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Title:

Comments: Attachment: Response to FS Federal Register EIS V2.docx is their comments. Please see attachment for unique letter, signed.

February 2, 2024

Re: Notice of Intent to Prepare an Environmental Impact Statement Regarding Land Management Plan Direction for Old-Growth Forest Conditions across the National Forest System

To whom it concerns:

Thank you for this opportunity to comment on the United States Department of Agriculture, Forest Service (FS) proposal to prepare an Environmental Impact Statement (EIS) regarding management of mature and old-growth (MOG) forests by amending all 128 National Forest plans. The FS is proposing to amend all land management plans for the 128 planning units of the National Forest System to include consistent direction to conserve and steward existing and recruit future old-growth forest conditions and to monitor their condition, in order to foster the long-term resilience of old-growth forest conditions and their contributions to ecological integrity across the National Forest System.

I greatly appreciate the FS effort to conserve and improve stewardship of existing old-growth forests and foster creation of additional forest areas having old-growth conditions. Remaining old-growth forests are threatened by natural disturbances and logging despite their unique and highly valued contribution to biodiversity and climate mitigation. I strongly support the intent of the Forest Service to prioritize conservation and stewardship of the agency's mature and old-growth forests, which are vital to society and irreplaceable.

Here I present some comments regarding the intent and scope of the EIS, summarized as:

- (1) The proposed "Standards for Management Actions within Old-Growth Forest Conditions" do not even mention sustaining and increasing carbon storage! This is a major omission.
- (2) Be explicit about carbon cycle impacts and practice full carbon accounting so that all effects of management actions on the carbon cycle are assessed.
- (3) Threats from future wildfire disturbances may be over-emphasized especially in areas where wildfire is not a significant threat, or for forest types and older forests that are resistant to wildfire.
- (4) Establish safeguards to reduce the possibility of unintended consequences and harmful proactive management of MOG vegetation.
- (5) I recommend instituting a moratorium on harvest of old-growth forests until these national policies are established.

The rationale for making these comments is stated below.

Detailed comments

I support the efforts by the U.S. Forest Service to acknowledge the need to effectively conserve and improve stewardship of existing old-growth forests and foster creation of additional forest areas having old-growth conditions. Old-growth forests in the conterminous U.S. total about 48 million acres, or just 7% of the total forest area. Most (78%) of the remaining old-growth forests are located on public lands, along with a substantial area of mature forest that could become old growth. An initial inventory by the FS of MOG on FS and BLM lands identified an estimated 24.7 million acres of old-growth forest conditions and 68.1 million acres of mature forest conditions representing 17 and 47 percent, respectively, of the 144.3 million acres of forested National Forest System lands. These existing MOG forests are threatened by natural disturbances and logging despite their unique and highly valued contribution to biodiversity and climate mitigation, important public services that must be carefully managed and maintained over the coming decades amid increasing climate-driven environmental changes.

Old-growth and mature forests accumulate and store vast amounts of atmospheric carbon, and provide critical regional cooling through evapotranspiration. Their ecological integrity, built upon their unique biodiversity, provides resistance to natural disturbances and resilience as the climate warms while providing especially clean water for fish, and habitat for a variety of wildlife and plants. Because of the scarcity of today's old-growth forests, most young and mature forests hold relatively little carbon compared to their potential. Older forests with very large trees hold the most carbon per acre, and harvesting forests is the main driver of forest carbon loss across all ownerships combined. It is estimated that if allowed to continue growing, U.S. and global forests could hold twice the carbon they do today.

In recent decades the FS has increased protection of remaining old growth forests after many decades of prioritizing timber harvesting for economic gains. Prominent examples include the Northwest Forest Plan that has governed management strategies east of the Cascades in the Pacific Northwest since 1994 to protect old-growth forests and threatened and endangered species, and the 2023 reinstatement of protection of old growth forests in the Tongass National Forest in Southeast Alaska which involved restrictions on old-growth logging and designating roadless areas to prevent development. These examples show how protection of MOG could be extended well beyond a few cases to encompass the entire National Forest System -- this proposal to develop an EIS is an important step in this direction.

Since the 2021 release of Biden's executive order 14008 setting a goal to conserve at least 30 percent of United States lands and waters by 2030 to address the climate emergency, the USDA and FS have endeavored to develop actions to foster long-term resilience of old-growth forest conditions and maintain ecological integrity, most notably in EO 14072 that calls particular attention to the importance of MOG forests on Federal lands for their role in contributing to nature-based climate solutions by storing large amounts of carbon and increasing biodiversity. This new proposed EIS is the latest step, highlights the intent to recruit new areas for future old-growth forest conditions, and calls for monitoring their condition over time. The amended plans would prohibit logging old-growth trees primarily for economic purposes, though logging would be permitted for other purposes such as adaptation to stressors.

