

Pisgah Restoration Initiative CFLRP Proposal



Figure 1 Sunrise over Hawksbill Mountain



Proposal Overview

Situated in the mountains surrounding Asheville, North Carolina, the Pisgah National Forest (NF) is a land of mile-high peaks, cascading waterfalls and forested slopes. With over 500,000 acres, the Pisgah is primarily a hardwood forest ranging in elevation from 1,200 – 6,380 feet with rivers, waterfalls and hundreds of miles of trails. This National Forest is home to the first tract of land purchased under the Weeks Act and the Cradle of Forestry in America. The Pisgah, Grandfather and Appalachian Ranger Districts make up the Pisgah National Forest, which is one of the most visited National Forests in the United States. The Districts are located along the eastern edge of the mountains of Western North Carolina and are bisected by the Blue Ridge Parkway. Within the proposed Pisgah Restoration Initiative (PRI) landscape, the project area is approximately 1 million acres. Fifty-eight percent of that area is National Forest System lands, with approximately 30,000 acres of Cherokee National Forest and 520,000 acres of Pisgah National Forest. This area includes Great Smoky Mountains National Park and Blue Ridge Parkway lands, North Carolina State Forests, Parks and Wildlife Resources Commission lands as well as private lands and local municipality lands. The landscape falls within the Southern Blue Ridge Fire Learning Network, where fire-dependent and adapted species dominate roughly 60% of the landscape.

Landscape Boundaries

Ecologically, there is a need to work across boundaries as departed ecosystems in need of restoration transcend land ownership. These restoration projects provide the opportunity to take an “All Lands” approach, working directly with our neighbors, finding implementation efficiencies and coordinating resources. The Appalachian Ranger District borders the Tennessee state line and the Cherokee National Forest as well as the Great Smoky Mountains National Park. Projects with common restoration objectives on those lands have been included in the current proposal, and exemplify a change to the initial proposed project boundary. The wide range of communities and ecological conditions across the landscape will increase opportunity for implementing restoration activities and mitigating wildfire risk.

Operationally, it is important to work at this larger scale, not only because it is more efficient, but because these are shared goals. The Grandfather Restoration Project (a current CFLRP project) has demonstrated that by working together, and across jurisdictions, we are able to reduce risk to first responders to wildfires and deliver a more effective vegetation management treatment. Rather than planning work independently on private lands and on public lands, work is planned and implemented based on need across jurisdictions. Implementing fuels reduction and community engagement together allow responders to deepen relationships and develop site specific knowledge of a given area. The Grandfather Restoration Project has also demonstrated in many circumstances this proactive treatment and engagement with partners can reduce the cost of wildfire management and re-frame the decisions and actions we take on the landscape. For instance, the Bald Knob wildfire which started from a lightning strike, burned into the Lake James prescribed burn unit on one side. The firefighters were able to focus their

efforts on the area around the private property and structures as the fire did not spread through the prescribed burn unit because of the reduced fuels and established fire breaks.¹

Federal, state and local agencies, as well as a broad range of conservation partners, have shared interest and equity in the shared stewardship and restoration goals of:

- Reducing wildfire risk in the Wildland Urban Interface (WUI),
- Restoring fire-adapted forests and rare native ecosystems,
- Protecting ecosystems from non-native plants, insects, and pathogens, and
- Providing clean and abundant water.

The revised Nantahala and Pisgah National Forest Plan, being drafted now, directly identifies additional restoration work that can be accomplished with greater collaboration and coordination, and by working at a larger scale than could be accomplished by the Forest Service alone. The PRI CFLRP project will provide the structure and guidance to put the plan in action. Additionally, the North Carolina Shared Stewardship Memorandum of Understanding (MOU) was recently signed and mutual goals outlined within this MOU are reflected in this proposal.

Akin to requirements of the CFLRP, shared stewardship agreements utilize the best available science and urge land managers to increase the scope and scale of critical forest restoration treatments. This PRI landscape is a priority landscape due to the critical ecological importance of this area, the high degree of threat posed by future wildfires, and because of the complex challenges associated with this landscape including population increase and development in the WUI, catastrophic storms, droughts, flooding, insect and disease outbreaks and non-native invasive species (NNIS). The diversity of public lands and their adjacency to private lands provides the opportunity to work across boundaries on common goals. Refer to Attachment A for Community Wildfire Protection Plan (CWPP) projects within the project boundary. With these shared goals and proven partners, together we can make a meaningful impact on the landscape.

Economic, Social, and Ecological Context:

Economic and Social Context

From a socio-economic perspective, the project area contributes to local quality of life, creating opportunities for sustainable economic development through tourism, a wide range of recreational opportunities, and timber harvest. The landscape produces clean water and provides habitat vitally important to many native species and also provides resources to support local industry needs. While many of our communities are still reliant on these industries, the regional composition is changing. In 2015, government (13%), health and social services (12%), and retail trade (10%) sectors contained the largest shares of employment in

¹ Bald Knob Wildfire – Pisgah National Forest, NC Collaboration is Key

the area, followed by accommodations (9%) and manufacturing (9%). Historically, resource based extraction industries made up larger portions of the local economy.² These higher earning jobs in manufacturing are still significant portions of our economy and cultural identity. With the CFLRP project's support, manufacturing will have the same opportunity for growth that tourism is seeing. The project area provides a wide variety of opportunities for nature-based recreation in support of tourism from hunting and fishing to mountain biking to solitude. Additionally, commercial gathering of forest products from the Forest such as Galax, Fraser fir cones or seedlings, and medicinal herbs all contribute to the local economy and culturally connect our residents to the forest.

Recreation is the most common portal through which people connect to the National Forest. Outdoor recreation plays a significant role in serving the public and promotes physical, mental and spiritual health and well-being; enhances community economy, identity and sense of place; highlights features and unique attributes of the Forests' special places; and fosters citizen stewardship of our public natural resources. The Pisgah National Forest is among the most visited forests in the country providing visitors with unique opportunities for a wide range of recreational activities and experiences that deliver economic support to surrounding communities. Over five million visits were made to the Nantahala and Pisgah NFs in 2018.

Within the PRI landscape a wide range of developed and dispersed recreational opportunities are offered in the Pisgah and Cherokee NFs. The majority of gamelands open for hunting in the area are located within these National Forests. Whitewater rafting opportunities and the economic benefits derived from outfitter guides are provided by rivers that run, at least in part, through the National Forests. The Appalachian National Scenic Trail, Overmountain Victory National Historic Trail and the Blue Ridge Parkway are additional economic drivers to local economies. These one-of-a-kind scenic attractions that are freely available on the Forests add to the sense of place for residents and draw tourists that contribute to local economies. The Project area is the watershed for these mentioned opportunities and more, and our priorities for restoration and improvements will continue to draw people to the land.

Multiple local municipalities rely directly on the clean and abundant water from the project area. Countless downstream communities and industries, on either side of the Eastern Continental Divide, also rely on these headwaters for their clean water. For instance, several significant beer manufacturers have moved into the area in large part because of the clean and abundant water within the region. Anglers and forest visitors travel to fish and play in the same headwaters that municipalities and downstream industrial users rely on. Under the watershed conditions framework, three watersheds are "functioning properly" and the remaining are "functioning at-risk". A sizable road maintenance backlog, hydrologically disconnected streams, non-native invasive species, landslides, and flooding are the most common threats to in-stream water quality within the project area. Additionally, changes in forest composition adjacent to streams has been shown to decrease the amount of water in-stream (research by Coweeta

² Nantahala and Pisgah National Forests Land Management Plan Draft Environmental Impact Statement

Hydrological Laboratory).³ Restoring the composition of fire-adapted forest systems will mitigate these impacts on water quantity which could be important if we experience more frequent and longer droughts as predicted.⁴

The Southern Wildfire Risk Assessment (Figure 2) identifies many of the communities surrounding the project area as high risk and also acknowledges historically high fire occurrence in these same places. Plainly,

the fire risk and fire occurrence is where the homes are. Many of our surrounding communities at risk in the project boundary are within lower elevations or are located on dry sites where fire return intervals average three to seven years. Wildfire management costs, risks to communities and smoke impacts are all increased with departure from desired conditions. Targeted restoration efforts, as

