



Our mission is to connect people to the natural world and cultivate a community of environmental stewards working together to build a greener and healthier planet through advocacy, action, and education.

March 24, 2022

Via Regular U.S. Mail and E-Mail (srussell@bendoregon.gov)

Mayor Sally Russell
City Council Chambers at City Hall
710 NW Wall St.
Bend, OR 97701

Re: West Bend Project: Hit the Pause Button, Save Mature Ponderosas

Dear Mayor Russell:

Thank you so much for talking to me about the West End Project. I appreciate your willingness to include the Worthy Garden Club in the ongoing discussions and set up a time to talk. We have only recently been apprised of the controversy through the vigilant efforts of local conservation groups. I am hopeful that we can undertake this vital conversation *before* the trees in question are cut down.

Before delving into the substantive arguments, we have three questions:

1. Is there a date and time set for the logging of the mature Ponderosa Pines at issue? Who gets to decide the precise timing? Can the date and the scope of the cutting, which will indisputably cause irreparable harm to the trees in question, be delayed? I understand from you that the decision is in the hands of the logging contractor, and that they in their discretion, can power up the chain saws at any time.
2. Is cutting the trees in question consistent with the letter and spirit of the logging contract, which we assume is consistent with the Final Record of Decision (see below)? We have not seen the contract. Can you provide same?
3. What is the driving motivation for cutting the trees in question? Is it fire suppression? Forest and biodiversity restoration? Or the commercial interests of a logging contractor and their timber buyer? Do their interests preempt the needs of the public?

Our pressing concern is the immediate fate of the Ponderosas. We understand that there have been allegations by the logging contractor of vandalism. We understand that as a result the contractor has turned down fair offers to buy the trees in question and barrel forward. We have no knowledge of any alleged facts supporting any claim of vandalism. We are concerned that the contractor will use this alleged vandalism charge as political cover or distraction to justify a rash decision to sever the trees as "retaliation." It would undermine the spirit of the collaboration paradigm to leave the final decision on when, what, and where to cut mature trees on public lands to the whims of a disgruntled contractor and a for-profit timber company.

We would like to buy a little time so that we can discuss with the decision makers the merits of executing on a decision made roughly 11 years ago. Material conditions have changed. The average temperatures have increased, the GHG levels have increased, the drought has gotten worse, the carbon sequestering forest cover has gotten smaller, and the natural habitat as well as biodiversity has also shrunk. The science behind wildfire suppression has also changed dramatically.

In short, we are in a climate emergency. In order to mitigate its devastating consequences, and reduce emissions, and draw down carbon by 2030 and 2050, curbing logging operations and preserving stands of mature national forest is more critical than ever.

The Controversy

At issue is the wisdom of removing mature ponderosa pines in a ~10 acre section of the 25,700 acre West Bend Project. The WBP is within the Deschutes National Forest, approximately ten miles from the nearest housing development. The primary goal of the WBP is the restoration of the “forest landscape toward more resilient historic conditions.” (USFS West Bend Scoping Letter, December 2010). The Scoping Letter describes a need to return the forest to structures and conditions that lie within the historic range of variability – an ecological term used to describe the natural change or variability in plant associations over time.

The location of the mature ponderosa under question is within the Community Wildfire Protection Plan Area (WPPA). WPPA’s are designated by Project Wildfire (authorized through the Congressional Healthy Forest Restoration Act of 2003) to facilitate *collaboration* between communities and state and local agencies to determine priorities for hazardous fuels projects on federal and private lands in the wildland-urban interface (WUI). In short, actions taken pursuant to this Act must be shown by scientific data to reduce *not* increase the risk of wildfires.

Four major plant associations are identified in the 2010 Forest Service scoping letter: Lower Elevation Ponderosa Pine, Mid-Elevation Ponderosa Pine and Mixed Conifer (dry), Mixed Conifer, and Lodgepole Pine. The ~10 acre plot is located within the Lower Elevation Ponderosa Pine group. Management treatments for the low and mid-elevation sites prioritizes “*favoring fire-resistant species ... and retaining large diameter ponderosa pine.*” (See Table 1, emphasis added). This raises the question whether the logging contract is consistent with the law.

In 1994, the USDA Forest Service Pacific Northwest Region (PNW) enacted the 21-inch rule to slow the loss of large, older trees and old forest patches in national forests east of the Cascade Mountains in Oregon and Washington (USDA Forest Service, 1995). This “rule” set a broadly accepted definition for mature or large trees. The rule has been used as a common threshold in studies on carbon storage and biodiversity values of forests. The rule was initially conceived to protect late successional and old-growth forests and the native species that depend on these unique ecosystems east of the Cascades Crest (Henjum et al., 1994). And although there have been site-specific exceptions, the 21-inch rule has prevented large-scale harvest of trees ≥ 21 inch diameter (DBH) (Mildrexler et al., 2020).