Here I share a few specific comments and concerns that will add support to the EIS effort by the FS, and strengthen the content such that unintended consequences do not undermine the primary objective which is to foster the long-term resilience of old-growth forest conditions and their contributions to ecological integrity across the National Forest System. The comments are mainly intended to encourage the FS to add some additional elements to the EIS "Standards for Management Actions within Old-Growth Forest Conditions" in order to establish reasonable yet stronger guidelines for land management decisions. And in some important ways, the proposed management actions appear inconsistent with the goals and directions stated in the Executive Orders that have led to this EIS.

(1) The proposed "Standards for Management Actions within Old-Growth Forest Conditions" do not even mention

sustaining and increasing carbon storage! This is a major omission.

The EIS prominently includes among the desired conditions that "carbon stored in old-growth conditions contributes to the long-term carbon storage, stability, and resiliency of forest carbon across the National Forest System." Yet, there is no mention of considering or assessing how proposed management actions would likely affect existing or future carbon stocks.

(2) Be explicit about carbon cycle impacts and practice full carbon accounting so that all effects of management actions on the carbon cycle are assessed.

Methods to assess impacts on carbon stocks should be as comprehensive as practical, including at minimum the following accounting elements: impacts on all forest ecosystem carbon pools as defined by the FS FIA program; carbon dioxide emitted as a result of vegetation management; and carbon retained in harvested wood products while in use or deposited in landfills. Indirect effects such as "leakage" should also be assessed if and when appropriate methods are available.

(3) Threats from future wildfire disturbances may be over-emphasized especially in areas where wildfire is not a significant threat, or for forest types and older forests that are resistant to wildfire.

Wildfire is an increasing threat to forests and can emit large quantities of stored carbon; therefore, linking MOG policies to the FS Wildfire Crisis Strategy is necessary, but wildfire management should not be the main driver of actions to protect and increase MOG forests. In particular, thinning MOG forests to reduce risks of wildfire should be carefully initiated and should be avoided where wildfire threat is low. Many fire ecologists agree that thinning small trees and underbrush to reduce low-level fuels ("ladder" fuels) in ecosystems that naturally burn frequently, followed by periodic prescribed burns, can be effective at restoring a sustainable low-intensity fire regime and protecting the C stored in larger trees. However, guidelines are needed to ensure that if thinning is needed, only smaller trees should be removed, and larger trees which are more resistant to damage should be retained. Because large trees and old-growth forests store disproportionately greater amounts of C and are more resistant to fire than small trees or young forests, management practices designed to reduce GHGs should leave large trees on the landscape during risk reduction treatments; old-growth should be left alone; and mature but not old forests should be allowed to attain old-growth characteristics. The guidelines should be specific to regions and forest types to account for the variability of factors that affect wildfire severity. For example, there is a lack of consensus in the scientific literature about how best to manage large areas that have "mixed-severity" wildfires, particularly in western forests that have neither frequent nor infrequent fires. These areas tend to become controversial regarding selection of appropriate management regimes.

(4) Establish safeguards to reduce the possibility of unintended consequences and harmful proactive management of MOG vegetation.

As stated in the proposed Standards for Management Actions, the amended plans would prohibit logging old-growth trees primarily for economic purposes, though logging would be permitted for other purposes such as adaptation to stressors. Allowing logging to take place, particularly in old-growth forests, opens the door for harvesting larger trees of economically valuable species, thus threatening the ecological integrity of the old-growth ecosystems. I suggest establishing standards or guidelines to prevent degradation of old-growth conditions and to maintain or increase resilience to disturbances and stressors that may have adverse impacts. Some examples of principles and safeguards for natural climate solutions have been developed by the Woodwell Climate Research Center and illustrate ways to avoid unintended consequences from proactive management of MOG forests. Additionally, it is important to prohibit waivers of following NEPA guidelines for producing Environmental Impact Assessments.

I am concerned about the potential for ignoring this national effort to "create a consistent set of national plan

components and direction for the development of geographically informed adaptive implementation strategies for the long-term persistence, distribution, and recruitment of old-growth forest conditions across the National Forest System". As stated, this proposal is not intended to replace existing direction in plans but rather to add language that provides consistency across all plans: "If existing plan direction provides more restrictive constraints on actions that may affect existing or potential old-growth forest conditions, those more restrictive constraints would govern". This policy could be easily used as a loophole by individual National Forests to ignore the national direction regarding appropriate management approaches and desired conditions.

(5) I recommend instituting a moratorium on harvest of old-growth forests until these national policies are established.

Because of the lengthy process to fully establish guidelines to increase amounts and improve distributions and climate resilience of future old-growth forest conditions, allowing harvest of old-growth forests while the guidelines are being developed risks degrading the integrity of current old-growth forests managed by the FS, and could go against the intent to protect the remaining areas.

If you have any questions about these comments or would like any additional information, please contact me at the email listed below.

Very truly yours,

Dr. Richard Birdsey

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