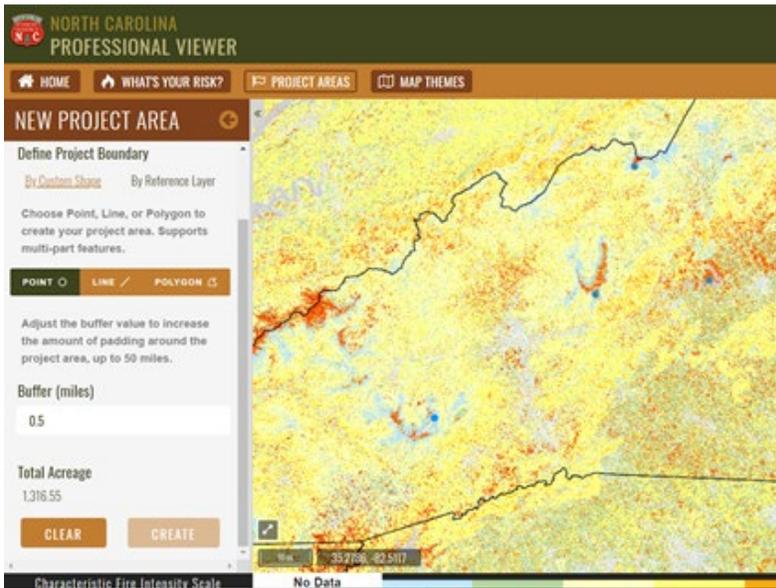


Figure 2 Fire risk assessment for project area

demonstrated with the Grandfather Restoration Project, can greatly reduce costs and, more importantly, reduce risks to first responders and the communities we serve.

Ecological Context

Providing a healthy and resilient forest composition, structure, and function along with

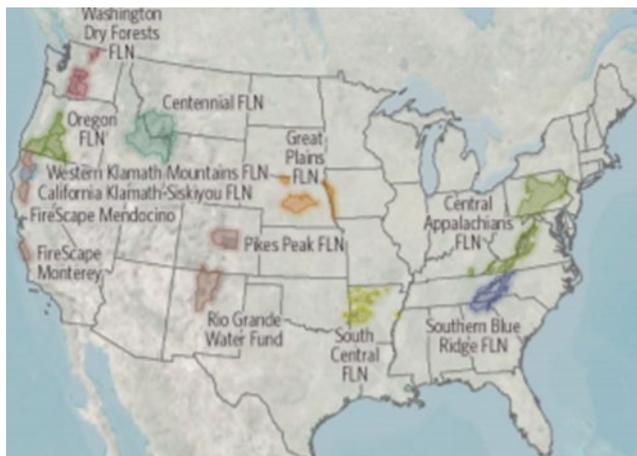


Figure 3 Fire Learning Networks in the US

connectivity, is the aim of the vegetation management proposed in the Pisgah Restoration Initiative. This is a continuation of the work being done in the Southern Blue Ridge Fire Learning Network (FLN) landscape (Figure 3). The fire-adapted, dry sites include ecological zones such as shortleaf pine, pine-oak, dry oak and dry-mesic oak. Many of these sites are departed from desired conditions and from the natural range of variation. Within the project area, departed

³ [Hydrological processes of reference watersheds in Experimental Forests, USA.](#)

⁴ <https://climate.nasa.gov/effects/>

conditions include changed species compositions, lack of young or old growth forests, off-site white pine plantations, yellow-poplar monocultures, a lack of southern yellow pine species and a lack of woodlands or open canopy conditions.

Our objective, focused on treating non-native invasive plants, insects, and pathogens, is targeted on rare habitats as well as habitats containing rare species to restore natural species assemblages, improve ecosystem functions, and ultimately foster habitat resilience. Like many forest concerns, NNIS pose challenges that do not recognize administrative boundaries. We have initiated several partnership agreements addressing the larger landscape to more effectively control outbreaks and will be using these as templates for new NNISs' infestation sites on the landscape. The risk of NNIS infestations can include the entire project boundary, but varies by proximity to existing infestations and site characteristics. Mesic and wet sites including montane alluvial forests, rich cove forests, streamside zones, and wetlands, such as critically rare Southern Appalachian bogs, are most at risk from NNIS infestations. This project will prioritize treatments and prevention in those systems most at risk. Within the project area, these habitats harbor numerous invasive plants such as Japanese knotweed, Oriental bittersweet, Japanese spiraea, and privet. In addition, selected dry sites with recent high-intensity wildfires are being impacted by princess tree and Chinese silvergrass. Vegetation management, restoration projects, and recreation sites that create openings are susceptible to the same culprits as well as many other NNIS like multiflora rose and Japanese stiltgrass.

Native and non-native insects and pathogens such as emerald ash borer, beech bark disease, southern pine beetle (SPB), and gypsy moth are impacting species diversity and habitat resilience in the southern Appalachians. Some of the pine-hardwood restoration will be important for reducing the Forests' risk to SPB, which has caused significant impact in the past. It is important we have the capacity to react to these outbreaks as quickly and efficiently as possible as to not replicate the widespread negative impacts witnessed to eastern hemlock from hemlock woolly adelgid across numerous mountain creeks and streams in the PRI landscape. While these mesic eastern hemlock-dominated forests have mostly been lost, continuing to treat the remaining stands is valuable for preservation of the species. That said, priority is given to Carolina hemlock, the more critically rare hemlock species, within its associated rare habitats. This area of the Southern Appalachians may contain the largest concentration of this Region 8 sensitive species across its narrow range. One herbaceous species, Region 8 sensitive Gray's lily, is being impacted by lily leaf spot disease and is in need of management across all of its high-elevation grassy bald and northern hardwood seep sites. The PRI will prioritize treatments on non-native and invasive plants, insect pests, and pathogens in order to mitigate the impacts that these species are having on rare and sensitive ecosystems.

[Landscape Strategy and Proposed Treatments:](#)

[Desired Conditions and Strategy](#)

Desired ecological conditions for the PRI landscape focus on restoring fire-adapted forests and rare ecosystems and increasing the health and resiliency of our forests and watersheds. The ecological integrity of the landscape is enhanced and maintained across all lands through a Shared Stewardship approach. The desired landscape includes an evolving forest network of structure and age classes within the natural range of variation; however many are departed from these desired conditions as well as appropriate species composition. Some areas progress primarily through natural succession and natural disturbance regimes. Other landscape patches evolve through a combination of natural succession and managed disturbances. These managed patches provide a mix of habitat types for a variety of species that depend on young forests and forests with open woodland condition.

Across the landscape, departure from desired natural vegetation composition by forest type improves over time through restoration, leading to an increase in healthy forest functions, resiliency, and adaptiveness to climate change as we move toward desired conditions. Forest types with drier moisture regimes and fire-adapted species will improve as fire return intervals are restored and maintained (Figure 4). Watersheds become more resilient and stable, being



Figure 4 Oak woodland in restored condition

better able to support the quality and quantity of water necessary to protect ecological functions. In a desired state, aquatic ecosystems are diverse, connected and properly functioning to provide quality habitat for aquatic species. Trails and roads within the landscape are sustainable, with proper alignment to minimize sedimentation into waterways.

The landscape strategy for the PRI follows four collaboratively-developed priority outcomes (outlined below), centered on reducing wildfire risk, restoring fire-adapted forests and rare ecosystems, and promoting healthy forests and watersheds. These ecological priorities are based on over 10 years of collaboration by local stakeholders to develop and refine common goals for restoration across the broader PRI landscape. The strategy here reflects key components of the NC Shared Stewardship Strategy, the forthcoming Nantahala-Pisgah Land Management Plan, and regional restoration strategies.

- 1) Work across boundaries to reduce wildfire risk in the Wildland Urban Interface following the Cohesive Wildland Fire Management Strategy. Decrease fuel loads across approximately 70,000 acres of prescribed burn units, 13,000 acres of fuel-reducing silviculture treatments, and over 80 Community Wildfire Protection Plans (CWPPs).

- Prioritize prescribed fire and silviculture treatments in fire-adapted ecosystems to re-establish the natural fire regime of fire-adapted forest types across the project area.
- Utilize a full range of strategies to manage natural ignition wildfires for multiple objectives wherever appropriate.
- Measurably reduce the risk, cost and resources required to manage wildfire incidents.
- Develop innovative solutions to increase burning efficiencies with new technology, including LiDAR, drone ignition, and burning large backcountry units resulting in measurable cost reduction.

