

Desired Conditions and Landscape Strategy Examples Taken from 2011 CFLRP Proposals

From Grandfather Restoration Project 2011 CFLRP Proposal, Pisgah National Forest, North Carolina

Full proposal available at:

<https://www.fs.fed.us/restoration/documents/cflrp/2011Proposals/Region8/NFNorthCarolina/GrandfatherCFLRP.doc>

Summary Landscape Strategy

The Landscape Strategy for the Grandfather Project is based on three years of collaboration by local stakeholders to develop restoration priorities for Nantahala-Pisgah National Forests. The priorities of the Nantahala-Pisgah Restoration Working Group are:

1. Restore fire adapted vegetation, benefit wildlife and T&E species, and reduce wildfire risks through increased fire management.
2. Improve wildlife habitat and forest composition through silviculture in degraded stands.
3. Address invasive pest problems by preserving the most important hemlock forests
4. Maintain viable native plant communities by treating the most sensitive areas for NNIPs.
5. Restore riparian vegetation, remove fish passage barriers, reduce sedimentation and reconnect streams to their flood plains to benefit water quality and aquatic ecology.

All of these priorities are addressed in the Proposed Treatments section. More information about ecological restoration priorities on Nantahala-Pisgah National Forest can be found [here](#).

In order to maximize the benefit of limited resources for prescribed fire, the Grandfather Ranger District in association with other collaborators through the Fire Learning Network, has completed an ecological prioritization model for the potential prescribed fire units on the District (see section 3.3: Fire Management). This model is being used in conjunction with estimates of logistical cost to maximize both the ecological and economic benefits of burn units. Focusing solely on ecological restoration, burn units with the highest amount of woodland-suitable pine and oak forests and the most important fire dependent rare species score the highest. These values are then overlapped with logistical considerations such as WUI protection and the feasibility of fire control to choose the acres most in need of treatment. Currently, the district has the budget and capacity to accomplish 2,000 acres of prescribed fire annually. The goal of the Grandfather Collaborative is to more than triple that figure with CFLR funding to over 6,500 acres annually, largely through hiring contractors and Schenk Job Corp members.

NNIP treatments are being concentrated in two of the areas of greatest ecological and social value on the Grandfather Ranger District: Linville Gorge Wilderness and Wilson Creek Wild and Scenic River. There are sufficient allocations of funds from ARRA, FS allocations, and partner matches to have a huge positive impact with these treatments. Control of NNIPs will be an ongoing activity throughout Pisgah National Forest. However, there is reason to believe that acting decisively in these critical locations will have the greatest positive impact and reduce the costs of future treatments.

Treatments Overview

Over a 10-year period the Grandfather Collaborative will improve the condition of 36,795 acres of pine and oak forests through prescribed fire, including mechanical thinning and re-introduction of shortleaf pine where opportunities exist. Fire will also be used to benefit Threatened and Endangered species and lower wildfire severity and fire suppression costs on those acres. In the same period, the collaborative group will improve species composition and structure on 1850 acres of upland forests through timber stand improvements, biomass thinning, and timbersales removing white pine, red maple, yellow poplar, and other mesophytic species from oak-hickory and yellow pine Ecological Zones. These silvicultural activities in combination with prescribed fire will greatly benefit many declining disturbance-dependent wildlife species as well as promote adequate advanced regeneration of oak in these treatment areas. To promote and maintain native species, 2740 acres will be treated for non-native invasive plants (NNIPs) at and surrounding Linville Gorge Wilderness, Wilson Creek Wild and Scenic River, and other locations on public land. These treatments will complement treatments on State and private lands along Wilson Creek. This will also include treatment of 540 acres of eastern and Carolina hemlock for hemlock woolly adelgid within the first two years of the project and to be maintained indefinitely. Actions to restore streams, watersheds, and hydrologic function include bank stabilizations, species reintroduction, removing artificial fish barriers, non-native invasive plant removal, and enhancement of streamside vegetation on a total of 16 miles of streams in the Project Area.