The project location is outside the Bend city limits, but within the city limits. The Tree Preservation Performance Standards (16.10.100) require that all trees with a diameter at breast height (DBH) of twelve (12) inches or larger be retained on site, and 50% of all trees between eight (8) and twelve (12) inches DBH “shall” be retained on site. This standard suggests a high social value of mature and large trees to the citizens of Bend and central Oregon. The tract within the Phil’s trail network is not legally inside the city limits, but the city as a stakeholder in the collaboration should take a strong position on protecting larger trees that is consistent with its own standards.



Ponderosa pine in the project area

As you can see from a photo recently taken of a few of the Ponderosa pines slated for cutting, many of the mature trees within this stand exceed 21 inches. We can furnish more photos.

The original scoping for the West Bend Project was completed in 2011. The Final Record of Decision (ROD) for the West Bend Vegetation Management Project and Forest Plan Amendments was published in the Federal Register in December 2013. The analysis was based on the best available science at the time, but more recent studies have disproven many of the assumptions used in the analysis.¹

Plainly stated, science has marched forward, making the original good faith analysis outdated. This progress compels us to revisit the merits of the decision and terms of the logging contract to reflect our current understanding of forest function, including wildfire suppression. 36 CFR 220.3 directs the responsible official to facilitate management changes in response to recent studies findings related to climate change, forest resiliency, and carbon storage.

¹ The law requires that actions be taken that are consistent with the best available science. 36 CFR 220.3 defines Adaptive Management as “a system of management practices based on clearly identified intended outcomes and monitoring to determine if management actions are meeting those outcomes; and, if not, to facilitate management changes that will best ensure that those outcomes are met or re-evaluated. Adaptive management stems from the recognition that knowledge about natural resource systems is sometimes uncertain.” Additionally, § 220.4 directs the responsible official to determine and document that the environmental effects resulting from implementation of the new proposed action are similar to those analyzed in the existing NEPA documents. It is certainly arguable that the environmental impacts of implementing the proposed action exceeds any potential benefits analyzed in the EIS.

New Scientific Analysis and Data Shows Many Current US Forest Management Practices Worsen Climate Change and Increase Fire Risk and Severity

The rationale for harvesting mature trees is based on the use of historical stand structure and species composition as management targets. These premises assume that removing large shade-tolerant species will promote resilience to future drought and disturbance. However, ongoing climate change and other stressors such as habitat fragmentation, warmer strong winds and loss of biodiversity raise concerns over the use of historical conditions as management targets (Mildrexler, Berner et al. 2020).

1. Large trees (DBH \geq 21 in) make up only about 4% of the total stem counts in six eastside forests (Figure 1) but store approximately 46% of the above-ground carbon (AGC). See Table No. 2.
2. From a climate change/carbon storage perspective, it would take approximately **310 years** to reach maximum biomass (and carbon storage capacity) in the East Cascades ecoregion after harvest of large trees, which is too long to help reach climate mitigation targets set by Executive Orders and applicable laws. (Hudiberg, Law et al. 2009).
3. Forest canopies of the PNW buffer extremes of maximum temperature and vapor pressure deficit, with biologically beneficial consequences (Davis, Dobrowski et al. 2019). Water availability and microclimatic buffering are also enhanced by larger trees and intact forests (Frey, Hadley et al. 2016, Buotte, Law et al. 2020). Removal of bigger trees quickly leads to a large increase in soil and canopy heating, which increases enough to negatively impact photosynthesis (Kim, Still et al. 2016), seedling survival, and regeneration (Kolb and Robberecht 1996, Davis, Dobrowski et al. 2019b).
4. Older forests experience lower fire-severity compared with younger, intensively managed forests, even during extreme weather conditions (Zald and Dunn 2018).
5. Mature and old forests store more carbon in trees and soil than young forests. Converting mature forests to younger forests results in a significant loss of total carbon stores (Hudiberg, Law et al. 2009).
6. The strategy for reducing the severity of wildfires is focused on thinning public lands to prevent wildfire intrusion into communities, even though over 60% of fires in urban-interface properties start on private land and move to public forests (Law, personal communication).
7. Many commercial logging projects on public lands are conducted in the name of “fire prevention” but, due to the conflicting interest of timber revenue, result in the removal of large and medium fire-resistance trees, which degrades forest resiliency and results in more carbon emissions than a natural wildfire of the same size (Krop 2020). Logging itself is a major contributor of GHG.
8. The period that includes the late 19th and early 20th century is often the reference for studies that document historical conditions in ponderosa pine forests, but this was one of the coolest and wettest periods in at least three centuries. This pluvial was followed by the dust bowl drought (1917–1936) that was the most severe and sustained drought in at least 690 years. Dendrochronological and instrumental records indicate that the 1917–1936 drought has since been exceeded by the 1990-present drought (Merschel, Beedlow et al. 2021)

