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Appalachian Ranger District
USDA Forest Service
Attn: Nicholas Larson
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Re: Grandfather, Appalachian, Pisgah Restoration Project (GAP Project) Comments

To Whom it May Concern:

On behalf of the Ruffed Grouse Society & American Woodcock Society (RGS & AWS) and our members, I thank you for the opportunity to comment to the *Grandfather, Appalachian, Pisgah Restoration Project (GAP Project)* for the Pisgah National Forest.

Established in 1961, the Ruffed Grouse Society (RGS) is North America's foremost conservation organization dedicated to creating healthy forests, abundant wildlife, and promoting a conservation ethic. Together with the American Woodcock Society (AWS), established in 2014, RGS & AWS work with landowners and government agencies to develop critical wildlife habitat utilizing scientific management practices.

According to the Association of Fish and Wildlife Agencies' Eastern Grouse Working Group report in December 2020, ruffed grouse populations have declined 71% since 1989 in the Southern Appalachians (Eastern Grouse Working Group, 2020). The report identified that, "Loss of young forests across the landscape is the primary driver of this decline." The species is identified as a Species of Greatest Conservation Need in North Carolina's State Wildlife Action Plan (North Carolina Wildlife Resources Commission, 2015).

Ruffed grouse are a reliable indicator for healthy, diverse forest ecosystems (Norman et al., 2004). The lack of forest age-class and structural diversity is a driver of decline for multiple at-risk wildlife species in the region, including species traditionally thought of as "disturbance-dependent" and "mature forest obligates" that both benefit from a biologically significant mix of young, open, and late-successional forest conditions across the landscape (Bakermans et al., 2011; Golden-Winged Warbler Working Group, 2013; Jacobs & Warburton, 2016; Lambert et al., 2017; Wildlife Management Institute, 2008; Wood et al., 2013).

Urgent action is needed at the landscape scale, above and beyond localized habitat improvement efforts, to halt the decline in ruffed grouse and other forest wildlife in western North Carolina before it is too late.

The best available science suggests that maintaining 8-14% early successional habitat across the Nantahala and Pisgah National Forests would optimize for bird diversity, including “young forest obligates” and “mature forest obligates” (Jacobs & Warburton, 2016). We recognize that these forests are not managed solely for bird diversity and that many other interests must be considered in a multiple use forest. However, to ensure viable wildlife populations are maintained long-term, it is essential that the Forest Plan establishes a pathway to maintain early successional habitat conditions somewhere within the 8-14% range.

RGS & AWS support the intent of the GAP Project. However, based on the information shared in the newsletter we have several issues or concerns:

- **This project will likely consume a large portion of the Forest Service’s current capacity, both on project planning and implementation over the next 5-10 years.** The project’s goals and objectives, while needed, are not all encompassing of active forest management objectives from the 2022 Revised Forest Plan. For example, there’s no focus on young forest creation in mesic non-oak forest ecological zones (e.g., mountain cove forests, northern hardwood, and spruce-fir). As such, we are concerned that the focus of this project will delay or prevent habitat restoration in more mesic ecological zones, which could have dire negative impact to at-risk forest wildlife species that are declining at rapid rates. For example, ruffed grouse populations are declining 1-3% annually in the Southern Appalachians and are largely restricted to elevations greater than 2,000 feet. If we’re not able to restore habitat where it’s needed at a fast pace, we’re going to lose significant elements of our forest’s biological diversity.
- **The GAP Project’s current goals fall short on meeting the habitat restoration needs established in the 2022 Revised Forest Plan for the Nantahala-Pisgah National Forests.** The 2022 Revised Forest Plan established ambitious active forest management objectives based on the Tier 2 concept:

Decision	Previous 1994 Forest Plan	Revised 2022 Forest Plan (Tier 2 Objectives)
Young forest creation (annual acres)	650	3,200
Projected timber sale quantity (MMCF)	2.1	9.4
Intermediate thinning treatments (annual acres)	150	600
Thin and burn for open forest woodland (annual acres)	N/A	900
Prescribed fire (annual acres)	8,500	45,000

While we understand that the GAP project only includes the Pisgah National Forest, and is one decision, it is likely going to be a significant part of the implementation of the new Forest Plan on the Pisgah National Forest for the next 5-10 years. As such, the goals in the GAP project are inadequate to meet the landscape needs. Even if 100% of the 500 acres per year of commercial timber harvesting that is

currently proposed in the GAP Project was even-aged regeneration treatments that created young forest conditions, it would not come close to meeting the 3,200 acres per year of young forest creation established in the Forest Plan.