Table 2: Treatment Activities 2011-2020

Note: for 2019 CFLRP proposals, the treatment schedule should be submitted using Appendix B, but the information is similar. Per Appendix B, you should estimate % of treatments on NFS vs. non-NFS lands, but you don't need to split by CFLRP vs. non-CFLRP funding.

| Treatment | Units Treated without CFLRP Funding | Units Treated with CFLRP Funding |
|---|---|--|
| Prescribed Fire | 2,000 acres/year 14,000 acres 2011-2020* | 6,507 acres/year 36,795 acres 2011-2020* |
| Hemlock Soil Injection | 100 acres/year 2011-2012 240 acres 2011-2020 | 250 acre/year 2011-2012 540 acres 2011-2020 |
| NNIP Control | 809 acres | 2740 acres |
| Streamside Vegetation Restoration/Enhancement | 11 miles** | 16 miles** |
| Artificial Fish Barriers Removed | 3 | 3 |
| Silvicultural Restoration | 450 acres 2011-2020 | 450 acres 2011-2020 |
| Timber Stand Improvement | 800 acres 2011-2020 | 1200 acres 2011-2020 |
| Fuels Thinnings | 0 | 200 acres 2015-2017 |

| Treatment | Units Treated without CFLRP Funding | Units Treated with CFLRP Funding |
|----------------------|--|---|
| Plantations Restored | 0 | Up to 500 acres*** |

*Burn units on a restoration schedule will be burned a minimum of twice per decade but ideally 3 times, those on a maintenance schedule will be burned at least once per 7-10 years.

**Includes NNIP treatments.

*** Over 1,300 acres of white pine plantations have been identified as restoration opportunities. The collaborative group has not reached consensus on this opportunity and it is not calculated in the Utilization Plan or Benefits to Local Economies Section.

From Kootenai Valley Resource Initiative (KVRI) 2011 CFLRP Proposal, Idaho Panhandle National Forest, Idaho

Full proposal available at

<https://www.fs.fed.us/restoration/documents/cflrp/2011Proposals/Region1/IdahoPanhandle/KVRILowerKootenaiRiverWatershedCFLRPPProposal.pdf>

Summary of Landscape Strategy

The lower Kootenai River watershed landscape strategy, which provides the basis for this proposal, was developed by first incorporating general restoration priorities and activities identified in the [Idaho Statewide Forest Resource Strategy \(SFERS\)](#) and then becoming more specific by incorporating concepts found in the [Northern Region Integrated Restoration and Protection Strategy](#), analysis and trends identified in the Idaho Panhandle National Forests [Draft Land Management Plan](#) and the [Kootenai River & Moyie River Subbasin Assessments and TMDLs](#). Our landscape strategy is also heavily influenced by input from scientists working in the [Rocky Mountain Research Station's Climate Change](#) research program.

Both the SFERS and the SFRA identify the north Idaho panhandle as a Priority Landscape Area, specifically the area is categorized as either “high” or “very high” priority due to a combination of social, ecological and economic factors including significant wildfire risk, a large number of threatened and endangered species, watershed restoration needs, increasing recreation demands, declining local economic conditions and the presence of a significant forest products market with unmet capacity. Based on these realities, the SFERS outlined a set of goals for the area, which KVRI has adopted as the overarching goals for this proposed project. They are:

1. Landscapes are diverse and resilient to climactic changes and other natural and unique stresses.
2. The ecosystem benefits are identified, maintained and enhanced.
3. Forest lands with the highest benefits are identified, protected and enhanced. These include, but are not limited to, lands that provide wildlife habitat, watershed benefits, ecological resiliency and recreational opportunities.
4. Forest ecosystems are resilient to human activities (development, recreation, forest practices, invasive weeds, etc.).
5. Forest-based wood products markets are economically vibrant and sustainable.

Additional information that shaped our landscape strategy and priority restoration treatments within the project area came from the Northern Region Integrated Restoration and Protection Strategy..., which provides guidance for integrating forest and grassland management to ensure the following:

- Restoration and maintenance of high value watersheds in a properly functioning condition.
- Restoration and maintenance of wildlife habitats, including restoration of more resilient vegetation conditions, where appropriate, to meet ecological and social goals.
- Protection of people, structures and community infrastructure (roads, bridges and power corridors) in and associated with the WUI areas.

