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Analysis of Draft Environmental Impact Statement:

"Amendments to Land Management Plans to Address Old-Growth Forests Across the National Forest System" (June 2024)

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Summary

The Draft EIS incorporates proposals about how land management plans for the national forests will be amended regarding management direction for the stewardship of "existing and recruitment of future old-growth forests so that they will be resilient over time (DEIS, p S-1)." That is good news, indeed! Guidance to ensure the conservation of existing old-growth forests has long been needed as has guidance on recruitment of future old growth. Unfortunately, the DEIS fails to provide a credible program for the conservation of old-growth forests and trees on the national forests. Indeed, it even fails to mandate protection of old trees within old-growth stands.

The approach proposed in the DEIS is strongly oriented toward enabling and encouraging active management of old-growth forests, leaving the impression that the vast majority of old-growth stands are going to need active intervention to "improve their condition and increase their ability to accommodate fires and climate change." The DEIS repeatedly asserts that the concept of "proactive stewardship" meaning "vegetation management" will be appropriate for management of existing old forests.

There is no recognition in the DEIS that many existing old-growth forests do not require any active management and, in fact, would 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" are consistent with "proactive stewardship", or else a different term needs to be created that automatically is understood to include "no active management."

The DEIS does not adequately explain the diversity of old-growth forests on the national forests, particularly the profound contrasts in appropriate policy and management approaches between forests that were historically subjected to frequent fire and forests that were not subject to frequent fire. The extreme contrast between these two types of forest in their differing need for active management is mentioned only briefly in Chapter 3. This

profound contrast between frequent-fire and infrequent fire old-growth forests needs to be elaborated early in the DEIS so that readers will be aware of how different the appropriate management will be.

The earlier national analysis of mature and old forests nationally identified wildfire as the greatest threat to mature and old forest. The most obvious response to this threat would logically be actions to keep catastrophic wildfires out of high-quality old-growth forests! An example would be mandating increased efforts to detect and suppress wildfires that threaten old-growth forests, particularly on infrequent-fire sites. The DEIS appears to have uniformly adopted the viewpoint of reducing fire losses by altering the structures of old-growth stands. While managed fire will be critical in restoring and managing old forests in frequent-fire landscapes, it is critical to keep wildfire away from the many old forests that were historically not subject to frequent wildfire. Structural solutions (e.g., reduction in fuels) are inappropriate treatments for many fire-infrequent old-growth forests, such as the old-growth Douglas-fir-western hemlock forests of the Pacific Northwest. Mechanically reducing fuels in such forests would fundamentally alter their structure and function creating novel forest conditions that have no natural model. Furthermore, the productivity of such forests would require constant treatments, further degrading their condition.

The DEIS makes constant reference to analyses of existing old-growth forests with the view of conducting "vegetation management" to "improve" their quality or resistance to disturbances. In our opinion the Forest Service currently has relatively few technical staff on the national forests with the relevant expertise to assess the ecological conditions of old forests and make valid judgments about appropriate treatments. For example, most Forest Service silviculturists are trained to manage forests for wood production and more recently to reduce risks of destructive wildfire; they are not trained to assess ecological conditions in natural forests. While there are individuals, particularly in the research branch of the agency, that have knowledge relevant to assessing old-growth forests, most field units do not have such individuals.

The Forest Service needs to undertake a major educational program to bring field personnel up to speed on the ecology of natural forest ecosystems, including mature and old forests. The agency also needs to undertake a major research effort aimed at increasing scientific knowledge of the structure, function, and biota of older forests.

In addition, a major effort is needed to ensure that FS personnel can successfully identify old trees of all species. Old-growth forests are characterized by old trees and not simply large trees. The old trees are the ecological foundation of these forests and yet relatively few programs and publications exist to explain how to identify them. Size is not the sole measure of an old tree-in fact relatively small trees can be very old. The FS should take the lead in making sure that their personnel can identify old trees and to lead the way in educating the public about their characteristics.

Assessment of Draft EIS

In this DEIS the USDA Forest Service appears to be trying to utilize the current national focus on older forests to

create policies that will allow the agency to do essentially anything that it wants to do in existing older forests on the national forests. We do not believe that was the agency's intent. However, the document is strongly slanted toward the view that extensive active management ("proactive stewardship") is going to be a universal need in stewarding these forests; it is not. The failures of the DEIS in this regard are numerous and important, some of which are discussed below.

