Jeff Lonn comments on the *Draft Environmental Impact Statement to Amend Land Management Plans to Address Old-Growth Forests (Project 65356)*

The USFS plan to protect old-growth forests appears to offer no protection to old growth at all. Although Alternative 3 (not the preferred Alternative) comes closest to protecting some old growth, it still does not meet the requirements and intent of Executive Order 14072 that mandated protections for old growth, as well as "mature" forests, on lands managed by those agencies. There is nothing in any alternatives that protects or even addresses mature forests. This omission is no doubt designed to continue commercial logging as the USFS's top priority. The USFS needs to start over, and follow the requirements, mandates, and intents of E.O. 14072. I noted the following issues and deficiencies with the NOGA DEIS:

1. There is no adequate inventory of old-growth and mature forests as required by the EO. The inventory on National Forest Lands was produced using only FIA data, one plot of less than one acre for every 6,000 acres. No maps were produced. FIA data can at best provide only a rough estimate of old growth and mature forest. An accurate and useful inventory that includes maps is required by the EO. USFS did not generate any accompanying maps. Wouldn't maps be essential to inventorying these forests? Other researchers (for example DellaSalla et al. 2022) have produced inventories that do include maps. Why are they not used? Was it because they offered "*lower estimates of old growth forest extent"* (DEIS p. 60)?
2. EO also orders the USFS to analyze the various threats to both old-growth and mature forests. One of the main purposes of EO 14072 was to foster carbon sequestration in the forest. Amendment DEIS (p. 75) discusses carbon and how "*harvest **may** result in lower net greenhouse gas (GHG) emissions relative to unmanaged forests.*" However, numerous recent studies show that commercial logging emits significantly more greenhouse gases than wildfire (Campbell et al, 2011; Clyatt et al, 2017: Harris et al, 2016; Law and Waring, 2015; Law and others, 2017, 2022; Reinhardt and Holsinger, 2010; Stenzel et al, 2019; Wilson et al, 2021) and that recovery to prior carbon sequestration levels, even in a thinning project, takes more than 23 years (Clyatt et al, 2017). Climate change is the driver of not only the big wildfires, but also of many insect epidemics, so to classify climate as a lesser threat than wildfire, insects, and disease is disingenuous. Climate change should be regarded as the #1 threat to old-growth and mature forests.
3. The USFS's self-analysis minimizes the harms their own logging activities inflict on the forests they hold in the public trust. In particular, the USFS self-examination concluded, predictably, that their own logging plans are only a minor threat to forest ecosystems. The Threats Assessment (p. 52) acknowledges that commercial logging prior to 1990 had harmful impacts and credits public pressure as a major factor in the reduction of rampant logging for commercial interests. Yet now "proactive stewardship" is a major goal of the amendment. Proactive stewardship is defined in the amendment glossary (p. G-2) as "*vegetation management that promotes the quality, composition, structure, pattern, or ecological processes necessary for old-growth forests to be resilient and adaptable to stressors and likely future environments*." The Amendment DEIS (p. S-2) states: "*The proposed amendment recognizes the importance of proactive stewardship in order to protect old-growth forests from threats, including to reduce wildfire risk and allow for the restoration of beneficial fire in fire-adapted ecosystems, consistent with the Forest Service's Wildfire Crisis Strategy*." These are the same words that Region 1 of the Forest Service uses to justify all commercial logging projects, so the statement in Alternative 2

that that prohibits "*proactive stewardship in old-growth forests for the purpose of timber production"* gives old-growth no protection at all. In USFS Region 1, all commercial logging projects have the "purpose" is to improve resilience to wildfire, insects, and disease. Regarding wildfires, Bradley et al. (2016) found, in a study of over 1500 fires, that managed forests burned more severely than unmanaged (proactive stewardship) forests. Calkins et al. (2023) found that wildfires are driven by climate and climate change, and they criticized the thinning promoted by the 2022 Wildfire Crisis Strategy, the 2021 Infrastructure Act, and the 2022 Inflation Reduction Act, all of which are focused on commercial and non-commercial thinning of tens of millions of acres of public, private, and Tribal forests in the western U.S.

