

May 11th, 2021

RE: Climate and forest carbon in Eastern Oregon

Dear Ms. McCarthy,

We undersigned organizations respectfully request that you review the Trump-era decision to roll back protections for large trees on National Forests in Eastern Oregon and Southeastern Washington. We believe that a review of this decision, and the reinstatement of protections for large and old trees, is warranted under President Biden's Climate EO 13990.

In the final days of the Trump administration, James Hubbard, a Trump appointee, signed the decision to undo key protections for large trees on more than eight million acres across six National Forests. This recent [Forest Plan Amendment](#), *Forest Management Direction for Large Diameter Trees in Eastern Oregon and Southeastern Washington*, rolled back bedrock protections for large and old trees under the rule known as the Eastside Screens.

Due to a century of high-grade logging that removed the largest and oldest trees across all forest types, only a small fraction of the old growth trees that historically comprised forests in eastern Oregon and southeastern Washington now remain.¹ The Eastside Screens were implemented in 1994 in order to preserve the remaining large and old trees, and to protect ecosystem values such as wildlife and streams habitats.² Protections have not been in place long enough for large and old trees, and the crucial wildlife habitat they provide, to recover.³

If adequately protected, large and old trees on federal public lands provide an irreplaceable, effective, and low-cost opportunity for storing massive amounts of carbon.⁴ Large trees play an outsized role in carbon storage, and so their protection is critical for meeting climate goals and making meaningful strides towards combating climate change. **Recent research found that large trees comprise only 3% of trees, yet account for 42% of the above-ground carbon in forests in this region.**⁵ In addition to storing the lion's share of above-ground forest carbon, large trees sequester carbon at a faster rate than smaller trees. Notably, old and mature forests store more carbon than younger, logged forests.⁶ Researchers estimate that allowing mature forests to grow and stopping deforestation could double carbon uptake.⁷ Logging is the largest source of carbon emissions in Oregon, and emits far more carbon than wildfires.⁸

Retaining the remaining large trees on the landscape is crucial to providing for climate adaptability, and for protecting and restoring forest ecosystems. Large trees are the foundations of old growth and mature forests, and their roles in supporting biodiversity, wildlife, and clean water cannot be overstated. In addition, older forests and mature trees are better equipped to adapt to climate change and climate variability than younger forests.⁹ Old and mature forests protected from logging tend to experience lower severity wildfires compared to younger intensively managed forests.¹⁰

[Over 100 independent scientists](#) said this Forest Plan amendment will worsen the climate crisis, and advocated in favor of retaining protections for large trees. [Former Forest Service leadership spoke out against the amendment](#). The amendment will result in irreversible losses of the remaining old and large trees, increased carbon emissions, and potentially devastating impacts to wildlife and water quality. Yet, under pressure from the Trump administration, the Forest Service determined that their decision to withdraw key protections for large trees—a decision that affects approximately 12,500 square miles (eight million acres) across six National Forests—will not have significant effects.

We believe that the Trump administration's decision to remove key protections for large trees across millions of acres of National Forests falls squarely within the bounds of a 'significant' decision, and should therefore fall within the guidelines for decisions eligible for review under President Biden's

Climate EO 13990. Additionally, the EO outlines goals which include sequestering carbon in trees, protecting biodiversity, and addressing the changing climate in forests. The Trump administration's amendment runs counter to these goals and pushes federal public forests in the opposite direction of the vision outlined within the EO.

It is also important to note that the Forest Service's process for adopting this Forest Plan amendment was flawed and inadequate resulting in numerous substantive and procedural violations of applicable environmental laws, including but not limited to the National Environmental Policy Act. Notably, the public process for the amendment took place entirely during the pandemic, with only one opportunity for comment. The circumvention of the public process for such an enormous and consequential decision severely damaged the public's trust, and suggests that the agency lacks confidence that their decision can withstand independent review or public scrutiny.

Dozens of conservation, climate, Indigenous, wildlife, and other organizations [called upon President Biden's transition team to stop this amendment](#), and instead prioritize carbon storage and biodiversity. Conservation groups also [requested that the Biden administration review this decision under the Climate EO](#). We have not yet received a response to our requests.

