

Lonon scoping comments on proposed Bitterroot National Forest Plan amendments

Forest Plan (FP) standards for elk habitat effectiveness, thermal cover, old growth, coarse woody debris, and snags were all designed to protect wildlife. Now you are proposing to weaken them forest-wide in order to better get the cut out. The main question to be answered is: **How will these amendments affect the wildlife they were designed to protect?** Answering this question will require that an EIS be done.

In addition, site-specific amendments related to elk habitat effectiveness, thermal cover, old growth, coarse woody debris, and snags have been used at least 14 times since 2000 for timber projects in order to allow commercial logging to proceed more easily. In each project, the FS repeatedly claimed these amendments were site-specific and therefore not “*a significant change to the [forest] plan for purposes of the NFMA.*” (for example, see Gold Butterfly Draft SEIS ROD, Appendix B, p. 1). With the same set of amendments now proposed forest-wide, BNF cannot claim these are insignificant changes without contradicting “no significant change” statements included in previous project documents. This also argues for an EIS for these FP amendments.

Old Growth

Providing sufficient quality old growth habitat is an important issue on the BNF, especially in light of Executive Order 14072, which provides agency-wide direction for an inventory of old growth and mature forest. Old growth forests are ecosystems distinguished by old trees and related structural attributes such as snags, down woody material, and multiple canopy layers. According to Principle 6 in Hessburg et al. (2015): “Widely distributed large, old trees provide a critical backbone to dry pine and dry to mesic mixed-conifer forest landscapes.”

Large, old trees store disproportionate amounts of carbon, as carbon storage dramatically increases with size (dbh) (Mildrexler et al., 2020; Stephenson et al., 2014). With future climate crises probable, retaining large, old trees will not only help mitigate or buffer climate change, but will benefit ecosystems in other ways through their biodiversity and resilience to fire, disease, and drought. **Please analyze the effects of amending FP old growth standards on climate change. Will using the proposed amendment result in more large trees cut than if the current Forest Plan standards were used? Will using the proposed amendment result in more commercial timber production than using the current Forest Plan old growth standards?**

Numerous researchers (Bartowitz et al., 2022; Campbell et al, 2011; Harris et al, 2016; Law and Warring, 2015; Law et al, 2017; Reinhardt and Holsinger, 2010; Stenzel et al, 2019) have found that logging emits significant atmospheric carbon, much more than wildfires, even on a per acre basis (Bartowitz et al., 2022).

The exact amount of old growth habitat historically on BNF is unknown. However, Lesica (1996) estimated that “old growth occupied 20-50% of the pre-settlement forest landscape in low and many moderate elevation habitats, and between 18 and 37% in mid to upper elevation habitats.”

Past timber harvest activities have reduced the amount and distribution of old-growth forest on the BNF, creating a situation where the Forest fails to meet Forest Plan Standards in some areas. For example, in the Gold Butterfly DEIS the current “Percent Old Growth” estimate Forest-wide is 12.8%, MA1: 14.4%, MA2: 6.0%, MA3a: 8.0%, and MA5: 16.7%. The Sapphire Geographic Area was estimated at 10.0%. These figures display a significant disparity in current conditions compared to pre-settlement estimates.

Many areas of the forest have recently lost significant amounts of old-growth to wildfires. The increased frequency, size and intensity of the wildfires have resulted from anthropogenic changes in forest conditions and climate following European settlement. To counteract this loss of old-growth, specific management actions may be necessary to protect remaining old-growth and recruit and expand existing old-growth stands. This is particularly appropriate on the more arid low elevation ponderosa pine sites. **How will the proposed Forest Plan old growth amendment protect remaining old growth and recruit and expand existing old growth stands?**