We would like the Forest Service to increase the GAP Project's active forest management goals substantially and utilize partner support to achieve Tier 2 levels of outcomes. The Forest Service should commit to utilizing stewardship agreements as a primary tool to increase capacity. The exchange of goods for service in a stewardship project is the most cost-effective means to take forest restoration efforts to scale and utilize the capacity of conservation partners.

- **There's not a clear connection between project-level goals and objectives, need for action, and proposed project activities.** For example, commercial timber harvest activities on 500 acres annually are included as a goal and the need to increase regeneration of desirable species is highlighted; however, regeneration treatments (i.e., clearcut, seed-tree, shelterwood) are not included as proposed project activities. Does this mean that commercial timber harvesting will be limited to thinning and woodland management in the project?

RGS & AWS *strongly* believe that commercial timber harvesting is the most cost-effective means to achieve the GAP Project's objectives to reduce the risk of wildfire and restore fire adapted forest ecosystems, and to support healthy forests and abundant wildlife more broadly. In addition to utilizing commercial timber harvesting to achieve thinning and woodland management, RGS & AWS strongly believe that even-aged regeneration treatments (e.g., oak shelterwood harvests) implemented as commercial timber harvests should be included as a proposed project activity.

- **Oak restoration and management should be included as a proposed activity to fulfill the project's objective to restore fire adapted ecosystems.** This should include forestry practices across all fire adapted ecozones, including mesic oak and high elevation red oak. This encompasses implementing all stages of the shelterwood sequence, including the preparatory treatment, establishment cut, and overstory removal. In addition, irregular shelterwood harvesting and shelterwood-burn techniques should be included. The evidence shows that oak trees are declining across the Pisgah National Forest and the Southern Appalachians more broadly due to a lack of management and mesophication. Oak is not regenerating on its own, even in stands that have "characteristic" oak tree species in the overstory for that ecological zone, and the proportion of young oak stands is decreasing. Appalachian oak forests require active forest management to reduce the competitiveness of mesic trees (e.g., red maple) and increase oak competitive advantage. This includes the shelterwood treatment sequence to establish, recruit, and release oaks seedlings and saplings.
- **Active forest management and even-aged regeneration treatments implemented through commercial timber harvesting should be included as a proposed activity to fulfill the project's objective to reduce wildfire risk and improve the resiliency of forest ecosystems.** Promoting diverse age classes is a key strategy to maintain and enhance a forest's species and structural diversity. Increasing forest age class and structural diversity is a fundamental component of forest climate adaptation frameworks (Swanston et al., 2016). Diverse forests are more resilient to disturbances that are increasing with climate change,

including catastrophic wildfire events, drought, pests, and diseases. Maintaining a mix of tree ages, sizes, and canopy positions helps buffer the vulnerability of a forest to stressors.

As a starting point, the following active forest management practices should be included in the project's proposed project activities:

- **Removing uncharacteristic tree species** to restore tree species that are more characteristic of that ecological zone. For example, clearcutting an eastern white pine stand and planting northern red oak or managing for natural hardwood regeneration.
- **Midstory removal treatments** implemented noncommercially with herbicide as the first phase of a shelterwood sequence to establish advance oak regeneration in a subcanopy. This is especially useful in mesic oak stands where undesirable trees are more competitive (e.g., red maple and poplar) and frequent fire is less appropriate.
- **Establishment cutting as part of a shelterwood-burn technique** to establish and recruit oak. This includes commercial timber harvesting as a partial overstory removal and subsequent prescribed fire implementation. This could be implemented irregularly as an expanding gap shelterwood approach (femelschlag). This is especially useful in drier oak stands where oak is more competitive and frequent fire is more appropriate.
- **Overstory removal treatment through a commercial timber harvest (one-cut shelterwood)** where there's currently advance oak regeneration established. This is a less common occurrence across the landscape but could be in locations with previous thinning or fire activity or on drier sites where oak is inherently more competitive and subcanopies are more open (dry ridges). There could also be places that previously received an establishment cut of a shelterwood or a heavy thinning.
- **Crop tree release** in stands that have reached the stem exclusion phase of stand development as a means to decrease tree stocking density and favor fire adapted tree species (i.e., oak or hard pine).



