Comments on DRAFT EIS: Land Management Plan Direction for Old-Growth Forest Conditions Across the National Forest System (65356)

The Forest Service 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 support the Forest Service's stated intent to prioritize conservation and stewardship of mature and old-growth forests (MOG), as directed by President Biden's EO 14072 "Strengthening the Nations Forests, Communities, and Local Economies" (Whitehouse 2022).

Summary: The DEIS lacks reference to and incorporation of knowledge from the current scientific literature to guide the planning process and management actions. The team should redo their Threat Assessment, as it provides a questionable baseline for deciding how to manage mature and old-growth forests. To meet the 30x30 goal, the priorities for protection should be based on forest carbon for climate mitigation, biodiversity, and landscape integrity (Law et al. 2021, 2018; Mildrexler et al. 2023, 2020).

I disagree with the selection of the "preferred" Alternative 2. Mature forests are not sufficiently included with old-growth in the Alternatives. Alternative 3 comes closer, but it is essential to modify it in order for it to be acceptable. Alternative 3's goals, objectives and tasks must address the importance of large trees, mature forests and old-growth as Natural Climate Solutions (Law et al. 2023, 2021, 2018). It should include restrictions on harvesting large trees in mature forests that could become old growth, based on their superior resistance to fire in most forest ecosystems (Moris et al. 2022) and their significant contribution to carbon stocks and high rates of carbon accumulation. The revision of Alternative 3 must be reviewed by scientists who are experts in Natural Climate Solutions, biodiversity, and forest ecosystem carbon. Then and only then can the Alternative 3 management plans meet national and international climate and biodiversity goals (IPBES-IPCC 2020, IPCC AR6 WGII, 2022).

Detailed Comments:

1. Page S-4, para. 4 "The analysis found that mortality from wildfires is currently the leading threat to mature and old-growth forests, followed by insects and disease. The analysis also found that tree cutting is now a relatively minor threat compared to climate amplified disturbances such as wildfire, insects, disease."

Comment: This demonstrates the FS is not using best available scientific literature to guide the planning process. The analysis is completely wrong compared with the scientific literature that also used FIA data. Across the W US, aboveground biomass carbon mortality was primarily due to logging (50%), followed by insects (32%), and wildfire (18%) (Berner et al. 2017). Another study indicated that 66% of the aboveground biomass mortality was due to logging (Harris et al. 2016). They found that harvest accounted for 99% of mortality in the southern US, and 44% in the northern US. In terms of emissions, we found that annual logging-related emissions were 5

times that of wildfire emissions in Oregon, Washington and California combined (Hudiburg et al. 2019), and that 100 years of wood product usage is reducing the potential annual carbon sink by an average of 21%. Logging is the major impact on mature and old forests. Moreover, increasing demand for wood products (e.g. mass buildings, bioenergy) is expected to accelerate net emissions from logging, wood processing, and operational use (Moomaw & Law 2023, Peng et al. 2023, USDA 2023).

2. Page S-6. "The need for change is to: Demonstrate compliance with Executive Order 14072 to institutionalize climate-smart management and conservation strategies that address threats to mature and old-growth forests on Federal lands."
3. Page S-7. "What would be the impacts from Standard 3 in the modified proposed action that restricts proactive stewardship in old-growth forests for the purpose of timber production."

Comment: It appears that the FS took a large portion of forests off the table in the Threat Analysis because harvesting remains the priority for the agency. This will not likely meet the 30 x 30 requirements of the EO. The priority should be to identify and protect the forests that are the most ecologically important for conservation and connectivity to reach the EO 30 x 30 goal, and not start with taking a huge amount of forestland off the table before such forests are identified. Forests play an important role in Natural Climate Solutions. For example, studies identified strategic reserves that have priority for protection of their forest carbon, drinking water, biodiversity, and landscape integrity (Law et al. 2023, 2021), and provided an analysis framework that includes spatial analysis of observations.

4. Pages S-9, S-10 Alternatives; P. 13-14 2.2.1, 2.2.2 Alternatives considered but eliminated.

The Alternatives fail to protect mature forests. Mature forests are a few decades away from acquiring old-growth characteristics and are essential to recovering vastly diminished old-growth ecosystems.

The DEIS "Alternatives" would increase degradation of older forests. Compliance with international agreements and EO directives would send a message to the world that the US takes its national and international obligations seriously. This can only happen if large old trees in mixed stands, and mature and old-growth forests are protected from commercial logging and road building.

5. Pgs 17-52 Sections 2.3.1, 2.3.2 Alternatives 1, 2 and 4

These are not acceptable Alternatives for many reasons stated above. "Preferred" Alternative 2 prohibits proactive stewardship in old-growth forests for the purpose of timber production, however, *it still allows commercial logging under the guise of proactive management to improve resilience and achieve desired conditions at the fastest rate.*

6. Pg 53, Section 2.3.5. Alternative 3 – More Restrictive Standards for Old-Growth
   Alternative 3 responds to recommendations to restrict all commercial timber harvest in

old-growth forests to provide further protections for old-growth forests. This does not prohibit other vegetation management actions from occurring; however, it is recognized that the removal of commercial timber harvest as a management tool could impact the ability to use other tools.

Alternative 3 is more responsive to EO 14072 by including stronger protections against commercial logging. However, *it does not address the importance of large trees in mature forests and old-growth as a Natural Climate Solution* (Law et al. 2023, 2021, 2018). Modification of Alternative 3 is essential for it to be acceptable. It should include restrictions on harvesting large trees in mature forests that could become old growth, based on their superior resistance to fire (Moris et al. 2022) in most forest ecosystems and their significant contribution to carbon stocks and high rates of carbon accumulation (Law et al. 2021). As the Intergovernmental Panel on Climate Change states, "protecting natural-forest ecosystems is the highest priority for reducing greenhouse-gas emissions" (IPCC AR6, p. 302). The US is a signing member, meaning that it agreed with this statement.

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