



We Advocate Thorough Environmental Review

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Comment on the Notice of Intent to prepare an environmental impact statement regarding a Forest Plan Amendment for Planning and Management of Northwest Forests Within the Range of the Northern Spotted Owl

We Advocate Thorough Environmental Review, more commonly known as W.A.T.E.R., is a grassroots, nonprofit 501(c)(3) organization dedicated to protecting Mount Shasta's waters and other natural attributes for the benefit of current and future generations. In our ten-plus years as an organization (eight-plus years as a nonprofit) we have focused on protecting our water resources from depletion by extraction and corporate privatization, protecting surface and groundwater from contamination by industrial activity, and protecting the regional environment from other inappropriate and polluting industrial/commercial activities. Our work has clarified for us the following realities:

- The climate crisis is one of the most urgent existential threats to humanity.
- "Environmentalism" in the 21st century cannot exist without addressing economic and social justice issues.
- Achieving social, economic, environmental, and climate justice requires confronting the dysfunctional economic and political systems that are ruining the planet and stonewalling efforts to change.
- Local issues are not strictly local; they are impacted by what happens regionally, statewide, nationally, and globally. And conversely, what we do in our communities can have far-reaching impacts around the globe.
- It is a moral obligation to protect Mount Shasta's water and other natural attributes.

We believe in the inherent value of all Life. This planet is our only home and each generation has the responsibility to steward the Earth so the biosphere can regenerate and thrive now and for countless generations to come.

The Pacific Northwest region is one of the three areas in the world where the world's tallest trees can be found; where trees grow over 70 meters tall. The three tallest trees in the world, all Coastal Redwoods (*Sequoia sempervirens*), are found in California's Redwood National Park¹. But In California alone, by comparing historic (1930s) and contemporary (2000s) surveys of forests, it has been documented that across 120,000 km², large trees have declined by up to 50 percent, corresponding to a 19 percent decline in average basal area and associated biomass, despite large increases in small tree density². Historical patterns of ownership and use have fragmented the landscape with dire consequences for biodiversity.