4. There is no recognition in the DEIS that many existing old-growth forests, including low-elevation "frequent fire" forests, do not require any active management and would instead be degraded by many elements of "vegetative management." In revision of the DEIS, statements need to be added that for "no action" or "passive management". As defined in the DEIS, "proactive stewardship" precludes passive management and no action alternatives.
5. I have not yet seen a commercial logging project that has improved the forest ecosystem. Without exception, commercial logging has always degraded ecosystem, and commercial logging not a legitimate tool for protecting old growth and mature forests. The USFS presents Alternative 2 as their preferred alternative, claiming that commercial logging is a necessary ecological management tool in old-growth forests. The absurdity of this claim is probably best demonstrated in the amendment's Technical Guidance for Silviculture (p. 4-5): ***"****More intensive treatments such as even-aged methods (seed tree cutting and clearcutting) should be considered as the last resort. They should be used when they are the only option left to move the stand toward desired conditions or improve ecological integrity."* This says that clearcutting may be necessary to improve ecological integrity! There is absolutely no ecological equivalent to a commercial timber sale, especially a clearcut. Even in the most catastrophic windstorm or wildfire, there is no natural set of circumstances where the big sawlogs are removed from the system entirely; where the soil is compacted, promoting weed invasions and loss of mycorrhizal fungi; and where the habitat is fragmented by roads.
6. DEIS's fig. 10 (p. 75), shown in support of commercial thinning, does not do so. In fig. 10, the results from thin-and-burn vs. burn-only are exactly the same. If so, why do the commercial thinning? The paper this figure was taken from (Davis et al., 2024) states: *"in some cases "thin only" treatments led to a reduction in wildfire severity, especially in younger treatments, however, not treating surface fuels following thinning led to increased wildfire severity compared to controls (positive effect size) in 40% of "thin-only" observations."* Commercial thinning should be prohibited entirely from old-growth and mature forests. Please choose and modify Alt 3 to include mature forests.
7. Alternative 2 allows exemptions to any proposed restrictions. These exemptions include WUIs, which are political/economic boundaries, not scientific ones; municipal watersheds; and critical infrastructure areas. No science demonstrates that these areas should be exempt from the regulations.
8. Alternative 3 comes closer to actually protecting old growth because it prohibits commercial logging in old growth. Unfortunately, Alt 3 says nothing about mature forests on their way to becoming old-growth. The DEIS justifies not choosing Alt 3 for several reasons. First, Alternative 3 *"is likely to be less effective at achieving desired outcomes under the old-growth amendment because it would limit ecologically necessary proactive stewardship activities…..From an ecological perspective, the anticipated negative effects of reducing the rate of proactive stewardship by limiting vegetation management tools likely outweighs any potential benefits of ensuring that commercial timber harvest does not negatively influence old-growth management*

decisions. Consequently, the rate of restoration of old-growth will be slowest under this alternative because the agency's ability to restore old-growth resiliency and achieve desired conditions would be more limited with the removal of commercial harvest as a management tool" (Amendment DEIS, p. S-11). This is an illogical claim, especially because all old growth developed without the "benefits" of commercial logging. Second, *"Alternative 3 does not allow funding for restoration through commercial timber sales and would not support the anticipated level of restoration work needed to reduce threats to old growth"* (Amendment DEIS, p. 120). This is also an illogical claim given that the federal timber program loses an average of $2 billion per year (Center for Sustainable Economy, https://www.sustainable-economy.org/federal-logging-program-loses-billions-for-taxpayers#:~:text=New%20report%20from%20CSE%20finds,habitat%20) and so commercial logging cannot be viewed as a funding source. Third, Amendment (p. 121) states: *"Under Alternative 3, contributions to rural community well-being would be less than for the other alternatives, given the lower level of restoration-related [logging] economic activity."* But USFS fails to describe and quantify the economic value lost when unlogged forests are logged, including the value of clean water, clean air, scenery, recreational opportunities, biodiversity, and carbon storage.

EO 14072 seeks to strengthen local economies. Section 2(d)iii directs the USFS to "*develop recommendations for community-led local and regional economic development opportunities to create and sustain jobs in the sustainable forest product sector, including innovative materials, and in outdoor recreation, while supporting healthy, sustainably managed forests in timber communities*." The USFS purports to comply with the order by suggesting that in order to protect old-growth forests, they need more mills able to handle large-diameter logs, as well as more mills for "non-traditional" forest products like small-diameter logs, and more mills for making fuel pellets for the biomass industry (Threats Analysis, p. 60-61). Creating additional market incentives to log old-growth forests is contrary to the goal of protecting mature and old-growth forests from logging, which is the only threat over which we have immediate discretion and control. Burning biomass for fuel is mistakenly identified by some as "green" or renewable energy. Biomass fuel emits three or four times more carbon than burning coal. Reducing emitted carbon dioxide is a main goal of EO 14072, and therefore the DEIS should not promote biomass fuel.

