Friends of the Bitterroot (FOB) comments on the *Draft Environmental Impact Statement to Amend Land Management Plans to Address Old-Growth Forests (Project 65356)*

In 2022, when President Biden issued Executive Order 14072, he ordered the BLM and the USFS to amend all management plans to include protections for old growth, as well as "mature" forests, on lands managed by those agencies that contain Mature and Old Growth. Section 2 of E.O. 14072, as printed in the Federal Register on April 27, 2022, begins with the following words (emphasis added by FOB):

*"To further conserve **mature and old-growth forests** and foster long-term United States forest health through climate-smart reforestation for the benefit of Americans today and for generations to come, the following actions **shall** be taken… (b) the Secretary of Agriculture, with respect to National Forest System lands, **shall**, within 1 year of the date of this order, define, identify, and complete an inventory of **old-growth and mature forests** on Federal lands, accounting for regional and ecological variations, as appropriate, and **shall make such inventory publicly available**… Following completion of the inventory, the Secretary [of Agriculture] **shall** analyze the threats to **mature and old-growth forests** on Federal lands, including from wildfires and climate change; and (iii) develop policies, with robust opportunity for public comment, to institutionalize climate-smart management and conservation strategies that address threats to **mature and old-growth forests** on Federal lands".*

Note that the use of the word "shall" is consistent, as is the use of both "mature" and "old-growth forests" in associated conjunction. Nowhere in the text of the Executive Order does one term appear without the other. Yet, in the DEIS, we see that the US Forest Service flatly refuses to consider mature forests for protection, ignoring half of the EO. This purposeful omission appears to be designed to continue commercial timber production.

The required inventory on National Forest Lands was produced using FIA data, which the Amendment DEIS states (p. 6) is "a peer-reviewed and widely accepted sampling protocol." But with only one FIA plot of less than 1 acre for every 6,000 acres of National Forest Land, FIA can at best provide only a rough estimate without any accompanying spatial data (maps). In fact, USFS's own **Mature and Old-Growth Forests: Definition, Identification, and Initial Inventory** https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/Mature-and-Old-Growth-Forests.pdf (p.30) states, regarding FIA sampling: *"Classification errors of old-growth or mature forest for this national-scale inventory have not been tested. Furthermore, our use of FIA stand age is imperfect."*

An inventory of old-growth and mature forests without maps is not an inventory. Other researchers (e.g. DellaSalla et al., 2022; https://databasin.org/galleries/73f955608c954907b596eed3a6915545/#expand=354961) have produced old-growth and mature forest inventories that do include maps. Notably, the amendment (p. 60) admits that "*other recent studies* [including DellaSalla et al. 2022] *offer lower estimates of old-growth forest extent*." An accurate and useful inventory that includes maps is required by E.O. 14072.

EO also orders the agency to analyze the various threats to both old-growth and mature forests. The agency's self-analysis minimizes the harms their own management inflicts 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. Region 1 Forests are no longer honest in stating that the purpose of a logging project is for timber production. That suggests that the amendment's language prohibiting "*proactive stewardship in old-growth forests for the purpose of timber production"* gives old-growth no protection at all. 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.

There is no recognition in the DEIS that many existing old-growth forests do not require any active management and would instead be degraded by many elements of "vegetative management." In revision of the DEIS, numerous and prominent statements need to be added signaling that decisions for "no action" or "passive management" are consistent with "proactive stewardship". As defined in the DEIS, "proactive stewardship" precludes passive management and no action alternatives.

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. Regarding wildfires, Bradley et al. (2016) found, in a study of over 1500 fires, that managed forests burned more severely than unmanaged forests.

Commercial logging is an inappropriate management goal and 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):

"*If stand modifications can move the stand toward desired conditions or improve ecological integrity, consideration is given to treatments to modify stand conditions consistent with the land management plan. Considerations for modification of the stand should use less intensive treatments such as stand tending treatments (prescribed fire, understory thinning, and so forth), intermediate treatments (improvement, salvage, sanitation, and so forth), and uneven-aged methods (single tree selection).* ***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****."* [emphasis added).

This says that clearcutting may be necessary to improve ecological integrity! There is absolutely no ecological equivalent to a commercial timber sale. 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.

Amendment DEIS's fig. 10 (p. 75) does not support commercial thinning of the canopy, either. In fig. 10, the results from thin-and-burn vs. burn-only are exactly the same. In fact, 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."* FOB recommends that commercial thinning be prohibited entirely from old growth forests (Alt 3), and if old-growth is to be treated, only non-commercial thinning and prescribed fire be used.

Alternative 2 also allows exemptions to the proposed restrictions. These exemptions include WUIs, which are political/economic boundaries, not scientific ones; municipal watersheds; and critical infrastructure areas.

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 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 does indeed seek 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 our area in Montana, too; people live here to enjoy the clean air, scenery, recreational opportunities, and unspoiled lands. Nobody moves here for a timber job.

Amendment 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.

Amendment DEIS (p. 21) states to : "*effectively incorporate place-based Indigenous Knowledge and other forms of Best Available Scientific Information as equals to inform and prioritize 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. Because these activities have not even been practiced for generations, perhaps IK should be considered as hearsay. IK is not equivalent to best available science.

Amendment DEIS (p.64) shows forest types and their fire frequency but gives no information on what those frequent fire intervals are. What is considered frequent fire? Depending on this definition, some information is inaccurate. For example, 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 FOB 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?

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 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.

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