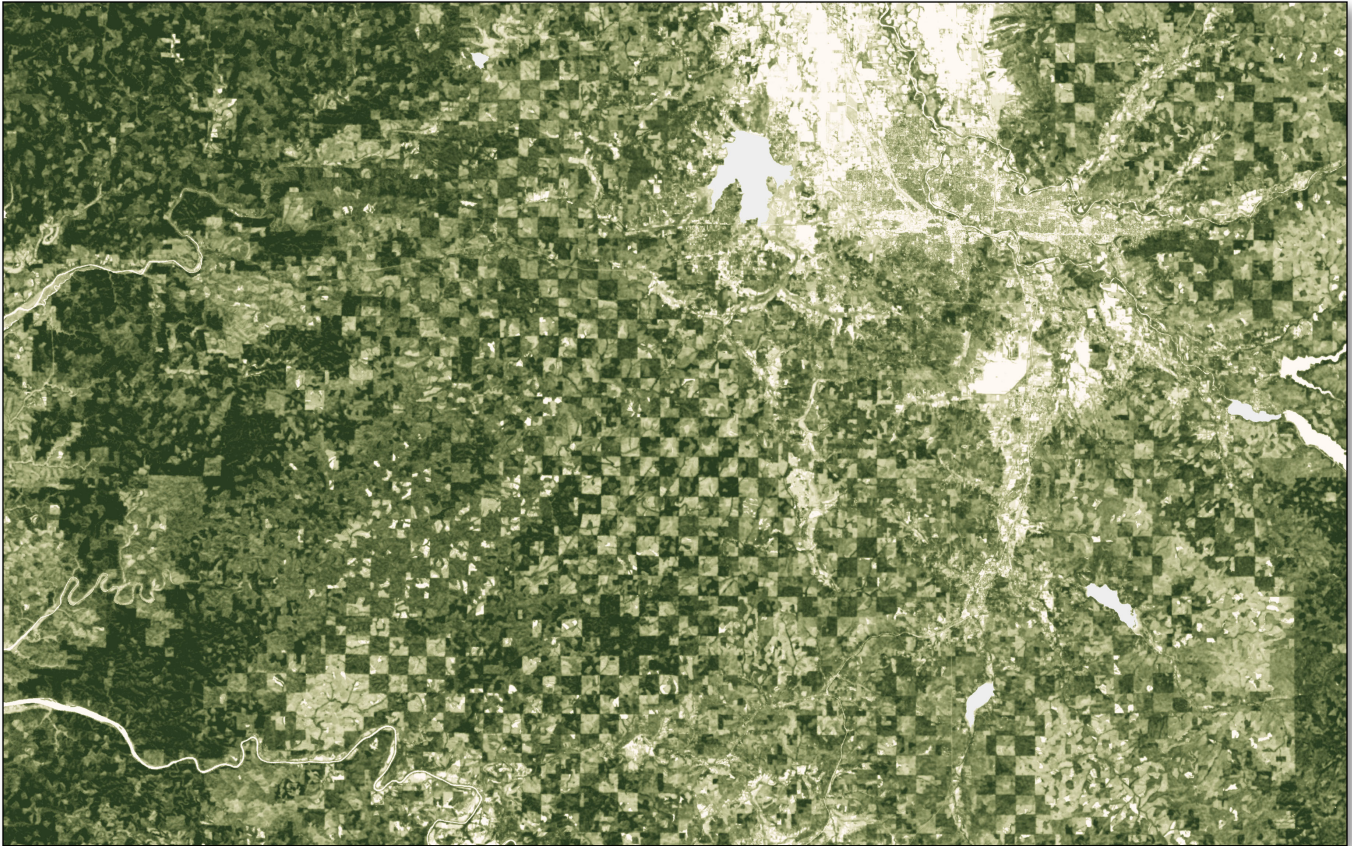


Image showing landscape around Eugene, Oregon accessed at:
<https://earthobservatory.nasa.gov/images/149793/scientists-show-how-forests-measure-up>

The original intent of the Northwest Forest Plan (NWFP) was to protect the disappearing critical old-growth forest habitat of the threatened Northern Spotted Owl (*Strix occidentalis caurina* — NSO). The NSO became the de facto indicator of both the health and extent of old-growth and mature forest. But along with all of the other listed species recognized by the Endangered Species Act, the landscape has now become a labyrinthian obstacle all of these creatures need to navigate when attempting to disperse across the land as logging has continued to fragment and degrade the environment. Despite the provisions of the Northwest Forest Plan, the population of NSO has trended inexorably downward in all National Forests they inhabit due to habitat destruction. The latest published report on the Status and Trends of Northern Spotted Owl Habitats covering the first 25 years of the NWFP (1994 - 2018) discloses:

“The forest landscape that allowed for owl movement between one reserved area to another became more confined and fragmented. Despite net increases in NSO forests on federal lands during the monitoring period, the population of territorial owls on federal lands decreased by an estimated 61.8 percent.”³

The next report will be published in 2025, but the need for a revision of the NWFP is obvious given the conspicuous failure of current forest management to curtail NSO population loss. The northern spotted owl is now rare throughout Washington State, with populations continuing to decline. The recent report of the extirpation of NSO in British Columbia due to the excessive harvest of old-growth forest, leaving only one northern spotted owl known to be living in the wild⁴, shows the result of such lamentable stewardship clearly.

Criticism of the proposed Forest Plan Amendment

The main purpose for this amendment is purported to be “to better enable the agency (US Forest Service - USFS) to meet the original intent of the NWFP to conserve mature and old-growth ecosystems and habitat for the NSO and other species”. Typical habitat characteristics include:

- Generally high canopy closure
- Complex canopy structure involving trees of multiple age or size classes
- Large decaying trees and/or snags
- A high volume of downed wood.

