The Friends of Douglas-Fir National Monument is a group of interested individuals, supporting the creation of a National Monument, recognizing the scientific, cultural and historical importance of the ecosystem found in a Douglas-Fir ecosystem in the Pacific Northwest. The Friends submit the following comments on the proposed national amendments to the forestry rules.

The proposed national amendments state that "[t]he intent of this amendment is to foster the long-term resilience of old-growth forests and their contributions to ecological integrity across the National Forest System." To accomplish this, the proposed amendments select Alternative 2 as the preferred alternative. Alternative 2 contains NOGA-FW-STD-03 which prohibits proactive stewardship in old-growth forests for the purpose of timber production, and related guidelines designed to meet the stated purpose. While the overall direction to protect old-growth forests is welcome, the proposed national direction does not take its proposals as far as would be necessary to actually accomplish its purpose.

There are several places where the proposed rule could have taken a few simple steps that would have increased the protections of old growth.

- a) The proposed rule should not be merely general statements and guidelines. To ensure implementation of the stated goal of protecting old-growth forests, the proposed amendments should have been clearly stated as a required element of all future projects unless the project fits into one of the clearly defined exemptions.
- b) The guidelines do give direction to identify priority areas for the recruitment of future old-growth forest, but of insufficient robustness. Given that the guidelines allow for the possibility that old growth forests can be removed from the inventory if they are sufficiently damaged, the guidelines should include a mandate to evaluate all forests for candidacy for old-growth recruitment status, and then direct the inclusion of these suitable mature forests within the old-growth protections. The discussion highlights the growing risks to old growth forests, and, while it does project a slight increase in old growth acreage, this is minimal under optimal circumstances. More protections to allow more old-growth recruitment is the only way to ensure that the inventory of old growth does not decline. Specifically, the relevant portions of Management Approach 1.b and Guideline should be strengthened and made mandatory.
- c) The proposed amendments recognize "mature and old-growth forests on Federal lands for their role in contributing to nature-based climate solutions by storing large amounts of carbon and increasing biodiversity, mitigating wildfire risks, enhancing climate resilience, enabling subsistence and cultural uses, providing outdoor recreational opportunities, and promoting sustainable local economic development." But the guidelines undermine the value of these forests by recognizing but proposing no way to address the problem that all forest management activities are based on revenues from timber cutting. At the very least, the proposed guidelines should be made mandatory to protect against temptation of Districts to deal with the recognized conflicts by cutting corners at the expense of old growth forests.
- d) The proposed rule should not hide behind the omission to address the strong relationship between old growth and mature forests and the future of species threatened and endangered nationally and locally. While the diversity of ecosystems in old-growth and mature forests on a national level may make it impossible to include any alalysis, it is not enough that the amendments "encourage" consideration of impact on species by local projects. Limiting consideration of these effects undermines the mandate to protect species. The national amendments should restrict projects that cannot be found to be supportive of ecological stewardship of old-growth and related mature forests to protect species that occur in old-growth supportive habitat types.

- e) The proposed amendments' rejection of Option 3 on the grounds that prohibiting "timber harvest" would slow old growth restoration because it would prevent cutting that would serve to improve old growth can only be justified if the allowed cutting in suitable mature and old-growth forests is strictly limited to projects that are exclusively focused on restoration of old growth forests from suitable mature forests and the protection of existing old growth forests.
- f) In discussing the possible impact of future recreational projects, the guidelines only state that if there is a conflict between a proposed recreational project and old growth protections in the amendments, it "may" be necessary to modify projects. This "may" should be changed to "must." The guidelines go no further than recognizing that this potential change may affect local economic conditions. The guidelines should include a more detailed discussion of how the Forest Service and the BLM should increase their public discussion of their increased responsibility as old growth forest stewards. Making old growth forests an attractive feature should offset any local economic development losses from restricting future recreational projects to activities consistent with protecting and enhancing old growth forests.
- g) These amendments derive much of their rationale from an assertion that the level of mature and old growth forest acres is largely stable. In addition to the discussion above, this assurance of a potential steady state of old growth in the nation is undermined by the more detailed analysis found in the Forest Service's Mature and Old Growth threat analysis. This study found that, despite an appearance of an overall steady state, "evidence indicates the largest losses in mature forest where cutting occurred were in the Douglas-fir, lodgepole pine, fir/spruce/mountain hemlock, and ponderosa pine forest type groups." Since these forest types account for the largest areas of old growth forest stands, assuming that a single national standard will actually protect these forest types is clearly erroneous. The guidelines should be more robust for these forest types to make certain that existing practices do not actually reduce the amount of old growth.
- h) The proposed amendments acknowledge that they do not change the status of any national forest, that they do not create a higher level of protection for the existing old growth forests or mature forests that can transition to old growth status. The proposed amendment discussion skips over a detailed discussion of this option by saying that "old-growth forests are dynamic systems and the intent is not to manage all of these areas in the same manner." This is an error, and not only because it actually does what it suggests is inappropriate (treating all old growth forests the same). This dismissal of greater protections ignores that the proposed protections can be undone by a new amendment. Also, by treating all forests as the same, these guidelines do not offer sufficient protection to forest types which are already undergoing a decline in old growth acreage. The guidelines need to change so that designation of acreage as old growth, or mature forests capable of transitioning into old growth are afforded a higher level of protection. Perhaps this may not rise to the level of wilderness or Monument protection, but it should be higher than the protection to be afforded under the altruistic administrative standards developed under the current amendments. At the very least, roadless area status should be extended to all old-growth forests and to those mature forests found to be capable of transitioning to old growth, with removal of the roadless status only allowed on administrative findings that they do not qualify. The importance of protecting old growth stands also argues for affording certain exemplar areas the special protection of Monument status. An example of such protections can be found at http://www.douglasfirnationalmonument.org
- i) The proposed amendments acknowledge that the contemporary lumber industry has re-tooled so that there is no demand for the large logs that typically come from old growth forests. At the same time, the guidelines bemoan the fact that there may be no mills prepared to take the logs that may be created to meet some old growth "management requirements". This illustrates the

