



**Date:** August 6, 2024

Dear Interested Parties:

The Cherokee National Forest (CNF), George Washington and Jefferson National Forests (GWNJF), Monongahela National Forest (MNF), and the National Forests in North Carolina (NFsNC), are working together across National Forest System lands to initiate a landscape red spruce-fir ecosystem restoration project. These National Forests occupy lands in West Virginia, Virginia, Tennessee and North Carolina and will herein be referred to as the Project Area.

### **Project Purpose and Proposal**

For this project, red spruce-fir ecosystems are defined as those that contain red spruce, a mixture of spruce and fir species, or once hosted red spruce and fir species but are now dominated by northern hardwoods. Red spruce-fir ecosystems and associated subtypes occur in cool, moist, high-elevation sites. In the Monongahela National Forest in West Virginia, red spruce is commonly found above 3,000 feet elevation along mountain ranges running northeast-southwest. In Tennessee and North Carolina, red spruce is restricted to isolated mountain-top sites above 4,500 feet with favorable topography and moisture. They compose a large portion of the forested systems and elevate the Project Area as a biodiversity hotspot of the eastern United States. Red spruce-fir ecosystems are home to hundreds of rare and endemic species including the federally listed Carolina northern flying squirrel, spruce-fir moss spider and Cheat Mountain salamander.

Red spruce-fir ecosystems have been drastically altered from historical conditions. By the 1930s, roughly 90 percent of high-elevation red spruce-fir ecosystems in the central and southern Appalachians had been logged. Subsequent wildfires further diminished these ecosystems and encouraged an influx of hardwood tree species not previously associated with these habitats. Today, central and southern Appalachian red spruce-fir-hardwood forest groups are fragmented, suffer from unnaturally low genetic diversity, and are considered imperiled. Climate change presents new challenges and lends urgency to restoring red spruce ecosystems to improve their resiliency. Long-term carbon sequestration and storage and water storage capacity of spruce derived soils in high elevation headwater forests are additional outcomes of red spruce-fir restoration. The need for action is further supported by a compilation of technical findings by the Red Spruce Technical Advisory Board (RSTAB). This effort was convened and facilitated by The Nature Conservancy (TNC) to provide expert and science-informed technical recommendations on red spruce ecosystem restoration methods and potential impact. This group was comprised of the Central Appalachian Spruce Restoration Initiative (CASRI) and the Southern Appalachian Spruce Restoration Initiative (SASRI), as well as other federal and state agencies and non-governmental organizations (NGOs) from the restoration community.



The Forest Service is beginning a National Environmental Policy Act (NEPA) analysis that would outline various red spruce restoration practices and address multiple vegetation management techniques to create favorable conditions for red spruce in suitable habitat locations or former red spruce locations. Potential practices under consideration for inclusion in this proposed action are provided below. Please note that while not all actions of this proposal would be implemented for each Forest within the Project Area, detailed proposed actions by Forest will be determined and outlined clearly as the process moves forward.

### **Planting Scenarios:**

**Underplanting in hardwood forests:** Jump-start red spruce re-establishment or increase conifer component of a forest along with other associated native species to increase forest diversity and their related benefits for ecosystem functions and services.

**Planting in open old fields or legacy mine lands:** Plant in open areas that have compacted soil and nutrient depletion from past land use including over-grazing, logging and mining to increase plant diversity and restore ecosystems and watersheds. Planting will not take place within natural bald areas. Legacy mined lands were reclaimed to grasslands and/or seeded with aggressive non-native and exotic grasses and legumes, have heavily compacted, such that they often lack woody vegetation even decades after reclamation.

**Planting in riparian and floodplain corridors and around natural and created wetlands:** Stabilize streambanks where erosion and sedimentation negatively affect aquatic habitats. Mitigate the effects of livestock grazing up to the stream and associated erosion. Mitigate the loss of stream shading provided by hemlock prior to mortality due to insect infestations of hemlock wooly adelgid in areas that contain or formerly contained red spruce. Provide wildlife habitat in newly created wetlands on legacy mined lands. Reforest floodplains for habitat connectivity and resiliency.

### **Release Scenarios:**

**Release (non-ground disturbing):** This practice involves removing hardwood stems around naturally regenerating midstory red spruce. Work may be accomplished with non-ground-disturbing chemical (herbicide) and mechanical (chainsaw) methods. The goals of this tool are to help red spruce propagate and reduce competition from other hardwood species. Herbicide use would utilize best practices that minimize use across treated acreage and includes direct application, such as basal bark spray or hack and spray injection.



