Ozark-St. Francis National Forests

Ozark Highlands Ecosystem Restoration Proposal

Executive Summary

Dominant forest type(s): Oak, hickory, and pine forest

Total acreage of the landscape: 344,393
Total acreage to receive treatment: 217,892
Total number of NEPA ready acres: 162,743
Total number of acres in NEPA process: 52,549

Description of the most significant restoration needs and actions on the landscape:

- Thin dense stands to reduce basal area which would improve forest health and reduce insect/disease risk.
- Restore fire regime
- Restore oak and pine woodland habitat.
- Restore grasses, forbs, and shrubs for wildlife.
- Release and increase the vigor of mast producing hardwoods.
- Increase oak regeneration
- Improve watershed conditions through maintaining, closing and decommissioning roads, thus reducing sedimentation flow into stream channels.
- Improve fish passage by replacing stream/river crossings.
- Reduce fuel loads in order to protect forest ecosystems and private property that are at risk.

Description of the highest priority desired outcomes of the project at the end of the 10 year period: The desired future condition for the restoration area will align with the Oak-Woodland FLRMP prescription. The Mixed Forest and oak woodland areas will be characterized by a mosaic of woodland and forest. Oak woodlands are generally missing from the current landscape. Woodlands will occupy approximately 60% of the area on the more xeric and dry sites. Woodlands have open canopies, sparse midstories and well-developed understories that are typically dominated by grasses and forbs, but also may become shrubby between fires and have a significant woody component. Age classes of oak woodland patches are diverse and generally balanced from regenerating up to mature and old growth with overstory ages up to 140-200 years. The abundance of oak woodlands within this area provides optimal habitat conditions for many species including management indicator species prairie warbler and northern bobwhite, rare species and species in demand for hunting such as wild turkey and whitetail deer. Other desired outcomes include the improvement of aquatic habitat through a reduction in sedimentation from roads.

Description of the most significant utilization opportunity linked to this project: Development of the small round wood market to reduce the cost of woodland restoration treatments. Estimates are that this could decrease the cost by 50%, which translate to over 1.5 million dollars of savings as well as increased economic activity.

Name of the National Forest, collaborative groups, and other major partner categories involved in project development: Ozark-St. Francis National Forests, Arkansas Game and Fish

Commission, National Wild Turkey Federation, The Nature Conservancy, Rocky Mountain Elk Foundation, Arkansas Heritage Commission, U.S. Fish and Wildlife, Arkansas Forestry Commission, Arkansas Wildlife Federation, Quail Unlimited, National Forest Foundation, Southwest Fire Use Training Academy, Arkansas Tech, University of Arkansas At Monticello, Ouachita Timber Purchasers Group.

Describe the community benefit including number and types of jobs created: The actions have a positive effect on the local economy in that it would provide revenue to schools and provide for local jobs through harvest and processing of forest products. We project that, if funded, this proposal will create 51 direct and 80 indirect and induced jobs for a total of 131 jobs in the area of timber/forestry. Economic benefits would also be realized through improvement of wildlife habitat and associated improvement to the Ozark Highland Trail. Benefits to the public would be realized through reduction of fire hazard and potential loss to personal property through implementation of fuels reduction burning. Reduction in fuel loading would serve to reduce potential wildfire spread and severity, thereby reducing costs associated with fire suppression, which far exceeds cost per acre for prescribed burning. Decommissioning and closure of roads would create social benefits by reducing erosion and sedimentation.

Total dollar amount requested in FY11: $959,219

Total dollar amount requested for life of project: $15,808,746

Total dollar amount provided as Forest Service match in FY11: $1,907,545

Total dollar amount provided as Forest Service match for life of project: $20,813,273

Total dollar amount provided in Partnership Match in FY11: $666,650

Total dollar amount provided in Partnership Match for life of project: $6,474,133

Total in-kind amount provided in Partnership Match in FY11: $260,000

Total in-kind amount provided in Partnership Match for life of project: $2,616,000

Time frame for the project (from start to finish): 2011 to 2020

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Ecological, Social and Economic Context

The Ozark Highlands Collaborative Forest Land Restoration Project (OHCFLRP) is approximately 451,058 acres which encompass 76.5% is National Forest Service (NFS), 5.8% National Park Service (NPS), 6.3% Arkansas Game and Fish Commission (AGFC) and 11.5% privately owned lands. See the Ownership and Focus Area Map for land patterns. These four major land owner groups have worked to restore the oak ecosystem since 2002. Joint projects include restoration of fire across boundaries including private lands; establishment of demonstration areas for public outreach; joint research; and joint funding proposals and implementation.

Ecological

Vegetation - The landscape, as observed now, is dominated by oak-hickory and oak-pine ecosystems that have been altered in composition and structure as a result of past timber management and fire exclusion activities. These forests are typically closed canopy stands with an understory dominated by shrubs, poison ivy and Virginia creeper. Current stem densities average 300-1000 stems per acre as opposed to the 38-76 stems per acre recorded in government land office records in the 1800's. Fire intolerant species are increasing in abundance and frequency. These dense forests are very susceptible to stressors such as periodic drought, native forest insects, and likely the impacts of future climatic change. Oak regeneration is often lacking. Plant diversity has declined and wildlife habitat is degraded. The red oak borer and oak decline has affected over a million acres in the Ozarks since 2000; 48,000 acres in the project area. In some areas, the tree canopy have been severely reduced or eliminated. This greatly impacts the sustainability of our oak-hickory and oak-pine ecosystems.

Desired ecological condition parameters for each plant community were developed in 2002 based on the baseline monitoring protocol installed at that time. The desired future condition would be a mosaic in terms of age, composition, and structure. Stands on drier sites would be open and grassy with greatly reduced stem density. The canopy would be dominated by fire tolerant species such as post and white oaks with a diverse understory of herbaceous plant species. You would see some woody species in the understory, but they would be dominated by the same fire tolerant species found in the canopy. As you move to moister sites the trees per acre would increase and species more tolerant of shade increase in the understory. On the lower slopes and riparian areas the desired condition would not vary greatly from what is found today, with increases in giant cane abundance in the understory. Generalized parameters for woodlands are:

- Overstory basal area average 60 square feet per acre and ranges from 14-69.
- Overstory basal area is 70% or more oak or oak-pine as appropriate.
- Fifty percent of overstory trees are over 14" diameter at breast height (DBH).
- Stem per acre over 2"DBH averages less than 150 per acre.
- Oak or oak-pine regeneration (2"-7" DBH) avers over 50/acre.
- Shrub cover averages less than 30%.
- Ground layer total live cover averages over 8%.

Wildlife - The Arkansas Wildlife Action Plan is a comprehensive strategy that identifies wildlife issues, species of concern and management recommendations. The project area primarily falls into the Boston Mountain Ecoregion with a small portion of the northern section falling within the Ozark Highlands. Two of the primary management objectives for these Ecoregions are habitat protection and habitat restoration and improvements. The Forest Plan standards are designed to protect rare communities and other sensitive habitats and will meet the objective for habitat protection. As far as habitat restoration and improvements, one of the most significant issues facing our wildlife populations is the declining health of our oak-hickory ecosystem and loss of open habitats. Based upon the modeling developed by the Arkansas Missouri Pine Oak Woodland Partnership (AMPOWP), sixty percent of the project area should be in woodlands with more open conditions. Currently there is less than 3% in woodlands. During the Forest Plan Revision, over 40% of the species of viability concern on the Ozark National Forest were associated with more open plant communities. These species included the Federally Endangered Indiana and Ozark Big-eared Bats and the Regional Forester's Sensitive species Bachman Sparrow, Eastern Small-footed Myotis, Ozark Chinquapin, and Small-headed Pipewort. These woodlands and open habitats are also important to Arkansas population of elk. Although this species is not considered a species of viability concern, it was extirpated from the state in the 1800s. Elk were reintroduced and appear to be stable, but the population is still small 300 to 500 animals with little available habitat to expand, especially on public land. This project will increase woodland habitats by at least 12% and is designed to maintain these habitats over time. These activities will also make our forest more resilient to climatic changes by diversifying the forest age, composition, and structure.

Aquatic Habitats - Streams in this area typically have high water quality and are relatively nutrient poor. Even though the productivity of these streams is considered low, they support diverse communities. Upper to mid reaches will support 10 or more fish species with lower reaches having species richness in the mid to upper 20s. Several of these species are considered sensitive to changes in hydrologic and sedimentation regimes. The project area has three species that score relatively high in priority ranking for species of concern according to the Arkansas Wildlife Action Plan. One of these species, the Yellow Cheek darter, has the highest priority ranking of concern. The primary threat to these species in the project area within Forest Service control is the road and trail systems. Many of the trails and roads are found in riparian areas and cross drains multiple times. Also, several of the trails were constructed by forest users illegally. These roads and trails cause significant changes in the hydrologic and sedimentation regimes. Road maintenance, stream crossing repair, road/trail closure, and road decommissioning are designed to reduce these potential effects on streams.

The extensive cutting during the 19th century removed most of the large trees and decreased large woody debris inputs over the last century. Surveys conducted in the project area have identified low amount of large woody debris in these streams. The loss of the large woody debris negatively affects the hydrology, nutrient inputs and habitat diversity. For this reason, the Forest is looking to put large woody debris back into the streams. Our objective for large woody debris is placing 10 trees per mile.

Culverts at stream crossings can create barriers for aquatic species. Several culverts have been identified as barriers and will be repaired to allow for aquatic species to move through the crossing.

