



SIERRA CLUB

MARYLAND CHAPTER

Sierra Club Maryland Chapter

P.O. Box 278

Riverdale, MD 20738

(301) 277-7111

May 29, 2026

Transmitted by email to stateforests.dnr@maryland.gov

Josh Kurtz, Secretary
Maryland Department of Natural Resources
580 Taylor Avenue
Annapolis, MD 21401

RE: Maryland Sierra Club Comments on the Green Ridge State Forest 2027 Work Plan

Dear Secretary Kurtz,

We thank the Maryland Department of Natural Resources' Forest Service for this opportunity to comment on the Green Ridge State Forest Annual Work Plan that was recently released, which if approved, will be implemented in 2027. We oppose the plan as currently written and will share our major concerns below.

Sierra Club members seek to explore, enjoy, and protect the wild places of the earth. As such, we appreciate the hard work performed by the Green Ridge State Forest staff in maintaining the campgrounds and trails, manual removal of invasive species, riparian buffer afforestation projects, and continued monitoring for the recovery of biodiversity.

The 70,000 members and supporters of the Maryland Chapter of the Sierra Club are deeply concerned with the current biodiversity collapse from habitat loss, habitat degradation and fragmentation, and the overexploitation of both fauna and flora. With only 2 percentage points away from a mass extinction (WWF, 2024), we must reconnect and protect natural and untrammeled wilderness for the recovery of biodiversity and to allow ecosystem processes to rebalance and naturally evolve over time.

Natural forests are home to 80% of terrestrial biodiversity and provide a host of other ecosystem services when left intact. Logging, be it for development or timber, degrades, fragments and destroys these vital forest ecosystems. With this philosophy in mind, while we agree that near-threatened species such as the whippoorwill and golden-winged warbler require protection, we do not believe that active management for the maintenance of early successional habitats is necessary. Forests reset succession naturally, and especially today, with climate change's stronger storms and climatic extremes impacting forest resilience, early successional habitats already abound (Forzieri et al, 2022).

The Alleghany woodrat mentioned in the plan, benefits from rocky outcrops which usually require no management. Some rocky outcrops will be in the shale barrens. We applaud the

goal to restore these barrens and grasslands without extractive activities; however, we are concerned about the use of herbicides and repeated prescribed fires since both can dramatically impact the survival and long-term recovery of native and rare species. In general, we advocate for manual invasive species removal and no use of prescribed fires and limited chemicals in the shale barrens. If considered, fire should only be used if it was applied historically, while invasive species removals should be done manually, where possible. If the use of herbicide is necessary, it must be very limited in its manual application (hack and spray).

It is imperative that we focus on protecting mature ecosystems and prioritize eastern forests. Continuous or repeated active intervention in these mature ecosystems compromises their structure and function to the point where they become trapped in a degraded state, without being able to restore themselves, generating landscape traps (Lindenmayer et al., 2011). Eastern mature forest ecosystems must be allowed to grow old, and then ancient since we barely have any old-growth left with dramatic impacts on biodiversity health and ecosystem services provision. In global climate models (GCM), eastern forests are projected to survive past the end of this century, where boreal, western and tropical forests are expected to suffer stand replacing events (Anderegg et al, 2022). This adds to the importance of maintaining existing eastern forest ecosystems intact so they can take over ecosystem services provision from other forests. In fact, our forests are undergoing mesophication (Nowacki & Abrams, 2008), which is a desirable outcome for ecosystem services provision and natural climate adaptation.

Mature forest ecosystems also provide the most ecosystem services: Natural, unmanaged forest ecosystems sequester and store the most carbon (Nunery & Keeton, 2010) in biomass, soils, and mycorrhizal networks, and continue to do so throughout their entire lifespan (Stephenson et al, 2014); they provide shelter and nutrition for the broadest range of biodiversity (Moomaw et al, 2019); generate the most oxygen (Johnson, 2016); filter the most water (OSI, 2024); generate soils faster (Hernandez & Junod, 2019) and anchor these in the rhizosphere; maintain humidity reducing Vapor Pressure Deficit (VPD), move precipitation inland (Makarieva & Gorshkov, 2010); and so much more.

For all these reasons, the Sierra Club Maryland Chapter strongly opposes the silvicultural prescriptions for variable retention and regeneration harvests for over 150 acres of forest from Sugar Bottom Road, Dailey Road, Green Ridge Road, Mountain Road, and Oldtown Orleans Road to obtain 1,023 MBF for the value of \$300,000. The two reasons given by the Forest Service that drive this selection, namely that the forests are overstocked and that the oaks are mature or over-mature are incorrect.