2) Restore and maintain fire-adapted forests and rare native ecosystems by increasing ecological integrity, structure, function, and connectivity across all lands.

- Increase shortleaf pine and pine-oak woodland restoration, providing for pollinator and wildlife habitats, healthy and productive forests, and fire resilience (Figure 5).
- Utilize fire to increase oak recruitment in 50,000 acres of pine-oak woodlands and oak-hickory forests. During the life of the project, repeat treatments until desired conditions are met.
- Restore 500 acres of rare ecosystems in high priority areas, including spruce-fir forests, high-elevation grassy balds, southern-Appalachian bogs and rocky outcrops.
- Initiate under-represented forest types, including 3,000 acres of early successional habitats and oak woodlands for priority wildlife species.
- Increase the resiliency of forests to climate change using management strategies informed by the best available science.



Figure 5 Pine-oak woodland ready for maintenance

- 3) Protect the ecological health of native ecosystems from non-native plants, insects and pathogens, focusing on rare and sensitive ecosystems and important recreational sites.
- Maintain the persistence of native species on the landscape in rare native ecosystems and disturbed areas by effectively monitoring and treating 80% of NNIS in target areas.
 - Improve resiliency to insect pests and pathogens using prescribed fire and silviculture treatments.
 - Decrease corridors and vectors for pest movement, focusing on removing key source populations through pre-treatment and post activity monitoring.
- 4) Provide clean and abundant water to communities and industries across the Southeast by maintaining healthy, resilient forests and watersheds.
- Restore forest function in 10,000 acres of priority watersheds by managing the composition of forest stands to favor fire-adapted species and reduce mesophytic species.
 - Enhance habitat for trout by restoring riparian vegetation and stabilizing stream banks across 60 miles of streams, while also improving stream structure and function to increase resiliency to more frequent flooding.
 - Improve aquatic and hydrologic connectivity through installation of 30 aquatic organism passages (AOPs) and removal of fish barriers.
 - Restore forest composition in stream-side Eastern hemlock forests through silviculture and chemical treatments.
 - Maintain an ecologically sustainable system of trails and roads to reduce sedimentation loading in sensitive waterways by increasing the frequency of trail and road maintenance and appropriate realignments.

Priority Outcome	Treatment	Units Treated annually without CFLRP Funding	Units Treated annually with CFLRP Funding
Wildfire Risk Reduction	Prescribed Fire and Managed Wildfire	4,000 acres	10,000-18,000 acres
	Mechanical Fuels Thinnings	0 acres	100 acres
Restore Native Ecosystems	Silvicultural Treatments	1,000 acres	1,800 acres
	Commercial Timber Harvest	300 acres	500 acres
	Woodlands Initiated	50 acres	150 acres
NNIS, Insects, and Pathogens	Pest/Pathogen treatment (EAB, HWA)	100 acres	200 acres
	NNIS Control	500 acres	1,000 acres
Clean and Abundant Water	Streamside Vegetation Restoration	2 miles	6 miles
	Artificial Fish Barriers Removed and AOPs	1	3
	Trail and Road miles maintained to standard	400 miles	660 miles

Wildfire Risk Reduction

The risk of uncharacteristic wildfire will be reduced across the PRI landscape by prescribed burning, mechanically reducing fuel, thinning trees and engaging communities. While prescribed burning has proven the most effective in reducing fuels at scale, mechanical fuel reduction can be instrumental in complex areas due to high fuel loading near structures. As planned in this proposal, where fuel reduction, burning and community engagement all work in tandem, we expect the greatest, longstanding effects. For planning future treatments, an analysis has been completed cross-referencing areas with the highest WUI fire risk and the highest ecological priority for prescribed burning. Those areas will target shared goals, as described in the All Lands Strategy and NC Shared Stewardship Agreement. Proposed



Figure 6 Wildfire in Wildland Urban Interface (WUI)

restoration focused prescribed burn treatments that don't fall into the previous two categories.

Climate predictions point to extended duration of rain events and to extended droughts. The Fall of 2016 gave us extremely dry conditions leading to record-setting wildfire activity across the Southern Appalachians⁵ (Figure 6). September 2019 set up the same way but rains spared the Southern Appalachians in late October. Conversely, in May 2018 the remnants of Tropical Storm Alberto dropped over 17 inches of rain on McDowell County triggering flash flooding and landslides (Figure 7). Fewer, more intense storms will provide an over-abundance of moisture, and drying times will last longer. Fire season lasts longer and the potential of wildfire occurrence exists in any month of the year. A diverse set of treatments spread across elevations, aspects, and forest types will allow implementation of treatments within this



Figure 7 Flash-flooding from Tropical Storm Alberto

⁵ "Fall '16 Fire Season Briefing – Pisgah National Forest, NC, Extremely Dry Conditions Called for New Approaches and Old Strategies"

weather pattern. The larger geographical extent of this project area will provide varied weather and fuel conditions for implementation of a diversity of fuel reduction projects within these variable burning windows.

Utilization of wildfire for resource benefit will be considered, as appropriate, for natural unplanned ignitions. Wildland fire will be used to protect, maintain, and enhance resources and, as nearly as possible, be allowed to function in its natural ecological role. Values at risk, fuel and weather conditions, planning level, smoke management, and resource availability are just a few factors to consider when making the decision to manage a fire for resource benefit. Having large scale prescribed burn areas checkered across the landscape has demonstrated on the Grandfather District to allow for more opportunity to manage fires for multiple objectives and to take less aggressive suppression tactics. This approach has proven less expensive with a reliance on natural or existing fire lines utilizing fewer firefighting resources and resulting in less fire line repair. It also reduces exposure for fire fighters with less direct engagement of the fire, less fire line construction and staffing.

Added agency and partner capacity will be needed to successfully plan and implement additional prescribed fire. The PRI would continue utilizing partners for implementation of all burns, including The Nature Conservancy Southern Blue Ridge Fire Crew and state partners under the Shared Stewardship agreement. Funding would be available for additional detailed prescribed fire crewmembers as needed. Added capacity not only comes in the form of added personnel but in the experience and development of existing personnel. The training opportunities provided through the existing Grandfather Restoration Project has led to increased pace and scale of projects as well as increased efficiency in completing projects.

Our strategy also includes an educational and community outreach component. Carolina Land and Lakes Resource Conservation and Development Council (RC&D) has been essential in organizing Learn and Burn workshops to educate the public on the needs for controlled burning. This work is



NEW INSIGHTS, NEW PARTNERS

Reducing Risk from the Front Door to the Forest



Submitted by the Community Mitigation Assistance Team
(9/8/2017)



pivotal to the Cohesive Strategy and ties directly to state objectives of engaging private landowners in forest management and the development of Community Wildfire Protection Plans. The Forest Service's Community Mitigation Assistance Team (CMAT) embedded with partners in McDowell County to educate on best mitigation practices and share best practices towards developing fire adapted communities. That ongoing work will ensure success of a larger landscape restoration project.

Benefits to Local Communities:

Socio-economic benefits are a product of the PRI's focus on restoring and maintaining healthy forests and watersheds. The desired socio-economic conditions reflect a landscape that contributes to economic vitality of the region by providing benefits, celebrating local cultures, contributing to a greater quality of life, and connecting people to the land. The desire is that industries can rely on Forest Service timber for high-quality commercially valuable products and to provide a broader suite of forest materials over time. A ten year commitment to higher Forest Service production is key to industry making long term investments. Federal and State agencies will partner with local communities to take shared ownership in mitigating wildfire risk, complimenting risk-reducing fuel treatments on adjacent public lands. Students from the three local Job Corps Centers could be utilized for fuel reduction treatments and would benefit from added job training in wildfire risk reduction to make inroads for future careers in a land management agency.

Abundant clean water is maintained to meet the current and future needs of local communities and downstream users. Recreation activities across the landscape contribute to the sustainability of the social and economic values of local communities. Across the project area, current timber management on Forest Service Lands supports about 70 jobs. Implementation of the Forest Plan is expected to see timber management related jobs increase to around 150 as a result of more active forest management. Our Draft Forest Plan identifies additional objectives noting that greater work can be accomplished through collaboration and coordination. Adding CFLRP support to this greater accomplishment, we would expect to support upwards of 360 logging and wood manufacturing jobs. Currently more than 2,000 recreation-based jobs are supported by the National Forests in the area.⁶ Similarly, watershed focused accomplishment, such as aquatic organism passages and road and trail improvements, will increase reaches for native aquatic species and provide access for forest recreationists, supporting the tourism jobs in the region.