9. Ponderosa pine owes its longevity to drought tolerance and early and continuous investment in defensive mechanisms, including phenolic compounds and resins, deep roots, fire-resistant bark, and sparsely branched tree crowns.
10. Implementing multiple risk-based strategies may depend on adopting an alternative fire management approach. (Dunn, O'conner et al. 2020).
11. "The Forest Service's new strategy for the wildfire crisis leads with a focus on thinning public lands to prevent wildfire intrusion into communities, which is not fully supported by our work, or the work of many other scientists, as the best way to mitigate community risk." Dunn, 2022, <https://today.oregonstate.edu/news/osu-research-suggests-forest-service-lands-not-main-source-wildfires-affecting-communities>. "A substantial portion of the wildfire problem is a community destruction problem," added Michael Caggiano of Colorado State. "The Forest Service can contribute to an advisory or facilitation role to address the home ignition zone, including fire resistant design and zoning, and fuels management on private lands, but states, local government and homeowners are better positioned than the USFS to manage those components of wildfire risk."
12. The best science is telling us to work on removing combustible wood debris from the home out, not the forest in.

In summary, many of the existing forest management practices allegedly to protect forests and homes from wildfire are having severe adverse effects on forest integrity, and resilience and are worsening climate change and diminishing biodiversity.

Conclusion

During a climate emergency, the last thing we want to do is accelerate that catastrophe. Cutting down fire resilient, mature Ponderosas on public lands more than 2 miles from the Skyliners Neighborhood and 8 miles from the Highlands and Tree Farm developments based on outmoded science will *not* measurably reduce wildfire risk. Nor will cutting these trees down enhance the health of the forest ecosystem. Nor will the logging help the City, State and Federal Government meet its Carbon Mitigation 30/50 objectives. On the other hand, severing mature trees certainly *will* contribute to accelerated global warming. Worse, it will only feed the growing pessimism that our elected public officials, who are supposed to be the wise stewards of our forests, are either out of touch or subservient to corporate interests.

We are not simply speaking for the trees, which have no voice (that we can hear). We are also speaking for ourselves – humans. By cutting these trees down, we are sawing the branch of the tree we are sitting on. As the trees go, so do we. We are asking you to slow down this irreparable harm. Allow an assessment of new data that has emerged in the last 11 years. Allow new stakeholders with wide ranging perspectives to review the costs and benefits of the West Bend Project. Evaluate alternatives that spare the mature trees while also compensating the contractor for any provable economic loss. Open up the decision-making process to the public in a forum that is accessible to all. Embrace the new science and new forest suppression management paradigms. Avoid the appearance of a "done deal" that's "jammed through" at the public's expense.

Thousands of people every year hike and ride bikes through and around this ten-acre section within the iconic and beloved Phil's Trail networks. If we move forward rashly and put the fate of these beautiful trees in the hands of a miffed private contractor, while the science shows that cutting them down actually increases the fire risk and contributes to global warming, then that barren ten-acre lot will serve as a daily and depressing reminder that we *could* have done the right thing but chose in our haste to do the demonstrably *wrong* thing.

The Worthy Garden Club over the last few years, through its Operation Appleseed, has worked directly with the US Forest Service to plant diverse, native trees in Oregon, including the Deschutes National Forest. We have pledged \$1 million and to date have successfully planted over 650,000 trees. We are disturbed that at the same time we are taking the initiative to combat climate change by reforesting burn zones, the USFS is also sanctioning a decision to cut the very trees which we should be protecting.

Finally, we thank you for accepting our offer to meet and confer. We would like to do that, along with other stakeholders, *before* the decapitation. We don't want to conduct a *post mortem* at which we gnash our teeth and lament over what could and should have been done if we had allowed cool reason to prevail.

Sincerely,

Roger Worthington, Esq.
President

Rick Martinson, Ph.D.
Executive Director

Enclosures (To Be Provided)

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TABLE 1. Landscape objectives by plant association group and Forest Plan management areas. Source: USFS West Bend Scoping Letter, 2010.