The phrase "proactive stewardship" should be replaced with a more neutral term; every time we see it, we imagine we can hear the chain saws starting up!

Purpose of the DEIS (p. S-3 and -4; STD2a). In its current form the DEIS does not serve its most prominent need - the conservation of existing old-growth forests. In fact, conservation of existing old-growth forests is not even listed as one of the purposes of the proposed action! The intent to "conserve existing old-growth forests" might be inferred from one or another of the other "purposes" listed but we believe it needs to be explicitly identified as one of the purposes in the final EIS.

This issue is also relevant to one of the standards that was present in the Notice of Intent (NOI) but dropped in the DEIS: The NOI standard 1 was: "Vegetation management activities must not degrade or impair the composition, structure or ecological processes in a manner that prevents the long-term persistence of old-growth forest conditions within the plan area." To help make clear the importance of conserving old forests this standard needs to be reincorporated into the final EIS along with a very direct statement that conserving old forests and trees on the national forests is the primary goal/objective for the development of the EIS.

This standard also needs to apply to the short run-the "long-run" could be 100 years or more!

Recommendation: Include "Conservation of existing old-growth forests" as one of the purposes of the proposed action in the section on the Purpose and Need for this amendment (p. S-4). In fact, it should be the very first purpose listed! All of the other good words (purposes) are fine, but we need to know that the goal of conserving existing old-growth forests is at the top of the list.

Recommendation: Put Standard 1 from the NOI back into the EIS in a modified form that begins with the intent to "Conserve existing old-growth forests, including disallowing of any vegetation management that would cause either short- or long-term impairment of their composition, structure or function." It should be the first of the standards in the final EIS.

Variability in Old-Growth Forests. While the DEIS appropriately acknowledges that there is great variability in the nature of old-growth forests throughout the National Forest system, it fails to elaborate for the reader the most important contrast in these forests which is between forests that were historically subject to frequent fire, and forests that were not subject to frequent fire. This contrast is the reason that diametrically opposed management approaches will be necessary in managing old growth on the national forests. On the one hand, old-growth

forests on sites historically subject to frequent fire need active management in order to restore and sustain them-essentially into perpetuity-while retaining and increasing the survivability of the old trees within them. On the other hand, the Forest Service has immense areas of old-growth forests that were not subject to frequent wildfire and that require no active management, other than protection from wildfire.

This important contrast is acknowledged in Chapter 3 (p. 62-63) but it needs to be prominently presented and illustrated by one or more examples early in the EIS. In fact, there is excellent language in Chapter 3 that could appear early in the report where diversity and complexity of old-growth forests are first brought up. For example, from Chapter 3: "One of the most important distinctions of forest ecosystems, including old-growth forests, is between forests that characteristically experience frequent, low-severity fires . . .and infrequent fire forests."

It is important to lay out early and very prominently in the EIS recognition of the contrast between these two very widely distributed forest conditions because it helps people to understand why very different approaches are going to be applied in different old-growth forests. To argue that this is confusing to stakeholders is to ignore the consequences if they do not understand the generic contrasts needed in policy and management between the two forest conditions. Even the United States Congress recognized the need for this distinction in its numerous legislative proposals.

Recommendation: Early in the EIS (perhaps sections 1.3 or 1.4) provide text which lays out the highly contrasting nature and consequent appropriate management of forests on lands subject historically to frequent fire and on lands that were not subject to frequent fire. Illustrate with one or more real-world examples both the differences in the nature of these two types of forest and the consequent management and policy contrasts between them.

Active Management. This DEIS does not ever directly acknowledge that many old-growth forests do not need (and would actually be degraded by) active vegetative management and the phrase "proactive management" does not lead one to believe that passive management is ever acceptable. We view it as imperative to prominently include language in the EIS making clear that "no active management" is an acceptable management approach to old-growth forests. Managers need to understand that "no active management" is an appropriate decision under the "proactive stewardship" concept (or, better yet, create a clearly more inclusive phrase to substitute for "proactive stewardship"). The fact that there are extensive areas of old-growth forest that do not require active management and should not undergo such treatment needs emphasis in the final EIS.

Recommendation: The final EIS needs to repeatedly make clear that active management will not be needed in many existing old-growth forest stands and that decisions to forego active management are appropriate decisions under the concept of "proactive stewardship".