Infestations & *Disease* - After a century of fire exclusion and extensive logging, the oak and oak-pine ecosystems have become more homogenous in age, dominated by dense, closed-canopy stands. Historic records indicate that pre-settlement woodlands averaged around 38-76 trees per acre which comprised approximately 60% of the stands in the project. Current densities in much of the region average 300-1000 stems per acre. Due to these changes, the region has recently suffered widespread red oak borer infestation and oak decline. Oak decline has impacted at least 300,000 acres of the Ozark National Forest of which 16% is in project area. Experts believe the catalyst that set this decline in motion was the dry conditions that occurred during the 1990's and indicates the health and resiliency of these forest ecosystems are declining. The Restoration thinning, understory removal, and prescribed burning are specifically designed to address this issue and is coordinated with other agencies/organization from multiple states to maximize these efforts across administrative boundaries. As we begin to move toward the future desired conditions, the forest will become more resilient and able to adapt to climatic changes such as extended dry periods.

Non-Native Invasive Species – Prior management techniques, accidental introductions, and infestations from adjacent lands have resulted in the spread of non-native invasive species on the forest. Many portions of the landscape are negatively impacted by non-native plants and animals which contribute to the deterioration of native ecosystems. Effects associated with non-native invasive species include: displacement of native species; wildlife habitat degradation; impacts on recreation; changes in fire frequency and intensity; altered soil properties and hydrological conditions; decreased biodiversity; and negative effects to aesthetic values. The Forest considers invasive species control a priority. During the fiscal year 2010 over 3000 acres were treated for noxious weeds and 40000 for feral swine.

Wildfire - The current condition of the proposed project varies. However, the majority would be classified as Fire Regime Condition Class (FRCC) III, meaning the landscape deviates substantially from its natural range of variability. Currently 85% consists of closed canopy with 15% open forest in focus areas (see Ownership and Focus Areas Map) within the project area. Prescribed burning and mechanical treatments have occurred in areas scattered across this proposal, and in those areas where the two treatments have been combined, the landscape is beginning to shift toward FRCC II, meaning the landscape deviates moderately from its natural range of variability. Continued treatment of these areas will be required to maintain this level, and to continue moving toward FRCC I, meaning the landscape contains vegetation, fuels, and disturbances characteristic of the natural regime. Untreated areas will require the use of prescribed fire and mechanical treatments to affect FRCC. Fire starts are frequent but quickly suppressed.

Due to this significant departure from the historic range of variability, fuel composition of the ecosystem has been altered. The historic range would consist of open conditions with a fuelbed dominated by an herbaceous layer, perhaps best represented by Fire Behavior Fuel Model (FM) 2. Currently, the fuels composition includes hardwood leaf litter and pine needles within a closed canopy and well established mid-story as represent by FM 9. Research shows a historic fire return interval ranging from 2 to 15 years during pre-settlement times depending on landscape position.

Wildfire Behavior - In approximately the northern 1/3 of the project area, the 2009 ice storm added a significant amount of 10, 100, and 1,000 hour fuels. Although this fuel will not be the

primary carrier of fire, it will contribute to fireline intensity as well as increase the amount of time required to suppress wildland fires. Spotting would also be expected to increase due to this additional fuel.

Fires in FM 2 will exhibit a faster Rate of Spread (ROS) than those in FM 9. This faster ROS will also result in less residence time around the boles of trees, and may decrease mortality in the overstory. The moisture of extinction is 10 percent less in FM 2, so relative humidity plays a superior role in fire behavior. Fireline intensity and ROS will decrease more rapidly in FM 2 as relative humidity increases. Even with a faster ROS, fires may be more easily and rapidly suppress. This would relate to a decrease in suppression costs.

Community Wildfire Protection - This proposal will continue to provide wildfire protection to several local communities. The communities of Appleton, Boxley, Cass, Compton, Deer, Gilbert, Hagarville, Hector, Jasper, Limestone, Lurton, Mount Judea, Natural Dam, Oark, Ozone, Parthenon, Ponca, St. Paul, Scottsville, and Snowball were listed in the Federal Register in 2001 as Communities at Risk from wildfires. These communities are within or near the CFLR project area. The Big Piney Ranger District has worked with the FireWise boards of Hector and Appleton as they were seeking national certification as a FireWise community. Many of our current burns are implemented in conjunction with the Arkansas Forestry Commission (AFC). The AFC obtains agreements with local landowners to burn private property adjacent to Forest Service prescribed burns.

The National Fire Protection Association FireWise community program "encourages local solutions for wildfire safety by involving homeowners, community leaders, planners, developers, firefighters, and others in the effort to protect people and property from the risk of wildfires". A community representative can request Arkansas FireWise to conduct a risk assessment. If the community wildland/urban interface is at risk the community will create a multi-disciplinary FireWise board. The board will develop a Community Wildfire Protection Plan (CWPP).

The Arkansas FireWise program leads the nation with 138 currently certified communities and fire departments. The states closest to Arkansas' efforts in certifying communities with this valuable wildfire safety initiative are Washington with 72 communities, Florida with 46 and California with 44.

Most important to the long-term development of fire departments are the 188 community wildfire plans that are in place in fire departments and communities around the state. FireWise certification requires yearly documentation of wildfire mitigation projects and community education efforts. These events can be as simple as a yearly fire department park cleanup and a safety luncheon, or have been as large as a city-wide effort to clear a vacant lot of old homes and debris alongside a county-wide fair booth and safety display. Each fire department chooses how to best impact its community. Over the years, 210 communities have worked with the Arkansas FireWise program. The certification numbers may fluctuate from year to year depending on personnel and availability. However, the program does leave a lasting impact on departments through the development of wildfire plans and public safety initiatives.

In 2010, the Arkansas FireWise Team visited with 60 state fire departments; attended more than 20 special events including career days, safety fairs and fire expos; presented at close to 20 different wildfire training efforts including classes associated with the U.S. Forest Service, the

Arkansas Fire Academy and the National Fire Protection Association; worked with civic groups such as the Boy Scouts of America, Lions Clubs and Property Owner Associations in 33 Arkansas counties. The Arkansas Team received an award for FireWise Leadership in 2009, making this the third leadership award that Arkansas has received since 2004. The Arkansas Forestry Commission proudly sponsors the FireWise program and message in a state so natural and wooded. FireWise representatives ensure that each certified community works to keep area defensible space maintained, an updated CWPP available to residents and emergency services personnel, and active community education efforts to provide wildfire safety literature at all civic events available to the public.

Wildfire Cost Reduction/Benefits/Restored Fire Regimes – The Ozarks have experienced numerous natural disasters such as Red Oak Borer outbreaks, ice storms, wind storms, and tornados. These events contribute to the accumulation of fuels and snags. Such conditions affect the time required to control fires which, increase the time firefighters are in the area; increase overhead hazards; increase the likelihood that the fire will jump fire-lines by snags falling over the line; and increase the severity of these fires from the higher fuel loads and more heavy fuels.

Over time, with repeated burning, the fuel complex will continue to shift more from timber litter to grass. As tree density decreases, more sunlight will reach the forest floor, and the wind will have a greater effect on fuels. This will result in fuels that dry out quicker. The combination should result in more opportunities to utilize prescribed burning to maintain the desired condition. Burning these types of fuels may require the same number of personnel and equipment, but should take less time to implement, resulting in lower per acre costs. The effects of smoke should also be lessened, since these fuels should dry out quicker, and less moisture means less smoke generation. The only other opportunities we have to increase our burning are to add more personnel, or open more burn windows. Changing the fuel complex is our best bet to increase acreage.

The risk of wildfire will not change significantly as we change condition class. Around 90% of our fires are arson caused and that risk will still be in place. However, in these areas, fires will be easier to suppress, with less impact on the ground. Implementation of the full CFLR proposal will result in a total anticipated fire program cost savings of $20,796,771.

Social and Economic Context

Many of the communities near or within the project area are communities have experienced financial hardship. During the last few years these communities have experienced economic decline. Arkansas has a slightly lower unemployment rate of 7.9% when compared to a 9.8 % for the rest of the Nation. However the per capita income is lower than that of the Nation. The poverty level in Arkansas is 18.5%. This grant would benefit individuals working in the forestry and logging industry. This industry in Arkansas has a total of 434 establishments. The number of paid employees in this industry adds up to 2,753.

The counties expected to be impacted by the CFLR project area have a lower per capita income and lower average earnings per job than the state or national average. These counties also have a higher unemployment rate.

Smaller communities depend on forestry and logging jobs for their economic development. Most of the forestry and logging jobs in the project area depend on timber from federal land to

keep in business. The majority of private tracts of timber land in the area are too small and too widely scattered to by a profitable base for local timber producers. Most of their business depends on larger tracts of land like those managed by the Forest Service.

The CFLR grant would benefit the local communities by creating jobs in the forestry and logging industry. Some of the activities will be contracted. Contracts in the area of forestry, including thinning, planting, and herbicide application have been awarded to contractors established in the state of Arkansas. Most of these contractors are small business and will create or maintain local jobs.

Summary of Landscape Strategy

The landscape strategy is a result of the Oak Ecosystem Team meetings and symposium. The collaborative adopted the strategy developed by the Oak Ecosystem Team in 2002. This project strategy is composed of five components each with a five-year goal included in the strategy and specific two-year outcomes or objectives. The strategy components are:

1. *Management:* Expand on the already existing six, landscape-scale, multi-ownership restoration demonstration projects across the region for use in interpreting ecosystem conditions and restoration techniques.
2. *Monitoring/Research:* Develop a project monitoring program for use at restoration demonstration sites that measures progress in restoring ecosystem health and achieving project objectives.
3. *Education:* Develop a multi-level information and educational campaign to solidify broad-based public support for oak ecosystem restoration.
4. *Policy:* Address policy gaps or needs related to facilitating extensive ecosystem restoration.
5. *Funding:* Secure funding to build oak ecosystem restoration capacity on priority, collaborative, public and private projects throughout the region.
6. *Utilization:* Identify and provide opportunities for biomass utilization and promote forestry industry.