The presence of mistletoe infection is important in the eastern Cascade Range.⁵

Given this description of NSO habitat, it is nonsensical to state: “Ecologically appropriate timber management, such as thinning, can contribute to development of new habitat...”, as appears in the Supplementary Information for this proposed amendment. Opening the canopy by cutting the largest trees which the NSO may choose to nest and roost on, or “thinning” the understory and removing the multilayered forest structure the NSO depends on for hunting its prey would degrade or destroy NSO habitat; while removal of the decaying trees/snags or the downed wood would remove habitat for NSO prey depriving the owls of their sustenance.

Degradation of NSO habitat is contrary to the US Fish and Wildlife Service Revised Recovery Plan for the Northern Spotted Owl⁶ which “continues to recognize the importance of maintaining and restoring high value habitat for the recovery and long-term survival of the spotted owl.” For the NSO to be delisted, **“the present or threatened destruction, modification, or curtailment of the species’ habitat or range must be reduced or eliminated.”** (emphasis added)

Although competition with the Barred Owl (*Strix varia*) is blamed as the greatest threat to NSO;

“Without management intervention, the Northern Spotted Owl subspecies will be extirpated from parts of its current range within decades. In the short term, Barred Owl removal can be effective. Over longer time spans, however, maintaining or improving habitat conditions can help promote the persistence of northern spotted owl populations. **In most study areas,**

habitat effects on expected Northern Spotted Owl territorial occupancy are actually greater than the effects of competition from Barred Owls.”⁷ (emphasis added)

The claim that the dense stands constituting NSO territories are high-intensity wildfire risks in need of thinning has been refuted by many studies, including a study authored by USFS scientists that describes such forest stands as fire refugia.

“Under most wildfire conditions, the microclimate of interior patches of suitable nesting forests likely mitigated fire severity and thus functioned as fire refugia (i.e., burning at lower severity than the surrounding landscape). With changing climate, the future of interior forest as fire refugia is unknown, but trends suggest older forests can dampen the effect of increased wildfire activity and be an important component of landscapes with fire resiliency.

Some open-canopied forests and younger even-aged and densely stocked stands have hotter, drier, and windier microclimates, and those conditions decrease dramatically over relatively short distances into the interior of older forests with multi-layer canopies and high tree density. Suitable nesting forests for northern spotted owls tend to **burn at lower severity** than the surrounding landscape and thus may be **more resilient** to increasing trends of wildfire.⁸” (emphasis added)

Another study authored with two of the authors from the previous study concluded:

“Pre-fire nesting/roosting habitat had **lower probability of burning at moderate or high severity** compared to other forest types under high burning conditions. Our results indicate that northern spotted owl habitat can buffer the negative effects of climate change by enhancing biodiversity and resistance to high-severity fires, which are predicted to increase in frequency and extent with climate change. Within this region, **protecting large blocks of old forests** could be an integral component of management plans that successfully maintain variability of forests in this mixed-ownership and mixed-severity fire regime landscape and enhance conservation of many species.⁹” (emphasis added)

The rush to thin forest stands precipitated by the Wildfire Crisis Strategy has overlooked many studies that report denser, closed forests as having less high-severity fire and thus less tree mortality.

“Overall, closed-forest vegetation had significantly less high-severity fire than the burned landscape as a whole ($Z = -2.19$, $n = 77$, $p = 0.014$). Open forest and non-forest vegetation had considerably more high-severity fire. In our study area, harvest treatments to reduce fire severity based on a model of fuel build-up in the absence of fire would be misdirected because long-unburned areas exhibited the lowest fire severity. The hypothesis that fire severity is greater where previous fire has been long absent was refuted by our study.¹⁰”