**Release (ground-disturbing):** Focusing on areas with existing access consistent with Forest Plan direction, heavy equipment would be used to accomplish forest structural improvements and to remove neighboring hardwoods that are suppressing red spruce growth in red spruce-fir forests and those areas historically supporting such communities. Activities can be grouped into 2 main categories:

**Spruce release.** This would occur in areas that were historically spruce and are currently dominated by overstory hardwoods with spruce in the understory and/or midstory. The goal would be to improve composition by accelerating the time necessary for spruce to get into the overstory. Additionally, the disturbance would improve structure by creating uneven agedness.

**Old forest management.** This would occur in spruce monocultures or plantings that are overstocked because of past disturbance. The goal would be to increase structural complexity and uneven agedness in even-aged spruce forests including increased snags, downed woody debris, pit and mound topography, patches of regeneration, and multi-level canopy structure.

The analysis may consider implementing these activities to accomplish these conditions in existing red spruce sites and facilitating the expansion of red spruce into suitable locations (for example, where red spruce occurred before 20th-century disturbances).

The proposal creates an opportunity to be responsive to ecological threats and impacts and provides an opportunity for partner involvement at a landscape scale. This landscape approach provides the stage for a meaningful scale of restoration for this system.

Through their analysis, MNF has identified the highest acres of potential red spruce – fir restoration, although opportunities exist throughout focused areas within the remainder of the Project Area on a smaller scale. We will conduct similar analyses for the other Forests in the Project Area to identify restoration opportunities. Each Forest must comply with their own Forest Plan direction and therefore will have varying levels of restoration opportunities. Please refer to project maps for ranges of potential restoration areas.

The proposed framework aims to provide analysis for immediate project implementation on units where on-the-ground clearances for biological and cultural resources are complete while also providing a framework for subsequent projects to be implemented post-decision utilizing an implementation checklist. Because the location and timing of restoration projects is dependent upon factors such as partner opportunities and resources, not all units for treatments are explicitly identified now. The checklist would ensure compliance with the respective Forest's decision and project alignment with effects analysis findings. This project would propose to implement units now while also providing a flexible toolbox approach that



allows predetermined restoration projects (such as those listed above) to be aligned with current conditions on the ground for future implementation.

The Forest Service would consult under Section 7 of the Endangered Species Act and Section 106 of the National Historic Preservation Act. Recognizing that each Forest has different consultation frameworks that may address red spruce restoration practices considered in the Environmental Assessment, the Proposed Action and consultation process may vary for each Forest.

It is anticipated that the number of acres treated per year for each of the proposed activities may be bound by Forest Plan direction, Forest capacity, and respective consultations congruent with the above-mentioned laws. The environmental analysis decision-making process will inform this.

The analysis would likely include considerations for issues including but not limited to aquatic ecology, special status species, non-native invasive species, botany, silviculture, soils, geology, hydrology, visual resources, recreation, special area designations, roads and transportation, cultural resources, climate change, old growth, carbon, and economics.

### **Decision to be Made and Consideration of Effects Analysis**

The anticipated analysis would be included in an Environmental Assessment that would inform Decision Notices signed by each respective Forest Supervisor. This approach provides flexibility to incorporate Forest-specific considerations such as design features, consultations, and specific restoration practices into each Forest's decision, reflecting the unique resources, processes, and considerations.

The Decision Notices would allow for either or both of these scenarios as appropriate for each Forest:

1. Direct implementation of a site-specific project that is identified within the analysis, as these units have been specifically identified needing treatment and have been ground truthed for necessary field surveys; or
2. Implementation of future projects utilizing an implementation checklist. To ensure a site-specific project is compliant with the analysis and applicable Decision Notice, the implementation checklist would ensure compliance with all laws, project design criteria, and any ground clearances as applicable.

Public involvement is critical, and the Forest Service seeks to engage the public now and throughout implementation, including during future implementation projects that are not specifically identified now.



While comprehensive information about the conditions found across every acre in the Project Area is incomplete, sufficient data are available about what kinds of treatments work for certain conditions and what kind of protections need to be in place to prevent significant impacts to resources. As such, project-specific design criteria would be the basis for consistent implementation and effects analysis. Site-specific restoration practices would be implemented using project-specific design criteria and a consistent method to design, implement, monitor, and document project implementation and effectiveness.

## Public Involvement

The Forest Service is seeking public involvement and comments on this proposal starting **August 6, 2024, and** concluding on **September 5, 2024.**

This proposal would implement the Forest Plans, as amended, for each of the involved Forests and is subject to the objection process pursuant to 36 CFR 218, subparts A and B. Comments must be postmarked or received within 30 days of the date of this letter.

