

Forest Sustainability in the Pacific Northwest: Key Metrics

FACTSHEET 1
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Scenario: The View from Above

Imagine you've just taken off on a flight from Seattle to Eugene. As the plane climbs, you notice the hills and slopes covered with uniform expanses of evergreens.

But from higher up, you begin to see a mottled patchwork of greens and tan that stretches for miles. Now you wonder about the forested landscapes you glimpsed, but weren't close enough to clearly see:

- Are the tall, even stands of trees on the hills and ridges natural old-growth forests?
- What about those tan patches from clearcuts—Why do timber companies still harvest that way?
- Is forest management in the Pacific Northwest sustainable?



Background

In the Pacific Northwest, we have 51 million acres of forests, of which 10 million are protected in parks and wilderness, while 18.45 million acres are reserved from harvest to support fish and wildlife needs. That leaves about 22.5 million acres of timberland available for harvesting—or about 44% of forested acres in the PNW.

But just because forests are classified as *timberland* it doesn't mean they are available—or even desirable—for harvest. For example, the **old-growth forests** of the PNW, which provide critical ecosystem services for people as well as habitat for wildlife, **have largely been reserved from harvest for more than 20 years and are likely to remain as they are today**—unless they are impacted by increasingly destructive natural disturbances (fire, wind, insects, pathogens) exacerbated by climate change.

These remaining old-growth stands have actually lost value as timberland—since the trees are too large to fit through modern sawmill equipment—even as their ecological and aesthetic value continues to increase.

Millions of acres of **second-growth** timberland is also reserved from harvest because of policies and regulations aimed at protecting iconic fish and wildlife species—salmon, spotted owls, murrelets, along with less well-known species such as Oregon spotted frogs and Pacific giant salamanders.

So what do we actually produce on the 22.5 million acres of PNW timberland? The short answer is **a lot of Douglas-fir!** Douglas-fir, our most valuable native tree species, has very strong wood, grows straight and tall incredibly quickly—and can be ready for harvest in just 40 to 60 years.

In fact, most of the large, old-looking evergreen trees we see on the hills and slopes around us are second-growth stands of Douglas-fir that were planted only a few decades ago. And many of the light and dark green patches in the landscape quilt, seen from above, are planted, managed stands of Douglas-fir at different ages growing in large plantations.



About the only thing the amazing Douglas-fir can't do is... *grow in the shade*. That's why land is cleared during harvest to make open space for new seedlings to flourish—which also explains some of those patches of tan we see in our landscape quilt.



Sustainable Forest Management Up Close

At 7.4 billion board feet, the amount of timber harvested in the Pacific Northwest each year is enough to build 382 million homes! How can our region produce so much wood—and can it possibly be sustainable?

We have a great climate for growing trees! And we've been learning how to grow them bigger, better, and faster—and how to grow as much or more than we remove. Although millions of trees are harvested in the PNW each year, millions more are replanted to keep up with the demand.

In fact, the amount of timber per acre on public and private timberland hasn't budged much since 1953 when we were still harvesting old growth trees. But, over this same time period, timber companies have also transitioned *away* from harvesting old-growth timber. Now, about 80% of the wood harvested in the PNW comes from private forests and most of that comes from large corporate landowners—making them a crucial part of the forest sustainability story.

Forest Products and Carbon

PNW timberland is being sustainability managed for a stable wood supply. Our forests produce 34% of U.S. lumber and plywood and 11% of the world's supply—without a significant decline in the forest carbon stocks. Thanks to modern forestry techniques, replanted forests, on average, are supporting *as much wood and therefore as much carbon as they did nearly 70 years ago*.

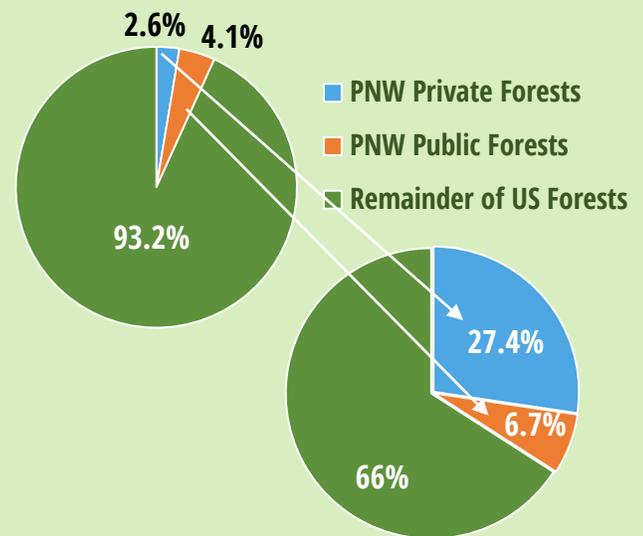
Moving Forward: Keep Forests as Forests

Beyond 2020, the greatest threat to the presence of forests in the Pacific Northwest is not timber harvest, but the conversion of forestlands to other land uses, such as for development, livestock, and mineral mining. Ironically, the same timber companies that harvest trees also enable the continued existence of forests, since the former cannot exist without the latter.

The Takeaway

- PNW forests produce 34% of US lumber and veneer from 6.7% of US timberland.
- Forest management in the PNW is sustainable, with stable carbon stocks.
- As long as PNW forests remain as forestland, we can continue to provide a steady supply of wood products and ecosystem services—wildlife habitat, clean water, carbon sequestration, and more—that we all need and value.

PNW Share of US Timberlands



US Sawlog and Veneer Production

- Research shows that places with strong markets have more forests and more investment in sustainable forestry.
- So our best climate mitigation strategy is to use more wood to encourage growing more trees through sustainable forestry.

For more information, contact Elaine Oneil, PhD, Director of Science and Sustainability, CORRIM. elaine@corrим.org. See also Oswald et al. (2019). <https://doi.org/10.2737/WO-GTR-97>.

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