The landscape strategy is implemented with an all lands approach, which considers the Forest in context with the surrounding landscape because we know that problems do not stop at Forest boundaries. Healthy forests ensure the economic stability of communities that depend on our natural areas for forest products. Beyond the traditional woody byproducts associated with restoration, communities within and adjacent to the landscape area increasingly depend on tourism to natural landscapes. Improving the sustainability of our recreation system will support resilient communities, generate economic growth, improve quality of life, forge partnerships and alliances, and promote citizen stewardship. For example, a volunteer effort is underway at Wilson Creek to involve citizen scientists in assessing sedimentation into waterways. This assessment covers both in-stream sedimentation and inputs from roads and trails to inform priorities for future restoration work. The repair, restoration and enhancement of our heavily impacted trail system creates a more sustainable recreation infrastructure that in turn is a large driver of economic growth in this area. Restoration of wildlife habitat and

⁶ Nantahala and Pisgah National Forests Land Management Plan Draft Environmental Impact Statement

watersheds will create better hunting and fishing experiences, both for the local communities and the many visitors who seek out these opportunities.

Direct economic benefits from the project will be seen in jobs created as additional positions are staffed and project work is contracted out or accomplished through partner organizations under agreement. Indirect benefits will include jobs created in local industry such as wood products and tourism as well as in agency and community costs avoided from wildfire suppression and property loss. The increased use of prescribed fire and silviculture treatments will promote a higher quality of life and community stability through reduction of wildfire risk in the wildland-urban interface. Placement of treatments will be heavily influenced by needs identified in CWPPs and the NC Shared Stewardship Agreement.

Priority Outcome	Socio-economic Strategy
Wildfire Risk Reduction	Cultivate community ownership of fire risk reduction by fortifying the home ignition zone and implementing Community Wildfire Protection Plans (CWPPs).
	Engage communities through education by promoting “learning to live with fire” to understand living with risks and working to mitigate risks.
Restore Native Ecosystems	Sustain the supply of forest products to local economies, promoting the utilization of small-diameter wood products to niche markets.
	Further increase efficiencies through strengthened cross-boundary collaboration and Shared Stewardship.
NNIS, Insects, and Pathogens	Protect the economic value of our forests by reducing damage from non-native species.
Clean and Abundant Water	Increase resiliency to drought and flood events to maintain water quality and quantity to local communities and industries.
	Maintain an ecologically, socially, and economically sustainable system of roads and trails.

Utilization of Forest Restoration Byproducts:

Forest restoration byproducts will be utilized primarily by existing forest products processing facilities in the local area. Local markets exist for all of the 30-40 species of trees commonly harvested as part of restoration projects across the Pisgah and Cherokee National Forests. All of the local mills have the capacity to accept additional forest products and restoration activities included in this project would provide important support for them.

Several dimensional lumber mills are within feasible hauling distance from the project area and these mills create a market for sawlogs of both hardwood and conifer species, both high value and low value species, and all grades of logs. Lumber produced from these mills supports a wide variety of additional manufacturers such as pallet mills, whiskey barrel producers, furniture manufacturers and many others. Nearly all waste products from dimensional lumber

mills, such as bark and sawdust, are also utilized such as biomass for heating drying kilns and bark mulch for landscaping.

The local Columbia Carolina mill creates a market for hardwood peeler logs for plywood manufacturing. Species include yellow poplar, cucumber, basswood and ash. Plywood produced at this mill also supports numerous other manufacturers in the area.

Two chip mills exist near the project area that create a market for all species and accept material as small as a four inches in diameter. Wood chips produced at these facilities support a local paper mill and other manufacturers outside the area.

Restoration treatments will increase opportunities to provide local rural communities with other forest products such as locust posts and rails for farm and ranch fencing, small diameter logs for mushroom farming and firewood for home heating.

The Southern Appalachians have a high concentration of artisans and artists that have need for forest products such as small diameter wood typically using rhododendron and mountain laurel for a wide variety of products like hand-made rustic furniture, gates, fencing and artwork. Restoration activities and funding would increase our capacity to provide this community with desired forest products while accomplishing desired restoration.

Potential future markets for forest products could include biomass, biochar and wood pellets manufacturing facilities. Restoration activities as part of this project would position the Forest Service to provide a sustainable and consistent supply of these products to these facilities should they emerge over the next ten years. Local RC&Ds involved in the collaborative are active in supporting the development of emerging wood product markets in the region, such as pellet mills used in heating brooder houses for the poultry industry. There are ongoing US Department of Agriculture efforts to support secondary wood manufacturing and export markets in NC that will also strengthen primary markets.

Collaboration:

Members of the PRI Collaborative group are not new to collaboration. Over the past 10 years, collaboration, coordination, and working across boundaries and jurisdictions has increased in this landscape. Several collaborative groups have formed and evolved, new partners have been engaged to bring new perspectives and skills to the table, and relationships have been strengthened. The PRI Collaborative is born out of this legacy of working together.

Prior to the years of formal collaboration with Forest Plan Revision and the Grandfather Restoration Project, the Pisgah National Forest has had a long-standing relationship with the NC Forest Service, NC Wildlife Resources Commission, and many Non-government Organization (NGO) partners. Shared Stewardship through cooperative burning and wildland firefighting across agency boundaries has long existed in this landscape. A legacy of working together

continues because it makes sense. The newly signed NC Shared Stewardship Agreement serves to strengthen these relationships. Focusing on shared objectives and an all lands approach within the PRI landscape reflects a move towards public land managers and private landowners working together on shared stewardship goals.

Some of the longest-standing partnerships were formed in the Southern Blue Ridge Fire Learning Network, bringing together managers and scientists from federal agencies, state agencies, and NGOs to overcome obstacles related to fire. Work that started as describing desired future conditions morphed into the development of a prescribed burn prioritization model which provided the momentum that developed into the Grandfather Restoration Project. The Grandfather Restoration Project collaborative came together around the planning, implementation and monitoring of the Restoration Burns Environmental Assessment (EA) as a flagship accomplishment. Collective engagement within projects has become standard practice. For example, collaboration has helped with internal capacity constraints to implement prescribed burns, with The Nature Conservancy providing a “call-when-needed” burn crew. Collaborative project-based planning such as the Emerald Ash Borer treatment, Crawley Branch, and the Armstrong projects are on their way to becoming the norm for environmental decision making across the Pisgah National Forest. As an example of bringing a new partner into the fold, the Appalachian Trail Conservancy has completed 232 acres of open area/grassy balds and golden winged warbler management on the National Forest. The partners involved in this proposal have been engaged in the plan revision process, and continued collaboration around implementation of PRI projects would bring the plan’s vision to fruition.

Acknowledging as a group what has worked for the Grandfather Restoration Project in the eight years of formal collaboration leading up to the PRI, and maybe more importantly what hasn’t worked, is a key part of the success of the current group. A strong culture of collaboration can continue to be developed on the Pisgah and Cherokee National Forests. As a conservation community, we have learned how to listen and appreciate sometimes conflicting interests and values. Advocacy for issues is encouraged to ensure all voices are heard. We have learned to strive for consensus, knowing it doesn’t always happen. We’ve learned to work together to support sound, science-based conservation work that delivers results to the communities, constituents and interests we all serve.

The varied nature of the landscape requires an equally varied partnership, and the PRI is well served by the diversity of its partner organizations. Partners represent a diverse cross-section of public lands interests, including recreation, forest products, cultural heritage, conservation, wildlife, hunting, and angling (Figure 8). These partners were involved in the inception of the PRI concept, which came out of scenario planning exercises during Grandfather Restoration Project meetings. From



Figure 8 Partners discussing treatments on the landscape

that point, we have been involved in an inclusive and transparent process every step of the way, including day-long workshops to draft the PRI proposal as a collaborative. The collaborative group has a proven history of commitment to restoration, not just in defining projects and planning, but in on-the-ground implementation and monitoring.

Multi-party Monitoring:

Monitoring project progress toward desired conditions is critical in assessing the successes of the PRI strategy. Understanding which treatments are successful, and which need improvements, will ensure an adaptive management approach. This adaptive management strategy is already in place for many of the priorities for this project, informed by best available science and existing relationships with the Southern Research Station (Coweeta Hydrologic Laboratory and Bent Creek Experimental Forest), the Fire Learning Network, NGO and university partners.

