

Executive Summary

The Signal Peak CFLRP Project will implement strategic restoration and WUI treatments on the 13,000 highest priority treatment acres from the 61,000 highest risk/highest value area within the 360,000 acre Signal Peak assessment area. The proposed restoration area is NEPA ready and the access, thinning, burning, utilization, monitoring, and collaboration infrastructure necessary for effective implementation is in place. The primary implementation constraint that will be addressed by CFLRP is the lack of a consistent funding base and associated program of work. Allowing for steady crew training and employment while providing a predictable and increased flow of marketable restoration by-products will enable construction of a long-term business plan well aligned with the Gila National Forest program of work. These outcomes will ultimately lead to a marked decrease of restoration treatment costs.

1. Proposed Treatment

Land Ownership and description of priority treatment areas - The 360,000 acre Signal Peak Assessment Area includes multiple ownerships of interested partners: nearly 60% Forest Service, 4% Bureau of Land Management, 7% State, and 29% private. 61,000 acres emerged from the assessment as having convergent highest risk and highest values. The 13,000 acre highest priority area proposed for restoration is primarily on the Gila National Forest consisting predominately of ponderosa pine (58%) with mixed conifer (32%) at higher elevations. The remainder of the project area (10%) is aspen, pinon juniper and shrub lands. Areas proposed for treatment are largely in fire regime condition class 2 and 3. Most of the mechanical treatments will be in ponderosa pine with prescribed burns covering the range of vegetation types.

The Signal Peak Landscape Assessment made clear that the highest priority for restoration work was in the higher elevations around Signal Peak due to a convergence of critical ecological and social values such as threatened, endangered and sensitive (TES) species, roadless areas, watershed function, WUI, recreation, and visual proximity to Silver City. These values are all threatened due to elevated risk of unnatural fire. There is also a significant opportunity to leverage past and ongoing restoration work within the larger high risk/high value area by application of strategically placed treatments and by anchoring to previous wildland management areas and past and ongoing restoration work. This will lead to positive landscape restoration affects across a much larger area than that being treated.

Ecological restoration goals are 1) reduction of uncharacteristic wildfire, 2) protection of at-risk communities, 3) reintroduction of fire and enhancement of other natural processes, 4) increased resiliency to address risk to TES species, remnant old growth forests, and forest ecosystem and watershed function while allowing for climate change adaptation, 5) improvement of watershed conditions to address water quality issues in priority watersheds, and 6) improvement of habitat for desirable species such as elk and wild turkey.

Treatment objectives include: 1) **Reduction of fuels at the landscape level that increase unnatural fire** by reducing heavy build up of surface fuel increasing canopy base height, and reduction of canopy bulk density, using restoration prescriptions; 2) Reduction of hazardous fuels directly adjacent to at-risk structures and communities; 3) reduction of dense forest conditions up-wind of remnant old forests; 4) Reduction of risk to Mexican Spotted Owl and Northern Goshawk habitat from uncharacteristic stand replacement fires, by treating down slope fuels; 5) Initiation and maintenance of regular prescribed burning and wildland fire management to restore natural fire regimes; 6) Leverage by strategic placement of mechanical restoration and prescribed burn treatments to affect entire Signal Peak landscape; 7) Increased herbaceous ground cover and reduction of sedimentation into Sapillo Creek, a priority watershed; 8) improvement of cool season herbaceous forage species for elk and turkey; 9) Create a predictable supply of restoration by-products so restoration businesses can reduce the costs of restoration.

Desired outcomes include implementation of mechanical thinning on 2,300 acres and prescribed fire (Rx) on 10,500 acres so that: 1) there will be a net decrease on 2,300 acres of ponderosa pine condition from condition class 3 to a condition class 2. It is likely that prescribed burning will result in 6,300 acres of ponderosa pine condition class 3 moving towards a condition class 2; and 4,200 acres of ponderosa pine condition class 2 moving toward condition class 1. Existing condition class 1 lands will be maintained, 2) conditions are conducive to inexpensive prescribed burning and wildland fire management for promotion and long-term maintenance of natural fire regimes and functioning forest ecosystems, 3) fire-wise communities exist that are easy and inexpensive to maintain, 4) old forest conditions are protected and expanding, 5) sustainable levels of quality habitat are available for TES species such as Mexican Spotted Qwls and Northern Goshawk, 6) sustainable flows of high quality water are available for human and wildlife use in healthy riparian systems, 7) sustainable populations of desirable species such as elk and wild turkey are established for recreation and public enjoyment, 8) stable businesses are established to create jobs and revenues in local communities, enabling long-term restoration and maintenance of forest and riparian ecosystems.

Ecological Adaptation - Climate models for the Southwest predict increasing temperatures and lower effective moisture, leading to increased fire activity, drought-induced tree mortality, and shifts in species ranges. TNC recently completed a climate change vulnerability assessment, identifying the Upper Gila Watershed as a candidate for near-term conservation and management actions. These actions are designed to maintain high levels of biodiversity in significant headwaters of major river systems that indicate high probabilities of success. Restoration activities are proposed for the Signal Peak area that should increase the resilience and adaptive capacity of ecosystems in the face of changing conditions. The combination of initial thinning and burning treatments coupled with the reestablishment of landscape scale fire processes should, over time, create forest conditions that are more resilient, are less prone to large-scale, mortality-driven “type shifts,”. Reestablishing natural fire regimes and other natural processes, which correlate with climate conditions may allow forest conditions to shift incrementally over time, allowing for ecological adaptation that tracks changing climate. Restoration of natural conditions and function will more closely match conditions to which species in this ecosystem adapted. Refugia in forests protected from fire in the short-term along with the incremental nature of the restoration treatments should provide for these species while creating additional sustainable habitat more resilient to changing climate conditions.

NEPA - Following the Signal Peak Landscape Assessment, the Silver City Ranger District worked collaboratively to complete the 29,000 acre Signal Peak Environmental Assessment (EA) using funding secured by local partners from the Collaborative Forest Restoration Program (CFRP). A decision was signed 2009 to implement the Project over 13,000 acres. Other collaborative NEPA ready projects in the Signal Peak area include: Signal Peak North (Rx and mechanical thinning) signed on 2008 (3500), Jaybird (Rx) signed on 2007 (2500 acres), and the Mill Forest Restoration Project signed on 2002 (1400 acres). Adjacent NEPA cleared areas that leverage larger, high priority landscape coverage includes the Pinos Altos WUI and the Little Walnut Creek WUI decisions completed in 2002 and 2005.

Other Restoration Projects – Numerous restoration and community protection projects have been implemented immediately within or adjacent to Signal Peak. In 2001 Gila WoodNet (GWN) restored 250 acres using funding provided by the Collaborative Forest Restoration Program (CFRP). In 2005, as a contractor to partners with funding through an EPA 319 grant, GWN cut and removed more than 50,000 thinned trees from the project area. With CFRP funding in 2006, GWN restored 165 acres. In 2006, the Redstone/Scott/Jaybird Rx was implemented (2000 acres). In 2007, Alternative Forestry completed restoration on BLM and Forest Lands (300 acres treated). In 2008, 2000 acres were treated with Rx in the Jaybird unit and in 2009, 1000 acres were treated with Rx on the Signal Peak North project. Most recently in (2009) a contract was awarded with stimulus funding for follow-up treatment on 234 acres of previous

restoration thinning on GNF land south of Signal Peak. Future projects include: thinning by force account, CFRP projects, or Secure Rural School Act funding; 700 acres of mechanical treatment by the BLM and 1000 acres of private land treatment sponsored by New Mexico State Forestry.

