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Comments: Please accept the attached pdf comments on behalf of Wild Montana.

August 12, 2022

Deputy Chief Christopher French

United States Forest Service

1400 Independence Ave. SW

Washington, D.C., 20250

Director Tracy Stone-Manning

Bureau of Land Management

1849 C Street NW

Washington, D.C., 20240

Submitted electronically via: https://cara.fs2c.usda.gov/Public/CommentInput?project=NP-3239 Dear Deputy Chief French and Director Stone-Manning,

Please accept these comments on behalf of Wild Montana (formerly Montana Wilderness Association) and our members in response to the public comment period for Executive Order 1407 regarding federal old growth and mature forests.

I. Organizational Background

Since 1958, Wild Montana has been uniting and mobilizing people across Montana, creating and growing a conservation movement around a shared love of wild public lands and waters. We work at the local level, building trust, fostering collaboration, and forging agreements for protecting the wild, enhancing public land access, and helping communities thrive. Wild Montana routinely engages in public land-use planning processes, as well as local projects such as habitat restoration and timber harvest proposals, recreational infrastructure planning, oil and gas lease sales, and land acquisitions. Wild Montana and our more than 3,500 members are invested in the ecological integrity and quiet recreation opportunities on public lands across Montana, as well as the impact of climate change on Montana's wild places.

Thank you for taking the next steps to advance President Biden's Executive Order 1407, "Strengthening the Nation's Forests, Communities, and Local Economies," and fulfill the directive of providing lasting protections for old growth and mature forests. Conserving our remaining mature and old growth forests on federal lands is an effective, large-scale action the agencies can take to help combat climate change and protect biodiversity.

II. Importance of Old Growth Trees and Mature Forests

Fundamentally, retaining as many natural, intact landscapes as possible is important moving forward in our new

climate reality for a range of ecosystem services, including both carbon storage and biodiversity preservation. 1 Furthermore, intact landscapes, by their very nature, are not subject to destructive extraction that disrupts their natural carbon cycles and storage capacities. 2 Maintaining intact ecosystems, like old growth and mature forests, in functioning condition is a critical element in the fight to mitigate and minimize the global impacts of climate change.

We must acknowledge the contradictory science regarding the function of old growth forests as "carbon sinks," or areas that store and absorb more carbon than they emit, essentially acting as storage for anthropomorphic sources of carbon. Some studies have suggested that old growth and mature trees continue to grow, and thus continue to act as carbon reserves over the life of the tree. 3 Under that scenario, very old trees have been storing carbon for a very long time and also represent significant opportunities for future carbon storage. Other studies, however, have suggested that old growth and mature trees do not continue to grow (and thus utilize carbon) at the same rate as younger trees, and therefore do not provide opportunities for immense carbon storage in the future. 4 Certainly, what both of these scenarios do agree on, however, is that big, old trees hold significant amounts of carbon in their existing biomass. While there are many factors that can lead to the release (or partial release) of that stored carbon (i.e., the death and decay of that tree, wildfire, etc.), overall healthy ecosystem function that is characteristic of old growth forests are dependent on natural carbon cycling, including storage in biomass and in soils.

The biodiversity crisis and the climate crisis are linked and to address one effectively, policy efforts must also address the other. 5 Many old growth forests provide exceptional habitat for many plant and animal species that specifically depend on the complex web of ecological services these forests host. 6 For example, old growth forests often contain dynamic mixtures of forest canopy, cover, and tree species, supporting many additional specialized plant and animal species. Even fallen or decaying old trees provide critical habitat as snags and nurse logs for new plant life - and new sources of carbon sequestration - to grow. Importantly in a warming climate, big trees provide significant shade cover and therefore cooler air temperatures. These areas serve as important habitat for both current species and as pathways for species that will need to migrate in the face of climate change's impacts to less climate-resilient ecosystems.

