane County, managed by Western Lane District. Composition: 615,400 acres (97 percent Board of Forestry Lands, 3 percent Common School Fund Lands).

**The Southwest Oregon State Forest Management Plan:** Scattered tracts of forestland in Josephine, Douglas, Jackson and Curry counties managed by Southwest Oregon District. Composition: 18,100 acres or 52 percent are BOF Lands, 48 percent CSFL.

### Elliott Plan

**Elliott State Forest Management Plan:** Elliott State Forest and scattered tracts managed by the Coos District. Current plan, adopted in 1993 along with a habitat conservation plan adopted in 1995, is based on harvesting schedules in management basins of varying tree-age rotation cycles. Composition: 97,400 acres or 91 percent CSFL acreage, 9 percent BOF Lands. Planning for revision of the Elliott FMP and HCP began in early 2000. Proposed plan moves from age-based management to structure-based management.

### Eastern Region Plan

**Eastern Region Long Range Forest Management Plan:** Sun Pass State Forest and scattered tracts managed by Klamath-Lake District. Plan, adopted in 1995, calls for uneven-aged management where trees of varying sizes - small to large - are thinned to promote healthy forests, resistant to fire and pests. Composition: 33,700 acres, 80 percent BOF Lands, 20 percent CSFL.



**Board of Forestry  
Owned and Managed Lands  
Summary by County**

COUNTY	BOARD OF FORESTRY <sup>1</sup>	COMMON SCHOOL FUND <sup>2</sup>	TOTAL ACRES
BENTON	8,194.28	723.41	8,917.69
CLACKAMAS	7,265.93	112.99	7,378.92
CLATSOP	146,708.85	2,059.95	148,768.80
COLUMBIA	6,426.69	80.00	6,506.69
COOS	7,219.78	54,240.97	61,460.75
CURRY	0	2,597.13	2,597.13
DOUGLAS	8,625.27	34,566.36	43,191.63
JACKSON	0	2,061.68	2,061.68
JOSEPHINE	2,482.36	4,820.70	7,303.06
KLAMATH	26,912.21	6,826.96	33,739.17
LANE	24,734.24	1,762.39	26,496.63
LINCOLN	15,487.59	5,612.18	21,099.77
LINN	21,352.92	90.00	21,442.92
MARION	18,329.11	720.00	19,049.11
POLK	6,122.01	1,690.44	7,812.45
TILLAMOOK	308,344.57	5,583.75	313,928.32
WASHINGTON	49,637.60	240.00	49,877.60
YAMHILL	0	80.00	80.00
<b>Grand Total</b>	<b>657,843.41</b>	<b>123,868.91</b>	<b>781,712.32</b>

<sup>1</sup> Lands deeded by counties to state, owned by Board of Forestry

<sup>2</sup> State lands managed by Board of Forestry under contract with Department of State Lands

*Cable logging operations  
on state forest lands in  
Oregon's coast range.*



**Board of Forestry Payments to Counties  
Volume, Value, and Revenue of Board of Forestry Lands**

County	Biennium 2001-2003			Biennium 2003-2005 Estimated		
	Volume Harvested*	Value	Revenue to County	Volume Harvested*	Value	Revenue to County
Benton	6,891	\$2,715,696	\$1,615,170	15,260	\$5,908,572	\$3,855,500
Clackamas	9,207	\$2,758,851	\$1,334,593	5,232	\$1,978,126	\$1,616,800
Clatsop	202,723	\$69,824,875	\$38,524,052	179,509	\$62,518,806	\$36,694,000
Columbia	9,464	\$4,199,298	\$2,469,972	3,114	\$1,208,501	\$1,408,000
Coos	1,413	\$388,817	\$276,631	2,842	\$1,075,344	\$499,300
Douglas	5,456	\$1,968,234	\$823,972	72	\$21,670	\$0
Josephine	2,345	\$633,293	\$104,753	0	\$0	\$0
Klamath	14,548	\$3,663,696	\$2,343,791	13,181	\$3,969,007	\$784,500
Lane	13,644	\$5,120,516	\$3,268,978	7,533	\$2,749,093	\$1,860,800
Lincoln	12,394	\$4,583,629	\$2,673,125	9,029	\$2,764,281	\$1,402,800
Linn	29,553	\$13,248,809	\$7,742,922	23,871	\$9,757,868	\$7,698,600
Marion	5,957	\$2,113,534	\$833,672	22,505	\$7,813,102	\$2,013,800
Polk	4,377	\$1,495,284	\$931,801	1,504	\$461,370	\$256,100
Tillamook	126,006	\$38,489,681	\$19,463,770	160,877	\$48,583,324	\$19,266,500
Washington	38,648	\$15,283,354	\$10,087,753	45,934	\$17,162,578	\$12,647,900
<b>Total</b>	<b>482,626</b>	<b>\$166,487,567</b>	<b>\$92,494,955</b>	<b>490,463</b>	<b>\$165,971,642</b>	<b>\$90,004,600</b>