Treatments in this proposal include mechanical treatment and prescribed fire on the GNF using restoration prescriptions following guidelines from the New Mexico Forest Restoration Principles collaboratively developed in 2006 (Appendix B) .. Mechanical treatment will include removal of small diameter ponderosa pine by Gila Woodnet, Santa Clara Woodworks, and other local businesses; the majority of the material will be utilized as biomass for the Fort Bayard Medical Center boiler and for a suite of high value-added products. It is anticipated that ponderosa pine removal will be conducted via stewardship agreements or stewardship contracts, and all Rx will be accomplished via force account. The proposal includes treatment of 2125 acres of ponderosa pine, and 10,500 acres of Rx, projected to occur across a 10-year period, with some flexibility to account for appropriate Rx conditions. Thinning and Rx will occur as follows:

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
CFLRP	0	60	95	200	220	250	280	320	350	350
Rx	0	2500	0	2000	0	2000	0	2000	0	2000

Acres proposed to be treated by BLM and private property by NM State Forestry compliment the proposal by strategically focusing resources on adjacent areas that have been identified through landscape planning as high priority treatment acres. These high priority areas were also identified by the New Mexico State Forestry “20 Communities Most at Risk” program as well as the Grant County CWPP.

Strategic Placement of Treatments will be based on integration of risks, concerns, and values. Risks include hazardous fire behavior in FRCC 2 and 3 stands; concerns include wildland urban interface issues associated with Highway 15, loss of Mexican spotted owl habitat, and fire impacts to and degradation of the Sapillo Creek watershed. Land managers, in collaboration with interested partners, integrated risks and concerns to develop and prioritize a program of work that addresses collective interests. Further, effective placement of mechanical treatments will facilitate safe prescribed burning across a much larger portion of the landscape, extending the benefits of targeted treatments to the landscape level.

The Skates Wildland Fire Use Fire (2006) burned more than 12,600 acres immediately northeast of Signal Peak within the highest priority treatment area. The Skates Fire was predominantly (85%) low to moderate severity. This burn area has provided a strategic anchor from which to plan and implement future restoration projects leveraging an increase in use of typically risky burn treatments thus reducing fire management risks and costs. These treatments, over time, will allow for long-term maintenance and safe future use of management of wildfires for multiple resource objectives. The Signal Peak high priority treatments are also being anchored on the south buy the Pinos Altos WUI project which is currently being implemented. In combination, these comprehensive restoration and community protection treatments will benefit the larger 61,000 acre high risk/high value landscape.

Monitoring and Adaptive Management - Adaptive management based on monitoring data is a core component of the Signal Peak Landscape Restoration Strategy. Over the past 10 years, numerous partners have contributed to long-term ecological and socio-economic monitoring of several restoration and utilization projects connected to the Signal Peak landscape. Grant funding and in-kind contributions supported the development of monitoring protocols that helped measure the effects of forest restoration and utilization efforts.

The monitoring plan is designed to measure ecological and socio-economic change following restoration treatments. Partners and stakeholders will participate on the multi-party monitoring team, which will oversee and participate in monitoring design, data collection, data analysis, review of results, and project recommendations. The multi-party monitoring team will meet collectively annually, and will meet throughout the duration of the project in smaller working groups. A monitoring coordinator will facilitate the organization and communication of the multi-party monitoring team, as well as oversee all monitoring data collection, analysis, and reports.

Ecological questions address treatment effects on stand structure, fire behavior, fire risk at the landscape scale using FRCC, understory community, water quality, and wildlife. Monitoring objectives will be closely linked to treatment objectives. Methods used build on past monitoring efforts. Plot-based data will be collected both by the GNF (fuels data and stand exam) and by ALHS students with the monitoring coordinator and other partners (TNC, UGWA, GCEC).

Substantial improvements in LANDFIRE data and the associated models for fire regime, fire behavior and effects, and vegetation change and update have developed since the 2006 Signal Peak Assessment (the first assessment nationwide using LANDFIRE data). In addition, the Southwest Region of the Forest Service has completed more refined existing vegetation cover mapping. This will enhance the LANDFIRE existing vegetation type (EVT) data and soils mapping, improving comparison to the LANDFIRE reference conditions for FRCC calculations. These data will also be used to update and improve confidence in vegetation, fuels, and fire regime data and support good evaluation of ecological change. FRCC and spatial data analysis will be conducted by a contractor with input and feedback from GNF staff and project partners.

Surveys by the GNF will evaluate the status and effects of treatments on Mexican Spotted Owl and Northern Goshawk persistence. Citizen-science monitoring coordinated with the RMEF and NWTF will inform whether habitat quality and numbers of elk and wild turkey are improved by restoration treatments. Observations during field-based ecological monitoring will document signs of wildlife using CFRP methods.

Economic monitoring will quantify project outcomes related to costs, product and utilization value, local business capacity, employment, and contribution to the regional tax base. Businesses working in Signal Peak will refine their operational cost tracking methods and evaluate changes over time on a quarterly schedule. Costs will be documented in order to inform how treatment costs vary based on prescription and stand structure. Data will build on an existing economic analysis model to compare and evaluate benefits and costs of various types of restoration treatments and utilization strategies.

Monitoring Schedule: A baseline report conducted in the first year of the project will support the development of the work plan. The baseline will summarize existing monitoring field-based data for the project area and will update FRCC data (from 2000 to 2009), providing a foundation for future monitoring. After completing the baseline, monitoring data will be collected annually. Specifically, there will be: 1) GIS data update; 2) acquisition of treatment data from collaborators; 3) field checks to assess accuracy of spatial data; 4) analysis and draft report; 5) collaborator field and meeting review of results and draft report; 6) final analysis and report; and 7) a public presentation. A presentation provides a visual summary of the monitoring reports containing summary text, photos, graphs, tables and key monitoring findings in an accessible format.

2. Ecological Context

The Gila National Forest (Forest) and surrounding areas are dominated by fire adapted ecosystems including xeric mixed conifer, ponderosa pine, juniper and shrubland vegetation types. Natural fire ignitions occur frequently across most of the area, some of the highest number of lightning ignited fires recorded in the Nation occurs on the Forest. Fire suppression has been effective at managing wildfires since the early 1900's, so effective that much of the landscape has been excluded from the effects of natural fire. More than 80 years of fire suppression has inadvertently caused an unnatural increase in the amount of wood surface and canopy fuels. This increase in fuels combined with certain vegetation structural characteristics and the high occurrence of lightning ignitions creates a serious risk of hazardous fire behavior for many areas of the Forest.

Not all areas of the Forest have been excluded from natural fires. The GNF is well known for its progressive fire management program. Many areas including the Gila Wilderness have seen significant levels of prescribed burning and wildland fire management for multiple resource objectives, sometimes on a repeated basis. However, the relatively short time frame of wildfire management for multiple resource objectives has not been able to catch up with the fuel increase. An increasing trend in large and catastrophic wildfires, notably since the 2000 fire season, has sparked increases in the GNF fire program following the guidelines of national wildfire policies which emphasizes restoration and maintenance of ecosystem health in fire adapted ecosystems for priority areas across the interior West. The Signal Peak proposal is consistent with those policies encouraging ecological restoration.

In 2004 The Gila National Forest and The Nature Conservancy completed a landscape assessment for southwest New Mexico using statewide GAP data. The 20 million acre southwestern assessment was used to identify watersheds at risk and in great need of restoration. Six priority areas were identified by the Forest for development of restoration strategies. Signal Peak area is one of the six priority areas.

Actual LANDFIRE data became available for the Gila National Forest in 2005 and was used in subsequent Signal Peak Landscape Assessment (2006) to map FRCC and fire behavior hazard to people and property, analyzing uncharacteristic and hazardous fire behavior where convergent ecological and social values were the greatest. The assessment identified high priority restoration areas and needs for the 360,000 acre area, indicating that the higher elevations around Signal Peak (proposed for CLFRP funding) had the highest convergence of threat and ecological/social values.

The landscape assessment of the Signal Peak project area identified that a large difference in vegetation structure exists between historic reference conditions and current conditions. The primary difference is comprised of an imbalance in the amount of early post-fire open as well as open and closed old forest structures. For example, reference conditions for Southwestern Ponderosa Pine estimate an average of 5 percent of the landscape in a closed canopy old forest condition during historic times; recent estimates of Ponderosa pine within the project area indicate more than 80 percent of the landscape is currently in a closed condition but most of that is in mid seral stages. As a result, the potential for unnatural stand replacement fires within the project area has increased dramatically.