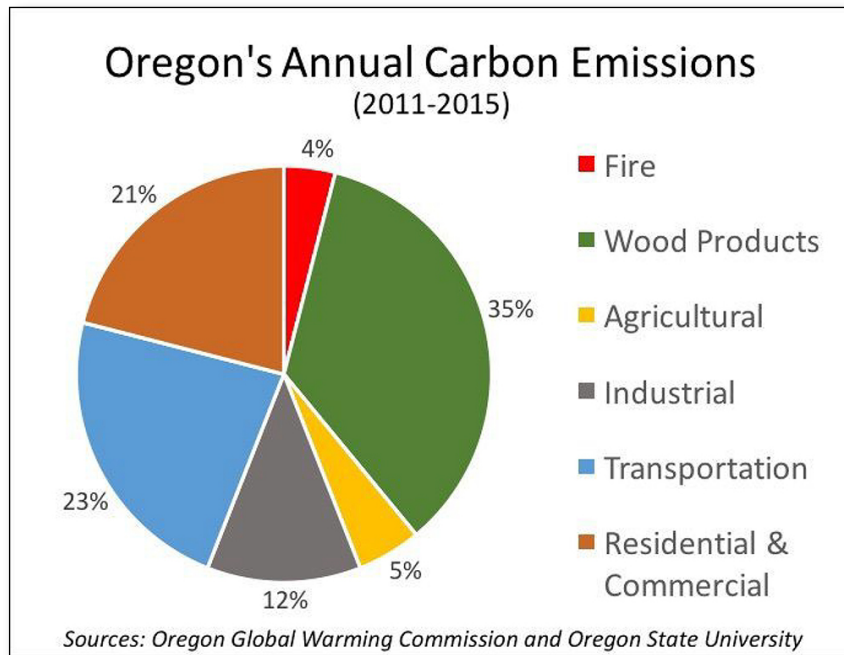
Additionally, in the Fuels Specialist Report for the Crystal Clear Restoration Project cited in BARK V. USFS, No. 19-35665 (9th Cir. 2020), the Specialist explains:

“However, reducing canopy cover can also have the effect of increasing ROS (rate of spread) through allowing solar radiation to dry surface fuels, allowing finer fuels to grow on the forest floor, and reducing the impact of sheltering from wind the canopy provides.”

Of the three listed purposes for this amendment, “provid(ing) a sustainable supply of timber and non-timber forest products” is given far too much importance at this time when the effects of Global Warming are already causing numerous catastrophes globally. Climate scientists have been warning us to stop emitting CO₂ to the atmosphere and to stop deforestation.

“To halt global warming, the emission of carbon dioxide into the atmosphere by human activities such as fossil fuel burning, cement production, and **deforestation** needs to be brought all the way to **zero**. The longer it takes to do so, the hotter the world will get. Lack of progress towards decarbonization has created justifiable panic about the climate crisis.¹¹” (emphasis added)