The PRI Collaborative will formalize a monitoring sub-committee made up of key partners willing to implement a multi-party monitoring strategy, with the goal of working together to better inform land management. Many partners involved in the project are already engaged in collaborative monitoring through the Grandfather Restoration Project, and the PRI strategy looks to build upon those established protocols to understand treatment effects at a larger scale and across a more diverse landscape. A collaborative process has already identified key monitoring questions and indicators, which will be refined as part of a formal PRI monitoring strategy. Working with the Forest Service resource specialists, partners will take the lead in data collection and analysis. The PRI collaborative brings a strong set of partners with long-standing agreements for monitoring across the landscape.

Priority Outcome	Monitoring Question	Indicator	Key Partners
Wildfire Risk Reduction	How many times must a site burn on short intervals to trigger a long-term change in risk?	Acres of change in fuel models	Fire Learning Network NC Forest Service
	How effective are fuel treatments?	Number of wildfires that spread beyond treatment areas	
		Percent acres in desired condition classes relative to fire regime increasing	

Restore Native Ecosystems	How do we restore under-represented tree species as a dominant component? (shortleaf pine, oaks, spruce, etc.)	Successful target species survival	Southern Research Station Western Carolina University NC Wildlife Resources Commission
	How does repeat prescribed burning change forest structure and composition of understory vegetation?	Increase in understory diversity	
	How are restoration activities changing wildlife patterns?	Wildlife occupancy values increasing	
	How are Threatened & Endangered (T&E) species affected by treatments?	T&E populations increasing	
NNIS, Insects, and Pathogens	How successful are NNIS treatments?	Decreasing % cover of invasive species Increasing % cover of native species Number of trees or sites maintained	Mountain True Wild South EcoForesters
Clean and Abundant Water	How are restoration treatments improving water quality?	Decrease in sedimentation Increase in connectivity	Trout Unlimited Fish and Wildlife Conservation Council

Readiness to Implement Strategy

With the Forest having just completed a Draft Environmental Impact Statement for the revised Nantahala/Pisgah Forest Plan, all large-landscape analyses are current and ready for implementation, having benefited from a multi-year effort of public input and stakeholder collaboration. The PRI is designed to implement the revised Forest Plan and take advantage of the collaborative vision and commitment outlined in North Carolina’s new Shared Stewardship Agreement and All Lands Strategy. For example, the NC Wildlife Resources Commission led a volunteer effort as a part of the Southern Appalachian Spruce Restoration Initiative to plant spruce trees off of the Flat Laurel Trail on the Pisgah Ranger District. They



Figure 9 Volunteers plant spruce trees to restore habitat

planted spruce trees on about 2 acres in total to restore habitat for Carolina northern flying squirrel (Figure 9).

Much of the NEPA-ready work has taken advantage of recent efficiencies such as insect and disease CEs and watershed restoration CEs. As we collaboratively plan future projects there will be a continued emphasis on planning efficiencies and on planning at scale. The Collaborative is committed to further its use of new technologies such as DataBasin and high resolution LiDAR to improve collaboration and find efficiencies in project planning and development.

Standing agreements and memoranda of understanding position the Forests to quickly and efficiently partner with state agencies and NGOs. A NC state-wide Good Neighbor Master Agreement hastens work with all of our state partners involved in conservation. Both Forests have experience in Stewardship Contracting and Stewardship Agreements as well as dedication to increase the use of these tools.

Priority Outcome	Treatment	NEPA Ready*	Pending NEPA
Wildfire Risk Reduction	Prescribed Fire and Managed Wildfire	72,000 acres	21,900 acres
	Mechanical Fuels Thinning	0 acres	250 acres
Restore Native Ecosystems	Silvicultural Treatments	2,814 acres	15,000 acres
	Commercial Timber Harvest	1,683 acres	3,500 acres
	Woodlands Initiated	498 acres	1,000 acres
NNIS, Insects, and Pathogens	Pest/Pathogen treatment (EAB, HWA)	~3,500 acres	0 acres
	NNIS Control	483,000 acres	0 acres
Clean and Abundant Water	Streamside Vegetation Restoration	2 miles	58 miles
	Stream Crossings, Fish Barriers and AOPs	15 each	75 each
	Trail and Road miles maintained to standard	n/a**	n/a

*includes Twelve Mile Project, pending DN February 2020

**majority of road and trail maintenance accomplishment will not require NEPA

Unit Capacity and Project Funding:

The Pisgah and the Cherokee Forests have zoned organizations, sharing staff across multiple Districts on individual forests. Having a CFLRP project on these Forests will aid in unifying each

zone's annual program of work. During the Grandfather Restoration Project all Pisgah personnel supported completion of projects on the Grandfather District, sometimes to the detriment of other districts. Knowing this competition can negatively affect workforce morale, a Pisgah-wide project makes sense. Over time we hope to develop employees with training opportunities to instill this culture of shared stewardship. We aim to capitalize on our relationships with the three Job Corps Centers nearby, one of which is inside the project boundary to provide staffing where needed and appropriate. The inclusion of the Cherokee National Forest will broaden this approach beyond North Carolina. Gaps in personnel with specific knowledge, skills and abilities could be filled by sharing personnel across boundaries.

Simple efficiencies and closely working with partners will provide our greatest capacities. The first implementation of the Singecat burn took two full days to complete with upwards of 50 people and 12 hours of helicopter flight time. The second implementation we were able to reduce personnel to 40 and cut the flight time in half without losing effectiveness. We expect to see this same pattern on other districts. Controlled burning in the mountains can be counter-intuitive. Often, larger units can be completed with fewer people. As experience and confidence grow to include the partners, costs will go down. The "call-when-needed" Nature Conservancy burn crew is a great example of a resource that has added capacity and capability by providing assistance with control line preparation, burn implementation and project planning outside of burn windows.

We intend to employ funds and authorities such as retaining stewardship receipts, timber sale area improvement or watershed restoration funds, Good Neighbor Agreements, timber pipeline funding, and matching partner contributions. Managers will analyze the suitability of different options and utilize the full suite of contracting tools available. Partners are standing by, with existing agreements, ready to help increase capacity for project implementation.

As demonstrated over the past eight years of implementing the Grandfather Restoration Project, we have been able to match special project funds with at least a one-to-one of allocated funds. Partner matches have varied from one-to-one up to one-to-two. Leveraging funds and standing up partners efforts is key to this success. We would expect to continue that same level of involvement, turning one special project dollar into three to four dollars.⁷

We have also learned from past practices, that there will be a direct need to staff additional positions as quickly as possible as additional targets and funds arrive. We have seen that a dedicated coordinator has been critical to orchestrating collaborative implementation as well as tracking accomplishment and partner match. Additionally, we expect the need for a GS-9 forester position to aid in preparing prescriptions, layout and coordinating cross boundary work such as fuels reduction. There is also a need to recruit six seasonal, interdisciplinary positions to aid in implementation. These positions don't necessarily need to be Forest Service employees, but could be hosted by a partner to meet common needs across these shared goals. Specifically, within the burning program there is also the opportunity to bring in developmental

⁷ Grandfather Restoration CFLRP Project Annual Reports

leadership positions. This could be preparing burn plans, developing higher qualified burn bosses and firing bosses, broadening experience for out-of-region resources, or utilizing new technologies such as drone ignition.

At the end of the project the exit strategy will be much the same as the implementation strategy whether it be in 2025 or 2029. We will work together to find a way to accomplish the priority work that is needed. Treatments do not remain in a static condition on the landscape. A big part of restoration work is the maintenance cycle needed to keep landscapes in the desired condition once achieved. We recognize that deliberate effort on succession planning will ensure lessons learned will not be lost when the project is over or if there is personnel turnover. Investment in efficiencies, experience and confidence across a diverse set of partners will build resilience in the workforce. The learning culture that has been developed and shared will lead to further innovation from the varied perspectives in the Collaborative.