Proposed Treatment

The landscape included in this proposal was chosen based on the boundaries of the lower Kootenai River watershed which includes 413,000 acres of National Forest System lands. Potential landscape restoration treatments in this area were selected because they complement the goals and objectives outlined in the Idaho Statewide Forest Resource Strategy, the Forest Service Northern Region Integrated

Restoration and Protection Strategy, the analysis and trends contained in the Idaho Panhandle National Forests Draft Forest Management Plan and input from the Kootenai River and Moyie River Subbasin Assessments.

In support of the goals outlined in the documents listed above, the following treatment objectives were developed for this landscape restoration proposal:

- Reduce the risk of unwanted wildland fire on the landscape.
- Increase the resilience of the landscape to the effects of unwanted wildland fire in the event that such a fire occurs.
- Increase the resilience of the forested landscape to insect and disease epidemics.
- Protect and enhance fish and wildlife habitat.
- Increase the number of watersheds that are in fully functional hydrologic condition. Provide high-quality outdoor recreational opportunities.
- Reduce the impacts from invasive species.
- Provide the opportunity for the utilization of a variety of wood products; including but not limited to lumber, biomass and alternative energy sources.

Based on these treatment objectives, the following treatments are proposed:

Note: for 2019 CFLRP proposals, the treatment schedule should be submitted using Appendix B, but the information is similar.

| RESTORATION TREATMENT TYPE | FY 2011 | FY 2012 | FY 2013-2020 |
|---|---------|---------|--------------|
| Prescribed Fire - habitat improvement/fuels reduction (acres) | | 535 | 8000 |
| Roadside Restoration and Road Maintenance (acres) | | 1000 | 8000 |
| Invasive Plant Management (acres) | 400 | 400 | 4400 |
| Culvert Upgrades (number) | 3 | 3 | 24 |
| Fish Passage/Culvert Replacement (number) | 1 | 1 | 24 |
| Road Decommissioning (miles) | 25 | 28 | 120 |
| Road Improvement and Maintenance (miles) | 30 | 30 | 280 |
| Trail Reconstruction (miles) | | | 50 |
| In-stream Fisheries Improvement (miles) | | | 5 |
| Bridge Replacement (structures) | | | 3 |
| Trail Maintenance (miles) | | | 640 |
| Riparian Area Improvements (acres) | | | 100 |
| Timber Harvest (acres) | 1500 | 1700 | 24800 |
| Commercial Harvest - Helicopter (acres) | | | 1500 |
| Reforestation/Timber Stand Improvement (acres) | 365 | 280 | 4628 |
| Biomass Utilization (tons) | 5000 | 2300 | 92700 |

Implementation of the treatments described in this proposal will be prioritized and applied based on the guidance described in the Statewide Forest Resource Strategy. Additionally, the analysis and trends identified in the nearly completed Idaho Panhandle National Forests draft forest plan provide restoration guidance.

From Amador-Calaveras Consensus Group Cornerstone Project, 2011 CFLRP Proposal, Eldorado and Stanislaus National Forests, California

Full proposal available at

<https://www.fs.fed.us/restoration/documents/cflrp/2011Proposals/Region5/EldoradoStanislaus/ACCGCornerstoneCFLRAproposalfor2011.pdf>

Strategy

Consistent with ACCG triple bottom line *Principles and Policies for Forests and Watersheds* (see supplemental information links below), the Cornerstone Project intends to:

- Restore and maintain high-value watersheds in a proper functioning condition.
- Reduce threats to water quality and air quality from wildland fire.
- Reduce threats to lives and property in the wildland-urban interface (WUI).
- Reduce wildfire protection costs.
- Restore and maintain forest structure, function and ecological processes to promote aquatic and terrestrial health, biological diversity, and habitat for a variety of native species, especially species at risk.
- Create more resilient vegetation conditions to meet ecological and social goals.
- Restore and protect prehistoric, historic, and active cultural sites in a sensitive manner.
- Reintroduce fire as a management tool and create conditions that allow prescribed fire to be used in the future.
- Build on existing energy and other infrastructure available to utilize woody biomass.
- Create sustainable local, restoration stewardship-related economic activity and local jobs based on restoration treatment work and development of diverse woody biomass and small-diameter tree by-products and local markets.
- Collaboratively involve the diverse ACCG interests in project planning, implementation, monitoring and adaptive management.
- Contribute to greater community stability through ongoing, sustainable restoration activities on public and private lands.
- Integrate ecological restoration with social goals, such as local employment and community social infrastructure development.
- Enhance appropriate recreation opportunities.
- Demonstrate the benefits of collaborative resource management in the region.