For our region, Green et al. (1992) defined minimum screening criteria of different tree species for old growth. The principal quantitative, measurable criteria are age, size (dbh), and the number of qualifying trees/acre. Green et al. identify other important old growth characteristics, such as snags, down woody material, dead tops, decay, and multistoried and uneven aged structure, but give no measurable minimum criteria. The Forest Plan amendment scoping letter states that Old Growth identification will be based on *“Green et al.’s quantitative and qualitative criteria that are measured in the field by the National Forest Inventory and Analysis (FIA) data collection program and site-specific stand exams and walk-through exams”*. **What methods specifically will BNF use to determine old growth status and extent?** FIA data are inadequate. No mapping of existing old growth is possible using FIA data because the specific location of old-growth stands is not derived from FIA data. Sample design for FIA plots is semi-systematic: a sample taken randomly within a systematically placed grid. At most, each plot samples a maximum of one acre—far smaller than an old-growth stand—and so resulting estimates cannot determine the capability to meet biological needs of the associated wildlife. FIA statistics have no correlation to forest plan minimum old-growth stand sizes, nor to the spatial habitat needs of wildlife species. Despite using Green et al.’s criteria on the Westside project, stand exams, FIA data, and walk-through surveys failed to identify 25 acres of

ponderosa pine-Doug fir old growth, the largest old growth stand in the project area. Twenty acres of it were subsequently logged and taken out of old growth status in violation of HFRA.

Although Green et al. (1992) provide detailed criteria for identifying old growth, they provide little management direction. However, many other scientists (e.g Yanishevsky; 1994; Hessburg et al., 2015; Fielder et al., 2007a,b; Wales et al., 2007; Rapp, 2003) have provided old growth management recommendations, and all recommend retaining all or nearly all old/large trees. In western Montana, Green et al. examined 4,847 old growth plots of ponderosa pine, Douglas fir, and western larch and found an average of 17 trees per acre that met old growth criteria, more than double their minimum. Fielder et al. (2007b) state that “old-growth functions increase as numbers of large trees, snags, and downed logs increase”, again suggesting more is better. **How will the proposed amendment affect your management of old growth in BNF projects? How will your management incorporate the old growth management recommendations cited above? What treatments will be allowed in old growth? How many old/large trees will be retained per acre? What will the minimum post-treatment basal area for old growth be? Will you be cutting old growth down to Green et al’s minimum screening numbers?** Both the Gold Butterfly DROD/EA and the Mud Creek EA admitted that you may do just that, stating only that you will not take stands out of old growth status.

Certain species on the BNF are associated with mature forest habitats or old growth. These animals require habitat with structural components such as snags, down logs, and large, old trees for cover, denning, food, or nesting. Examples include fisher, flammulated owls, pileated woodpeckers, and pine marten, the latter two being old growth management indicator species. Gold Butterfly DROD/EA documents indicate that you have not monitored indicator species as required by the FP. **Without monitoring data, how can you assess the effects of this FP amendment on wildlife or old growth quality and quantity? How will the old growth amendment affect wildlife, including cutthroat trout, bull trout, grizzly bear, lynx, fisher, elk, multiple migratory bird species, cavity-nesting birds (snag habitat), flammulated owls, bats, raptors, red squirrels, wolverine, marten, etc.? Please analyze the proposed old growth amendment’s effects together with the proposed FP CWD and snag amendment.**

Coarse Woody Debris (CWD)

Forest Plan CWD standards were designed to protect wildlife habitat. The scoping document indicates Forest Plan standards for CWD be reduced by an unknown amount because “*the tons/acre amounts of coarse woody debris prescribed in the 1987 Forest Plan exceed what current scientific information recommends is needed to maintain soil productivity and manage fuel loadings*” (supported by posted references Fischer and Bradley, 1987, Graham et al., 1994, Brown and Smith, 2000). These references only examine CWD’s effects on soil biota and fire fuels, without discussing relationships between CWD and wildlife. **How will the amendment of**

**CWD standards affect wildlife? What specific standards are proposed in the amendment?
How will CWD amendments affect both the inventory and quality of old growth and mature forests?**

Snags

FP snag standards were designed to protect wildlife. The scoping document states *“there is a need to amend this forest-wide plan wildlife standard for snags to resolve the contradictory direction providing sufficient snag habitat for wildlife while also allowing for the removal of excess snags where necessary to address fuel loading or to meet restoration objectives through sanitation treatments, salvage, and reforestation”*. This sounds to me like the snag amendment’s purpose is to allow ecologically destructive management activities like salvage logging at the expense of wildlife. **How will you determine “excess snags”? How will the FP snag amendment affect wildlife? Please provide supporting references showing it is necessary to remove excess snags in order to address fuel loading or meet restoration objectives through sanitation treatments, salvage, and reforestation. How will the snag amendment affect both the inventory and quality of old growth and mature forests?**

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