References

Larson, Nicholas; Cross Clint; Menakis Jim “Bald Knob Wildfire – Pisgah National Forest, NC Collaboration is Key” https://treesource.org/wp-content/uploads/2017/08/Bald-Knob-Wildfire-Brief-2015_0831-Final.pdf
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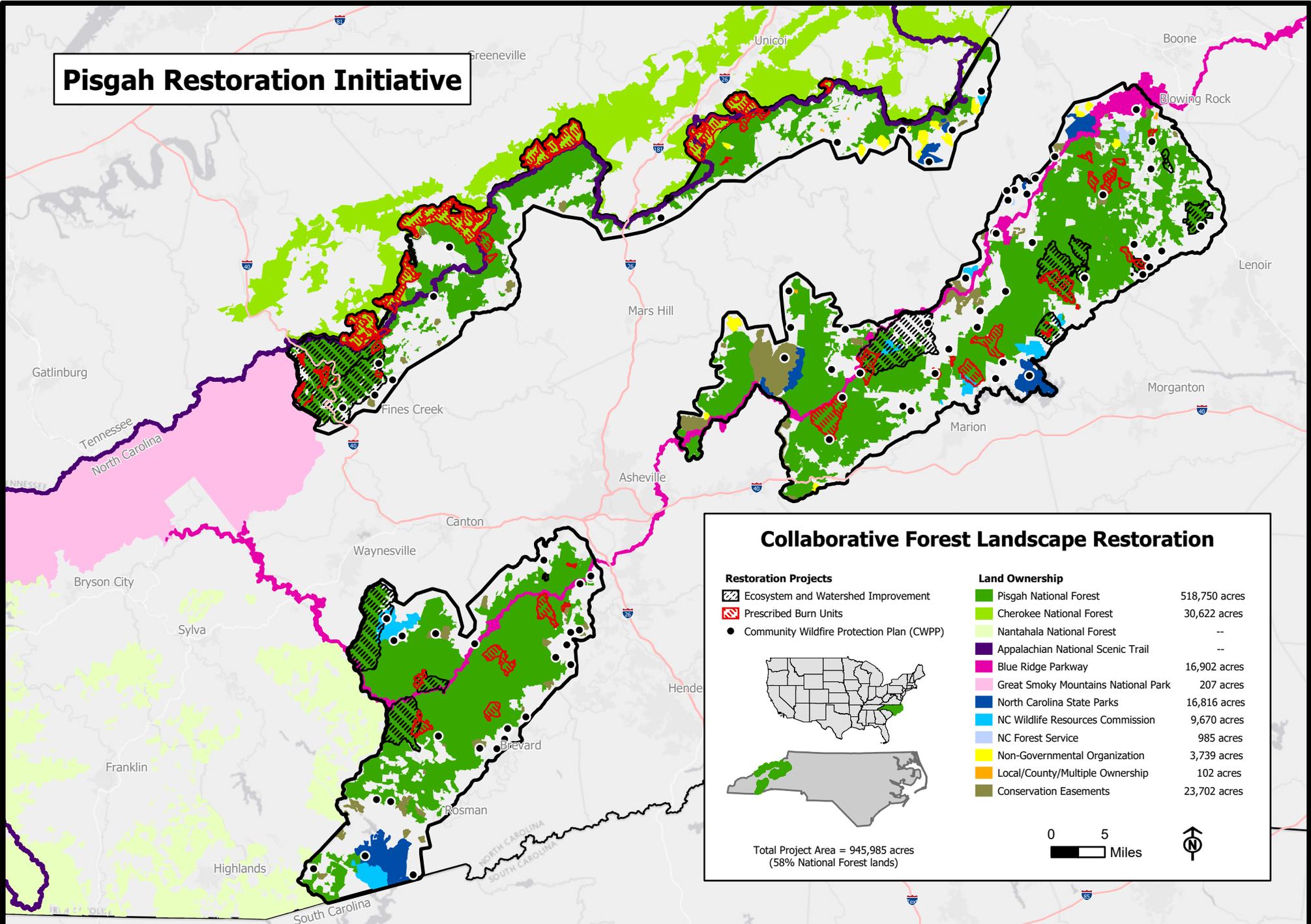
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<https://grandfatherrestorationproject.files.wordpress.com/2019/12/fall2016wildfireseasonbriefgrandfatherrd.pdf>

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Pisgah Restoration Initiative



Collaborative Forest Landscape Restoration

Restoration Projects

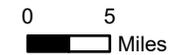
- Ecosystem and Watershed Improvement
- Prescribed Burn Units
- Community Wildfire Protection Plan (CWPP)

Land Ownership

	Pisgah National Forest	518,750 acres
	Cherokee National Forest	30,622 acres
	Nantahala National Forest	--
	Appalachian National Scenic Trail	--
	Blue Ridge Parkway	16,902 acres
	Great Smoky Mountains National Park	207 acres
	North Carolina State Parks	16,816 acres
	NC Wildlife Resources Commission	9,670 acres
	NC Forest Service	985 acres
	Non-Governmental Organization	3,739 acres
	Local/County/Multiple Ownership	102 acres
	Conservation Easements	23,702 acres



Total Project Area = 945,985 acres
(58% National Forest lands)



Pisgah Restoration Initiative										
Attachment B: Planned Treatments										
Core Restoration Treatment Types	Please briefly fill in additional background information for the prompts below	Year 1*	Year 2	Year 3	Year 4	Years 5-10	TOTAL	Key treatment objectives	Estimated % accomplished on NFS lands (across all ten years)	Other landownership types (other federal, tribal, state, private, etc.) where treatments will occur
Hazardous Fuels Reduction (acres)		3,000	8,051	12,006	14,051	15,373-18,073	129,346	Wildfire risk reduction	85%-95%	
Mechanical Thinning (acres)	Private lands estimates from NCFS	100	51	6	51	73	646	Increase defensible space	40%	Other fed, state, private
Prescribed Fire (acres)	Year 1 - Grandfather Restoration Project (GRP) is ongoing with 6,000 acre target and overlapping footprint. If we don't get word until April 2020, 90% of burn season is over. This reduced acreage will be on other Districts. Year 2 - Full season, GRP still ongoing. Showing growth on other Pisgah Districts and Cherokee NF	2,900	8,000	12,000	14,000	15300-18000	128,700	Hazardous fuel reduction in WUI Restore native ecosystems	85%-95%	NC State Forest, NC Wildlife Resources Commission, Private Lands, NPS, NC State Parks
Other (acres)										
Wildfire Risk Mitigation Outcomes - Acres treated to mitigate wildfire risk	same as prescribed fire (add mechanical)	2,900	8,000	12,000	14,000	15300-18000	128,700			
Wildfire Risk Mitigation Outcomes - WUI acres	same as prescribed fire	2,900	8,000	12,000	14,000	15300-18000	128,700			
Invasive Species Management (acres)		1,200	1,200	1,200	1,200	1,200	12000	Restore native ecosystems	90%	NC State Forest, NC Wildlife Resources Commission, Private Lands, NPS, NC State Parks
Native Pest Management (acres)										
Road Decommissioning (miles)		2	2	2	2	2	20	Reduce sedimentation	100%	
Road Maintenance and Improvement (miles)		100	100	100	100	100	1000	Reduce sedimentation	100%	
Road Reconstruction (miles)		10	10	10	10	10	100	Reduce sedimentation	100%	
Trail Reconstruction (miles)	"tracking trails maintained to Standard"	550	550	550	550	550	5500	Reduce sedimentation	95%	Other fed, state, private
Wildlife Habitat Restoration (acres)	"RxBurn + Stand Improvement + timber harvest + wildlife fields"	5,249	10,323	14,442	16,790	17,268	150412	Habitat improvement	85%-95%	Other fed, state, private
Crossing Improvements (number)		3	3	3	3	3	30	Aquatic Organism Passages and removing barriers	95%	
In-Stream Fisheries Improvement (miles)		6	6	6	6	6	60	Increase connectivity	95%	Other fed, state, private
Lake Habitat Improvement (acres)										
Riparian Area Improvements (acres)	6 miles x 30 ft / 43,560	2.5	2.5	2.5	2.5	2.5	25	Reduce sedimentation	95%	Other fed, state, private
Soil and Watershed resources enhanced or maintained (acres)										
Priority watersheds moved to improved condition class (number)										
Stand Improvement (acres)		1,500	1,500	1,542	1,815	1,932	17949	Seedling Release, Stand Improvement	95%	
Reforestation and revegetation (acres)		0	42	176	188	260	1966	Restoration, fuels, wildlife habitat	95%	

Timber Harvest (acres)**	70% ground based, 30% cable and 0% helicopter	399	373	450	525	562	5,119	Restoration, fuels, wildlife habitat	96%	Other fed, state, private
Rangeland Vegetation Improvement (acres)										
Abandoned Mine Reclamation/Remediation										
Other										
Other										

*Assume funding requested for Year 1 will be allocated in February 2020 at the earliest

**Note that timber volume produced from the treatment is estimated in a separate attachment - Attachment C.

CFRLP Proposal Attachment C: Utilization of Forest Restoration Byproducts

*Acres treated includes all acres treated within the CFLRP boundary. However, the projected annual harvested volume is only for NFS lands.

