**­­­­­Request for information on federal old growth and mature forests (Executive Order 14072)**

All current old growth and mature forest should be let to live and grow into the future. I think there should be a ban on cutting any tree on all federal lands in the United States over 21” dbh (diameter at breast height).

However there should be an exception for hazard trees in areas where people congregate, such as developed camp grounds, parking lots, and within reach of a regularly travelled road (paved, public roads). The process of designating each and every hazard tree should be one that requires the federal agency to document and to maintain documents over a reasonable period (5 or so years), and should involve knowledgeable professionals, who sign off on the document, before trees are cut down. When government practices and decision-making aren’t clear to the public it is possible that the public will question the integrity of those in charge and use our legal system to stop the process of further tree removal until they are satisfied with the process (Bradley W. Parks 11-5-21. Oregon Public Broadcasting. Judge halts post-fire roadside logging on Oregon’s Willamette National Forest; <https://www.opb.org/article/2021/11/05/roadside-logging-willamette-national-forest/> ). It is better for federal agencies to maintain credibility and integrity with the public, and for the public to know that old growth trees are protected and not being removed because of lax oversight and contractor’s greed.

The size (dbh) of the tree is relevant to our climate crisis, based on published literature and research (Mildrexler, D.J., et al., 05 November 2020, Large Trees Dominate Carbon Storage in Forests East of the Cascade Crest in the United States Pacific Northwest, Front. For. Glob. Change; <https://doi.org/10.3389/ffgc.2020.594274> ). Larger trees store more carbon, which they draw out of the air and store in their leaves, stems and roots (Rosner, Hillary, April 9, 2018, Plants are great at storing CO2, https://ensia.com/articles/plants-co2/). and thus are worth maintaining, to decrease the level of carbon in our atmosphere as quickly as possible. Young trees store less carbon and are more flammable than mature and old-growth trees (Zald & Dunn 2018. Severe fire weather and intensive forest management increase fire severity in a multiownership landscape. Ecological Applications 28:1068-1080. doi: 10.1002/eap.1710).

I and many others like me value wildlife species that depend on old growth forest, and value these beautiful stands of trees for recreation and mental health. Old growth associated species can often be found in larger number in larger parcels of same-aged, old growth forest. And there are relatively few large islands of old growth forest on federal lands anywhere in our country.

The growing consensus of scientific findings is that to effectively mitigate the worst impacts of climate change, we must not only move beyond fossil fuel consumption but must also substantially increase protection of our native forests in order to absorb more CO2 from the atmosphere and store more, not less, carbon in our forests (Depro, B.M., et al. 2008. Public land, timber harvests, and climate mitigation: Quantifying carbon sequestration potential on U.S. public timberlands. Forest Ecology and Management 255: 1122-1134.; Harris, N.L., et al. 2016. Attribution of net carbon change by disturbance type across forest lands of the conterminous United States. Carbon Balance Management 11: Article 24.; Woodwell, G.M. 2016. A World to Live In: An Ecologist’s Vision for a Plundered Planet. MIT Press, Cambridge, MA.; Erb, K.H., et al. 2018. Unexpectedly large impact of forest management and grazing on global vegetation biomass. Nature 553: 73-76.; IPCC. 2018. United Nations Intergovernmental Panel on Climate Change, Report SR1.5, Summary for Policymakers, p. 19.; Law, B.E., et al. 2018. Land use strategies to mitigate climate change in carbon dense temperate forests. Proceedings of the National Academy of Sciences of the United States of America 115: 3663-3668., Harmon, M.E. 2019. Have product substitution carbon benefits been overestimated? A sensitivity analysis of key assumptions. Environmental Research Letters 14: Article 065008.; 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. Frontiers in Forests and Global Change 2: Article 27).

Data collected should include data which supports the probability of the tree living and standing another 5 years (or so), verified by data such as the direction and amount the tree is leaning (compass bearing and degrees).

Not only is the end of old growth tree harvest important, but the dedication to regrowing large contiguous stands of old growth forest, across our country. USGS reports that “Before European settlement, forests covered nearly one billion acres of what is now the United States.” Data tables from the UN Forest Resource Asessment (FRA 2005); https://www.fao.org/forestry/fra/fra2005/en/) show that only 257, 439,329 acres of “primary” forests remain in the US (defined as where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed) That’s 2.57% of the original forests. (<https://www.ran.org/the-understory/how_much_old_growth_forest_remains_in_the_us/> We need to increase the total amount of primary, old growth in large, connected areas within federal land, and with “habitat for species that across our country.

The size of old growth patches is also important and should be large enough to have a reasonable population of all the known species to depend on this forest in a particular area

Consideration of the presence and abundance of native wildlife and plant species, in areas where they were known to exist last century, and which are declining or missing now. It is essential to reintroduce or to help species recover to previous population levels on federal old growth and mature forests. Forests with large-diameter trees often have high tree species richness, and a high proportion of critical habitat for endangered vertebrate species, indicating a strong potential to support biodiversity into the future and promote ecosystem resilience to climate change (Lindenmayer et al., 2014; Buotte et al., 2020).

A group of scientists, has come up with a plan and named it the **Western Rewilding Network**, as one solution to Biden’s challenge to Americans to collaboratively “conserve, connect, and restore the lands, waters, and wildlife upon which we all depend” (<https://www.thewildlifenews.com/2022/08/09/38734/>).

They call it a bold and science-based rewilding of publicly owned federal lands in the American West. Rewilding aims to reestablish vital ecological processes that can involve removing troublesome, nonnative species and restoring key native species. Their rewilding call is grounded in ecological science and is necessary regardless of changing political winds. Our objective is to follow up on President Biden's vision to conserve, connect, and restore by identifying a large reserve network in the American West suitable for rewilding two keystone species, the gray wolf (Canis lupus) and the North American beaver (Castor canadensis).

This plan includes removing cattle from federal lands to allow stream vegetation to grow and for native plants to be restored. To allow other species to use the resources and space that they evolved to use. It should also include removing horses, burros and mules from these same areas, because they also compete with native species and affect streamside vegetation. I ask you to consider working with the Western Rewilding Network plan.

My life would be very limited if I did not have old growth and mature forest and the animals that live there to enjoy, and fills me with solace and beauty.

Karen Austin, wildlife biologist, Eugene, OR