Reinstating protections for large and old trees would allow communities and stakeholders to work together on forward-thinking solutions to the ongoing climate and biodiversity crises. President Biden's climate EO provides exciting frameworks for this work to take place-- provided we do not allow bad Trump administration decisions to tie us to actions that will worsen the climate crisis and cause irreversible harm to our public lands.

Thank you for your attention to this matter. It's hard to overstate the consequential nature of this proposal on the diverse forests in Eastern Oregon. The enormity of this amendment--and its massive implications for carbon storage, climate change, and forest ecosystems--surely calls for review under President Biden's climate EO. We implore you not to overlook the urgently needed review of this decision.

Sincerely,



Paula Hood, Co-Director
Blue Mountains Biodiversity Project



Mathieu Federspiel, Chair
Juniper Group, Sierra Club



Sean Stevens, Executive Director
Oregon Wild



Chris Krump, Public Lands Guardian
WildEarth Guardians



Darilyn Perry Brown, Executive Director
Greater Hells Canyon Council



Amy Stuart, Leadership Team
Central Oregon Bitterbrush Broads
Great Old Broads for Wilderness



Ben Gordon, Executive Director
Central Oregon Landwatch

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- ¹ Bell, D.M.; Acker, S.A.; Gregory, M.J.; Davis, R.J., Garcia, B.A. 2021. Quantifying regional trends in large live tree and snag availability in support of forest management. *Forest Ecology and Management*, Volume 479, 2021, 118554, ISSN 0378-1127, <https://doi.org/10.1016/j.foreco.2020.118554>.
- Henjum, M.G., Kan, J.R., Bottom, D.L., Perry, D.A., Bednarz, J.C., Wright, S.G., Beckwitt, S.A., Beckwitt, E., 1994. Interim protection for late successional forests, fisheries, and watersheds: national forests east of the Cascades crest, Oregon and Washington. Technical Reviews 94-2. The Wildlife Society, Bethesda, MD.
- Hessburg, P.F., Smith, B.G., Kreiter, S.G., Miller, C.A., Salter, R.B., McNicholl, C.H., Hann, W.J., 1999. Historical and current forest and range landscapes in the Interior Columbia River Basin and portions of the Klamath and Great Basins. Part 1. Linking vegetation patterns and landscape vulnerability to potential insect and pathogen disturbances. Gen. Tech. Rep. PNW-GTR-458. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, Portland, OR. Accessed online at: https://www.fs.fed.us/pnw/pubs/pnw_gtr458.pdf
- Merschel, A.G.; Spies, T.; Heyerdahl, E.K. 2014. Mixed-conifer forests of central Oregon: effects of logging and fire exclusion vary with environment. *Ecological Applications*, 24(7), 2014, pp. 1670–1688.
- Mildrexler, D.; Berner, L.; Law, B.; Birdsey, R.; and Moomaw, W. 2020. Large Trees Dominate Carbon Storage in Forests East of the Cascade Crest in the United States Pacific Northwest. *Frontiers in Forests and Global Change*, 05 November 2020. <https://doi.org/10.3389/ffgc.2020.594274>. Accessed at: <https://www.frontiersin.org/articles/10.3389/ffgc.2020.594274/full>
- USFS Region 6, 2015. Eastside Screens Enclosure--Recent science findings and practical experience: Implications for the Eastside Screens, September 2015.