- 1) “Overstocked stands” is an industry term where unwanted species in tree farms are seen as inhibiting the maximization of growth of the desired, more profitable species. The desired species is then “released” by logging the unwanted trees around them to provide more nutrients and promote growth of the desired tree. This is not applicable to natural forests which have self-managed for millennia, and in fact prepared the biosphere for life long before humans existed. With increasing climatic extremes the denser, mature and older forests are the most valuable and resilient ones as they offer refugia for biodiversity providing cooler, shadier microclimates

which biodiversity can thrive in. In addition, intact forests with closed canopies are the most resilient to fire: both the moisture and denser vegetation which acts as a natural windbreak, protect forests. It is desirable to maintain closed canopies and dense forests and not open the canopy through any type of active management, which would dry out the forest floors and remove windbreaks making fires larger and more intense, in addition to opening the area up to invasive species.

- 2) The plan also calls for the harvest of mature and over mature oaks. Stating that oaks are mature at 100 years or even “over-mature” at ages 108 to 117 is something that industry may say. However, from the perspective of ecosystem services provision, biodiversity, and climate it is the opposite. White oaks can live up to 600 years (the Wye Oak was over 400 years old when a storm destroyed it), red oaks up to 500, while black, scarlet and chestnut oaks can live for 200. We must resist the shifting baseline that industry promotes to justify forest destruction. In addition to the oaks, white pine, Virginia pine, pitch pine, table mountain pine, and shortleaf pine are listed – a lot of which will probably be pulped, or worse, burned for energy despite knowing that woody biomass for energy produces more emissions than even coal per unit of energy (BTU) produced.

It is important to note that forests are not regenerating as they used to, due to overexploitation, degradation, and climate change, adding importance to the protection of the remaining mature oaks. Once these specimens are cut down, they will likely not regenerate given oak decline and the increasingly wetter and warmer climate (McEwan et al, 2011). Not only will the harvest remove 150 acres of high-value mature oaks for biodiversity and ecosystem service provision, but logging and site preparations will also eliminate or damage the other plant species, and most of the biota, not to mention compact and degrade the soil with heavy machinery, provoke mycorrhizal die-off, dehydrate uncovered areas, and emit considerable greenhouse gases from carbon loss in soil, loss of trees, and diesel powered heavy industrial equipment. In addition, the stands planned to be logged are important as they abut and buffer wildlands type 1 areas (or GAP 1 per the USGS classification) and are of maximum value for the expansion of these core natural ecosystems; in addition, many of the planned silvicultural prescriptions occur on deep slopes which lead to increased erosion of the areas and sedimentation of waterways.

The prescription for variable retention harvests is supposed to keep 20% of existing trees but that prescription is undermined by the statement that most revenue will come from regeneration harvests, better known as clear cuts, which leave around 5% of trees standing- mainly the ones within 50 feet of a stream or otherwise inaccessible. History also shows that variable retention mostly ends up with very little retention if any. These harvests will occur in ESA Zone 3, ESA, DFS, and FIDS areas. Especially the latter species, Forest Interior Dwelling Species, will be deeply harmed. These are the most threatened species because they require untrammelled wilderness and mature ecosystems, which this prescription would destroy.

The plan also states that the MDNR Wildlife and Heritage Services will continue to monitor Threatened Endangered Species including the wood turtle, timber rattlesnake, lepidoptera species, and bat species – yet across the 151 acre logging-site, according to the plan, there

appear to be no rare, threatened or endangered (RTE) species, nor habitats of any species of concern. This seems unrealistic.

Finally, we must evaluate whether a profit of \$300,000 truly justifies the destruction of one of the few unique, resilient, mature, and vital ecosystems that remains in Maryland. How much of the \$411,181 annual operating budget would be saved by not harvesting 150 acres? How much would be saved by not monitoring biodiversity every five years after harvest? How can we compare that limited income to the increasingly vital ecosystem services provided by the forests, be they for the health of Marylanders or biodiversity? Intact forests greatly contribute to local economies by providing clean air, rainfall, clean drinking water, and natural foods and medicines while a degraded or logged area is more susceptible to fire, invasive species, landslides, and erosion (Seymour, 2013). The “resource curse” is also a well-studied phenomenon that manifests in these areas, once the natural resources have been eliminated, in the form of employment volatility, lower median wages, poor health, and little room to create more stable jobs associated with recreation, tourism, non-timber forest products, and other uses dependent on diverse forests and diverse uses of those forests (NRC, 2000.) Indeed, Maryland’s \$21 billion tourism industry also needs intact forests since our mature state parks and forests are one of the most sought out destinations from out-of-state visitors, all the while our mature ecosystems sustain local economies in the long run.