Old growth forests that lack disruptive infrastructure like significant amounts of intense logging, road building, and the like, also provide clean water that is essential for plant and animal species. Clean water is also essential for people: it is estimated that 20% of the US public relies on water sources that originate on national forests. 7 For western states, that figure is higher, with 50% of the public relying on water from national forest lands. 8

III. Framework for Definition

Defining "old growth" at a federal level is an issue that has come up before, and therefore there are existing resources that the agencies should evaluate. The Healthy Forests Restoration Act (HFRA) tied the definition of old growth to ecological diversity provisions in the National Forest Management Act. 9 During this process, the agencies gathered data on old growth and large trees from around the nation regarding ecological definitions, peer-reviewed studies, assessment-level information, and planning directions. 10 The U.S. Forest Service used this data to create definitions and management direction for each of the nine regions, and has used this regional information in subsequent forest plans and other agency guidelines. Additionally, the U.S. Bureau of Land Management (BLM) has created old growth definitions used in their resource management plans. The 2022 old growth and mature tree definition process at issue here should first analyze the established regional definitions used by the Forest Service and BLM and how those have been implemented in management decisions. While some scientific studies may be outdated, an overview of this information will help inform the definitional criteria and demonstrate how a definition can be measurable and repeatable throughout a forest type.

Due to the variety of tree species and forest types across the United States, a definition framework for old growth and mature forests must holistically analyze the ecosystem and a variety of factors to encompass the complexity

of the issue.

The key factor to consider in a definition is the minimum age. However, like any of the other factors, age alone is not a sole indicator of whether a tree is regarded as old growth or mature. For many tree species in the Montana region, the age threshold for old growth is approximately 150 years old. 11 That number will vary across species and different ecosystems. As demonstrated by the age factor, the tree species, as well as species composition of a forest, are other critical components that needs to be taken into account for any definition. Additionally, the size of the tree measured by a tree's diameter breast height (dbh), and the forest's dbh variation, must be considered for an old growth and mature forest definition.

These unique forests include not just old and large trees, but other characteristics that support the dynamic ecosystem. These characteristics should also be accounted for in the definition framework for analysis, including the snag density and structure, number of canopy layers, amount of down material, climate, the presence or absence of natural disturbances, and the presence or absence of human disturbances. 12

IV. Inventory Process

The inventory process should begin with the information that exists through the Forest Service's Inventory and Analysis Program (FIA). While the FIA does not have a definition for "old growth" or "mature trees," its tools take into account species, size, health, and other factors that will likely be used in the initial definition process. 13 Secondly, the inventory process must include an overview/accounting of any existing information in forest plans, RMPs, and state forest plans regarding old growth and mature trees. The Forest Service should also consult with other federal land managers like the National Parks Service and the Fish and Wildlife Service to understand broader ecological integrity and risks that cross jurisdictional boundaries. Similarly, local land managers like state and county foresters should be consulted in this process.

The agencies have indicated that they will utilize remote sensing data for the inventory. Any remote information used in this process should include an aspect of ground truthing and consultation with local agency staff to ensure the accuracy of the information.

Inventorying only the trees and forests that currently fit into the new definitions will not be sufficient to create sound policies. The inventory data and policymakers would benefit from a broader scope of analysis. The inventory must evaluate trees and forests that are on the cusp of the definition and, given a short amount of time, will grow into the old growth and mature tree definition. This additional information will help the agencies understand and document where there is potential for preservation. This would be similar to the Northwest Forest Plan's framework for encouraging the development of future old-growth forests through creating late-successional reserves (LSRs). 14 Further, it would be beneficial to have an understanding of where old growth and mature trees have already been lost, the cause of the loss, and the number of trees lost.

V. Future Policies.

Old growth and mature forests provide disproportionately high ecological values as wildlife habitat, carbon storage, and resiliency to natural disturbance. Ensuring durable protections for mature and old growth forests will complement the agencies' other priorities, including but not limited to efforts to improve wildfire resiliency, enhance access to outdoor recreation opportunities, secure wildlife habitat, and protect clean drinking water.

The last comprehensive federal policy to protect national forests was the Roadless Rule in 2001. 15 While this is an important policy to protect designated roadless areas and safeguard older trees on federal lands, there are still many old growth trees and mature forests outside of these designated areas in need of protection.

The administration should move quickly to establish protections and policies for mature and old growth forests.

We are pleased the Executive Order put a deadline on the inventory of old growth and mature forests. The agencies should also create a deadline for the subsequent rulemaking process after completing the inventory.

Many land management plans contain definitions and protections for old growth forests. New policies must take into account existing management plan direction and provide guidance for how the agencies will implement these policies in relation to their directives. Policies can be structured to leave space for potential restoration from past, non-natural disturbances based on sound science, but the management direction should focus on non-commercial objectives. The primary purpose of this endeavor must be the protection of old growth and mature trees, not to facilitate commercial extraction at the expense of these trees.

Old growth and mature forest policies must also acknowledge potential conflicts between the conservation of these forests and other priorities, such as the ten-year wildfire crisis strategy. 16 The future policies should create a framework for how these conflicts will be resolved using the best science, environmental analysis, and the full National Environmental Policy act process.