Fiscal Year	Estimate of acres treated annually that will generate restoration byproducts	Total projected annual harvested volume (ccf) from NFS lands	Expected percentage commercially utilized* from NFS lands
2020	354	5300	100
2021	373	5595	100
2022	450	6750	100
2023	450	6750	100
2024	500	7500	100
2025	500	7500	100
2026	550	8250	100
2027	550	8250	100
2028	600	9000	100
2029	600	9000	100
TOTALS:	4927	73895	1000

Estimated % of TOTAL acres accomplished on NFS lands: 96%

Estimated % of TOTAL acres accomplished on other landownerships within the CFLRP boundary: 4%

*Commercially utilized refers to the volume you expect to sell across all product classes (sawtimber, biomass, firewood, etc.)

Pisgah Restoration Initiative

Attachment D: Collaborative Membership

Forest Service staff representative(s) working with collaborative: (Please provide list of key staff):

Nicholas Larson, David Casey, Richard Thornburg, Lisa Jennings, Greg Philipp, Matt Keyes, Rachel Dickson, Sue Fruchey, Lorie Stroup

Collaborative Member/Partner Name	Organizational Affiliation (if applicable)	Was this person involved in proposal development?	Primary Issue Category	Second Issue Category	Third Issue Category	If "other," briefly describe
<i>Example</i>	<i>ABC Club</i>	<i>Yes</i>	<i>Environmental</i>	<i>Forest Products</i>	<i>Other</i>	<i>Drinking Water</i>
Michael Cheek	NC Forest Service	Yes	State	Fire Management	Forest Products	
Kip Hollifield, Jonathan McCall, Ryan Jacobs	NC Wildlife Resources Commission	Yes	State	Wildlife	Watershed	
Josh Kelly, Bob Gale	MountainTrue	Yes	Environmental	Fire Ecology	Other	Non-native invasives
Kevin Massey	WildSouth	Yes	Environmental	ation (non-moto	Wilderness	
Matt Drury	Appalachian Trail Conservancy	Yes	Environmental	ation (non-moto	Other	
Chris Coxen	National Wild Turkey Federation	Yes	Environmental	Wildlife	Other	Habitat
Melissa Patton	Carolina Land and Lakes RC&D	Yes	Community Developme	Tourism	Fire Management	
Jessica Hocz	Mountain Valleys RC&D	Yes	Community Developme	Tourism	Fire Management	
Jonathan Hartsell	Blue Ridge RC&D	Yes	Community Developme	Tourism	Fire Management	
David Whitmire	Fish and Wildlife Conservation Council	Yes	Environmental	Wildlife	Other	Fishing
Tyler Ross	Backcountry Hunters and Anglers	Yes	Environmental	Wildlife	Other	Fishing
Andy Brown	Trout Unlimited	Yes	Environmental	Watershed	Other	Fishing
Marquette Crockett	Southern Appalachian Highlands Conservancy	Yes	Environmental			
Megan Sutton, Adam Warwick	The Nature Conservancy	Yes	Environmental	Fire Ecology	Fire Management	Watershed
Hugh Irwin	The Wilderness Society	Yes	Environmental	Wilderness	Watershed	
Ryan Sparks	Foothills Conservancy of NC	Yes	Environmental			
Lang Hornthal	EcoForesters	Yes	Environmental	Forest Products	Community Development	

Pete Bates	WCU Forest Stewards	Yes	College/University	Research	Fire Ecology	
Natalie Britt	The Cradle of Forestry Interpretive Assoc.	Yes	Environmental	ation (non-moto	Other	Education
Sharon Bischof	NC State Parks	Yes	State	Fire Ecology	Recreation (non-motorized)	
John Cottingham	The Pisgah Conservancy	Yes	Environmental	ation (non-moto	Tourism	
Shane Paxton, Dawn Leonard, Alexa Viets, Chris Corrigan, Chris Ulrey	National Park Service	No	Federal	Fire Ecology	Fire Management	
Jason McDougald	G5 Trail Collective	No	Environmental	ation (non-moto	Tourism	

Pisgah Restoration Initiative

The undersigned participants pledge their support to ecological restoration of Pisgah and Cherokee National Forests and surrounding conservation lands. The participants have been committed, collaboratively, to the development and implementation of the following shared restoration goals:

- 1) Working across boundaries to reduce wildfire risk in the Wildland Urban Interface following the Cohesive Wildland Fire Management Strategy.
- 2) Restoring and maintaining fire-adapted and rare native ecosystems by promoting the natural range of variation in structure, function, composition and connectivity.
- 3) Protecting the ecological health of native ecosystems from non-native plants, insect pests and pathogens, focusing on rare and sensitive ecosystems.
- 4) Providing clean and abundant water to communities and industries across Western North Carolina and the Southeast by maintaining healthy, resilient forests and watersheds.

Decisions to take actions as a group will be made by consensus. If consensus cannot be achieved, decisions will be made by majority vote of the participants including any of which have joined as set forth below. Furthermore, participants are committed to using best available science and monitoring to inform recommendations, decision-making, and feedback regarding restoration activities. Participants are committed to making necessary adaptive management corrections, and striving for respectful and effective communication with each other. Participants are committed to continuing the culture of being empowered to share their ideas and being open to those of others.

With the approval of participants, which will not be unreasonably withheld, others may join in this effort if they share the goals and priorities of the Collaborative Forest Landscape Restoration Act. This Collaborative is committed to being inclusive of new partners. New participants will execute a copy of this Memorandum of Agreement (MOA) to indicate their agreement with its provisions.

Nothing in the MOA shall bind any participant to the expenditure of funds. Any awarding or contracting for the expenditure of funds shall be pursuant to appropriate separate written agreements.

Nothing in this MOA shall affect or interfere with the fulfillment of the obligations or exercise of authority by any participant, or the taking of actions by any participant to individually further the goals of the MOA.

This MOA will become effective upon execution of all participants and remain in effect for 5 years, with option to be renewed for an additional five years. Any participant may withdraw by written notice to the other participants forty-five (45) days prior to the withdrawal date.

Attachment E – Letter of Commitment from Collaborative Members/Partners

Effective this 20th day of November, 2019.



David M. Lane, State Forester
North Carolina Forest Service



Gordon Myers, Executive Director
N.C. Wildlife Resources Commission



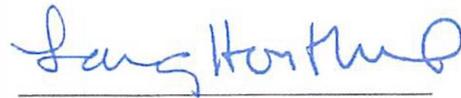
Megan N. Sutton, Southern Blue Ridge Program Director
The Nature Conservancy



Andrew Kota, Executive Director
Foothills Conservancy of NC



Bob Gale, Ecologist & Public Lands Director
MountainTrue



Lang Hornthal, Development Director
EcoForesters



Luke Weingarten, Chair, North Carolina Chapter
Backcountry Hunters & Anglers



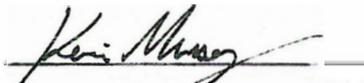
Andy Brown, Coldwater Conservation Manager
Trout Unlimited – Southern Appalachians



Matt Drury, Resource Management Coordinator
Appalachian Trail Conservancy



Chris Coxen, District Biologist
National Wild Turkey Federation



Kevin Massey, Executive Director
WildSouth



Melissa Patton, Executive Director
Carolina Land and Lakes RC&D



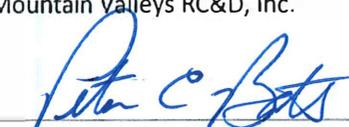
David Whitmire, Chair
Fish and Wildlife Conservation Council



Jessica Hocz, Executive Director
Mountain Valleys RC&D, Inc.

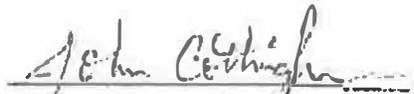


Jonathan Hartsell, Executive Director
Blue Ridge RC&D, Inc.