RGS & AWS commends the Forest Service's efforts to increase the pace and scale of active forest management to benefit healthy forests and abundant wildlife. There's a lot about the GAP Project that we support. If active forest management is implemented at Tier 2 objective levels of young forest creation, we have the opportunity to reverse the declines of forest wildlife species and aid in their recovery before it's too late. We strongly recommend that the Forest Service pursue more robust shared stewardship strategies to collaborate with partners and implement commercial timber harvests and noncommercial service work that contributes towards Tier 2 habitat objectives in a truly additive way.

We appreciate the opportunity to comment.

Sincerely,

Nick Biemiller, Forest Conservation Director

Southern Appalachian Region

Ruffed Grouse Society & American Woodcock Society

For more information visit the RGS & AWS website at RuffedGrouseSociety.org. Follow us on Facebook and Instagram @RuffedGrouseSociety.

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Works Cited

- Bakermans, M. H., Larkin, J. L., Smith, B. W., Fearer, T. M., & Jones, B. C. (2011). Golden-winged Warbler Habitat Best Management Practices for Forestlands in Maryland and Pennsylvania. *American Bird Conservancy. The Plains, Virginia., November, 26.*
- Eastern Grouse Working Group. (2020). *Ruffed Grouse Population Declines in the Eastern United States* (Issue December).
- Golden-Winged Warbler Working Group. (2013). *Best Management Practices for Golden-Winged Warbler Habitats in the Appalachian Region: A Guide for Land Managers and Landowners.*
- Jacobs, R., & Warburton, G. (2016). *The Bird Matrix- Development of a Model for Assessing Forest Structural Needs to Maximize Bird Species Evenness and Vegetative Structural Diversity.*
- Lambert, J. D., Leonardi, B., Winant, G., Harding, C., & Reitsma, L. (2017). *Guidelines for managing Wood Thrush and Scarlet Tanager Habitat in the Northeast and Mid-Atlantic Regions.*
<http://highbranchconservation.com/wp-content/uploads/2017/02/Guidelines-for-Managing-Wood-Thrush-and-Scarlet-Tanager-Habitat-in-the-Northeast-and-Mid-Atlantic-Regions-2017.pdf>
- Norman, G. W., Stauffer, D. F., Sole, J., Allen, T. J., Igo, W. K., Bittner, S., Edwards, J., Kirkpatrick, R. L., Giuliano, W. M., Tefft, B., Harper, C., Buehler, D., Figert, D., Seamster, M., & Swanson, D. (2004). Ruffed Grouse Ecology and Management in the Appalachian Region. *Wildlife Restoration, August.*
- North Carolina Wildlife Resources Commission. (2015). *2015 North Carolina Wildlife Action Plan.*
- Swanston, C. W., Janowiak, M. K., Brandt, L. A., Butler, P. R., Handler, S. D., Shannon, P. D., Derby Lewis, A., Hall, K., Fahey, R. T., Scott, L., Kerber, A., Miesbauer, J. W., & Darling, L. (2016). Forest Adaptation Resources: climate change tools and approaches for land managers. 2nd edition. *Gen. Tech. Rep. NRS-GTR-87-2. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 161 p.*
<Http://Dx.Doi.Org/10.2737/NRS-GTR-87-2.>, 87–2(September), 1–161.
<https://www.fs.usda.gov/treesearch/pubs/52760>
- Wildlife Management Institute. (2008). *American Woodcock Habitat: Best Management Practices for the Central Appalachian Mountains Region* (Issue November).
- Wood, P., Sheehan, J., Keyser, P., Buehler, D., Larkin, J., Rodewald, A., Stoleson, S., Wigley, T. B., Mizel, J., Boves, T., George, G., Bakermans, M., Beachy, T., Evans, A., McDermott, M., Newell, F., Perkins, K., & White, M. (2013). *Cerulean Warbler: Management Guidelines for Enhancing Breeding Habitat in Appalachian Hardwood Forests.* *American Bird Conservancy. The Plains, VA, USA. 28 pages.*