VIA CARA AND ELECTRONIC MAIL

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Re: Public Comment on Draft Environmental Impact Statement for National Old Growth Amendments to Land Management Plans

We thank you for this opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the National Old Growth Amendment (NOGA). We support the goals to protect and increase the diversity and abundance of remaining mature and old-growth trees and forests in the National Forest system. These comments focus on changes the Forest Service can implement to conduct more informative environmental review and reporting on progress regarding conservation of mature and old-growth forests and accounting for carbon impacts in NEPA review.

The signatories have joined other letters provided under separate cover. This letter provides more specific commentary based on our experience.

Success requires that the Forest Service consider and report climate consequences of its actions

Despite the Multiple-Use Sustained-Yield Act (MUSY) of 1960, other acts of Congress, and recent Presidential Executive Orders, the US Forest Service continues to prioritize logging over other uses of our National Forests. To this day, incentives and goals are focused on "getting out the cut," including logging old growth and mature trees as this NOGA process continues. Even though the National Forests are to be managed for multiple uses, logging is the only use for which the Forest Service sets targets. Employment policies, advancement, business systems and environmental review appear to be built around this goal while other "uses" are given secondary consideration.

If the Forest Service is to successfully conserve mature and old-growth (MOG) forests, it must fundamentally change its deeply embedded preferences for logging or risk failure in this effort. Leaving in place a dominant focus on logging forests for timber and pulpwood pits staff priorities and incentives against expanding the abundance and distribution of MOG forests, the key purpose of the NOGA. Most importantly, the Forest Service must provide clear accounting for forest carbon stocks and goals, and on MOG conserved.

USFS Targets Must Provide Targets and Reporting for MOG Conservation

The Forest Service sets annual timber targets for regions and forests in terms of board-feet of harvested wood to be sent to mills for timber or pulpwood extraction. Research and experience have shown that these targets have a powerful influence over decision-making throughout the Forest Service, from District Rangers to the US Forest Service Chief's offices.

Setting decisive targets for timber places a thumb on the scales of the Forest Service's decisionmaking process. We have seen how this preference plays out. Even as the Forest Service works to fulfill an Executive Order to conserve and expand mature and old-growth forests, it continues logging MOG trees and forests across the country and overlooks the many opportunities it has to identify and manage maturing forests that represent our future MOG forests.

The NOGA should include numeric goals for expanding the abundance and distribution of MOG forests. Changes to Forest Plans to conserve MOG should be accompanied by new targets and reporting requirements for the conservation of mature and old-growth trees and forests, at the district, regional, and national levels. These MOG conservation reports should also track carbon stocks and changes, and identify, protect and expand MOG forest land. These targets would provide urgency and accountability for the Forest Service while gathering much needed scientific data. Establishing targets for carbon stores, biodiversity, and mature and old growth forestland will help counteract pressures to log MOG generated by the timber target system.

The intent of this proposal is, plainly, to provide positive goals and incentives in favor of conservation and climate action to forest management staff. This elevates climate action and biodiversity to be, at least, on par with timber and pulpwood extraction in USFS decision making.

Environmental Review of Forest Plans and Projects Must Recognize and Quantify Climate Benefits and losses

The NOGA DEIS describes and provides some standards and guidelines for project-level decisions, also described as the "Second Stage of Decision-making" in Section 1.6 of the DEIS. These project level analyses and decisions will greatly affect the success of the NOGA.

The NOGA must require hard data in project level analyses to quantify the impacts of timber harvests on atmospheric carbon and carbon sequestration. Atmospheric, forest, and soil carbon flux rates affecting greenhouse gas release, sequestration, and storage must become a routine part of forest planning and environmental review processes accompanying forest plans and projects. Environmental review of projects should not be avoided by substituting larger-scale reviews of forest plans and assessments at the forest level that obscure the impacts of specific actions at smaller scales. The NOGA must include standard, verified, and scientifically accepted methods to accurately assess impacts of logging projects on forest carbon cycles and stores.

Forest Service Resource Bulletin WO-101, published April 2023, the Forest Service describes generally how logging disrupts forest carbon cycles and stores, increasing atmospheric carbon pollution¹:

Instead, following harvesting, a portion of the carbon stored in wood may be transferred to a "product pool." Once in a product pool, the carbon is emitted over time as carbon dioxide (CO2) from decomposition, and as CO2, methane (CH4), nitrous oxide (N2O), carbon

¹ Greenhouse Gas Emissions and Removals From Forest Land, Woodlands, Urban Trees, and Harvested Wood Products in the United States, 1990–2021, Forest Service U.S. Department of Agriculture Resource Bulletin WO-101. April 2023.

https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/GHG-Emissions-Removals.pdf

monoxide (CO), and other nitrogen oxides (NOx) when the wood product combusts, or the carbon in the product may be transferred and stored in solid waste disposal sites (SWDS).

However, the Forest Carbon Assessments (FCA) recently placed into use in some National Forests fail to recognize or quantify these forest carbon losses caused by logging, especially if logging MOG forests and trees. Analyses using this framework typically dismiss the greenhouse gas impacts of logging and fail to properly inform project-level decision-making, often leading to rationalization of logging MOG. This augers poorly for the success of the NOGA as those carbon storage benefits form the scientific basis for the MOG conservation initiative as directed by the President's Executive Order 14072, yet are ignored in the methodology.

While the FCA analysis recognizes the great value of American forests and peatlands as the nation's greatest carbon sink, it excludes consideration of carbon dioxide emissions and lost forest growth when trees are logged, addressing only the very limited area of vehicle emissions associated with logging and transporting wood products. The FCA analysis is also vague on the impacts of carbon dioxide emissions from forest harvest on the atmospheres increasing heat-trapping capacity. Rather, it is focused mainly on impacts of climate change itself on the resilience of forests managed by the USFS.