The primary vegetation types in the Signal Peak area in condition class 2 and 3 are mixed conifer, ponderosa pine, aspen, pine-oak, and shrub lands. The area proposed to be treated is predominately ponderosa pine (58%). Mixed conifer (32% of project area) is located at higher elevations and is not accessible to mechanical treatment because of steep slopes. The remainder of the project area (10%) is aspen, pinon juniper and shrub lands. Therefore, proposed mechanical treatments are concentrated on the ponderosa pine and pine-oak vegetation communities. The dominant characteristic of condition class 2 and 3 within the ponderosa pine vegetation type is closed canopies and lack of interspersed openings.

Fire regime condition class trends for Signal Peak are similar to the overall Gila National Forest trends where more than 60 percent of the ponderosa pine and pine-oak vegetation characterized as condition classes 2 and 40% in condition class 3. The predominant reason for condition class 2 or 3 relates to fire suppression and other past unsustainable management practices, resulting closed canopies and increased tree density.

Areas with a high potential for hazardous fire behavior were identified using Flame Length (FL) classes 2 and 3. Much of the current Signal Peak Collaborative Forest Landscape Proposal area is dominated by FL Class 2 (FL 4-11 ft) and 3 (FL >11 ft.). This indicates that dozers and air attack would be required for control, and spotting potential of surface or crown fire is moderate and high, respectively. Tree canopy fuels are present at high levels and have a potential for crown fire with long range spotting when the tree layer has a canopy base height less than 12 to 15 feet.

The other hazard factor is crown fire activity. Crown fires make wildland fire management much more difficult and can produce long-range spotting. Much of the current Signal Peak Collaborative Forest Landscape Proposal area is dominated by CFA Classes 2 and 3 (passive, group tree torching or active, running crown fire). Consequently, the combination of flame length class and crown fire activity provides a good estimate of hazard. When combined with fire occurrence the risk appears to be greatest in the high priority treatment areas included within this proposal.

Restored Landscape Conditions -

Wildlife - Breeding habitat for Mexican spotted owls (MSO) occurs in the upper elevation mixed conifer forests of the Signal Peak area. There are 12 identified nest areas (nearly 9,000 acres) or Protected Activity Centers (PACs) and approximately 25,000 acres of potentially suitable MSO habitat within the area analyzed in the Signal Peak Collaborative Forest Landscape Assessment Proposal.

Signal Peak MSO PAC's are considered potentially at risk from hazardous fire behavior. Vegetation in MSO PAC's is predominately dense mixed conifer, located on slopes that are too steep for mechanical fuel reduction. Down slope of these PAC's is ponderosa pine and pine oak with a contiguous tree canopy cover (> 45 percent) and minimal separation between surface fuels and tree crown bases (crown base heights < 20 feet). The downslope vegetation structural characteristics combined with flame lengths greater than 4 feet present a very high risk situation to nearly 70 percent of the MSO nesting and habitat structures located on steep slope. Areas surrounding the MSO PACs are also at similar high risk for hazardous fire behavior, presenting an additional threat to existing habitat. Proposed treatments include the use of prescribed fire and mechanical thinning on vegetation immediately down-slope of PAC's. These treatments will effectively reduce fuels down slope of PAC's so that wildfires can be managed for multiple resource benefits while protecting and promoting establishment of key habitat for long-term viability of the MSO.

Northern Goshawk is at similar risk though its primary habitat is within the highest risk pine and pine-oak vegetation types. Comprehensive restoration treatments, including mechanical thinning and prescribed burning will best address risks to this sensitive species. Treatments in the Signal Peak area will be consistent with the Northern Goshawk Management Guidelines including in the GNF Land Management Plan.

At one time, the Signal Peak area supported a healthy elk population. Currently there are few resident animals in the Signal Peak area. According to the New Mexico Comprehensive Wildlife Conservation Strategy the New Mexico Game and Fish Department (NMDGF) is now attempting to increase the elk herd in this unit. The prescribed burning and thinning which is proposed under this alternative will be a

key element for improving cool season herbaceous forage species and attracting elk back into this county and reducing private property conflicts in the lower valleys.

A key habitat element for wild turkeys is the availability of cool season grasses. These species typically green up early in the spring and provide a critical habitat component. The prescribed burning and thinning which is proposed under this alternative will be a key element for improving cool season herbaceous forage species, facilitating long-term sustainability for turkey populations in the Signal Peak area.

Watershed/Water Quality - The resulting Signal Peak CFLA project area is within the Sapillo watershed that feeds into the Gila River, a priority watershed identified by the Gila National Forest and The Nature Conservancy. According to the New Mexico Environment Department, this watershed is currently in unsatisfactory condition, and listed on the NM 303d list, as not meeting water quality standards because of high levels of sedimentation. Treatments include the use of prescribed fire and mechanical thinning designed to improve herbaceous ground cover, thereby reducing soil erosion and increasing water quality in this high priority watershed.

Exotic Species - Within the area proposed for treatment problems with exotic species are minimal. The proposed restoration prescriptions and implementation techniques are designed to actively discourage establishment of exotic species. Reduction of risk from unnatural wildfire will reduce risk of invasives establishment that commonly follows unnatural high intensity fire. Custom log harvestors and forwarders are being used to dramatically minimize soil disturbance. This additional care during the restoration process eliminates the need for seeding, which in turn, eliminates outside exotic seed sources. Logging, processing and hauling equipment will be pressure washed prior to entering the project area.

Insect and Disease - Currently, the Signal Peak area has not experienced high levels of insect driven mortality. Comprehensive restoration treatments should minimize future threats of large scale mortality from insect infestation, maintaining insect populations at near endemic levels. Mistletoe is a persistent issue within the Signal Peak area though infection levels are only high on a localized basis. The restoration prescriptions designed for the Signal Peak area are flexible enough to isolate infected stands or remove them where appropriate to create openings that resemble natural spatial patterns. Overall reduction in tree density following prescribed burns and wildland fire management will also address these risks across the Signal Peak landscape.

Transportation System – The existing transportation system is adequate to access areas slated for mechanical treatment and removal of restoration by-products. Areas not accessible will be treated by safe prescribe burning, facilitated by strategic placement of mechanical restoration treatments. Therefore, no new permanent or temporary roads will be required to meet restoration objectives. Custom designed harvestors and forwarders are being employed to ensure effective and economical logging and material removal while dramatically limiting ground disturbance and compaction, eliminating the need for road construction.

The GNF is currently engaged in travel management planning to identify a manageable and sustainable transportation system for the Signal Peak area. Alternatives are being developed for analysis, however a preferred alternative has not been chosen so an accurate estimate of road maintenance, realignment, restoration, and obliteration is not available. Therefore, funding is not being requested at this time. However, it is clear that the GNF is committed to establishing a transportation system that will provide sufficient access to meet a variety of social and ecological needs and that can be efficiently maintained, while avoiding watershed degradation or other ecological problems.

3. Collaboration

Multiple Interested Parties Representing Diverse Interests

Creating a forest restoration economy involves balancing and optimizing a broad range of activities. In Grant County, stakeholders have been meeting and collaborating for that purpose for more than ten years. Partners include: Jobs and Biodiversity Coalition, Upper Gila Watershed Alliance (UGWA, local conservation organization), Center for Biological Diversity (CBD), Cooperative Ownership Development Corporation, Northern Arizona University (NAU), The Nature Conservancy (TNC), The Forest Guild, The Wellness Coalition (TWC, local youth corps), Aldo Leopold High School (ALHS), Gila Conservation Education Center, Gila Woodnet (GWN), Santa Clara Woodworks (SCW), Restoration Technologies, Gila Tree Thinners, Alternative Forestry, Grant County (GC), Rocky Mt Elk Foundation (RMEF), NM Dept. of Game and Fish (NMDGF), Black Range RC&D, New Mexico State Forestry (NMSF), Bureau of Land Management (BLM), New Mexico Environment Dept. (NMED), National Wild Turkey Federation (NWTf), Grant County Soil and Water Conservation District (GC SWCD), Lumber Products International, and Grant County Small Business Development Center (GC SMDC).

