Speak For The Trees Too

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RE: Comments on Scoping of Land Management Plan Direction for Old-Growth Forest Conditions Across the National Forest System

We appreciate the opportunity to comment on the Forest Service's proposal for Land Management Plan Direction for Old-Growth Forest Conditions Across the National Forest System. Our comments will be focused on the Preliminary Proposed Action and take examples from the areas we know best, the eastern National Forests and in particular the Monongahela National Forest. However, our comments have general applicability for National Forest management across the country.

Summary: Prompt action to identify areas for old growth conservation and stewardship is needed. A critique of the Forest Service regional definitions of April 2023 finds that those definitions are unwieldy for place-based implementation and may overlook some particularly old old growth. A pragmatic proposal for establishing the oldest 30%(in the east) of each Forest as Old Growth Conservation and Stewardship Areas is presented. That alternative proposed action could be immediately implemented so that conservation and stewardship can begin. It is not dependent on unavoidably controversial old growth definitions and sparse FIA data but is based on simple criteria using existing stand level data from each National Forest.

Identification of Areas for Conservation and Stewardship of Old Growth Conditions

The Preliminary Proposed Action (PPA) does not propose to identify any specific areas for old growth conservation and stewardship but only outlines a process for identifying those areas. Under the PPA identification of places for place-based conservation and stewardship would be put off for two years for Forest Service units to "Identify criteria used to indicate conditions where plan components will apply." and to "Prioritize areas for the retention and promotion of old-growth forest conditions, based on threats, stressors," (Fed. Reg. p. 88047). This delay for two years before identification of places for conservation and stewardship would loose valuable time and momentum for implementation of management to benefit old growth ecosystems and communities that rely on those resources. Identification of places for conservation and stewardship of old growth conditions should be done upfront as part of the proposed action. We recommend not using the April 2023 definitions for

implementation of a proposed action and, later in our comments, we propose instead a simple method for identifying areas in each Forest for conservation and stewardship of old growth conditions.

Regional Definitions of Old Growth are Unworkable in the Field and in Some Cases Flawed

The approximately 200 regional definitions identified in the Forest Service April 2023 inventory and definitions of old growth appear appropriate for a nation-wide inventory but are unworkable for place-based on-the-ground management. As noted by many authors, defining old growth is fraught with difficulty because of differing views of what old growth is and because the wide diversity of phisiographic and ecological conditions in the country. We do not try to define old growth in our comments but here point out how the regional definitions are unsuitable for use in the PPA and propose an alternative approach.

The Forest Service chose to use region and forest type specific definitions that are based primarily on structural components of the regions' forests. This resulted in inconsistent and in many cases overly complex definitions that would be difficult if not impossible to accurately implement in the field. For example, the regional definition for Region 6 uses 6 criteria to define old growth, including "Cover of downed wood" and "Diameter Diversity Index". On the other hand Region 3 uses none of the criteria used by Region 6 but uses two criteria "Stand Density Index" and "Quadratic Mean Diameter". While all of the criteria identified are related to old growth ecosystems and may be useful in managing toward old growth conditions, many are difficult to use for identification of old growth at the stand scale. We recognize the diversity of physiographic regions and forest types across the country, but inconsistent and complex definitions of old growth will hamper implementation of a proposed action.

In some cases the regional definitions appear to exclude stands that one would likely consider old growth. For example, in Region 9 Northern Hardwood Old Growth is defined as having more than 10 trees, 16 inches or more in diameter. In many areas a 16 DBH tree is not particularly large and finding 10 of those trees per acre not a difficult task. But in some areas Northern Hardwood stands have trees that greatly exceed 16 DBH and it is hard to imaging how a large-tree dominated stand could contain 10 or more trees that are at the upper end of the trees' size/age range. In the Monongahela we are aware of stands that are dominated by northern hardwoods 30 to 55 inches DBH and it seems unlikely that such stands could have 10 or more such large trees per acre. It appears that in some cases the existing criteria would exclude stands with the largest trees because of the minimum trees per acre criteria. The source document for Region 9's definitions for Northern Hardwood Old Growth (Tyrrell, et. al. 1998) reveals a wide diversity in the number of large tree per acre and includes old growth stands with fewer than 10 large trees per acre (e.g. 2-10 trees >28"DBH, Table 26). In summary, it appears that some regional criteria would exclude the oldest of the old stands from qualifying as old growth. Ironically, those are some of the areas most in need of protection.

Therefore, while those regional and forest type specific definitions appear appropriate for conducting the national inventory, those definitions and FIA data are unsuited to on-the-ground, place based implementation of a proposed action for stewardship of old growth.