Given these fundamental omissions, the resulting environmental review devalues MOG significance, and does not accept or implement the scientific rationale underlying efforts to conserve, sustain, and develop MOG forests to mitigate climate change. As such, the resulting environmental review fails to address the most pressing environmental challenge of our time, controlling GHG emissions that are leading to a rapidly heating planet that is jeopardizing and diminishing forested lands across the continent.

In lieu of analysis, the FCA template language makes sweeping statements to the effect that trees will continue to grow and sequester carbon after proposed logging takes place. These statements typically extend beyond the project area in question to claim offsets from the entire forest, and assume that the forest will regenerate over time. They do not address the massive releases of GHG's that occur immediately upon logging (including CO₂ and methane pulses from decomposing fine-litter and soil organic carbon), nor the time required to regain in harvested areas carbon stores and sequestration capacity.

For example, a typical claim in environmental assessments is that "[t]he forest will maintain as a carbon sink as stated in the Forest Carbon Assessment.²" The **degree** to which forests capture and store carbon before and after the proposed logging, and the time that it takes to restore lost carbon stocks, is ignored. In the upper Midwest, it is estimated that it takes at least **40 years** just to balance these immediate GHG releases and several decades longer to regain the carbon absorption and sequestration capacity of the mature forests being felled.

To be silent on these massive and cumulative carbon effects from logging and instead focus on vehicle and equipment exhaust misses the forest for the trees. Using this logic, carbon pollution from any logging project will be found to be infinitesimal in comparison to the forest as a whole. However, if the project reduces the capacity of the forest *in the project area* to capture and store

² Kidrick Vegetation Project Environmental Assessment, Taylor County, Wisconsin, USDA Forest Service, p 5.

carbon, then the adverse effects of the project upon the human environment are of great significance.

However, the FCA analysis used in second-stage review provides no useful information on the stores of carbon released to the atmosphere or how much carbon sequestration capacity will be lost due to this logging, when the timber sales areas again become carbon sinks, and how long it will take to return to pre-harvest carbon stores.

The current forest carbon assessment methodology substitutes a single forest-level discussion and analysis for project-level analyses in environmental review. Applying one analysis at the forest, rather than the project scale obscures the actual cumulative impacts of these projects on carbon emissions and lost sequestration capacity – typically MOG forest services.

The FCA methodology systematically undervalues the climate benefits of MOG forests when it argues that any negative carbon impacts will not be significant so long as the rest of the forest will continue to be a carbon sink. It does not address how much the project in question increases or reduces carbon sink effects, or when. It does not estimate the cumulative effects of these impacts and fails to provide high quality and accurate scientific analysis required of environmental review.

These approaches do not show to what *degree* the forests will remain a net carbon sink and the NOGA does not provide a methodology for valuing MOG conservation nor for individual foresters to track carbon stocks and sequestration in their NF units. As such, the final NOGA must require such methodology, so as to provide decisionmakers and the public with sufficient information to assess the carbon and climate impacts of proposed logging of mature and old-growth forests.

These analytical shortcomings poorly inform second-stage environmental review by undercounting the significance of the climate impacts of the proposed logging. They are used, today, to justify logging mature and old-growth trees and, therefore, are within the scope of the draft NOGA.

The NOGA must set standards and guidelines for project-level (or "second-stage") environmental review practices for vegetation management to make better informed decisions that meet the goals of the NOGA.

Forest Service Must Quantify Forest Carbon Impacts

The NOGA must specify that, before second-stage environmental review can be considered complete, the impacts to MOG inventory, lost carbon-sequestration capacity, carbon stores and emissions should be quantified. Specifically, we call on the USFS to determine the following impacts of logging on atmospheric carbon, especially if vegetation management projects propose logging of MOG forests:

- Quantity of mature and old growth trees to be logged. This should include documentation of the areas containing mature and old-growth forests in the project area that would be degraded or lost due to the logging.
- Annual carbon sequestration capacity lost. Destroyed carbon sequestration capacity from logging will increase carbon pollution in the atmosphere. The extent of resulting carbon pollution should be quantified on an annual and cumulative basis to quantify project carbon pollution in total and over time.

- Stores of carbon removed and emitted. Most carbon removed from the forest will return to the atmosphere over time via burning, decomposition or other pathways. This also becomes a form of carbon pollution as a result of the forest disturbance from logging activities. Likewise, it takes time for a logged area to regain net carbon sequestration, after accounting for these carbon releases. The analyses should quantify these carbon releases in total and over time.
- Sequestration break-even. This refers to the time until return to pre-harvest annual sequestration capacity and carbon stores. The environmental review should quantify how long it will take the affected forest to provide carbon sequestration services as existed prior to project initiation *in the project area*. Broader references to the greater forest are not relevant for NEPA environmental review.

A systematized forest carbon methodology based on forest carbon science for all vegetation management projects will result in meaningful and informative NEPA environmental review to accurately portray and consider the consequences of vegetation management projects and timber sales. A standardized analysis of projects and landscape-scale carbon cycle impacts would allow for scientifically valid assessments, monitoring of cumulative effects, and comparisons across time within individual national forests. Resulting products would allow for data aggregation and reporting within and across all ten USFS regions. The Forest Service should implement this approach in environmental review for carbon impacts of all logging projects.

An effective NOGA requires a forest carbon methodology well-grounded in science to more accurately assess the significance and carbon values of maturing and old-growth forests.

Best regards,

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