Wildfire Suppression. Another major failure in the EIS relates to detection and suppression of wildfires associated with old-growth forests. As the earlier national inventory shows, wildfire is the greatest threat to existing old-growth forests. The obvious response to this finding should be to increase efforts to keep fires out of fire-

infrequent old-growth forests! Indeed, fire suppression and management should be the first element of a "proactive management" policy, following which decisions could be made about whether any other activity is even needed, based upon whether the forest is one historically subject to frequent fire or not.

Nowhere in the DEIS are strategies proposed to detect and suppress wildfires within and near old-growth forests as one way of reducing losses of old growth to fire. It would appear that the authors of the DEIS appear to believe that the only way of achieving reduced losses to wildfire is by fuel treatments within old-growth forests. Many old-growth forests that were historically subject to frequent fire do need restoration treatments and restoration of regular burning. However, such treatments are inappropriate for many old-growth forests that were subject to infrequent fire.

In most forests historically subjected to infrequent fire the obvious and direct response to the threat of wildfire is a program of aggressive detection and suppression of wildfires that threaten significant old-growth forest stands! This is not currently Forest Service policy as illustrated by the 2022 Lookout Mountain fire on the H.J. Andrews Experimental Forest where thousands of acres of old-growth Douglas-fir-western hemlock forests were allowed to burn. Surprisingly and unfortunately, thousands of old trees died in this fire even though it was not a high-severity crown fire but, rather, a fire that burned largely on the ground.

Recommendation: A program for increased efforts to detect and suppress wildfires threatening fire-infrequent old-growth forests needs to be developed and added in the final EIS. If fire is the greatest threat to these old forests, then aggressively and directly attack this threat!

Technical Staff to Analyze Old-Growth Forests. The Draft EIS frequently refers to analyses of existing old-growth forests with a view toward "improving" their quality or resistance to disturbances by silvicultural interventions. In our opinion few of the Forest Service field units have technical staff that have the expertise to assess ecological conditions in old forests and judge the appropriateness of specific treatments.

Most Forest Service silviculturists are trained in the science of wood production, and more recently in fuels reduction, not in how to achieve and maintain the structure and function of old growth or any other natural forests. Consequently, they see a fire-infrequent mature or old forest in terms of excessive tree densities and competition and interpret them as being too dense and lacking spatial uniformity. (The classic silviculture mantra is "room to grow and none to waste!") When encountering clusters of old trees, they often propose thinning some of them to reduce competition, despite the fact that members of these clusters have been living together for centuries! In fact, clusters of trees 200 to 600 years old are almost certainly collaborating, rather than competing with each other, through integrated belowground systems of roots and mycorrhizae.

Similarly, traditional silviculturists see dominant and co-dominant tree mortality as indicating excessive tree density and poor stand health, rather than processes that build and maintain coarse woody debris, which is important in sequestering carbon and providing habitat for biota. Fuels specialists are even less appropriate than

silviculturists for assessing the ecological conditions of old-growth forest. In any case few specialized staff on forests and districts have any academic or practical training in the structure, function and composition of natural forests, including old-growth forests.

The DEIS encourages extensive analyses of old-growth forests with a view toward conducting active vegetative management. There are individuals in the agency with sufficient scientific training to assess the ecological integrity of old- growth forests, primarily in the research branch. There are also many individuals in academia that could be engaged by the Forest Service. However, in our experience, the level of knowledge across the agency is not sufficient to assess the ecological integrity of old-growth forests relative to such action. Determining whether the forests are to be classified as infrequent fire (and do not need active management) or are to be classified as frequent fire (and may need active management at some time) will be a vital part of improving the knowledge base for action.

Recommendation: Training programs will be needed to create a cadre of specialists that have the knowledge and skills to assess conditions in old-growth forests, including whether forests are of a type where active management is appropriate, especially on sites subject to infrequent wildfire.

An important part of this training includes developing the ability to identify old trees. It is old trees, rather than just big trees, that provide much of the character and function in old-growth forests, and managers need to be able to recognize these with a high level of success.

Mature Forests. The DEIS does not deal in any meaningful way with policies regarding mature forests. This is not acceptable. Policies regarding mature forests are critical to any comprehensive program for management of old-growth forest ecosystems. Mature forests are many things, including the most obvious as replacements to old forests as they are lost, and to fill in critical gaps in distribution of older forests. They store large amounts of carbon and provide significant older forest wildlife habitat.

They are the stage in forest development where critical transitions are taking place in processes (e.g., patterns of mortality) and structure (e.g., accumulation of coarse woody debris). This is also the period in which trees begin to develop the more complex conditions characteristic of old trees.