- Wales, B., Suring, L., Hemstrom, M. 2007. Modeling potential outcomes of fire and fuel management scenarios on the structure of forested habitats in northeast Oregon, USA. *Landscape and Urban Planning* 80 (2007) 223-236. Accessed online: https://www.fs.fed.us/pnw/pubs/journals/pnw_2007_wales001.pdf
- ² United States Forest Service 1994. Environmental Assessment for the Continuation of Interim Management Direction Establishing Riparian, Ecosystem, and Wildlife Standards for Timber Sales. USDA Region 6 Pacific Northwest Region.
- United States Forest Service 1994. Decision Notice for the Continuation of Interim Management Direction Establishing Riparian, Ecosystem and Wildlife Standards for Timber Sales, United States Forest Service, Region 6, Colville, Deschutes, Fremont, Malheur, Ochoco, Okanogan, Umatilla, Wallowa-Whitman and Winema National Forests in Oregon and Washington https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev3_033587.pdf
- ³ Wales, B., Suring, L., Hemstrom, M. 2007. Modeling potential outcomes of fire and fuel management scenarios on the structure of forested habitats in northeast Oregon, USA. *Landscape and Urban Planning* 80 (2007) 223-236. Accessed online: https://www.fs.fed.us/pnw/pubs/journals/pnw_2007_wales001.pdf
- ⁴ Erb, K.H., Kastner, T., Plutzer, C. *et al.* Unexpectedly large impact of forest management and grazing on global vegetation biomass. *Nature* 553, 73–76 (2018). Accessed at: <https://doi.org/10.1038/nature25138>.
- Lutz, J. A., Furniss, T. J., Johnson, D. J., Davies, S. J., Allen, D., Alonso, A., et al. 2018. Global importance of large-diameter trees. *Glob. Ecol. Biogeogr.* 27, 849–864. doi: 10.1111/geb.12747. Accessed online: <https://onlinelibrary.wiley.com/doi/abs/10.1111/geb.12747>
- FAO. 2020. Global Forest Resources Assessment 2020: Main report. Rome. <https://doi.org/10.4060/ca9825en>
- ⁵ Mildrexler, D.; Berner, L.; Law, B.; Birdsey, R.; and Moomaw, W. 2020. Large Trees Dominate Carbon Storage in Forests East of the Cascade Crest in the United States Pacific Northwest. *Frontiers in Forests and Global Change*, 05 November 2020. <https://doi.org/10.3389/ffgc.2020.594274>. Accessed at: <https://www.frontiersin.org/articles/10.3389/ffgc.2020.594274/full>
- ⁶ Campbell, J.L.; Harmon, M.E.; Mitchell, S.R. 2011. Can fuel-reduction treatments really increase carbon storage in the western US by reducing future fire emissions? *Frontiers in Ecology and the Environment*, doi: <http://dx.doi.org/10.1890/110057>
- Law, B.E. and Waring, R.H. 2014. Carbon implications of current and future effects of drought, fire and management on Pacific Northwest forests. *Forest Ecology and Management*, 355 (2015) 4–14. Accessed online: <http://people.forestry.oregonstate.edu/richard-waring/sites/people.forestry.oregonstate.edu.richard-waring/files/publications/Law%20and%20Waring%202015.pdf>
- Moomaw, W. R., Masino, S. A. and Faison, E. K. 2019. Intact forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good. *Front. For. Glob. Change* 2, 1–27. doi: 10.3389/ffgc.2019.00027. Accessed online: <https://www.frontiersin.org/articles/10.3389/ffgc.2019.00027/full>