The Sierra Club, Maryland Chapter opposes the extraction and harvest in the Green Ridge State Forest as delineated in this logging plan. We urge the Forest Service to source their timber from tree farms and industrial forests which are grown for this purpose, and instead, to initiate the administrative procedures that would permanently protect mature ecosystems, including this beautiful State Forest for the recovery of biodiversity, rebalancing of Earth systems processes, provision of ecosystem services, and to support Marylander’s physical and mental health.

We are interested in identifying and protecting healthy thriving ecological systems whether they exist in state parks, wildlands, state forests, or other key areas. We welcome the opportunity to work with DNR to ensure these areas, which are important to Marylanders and habitats for many species, are protected.

Sonia Demiray, Member
Biodiversity and Natural Places Committee
Sierra Club Maryland Chapter
sonia@demirayink.com

Josh Tulkin
Chapter Director
Sierra Club Maryland Chapter
josh.tulkin@mdsierra.org

References

- Anderegg, W., Wu, C., Acil, N., Carvalhai s, N., Pugh, T, Sadler, J., & Seidl, R. (2022 - 1). A climate risk analysis of Earth's forests in the 21st century. *Science* (American Association for the Advancement of Science), 377(6610), 1099–1103. <https://doi.org/10.1126/science.abp9723>
- Forzieri, G., Dakos, V., McDowell, N. G., Ramdane, A., & Cescatti, A. (2022). Emerging signals of declining forest resilience under climate change. *Nature* (London), 608(7923), 534–539. <https://doi.org/10.1038/s41586-022-04959-9>
- Hernandez-Soriano, M., Fiuratti,-Junod, M., 2019. Soils: The Foundation of Life on Earth. The John Innes Center Magazine, Advance. Issue 32. Winter 2019-2020. <https://www.jic.ac.uk/advances/soil-the-foundation-of-life-on-earth>
- Johnson MP. Photosynthesis. *Essays Biochem.* 2016 Oct 31;60(3):255-273. <https://doi.or/10.1042/EBC20160016>
- Lindenmayer, D. B., Hobbs, R. J., Likens, G. E., Krebs, C. J., & Banks, S. C. (2011). Newly discovered landscape traps produce regime shifts in wet forests. *Proceedings of the National Academy of Sciences - PNAS*, 108(38), 15887–15891. <https://doi.org/10.1073/pnas.1110245108>
- Makarieva, A. M., & Gorshkov, V. G. (2010). The Biotic Pump: Condensation, atmospheric dynamics and climate. *International Journal of Water*, 5(4), 365–385. <https://doi.org/10.1504/IJW.2010.038729>
- McEwan, R. W., Dyer, J. M., & Pederson, N. (2011). Multiple interacting ecosystem drivers: toward an encompassing hypothesis of oak forest dynamics across eastern North America. *Ecography* (Copenhagen), 34(2), 244–256. <https://doi.org/10.1111/j.1600-0587.2010.06390.x>
- Moomaw, W., Masino, S., & Faison, E.(2019). Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good. *Frontiers in Forests and Global Change*, 2. <https://doi.org/10.3389/ffgc.2019.00027>
- Nowacki, G., & Abrams, M. (2008). The Demise of Fire and “Mesophication” of Forests in the Eastern United States. *BioScience/Bioscience*, 58(2), 123–138. <https://doi.org/10.1641/B580207>
- National Research Council . Committee on Environmental Issues in Pacific Northwest Forest Management. (2000). *Environmental issues in Pacific Northwest forest management*. National Academy Press. <http://site.ebrary.com/id/10071342>
- Nunery, J., & Keeton, W. (2010). Forest carbon storage in the northeastern United States: Net effects of harvesting frequency, post-harvest retention, and wood products. *Forest Ecology and Management*, 259(8), 1363–1375. <https://doi.org/10.1016/j.foreco.2009.12.029>
- Open Space Institute. 2024. *Protecting Forests for Clean Water: Findings from a 10-year initiative to promote best practices across the land conservation field*. <https://open-spaces.files.svdcn.com/production/pdfs/LPIA-Learnings-Report-Final.pdf>
- Seymour, F. (2017) *Forests and Poverty: Barking Up the Wrong Tree?* Center for Global Development. <https://www.cgdev.org/blog/forests-and-poverty-barking-wrong-tree>
- Stephenson, N., Das, A., Condit, R. et al. Rate of tree carbon accumulation increases continuously with tree size. *Nature* 507, 90–93 (2014). <https://doi.org/10.1038/nature12914>
- World Wildlife Fund. (2024). *The Living Planet Report – a system in peril*. WWF, Switzerland. <https://www.worldwildlife.org/publications/2024-living-planet-report/>