The collaborative strategic goals are:

- Reduce the risk from catastrophic wildland fire
- Reduce the impacts from invasive species
- Provide outdoor recreation opportunities
- Help meet energy resource needs
- Improve watershed condition

The proposed project includes the following areas:

- Pine Woodland
- Oak Woodland
- Mixed Forest
- Oak Decline Restoration Area
- Riparian Corridors
- Wildlife Emphasis Area
- Wedington Unit Urban Recreation Area

A copy of the landscape strategy can be found at http://www.fs.usda.gov/osfnf/

Other documents that complement the collaborative strategy and this proposal include:

South Central Fire Learning Network – This plan/partnership provides the framework to enable partners to develop landscape-scale restoration and hazardous fuels reduction projects that return fire to its natural place. More information on the South Central Fire Learning Network can be found at http://www.conservationgateway.org/content/regional-fln-overview. Basic information on the Fire Learning Network can be found at http://www.firesafecouncil.org/news/attachments/Fire_Learning_Network_Philosophy347.pdf.

Arkansas Wildlife Action Plan (2006) – This action plan identifies eighteen categories of threats facing wildlife. The plan also identifies species of greater conservation need. The State is divided into seven ecoregions. Each ecoregion has species of greatest conservation need, habitats, problems, and conservation actions. The strategic approach of this plan includes assemblage of information, implementation priorities, a ten year implementation schedule, monitoring plan, and adaptive management. The Arkansas Wildlife Action Plan can be found at http://www.wildlifearkansas.com/strategy.html.

Ozark Ecoregional Conservation Assessment (2003) – This document addresses the conservation goals for the Ozark ecoregion. It identifies natural communities and ecological systems for target classes (terrestrial, aquatic, and karst). The document also developed viability criteria for each target class. The Ozark Ecoreiongal Conservation Assessment can be found at http://www.oklanature.com/oklahoma/files/Ozarks.pdf.

Proposed Treatments

The current state of declining forest health throughout the Interior Highlands clearly demonstrates a need for ecosystem restoration projects with a collaborative partnership approach. The Oak Ecosystem Restoration Team, a group of agencies and universities, met in 2002 to address the issue of declining forest health. The team identified areas in need of ecological restoration. The Ozark Highlands Collaborative Forest Land Restoration Project (OHCFLRP) is approximately 451,058 acres which encompass 344,392 National Forest Service (NFS) acres, 26,180 National Park Service (NPS) acres, 28,600 Arkansas Game and Fish Commission (AGFC) acres and 51,886 acres of privately owned lands. See the Ownership and Focus Area Map for land patterns.

The project is divided into four focus areas (Wedington, White Rock, Lyn Hollow, and Big Piney). These focus areas were selected because of their current need for ecosystem restoration within the Ozark Highlands. Restoration projects are on their way within these focus areas. Long term success of restoration efforts rely on partnership collaboration and on proper long term funding. Primary objectives are:

- Returning the landscape two missing componenets fire regime and woodlands ecological conditions;
- Restore large woody debris in local streams to help maintain biodiversity in aquatic ecosystems;

- Improve stream and lake habitat;
- Reduce invasive species impacts;
- Provide habitat enhancement for wildlife and floral species including Regional Forester's Sensitive, Federally Endangered and Threatened Species;
- Increase carrying capacity for elk on Forest Service Land;
- Expand the elk herd and management opportunities on private land;
- Establish fuel breaks and promote fuel reduction to protect resource values and comply with urban interface goals;
- Allow for and manage dispersed recreation opportunities; and continue to provide commercial opportunities for forest products to support the local economy.

To accomplish these objectives the Forest will implement activities such as commercial thinning, shelter wood and connected treatments, timber stand improvements, wildlife stand improvements, road decommissioning, non-native invasive species control, trail maintenance and construction, culvert replacement, and prescribe burning. For acres proposed for treatment see Attachment A.

From 2002 to 2010 the Forest has restored fire to 300,000 acres. A combination of mechanical restoration and prescribe fire adds to about 400,000 acres in the last eight years. The yearly prescribed fire program consists of 65,000 acres.

The Forest plans to primarily use a combination of indefinite delivery / indefinite quantity (ID/IQ) contracts, timber sale and stewardship contracts along with stewardship agreements to accomplish this work. An existing ID/IQ contract and a stewardship agreement with The National Wild Turkey Federation will be used to accomplish 2011 and 2012 work. Estimated appropriated, Knudsen Vandenberg, stewardship, and partner funds to accomplish the Forest portion of the work equals $12,095,100 with a breakdown of 69%, 9%, 16%, and 6%, respectively. Appropriated funds were estimated using a typical year funding amount from our normal program of work for each activity except prescribed burning. We are expecting the target to increase within the project area during the second half of this proposal so 10,000 acres were added to each year during this time frame. A breakdown of CFLRP funds needed to accomplish the above work is described in Attachment A. We will hire 3 to 5 temporary employees per year to help with layout of these activities out of the personnel cost. These funds will only be used on Forest Service Lands.

These activities will have a significant impact on management for both aquatic and terrestrial species. Restoration thinning, understory removal, and cane restoration are expected to increase open forest and/or canebrakes on at least 12% of the appropriate land types in the project area. These habitat improvements along with opening construction are expected to increase carrying capacity for elk by 300 to 500 individuals, which is approximately double that under current conditions. This will allow more elk to move on public lands and increase management opportunities for the Arkansas Game and Fish Commission to deal with farmer and elk conflicts while maintaining a strong herd for tourism. Accomplishing the roads and trails activities will decrease sedimentation rates and improve hydrologic regimes on approximately 50% of the area while creating a trail system that should decrease the construction of illegal trails. See Attachment A for proposed miles of road maintenance. Also, desired future conditions will be met in at least 40% of the stream miles in two major drainages. Invasive species treatments will

help maximize the benefits from the proposed activities and reduce source population in our restoration areas.

Desired Condition

Fish, Wildlife, and Threatened & Endangered Species – Fish and wildlife habitats are diverse and of high quality, supporting well-distributed and viable populations of all native and desired non-native plants and animals, including those currently listed as sensitive or of local viability concern. Abundance and quality of habitats for federally-listed threatened and endangered species are stable or improved, supporting recovery of these species. Many species of migratory birds find high quality habitats for migration stopover; others find optimal breeding habitats.

Disturbance regimes within terrestrial habitats provide a relatively stable and sustained flow of both early- and late-successional habitats over time. Fire dependent communities, such as oak and pine woodlands, are common on appropriate sites and maintained by recurring fire at appropriate intervals. Rare communities, such as glades, seeps, caves, and wetlands exhibit high levels of ecological integrity, supporting healthy populations of characteristic species, including rare species tied closely to these habitats. Riparian forests are especially rich in wildlife and are primarily dominated by mature forests, but also support areas of openings and dense understories. Snags, downed wood, and den trees are abundant and well distributed across the forest. Large trees would be maintained in the restoration areas.

Stream flow and water quality are sufficient to support all components of native aquatic communities. Fish communities include fish species, species groups and guilds, and trophic structures characteristic of healthy streams. Aquatic habitat types are diverse. Large woody debris is abundant, at 75 to 200 pieces per stream mile including 7 to 20 pieces per stream mile (10% of total) in size classes greater than 5 meters long and 55 centimeters in diameter.

Species commonly hunted, such as whitetail deer, wild turkey, northern bobwhite, gray squirrel, and black bear are abundant and support high levels of quality hunting opportunity. The Buffalo River elk herd has expanded onto the Ozark National Forest as a result of targeted habitat improvement. Species commonly fished, such as smallmouth bass, largemouth bass, and sunfish also are abundant, supporting high levels of quality fishing.

Open roads and trails provide relatively easy access to many areas of the Forest for wildlife viewing, hunting, and fishing. Other areas, including some large blocks, are maintained without motorized access and more than 0.25 miles from open roads to provide habitats for those species sensitive to human disturbance, and to provide opportunity for more remote wildlife-related recreation opportunities.

Water Quality and Watershed Function – National forest watersheds are healthy and productive units of land. The landscapes are capable of responding to natural and human caused disturbances while maintaining the integrity of their biological and physical processes as evident in the production of high quality water.

Streams, groundwater recharge areas, springs, wetlands, aquifers, and entire landscapes are managed to assure the sustainability of high quantity and quality water. Where water extraction or diversion is allowed, those facilities are located as close to the boundary of the Forests as possible in order to avoid long-term adverse impacts to forest water and riparian resources. The

Forest Service protects water rights when necessary to support resource management and healthy forest conditions. Ecosystems are protected from hazardous materials.

Non-native Invasive Species - Healthy native plant communities remain diverse and resilient, and damaged ecosystems are being restored. High quality habitat is provided for native organisms throughout the area. Invasive species do not jeopardize the ability of the National Forests to provide goods and services communities expect. The need for invasive species treatment is reduced due to the effectiveness and habitual nature of preventative actions, and the success of restoration efforts.

Roads and Trails – The transportation system of roads and trails is safe, affordable, and environmentally sound. It responds to public needs, and is efficient to manage. The network of open roads is the minimum needed for public access for recreation, special uses, fire protection activities, vegetation management, as well as supporting all forest management objectives. The system is well maintained proportionate with levels of use and available funding. The system is connected to state, county, or local public roads and trails. Unnecessary roads and trails are removed and the landscape restored. Rights-of-way to access National Forest System lands satisfy public needs and facilitate planned resource activities. Over the planning period, the number of inventoried unclassified roads and trails are reduced.

An environmentally sustainable, integrated system of backcountry and rural nonmotorized trails is maintained. The system can accommodate a range of experience in high-quality settings, and is managed to minimize conflicts while providing opportunities for partnerships, learning, and stewardship for a diverse visitor population. The availability of day use "loop hikes" is improved.

Recreation opportunities for OHV (Off-Highway Vehicle) enthusiasts will be available within an integrated system of designated roads and trails. Designated OHV routes will be managed to maintain a high-quality OHV experience. Conflicts between OHV enthusiasts and other recreational uses, with private lands and homeowners adjacent to National Forest land, and with resource issues will be addressed and resolved in a timely manner. Resolutions are consistent with area objectives and management direction.