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- Stephenson, N., Das, A., Condit, R. *et al.* Rate of tree carbon accumulation increases continuously with tree size. *Nature* 507, 90–93 (2014). <https://doi.org/10.1038/nature12914>
- ⁷ Erb, K.H., Kastner, T., Plutzer, C. *et al.* Unexpectedly large impact of forest management and grazing on global vegetation biomass. *Nature* 553, 73–76 (2018). Accessed at: <https://doi.org/10.1038/nature25138>
- ⁸ Campbell, J.; Donato, D.; Azuma, D.; Law, B. 2007. Pyrogenic carbon emission from a large wildfire in Oregon, United States. *Journal of Geophysical Research*. Vol. 112, GO40 14, doi: 10.1029/2007JG000451. Accessed online at: <https://www.fs.usda.gov/treesearch/pubs/30434>
- Harris, N.L.; Hagen, S.C.; Saatchi, S.S.; Pearson, T.R.; Woodall, C.W.; Domke, G.M.; Braswell, B.H.; Walters, B.F.; Brown, S.; Salas, W.; Fore, A.; Yu, Y. 2016. Attribution of net carbon change by disturbance type across forest lands of the conterminous United States. *Harris et al. Carbon Balance Manage* (2016) 11:24 DOI 10.1186/s13021-016-0066-5. Accessed online at: https://www.fs.fed.us/nrs/pubs/jrnl/2016/nrs_2016_harris_001.pdf
- Hudiburg, T.W.; Law, B.E.; Moomaw, W.R.; Harmon, M.E.; Stenzel, J.E. 2019. Meeting GHG reduction targets requires accounting for all forest sector emissions. *Environ. Res. Lett.* 14 095005. Accessed online at: <https://iopscience.iop.org/article/10.1088/1748-9326/ab28bb>
- Law, B.; Hudiburg, T.; Berner, L.; Kent, J.; Buotte, P.; Harmon, M. 2018. Land use strategies to mitigate climate change in carbon dense temperate forests. *Proceedings of the National Academy of Sciences* Apr 2018, 115 (14) 3663-3668; DOI: 10.1073/pnas.1720064115 Accessed at: <https://www.pnas.org/content/115/14/3663>
- Segerstrom, K. 2018 Timber is Oregon’s Biggest Carbon Polluter: A new study finds that forests are key to reducing the state’s climate impacts. *High Country News*. Accessed online at: <https://www.hcn.org/issues/50.11/climate-change-timber-is-oregons-biggest-carbon-polluter>
- ⁹ Betts, M.G.; Phalan, B.; Frey, S.J.; Rousseau, J.S.; Yang, Z. 2017. Old-growth forests buffer climate-sensitive bird populations from warming. *Divers Distrib.* 2018; 24: 439– 447. <https://doi.org/10.1111/ddi.12688>. Accessed online: <https://onlinelibrary.wiley.com/doi/full/10.1111/ddi.12688>
- Buotte, P. C., Law, B. E., Ripple, W. J., and Berner, L. T. 2020. Carbon sequestration and biodiversity co-benefits of preserving forests in the western United States. *Ecol. Appl.* 30:e02039. doi: 10.1002/eap.2039. Accessed online: <https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/eap.2039#:~:text=Preserving%20temperate%20forests%20in%20the,identified%20for%20temperate%20and%20boreal>
- Heller, N.E. and Zalvaleta, E.S. 2008. Biodiversity management in the face of climate change: A review of 22 years of recommendations. *Biological Conservation* 142 (2009) 14-32. Accessed online at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.700.5700&rep=rep1&type=pdf>
- Law, B.E. and Waring, R.H. 2014. Carbon implications of current and future effects of drought, fire and management on Pacific Northwest forests. *Forest Ecology and Management*, 355 (2015) 4–14. Accessed online: <http://people.forestry.oregonstate.edu/richard-waring/sites/people.forestry.oregonstate.edu.richard-waring/files/publications/Law%20and%20Waring%202015.pdf>
- Frey, S.J.; Hadley, A.S.; Johnson, S.L.; Schulze, J.M.; Jones, J.A.; Betts, M.G. 2016. Spatial models of under-canopy temperatures show that old-growth forests are cooler in spring months than mature forest plantations. *Science Advances* 22 APR 2016:E1501392. Accessed online: <https://advances.sciencemag.org/content/2/4/e1501392>
- ¹⁰ Bradley, C.M.; Hanson, C.T.; DellaSala, D.A.; 2016. Does increased forest protection correspond to higher fire severity in frequent-fire forests of the western United States? *Ecosphere* 7(10): e01492. [10.1002/ecs2.1492](https://doi.org/10.1002/ecs2.1492). Accessed online: <https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/ecs2.1492>
- Zald, HSJ, CJ Dunn. 2018. Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape. *Ecol Appl*, 28: 1068-1080. <https://doi.org/10.1002/eap.1710>. Accessed online: <https://esajournals.onlinelibrary.wiley.com/doi/abs/10.1002/eap.1710>