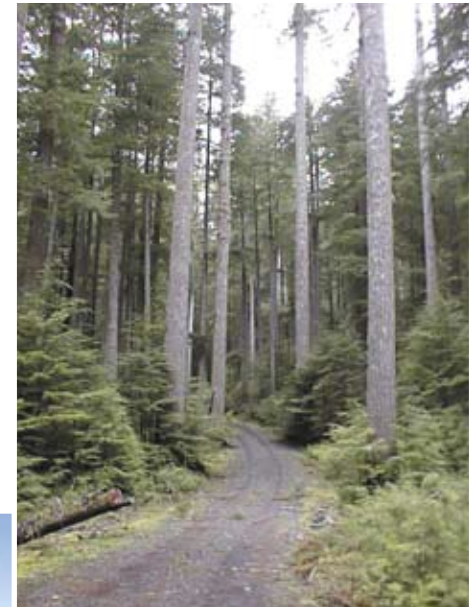
\* in thousand board feet (MBF)

## 2003-2005 Estimated Biennium Timber Harvest Volume and Value

ODF Area	Board of Forestry		Common School Lands	
	07/01/2003 to 06/30/2005		07/01/2003 to 06/30/2005	
ODF Area	Volume mbf*	Value	Volume mbf*	Value
Northwest Oregon Area	466,830	\$158,156,500	7,350	\$2,250,000
Southern Oregon Area	10,440	\$3,846,100	58,150	\$27,500,000
Eastern Oregon Area	13,180	\$3,969,000	3,800	\$600,000
<b>Total**</b>	<b>490,450</b>	<b>\$165,971,600</b>	<b>69,300</b>	<b>\$30,350,000</b>

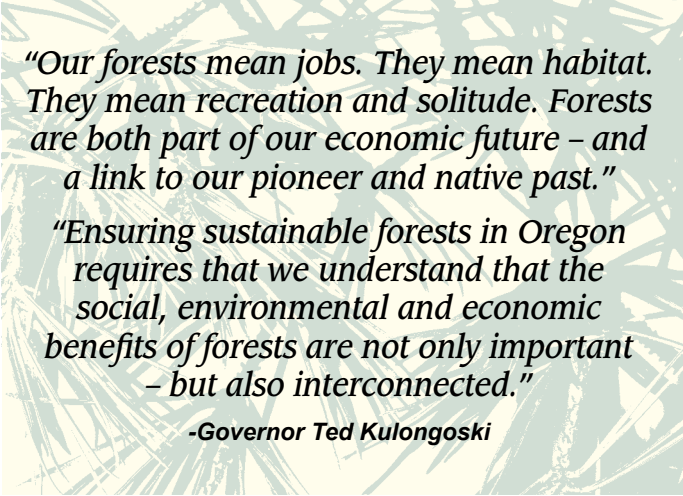
\* mbf is one thousand board feet  
 \*\* These numbers have been rounded down

- Northwest Oregon Area is all or parts of Marion, Polk, Linn, Lincoln, Benton, Clackamas, Tillamook, Clatsop, Yamhill, Washington, and Columbia counties.
- Southern Oregon Area is all or parts of Coos, Douglas, Josephine, Jackson, Lane and Currie counties.
- Eastern Oregon Area is all or parts of Klamath and Lake counties.



**The Oregon Department of Forestry has four long-range management plans in place to guide operations on its 781,712 acres of state forestland.**





*“Our forests mean jobs. They mean habitat. They mean recreation and solitude. Forests are both part of our economic future – and a link to our pioneer and native past.”*

*“Ensuring sustainable forests in Oregon requires that we understand that the social, environmental and economic benefits of forests are not only important – but also interconnected.”*

**-Governor Ted Kulongoski**