Fire –Vegetation is treated to enhance community protection and reduce the risk of loss of human life, structure, improvements, and natural resources from wildland fire and subsequent floods. Firefighters have improved opportunities for tactical operations and safety near structures, improvements, and high resource values. By providing for defensible space, public and firefighter safety is enhanced. Local jurisdictional authorities, citizen groups, and the Forest Service act together to mitigate hazardous fuel conditions in areas surrounding urban interface, urban intermix, and/or outlying improvements.

Restoration tools and techniques were selected based on a series of scientific reports about upland oak ecology. Many of the effects of methods and strategies are described in the *"Upland Oak Ecology Symposium: History, Current Conditions, and Sustainability" General Technical Report SRS-73. Ashville, NC: US Department of Agriculture, Forest Service, Southern Research Station. 311 p.* The collaborative have followed with target research.

Total number of NEPA ready acres is 162,743 and total number of acres in NEPA process is 52,549.

Collaboration and Multi-party Monitoring

Collaboration

The Ozark – St. Francis National Forests is implementing an all lands approach with multiparty collaboration. The current state of declining forest health throughout the Interior Highlands clearly demonstrates a need for ecosystem restoration projects with a collaborative partnership approach. The ecosystem restoration project outlined in this proposal has received support from a team of organizations and state and federal agencies. These groups have come together to address the issue in Arkansas.

The Oak Ecosystem Team – The Oak Ecosystem Team includes representatives from the Arkansas Wildlife Federation, Arkansas Game and Fish Commission, Arkansas Forestry Commission, Arkansas Natural Heritage Commission, University of Arkansas Cooperative Extension Service, The Nature Conservancy, US Fish and Wildlife Service, USDA Forest Service, USDA Forest Service – Southern Research Station, and Ouachita Timber Purchasers Group. The group uses peer review scientific consensus to makes decisions. The Team's vision is: "To enhance the understanding of restoration and management needed in the upland oak ecosystem to maintain its health, sustainability, and diversity through public awareness, research, demonstration, and education."

In the fall of 2002, the team hosted a conference in Fayetteville, Arkansas entitled "Upland Oak Ecology: History, Current Conditions and Sustainability." The goal of the conference was to examine the scientific understanding of the causes of oak mortality and discuss the need for ecosystem restoration. Over 350 professionals and researchers attended. The proceedings have been published by the USDA Forest Service Southern Experiment Station. From the conference presentations and discussion, there was a clear need for collaborative ecosystem restoration projects. The team consulted with the Ouachita Timber Purchasers Group to determine biomass removal and use feasibility. The meeting was open to anybody that showed interest. Latter all the conservation groups in Arkansas were contacted and taken on tours of restoration areas to discuss vision, objectives, and proposed treatments.

The Oak Ecosystem Restoration Team developed five core strategies to restore the ecosystem: (1) Develop a suite of large landscape scale multi-ownership demonstration projects across the region, (2) develop a multi-level information and media campaign utilizing the demonstration sites to solidify broad-based public support for ecological restoration (hazardous fuel reduction, forest health enhancement), (3) identify and address state and federal policy barriers to extensive ecological restoration, (4) develop an ecological monitoring program that measures progress in abating the threat of altered fire regimes to the conservation of biodiversity, and (5) secure adequate funding for oak ecosystem restoration on public, private, and state lands throughout the region.

This project embodies the strategies outlined by the Oak Ecosystem Team for ecosystem restoration in the Interior Highlands. In addition to this regional synergy, the ecosystem restoration project outlined in this paper has participated in the Fire Learning Network (FLN), a

National collaborative project between the U.S. Forest Service, Department of the Interior, and The Nature Conservancy. The FLN promotes the development and testing of creative, adaptive, multi-ownership fire management strategies that are compatible with the National Fire Plan goals and the conservation goals of The Nature Conservancy. The network strives to achieve tangible, lasting results at landscape and ecoregional scales. At the regional level, the FLN promotes collaborative efforts between state, federal and private groups.

South Central Fire Learning Network (FLN) – This collaborative partnership is represented by the following agencies/partners: Arkansas Forestry Commission, Arkansas Game and Fish Commission, Arkansas, Arkansas Natural Heritage Commission, National Wild Turkey Federation, Quail Unlimited, Rocky Mountain Elk Foundation, The Nature Conservancy, Southwest Fire Use Academy, private landowners, National Park Services, U. S. Fish and Wildlife Service, U. S. Geological Survey, and USDA Forest Service. The South Central FLN vision is to "develop landscape-scale restoration and hazardous fuels reduction projects that return fire to its natural place in this region by engaging regional resources management partners and working with a core, science-based peer-learning group". The network consists of 17 sites in four ecoregions, the Ozarks, Ouachita Mountains, Upper West Gulf Coastal Plain, and Interior Low Plateaus for a total of 1.8 million acres. Members meet biannually for peer review. The group uses peer review scientific consensus to makes decisions. National level network meets annually at a workshop to exchange knowledge across regions.

A commitment letter was send to all partners in the collaborative. Most of the first contact individuals are field personnel. Because of that they had to forward the letter to their respective agency directors. We continue to receive response from collaborators. We expect to receive response from many more in the following weeks.

Accomplishments

The Ozark-St. Francis National Forest has been developing a partner base for many years. The Partnerships formed through this collaborative effort have improved relationships with typically adversarial groups, expanded our expertise base, and obtained funding, equipment, and personnel to accomplish restoration activities on the ground. Partners have helped the Forest complete ecological models for the landscape, spatially explicit maps of current and desired future conditions, alternative management scenarios for oak and pine woodland restoration, and develop specific management activities and monitoring programs to track progress to desired future conditions for this project. The AMPOWP that developed through the Oak Ecosystem Team and FLN was able to obtain $100,000 for the project area. The National Wild Turkey Federation has taken on an agreement currently valued at $293,422.70 of which $96,072 is non-federal dollars. These non-federal dollars are coming from The National Wild Turkey Federation, Arkansas Game and Fish Commission and Rocky Mountain Elk Foundation. Also, these partners along with Arkansas Wildlife Federation, Arkansas Canoe Club, Local Chapters of NWTF, Arkansas Audubon Society, and The Nature Conservancy are working on obtaining matching funds for the $500,000 National Forest Foundation Funds obligated to projects on the Ozark National Forest.

Multi-party Monitoring

Partners that include Arkansas Natural Heritage Commission, Arkansas Wildlife Foundation, Arkansas Game and Fish Commission, Arkansas Audubon Society, and The Nature Conservancy

have and will continue to assist with our monitoring programs. Arkansas Heritage Commission, Arkansas Game and Fish Commission, and The Nature Conservancy have also assisted in developing some of the protocols used in these monitoring programs.

Collaboration became formalized with the establishment of the oak ecosystem restoration team in 2000. The vision of the oak ecosystem restoration team and objectives of the collaboration are agreed upon by consensus. The collaborative has been working together for more than 10 years and has evolved overtime. Formal meeting of the current iteration of the oak ecosystem restoration group are held annually. However communication among the partners is continuous. The list of accomplishments is long and includes: Sponsoring a Symposium on Oak Ecosystem Restoration at the University of Arkansas, designing and implementation baseline vegetation monitoring on the areas under restoration, developing desired ecological condition parameters, Jointly implementing prescribed burns, jointly raising funds for restoration from foundations, annual briefings of editorial boards at major news outlets pertaining to restoration activities, developed and installation of public outreach materials and driving tours at restorations areas on Forest Service and partner lands and much more.

Successful collaboration has been the only reason that the ecological restoration of oak ecosystems is becoming an accepted management practice in the Ozarks. The partners work together, monitor activities and outcomes, discuss forest ecology with the public, garner resources, and support each other in due to the ability to articulate the desired outcome.

The overall project monitoring will be designed to utilize existing protocols and monitoring programs. The USFS, Nature Conservancy, and the Arkansas Natural Heritage Commission and other members of the oak ecosystem restoration team developed an ecological monitoring program to determine the effects of restoration activities and the success of restoration projects. The following monitoring protocols will determine attainment of success and project goals:

1. USFS fuels assessment to document fuel loading;
2. Cover type assessments through aerial photo interpretation and ground-truthing to quantify the size and distribution of the desired plant communities (forest types);
3. Plant community monitoring to quantify the structure, diversity, regeneration of plant communities (forest type groups) and ratio of native/non-native species;
4. Avian monitoring to quantify populations of selected area-dependent birds;
5. Fire regime condition class (FRCC) monitoring to track attainment of the historic fire regime;
6. Post-burn assessments to determine individual unit coverage and post burn severity;
7. Photo-monitoring to qualitatively document and communicate restoration progress;
8. Program accomplishments in terms of acres burned, thinned, harvested, and project costs.

The collaborative plans to increase the number of macro plots to capture a new Land Type Association within the project area from 96 to 109. This number may change after further research. These plots are monitored and will continue to be monitored in partnership with The Nature Conservancy and Arkansas Heritage Commission on a three year rotation.

Fish will be monitored in at least three of the major drainages using the forest sampling protocols to determine any changes in fish assemblages. In addition, The Forest will continue to work with

Arkansas Tech University, Arkansas Game and Fish Commission to develop a monitoring program to determine changes in stream dryness and stream flows.

An additional 19 bird plots in bearcat hollow will be established to determine changes in avian communities using R8 bird protocols. Volunteers from the Arkansas Audubon Society and Arkansas Wildlife Federation will be running these points. Other Forest and Regional monitoring programs such as deer/elk spotlight surveys; R8 bird and Breeding Bird Surveys will be conducted in the project area and can be used to capture potential effects on animal populations. The monitoring has both activity and effectiveness components. Success is measured by comparing current condition to the desired condition and trends toward desired condition, success in reaching restoration activity targets (frequency, seasonality, intensity for prescribed burns for instance), and in public acceptance and support. Monitoring reports are generated on tree year intervals and are reviewed by the oak ecosystem restoration team. Deficiencies and surprising pieces of information are discussed. Research is generated to assistant in answering questions where necessary.