Plant Association Group	Management Area(s)	Treatment Methods and Focal Species
<p>Lower Elevation Ponderosa Pine</p>	<p><i>Deer Habitat</i> <i>Scenic Views</i> <i>Ryan Ranch Key</i> <i>Elk Area</i> <i>Eastside Screens</i></p>	<p>Manage stands by thinning to reduce mountain pine beetle risk. Reduce dwarf mistletoe spread by reducing infection levels and increasing distance between trees. Increase stand resistance to fire mortality by favoring fire-resistant species, removing lodgepole pine and retaining large diameter ponderosa pine. Reduce fire intensity by reducing shrubs and down fuels. Manage recently thinned stands with prescribed fire.</p> <p>Reduce shrub densities to minimize nest predation for white-headed woodpecker (WHWO) by rodent population. Enhance palatable forage for mule deer. Develop old growth to provide foraging for pygmy nuthatch and chipping sparrow in the upper canopy. Recruit large snags over time for nesting WHWO. Retain unthinned areas for deer hiding cover and foraging habitat for WHWO.</p> <p>Thin within Riparian Habitat Conservation Area (RHCA) of the Deschutes River to promote fire and insect/disease resilience, promote development of large trees to provide shade and large wood recruitment, and reduce potential for adverse impacts to water from wildfire.</p> <p>Remove conifer encroachment in aspen stands; promote the regeneration and development of mature aspen to provide both nest and foraging habitat for red naped sapsucker.</p>
<p>Mid- Elevation Ponderosa Pine and Mixed Conifer Dry</p>	<p><i>General Forest</i> <i>Northwest Forest Plan Matrix</i></p>	<p>Manage stands to promote large ponderosa pine—thinning wide around the largest and most vigorous remnant ponderosa pine.</p> <p>Utilize variable density thinning to maintain canopy closure and accelerate the development of LOS ponderosa pine. Gaps and patches will occur where white fir or lodgepole pine are removed simulating what may have</p>

	<p>developed with natural fire. Increase stand resistance to fire mortality by leaving fire-resistant species, removing lodgepole pine and retaining large diameter ponderosa pine. Reduce fire intensity by reducing shrub and down fuels components and maintaining with fire.</p> <p>Remove encroaching lodgepole pine to reduce fuel loading/ladder fuels. Retain 15% of this habitat type untreated to provide foraging habitat for the northern goshawk and Williamson's sapsucker, including designated alternate goshawk nesting stands. Long term objectives are to recruit large snags to provide nesting habitat for Williamson's sapsucker.</p>
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Krop, S. (2020) "An Oregon Logging Impacts Profile for 2020."
 Merschel, A. G., P. A. Beedlow, D. C. Shaw, D. R. Woodruff, E. Henry Lee, S. P. Cline, R. L. Comeleo, R. Keala Hagmann and M. J. Reilly (2021). "An ecological perspective on living with fire in ponderosa pine forests of Oregon and Washington: Resistance, gone but not forgotten." Trees, Forests and People 4.

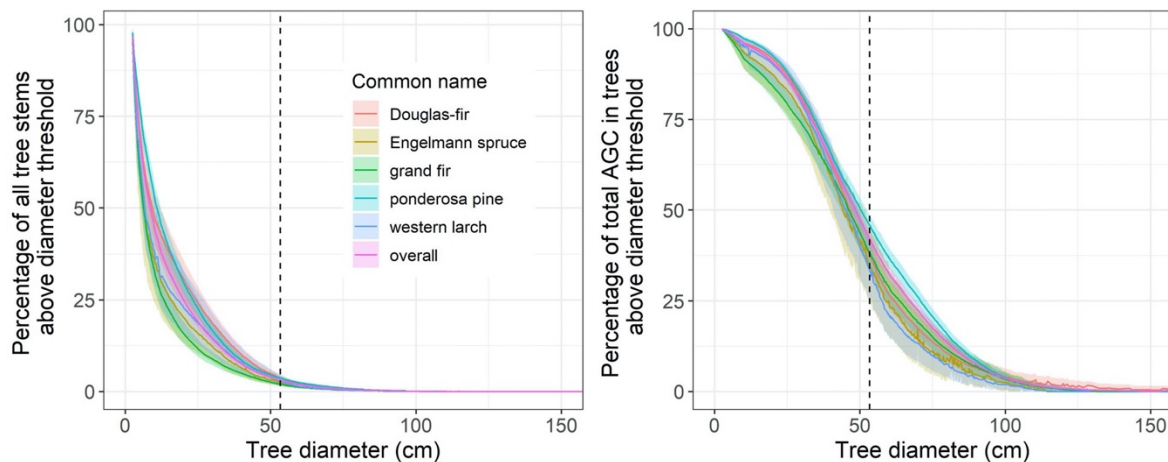


TABLE 2: Percentage of (A) all tree stems and (B) total aboveground carbon that occur in trees above a given diameter threshold by species based on measurements from USFS inventory plots located in the six eastside national forests. The dashed vertical lines represent a 21 in (53.3 cm) tree DBH. These estimates and 95% confidence intervals were derived by resampling ($n = 10^4$) measurements from inventory plots ($n = 3,335$). For example, trees with ≥ 21 in diameter represent 3.7 [3.2, 4.2]% of all ponderosa pine and account for 45.8 [42.8, 48.8]% of all aboveground carbon stored by this species on these inventory plots. Only $\sim 0.002\%$ of trees exceeded 150 cm diameter, so for visual clarity we limited the x -axis to 150 cm. From Mildrexler et al., 2020