



August 15, 2022

To: Forest Service  
Department of Agriculture

Submitted Through Forest Service Public Comment Portal

RE: Executive Order 14072  
Comments on Definition and Inventory of older/mature/old growth forests

Dear Forest Service:

West Virginia is the third most forested state in the U.S. West Virginia is 78% forests – including almost a million acres of the Monongahela National Forest managed by the U.S. Forest Service. West Virginia Rivers Coalition (WV Rivers) appreciates the opportunity to make comments about Executive Order (EO) 14072, and the request from the U.S. Forest Service to comment on the definition of older and mature forests, and the implementation of the inventory required by the EO.

WV Rivers is the only statewide group working on policies for clean rivers and waterways. WV Rivers has advocated for 32 years for clean, drinkable, fishable, and swimmable waters in West Virginia. Healthy forests are essential to healthy waters. WV Rivers strongly supports science-based policy to mitigate the impacts of climate change. We also support policies to conserve and protect our federal, state, and local public lands. The EO is in line with all of our policies, to assure healthy public lands (useable for recreation), protection of the older trees that hold so much stored carbon, and to provide the forest variety necessary for clean waters.

We recognize that this EO places a burden on Forest Service personnel to define older/mature forests, and to inventory our federal old-growth forests in only one year. Our comments are directed at (a) recommending that any definition consider the unique characters of West Virginian, Appalachian, and Eastern U.S. forests; and (b) verifying any inventory results with actual, on-the-ground verification. As there is no clear understanding of the definition of “old-growth,” and the wording of the EO, we shall reference ‘older/mature/old growth’ and any reference to old growth should be

understood to be broader to include older and mature trees/forests, especially regarding Eastern U.S. forests.

## DEFINITION COMMENTS

*The Goal of Seeking One Definition for all Forest Service 'older growth' may not be appropriate*

We are concerned about the indication that the Forest Service intends to have a 'one-definition-fits-all' approach to defining old, older growth and/or mature forests. Researchers have indicated the difficulty in finding a uniform definition for 'old growth' because of variations among forests as to species type, varying longevity, and the timing of the last human disturbance of the forests. These variations "are real differences in these ecosystems across the local landscape and the continent. The challenge of any definition, therefore, is the tradeoff between generality and acknowledgment of complexity (Barton and Keaton, eds., 2018). Chapters 4 and 5 of this book provide additional complexities in determining 'old growth' in Appalachian Forests. Another scholar commented, "The diversity of old-growth forests types makes it impossible to use the same policies and management practices everywhere." Spies, Thomas A. 2004. "Ecological Concepts and Diversity of Old-Growth Forests." *Journal of Forestry* 102(3): 14-20. <https://doi.org/10.1093/jof/102.3.14>.

The timber of Eastern U.S. Forests was harvested by clear-cutting in the first two decades of the 20<sup>th</sup> century. By 1920, much of West Virginia and other Eastern U.S. (previously) forested areas were barren. Therefore, the most 'mature' forests in these areas are about 80-100 years old. By 80 years, Eastern trees are approaching maximum carbon storage. A goal of the EO is to assure carbon storage, so from the perspective of the Eastern United States and from the reality of excessive timber harvests, these trees should be considered in the definition of 'mature and older growth' and included in the inventory. These areas are the *future* old growth areas, and should be counted in any assessment of an area's 'old growth and mature' forests.

*Local Managers of Eastern U.S. Forests have Considered the Unique Aspects of Eastern U.S. Forests in their 'Old Growth' Definitions*

The Monongahela National Forest Plan (2006, revised 2011) has grappled with the complexity of determining 'older growth' in this expansive Eastern U.S. Forest. (Appendix B to the plan discusses "Old Growth.") Because of the re-forestation in the 1920s and 1930s, "old growth" in the MNF is less than 1% of the forest, and is in "small, scattered patches within a larger matrix of primarily 70- to 90-year-old forests" (B-2, B-4). The MNF plan indicates seven criteria: age, species composition, structural diversity,

woody debris, gap formation, patch size, and adjacency & scale (B-2 – B-3). The MNF plan specifically mentions the possibility of areas of the MNF turning into ‘older growth’ with the passage of time (B-5).