The collaborative does not have a monitoring protocol in place for the social economic criteria. The Ozark – St. Francis National Forest will consult with the Ouachita Timber Purchasers Group to develop a monitoring protocol to assess the social economic criteria. The timeframe of the grant also provides an excellent opportunity to collaborate with the University of Arkansas or Arkansas Tech in developing and implementing social economic monitoring.

Utilization

Chipping and bio-fuel industries make use of small diameter material. However, distances from project area to processing facilities make it less profitable to local companies. The Ozark-St. Francis National Forests continues to work with partners to promote biomass utilization.

Utilization and removal of trees greater than 8 inches diameter at breast height (DBH) occurs when commercial timber sales are used as the mechanism to dispose of timber in restoration areas. Appropriate numbers of large trees are maintained in restoration areas. None of the restoration area would include clearcut as a treatment. In cases there is enough sawtimber being removed to make it economically feasible to remove small diameter trees at the same time. It is only when most of the wood products are of small diameter that removal and utilization has been difficult and resulted in a high cost per acre in reaching the desired future condition.

Restoration areas consisting mostly of small diameter material have little or no commercial value. As a result, the Forest is in the process of using stewardship contracts to pay the chipping and Bio-fuel industries for the harvesting and removal of trees from the project area. By offsetting the cost with the forest product removed, it is speculated that the cost of the restoration thinning would decrease by as much as half. This decrease in cost will save the Forest $1,579,774, increase volumes by 54,786 CCF with a value of $547,860, thus increasing our restoration capacity. Benefits from this activity would be the reduction in residual fuels which would protect reserve trees during prescribed burning activities, facilitate better utilization of forest products, and reach our desired future conditions quicker by treating more acres. To further address this issue, the Forest has formed a committee and hired a consultant to investigate and develop opportunities to utilize small round wood on the Ozark-St. Francis National Forest.

Current plans within the CFLRP will result in the removal of approximately 236,725 CCF of timber using standard commercial timber sales and stewardship agreements and sales with an estimated value of $5,455,282. About 142,035 CCF will consist of hardwood species with an average DBH of 14.5 inches for sawtimber and 8.0 inches for pulpwood. The remaining 94690 CCF consist of shortleaf pine with an average DBH of 14.0 inches for sawtimber and 10.0 inches for pulpwood. Of the removed volume, approximately 65% will be sawtimber for both hardwood and pine species with the remaining 35% being pulpwood. Hardwood sawtimber will be manufacture into furniture, flooring, lumber, railroad ties, and pallet material with pulpwood being used for railroad ties, paper, some lumber, and pallet material. Pine sawtimber uses are lumber, low quality paper, and chip board with pulpwood being used for low quality paper, chip board, and lumber.

An estimated 25% of the dollars generated from this project will utilize stewardship authorities in order to put as many dollars as possible back into work on the ground and create additional opportunities to secure matching funds. An additional 25% of trust fund (KV) funding will be used throughout the project to assist in meeting the desired future condition.

Figures given above for timber volumes and potential funds do not include restoration thinning areas. The Forest is currently working with local purchasers to develop a strategy to reduce costs and utilize small diameter wood. Because the state of Arkansas has an economically stable timber industry, we do not expect any problems in completing mechanical treatmens.

Benefits to Local Economies

This project, if funded, will help local economies by creating both temporary and permanent jobs. Most jobs will be in the area of forestry and logging. As a competent and viable forest management industry exists in Arkansas no training is needed. An analysis of the Central Contractor Registration revealed a total of 69 business that provide services in the area of forestry and 22 in the area of logging. The Forest has contracted work with many of these contractors.

Restoration work will be accomplished with timber sales, force account, and stewardship agreements. The Forest plans to primarily use a combination of indefinite delivery / indefinite quantity (ID/IQ) contracts, timber sale and stewardship contracts along with stewardship agreements to accomplish this work. Best value criteria may be used in the stewardship contracting. The Big Piney recently was approved for the Bearcat Hollow stewardship project. This project is within the CFRL proposal project area. The actions have a positive effect on the local economy in that it would provide revenue to schools and provide for local jobs through harvest and processing of forest products. We project that, if funded, this proposal will create 51 direct and 80 indirect and induced jobs for a total of 131 jobs in the area of timber/forestry. Economic benefits would also be realized through improvement of wildlife habitat and associated improvement to the Ozark Highland Trail.

The Ozark-St. Francis National Forests will continue working in identifying opportunities for a market for small diameter material. The Forest has worked in identifying stewardship projects with the collaboration of the Wild Turkey Federation. Some companies in the southern portion of Arkansas use small diameter material for wood pellet manufacturing. Distances from manufacturing company to project area may be too long to make it profitable to the companies.

The Forest and other partners are working on developing agreements and opportunities to promote small diameter material utilization in the project area. Opportunities like this would benefit companies at the state level. It would also, in the long term, promote the establishment of biomass utilization industry in other parts of the state.

Due to the existing contractor pool and timber industry there is no need for training at this time.

Funding plan

Federal and Non-Federal Investments-Over the ten year duration of the CFLR grant the expected total Federal investment is $24,557,721. The Forest estimates non-federal investment by collaborators to be $1,559,976. The Forest plans on using established monitoring programs and is not asking extra CFLRP funds for monitoring. The Arkansas Game and Fish Commission will contribute $245,000 towards non-native invasive species eradication, native grass restoration, lake and stream riparian habitat improvement and wildlife opening maintenance and improvement. The Arkansas Game and Fish Commission will also provide in-kind services for monitoring turkey, quail, bear, deer, aquatic game species and non-game species, bats, vegetation, lakes, and streams.

The National Wild Turkey Federation (NWTF) will invest $124,000. A portion of this funding, $45,000, will be used from year 2011 to 2013 on turkey research and monitoring. The remaining funds will be spent evenly throughout the life of the project on direct on the ground wildlife habitat improvement.

Crawford County Chapter of NWTF will invest $30,000 on the ground evenly each year for wildlife habitat improvement and gates for watershed improvement. Approximately $500 a year will be spent on education projects and co-hosting a JAKES event with the Forest Service fishing derby.

Friends of Lake Wedington will contribute $82,000 of which $15,000 will be spent on the purchase of native plants and trees to plant in the recreation area of Lake Wedington. The rest of the funds will be in-kind services for trail construction, tree/plant restoration, trash clean ups, education, and interpretation outreach material.

Razorback Riders will contribute $75,000 to be spent evenly during the life of the project for Off Highway Vehicle (OHV) trail maintenance, supplies, and crossing/riparian improvement.

Mulberry River Clean up Volunteers will invest $20,000 for supplies for river clean ups and riparian restoration. They will also contribute $12,000 in in-kind services for supplies for river clean ups and riparian restoration.

Lee Creek River Clean up Volunteers will contribute invest $5,000 for supplies for river clean ups and riparian restoration. They will also contribute $7,000 in in-kind services for supplies for river clean ups and riparian restoration.

Arkansas State University will invest $150,000 for compliance Indiana bat mist netting monitoring and for bat population monitoring. This work effectively monitors the response of bats to different forest vegetative management treatments.

Arkansas Cooperative Fish & Wildlife Research Unit, University of Arkansas will fund supplies, Ph.D. student and tuition to work on the Turkey Research project monitoring. Their total investment will add up to $35,005.

Rocky Mountain Elk Foundation will invest $50,000 for habitat improvements.

National Forest Foundation and other partners will contribute $672,500 for habitat improvements in Bearcat Hollow and lake restoration in Brock Creek.

The Nature Conservancy will invest $52,471 in in-kind funds towards monitoring.

Funds for the Federal Highways (HTAP) totaling $3,964,800 will be used for culvert/crossing replacement. The U.S. Fish and Wildlife Service will contribute $991,200 towards culvert/crossing replacement. The Forest investment will consist of culvert/crossing design. Culver/crossing replacement will improve watershed conditions and aquatic habitat. All of the crossings scheduled for replacement are considered fish barriers. Several species of fish can not pass these crossings.

The Forest has MOU's in place with Federal Highways, U.S. Fish & Wildlife, Arkansas Game and Fish Commission, and National Wild Turkey Federation for the funds and work to be performed in the specific project areas. A volunteer agreement is in place with the Friends of Lake Wedington, Razorback Riders, Crawford County chapter of NWTF, and Mulberry and Lee Creek rivers clean up volunteers.

Investments Outside of Landscape-Adjacent to the project area to the north and east (see Ownership and Focus Areas Map) are two Arkansas Game and Fish Commission (AGFC) owned wildlife management areas. The AGFC has conducted similar management activities as those inside the project area resulting in the construction of over 400 acres of openings, 1,800 acres of thinning, and 5,700 acres of prescribed burning. In the spring of 2007, the Gulf Mountain co-op burn between the AGFC and Forest Service (FS) was conducted resulting in 1,400 acres of FS and 1,200 acres of AGFC lands being burned. This burn will again be conducted within the next five years when the restoration thinning is completed on FS lands within the burn area. Another co-op burn called Bearcat Hollow is planned in the next 2-3 years which will involve three agencies and include acres on the Buffalo National River (USDI), FS, and AGFC (Gene Rush WMA) lands. In addition to the prescribed burning on a 3-5 year rotation (approx. 1,200 ac/yr), the AGFC will continue to manage the 400 acres of openings on a rotating bases and thin additional acres creating a wide variety of habitats.