Previous Accomplishments

Many investments over the past decade have been made, financial (in excess of \$2 million) and in-kind (approximately \$500,000), in order to complete NEPA and other planning, secure funding, focus work in shared high priority areas (Signal Peak), develop business opportunities and develop methods for comprehensive economic and monitoring evaluation. Accomplishments are extensive.

In 1998, the GNF, Tierra Alta Fuels, and CBD partnered to create a restoration thinning pilot project in the Signal Peak area. That effort resulted in the collaborative development of a restoration thinning prescription and the incorporation of GWN, a nonprofit restoration and utilization business. At that time, conservation groups expressed significant concern about large-scale fuel reduction projects. This collaborative effort focused initially on building trust, with significant time spent collaboratively developing a restoration prescription. In 2000, the Jobs and Biodiversity Coalition (made up of many of the entities above) was chosen as a Ford Foundation Community Based Forestry demonstration project; a portion of funding supported the start-up of GWN and the first series of restoration thinning treatments on the GNF. Because of the Collaborative Forest Restoration Program (CFRP) in New Mexico, federal investments in both restoration thinning work and building local capacity have been significant. CFRP funding fostered collaboration, focusing entities around shared objectives. Activities funded by CFRP include: implementing restoration treatments, supporting fabrication of new forest restoration machinery, completing a small log sorting and chipping line in order to supply biomass for large scale heating plants in Grant County, completing NEPA for long-term treatments in Signal Peak, analyzing economic effects of restoration forestry, and establishing of long-term local monitoring capacity. In 2004, UGWA was awarded an EPA 319 grant (through NMED, Surface Water Quality Bureau) using GWN as a forest restoration contractor. Partners provided the non-federal match for the CFRP and EPA 319 grants, which predominantly supported treatments on National Forest lands, in excess of \$516,000. This history of significant financial contribution is a testament to the functional collaborative relationships existing locally. Other local WUI thinning contractors (besides GWN) have also been working on CFRP funded projects for many years. With the recent increase in local biomass demand, thinning contractors are continuing to work in support of one another. Businesses are part of the collaborative process that is connected to Signal Peak, their business plans are aligned with the plan and scope of restoration work described in this proposal. Collaborators generally structure their meeting and communication around shared projects, rather than regularly scheduled meetings.

Perhaps more important as an investment has been the tremendous amount of time spent in collaborative development by the wide range of stakeholders over the past fifteen years. Many participants have dedicated hundreds of hours every year in strategy and planning meetings with the U.S. Forest Service and each other, fundraising, serving on boards, attending and presenting at conferences, and networking with others nationally and internationally in forest restoration efforts.

Participation by State, Local and Tribal Governments

The Signal Peak area is one of two landscape areas identified as a priority by NMDGF for implementation of wildlife habitat improvement projects. Since 2005, the NMDGF has contributed funding for prescribed burns within the area proposed for treatment. They continue to support the investment of funds in this area, and are likely to continue funding projects which open the canopy, resulting in increased herbaceous and browse forage for elk, deer and turkey. RMEF and NWTF support restoration of wildlife habitat through sponsoring youth activities, participating in multi-party monitoring efforts, and either funding or assisting with wildlife specific restoration treatments, such as thinning-created canopy gaps or various slash treatments.

Grant County has been actively involved with the Signal Peak planning effort. The 2006 Grant County CWPP, revised in 2009, identified the first priority for fuel reduction projects to be the treatment of highway corridors. The definition of a highway corridors was not limited to the actual right-of-way but was expanded in some areas to include surrounding forest as safety and topography dictated. Priority highway right-of-ways identified for treatment in the CWPP include Highways 152, 15 and 35. Signal Peak includes the strategic treatment of lands along Highway 15 and adjacent Forest lands as a critical component of this proposal. Treatment in the wildland-urban interface (WUI) is the second priority in the CWPP; Signal Peak incorporates WUI treatments. The third priority of the Grant County CWPP was the treatment of critical watersheds. Sapillo Creek was identified as the highest priority for treatment. The majority of treatments proposed in this proposal occur within the Sapillo watershed. NMED, given their interest in water quality, will participate in the multi-party monitoring effort.

Provisions for Multiparty Monitoring

Over the past 10 years, numerous partners have contributed to long-term ecological and socio-economic monitoring in Signal Peak. The CFPR program provided financial and technical support for long-term community-based monitoring of treatments in Signal Peak. Monitoring coordinators have received training in design, data collection, and analysis. Monitoring has been integrated in to the curriculum of a local high school and students have significantly contributed to data collection.

All partners listed as collaborators above will participate on the multi-party monitoring team. The monitoring team will continually reach out to interested parties to participate in all roles of the monitoring effort (design, data collection, data analysis, review of results, and project recommendations) further described in Appendix D. Annually, for the 10 year period, partners will facilitate a field trip and meeting for all stakeholders, including local, state, tribal, and federal participants, to review and recommend changes to the monitoring program and annual report, providing a feedback loop that updates the Project Work Plan and monitoring program.

Significant in-kind contributions to forest restoration projects are provided by monitoring partners, including teachers, youth corps funding from New Mexico, staff of local organizations and agencies, and time contributed by forest restoration practitioners. Because many of these entities rely on grant funding and year-to-year budgets, it is difficult to quantify contributions. During the past 10 years, in-kind contributions by partners have been approximately 25% of total project costs.

4. Wildfire

Current Wildfire Conditions - Since 1987, there have been a total of 45 wildfires located within Signal Peak. Ten of these fires have been less than 10 acres in size. Sixteen fires have been greater than 100 acres in size; eight fires have exceeded 1000 acres; six fires have exceeded 2,000 acres; and two fires have exceeded 10,000 acres in size. The Shelly fire which occurred in 1989 grew to 12,000 acres; and the Skates fire which occurred in 2006 grew to 12,500 acres. Since 2006, 5 of the 45 total wildfires have been managed for multiple resource objectives, effectively treating a total of 14,185 acres.

Areas with a high potential for hazardous fire behavior were identified using Flame Length (FL) classes 2 and 3. Much of the high priority treatment area around Signal Peak is dominated by FL Class 2 (FL 4-11 ft) and 3 (FL >11 ft.). This indicates that dozers and air attack would be required for control, and spotting potential of surface or crown fire is moderate and high, respectively. Tree canopy fuels are present and have a potential for crown fire with long range spotting when the tree layer has a canopy base height less than 12 to 15 feet.

The other hazard factor is crown fire potential. Crown fires make wildland fire management much more difficult and can produce long-range spotting. CFA Class 1 (surface fire) is considered desirable, while CFA Class 2 (group tree torching) and 3 (running crown fire) are considered undesirable. Crown fire potential is scattered over much of Signal Peak; torching, long range spotting, and crown fire can occur in a “leap frog” manner, which can result in rapid increase in uncontrolled fire perimeter size. When combined with fire occurrence the crown fire risk appears to be greatest in higher elevations around Signal Peak, indicating a high priority for restoration treatments.

Predictive fire behavior within Signal Peak was modeled using the BEHAVE Plus software program. Using the following assumptions, (a temperature of 90 degrees Fahrenheit, relative humidity of 10%, eye-level winds of 6-10 miles per hour and fine dead fuel moisture of 5%) fires within the Signal Peak area will generate flame lengths over 11 feet. This expected fire behavior would be sufficient to initiate crown fire ignition when crown base heights are five feet and less and live fuel moistures are less than 120%. A crown fire under these conditions can be expected to generate flame lengths of 70 to 150 feet (Rothermel, 1991) and throw burning embers up to a mile ahead of the fire. This type of fire behavior was observed during the Shelly and Skates fires on approximately 15% of the fire perimeter.

Without the implementation of this project, existing fuel loading would increase over time, which in turn would increase the flame length. In the event suppression activities are needed to protect private property or values at risk, it is highly unlikely that fire fighting suppression resources would be able to protect values at risk without the use of additional resources such as dozers and retardant drops.

