

Forests now and into the future

In Oregon, we take pride in our forests.

With more than half the state covered in forests, trees are ubiquitous here. These abundant forests provide us with a host of social, environmental and economic benefits. Forests are a place to find solace, have fun and view native wildlife. As they grow, the trees in forests help provide us with clean air and water, and store atmospheric carbon in their wood that combats climate change. Oregon's forests are also important to our state economy. More than 62,000 Oregonians have forest-related jobs, and the state is the nation's top producer of softwood lumber and plywood.

Because forests give us so much, Oregon's forest sector has long understood the importance of managing them sustainably, so the next generation can enjoy the same benefits from our forests that we do today. In this latest edition of *Oregon Forest Facts*, you'll learn more about how here in Oregon, we sustain our forests now and into the future — while producing renewable building products for constructing everything from housing to airport terminals.

The Oregon Forest Resources Institute, or OFRI as many call us, updates Oregon Forest Facts every two years to provide the latest statistics and information on Oregon's forest sector. This publication is key to our mission to support the sector and the stewardship of natural resources by advancing Oregonians' understanding of the social, environmental and economic benefits of our forests.

Thank you for your interest in Oregon's forests and forest sector. We hope you find this booklet useful.

Sincerely,

Jim Paul, Executive Director Oregon Forest Resources Institute On the cover: The Portland International Airport's wooden lattice roof is constructed with timber grown and manufactured in the Pacific Northwest.

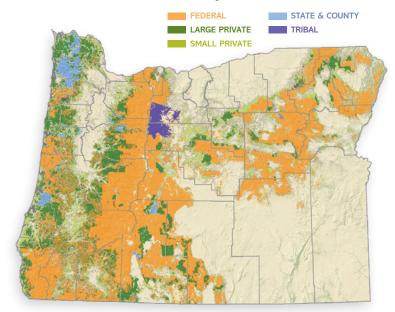
Forestland area

Nearly half of Oregon is forestland. Oregon's forests vary by species composition and ownership. Douglas-fir trees dominate the forests in western Oregon, ponderosa pine in eastern Oregon and mixed conifers in southwest Oregon. In terms of ownership, the federal government manages 60% of Oregon forests; private owners, including Native American tribes, manage 36%; state and county governments manage 4%.



Ownership (2021) 1, 2	Forestland (acres)	Percent of total
U.S. Forest Service	14,060,753	47%
Bureau of Land Management	3,616,018	12%
National Park Service	179,313	1%
Other federal	28,061	<1%
Total federal	17,884,145	60%
State	1,095,895	3%
County and municipal	222,012	<1%
Total state and county	1,317,907	4%
Large private landowners (individuals, families, companies, investment firms, etc.)	6,521,758	22%
Small private landowners (individuals, families, trusts, nonprofits, etc.)	3,542,360	12%
Native American tribal forestland	499,350	2%
Total private	10,563,468	36%
TOTAL FORESTLAND, all owners	29,765,520	100%

Forestland ownership¹



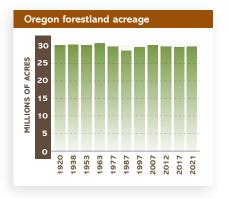
FOREST MANAGEMENT STYLES VARY BY OWNER

Oregon's forests are managed to reflect the varied objectives and practices of a diverse array of landowners. These include the federal government, which owns the largest portion of Oregon's forestland, as well as state, county and municipal governments, private timber companies, nonprofits, tribes and small woodland owners, each with a range of goals for their land. Sustainable forestry practices help landowners find a balance between their environmental and economic values. Federal lands are managed primarily for ecosystem values such as threatened and endangered species habitat conservation or recreation. State lands tend to be managed for multiple uses, including recreation, water, wildlife habitat and timber. Private timber company lands are managed

primarily for timber production while also providing wildlife habitat and recreation opportunities. Oregon's forest landowners may approach sustainable forest management differently, but they share a common goal of ensuring their forests thrive now and into the future.

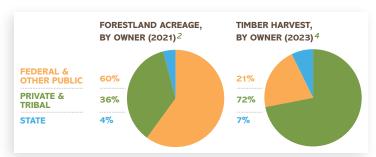
Historic forestland changes³

The amount of total public and private forestland in Oregon has held mostly steady, at about 30 million acres, for nearly 100 years. In fact, it's estimated to have been about 30 million acres in the 1600s, as well.