Attachment A

Projected Accomplishments Table

Performance Measure	Code	Number of units to be treated over 10 years using CFLR funds	Number of units to be treated over 10 years using other FS funds	Number of units to be treated over 10 years using Partner Funds[1]	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years[2]	Partner funds to be used over 10 years
Acres treated annually to sustain or restore watershed function and resilience	WTRSHD-RSTR-ANN	0	2,500	0	0	104,250	0
Acres of forest vegetation established	FOR-VEG-EST	341	2,341	0	$25,580	$425,580	0
Acres of forest vegetation improved	FOR-VEG-IMP	4,775	22,776	0	$696,250	$3,174,400	0
Manage noxious weeds and invasive plants	INVPLT-NXWD-FED-AC	9,483	2,629	0	$1,410,195	$289,505	0
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands	INVSPE-TERR-FED-AC	201,000	322	0	$416,100	$142,000	0
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions.	S&W-RSRC-IMP	6,681	1,208	5	$1,357,140	$143,020	0

[1] These values should reflect only units treated on National Forest System Land

[2] **Matching Contributions:** The CFLR Fund may be used to pay for up to 50 percent of the cost of carrying out and monitoring ecological restoration treatments on National Forest System (NFS) lands. The following BLI's have been identified as appropriate for use as matching funds to meet the required minimum 50% match of non-CFLR funds: ARRA, BDBD, CMEX, CMII, CMLG, CMRD, CMTL, CWFS, CWKV, CWK2, NFEX, NFLM (Boundary), NFMG (ECAP/AML), NFN3, NFTM, NFVW, NFWF, PEPE, RBRB, RTRT, SFSF, SPFH, SPEX, SPS4, SSCC, SRS2, VCNP, VCVC, WFEX, WFW3, WFHF.

The following BLI's have been identified as **NOT** appropriate for use as matching funds to meet the required minimum 50% match of non-CFLR funds: ACAC, CWF2, EXEX, EXSL, EXSC, FDFD, FDRF, FRRE, LALW, LBLB, LBTV, LGCY, NFIM, NFLE, NFLM (non-boundary), NFMG (non-ECAP), NFPN, NFRG, NFRW, POOL, QMQM, RIRI, SMSM, SPCF, SPCH, SPIA, SPIF, SPS2, SPS3, SPS5, SPST, SPUF, SPVF, TPBP, TPTP, URUR, WFPR, WFSU.

Performance Measure	Code	Number of units to be treated over 10 years using CFLR funds	Number of units to be treated over 10 years using other FS funds	Number of units to be treated over 10 years using Partner Funds[1]	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years[2]	Partner funds to be used over 10 years
Acres of lake habitat restored or enhanced	HBT-ENH-LAK	145.5	2434.5	85	$1,129,470	$473,500	$282,500
Miles of stream habitat restored or enhanced	HBT-ENH-STRM	41	140	6	$56,568	$145740	$30,000
Acres of terrestrial habitat restored or enhanced	HBT-ENH-TERR	32,888	8,963	4,998	$4,392,911	$2,612,250	$718,133
Acres of rangeland vegetation improved	RG-VEG-IMP	0	6,000	0	0	$260,000	0
Miles of high clearance system roads receiving maintenance	RD-HC-MAIN	10	279.5	0	$4,910	$75,808	0
Miles of passenger car system roads receiving maintenance	RD-PC-MAINT	6	1,075.5	0	$2,950	$283,032	0
Miles of road decommissioned	RD-DECOM	1.5	12.5	0	$5,000	$16,000	0
Miles of passenger car system roads improved	RD-PC-IMP						
Miles of high clearance system road improved	RD-HC-IMP						
Number of stream crossings constructed or reconstructed to provide for aquatic organism passage	STRM-CROS-MTG-STD	7	1	4	$958,120	$275,000	$4,956,000

Performance Measure	Code	Number of units to be treated over 10 years using CFLR funds	Number of units to be treated over 10 years using other FS funds	Number of units to be treated over 10 years using Partner Funds[1]	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years[2]	Partner funds to be used over 10 years
Miles of system trail maintained to standard	TL-MAINT-STD	400	100	300	$600,000	$150,000	$450,000
Miles of system trail improved to standard	TL-IMP-STD	21	1	1	$150,000	$25,000	$15,000
Miles of property line marked/maintained to standard	LND-BL-MRK-MAINT						
Acres of forestlands treated using timber sales	TMBR-SALES-TRT-AC	1,086	30,358	0	$142,500	$2,609,226	0
Volume of timber sold (CCF)	TMBR-VOL-SLD	118,363	118,363	0	$3,924502	$3,924502	0
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production	BIO-NRG						
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire	FP-FUELS-NON-WUI	2,880	114,037	0	$48,960	$2,272,100	0

Performance Measure	Code	Number of units to be treated over 10 years using CFLR funds	Number of units to be treated over 10 years using other FS funds	Number of units to be treated over 10 years using Partner Funds[1]	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years[2]	Partner funds to be used over 10 years
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire	FP-FUELS-WUI	3,000	161,843	0	$51,000	$3,191,860	0
Number of priority acres treated annually for invasive species on Federal lands	SP-INVSPE-FED-AC	500	990	50	$436,590	$220,500	$22,500
Number of priority acres treated annually for native pests on Federal lands	SP-NATIVE – FED-AC						

Attachment B

R-CAT Results

Proposal Name: Ozark Highlands Ecosystem Restoration

Start Year	2011
End Year	2020
Total Treatment Acres	104,910.00
Average Treatment Duration	3
Discounted Anticipated Cost Savings - No Beneficial Use	**$210,838**
Discounted Anticipated Cost Savings - Low Beneficial Use	$158,129
Discounted Anticipated Cost Savings - Moderate Beneficial Use	$158,129
Discounted Anticipated Cost Savings - High Beneficial Use	$158,129

Proposal Name: Ozark Highlands Ecosystem Restoration	**Documentation Page**
This page is intended to help you record and communicate the assumptions and calculations that feed the risk and cost analysis tool package spreadsheet	Response / Information Column
Was the analysis prospective (projecting activities, costs and revenues that are planned by the proposal) or retrospective (using actual acres, revenues and costs in an analysis looking back over the life of the project)?	Prospective
Start year rationale:	We could start this year
End year rationale:	The CFLR projects were 10 years. We are planning to continue to work past this date in the project area.
Duration of treatments rationale:	Based upon based experience, we have seen a relatively quick regrowth of woody sprouts especially with a one time burn and cut. This would put it back into a fuel model nine. Now several of these areas will not be one time and have other treatments such as herbicide to control woody sprouts but the team wanted to take a conservative estimate.
All dollar amounts entered should reflect undiscounted or nominal costs, as they are discounted automatically for you in the R-CAT spreadsheet tool? Did	Yes, 2011 to 2020

you provide undiscounted costs, and in what year data are your costs and revenues provided.	
Average treatment cost per acre rationale:	We looked at the types of treatments that we use for restoration/fuel treatments and determined the approximate percent of the acres that would receive these treatments with in the burn area. Then we multipled that percent by the contract cost for each of the treatment. For example approximately 25% of the burn area will receive Hazard Fuel treatment that cost 118/acre so that would be $30 per acre. After all treatments cost were estimated per acre burn, they were summed and 20% was added on for administrative cost.
Rationale for actual costs per acre of treatment by year is used:	We used the estimate from above and increase the cost by 4% each year. Based upon my IDIQ contract that was the inflation cost per year.
Average treatment revenue per acre rationale:	We used the estimates from the utilization section to determine revenue per acre. Then I divided by 4 because I estimated only 25% of the area the burn area would produce volume.
This tool is intended to be used to estimate **Forest Service fire program costs only**, did you conduct your analysis this way or have you taken an all lands approach?	All treatments utilized in the spreadsheet benefits the objectives of the Fire Program on the Ozark (hazard fuel treatments/WSI, Commercial Restoration thinning , perscribed burns, understory removal). These treatments are all designed to move these stands from a FRCC 3 toward a FRCC1. There are several other treatments proposed in the project but was not used for the calculations because they did not directly meet the fire program objectives.
Total treatment acres calculations, assumptions:	Using Gis we determined how many acres would be treated in the project area. No past treatments were included and we assumed an even distrubation of treatments throughout the project.
Treatment timing rationale with NEPA analysis considerations:	Most of our area is already nepatized; there for it did not enter into consideration.
Annual Fire Season Suppression Cost Estimate Pre Treatment, Assumptions and Calculations	We used historical data from 1970 to 1989 and 2004 to 2009 to determine for the districts that encompass the project area to determine fire year acres and multipled that by our estimated suppression cost
Did you use basic Landfire Data for you Pretreatment Landscape?	NO, do not have the skills on the forest.
Did you modify Landfire data to portray the pretreatment landscape and fuel models?	NO
Did you use ArcFuels to help you plan fuel treatments?	NO
Did you use other modeling to help plan fuel treatments, if so which modeling?	NO
Did you model fire season costs with the Large Fire Simulator?	NO, Do not have the skills on the forest.
If, so who helped you with this modeling?	
If not, how did you estimate costs, provide details here:	We looked at 5 fires on the Big Piney and 3 on the Pleasant Hill and came up with an average per acre $389 and mulitpled it by the Fire year acre pretreatment.