Wildfire in Restored Conditions - Project design is based on an integration of fire management planning, community protection activities, and a broad program of forest restoration to reduce hazardous fuels through thinning and prescribed burning in order to create forest conditions where stand-replacing fires are rare or entirely absent under severe burning conditions. This, in turn, will reduce suppression or other fire management costs. Mechanical thinning units will be strategically placed to reduce fire hazard near values of risk (Mexican Spotted Owl PACS) and enable the implementation of prescribed fire adjacent to values at risk. Maintenance burns will be conducted on the historical natural fire return interval of 5 to 7 years within ponderosa pine and 10 to 15 years for mixed conifer. These low intensity fires would be similar to historical natural fire regimes. With restored conditions, fire behavior within the project area would change significantly. Flame lengths that were 11 feet would be reduced to less than 2 feet under similar weather conditions. Fire intensity would be low to moderate, spotting potential would be reduced, and fires would primarily remain on the ground. The number of acres of condition class 3

would be reduced. Reducing hazardous fuels within the project area will allow wildfires to be managed for multiple resource benefit, rather than perpetuating the continuing legacy of hazardous fuel conditions.

Community Wildfire Protection Plans - The Signal Peak Landscape Assessment completely incorporated relevant portions of the Grant County Community Wildfire Protection Plan (GCCWPP). The 2009 GCCWPP revision ranked fuel-related projects by the following four priorities: 1) highway right-of-ways; 2) wildland urban interface areas; 3) critical watersheds, and 4) infrastructure. The GCCWPP further clarified that the first priority for fuel reduction projects to be the treatment of highway corridors not limited to the actual right-of-way but expanded in some areas to include surrounding forest as safety and topography dictated. These corridors are meant to address public safety and to provide more secure boundaries for prescribed burning and wildland fire management. Priority highway right-of-ways identified for treatment include several highways in or adjacent to the larger Signal Peak assessment area. The Signal Peak Collaborative Forest Restoration NEPA decision includes the treatment of lands along Highway 15 right of way and adjacent Forest lands which fall into the high priority treatment area of this proposal. The third priority of the Grant County CWPP was the treatment of critical watersheds. Sapillo Creek was identified as the highest priority for treatment. Treatments proposed in this CFLRP proposal all occur within the Sapillo watershed. These restoration treatments are expected to increase herbaceous ground cover which will reduce sedimentation and moderate run-off and stream flow. The treatments will also dramatically reduce the risk of unnatural fire which typically has great negative effects on watersheds.

The second and fourth priorities of the Grant County CWPP include treatment of WUI around private inholdings and protection of infrastructure such as communication sites within the GNF and the Signal Peak area. Funding for treatment of these lands was not requested from CFLRP though they are NEPA ready and an important part of the larger Signal Peak Restoration Strategy. These projects are straight forward hazardous fuels reduction project that typically do not result in restoration by-products so would not contribute to overall cost reductions for landscape scale restoration. They will likely be funded in the future with Secure Rural School Act funding, State and Private Forestry, and/or CFRP funding with contracts going to smaller contractors that specialize in this type of hazardous fuels reduction project.

Wildfire Management Cost Reductions - The primary benefit of this proposal is that it will restore natural fire regimes, reducing risks of landscape scale fires while allowing lower cost wildfire management strategies and techniques. Long term reductions in wildfire management costs would be achieved by managing future landscape scale fires for multiple resource benefits. In 2009 the cost of suppression fires within the same vicinity of the project area ranged from \$2,615 per acre (Preacher fire) to \$3,113 per acre (Little Cherry fire). However, during the same year, the cost of managing wildfires for multiple resource benefit ranged from \$35 per acre on the Hightower fire, \$131 per acre on the Allie fire, and \$101 per acre on the Trigger fire. These experiences clearly demonstrate that costs drop significantly where intensive suppression techniques are not necessary. Experience also tells us that a combination of thinning and burning in a strategic manner will create safer wildland fire conditions, provide a greater level of predictability, and provide more effective management

5. Utilization

A strategy for market development for local restoration thinning residuals (developed by the Jobs & Biodiversity Coalition in 2000) projected that, since the vast majority of material to be harvested is small diameter wood, about 10% could be utilized in manufacturing high value products and 90% of the material would be utilized as chipped biomass (Appendix B; *The Economics of Forest Restoration*). The list of products manufactured from small tree material currently includes: chipped fuel biomass, landscaping products, erosion control materials, firewood, structural log building products, log trusses, log cabins, roughsawn lumber, finished lumber, wood flooring, cabinets and furniture, and specialty wood products. Most of the utilization that occurs in the area has some connection the Gila WoodNet (GWN) sortyard (a non-profit forest thinning and primary breakdown processing operation); therefore the quantities referenced below are derived from GWN records.

During the 2005-2006 landscape scale assessment process the core team used GIS overlays (part of the Landfire program) representing slope, distance to system roads, vegetation type, and resource issues, to create an estimate of total acres of planned mechanical thinning in order to determine an associated scale for utilization opportunities. This data, supplemented by ten years of operational information, has allowed the stakeholders to inform local utilization efforts in planning for practical sustainability.

In 2009, 1500 green tons of woody biomass were removed and processed into products from about 100 acres of forest restoration thinning projects. Recognizing the challenge of utilizing non-merchantable material, local business development focuses on non-sawmilled products and the growth of local industry is aligned with the projected supply of byproducts from forest restoration-based thinning. The goal is to create a local restoration economy through designing coordinated forest management and collaborating wood utilization business plans that are compatibly scaled and that enhance business diversity and collaborative relationships.

Market and utilization 10-year projections have been developed by Gila WoodNet (Table 2) showing that annual restoration thinning will increase to 350 acres with 5,250 tons of woody biomass removed and processed into local markets. The actual 10-year developed market projection is 10,000 tons annually, with the extra market demand to be supplied through collaboration with forest product businesses in neighboring Catron County. Current excess demand is being met in this way and planning is ongoing to coordinate the adjustment of capacity to respond to market growth.

The goal of creating a local restoration economy has been substantially fulfilled, with ten businesses in Grant County performing a range of restoration and fuels reduction operations across many vegetation types. Utilization of woody biomass is already at a high level and new products and expanding markets are increasing utilization percentages steadily. Because of a recent contract to supply the Ft. Bayard Medical Center with fuel biomass, the ongoing development of new products, and the emergence of the economy from recession, the market demand is expected to rise significantly by 2014 and to continue to increase at a rate of 10% per year.

A chronic problem that has plagued the development of a local forest restoration-based economy has been the lack of a sustainable supply of project work and woody biomass supplies. Funding for implementation of forest restoration projects has primarily come from CFRP grant funding, with smaller amounts (primarily for fuels reduction in WUI areas) supplied by the Forest's annual budget, and NM State Forestry funding for treatments on private lands and public roads. Relying on grant funding results in unreliable and inconsistent programs of work and causes interruptions in wood flow, which destabilizes emerging markets. The continual stop-and-start of work crews and manufacturing processes is inefficient and keeps costs high, and budget decision-makers are not motivated to direct funding to high cost activities. This circular set of interdependent relationships severely slows progress in establishing a

reliable workforce and market. A 10-year sustainable supply of funding will break the negative cycle and allow healthy development of all of the components involved building a strong restoration forestry economy while lowering the costs of managing federal forests and increasing net benefits.

The total estimated volume of material to be utilized as a result of this funding would be 32,000 green tons. Approximately 24,000 tons would come from trees <16" dbh in overstocked ponderosa pine and mixed conifer stands and 8,000 tons would come from pinyon/juniper fuels reduction projects in WUI areas. All thinning prescriptions performed in the local area follow the New Mexico Forest Restoration guidelines (Appendix B). Road access to treatment areas has already been evaluated (cite Assessment), avoiding the common over-projection of available biomass.

Based upon past production tracking and future sales projections, the average value of Ponderosa pine, delivered to the end user at the end of a comprehensive value-adding scenario, is \$415 per ton. The average value of pinyon/juniper, delivered to the end user, is \$593 per ton. Most of this value is a result of value-adding processing and there will be little excess revenue to offset treatment costs. However, stabilizing and growing the markets will allow the local forest thinning contractors to better capitalize their operations, improving equipment and operational efficiencies, because of increased scale and improved stability. A pro forma projection of the Gila WoodNet operation (table 1) shows a decline in treatment costs from \$1200 to \$550 per acre. Because of the diversity of products locally produced utilize full range of biomass (low-to-high quality), this cost represents the full utilization of restoration residuals and no additional treatment costs (such as slash disposal) are required.