Again, USFS fails to describe and quantify the economic value lost when unlogged forests are logged, including the lost value of clean water, clean air, scenery, recreational opportunities, biodiversity, and carbon storage. Niemi (2016), examining Oregon BLM's proposed Resource Management Plan, estimated that these kinds of losses would exceed by 4 times the value of the logs produced. That is true of my area in Montana, too. People live and move here to enjoy the clean air, scenery, recreational opportunities, and unspoiled lands. Nobody moves here for a timber job.

9. DEIS (p. S-14) states: "*proposed old-growth amendment does not change lands suitable for timber production. The amendment also does not propose special designation status (e.g. roadless, a new management area in the land management plan etc.) for old-growth forests*". The Amendment should do both, although both are impossible to accomplish without the corresponding maps of old growth and mature forest that are unavailable.

   Amendment DEIS states (p. 16-17) "*None of the alternatives create "designated areas" of old-growth forest. None of the alternatives require all areas currently meeting the definition (and associated criteria) of old-growth forest to be retained as such. This is intentional as some vegetation management needed to achieve management objectives (e.g. hazardous fuels reduction, resilience to insect and disease, species composition, etc.) could result in an area no*

longer meeting the definition of old-growth immediately following vegetation management being completed but could result in the area being more resilient and adaptable to stressors and likely future environments – allowing the area to continue succession back towards old-growth forest." If the Amendment is to protect old-growth (and mature forests), it needs to create new management areas. Of course, this is impossible without maps and a real inventory of old growth and mature forest. It's particularly disturbing that management activities are allowed to take areas out of old growth status because these actions "could" result in succession back towards old growth forest. Even pro-logging bills like the Healthy Forest Restoration Act do not allow this. The Amendment is a big step backwards in protecting our public forests, giving them instead to the timber lobbies.

10. Amendment DEIS (p. 21) states to : "*effectively incorporate place-based Indigenous Knowledge and other forms of Best Available Scientific Information as equals to inform andprioritize planning and decision-making for the conservation and recruitment of old-growth forests through proactive stewardship.*" Indigenous knowledge (IK) is not science, nor is it equal to science. It is essentially anecdotal information about human-centric practices, and because it has skipped many generations, IK should be considered hearsay at this point. IK is certainly not equivalent to best available science.
11. What is considered frequent fire on DEIS, p.64? Sagebrush in the southwest region is shown as characterized by frequent fire, but Baker (2006) found that sagebrush is intolerant of any fire, has long recovery times of 35-100 years, and has mean fire rotations of 70-200 years (mountain big sagebrush) or 35-100 years (mountain grasslands with some sagebrush). It leads me to question the accuracy of your historical fire frequency data for other forest ecosystems, especially Doug fir, Gambel oak, aspen, white/grand fir, and the deciduous forests of the southeast. Applying prescribed fire to ecosystems not adapted to frequent fire will only degrade them, reduce species diversity, and release carbon. Figure 4 (p. 65) shows that the decrease in open canopy forests is not matched by a corresponding increase in closed canopy forests. What accounts for this discrepancy? Some open-canopy forest must have been lost due to some other processes other than tree densification, perhaps timber harvest?
12. USFS and our local forest in particular (Bitterroot National Forest) continue to propose enormous landscape-scale logging and burning projects that encompass most of the non-Wilderness portions of the forests without any regard for EO 14072. A moratorium on these active, enormous, landscape-scale logging and burning proposals is required in order to maintain the status quo and comply with NEPA while the public's comments on this DEIS are being considered.

Summary

The NOGA DEIS needs extensive revision if it is going to protect any old-growth or mature forest because, as written, it offers no protection. Instead, it appears to be a plan to fool the public into thinking old-growth and mature forests are protected, whereas the reality is they are not. That's no surprise given the USFS's priority on producing commercial timber at any cost, including monetary costs to the taxpayer and the climate costs of increasing carbon emissions. Shame on the USFS.

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