Did you apply the stratified cost index (SCI) to your Fsim results?	NO
Who helped you apply SCI to your FSIM results?	
Did you filter to remove Fsim fires smaller than 300acres and larger than a reasonable threshold?	NO
What is the upper threshold you used?	None
Did you use median pre treatment costs per fire season?	NO
Did you use median post treatment costs per fire season?	NO
Did you test the statistical difference of the fire season cost distributions using a univariate test?	NO
What were the results?	
Did you estimate Burned Area Emergency Response (BAER) costs in you analysis?	NO
Did you use H codes or some other approach to estimate these costs?	NO
Did these cost change between pre and post treatment?	NO
Did you estimate long term rehabilitation and reforestation costs in your analysis?	NO
How did you develop these estimates, and did these cost change between pre and post treatment?	NO
Did you include small fire cost estimates in your analysis?	NO
If so, how did you estimate these costs, what time period is used as a reference, and did these cost change between pre and post treatment?	NO
Did you include beneficial use fire as a cost savings mechanism in your analysis?	NO
How did you estimate the percent of contiguous area where monitoring is an option for pretreatment landscape?	NO
How did you estimate the percent of contiguous area where monitoring is an option for post treatment landscape, and why did you select the percentage of your landscape for low, moderate and high?	NO
How did you derive an estimate for the percentage of full suppression costs used in fire monitoring for beneficial use?	NO
Did you ensure that you clicked on all the calculation buttons in cells in column E after entering your estimates?	NO
Did you make any additional modifications that should be documented?	NO

Attachment C

Overview of the Collaboration

Organization Name	Contact Name	Phone Number	Role in Collaborative
Arkansas Game and Fish Commission	Martin Blaney	479-967-7577	• Landowner (Gene Rush and Gulf Mtn WMA), • Member of the Oak Ecosystem Team and the AMPOWP. • Have been involved with the project since inception over 10 years. • Have an Existing Agreement with Forest Service to do habitat improvement projects and a Memorandum of Understanding with the Ozark/St. Francis • Participated in FLN Projects for Bearcat Hollow and WEP • Will Contribute $30,000 to the Bearcat Hollow Stewardship Agreement with NWTF. • Assisted with educational tours for the public • Published articles discussing Forest Health Issues/Oak Decline and Forest Management Practices • Have conducted joint prescribed burns (Gulf Mtn and WEP, Forest Service) and planning a joint prescribed burn in 2012 (Gene Rush and Bearcat Hollow • Assisted with grant writing
Arkansas Forestry Commission	Larry D. Nance	501-296-1940	• Member of the Oak Ecosystem Team • Assisted the district in obtaining Steven's Agreements to burn private lands within the project • Assisted with Prescribed burning in the project area
Arkansas Natural Heritage Commission	Theo Witsel	501-324-9615	• Member of the Oak Ecosystem Team, • Have been involved with the project since inception over 10 years. • Participated in the FLN Workshops for the development of the WEP project

			• Currently assisting with implementation of the Monitoring Program.
US Fish and Wildlife Service	Steve Osborne contact Retired		• Member of the Oak Ecosystem Team and the AMPOWP. • Assisted with the educational tours for the public • Participate in the FLN Workshops for both Bearcat Hollow and WEP
The Nature Conservancy	Doug Zollner	501-614-5083	• Member of the Oak Ecosystem Team and the AMPOWP. • Have been involved with the project since inception over 10 years. Installed baseline monitoring. • Have an Existing Agreement with Forest Service to continue vegetation monitoring and habitat improvement projects and a Memorandum of Understanding with the Ozark/St. Francis • Organized and participated in FLN Workshops for Bearcat Hollow and WEP • Assisted with Prescribed burning • Assisted with Grant writing including this proposal • Assisted with educational tours for the public • Published articles discussing Forest Health Issues/Oak Decline and Forest Management Practices
Rocky Mountain Elk Foundation	Tom Toman	406-523-3443	• Participated with the development of Bearcat Hollow • Developed an educational Brochure for Bearcat Hollow • Have contributed over $29,000 for habitat work in the CFLRP area
National Wild Turkey Federation	Dennis Daniel	936-208-9698	• Have been involved with the project 8 years. • Currently have a Stewardship Agreement (Bearcat Hollow)

			valued over $440,000 • participated in FLN Workshops for Bearcat Hollow • Assisted with Grant writing • Assisted with tours • Published articles discussing Forest Health Issues/Oak Decline and Forest Management Practices
Ouachita Timber Purchasers Group	James R. Crouch	479-968-2154	• Provide information on feasibility study to Oak Ecosystem Team. • Assist with Social Economic monitoring. • Provide expertise with private job sector.
Arkansas Audubon Society	Working through AWF		• Worked with the Arkansas Wildlife Federation on a NFF Grant for Bearcat Hollow • Conducting Avian Monitoring in Bearcat Hollow
Arkansas Canoe Club	Working Through AWF		• Worked with the Arkansas Wildlife Federation on a NFF Grant for Bearcat Hollow • Will assist with stream cleanup in Bearcat Hollow • Assist US Forest Service with introduction of Large Woody Debris in Dry Creek (Bearcat Hollow)
River Valley Longbeards, Chapter of NWTF	Mike Mills	479-967-7577	• Maintenance of fields in Bearcat Hollow this past summer
Quail Unlimited	Russellville chapter has dissolved.		• Have been involved with the project since inception over 7 years • Contributed over $16,000 to habitat improvements in the Wep project • Obtained $24,000 through grants from National Fish and Wildlife Foundation
National Fish and Wildlife Foundation	Worked through Quail unlimited		• Have been involved with the project since inception over 7 years • Contributed $24000 to the WEP project
National Forest	Adam J	406-830-3357	• Have been involved with the

Foundation	Liljebald		project 1 year. • Have committed $500,000 (have used approximately 100,000 last year.)
Arkansas Wildlife Federation	Wayne Shewmake	479-229-2298	• Member of the Oak Ecosystem Team. • Have been involved with the project since inception over 1 year. • Assist with writing grants • Have coordinated and implemented work in the Bearcat Hollow Project
Buffalo National River	Working through AGFC on this project.		• Have been a partner for 8 years • Have been involved with the development of bearcat hollow • Has worked with Arkansas Game and Fish Commission on habitat improvements on the National River and Gene Rush Management area. • There is plans to conduct a cooperative burn in 2012 that would encompass Forest Service, Gene Rush and the Buffalo National River land.
Arkansas Tech	Dr. Chris Kellner and Dr. Tom Nupp		• Conducted studies looking at the effects of Restoration Activities on Small Mammals and Avian Communities
University of Arkansas at Monticello	Don White		• Conducted studies on the Elk Herds in Arkansas and in the project area • Worked with the Arkansas Wildlife Federation on habitat improvement projects
Ozark-St. Francis National Forests	Dwayne Rambo	479-284-3150	• Coordinate program of work for Big Piney Ranger District.
Ozark-St. Francis National Forests	Gregory Taylor	479-754-2864	• Coordinate program of work for Pleasant Hill Ranger District
Ozark-St. Francis National Forests	Rhea Whalen	479-667-2191	• Coordinate program of work for Boston Mountain Ranger District

Attachment D

Letter of Commitment

Project name: Ozark Highlands Ecosystem Restoration

Introduction

The Interior Highland's ecosystem of oak forests, woodland, savannas, and related communities forms the largest contiguous remnant of an ecosystem type that once stretched from Oklahoma to the middle Appalachians and Eastern seaboard. The region's three national forests, six national parks, numerous state wildlife management areas and natural areas, and high gradient rivers provide excellent outdoor recreation opportunities. The ecosystem also supports a wood products industry. In addition, the area is a center of biodiversity, supporting diverse upland wildlife populations, fisheries, and over 200 species of animals and plants only found in the Interior Highlands. For over 12,000 years, this historically open landscape has been shaped and maintained by frequent, low intensity fires.

As part of a national fire suppression effort, the fire regime of the region changed. These changes significantly impacted the structure and diversity of the oak ecosystem over the last 100 years. The oak forests, woodlands, and savannas became much denser, with many more stems per acre. This increased density has caused stress on the ecosystem, leaving it vulnerable to outbreaks of native insect pests. These outbreaks have killed a majority of the oak trees on over a million acres, shifting the communities to a different forest type. There is great concern that the shift in forest type will cause declines in wildlife populations and rare species dependent on the oak ecosystem, in addition to the loss of wood products available to local communities. Abundant information and experience exists to begin restoring this ecosystem.

Project partnership

The Ozark woodland restoration plan is a long-term partnership that began with the oak ecosystem restoration Team in 2000.

Partners include the Arkansas Wildlife Federation, Arkansas Game and Fish Commission, Arkansas Forestry Commission, Arkansas Natural Heritage Commission, US Fish and Wildlife Service, University of Arkansas Cooperative Extension Service, The Nature Conservancy, US Forest Service, and US Forest Service – Southern Research Station. This strategy forms a broad outline for the partners to pursue in collaboratively restoring the ecosystem.

The Fire Learning Network is a partnership that works as the process to promote woodland restoration. Many of the partners from the oak ecosystem restoration team also belong to the Fire Learning Network.

Geographic focus

The projects geographic focus is the Ozark highlands ecosystems, northwest Arkansas. The project will be carried out at the Big Piney, Boston Mountain, and Pleasant Hill Ranger districts.

Project vision

The CFLR Team's vision is: "To accelerate ecological restoration and management in the upland oak and oak-pine ecosystems to maintain its health, sustainability, and diversity through demonstration, public awareness, research, and education."

Project objectives

This project strategy is composed of five components each with a 10 year goal included in the strategy and specific two-year outcomes or objectives. The strategy components are:

1. Ecological Restoration
2. Economic benefits
3. Biomass utilization
4. Monitoring
5. Public awareness

We, the representatives of the Collaborative, commit to support the landscape restoration efforts described in the proposal. This commitment is not financially binding. Some of the organizations already commit financially with the USDA Forest Service with MOUs and other agreements. We will support restoration efforts by continuing management practices that would promote Ozark Highlands ecosystem restoration.