Approach for Identifying Old Growth Conservation and Stewardship Areas

We propose an alternative proposed action that: identifies areas for old growth conservation and stewardship, can be implemented immediately, does not require complex and inconsistent regional and forest type dependent definitions, and uses existing data collected by each Forest.

Our proposal is that the oldest 30% of stands in each forest be designated as Old Growth Conservation And Stewardship Area's (OGCASA's). Our analysis of 4 eastern National Forest's Field Survey Vegetation (FSveg) data on stand age indicates that such a criteria would protect most stands that have been identified as old enough to plausibly be old growth. This would use the existing FSveg data collected by each Forest to immediately identify those oldest stands to be managed for conservation and stewardship of old growth desired characteristics. This alternative allows for immediate mapping of conservation and stewardship areas (e.g. Figure 1) and on-the-ground implementation of a proposed action. It avoids the need for controversial definitions of old growth. While defining desired characteristics is important for monitoring and stewardship, the proposed action should not be dependent on unavoidably controversial definitions of old growth but should identify OGCASA's immediately as the oldest 30% of stands in each Forest. This proposal has the multiple benefits of being immediately implementable, not being held hostage by disagreement over definitions of old growth and uses existing data already collected by the Forests. While the oldest 30% of stands approach seems appropriate for the eastern forests, west of the Great Plains a different percentage may be appropriate to capture the majority of old growth stands. As part of development of this alternative, the implications of this approach for each region should be examined by analysis of field survey vegetation data that includes stand age.

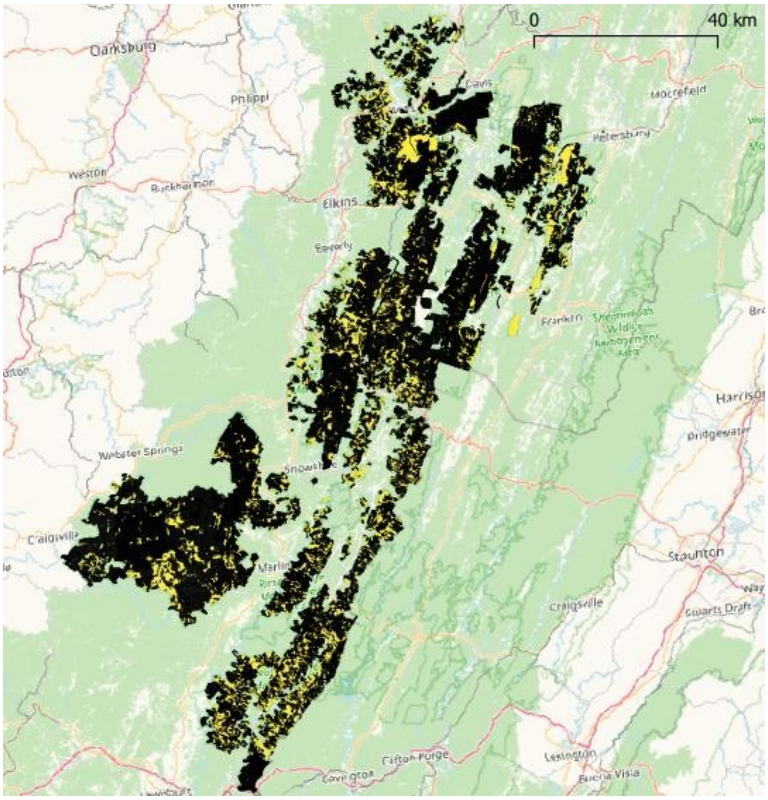


Figure 1: The oldest 30% of stands in the Monongahela National Forest, highlighted in yellow. Based on FSveg data for the Forest.

This proposed approach would complement, but not duplicate, areas already set aside for conservation purposes, such as research natural areas, wilderness areas or roadless areas (Figure 2). It differs from those congressionally and administratively set aside areas in that this criteria focuses on the oldest 30% of each Forest, insuring that adequate lands are identified for stewardship of old growth values.