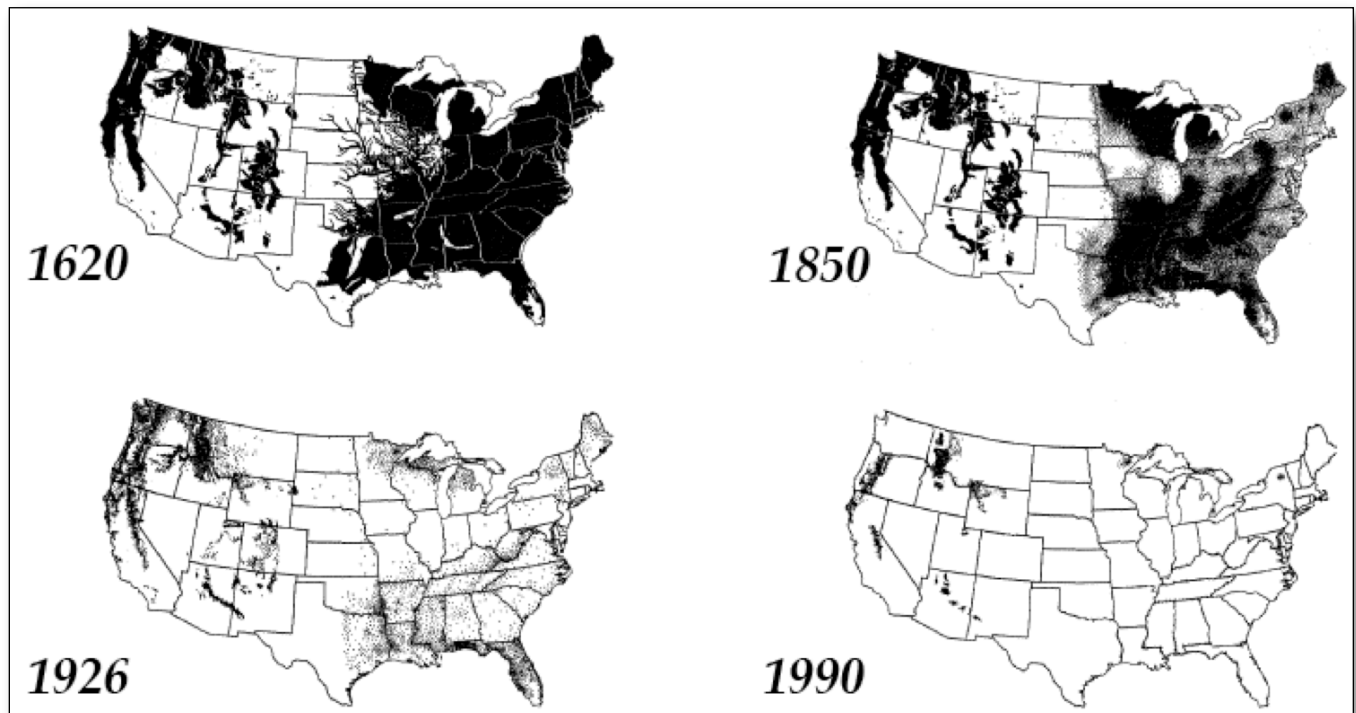
Timber harvesting, or any euphemism for timber harvesting, contravenes the warnings we’ve been given since it is a source of carbon emissions and returns sequestered carbon to the atmosphere. Timber harvesting also foregoes the enhanced capacity to sequester carbon that older trees can provide, diminishing the ability of forests to address Global Warming by reducing atmospheric CO₂ levels. Timber harvesting and loss of sequestration ability creates a vicious cycle amplifying Global Warming at a time when the world needs to accelerate decarbonization. Timber harvesting is even the largest source of carbon emissions in the state of Oregon.



As a signatory to the Paris Accords, the US has pledged to protect and conserve 30% of its land and waters by 2030. The US is also preparing a Land Management Plan for Old-Growth Forest Conditions Across the National Forest System. Coincidentally, 31% of US forests are federally owned. In light of these efforts to preserve the land and hopefully preserve both mature and old-growth forest stands,

and also in light of the failure of the previous NWFP iteration, all of the National Forests that comprise the range of the Northern Spotted Owl should be declared protected against all forms and manner of logging which is the greatest threat to both the Northern Spotted Owl and the forests themselves.

This action would both begin to fulfill the Paris Accord pledge and protect old-growth forests while recruiting mature stands to become old-growth. Since the only places where NSO populations have been stable are the National Parks where logging has been prohibited¹³ until recently, a prohibition against logging on these lands would arrest and hopefully reverse the decline of the Northern Spotted Owl and begin to truly restore America's forests.



Map of Virgin Forests in the United States over time accessed at:

<https://mapsontheweb.zoom-maps.com/post/183268297380/map-of-virgin-forest-in-the-usa-through-the>

The trees we're familiar with have existed for tens of millions of years; long before the advent of even the most primitive humans in Africa. The forests and the creatures that evolved with them didn't need our help and would best be served by ending our interference in their processes.

Thank you for your attention,

Frank Toriello
President
We Advocate Thorough Environmental Review

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