Recommendation: Every region needs to be directed to aggressively address the critical role of mature forests in a comprehensive strategy for sustaining and increasing the amount of old-growth forests.

Managing to the Minimums: The use of existing old-growth definitions to help identify existing old-growth forests is appropriate. It is not appropriate to use such definitions as standards or goals toward which the forests should be managed. These definitions were created to help identify the forests that met or meet the existing conditions

to qualify as old-growth forests. They generally do not reflect the structural and compositional conditions that are characteristic of old-growth forests.

Using the old-growth definitions as standards or goals for management would be managing to the minimums, not the characteristic or desired levels to be found in such forests. There is a real danger here. It is not unusual for a forester to look at a stand and conclude that it does qualify as an old-growth forest but that it has many more old trees than the definition required and, therefore, some of those trees excessive to the definition can be removed.

Recommendation: The final EIS should be explicit that old-growth definitions should not be used to set standards for what is appropriate or desirable in an old-growth forest. Almost all old-growth stands would be expected to exceed those minimal standards and should be managed with that goal as an objective.

Management Approach 1.b (p.23) references "identification of areas that have the inherent capability to sustain future old-growth forest" and exemplifies what is meant as being "areas of likely climate or fire refugia." We have no idea of how this is actually to be interpreted. For example, essentially all of the Douglas-fir-western hemlock region has the inherent capability to grow old-growth forests. Of course, few of these forests are going to escape fire over the next several centuries because infrequent high-severity fires are a fundamental feature of the region and no forests can be expected to escape such events.

There will be many factors involved in selecting areas to grow additional old growth. Referencing climate and fire refugia is not very helpful as other factors may be more important. For example, it may be more important to provide connections between existing old-growth forests and/or to select areas of older (e.g., mature) forest.

Recommendation: Major revision of this section to replace "sustain" with "ability to growth old growth", since "sustaining" old-growth forest is problematic. Drop all references to climate or fire refugia since these are only two of many considerations in determining where to grow additional old forests.

Guideline 3 (p. 34, intent) provides for retention of old trees outside of old-growth forest in some situations.

"Provide for the recognition and retention of old trees that exist outside of old-growth forests that have cultural or historical value. It is also recognized there may be instances where these old trees could be detracting from desired species composition or ecological processes; therefore, there may be rationale for not retaining all old trees."

"This guideline is not intended to apply to every old tree (subjective depending on species, ecosystem, etc.), but rather those that stand out as rare or unique when compared to those trees in surrounding younger, smaller stands or in their ability to persist over time and that have particular cultural or historical value. These may be lone trees or there may be occurrences of these trees in small groups/clumps."

This recognition and retention of old trees outside of old-growth forest is important but it does not go far enough- surely one important reason for retaining old trees outside of old-growth forests is their ecological or wildlife value. This section reads like the person making the decision has to justify leaving an old tree when the opposite should be the case: the person wanting to remove an old tree should have justify why it does not meet the criteria for retention. Further, they have to be both rare or unique and have cultural or historical value which reads like multiple criteria must be met to leave an old tree, making the case for leaving an old tree potentially very difficult.

Recommendation: Revise the criteria for retaining old trees outside of old-growth forests to include significant ecological or wildlife value, require justification for why the tree in question does not meet the criteria and can be removed (putting the burden of proof on the one who wants to take them), and have only one criterion needed for them to be retained.

Retaining old trees outside old-growth areas is an appropriate provision, although it needs strengthening, but what about old trees within old-growth forests! There is nowhere that we could find that the DEIS states that old-growth trees within old-growth forests are to be retained!

It would be incredible to have a Final EIS that provides for retention of old trees outside of old-growth stands but not inside, as well!

Recommendation: The Final EIS needs to make a clear statement that old-growth trees within old-growth forests are to be retained and protected if vegetation management activities are undertaken. Exceptions could be provided for safety and related reasons, but a first principle is that all old trees in old-growth stands need to be retained, preferably standing and alive! Part of this training on old tree retention should include how to identify the many kinds of old-growth conifers and hardwoods that grow in the national forests so that their conservation across the landscape can be successfully implemented!

Recommendation. Provide a provision in the final EIS requiring retention of old trees in old-growth forests when such forests undergo "vegetation management." The goal is to retain all old trees in old-growth forests while living and as standing dead and down material following their death.

ATTACHMENT: Review DEIS September 16 Jerry Franklin and K Norman Johnson.docx - this is the same content that is coded in text box; it was also included as an attachment