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Andrew Carrier

District Ranger
Tellico Ranger District
Cherokee National Forest
250 Ranger Station Rd
Tellico Plains, TN 37385

Re: Sugar Mountain Project Comments

To District Ranger Andrew Carrier:

On behalf of the Ruffed Grouse Society & American Woodcock Society (RGS & AWS) and our members, I thank you for the opportunity to comment on the *Sugar Mountain Project* on the Tellico Ranger District of the Cherokee National Forest (CNF).

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. The report identified that, "Loss of young forests across the landscape is the primary driver of this decline" (Eastern Grouse Working Group, 2020, p. 1). The species is identified as a Species of Greatest Conservation Need in Tennessee's State Wildlife Action Plan (Tennessee State Wildlife Action Plan Team, 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 of ruffed grouse and other forest wildlife in East Tennessee before it is too late.

As identified in the Sugar Mountain Project Scoping Letter, “population monitoring of early successional obligate species has shown a continued decline in presence on the Tellico Ranger District”. The best available science suggests that at least 8-12% young forest habitat (0-20 years old) is optimal for bird diversity in Southern Appalachian forests, including “young forest obligates” and “mature forest obligates” (Jacobs & Warburton, 2016). CNF’s Land and Resource Management Plan Prescription 9.H, one of the primary management zones for this project, calls for 4-10% early successional forest. However, early successional forests currently only cover around 2% of the 9.H management area – less than half of the **minimum** objective of Prescription 9.H. This deficit must be remedied to promote the health and survival of young and mature forest obligate bird populations.

Additionally, Tennessee’s State Wildlife Action Plan designates the Sugar Mountain project area as either High or Very High priority habitat for terrestrial species of greatest conservation need, with most of the active management areas falling into the Very High priority zone. On a landscape scale, achieving a biologically significant interspersed of young forest habitat in balance with middle-aged, open woodland, mature, and late-successional forest conditions, is critical to the survival of young and mature forest obligate birds, Tennessee’s terrestrial species of greatest conservation need, and all forest wildlife. Maintaining a biologically significant amount of young forest on the Cherokee National Forest will not only decide the survival of ruffed grouse and many at-risk forest wildlife in the region, but also the sustained opportunity for the public to experience these species.

RGS & AWS greatly appreciates the inclusion of ruffed grouse as a focal species in this project and fully supports the project's goals of improving forest habitat diversity through active forest management.

Below are some additional comments on the project's proposed management actions.

1. Create Early Successional Habitat:

- a. We support the decision to move away from over-reliance on permanently managed wildlife openings for early successional and grassland habitat types. We recommend the long-term creation and maintenance of a shifting mosaic of different forest ages and habitat types by implementing a variety of different harvest prescriptions and post-harvest management strategies. We recommend that this shifting mosaic include 8-10% young forest at any given point in time, alongside 50% mature forest and at least 20% late-successional and old-growth forest as laid out in the 9.H prescription of the CNF forest management plan.
- b. CNF's project scoping letter includes commercial timber harvests, noncommercial stand improvement, and prescribed fire. We support all of these management types, and we recommend combining them to maximize the long-term benefits of early successional habitat and young forest creation. Specifically, we recommend performing pre-harvest noncommercial stand improvement to establish advance regeneration of desirable species. We then recommend implementing post-harvest management to control competition from less desirable tree species. Competition from mesophytic species can make it difficult to achieve desired regeneration and recruitment, especially with oaks (Stringer & Morris, 2022). For this reason, in areas well-suited to oaks, prescribed fire and various mechanical and chemical treatments should be considered as post-harvest management options.
- c. As mentioned in the project scoping letter, invasive species control is a critical component of active forest management. We appreciate CNF's attention to invasive plant control, and we highly recommend performing these treatments before and after any timber harvest or similar tree removal activity. These pre- and post-management treatments should be performed both on-site and off-site.

2. Improve Forest Health by Increasing Structural Diversity, Enhancing Growing Conditions for Desired Species, and Creating Canopy Openings to Support Diverse Forest Regeneration:

- a. We fully support this management strategy both at the landscape level and at the stand level. At the stand level, it can accelerate the development of late-successional forest conditions while also supporting a wide variety of wildlife species. We recommend reviewing soil maps and Ecological Site Descriptions provided by USDA-NRCS for more information on reference conditions and transitional pathways towards healthy, diverse forest conditions.
- b. When creating canopy openings as part of a prescription to improve forest stands' structural diversity, we recommend utilizing a "feathered edge" technique around the edges of the opening to improve cover for grouse and other wildlife species. Additionally, we recommend that this prescription focuses on creating small openings (<2 acres) that are irregular in shape, as grouse in this region tend to favor openings with those characteristics (Harper et al., n.d., p. 27).
- c. We support the inclusion of invasive species management and other pre- and post-treatment activities listed in the scoping letter, as described in sections 1.b and 1.c above.

CNF's proposed management actions will improve forest characteristics that support a number of wildlife species, including ruffed grouse. RGS & AWS is fully supportive of this project, and we are excited to see it move forward.

We look forward to remaining engaged throughout the public comment process for this project.

Thank you for the opportunity to comment.

Sincerely,



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Southern Appalachian Region

References

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