FORESTLAND OWNERSHIP AND TIMBER HARVEST

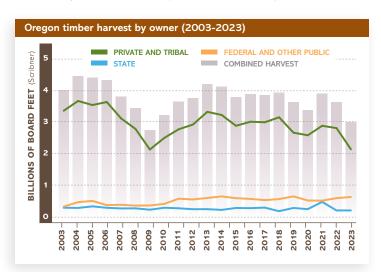
While the federal government manages most of the forestland in Oregon, only a fraction of Oregon's timber harvest happens on federal land, and most of that is from thinning. About 72% of the total state harvest comes from private timberlands.



Oregon timber harvest levels

While timber harvest on federal lands sharply dropped in the late 1980s and early 1990s, mainly due to changes in federal forest management emphasis following the listing of the northern spotted owl and several fish as threatened species, timber harvest levels from public and private forestlands over the past 20 years have remained relatively stable. The Great Recession (2007-09) and the collapse of the housing market brought a severe contraction in the U.S. demand for lumber. Consequently, Oregon's timber harvest levels reached a modern-era low in 2009, with the smallest harvest since the Great Depression in 1934. By 2013, the harvest had rebounded to roughly pre-recession levels.

The 2020 Labor Day fires led to a short-term increase in timber harvest due to post-fire salvage logging on private land. This is reflected in the 2021 harvest levels of 3.9 billion board feet. However, long-term annual timber harvest is expected to decrease by 100 million to 250 million board feet per year from 2026 to 2065 due to loss of future growth on trees killed by wildfires in 2020.5



Carbon in Oregon's forests^{3, 6}

Through the process of photosynthesis, forests naturally sequester carbon dioxide from the atmosphere and store it as solid carbon. Oregon's forests store an estimated 3.2 billion metric tons of carbon. This stored carbon is found throughout the forest in carbon "pools." These include:



In addition to carbon storage in the forest, about 50% of the dry weight of wood is carbon. That means long-lived wood products made with timber from Oregon's forests, such as lumber and plywood used to construct homes, offices and other structures, also store carbon.

Oregon is number one

Oregon has led the nation for many years in producing softwood lumber and plywood typically used for homebuilding. Oregon's softwood lumber output of about 5.1 billion board feet in 2024 accounted for about 14% of total U.S. production, while Oregon plywood mills accounted for about 28% of total U.S. plywood production in 2023.

Top softwood lumber-producing states (in millions of board feet) 7							
	2019	2020	2021	2022	2023	2024	% of U.S. total for 2024
Oregon	5,584	5,607	5,839	5,576	5,471	5,093	14%
Washington	4,142	4,228	4,365	4,130	3,958	4,054	11%
Alabama	2,961	3,455	3,635	3,709	3,701	3,542	10%
Mississippi	2,438	2,619	2,589	3,030	3,077	3,223	9%
Georgia	2,750	3,289	3,369	3,508	3,430	3,159	9%
TOTAL U.S.	35,164	36,908	37,301	37,835	37,307	36,230	

Top plywood-producing states (in millions of square feet, 3/8" basis) 8							
	2018	2019	2020	2021	2022	2023	% of U.S. total for 2023
Oregon	2,475	2,395	2,291	2,357	2,189	2,146	28%
Louisiana	1,258	1,274	1,186	1,213	1,200	1,240	16%
Mississippi	818	834	734	782	710	707	9%
Texas	670	654	679	680	670	606	8%
Washington	610	575	588	547	550	537	7%
TOTAL U.S.	8,869	8,557	8,325	8,337	7,898	7,792	

A LEADER IN ENGINEERED WOOD

Some Oregon companies manufacture value-added engineered wood products such as cross-laminated timber (CLT), glulam and mass plywood panels (MPP). Of the 77 engineered wood manufacturing plants operating in the U.S., 18 are located in Oregon.

	Glulam	CLT & MPP	l-joist	Structural composite lumber	Total plants
Oregon	7	2	3	6	18
Washington	4	2	2	1	9
Alabama	3	1	2	2	8
Louisiana	-	-	2	3	5
Georgia	1	-	1	2	4
TOTAL U.S.	35	8	15	19	77

A range of forest products

Oregon's wood products industry is a traded sector, with close to 75% of all products made here sold outside the state. This generates revenue that supports Oregon's economy.

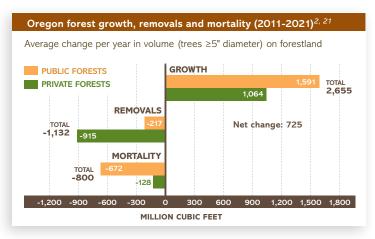
Here are some of the many different types of products that can be made from trees harvested in Oregon:

- softwood lumber and plywood
- · hardwood lumber and plywood
- engineered wood products
- composite wood products, such as particleboard, hardboard and fiberboard
- posts, poles and timbers
- pulp and paper products

- moulding and millwork
- biomass energy from mills burning wood waste to generate heat and electricity
- heating fuels such as pellets and bricks, made from sawdust and mill residue
- other wood products, including shipping pallets, pencils and musical instruments

Forest growth, harvest and mortality 1,3

From 2011 to 2021, Oregon's forests grew an annual average of 2.6 billion cubic feet of wood volume. About 1.1 billion cubic feet was harvested and 800 million cubic feet ended up in trees that died from natural causes. Overall, there was a net change of 725 million cubic feet, meaning Oregon's forests grew more wood than the amount that was harvested from them.