Ozark National Forest

/s/ Judi L. Henry – Forest Supervisor

Arkansas Canoe Club

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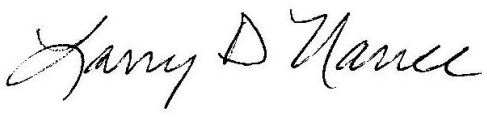
Arkansas Forestry Commission



Arkansas Game and Fish Commission

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Arkansas Natural Heritage Commission

Arkansas Tech

Arkansas Wildlife Federation

/s/ Wayne Shewmake – President

National Fish and Wildlife Foundation

National Forest Foundation

National Park Service

National Wild Turkey Federation

/s/James Earl Kennamer, Ph.D. by cdd

Chairman

Ouachita Timber Purchasers Group

Quail Unlimited

Rocky Mountain Elk Foundation

Southwest Fire Use Academy

The Nature Conservancy

Douglas Zollner / Arkansas Field Office of The Nature Conservancy

U.S. Fish and Wildlife Service

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U.S. Geological Survey

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Attachment E

Detailed Average Annual Impacts Table (For CFLR Fund Contributions Only)	Employment (# Part and Full-time Jobs)			Labor Inc (2010 $)		
	Direct	Indirect and Induced	Total	Direct	Indirect and Induced	Total
Thinning-Biomass: Commercial Forest Products						
Logging	8.6	9.4	18.0	341,466	392,785	734,251
Sawmills	5.1	10.7	15.8	220,233	401,139	621,372
Plywood and Veneer Softwood	2.7	3.9	6.6	125,403	150,157	275,561
Plywood and Veneer Hardwood	8.9	12.9	21.8	327,105	391,674	718,779
Oriented Strand Board (OSB)	-	-	-	-	-	-
Mills Processing Roundwood Pulp Wood	3.3	13.4	16.7	283,017	564,724	847,740
Other Timber Products	9.5	14.2	23.6	474,807	749,029	1,223,836
Facilities Processing Residue From Sawmills	1.6	6.1	7.7	117,767	233,263	351,031
Facilities Processing Residue From Plywood/Veneer	0.6	2.2	2.8	42,825	84,823	127,647
Biomass--Cogen	0.0	0.0	0.1	2,872	1,786	4,658
Total Commercial Forest Products	**40.2**	**72.9**	**113.1**	**1,935,495**	**2,969,380**	**4,904,876**
Other Project Activities						
Facilities, Watershed, Roads and Trails	4.6	3.1	7.7	211,469.5	148,295.8	359,765.2
Abandoned Mine Lands	0.0	0.0	0.0	0.0	0.0	0.0
Ecosystem Restoration, Hazardous Fuels, and Forest Health	5.2	1.1	6.2	166,302.3	44,668.9	210,971.2
Commercial Firewood	0.0	0.0	0.0	0.0	0.0	0.0
Contracted Monitoring	0.0	0.0	0.0	0.0	0.0	0.0
Total Other Project Activitie	**9.8**	**4.1**	**13.9**	**377,772**	**192,965**	**570,736**
FS Implementation and Monitoring	**1.0**	**3.0**	**4.0**	**279,905**	**122,673**	**402,578**
Total Other Project Activities & Monitoring	**10.8**	**7.2**	**17.9**	**$657,677**	**$315,638**	**$973,314**
Total All Impacts	**50.9**	**80.1**	**131.0**	**$2,593,172**	**$3,285,018**	**$5,878,190**

Attachment F

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2011 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2011 Funding Type	Dollars/Value Planned
1. FY 2011 Funding for Implementation	$2,841,263.00
2. FY 2011 Funding for Monitoring	$20,000.00
3. USFS Appropriated Funds	$1,421,917.00
4. USFS Permanent & Trust Funds	$118,414.00
5. Partnership Funds	$666,650.00
6. Partnership In-Kind Services Value	$260,000.00
7. Estimated Forest Product Value	$394,282.00
8. Other (specify)	-
9. FY 2011 Total (total of 1-6 above for matching CFLRP request)	$2,861,263.00
10. FY 2011 CFLRP request (must be equal to or less than above total)	$959,219.00
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 2011 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	
Private Funding	

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2012 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2012 Funding Type	Dollars/Value Planned
1. FY 2012 Funding for Implementation	$3,627,349.00
2. FY 2012 Funding for Monitoring	$32,500.00
3. USFS Appropriated Funds	$2,017,799.00
4. USFS Permanent & Trust Funds	$70,000.00
5. Partnership Funds	$692,550.00
6. Partnership In-Kind Services Value	$262,500.00
7. Estimated Forest Product Value	$617,000.00
8. Other (specify)	-
9. FY 2012 Total (total of 1-6 above for matching CFLRP request)	$3,659,849.00
10. FY 2012 CFLRP request (must be equal to or less than above total)	$1,908,096.00
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 2012 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	$38,000.00
Private Funding	

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2013 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2013 Funding Type	Dollars/Value Planned
1. FY 2013 Funding for Implementation	$3,995,699.00
2. FY 2013 Funding for Monitoring	$32,500.00
3. USFS Appropriated Funds	$2,087,299.00
4. USFS Permanent & Trust Funds	$90,000.00
5. Partnership Funds	$918,900.00
6. Partnership In-Kind Services Value	$262,500.00
7. Estimated Forest Product Value	$669,500.00
8. Other (specify)	-
9. FY 2013 Total (total of 1-6 above for matching CFLRP request)	$4,028,199.00
10. FY 2013 CFLRP request (must be equal to or less than above total)	$2,293,477.00
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 2013 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	$38,000.00
Private Funding	

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2014 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2014 Funding Type	Dollars/Value Planned
1. FY 2014 Funding for Implementation	$3,855,232.00
2. FY 2014 Funding for Monitoring	$32,500.00
3. USFS Appropriated Funds	$2,107,299.00
4. USFS Permanent & Trust Funds	$100,000.00
5. Partnership Funds	$748,433.00
6. Partnership In-Kind Services Value	$262,500.00
7. Estimated Forest Product Value	$669,500.00
8. Other (specify)	-
9. FY 2014 Total (total of 1-6 above for matching CFLRP request)	$3,887,732.00
10. FY 2014 CFLRP request (must be equal to or less than above total)	$2,154,230.00
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 2014 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	$38,000.00
Private Funding	

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2015 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2015 Funding Type	Dollars/Value Planned
1. FY 2015 Funding for Implementation	$3,298,399.00
2. FY 2015 Funding for Monitoring	$37,500.00
3. USFS Appropriated Funds	$1,882,299.00
4. USFS Permanent & Trust Funds	$100,000.00
5. Partnership Funds	$573,600.00
6. Partnership In-Kind Services Value	$262,500.00
7. Estimated Forest Product Value	$517,500.00
8. Other (specify)	-
9. FY 2015 Total (total of 1-6 above for matching CFLRP request)	$3,335,899.00
10. FY 2015 CFLRP request (must be equal to or less than above total)	$1,764,160.00
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 2015 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	$38,000.00
Private Funding	

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2016 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2016 Funding Type	Dollars/Value Planned
1. FY 2016 Funding for Implementation	$3,148,949.00
2. FY 2016 Funding for Monitoring	$30,000.00
3. USFS Appropriated Funds	$1,732,849.00
4. USFS Permanent & Trust Funds	$100,000.00
5. Partnership Funds	$573,600.00
6. Partnership In-Kind Services Value	$255,000.00
7. Estimated Forest Product Value	$517,500.00
8. Other (specify)	-
9. FY 2016 Total (total of 1-6 above for matching CFLRP request)	$3,178,949.00
10. FY 2016 CFLRP request (must be equal to or less than above total)	$1,592,788.00
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 2016 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	$38,000.00
Private Funding	

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2017 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2017 Funding Type	Dollars/Value Planned
1. FY 2017 Funding for Implementation	$3,118,899.00
2. FY 2017 Funding for Monitoring	$37,500.00
3. USFS Appropriated Funds	$1,732,799.00
4. USFS Permanent & Trust Funds	$70,000.00
5. Partnership Funds	$573,600.00
6. Partnership In-Kind Services Value	$262,500.00
7. Estimated Forest Product Value	$517,500.00
8. Other (specify)	-
9. FY 2017 Total (total of 1-6 above for matching CFLRP request)	$3,156,399.00
10. FY 2017 CFLRP request (must be equal to or less than above total)	$1,581,287.00
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 2017 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	
Private Funding	

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2018 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2018 Funding Type	Dollars/Value Planned
1. FY 2018 Funding for Implementation	$3,148,899.00
2. FY 2018 Funding for Monitoring	$37,500.00
3. USFS Appropriated Funds	$1,732,799.00
4. USFS Permanent & Trust Funds	$100,000.00
5. Partnership Funds	$573,600.00
6. Partnership In-Kind Services Value	$262,500.00
7. Estimated Forest Product Value	$517,500.00
8. Other (specify)	-
9. FY 2018 Total (total of 1-6 above for matching CFLRP request)	$3,186,399.00
10. FY 2018 CFLRP request (must be equal to or less than above total)	$1,612,218.00
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 2018 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	$38,000.00
Private Funding	

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2019 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2019 Funding Type	Dollars/Value Planned
1. FY 2019 Funding for Implementation	$3,126,766.00
2. FY 2019 Funding for Monitoring	$30,000.00
3. USFS Appropriated Funds	$1,732,799.00
4. USFS Permanent & Trust Funds	$73,367.00
5. Partnership Funds	$573,600.00
6. Partnership In-Kind Services Value	$259,500.00
7. Estimated Forest Product Value	$517,500.00
8. Other (specify)	-
9. FY 2019 Total (total of 1-6 above for matching CFLRP request)	$3,156,766.00
10. FY 2019 CFLRP request (must be equal to or less than above total)	$1,577,516.00
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 2019 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	$38,000.00
Private Funding	

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2020 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2020 Funding Type	Dollars/Value Planned
1. FY 2020 Funding for Implementation	$3,152,899.00
2. FY 2020 Funding for Monitoring	$37,500.00
3. USFS Appropriated Funds	$1,732,799.00
4. USFS Permanent & Trust Funds	$100,000.00
5. Partnership Funds	$573,600.00
6. Partnership In-Kind Services Value	$266,500.00
7. Estimated Forest Product Value	$517,500.00
8. Other (specify)	-
9. FY 2020 Total (total of 1-6 above for matching CFLRP request)	$3,190,399.00
10. FY 2020 CFLRP request (must be equal to or less than above total)	$1,612,218.00
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 2020 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	
Private Funding	