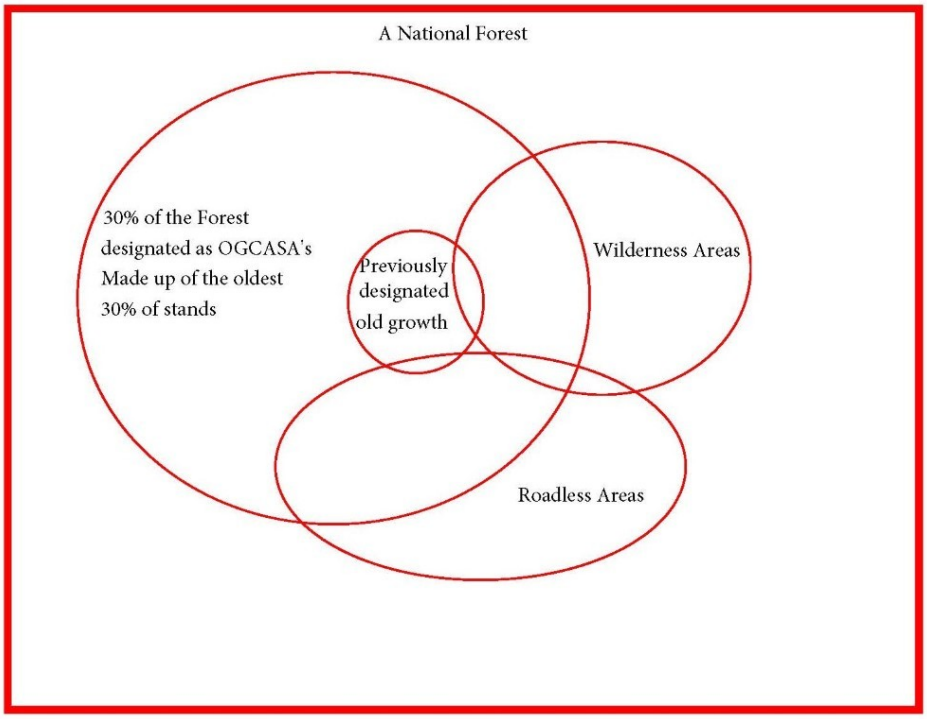


Figure 2: Conceptual diagram of overlap between existing conservation areas and Old Growth Conservation and Stewardship Areas.

Our proposal uses existing Field Survey Vegetation data on stand age. While that data has inconsistencies in the way it is collected between Forests, one might assume that the relative stand age within each Forest is correctly identified. Therefore, by allocating the oldest 30% of stands, as indicated by FSveg "stand age" data, to old growth conservation and stewardship one can be assured that the oldest stands are assigned to old growth stewardship.

Monitoring of old growth conservation and stewardship

While the 200 regional definitions of old growth in April 2023 may not be suitable for on-the-ground implementation of place-based conservation and stewardship, those definitions are good at identifying some of the characteristics that are desirable goals for old growth conservation and stewardship. For example, emphasis on large dead snags, or a predominance of large older trees or downed dead wood can be set as management goals for Old Growth Conservation And Stewardship Areas.

Because stand age is also a variable collected in FIA surveys, a focus on stand age would allow tracking at both the national and stand level. However, both FIA and FSveg data collection methods should be reviewed and revised to ensure that data are collected with a renewed focus on ecological values, not simply timber values. That will enable progress on enhancement and stewardship of old growth. In particular, given that "stand age" is an important factor in identifying areas for old growth stewardship it is important that going forward information collected in the FIA and FSveg programs on stand age is standardized across the Forests. Finally, the sampling density in both these data programs needs to be examined and the data only be used for appropriate purposes. For example, FIA data plots are small enough that they are likely to overlook "rare events", i.e. large old trees.
As noted by Gray et al. (2023)

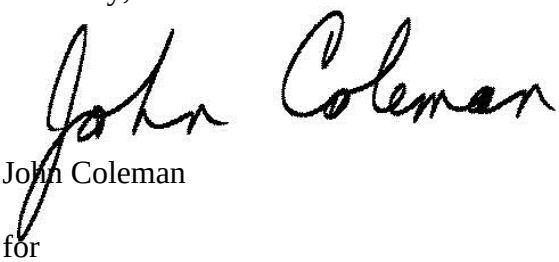
> *For example, a FIA-sized plot would not detect a large tree in a stand with 20 large trees per ha ~ 25% of the time, while a plot of twice the area would not detect a large tree in the same stand 5% of the time (Williams et al., 2001). Williams et al. (2001) recommend that*

classifications that depend on large areas or rare elements be avoided using inventory plots.

Even the higher sampling density, stand-focused, FSveg data sets are fraught with bias because of the difficulty in detection of rare events in a sampling program. Bias in the way "stand age" is determined and bias due to the difficulty in detecting rare events, i.e. large old trees, makes it imperative that sampling methodologies, biases and sampling goals be carefully examined and made more suitable for detecting rare "events" such as large old trees and recording non-traditional forest values such as fungi, T&E species habitats and carbon stores.

We believe that the proposed simplified approach to identification of areas for old growth conservation and stewardship can enable this initiative to move forward quickly and begin to have measurable impacts promptly. As this initiative moves forward, this alternative action that looks at the use of stand age to allocate the oldest 30% (in the east) of stands in each forest to old growth conservation and stewardship should be evaluated. Thank you for the opportunity to comment on the NOI and Preliminary Proposed Action. We hope that you will find our comments helpful in the conservation and stewardship of old growth.

Sincerely,



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