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First name: Barry

Last name: Noon

Organization: Colorado State University

Title:

Comments: See attached file.

January XX, 2024

Thomas J. Vilsack

Secretary of Agriculture

Washington, D.C. 20500

Dear Secretary Vilsak,

We are scientists who have devoted our professional careers to the study of biological diversity, including its contributions to human welfare and quality of life. We are writing in response to the recent U.S. Department of Agriculture Notice of Intent, (Federal Register, Vol. 88, No. 243, December 20, 2023)¹, to prepare an Environmental Impact Statement to amend all 128 national forest land management plans to [ldquo]conserve and steward existing and recruit future old-growth forest conditions and to monitor their condition across planning areas of the National Forest System[rdquo].¹ The goal is to promote the long-term resilience of old-growth forest conditions and enhance ecological integrity across the National Forest System.¹ Notably, the amendment would establish a National Old-Growth Monitoring Network to track trends and distribution patterns in old-growth for inventory and adaptive management purposes.

The Notice of Intent builds on recent publications by the Departments of Agriculture and Interior, and independent researchers, that provide estimate of the areal extent of mature and old-growth forest across multiple forest types in the U.S.²

We enthusiastically support this initiative and the adoption of ecological integrity³ as a foundational objective for management activities on Forest Service lands. We note, in the 2012 Planning Rule⁴, that ecological integrity is defined to include [ldquo]species composition and diversity[rdquo] as essential components.

We believe the proposed amendment would benefit from a stronger, explicit connection between species diversity and ecological integrity and: 1) an emphasis on the conservation of species dependent on old-growth forests; 2) inclusion of a requirement to monitor species[rsquo] responses to increased protection and recruitment of old-growth forests; 3) addressing President Biden[rsquo]s promise to emphasize biodiversity conservation as a key component of U.S. efforts to battle climate change.⁵

Specific Recommendations:

1. Increase protections of mature forests to accelerate their recruitment into old-growth forest stages and compensate for loss of old-growth due to mortality arising from large-scale disturbances or natural processes.
2. Fully implement focal species selection and monitoring requirements as detailed in the 2012 Planning Rules (see discussion in Schultz et al. 2012).⁶ Specifically, emphasize monitoring of species whose primary habitats

are found in late seral forests.

3. Address a key deficiency in the 2012 Planning Rule that fails to require monitoring the effects of management practices on species listed under the Endangered Species Act (an implicit requirement in section 7(a)(2) of the Act). Monitoring should be mandatory when critical habitat of a listed species intersects Forest Service lands.

4. Acknowledge that timber harvest remains a threat to old-growth ecosystems, and plant and animal species, on several National Forests across the country (the majority of Forest Service land supporting mature and old growth forests is not protected from logging)⁷. This is one threat the Forest Service can control and limit immediately, before the amendment becomes finalized.

5. Build off the Gap Analysis done by DellaSala et al. (2022)⁸, to evaluate the current protection status of mature and old-growth forests on Forest Service lands and initiate increased protections for existing mature and old-growth forests at risk of timber harvest and road construction.

We encourage you to closely consider these recommendations, and we applaud the recent Notice of Intent. America's old-growth forests are among its most valuable natural resources, and the benefits of late seral forests to all Americans far outweigh the value of harvest. We support the proposed protections, find them to be both prudent and practical, and remain available to provide additional details if desired.

Sincerely,

Dr. Barry R. Noon, Emeritus Professor, Department of Fish, Wildlife and Conservation Biology, Colorado State University

(a list of cosigners on this letter are listed on the last page)

1 Federal Register, Vol. 88, No. 243, December 20, 2023. Department of Agriculture, Forest Service. Land Management Plan Direction for Old-Growth Forest Conditions Across the National Forest System.

2 On April 22, 2022, President Biden issued Executive Order 14072 Strengthening the Nation's Forests, Communities, and Local Economies. The Executive order emphasized multiple objectives including the conservation of old-growth and mature forests on Federal lands to contribute to nature-based climate solutions by storing large amounts of carbon and increasing biological diversity.