Further, any policies should include provisions for the necessary staff and funding to implement the policies. The agencies are already understaffed, and with potentially competing priorities regarding the ten-year wildfire crisis strategy, any old growth and mature forest focused policies should include funding mechanisms and proper staffing.

The Executive Order shows that the administration understands the importance of robust public engagement and tribal consultation. We look forward to continuing to participate in this process and submitting comments on the subsequent rulemaking.

VI. Conclusion

Thank you for taking the next steps to protect old growth and mature forests. We urge the Forest Service and BLM to work quickly to adopt a definition for old growth and mature forests, complete the inventory, and initiate rulemaking on protective policies. Thank you for your consideration of our comments.

Sincerely,

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FOOTNOTES:

1 P[ouml]rtner, H.O. et. al., IPBES-IPCC co-sponsored workshop report on biodiversity and climate change;

IPBES and IPCC, DOI:10.5281/zenodo.4782538 (June 24, 2021).

2 See, e.g., Jenny Rowland-Shea, Report: Nature Loss Threatens America's Best Defense Against Climate Change, Center for American Progress (Dec. 15, 2021), https://www.americanprogress.org/article/nature-loss-threatens-americas-best-defense-against-climate-ch ange/; Forest Carbon FAQs, United States Department of Agriculture Office of Sustainability and Climate, https://www.fs.usda.gov/sites/default/files/Forest-Carbon-FAQs.pdf.

3 Stephensonet al., Rate of tree carbon accumulation increases continuously with tree size, Nature 507, 90-93 (2014), available at https://doi.org/10.1038/nature12914; Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2018, United States Environmental Protection Agency, available at https://www.epa.gov/sites/default/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf.

4 Gundersen et al., Old-growth forest carbon sinks overestimated, Nature 591, E21-E23 (2021), available at https://doi.org/10.1038/s41586-021-03266-z.

5 Roberts, C., O'Leary, B, and Hawkins, J., Climate Change Mitigation and Nature Conservation Both Require Higher Protected Area Targets, Philossophical Transactions of the Royal Society B, 375, 1794 (2020), available at https://doi.org/10.1098/rstb.2019.0121; Catrin Einhorn, Our Reponse to Climate Change is Missing Something Big, Scientists Say, The New York Times (Oct. 7, 2021), https://www.nytimes.com/2021/06/10/climate/biodiversity-collapse-climate-change.html.

6 Potapov, P. et. al., The Last Fronteirs of Wilderness: Tracking Loss of Intact Forest Landscapes from 2000 to 2003, Science Advances, 3, 1 (2021), available at https://www.science.org/doi/10.1126/sciadv.1600821.

7 Forest Inventory and Analysis, Forest Service (Apr. 2020), https://www.fia.fs.fed.us/.

8 Cole, D. & Boutcher, S., Wilderness and Climate Change, Forest Service (2012), available at https://www.fs.usda.gov/ccrc/topics/wilderness-protected-areas-and-climate-change-2008.

9 See 16 U.S.C. [sect] 6512(e)(1) (providing old growth and large-tree retention provisions for hazard fuel reduction projects under HFRA).

10 The Healthy Forests Initiative and Healthy Forests Restoration Act Interim Field Guide: Old Growth and Large-Tree Retention, Forest Service & Bureau of Land Management (March 2004), https://www.fs.fed.us/projects/hfi/field-guide/web/page24.php.

11 See e.g., Green et al., Old-Growth Forest Types in the Northern Region, April 1992 (errata corrected December 2011).

12 See e.g., id. at 7.

13 Forest Inventory and Analysis National Program: Data and Tools, Forest Service (July 2022), https://www.fia.fs.usda.gov/tools-data/index.php.

14 Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl, Forest Service & Bureau of Land Management (1994) (preserving existing old growth forests and managing younger stands within the LSR to attain tree size and stand structure resembling old growth).

15 36 C.F.R. [sect] 294 (2001).

16 Confronting the Wildfire Crisis: A Strategy for Protecting Communities and Improving Resilience in America's Forests, Forest Service (Jan. 2022), https://www.fs.usda.gov/sites/default/files/Confronting-Wildfire-Crisis.pdf; see also Binkley et al., The Role of Old-growth Forests in Frequesnt-fire Landscapes, 12 Ecology and Society 2 (2007) (analyzing how fire suppression can be detrimental to old growth forests).