Only those who submit timely and specific written comments per 36 CFR §218.2 regarding the proposed project or activity during a public comment period established by the responsible official are eligible to file an objection (36 CFR §218.24(b) (6)). To raise issues during the objections period, they must be based on previously submitted, specific written comments regarding the proposed project or activity and attributed to the objector. All individuals and organizations are responsible for ensuring that their comments are received in a timely manner.

Comments received, including commenter names and addresses, are considered part of the public record for this proposed action and would be available for public inspection. Comments submitted anonymously are accepted and considered; however, anonymous comments do not afford the agency the ability to provide the respondent with subsequent environmental documents.

For objection eligibility, each individual or representative from each entity submitting timely and specific written comments regarding the proposed project or activity must either sign the comments or verify identity upon request 36 CFR §218.24(b)(8).

Comments may be submitted electronically at:

<https://cara.fs2c.usda.gov/Public/CommentInput?project=66546>. Electronic comments may be submitted as Microsoft Word documents (.doc or .docx), portable document files (.pdf), or in rich text format (.rtf), text (.txt), or hypertext markup language (.html).

Comments may also be mailed to the following address. Please state “Red Spruce Restoration Project” on the envelope when replying by mail.



Jessie Howard – Project Coordinator  
5162 Valleypointe Parkway  
Roanoke, VA 24019

Additional project information can be accessed at each of the Forests' project webpages. Project information across the various pages will be similar, except when it comes to documents specific to the Forest such as a future legal notice for a respective newspaper of record (for example).

Cherokee National Forest - <https://www.fs.usda.gov/project/?project=66547>

George Washington and Jefferson National Forests -  
<https://www.fs.usda.gov/project/?project=66546>

Monongahela National Forest - <https://www.fs.usda.gov/project/?project=66562>

National Forests in North Carolina - <https://www.fs.usda.gov/project/?project=66548>

The scoping comment period is one of multiple opportunities for the public to review project materials, engage in working groups and provide input. The Forest Service will use your comments to assist with informing this process and forming these decisions. We value your involvement and input.

During the scoping period, we extend an invitation to join us at a **virtual public meeting on AUGUST 21, 2024, from 3:00 – 4:00 PM EST**. Comments conveyed at this meeting will not be collected as official project comments.

### Microsoft Teams Link for Virtual Meeting

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_ZjVhNzhkYmQtYjlmMi00MTgyLWlxOTYtOWY5ZGY4YjRkNTI2%40thread.v2/0?context=%7b%22Tid%22%3a%22ed5b36e7-01ee-4ebc-867e-e03cfa0d4697%22%2c%22Oid%22%3a%22e9981208-d110-4a02-a83d-b0ce76f47303%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZjVhNzhkYmQtYjlmMi00MTgyLWlxOTYtOWY5ZGY4YjRkNTI2%40thread.v2/0?context=%7b%22Tid%22%3a%22ed5b36e7-01ee-4ebc-867e-e03cfa0d4697%22%2c%22Oid%22%3a%22e9981208-d110-4a02-a83d-b0ce76f47303%22%7d)

Meeting ID: 242 704 239 896 Passcode: HpgdsQ

### Dial in by phone

[+1 202-650-0123](tel:+12026500123) Phone conference ID: 552 761 019#

If you have any questions about this proposal, please contact Jessie Howard at (540) 492 - 1728 or [Jessie.Howard@usda.gov](mailto:Jessie.Howard@usda.gov). Thank you for your interest in the management of your National Forests.



Sincerely,

James Melonas,  
Forest Supervisor, National Forests in North Carolina

Joby P. Timm  
Forest Supervisor, George Washington and Jefferson National Forests

Michael Wright  
Forest Supervisor, Cherokee National Forest

Robert West  
Acting Forest Supervisor, Monongahela National Forest

Enclosed: Project Maps

- 1) National Forests of North Carolina and Cherokee National Forest Potential Red Spruce Restoration Map
- 2) George Washington and Jefferson National Forests (South) Potential Red Spruce Map
- 3) Monongahela National Forest and George Washington and Jefferson National Forests (North) Red Spruce Potential Restoration Locations

cc: Cavan Fitzsimmons, Deputy Forest Supervisor, National Forests in North Carolina  
Stephanie Bland, Deputy Forest Supervisor, Cherokee National Forest  
Jessie Howard, Southern Appalachian Project Coordinator