The EO required the Department to inventory mature and old-growth forest conditions on Forest Service and Bureau of Land Management lands. Collectively, FS and BLM lands support more than 178 million acres of forest. These lands contain ~33 million acres of old-growth and ~80 million acres of mature forest. Old-growth forest represents 18 percent and mature forest another 45 percent of all forested land managed by the two agencies. (Between 30 and 40 percent of Forest Service and BLM forested areas are younger forest (forests not mature or old growth). The initial draft of the inventory was published in 2023.⁹

Excluding BLM lands, the inventory estimated ~25 million acres of old-growth forest and ~68 million acres of mature forest on the 144.3 million acres of forested National Forest System lands.

This national-scale inventory was conducted by applying the old-growth and mature working definitions to Forest Inventory and Analysis field plot data.¹⁰ Working definitions were based on quantitative criteria (e.g., basal area distribution of trees by species, number of canopy layers, large dead woody material) reflecting structural characteristics of forests estimated during FIA field surveys.

The Federal estimates of late seral forest differ from those reported by two recent studies (DellaSala et al. 2022, Barnett et al. 2023).^{8,11} These authors reported estimates of old-growth and mature forest, across all

ownerships, within the continental U.S., exclusive of Alaska. The Federal estimate of old-growth and mature forest included portions of Alaska. Overall, the Federal estimate is larger than DellaSala et al. (2022) and Barnett et al. (2023) when compared at equivalent scales¹.

DellaSala et al (2022) developed their classification based on remotely sensed data and validated their model-based estimates against FIA data in terms of tree heights and accumulated biomass. Barnett et al. (2023), used FIA data and defined the onset of old-growth when the density of total forest carbon reached 95% of its empirical maximum.

³ The quality or condition of an ecosystem when its dominant ecological characteristics (for example, composition, structure, function, connectivity, and species composition and diversity) occur within the natural range of variation and can withstand and recover from most perturbations imposed by natural environmental dynamics or human influence. 36 CFR 219.19

⁴ U.S. Forest Service. 2012. Final programmatic environmental impact statement: National Forest System land management planning. USFS, Washington, D.C., USA. Exec. Order No. 14008, 86 Fed. Reg. 7619, 7622 (Feb. 1, 2021).

⁵ Exec. Order No. 14008, 86 Fed. Reg. 7619, 7622 (Feb. 1, 2021).

⁶ Schultz, C.A., T.D. Sisk, B.R. Noon, and M.A. Nie. 2012. Wildlife conservation planning under the United States Forest Service's 2012 Planning Rule. *Journal of Wildlife Management* 77:428-444.

⁷ Law, B., Moomaw, W. 2024. Old forests are critically important for slowing climate change and merit immediate protection from logging. *The Conversation*. January 19, 2024.

⁸ DellaSala, D.A., B.G. Mackey, P. Norman, C. Campbell, P.J. Comer, C.F. Kormos, H. Keith, and B. Rogers. 2022. Mature and old-growth forests contribute to large-scale conservation targets in the conterminous USA. *Frontiers in Forests and Global Change*. 5:979528.

⁹ USDA, Forest Service. 2023. Mature and Old-Growth Forests: Definition, Identification, and Initial Inventory on Lands Managed by the Forest Service and Bureau of Land Management. 63 p.

¹⁰ The FIA program applies a systematic sampling design covering all ownerships across the United States with a sample intensity of ~1 plot per 6,000 acres (Bechtold, W.A., Patterson, P.L., eds. 2005. *The enhanced Forest Inventory and Analysis program—national sampling design and estimation procedures*. Gen. Tech. Rep. SRS-80. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 85 p).

¹¹ Barnett, K., G.H. Aplet, R.T. Belote. 2023. Classifying, inventorying, and mapping mature and old-growth forests in the United States. *Frontiers in Forests and Global Change*. 5:100372.

ATTACHMENT: Old-Growth Sign-On Letter-01-26-2024-BR Noon.docx is letter content.