The market for using natural logs in construction in Grant County has increased exponentially due to the efforts of GWN and SCW in developing value-added products and markets. A new company is forming to design and install firewood boiler systems in residential and small commercial buildings based upon the identification of a best-value use for pinyon pine from WUI thinning projects. Area farmers and gardeners are working in a portion of the sortyard producing soil amendments and mulches for specific uses.

The current market for fuel biomass is in excess of the local restoration byproduct supply. GWN annually sells approximately 500 tons of firewood and has a contract to supply up to 3600 tons of fuel chips to the Ft. Bayard Medical Center. The present level of biomass supply from the Signal Peak area is approximately 1500 tons per year. Progressively increasing the scale of forest thinning from 100 to 350 acres per year under this CFLRA project would increase the available biomass to an estimated 5250 tons per year.

Restoration Technologies is developing chip-based products for use in local erosion control and building industries, working closely with land managers, builders and regulators to produce products utilizing the lowest value biomass to create the most benefits. Developed with assistance from the USDA Small Business Innovation Research program, the material is expected to have widespread use by mining companies, highway departments, land managers, and the construction industry. The potential local demand has been estimated to be more than 5000 tons per year and is expected to commercialize in 2013.

6. Investments

Federal Investments under Signal Peak CFLA proposal

The proposal includes treatment of 2125 acres of ponderosa pine, and 10,500 acres of Rx, projected to occur across a 10-year period, with some flexibility to account for appropriate Rx conditions. Thinning and Rx will occur as follows:

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Thinning	0	60	95	200	220	250	280	320	350	350
Rx	0	2500	0	2000	0	2000	0	2000	0	2000

Other Federal Investments expected to occur within the landscape include: (1) the future treatment of 700 acres by the BLM on lands adjacent the Signal Peak CFLA; (2) future treatment of 1000 acres of private land, sponsored by New Mexico State Forestry; and (3) future CFRP funded projects (1000 acres). All of these projects compliment the CFLA proposal by concentrating work within the central portion of the landscape, which has the highest hazardous fuel concentration and greatest potential for uncharacteristic fire behavior.

Other non-federal investments expected to occur within the landscape include: 1) thinning or prescribed burns funded by Secure Rural School Act and New Mexico Habitat Stamp funds (New Mexico Habitat Stamp funds, \$20,000 per year, have been secured to fund previous burns within the landscape); 2) future treatment of 1000 acres of private land, sponsored by New Mexico State Forestry; and 3) future CFRP funded projects (1000 acres), which will carry a 20% non-federal match by grantees. All of these projects compliment the CFLA proposal by concentrating work within the central portion of the landscape, which has the highest hazardous fuel concentration and greatest potential for uncharacteristic fire behavior.

Local thinning contractors will be able to invest more into their existing businesses, if a long-term program of forest thinning is funded, which will increase capacity and reduce unit operating costs. The current program of work, funded almost entirely by competitive grants, does not offer any stability for securing business investments and the grant amounts are insufficient and too sporadic to allow economies of scale to occur. In addition, the constant grant-writing and other efforts to secure budgets for forest thinning is taking a toll on the community members who have volunteered to bear that burden over the past decade.

GWN plans to invest \$200,000 in forestry equipment and sortyard infrastructure in the next two years, which is calculated to reduce thinning costs from \$1200 to \$550 per acre (Table 1). As a non-profit, all of GWN's generated revenues are reinvested into accomplishing its mission (Appendix C; GWN Mission Statement). Local businesses have significantly invested in a variety of wood products enterprises that are dependent on a consistent supply of small logs, including: GWN (sortyard and primary breakdown), Santa Clara Woodworks (cabins, architectural woodwork and furniture), Shop Dog Woodworks (furniture), Centerline log and Timber (log trusses and building components, lumber, rustic woodwork), Restoration Technologies (chip-based building products and erosion control materials), and a wide range of contractors and craftsmen using local wood products. A consumer preference for these materials has been established and the purposes and need for forest restoration are widely known and understood in the community as a result of the activities of these businesses.

Because the local forest restoration industry is deeply integrated into a value-adding chain in the community, the number of jobs created and sustained for the federal investment is very high. Using the methodology followed in Appendix B; *The Economics of Forest Restoration*, \$200,000 invested in restoration thinning will generate \$5,000,000 in new economic activity. Based upon a calculation that every \$100,000 in economic activity represents one local job (many costs are external; fuel, machinery, parts, electricity, etc.), the yearly effect would be 10 direct and 40 indirect jobs created. Reducing the cost of forest work by half (because of increased contractor investments in equipment and infrastructure) will essentially double the number of jobs created to 100 for the same federal investment. These jobs will be permanent as long as the biomass keeps flowing.

The Wellness Coalition will lead a community collaboration effort to manage and monitor a Youth Conservation Corps engaged in Forest Restoration. Under separate funding, the Wellness Coalition proposes to hire, train, and certify 15-25 youth conservation corps members. These members will be engaged in forest restoration (hand thinning) within the Signal Peak restoration project area.

One important component of collaborative process is monitoring and youth involvement. Local capacity to collect meaningful monitoring data with high school students has been built. Students at Aldo Leopold High School have created a "Forest Monitoring Team" that weekly collects forest monitoring data. Much of this monitoring has been supported by state funding provided by NM's Youth Conservation Corps. Training for people in forest restoration has been provided through Youth Conservation Corps, AmeriCorps (Wellness Coalition), and NMFIA. This CFLRP Signal Peak project will build on this innovative monitoring success by continuing to integrate data collected by students, and providing employment opportunities for youth groups.

Since 2000, numerous projects have been implemented immediately within or adjacent the acres proposed for treatment under the Signal Peak CFLRA proposal. The Gila NF has not historically received significant funding in its operational budget to pay for mechanical thinning for restoration or fuels reduction projects. The predominant funding for these activities has come through private foundation grants, USDA CFRP grants, EPA grants, and state forestry funding.

In 2000, the Cooperative Ownership Development Corporation and Gila WoodNet were awarded a Ford Foundation Community Based Forestry grant of \$700,000 to create a collaborative approach to forest management and to start a local wood products industry. That funding supported four years of planning between the FS, environmental groups, and businesses; it provided seed money for business startups; and it paid for 75 acres of restoration thinning on the GNF. The list of federal grants is extensive, all of which required a matching amount by the grantee: 2001: GWN, CFRP \$356,400 (plus \$90,000 in match) to implement restoration treatments within this area; 2004: GWN, CFRP \$360,000 (\$90,000 match) for a project to complete a small log sorting and chipping line in order to supply biomass for large scale heating plants in Grant County; 2005: Upper Gila Watershed Alliance, EPA 319 \$250,000, (through the NM Environment Dept., Surface Water Quality Bureau; \$167,000 match) using GWN as a forest restoration contractor; 2006: the Redstone/Scott/Jaybird RX was implemented on 2000 acres; 2006: Jobs and Biodiversity Coalition, CFRP \$360,000 (\$90,000 match) for a project to facilitate completing NEPA for long-term treatments on the Signal Peak Landscape Assessment area, an analysis of economic effects of the restoration forestry industry, establishment of long-term local monitoring capacity, and thinning on approximately 165 acres; 2007: Alternative Forestry, CFRP \$360,000 (\$90,000 match) for a thinning on both BLM and Forest Lands; 2008: 2000 acres were treated with prescribed fire on a portion of the Jaybird unit; 2009: 1000 acres were treated with RX on the Signal Peak North; 2009: GWN, CFRP \$360,000 (\$90,000 match) for treatment and utilization of 240 acres of predominantly ponderosa pine; 2009: a contract was awarded with stimulus funding to treat 234 acres of an existing fuel break on National Forest Lands.