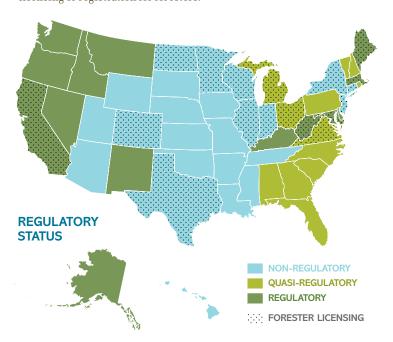


When forest growth, harvest and mortality are broken down by ownership category, differences in public and private forest management become apparent. On many federal forests in eastern and central Oregon, for instance, high growth combined with high mortality has created unusually dense forests with stressed trees that are more prone to insect infestation, disease and uncharacteristically severe fire. Much work has been done in recent years to reduce the number of trees and to clean up dead wood on federal forests, by thinning and other fuels reduction treatments such as prescribed burning.

Forest regulation and sustainability 9, 10, 11

Some states, including Oregon, have comprehensive legislation and regulations — commonly called "forest practices acts" — to encourage forest sustainability.

This map of the United States shows which states were classified in 2022 as having regulatory systems like Oregon's governing forestry practices. The map also shows which states have non-regulatory systems that rely on voluntary best management practices and which states are considered quasi-regulatory because they don't require best management practices but enforce environmental infractions. In addition, some states require licensing or registration for foresters.



Forest certification 12,13,14

Oregon forest landowners may choose to gain recognition from independent, third-party forest sustainability certification systems by meeting certain standards for sustainable forest management.

America's three largest certification systems are the American Tree Farm System (ATFS), the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI).

Forest certification gives wood product consumers, architects, engineers and builders an added level of assurance that the products used in their construction projects were produced using responsible and sustainable forestry practices.

In 2024, about 5 million acres, or 46%, of the private forestland in Oregon was certified. An estimated 1.3 billion board feet of timber is harvested each year from certified forestland in Oregon. Here's a breakdown of how much timber is estimated to come from forestland certified under each system:

MBF = million board feet Ownership	Acres (2024)	Estimated annual harvest (2017-21)	
ALL OWNERSHIP	29,765,520	3,800 MMBF	
PUBLIC	19,202,052	912 MMBF	
PRIVATE	10,563,468	2,888 MMBF	
UNCERTIFIED	5,540,380	1,594 MMBF	
CERTIFIED	5,023,088	1,294 MMBF	
- SFI	4,144,526	1,054 MMBF	
ATFS	706,258	194 MMBF	
FSC	172,304	46 MMBF	



Forest sector workforce 15,16,17

Tens of thousands of Oregonians are employed across a variety of forest-related jobs. (For a complete breakdown of the job figures, see page 14.) These forest professionals help care for our forests, conserve fish and wildlife habitat, protect water, sustain forests for future generations, and make innovative forest products.

About 3% of Oregon jobs are part of what is known as the "forest sector." The sector encompasses a diverse array of careers that include firefighters, ecologists, foresters, wildlife and fish biologists, and more.

Forest sector jobs pay relatively well, with an annual average wage of \$71,900. These jobs are especially important in Oregon's rural counties, where forest sector employment accounts for 6% of all rural employment, compared with 2% of all metro area employment. (For more information about the number of forest sector jobs by county and wages, see page 15.)

Like other industries, Oregon's forest sector has been affected in recent years by a statewide labor shortage. The forest sector is looking at several opportunities to improve the forestry workforce, such as by providing forest operator training programs.

An array of jobs¹⁶

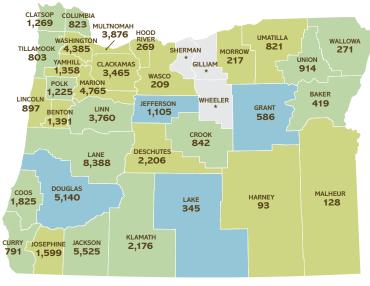
Oregon's forest sector includes a wide variety of employment, from forestry, logging, millwork and cabinetmaking to engineering, hydrology, business management and academic research.