current blinder-imposed vision of the Forest Service regarding Multiple Use. There are more uses for a "harvested" log than turning it into lumber. Visit an old growth forest and you can see fallen logs returning their stored carbon to the ground. The carbon sequestration use of a forest should include not only the carbon stored in standing trees, but also the carbon storage of the fallen timber and the soil which absorbs the carbon over time. Appropriate understanding would also result in not removing fire damaged old growth forests from old growth status, because of their continued role in carbon sequestration.

- j) It is impossible to "manage" an old growth forest by any kind of timber cutting. The shortcoming of current Forest Service and BLM policies is that they are all about individual trees, and do not have any regard for the forest as a whole. A sustained old growth forest and sustained a mature forest becoming an old-growth forest does not lose trees by having them "harvested" and removed. Downed trees are a natural part of the forest: they support new growth as their stored carbon is gradually absorbed into the soil.
- k) Recognizing that one of the multiple uses of an old growth forest, and of mature forests being managed for transition into old growth status, is optimal carbon sequestration creates an opportunity for the development of a revenue source to supplement, and in some circumstances to replace the traditional reliance on harvest based shared revenue. When old growth and old growth potential mature forests are afforded an opportunity to establish more certain protection than that offered under the current amendments, it would be possible for Districts and local governments to enter into preservation contracts. These guarantees of carbon sequestration would be marketable to sell as carbon credits. Sharing the revenue thus generated between the participating Districts and local governments can end the reliance on timber sale revenues recognized by the proposed amendments as a limiting factor in the effectiveness of the proposed protections of old growth forests.
- 1) The proposed guidelines place a great degree of emphasis on thinning and controlled burning as a means of protecting mature and old growth forests from the increased stress of wildfires. Thinning is a means of reducing the danger generated by the over crowded characteristics of plantations, and may also advance the transition of mature forests to old growth status. But thinning has a mixed value. Thinning is of limited duration, especially in old growth forests. Thinning encourages understory growth, which can, in turn, create increased fire danger. The guidelines should limit the amount of canopy loss in old growth and transition mature forests. The guidelines should also institute the revenue generation of carbon sequestration discussed above as a replacement for timber harvesting as a means to insure that there is no conflict of interest driving any thinning project.
- m) Perpetuation of the theory that harvesting timber may increase overall carbon storage is problematic. Studies show that, when the carbon cost of harvesting and transporting is included, the actual carbon budget for timber harvesting is negative. The commitment to scientific forest management should not allow any apologia suggesting that timber cutting has a carbon storage benefit. See, e.g.; "Carbon implications of current and future effects of drought, fire, and management on Pacific Northwest forests" by Law, B.E., and R.H. Warning. Forest Ecology and Management 355:4-14, 2015; "Effects on Carbon Storage of Conversion of Old-Growth Forests to Young Forests" by Mark E. Harmon, William K. Ferrill and Jerry F. Franklin. Science, Feb 9, 1990.

The proposed amendments are a good start, but they need to be strengthened in the manner discussed here to actually achieve the stated purpose of protecting existing old growth forests.

We recommend that you adopt in the record of decision a modified Alternative 3, with the modifications discussed here and to match the details as provided to you by the Climate Forest Campaign, of which the Friends of the Douglas-Fir National Monument are a proud member.