7. Funding Estimate

Fiscal Year 2010 Funding Type	Dollars/Value Planned
FY 2010 Funding for Implementation	0
FY 2010 Funding for Monitoring	40,000
1. USFS Appropriated Funds	20,000
2. USFS Permanent & Trust Funds	
3. Partnership Funds	
4. Partnership In-Kind Services Value	
5. Estimated Forest Product Value	
6. Other (specify)	
FY 2010 Total (total of 1-6 above for matching CFLRP request)	20,000
FY 2010 CFLRP request (must be equal to or less than above total)	20,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 20xx Funding Type	Dollars Planned
USDI BLM Funds	
USDI (other) Funds	
Other Public Funding	
Private Funding	

Fiscal Year 2011 Funding Type	Dollars/Value Planned
FY 2011 Funding for Implementation	301,000
FY 2011 Funding for Monitoring	34,000
1. USFS Appropriated Funds	167,500
2. USFS Permanent & Trust Funds	
3. Partnership Funds	
4. Partnership In-Kind Services Value	
5. Estimated Forest Product Value	
6. Other (specify)	
FY 2011 Total (total of 1-6 above for matching CFLRP request)	167,500
FY 2011 CFLRP request (must be equal to or less than above total)	167,500
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 20xx Funding Type	Dollars Planned
USDI BLM Funds	
USDI (other) Funds	
Other Public Funding	
Private Funding	

Fiscal Year 2012 Funding Type	Dollars/Value Planned
FY 2012 Funding for Implementation	114,000
FY 2012 Funding for Monitoring	34,000
1. USFS Appropriated Funds	74,000
2. USFS Permanent & Trust Funds	
3. Partnership Funds	
4. Partnership In-Kind Services Value	
5. Estimated Forest Product Value	
6. Other (specify)	
FY 2012 Total (total of 1-6 above for matching CFLRP request)	74,000
FY 2012 CFLRP request (must be equal to or less than above total)	74,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 20xx Funding Type	Dollars Planned
USDI BLM Funds	
USDI (other) Funds	
Other Public Funding	
Private Funding	

Fiscal Year 2013 Funding Type	Dollars/Value Planned
FY 2013 Funding for Implementation	381,000
FY 2013 Funding for Monitoring	34,000
1. USFS Appropriated Funds	207,500
2. USFS Permanent & Trust Funds	
3. Partnership Funds	
4. Partnership In-Kind Services Value	
5. Estimated Forest Product Value	
6. Other (specify)	
FY 2013 Total (total of 1-6 above for matching CFLRP request)	207,500
FY 2013 CFLRP request (must be equal to or less than above total)	207,500
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 20xx Funding Type	Dollars Planned
USDI BLM Funds	
USDI (other) Funds	
Other Public Funding	
Private Funding	

Fiscal Year 2014 Funding Type	Dollars/Value Planned
FY 2014 Funding for Implementation	177,000
FY 2014 Funding for Monitoring	34,000
1. USFS Appropriated Funds	105,500
2. USFS Permanent & Trust Funds	
3. Partnership Funds	
4. Partnership In-Kind Services Value	
5. Estimated Forest Product Value	
6. Other (specify)	
FY 2014 Total (total of 1-6 above for matching CFLRP request)	105,500
FY 2014 CFLRP request (must be equal to or less than above total)	105,500
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 20xx Funding Type	Dollars Planned
USDI BLM Funds	
USDI (other) Funds	
Other Public Funding	
Private Funding	

Fiscal Year 2015 Funding Type	Dollars/Value Planned
FY 2015 Funding for Implementation	304,000
FY 2015 Funding for Monitoring	34,000
1. USFS Appropriated Funds	169,000
2. USFS Permanent & Trust Funds	
3. Partnership Funds	
4. Partnership In-Kind Services Value	
5. Estimated Forest Product Value	
6. Other (specify)	
FY 2015 Total (total of 1-6 above for matching CFLRP request)	169,000
FY 2015 CFLRP request (must be equal to or less than above total)	169,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 20xx Funding Type	Dollars Planned
USDI BLM Funds	
USDI (other) Funds	
Other Public Funding	
Private Funding	

Fiscal Year 2016 Funding Type	Dollars/Value Planned
FY 2016 Funding for Implementation	183,000
FY 2016 Funding for Monitoring	34,000
1. USFS Appropriated Funds	108,500
2. USFS Permanent & Trust Funds	
3. Partnership Funds	
4. Partnership In-Kind Services Value	
5. Estimated Forest Product Value	
6. Other (specify)	
FY 2016 Total (total of 1-6 above for matching CFLRP request)	108,500
FY 2016 CFLRP request (must be equal to or less than above total)	108,500
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 20xx Funding Type	Dollars Planned
USDI BLM Funds	
USDI (other) Funds	
Other Public Funding	
Private Funding	

Fiscal Year 2017 Funding Type	Dollars/Value Planned
FY 2017 Funding for Implementation	350,000
FY 2017 Funding for Monitoring	34,000
1. USFS Appropriated Funds	192,000
2. USFS Permanent & Trust Funds	
3. Partnership Funds	
4. Partnership In-Kind Services Value	
5. Estimated Forest Product Value	
6. Other (specify)	
FY 2017 Total (total of 1-6 above for matching CFLRP request)	192,000
FY 2017 CFLRP request (must be equal to or less than above total)	192,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 20xx Funding Type	Dollars Planned
USDI BLM Funds	
USDI (other) Funds	
Other Public Funding	
Private Funding	

Fiscal Year 2018 Funding Type	Dollars/Value Planned
FY 2018 Funding for Implementation	211,500
FY 2018 Funding for Monitoring	34,000
1. USFS Appropriated Funds	122,750
2. USFS Permanent & Trust Funds	
3. Partnership Funds	
4. Partnership In-Kind Services Value	
5. Estimated Forest Product Value	
6. Other (specify)	
FY 2018 Total (total of 1-6 above for matching CFLRP request)	122,750
FY 2018 CFLRP request (must be equal to or less than above total)	122,750
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 20xx Funding Type	Dollars Planned
USDI BLM Funds	
USDI (other) Funds	
Other Public Funding	
Private Funding	

Fiscal Year 2019 Funding Type	Dollars/Value Planned
FY 2019 Funding for Implementation	334,000
FY 2019 Funding for Monitoring	34,000
1. USFS Appropriated Funds	184,000
2. USFS Permanent & Trust Funds	
3. Partnership Funds	
4. Partnership In-Kind Services Value	
5. Estimated Forest Product Value	
6. Other (specify)	
FY 2019 Total (total of 1-6 above for matching CFLRP request)	184,000
FY 2019 CFLRP request (must be equal to or less than above total)	184,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 20xx Funding Type	Dollars Planned
USDI BLM Funds	
USDI (other) Funds	
Other Public Funding	
Private Funding	

8. Regional Forester’s Funding Plan

	Year									
	10	11	12	13	14	15	16	17	18	19
Funding(1000’s)	20	167.5	74	207.5	105.5	169	108.5	192	122.7	184

Planning

The Signal Peak NEPA Decision is complete and ready to implement.

Implementation

Forest base budgets for implementation and monitoring will be adjusted to support Signal Peak costs and more than match CFLRP funds. This funding includes NFRR (NFTM, NFVW, NFWF), CMRD (road maintenance), NFLM (land survey) and WFHF (Fuels). In fiscal years 2010 and 2011, IDIQ Contracts are in place to obligate the majority of CFLRP funds immediately. Cultural resource surveys, marking and cruising, and landline surveys can be quickly contracted.

Assumptions

- The FY 2010 Final Budget is assumed to be the base level of funding.
- Implementing the Signal Peak will increase regional accomplishments. Fuels, Wildlife, and Watershed accomplishments will ramp-up. It is assumed that the region would receive increased base funding at some fraction of the current per unit cost rate.

9. USDI Funding

The Gila National Forest and BLM have been working together on implementing projects within the Signal Peak Area for many years. In fact, the Silver City Ranger District completed a hazardous fuel reduction project adjacent BLM lands in 2010. However, although there are no BLM funds proposed for consideration under this proposal, the Bureau of Land Management is likely to continue treating 700 acres adjacent the Signal Peak project area in future years.