Here's a rundown of Oregon's forest sector jobs by type of employment in 2023:



Oregon's forest sector jobs (2023)					
Primary forest products	19,518				
Veneer, plywood and engineered wood	8,934				
Sawmills and wood preservation	6,444				
Paper and pulp manufacturing	4,140				
Secondary forest products	12,352				
Millwork (doors, windows, custom)	5,512				
Wood kitchen cabinets and countertops	3,653				
Wood containers and pallets	936				
Other (manufactured homes, prefabricated wood buildings, furniture, etc.)	2,251				
Forestry management	7,048				
Private company management	1,150				
Federal management (USFS, BLM, etc.)	4,600				
State of Oregon and local government	982				
Forestry and environmental consultants, researchers and academics	316				
Forestry support	12,581				
Logging	5,736				
Machinery manufacturing	910				
Support activities for forestry (nurseries, non-forest products, firefighting, etc.)	5,935				
Distribution, transportation, other	10,792				
Transportation of logs, chips, goods	5,842				
Wood product wholesalers	2,774				
Paper product wholesalers	796				
All other identified forestry sector firms (biomass, electric power, airport operations, marine cargo handling, etc.)	1,380				
TOTAL	62,291				

Forest sector jobs by county¹⁶





Forest-related jobs make up 3% of the total jobs in Oregon, but in four rural counties – Grant, Jefferson, Douglas and Lake – they account for more than 10% of the total employment.

The average annual wage of those jobs in 2023 was \$71,900, roughly 5% more than the average wage of \$68,300 for all Oregon employment. Forest sector jobs in rural areas paid as much as 77% more than the average for all jobs.

A record-breaking fire season

Oregon's 2024 fire season was record-breaking. More than 1.9 million acres burned across the state, the most acreage burned during a single season in the last 30 years. Lightning and human-caused fires ignited during extreme heat strained Oregon's fire resources as firefighters battled six "megafires" (wildfires greater than 100,000 acres) during the 2024 fire season. Other states and Canada sent firefighters and resources to assist the Oregon Department of Forestry (ODF), which serves as Oregon's largest fire department, protecting private forestlands as well as some public land.

Total wildland fires and acres burned in Oregon 18, 19, 20

The total acres burned by wildfires in Oregon has increased dramatically in recent years. The 2024 fire season shattered records for acres burned. In comparison, the next two biggest seasons were in 2020, when 1.1 million acres burned — mostly during the Labor Day fires — and 2012, when 1.2 million acres burned.

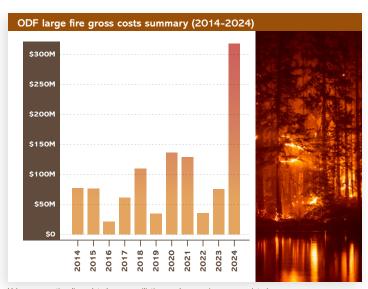
Year	ODF fires	ODF acres	Total fires	Total acres
2024	1,023	320,060	2,070	1,932,623*
2023	1,012	17,425	1,997	206,077
2022	879	34,573	2,045	446,534
2021	1,134	228,778	2,203	828,778
2020	982	541,394	2,215	1,141,613
2019	1,020	17,077	2,295	79,735
2018	1,112	76,774	2,019	897,263
2017	1,091	47,162	2,049	714,520
2016	832	5,661	1,245	219,509
2015	1,079	86,849	2,588	685,809
2014	1,120	53,387	3,087	984,629
Average (2014-24)	1,026	129,922	2,165	739,735

^{*}Northwest Interagency Coordination Center estimate, final numbers not released as of March 2025.

Rising costs of fighting fire 18,19

As the number of acres burned each fire season in Oregon has gone up, so have the costs of fighting those fires. In 2024, the Oregon Department of Forestry's (ODF) gross costs for fighting large fires were about \$318 million, far exceeding the agency's 10-year average (2014-2023) gross annual costs for fighting large fires of around \$76 million. ODF's net costs for fighting large fires also went up to \$132 million in 2024, well above the 10-year average for net costs of about \$34 million.

To help address the challenge of worsening fire seasons and the rising costs of fire suppression in Oregon, ODF is leading a 20-Year Landscape Resiliency Strategy to improve forests and rangelands to reduce wildfire risk. ODF developed the plan with private, local, state and federal partners to target about 13 million high-risk acres.



Values are continually updated as reconciliations and processing are completed, and include non-jurisdictional fires.

ENDNOTES - SOURCES OF INFORMATION

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ABOUT THE OREGON FOREST RESOURCES INSTITUTE

The Oregon Forest Resources Institute supports the forest sector and the stewardship of natural resources by advancing Oregonians' understanding of the social, environmental and economic benefits of our forests.





 About 62,300 Oregonians have a forest-related job (page 14).



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