USFS Region 8 (Southern Region of the United States) has also grappled with the complexities of defining and inventorying ‘old growth’ in forests of the Eastern United States (Guidance for Conserving and Restoring Old-Growth Forest Communities on National Forests in the Southern Region. 1997.) Region 8 adopts similar characteristics for a definition as does the MNF plan. The Region 8 Guidance also recognizes the (relatively) young age of Southern Region forests, describing ‘old growth’ areas, but also “Future Old Growth” and “Possible Old Growth” (7). The Guidance also recognizes that tree species have different ages at which the species is considered “old” (Table 1, 10). Patch sizes will also vary, with Southeastern forests having “large, medium, and small-sized old-growth areas” and forests in the “Coastal Plains, Northern and Southern Cumberland Plateau, Southern Appalachian Piedmont, and Mississippi Alluvial Valley” will have “medium and small-sized old-growth” areas (16). Importantly, the Guidance recognized the “broken ownership pattern” (that is, a mixture of public and private land ownership) and that “the land ownership patterns and natural resource management considerations may make the identification of large-sized old-growth areas impractical” (16)

### *Conclusion about Definitions*

We are concerned that the larger number of acres in Western forests and the concerns of Western forests will drive the definition process. This will result in a ‘one-size-supposedly-fits-all’ definition that does not reflect the unique considerations raised by conditions in Southern, Eastern, Appalachian, and Northeast U.S. national forests. We encourage the inclusion of the factors in the MNF plan and in the Region 8 Guidance into the Forest Service definition.

As implied in the MNF plan, and specifically stated in Region 8 guidance, *any* definition will need to capture in the definition (and the Inventory which follows) very small stands of old/mature trees and very small (not adjacent) sections within an entire tree stand as being “older/mature/old growth.” Whether these small areas of older-than-the-rest of stand trees were unreachable for harvesting with 1900-1920 technology, or simply missed, these are the Eastern US forest areas (albeit small) that have the most carbon sequestration and are intended for protection by EO 14072.

Of equal concern is too broad of a single definition, using undefined terms (or terms with disputed or varying meanings). For example, ‘considering region or ecosystem’

will not provide sufficient guidance for US Forest Service Managers to define and inventory “older and mature forests.” Further, the public will have no understanding of the criteria for such a vague definition provision, and therefore no ability to determine if their local National Forest management is following US Forest Service definitions or is properly inventorying ‘older/mature/older growth.’

While we conceptually like the concept of a universal definition, we recommend that definition include:

1. Two subparts – one applicable to Western US forests and one applicable to Eastern/Southern/Appalachian forests – so that no region in the U.S. is limited in its identification and then inventory of older/mature/old growth areas because the region’s unique factors are not captured in a broad definition.
2. A criteria of stand size to be considered ‘old growth’ and therefore inventoried that allows for the designation of very small areas (less than a normal stand sized tree stand) as old growth, and that these areas be protected and managed without regard to the management prescription or project harvesting plan for the rest of the stand.

## INVENTORY COMMENT

We recognize the monumental task that would be involved in a ground count of each tree on federal lands. There is an understandable consideration of using existing inventory information and/or technology to make the inventory. WV Rivers, however, is concerned that existing inventories may not utilize the newest science in definition or counts; or be so dated that the trees if considered now would meet an age criterion in an overall definition of older/mature/old growth. We are also concerned that relying on remote sensing technology may not reflect the smaller and non-adjacent older or mature growth areas that exist in Eastern Forests (and as shown by the list of small old growth areas in MNF Plan, Appendix B – in West Virginia).

Therefore, we recommend that an inventory include:

1. A random sample of a variety of tree stands in a variety of national forest ecosystems and regions for which an on-the-ground inventory is conducted. This will provide evidence of the accuracy of the overall inventory when using existing data and/or remote sensing technology.
2. WV Rivers firmly believes that local people know their localities the best. There could be a specific public comment period for locals to let the forest service know

of small areas of older/mature trees in their locality for the Forest Service to include in its inventory.

## CONCLUSION

WV Rivers appreciates the opportunity to provide definition and inventory comments regarding EO 14072 and older/mature/old growth forests. We hope that the definition and inventory will be expansive and inclusive enough to identify small areas of old growth, so that these legacy trees and their essential carbon storage may be protected to the full extent as contemplated by the EO. The Inflation Reduction Act (assuming House passage and signature by the President) provides \$50 million in new funding to protect old growth forests. It is critical to have a clear definition and an accurate inventory to ensure these funds are spent to protect ALL older/mature/old growth areas in our National Forest System; as well as provide the carbon storage benefits set forth in the EO.

Best regards,

A handwritten signature in blue ink, appearing to read "Angie Rosser", with a long horizontal flourish extending to the right.

Angie Rosser, Executive Director  
West Virginia Rivers Coalition