The Cornerstone Project will prioritize treatments that reduce wildfire risk to lives, habitat, water quality and property while restoring overstocked and homogenous stands, degraded meadows, degraded roads, plantations, damaged streams, and lands burned in previous wildland fires. Treatments will be designed to maximize local social and economic benefits as well as ecological benefits. Treatments are anticipated to be carried out within the framework of long-term National Forest stewardship agreements that include local partners in restoration treatments.

The project is consistent with Forest Service Region 5's emphasis on ecological restoration as a strategic focus. Within that framework, both National Forests involved in the Cornerstone Project are developing specific projects and plans consistent with the adopted forest plans and General Technical Report PSW-GTR-220, *An Ecosystem Management Strategy for Sierran Mixed-Conifer Forests* (North et al, 2009 plus addendum). This grounds their work in the latest science for the region and provides guidance on a landscape and project scale to ensure that fuel reduction and forest restoration projects are

ecologically sound. The All-Lands program intends to use a community-based partnership that builds social and economic capacity by creating jobs and promoting value-added businesses, products, infrastructure, and markets while restoring the landscape. ACCG partners anticipate leveraging CFLRA funding with additional federal and nonfederal investment for restoring BLM lands and private watershed lands, and demonstrating the benefit of a collaborative approach, as well as coordinated monitoring of cumulative impacts and results.

Proposed Treatment

The ACCG chose the Cornerstone planning area for the CFLRP application because it reaches from the headwaters of key local watersheds down into to the WUI. The lands of the upper Mokelumne River watershed, located in California's central Sierra Nevada, are the Cornerstone Project's primary focus area for ecological restoration. Including lands within two National Forests, BLM, and state and private lands, the proposed CFLRP restoration program implements a truly collaborative consensus based approach to watershed management. The CFLRP planning area consists of 303,030 acres of National Forest System lands integrated with other land managers in the Mokelumne and adjacent watersheds; these 303,030 acres make up 77% percent of the CFLRP planning area. The restoration proposals described below are integrated from an ecological and social needs perspective. Implementing this proposal will result in accelerated improvement of landscape, watershed, social and economic conditions in the area.

Although there are many desired conditions that we are striving to achieve within this CFLRA proposal, in general the main strategies of the proposed vegetation treatments is to:

- Protect, increase, and perpetuate desired conditions of old forest ecosystems and conserve associated species while meeting people's needs for commodities and outdoor recreation;
- Increase the frequency of large trees, increase structural diversity of vegetation, and improve the continuity and distribution of old forests across the landscape; and
- Restore forest species composition and structure following large scale, stand replacing disturbance events.

The Cornerstone strategy proposes a wide variety of treatments designed to systematically address these conditions and improve overall watershed health. Treatments include vegetation and wildlife habitat improvements; road maintenance and decommissioning; meadow, stream and lake restoration; wildfire revegetation; archaeological site rehabilitation and others, as shown in Attachment A. Additional projects are likely to be included as the project's adaptive management and monitoring program moves ahead. In addition, projects carried out in collaboration with adjoining private and other public landowners are likely to be added as the ACCG's all-lands program develops and expands.

The planned treatments also incorporate the best available science, specifically, the Pacific Southwest Research Station's General Technical Report 220 – *An Ecosystem Management Strategy for Sierran Mixed-Conifer Forests* (North et al, 2009 with 2010 addendum). The report was written by research experts in the fields of forest ecology, silviculture, wildlife and fire ecology. This approach revises and improves silvicultural prescriptions to better forest structure in order to address existing degradation caused by past fire suppression and harvesting practices, while also creating a resilient landscape for changing climate conditions and improving sensitive wildlife habitats. The approach emphasizes improvement of old-growth wildlife characteristics through a strategy of species- and landscape-specific restoration activities. The Eldorado and Stanislaus National Forests have already begun to implement this strategy and will continue to expand the scope and scale of ecological restoration using CFLRA funds.