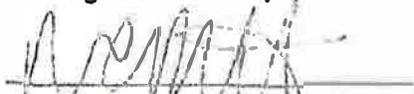


Peter Bates, President
Forest Stewards

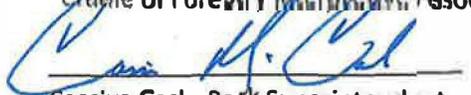
Attachment E – Letter of Commitment from Collaborative Members/Partners



John Cottingham, Executive Director
The Pisgah Conservancy



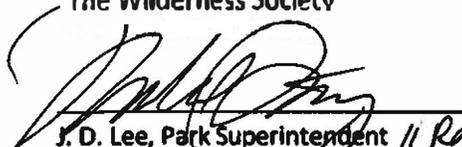
Natalie Britt, Executive Director
Cradle of Forestry Interpretive Association



Cassius Cash, Park Superintendent
NPS, Great Smoky Mountains



Hugh Irwin, Landscape Conservation Planner
The Wilderness Society



J. D. Lee, Park Superintendent // Rachel Stasny,
NPS, Blue Ridge Parkway Acting for



Robert L. Doudrick, Ph.D.
Station Director, Southern Research
Station

Pisgah Restoration Initiative
Attachment F: Funding Plan

Complete the table below and respond to the question at the bottom of the tab.
 For 2010 Project extensions, fill in the annual funding request for the number of years requested for the extension (up to 10)

Fiscal Year 1*	Funding Planned/Requested
Partner fund contributions on NFS lands	\$220,000
Partner in-kind contributions on NFS lands	\$480,000
Goods for Services or Revenue from GNA to be applied within CFLRP landscape	
USFS Appropriated, Perm, and Trust fund contributions on NFS lands	\$1,100,000
Total non-CFLRP funding for NFS lands	\$1,800,000
CFLRP Funding Request	\$1,100,000
Total CFLRP funding for NFS lands	\$1,100,000
Partner fund contributions on non-NFS lands	\$30,000
Partner in-kind contributions on non-NFS lands	\$200,000
USFS Appropriated, Perm, and Trust fund contributions on non-NFS lands	\$50,000
Total non-CFLRP funding for non-NFS lands	\$280,000

***Assume funding requested for Year 1 will be allocated in February 2020 at the earliest**

Fiscal Year 2	Funding Planned/Requested
Partner fund contributions on NFS lands	\$280,000
Partner in-kind contributions on NFS lands	\$520,000
Goods for Services or Revenue from GNA to be applied within CFLRP landscape	
USFS Appropriated, Perm, and Trust fund contributions on NFS lands	\$1,100,000
Total non-CFLRP funding for NFS lands	\$1,900,000
CFLRP Funding Request	\$1,100,000
Total CFLRP funding for NFS lands	\$1,100,000
Partner fund contributions on non-NFS lands	\$38,000
Partner in-kind contributions on non-NFS lands	\$225,000
USFS Appropriated, Perm, and Trust fund contributions on non-NFS lands	\$60,000
Total non-CFLRP funding for non-NFS lands	\$323,000

Fiscal Year 3	Funding Planned/Requested
Partner fund contributions on NFS lands	\$350,000
Partner in-kind contributions on NFS lands	\$750,000
Goods for Services or Revenue from GNA to be applied within CFLRP landscape	
USFS Appropriated, Perm, and Trust fund contributions on NFS lands	\$1,100,000
Total non-CFLRP funding for NFS lands	\$2,200,000
CFLRP Funding Request	\$1,100,000

Total CFLRP funding for NFS lands	\$1,100,000
Partner fund contributions on non-NFS lands	\$42,000
Partner in-kind contributions on non-NFS lands	\$240,000
USFS Appropriated, Perm, and Trust fund contributions on non-NFS lands	\$70,000
Total non-CFLRP funding for non-NFS lands	\$352,000

Fiscal Year 4	Funding Planned/Requested
Partner fund contributions on NFS lands	\$350,000
Partner in-kind contributions on NFS lands	\$750,000
Goods for Services or Revenue from GNA to be applied within CFLRP landscape	
USFS Appropriated, Perm, and Trust fund contributions on NFS lands	\$1,100,000
Total non-CFLRP funding for NFS lands	\$2,200,000
CFLRP Funding Request	\$1,100,000
Total CFLRP funding for NFS lands	\$1,100,000
Partner fund contributions on non-NFS lands	\$45,000
Partner in-kind contributions on non-NFS lands	\$250,000
USFS Appropriated, Perm, and Trust fund contributions on non-NFS lands	\$80,000
Total non-CFLRP funding for non-NFS lands	\$375,000

Fiscal Years 5-10	Funding Planned/Requested
Partner fund contributions on NFS lands	\$1,750,000
Partner in-kind contributions on NFS lands	\$4,850,000
Goods for Services or Revenue from GNA to be applied within CFLRP landscape	
USFS Appropriated, Perm, and Trust fund contributions on NFS lands	\$6,600,000
Total non-CFLRP funding for NFS lands	\$13,200,000
CFLRP Funding Request	\$6,600,000
Total CFLRP funding for NFS lands	\$6,600,000
Partner fund contributions on non-NFS lands	\$300,000
Partner in-kind contributions on non-NFS lands	\$1,500,000
USFS Appropriated, Perm, and Trust fund contributions on non-NFS lands	\$500,000
Total non-CFLRP funding for non-NFS lands	\$2,300,000

Please provide an **estimate of any funding needed for NEPA and environmental compliance** in support of the CFLRP Project. You may copy/paste the response to the Tier 1 template and/or elaborate with additional details as needed. *NOTE: CFLN can only be used for implementation and monitoring (not planning).*

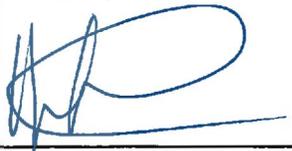
The NEPA work required to implement this project would include a combination of Environmental Assessments and Categorical Exclusions that are typical for the Pisgah and Cherokee National Forests. However, there will be an increased funding need associated with surveys across larger project areas, specifically for botany and cultural resources. This funding would be requested from the Regional Office to complete the increases NEPA surveys which would lead to increased accomplishments in priority areas. Survey capacity would be expanded through a combination of agreements with partners, seasonal staff and contracts. \$3,600,000 over the 10 year project life could provide the shelfstock to supplement what we are currently analyzing. A big part of the non-CFLR funded USFS appropriated match is planning. This additional funding is for the added capacity to increase pace and scale with the project.

ATTACHMENT G – Forest Leadership Letter of Commitment

On behalf of the National Forests in North Carolina and the Cherokee National Forest, we extend our support and commitment to the Pisgah Restoration Initiative (PRI) Collaborative Forest Landscape Restoration Program (CFLRP) proposal. The signatures below reflect the Forest Supervisors' awareness of the eligibility, implementation, and monitoring requirements for the CFLRP, as described in the application process. Prior CFLRP evaluations have highlighted the importance of leadership intent and support for strategy as well as a commitment to continued collaboration through project implementation and monitoring. The signatures below also reflect the units' support for and commitment to the PRI project as outlined in this proposal.

As the Nantahala/Pisgah Land Management plan moves from Draft to Final it will guide the priority work identified in this CFLRP proposal. The successes brought forward from the Grandfather Restoration Project are a catalyst for the CFLRP expansion into the rest of the Pisgah National Forest. We are dedicated to learning from the challenges presented with the Grandfather Restoration Project and other collaborative based projects across the Southern Appalachians. Our federal, state, local and non-government partners have dedicated many hours towards this shared vision. These partners are able, willing and proven collaborators in this project. The National Forests in North Carolina and the Cherokee National Forest are well poised to create new Shared Stewardship opportunities with projects like this PRI proposal, our All Lands Strategy, Nolichucky/Upper French Broad Joint Chiefs Restoration Project and an existing state-wide and multi-federal agency Shared Stewardship Agreement. The expansion of the project boundary into the Cherokee National Forest for specific projects builds the framework and structure to demonstrate that with close coordination we can accomplish more together than we can on our own.

This coordination and collaboration is a core value of the Forest Service. The structure provided by the CFLR program will allow us to better demonstrate and embody these values. We are committed to providing support and leadership to the Pisgah Restoration Initiative CFLRP proposal over the next ten years.



Allen Nicholas, Forest Supervisor
National Forest in North Carolina



D. JaSal Morris, Forest Supervisor
Cherokee National Forest