

Data Submitted (UTC 11): 8/29/2022 2:33:52 PM

First name: Robert

Last name: Bauer

Organization:

Title:

Comments: Questions 1, 2 and 5 seem to be restatements of the same question. A thorough reply to the first should address the second and fifth questions:

A Universal Framework, does not seem possible due to a wide range of issues. If even possible it would have to be broad enough to capture the basic components of a definition without defining any particular community type. The terms mature and old growth both imply age is important and the EO speaks to age almost a dozen times. Age must be a component. It needs to be defined in terms of typical life spans of the dominant/ codominant trees in the community. Literature generally assigns this as a minimum of one-half of the typical life span, but a slightly higher percentage such as 60% may be warranted considering rapidly aging forests in many parts of the country.

For many, the idea of forest untrammelled by human activity is critical to concepts of old growth. However, this is fundamentally flawed for many community types that depend on regular disturbance, especially fire, in an environment where natural processes are constrained by human needs and actions. Some community types, e.g., mixed mesophytic forest may indeed best develop old-growth components if left alone. Others such as longleaf pine absolutely must have fire to develop its old-growth components and humans will have to provided that in most cases. In others, such as many Douglas fir communities of the west and upland oak forests of the east, both fire and removal of biomass are needed to develop old-growth components. The lack of fire for decades has allowed in- growth of woody plants, many not tolerant of fire, and altered the understory components of the communities. The definition must recognize that hands off will not equal old growth.

Representation of rare and or naturally small community types aside, old growth should include some size threshold. This will be different for the east and west because of ownership and historical use patterns. The east generally has smaller federal tracts than the west and little forest undisturbed by humans of European descent remains in the east. Literature repeats the idea that larger blocks are better, and there may be a threshold for resilience.

Questions 3&4:

While old growth generally includes groups of large diameter trees, size alone does not make old growth. On poor sites, trees at age threshold for old growth may well be 15-20% of the expected diameter and height on typical sites. Requiring a minimum diameter eliminates some truly old forest communities and does not allow for variation in site productivity. On the other hand, trees on exceptionally productive sites may greatly exceed expected size for their age. The public is likely to view many of these sites as old growth even though they could be decades shy of the minimum age. They might be candidates for growing new old growth, but are not old growth now.

I do not see how it would be feasible to be able to do much to address long-term climate change for old growth. There are multiple competing models that provide an array of scenarios. In our area models indicate we should be getting dry during the summer, yet we have had excess summer rain for a few years. Two years of exceptional drought can bring a lot of tree mortality, but in the following two years, exceptional rain can bring changes as well. Will the Forest Service plant pines on oak sites now with the intent of prepping for drought conditions in 40-50 years or will they go to monitoring the results of our usual management with an eye to changing conditions? Do they plant both on appropriate sites managing for a mixed forest, ecologically

appropriate, but not easy, and expensive, to establish?

Continued investment and management would be required to establish drought tolerant species, particularly in the east where we see fluctuating climate change conditions between drought years and years of heavy rain. These peaks and valleys on different ends of the spectrum create challenging management scenarios.

At some level, old growth needs to be lumped into community groups that are similar enough that variation in the group is not lost, but such that the agency does not have to track every single forest type. This is particularly important in the eastern regions where species diversity is much greater. Literature suggests expected composition for many old-growth communities. Over decades, some change to that composition in the light of climate change is likely to occur.

General Comments:

A definition for old growth that covers all forest types from Florida to Oregon would seem to be impossible to develop. This exercise will result in additional national forest system lands that are currently available for management, reserved from timber harvest. The Forest Service already has reserved protections for 55 percent of the forestlands they administer. It makes little sense to develop short-term policies that would negatively impact forest health, productivity, and rural economies. Evidence is currently available to show that the forest protection policies implemented in the mid-eighties have resulted in western forests' current forest health and wildfire situation. Since 1986, forest mortality has increased 233 percent, net forest growth has decreased 55 percent, and timber harvest has decreased 80 percent on national forest lands in the western US. In order to keep national forests healthy and resilient the Forest Service needs to exclude lands identified in forest plans suited for timber production out of this process.