10. Other Funding

The Signal Peak area is one of two landscape areas identified as a priority by NMDGF for implementation of wildlife habitat improvement projects. Since 2005, the NMDGF has contributed funding for prescribed burns within the area proposed for treatment. They continue to support the investment of funds in this area, and are likely to continue funding projects which open the canopy, resulting in increased herbaceous and browse forage for elk, deer and turkey. RMEF and NWTF support restoration of wildlife habitat through sponsoring youth activities, participating in multi-party monitoring efforts, and either funding or assisting with wildlife specific restoration treatments, such as thinning-created canopy gaps or various slash treatments.

The New Mexico State Forestry Division has been an active partner in planning projects within the Signal Peak area. Over the last several years, they have secured funding necessary to treat private land adjacent the proposal. They continue to support the investment of funds in this area, with future funds being committed to treat 1000 acres of private land located adjacent the project site.

The Signal Peak Landscape Assessment completely incorporated relevant portions of the Grant County Community Wildfire Protection Plan (GCCWPP). The 2009 GCCWPP revision ranked fuel-related projects by the following four priorities: 1) highway right-of-ways; 2) wildland urban interface areas; 3) critical watersheds, and 4) infrastructure. The GCCWPP further clarified that the first priority for fuel reduction projects to be the treatment of highway corridors not limited to the actual right-of-way but expanded in some areas to include surrounding forest as safety and topography dictated. These corridors are meant to address public safety and to provide more secure boundaries for prescribed burning and wildland fire use. Priority highway right-of-ways identified for treatment include several highways in or adjacent to the larger Signal Peak assessment area. The Signal Peak Collaborative Forest Restoration NEPA decision includes the treatment of lands along Highway 15 right of way and adjacent Forest lands which fall into the high priority treatment area of this proposal. The third priority of the Grant County CWPP was the treatment of critical watersheds. Sapillo Creek was identified as the highest priority for treatment. Treatments proposed in this CFLRP proposal all occur within the Sapillo watershed. These restoration treatments are expected to increase herbaceous ground cover which will reduce sedimentation and moderate run-off and stream flow. The treatments will also dramatically reduce the risk of unnatural fire which typically has great negative affects on watersheds.

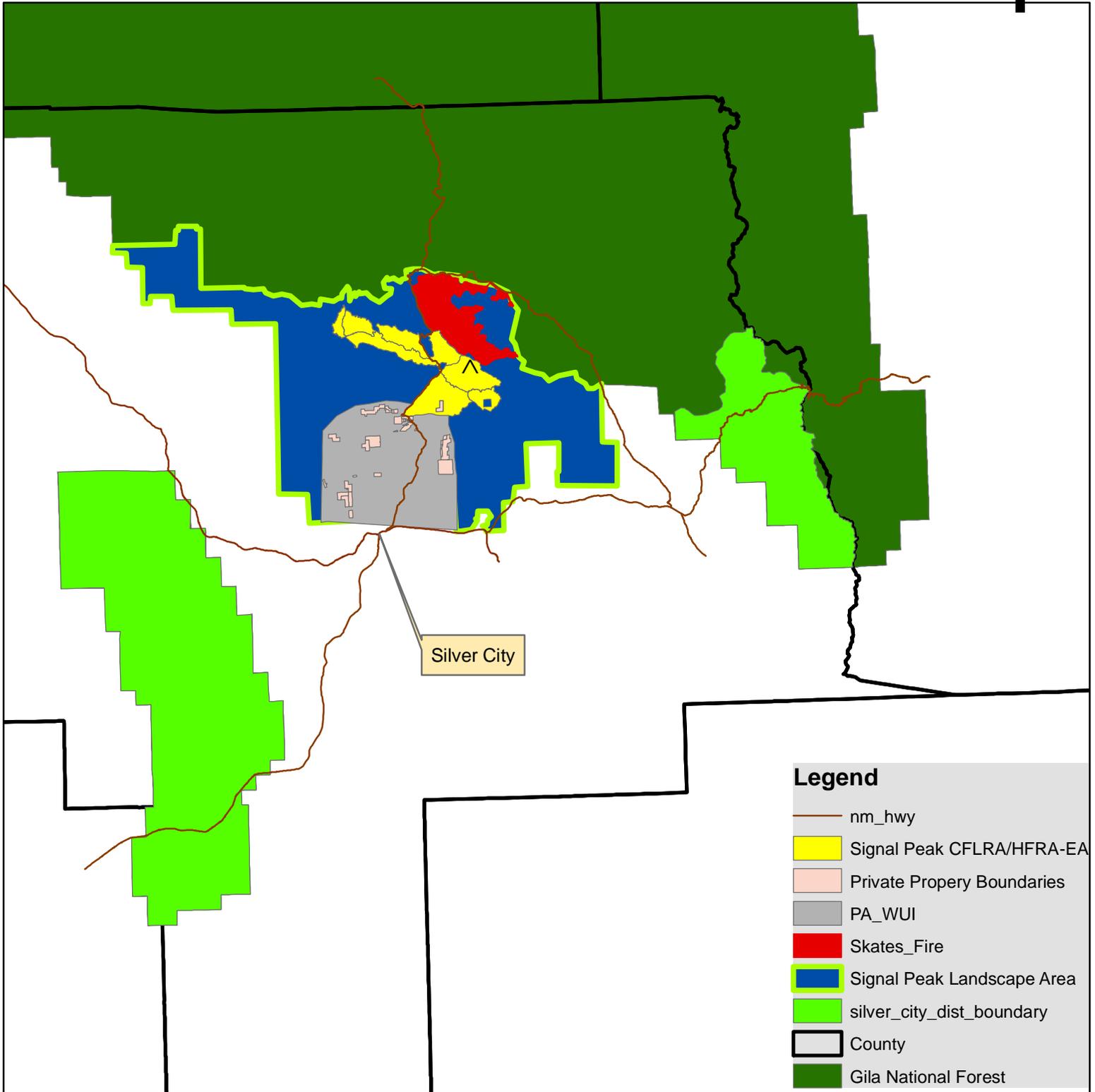
The second and fourth priorities of the Grant County CWPP include treatment of WUI around private inholdings and protection of infrastructure such as communication sites within the GNF and the Signal Peak area. Funding for treatment of these lands was not requested from CFLRP though they are NEPA ready and an important part of the larger Signal Peak Restoration Strategy. These projects are straight forward hazardous fuels reduction project that typically do not result in restoration by-products so would not contribute to overall cost reductions for landscape scale restoration.

Grant County will soon be participating in identifying projects to fund with Secure Rural School Act funding. It is likely that Grant County will contribute funding to completing projects in this area, not funded by CFLRA funds, with Secure Rural School Act funding. In addition, State and Private Forestry, and/or CFRP funding is likely to occur in this area with contracts going to smaller contractors that specialize in this type of hazardous fuels reduction project

Acres likely to be treated in the future by BLM, NM State Forestry, CFRP, and Grant County compliment the proposal by strategically focusing resources on adjacent areas that have been identified through landscape planning as high priority treatment acres. These high priority areas were also identified by the New Mexico State Forestry "20 Communities Most at Risk" program as well as the Grant County CWPP.

Signal Peak CFLRA Project Area

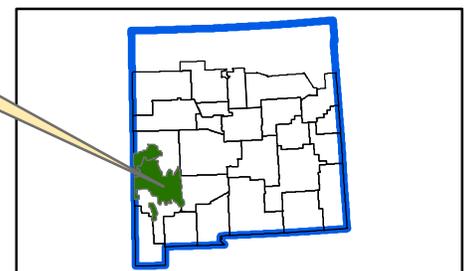
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Silver City

Gila National Forest

0 3.5 7 14 21 28 Miles



12. Signal Peak Landscape Restoration Strategy

This document, titled “Signal Peak Landscape Strategy” may be found at the following link:

<ftp://ftp2.fs.fed.us/incoming/r3gis/gila/>