Zuni Mountain Collaborative Forest Landscape Restoration Program Proposal

Executive Summary

Dominant forest type(s): piñon-juniper and ponderosa pine ecosystems
Total acreage of the landscape: **210,000**; Total acreage to receive treatment: **56,000.**
Total number of NEPA ready acres: **24,000**; Total number of acres in NEPA process: **74,000.**

Description of the most significant restoration needs and actions on the landscape: Ninety percent of the proposed landscape is classified as fire regime condition class III. The high fire risk also affects the state-endangered Zuni Bluehead Sucker which is endemic to the landscape. The most significant restoration needs include restoring ecosystem structure, composition, processes, and hydrologic function; increasing forest resiliency to pests, pathogens, and climate change; and stabilizing local restoration oriented businesses.

Description of the highest priority desired outcomes of the project at the end of the 10-year period: The project will support a managed landscape where vegetation is resilient in the face of climate change, resistant to uncharacteristic crown fires, and supports healthy animal and human communities. The 56,000 acres restored through this project will provide a long-term supply of wood for existing appropriately scaled wood utilization businesses. Stabilized forest-based economic development will yield 93 durable, good paying jobs per year that support local worker retention and wealth creation.

Description of the most significant utilization opportunities linked to this project: The Zuni Mountain landscape has been growing a suite of restoration-oriented wood utilization, treatment, and hauling businesses over the past decade. This project will provide the long-term wood supply to move these core businesses beyond the cycle of grant dependence to a position where than can successfully compete in the marketplace.

Name of the National Forest, collaborative groups, and other major partner categories involved in project development: Mt. Taylor Ranger District of the Cibola National Forest. The Wood Industries Network (WIN) which since 2005 has been meeting to leverage opportunities for wood businesses, forest restoration treatments, education, and monitoring. WIN includes businesses, educators, non-profits, local government, extension agents, academics, and Tribal, state, and federal agencies.

Describe the community benefit including number and types of jobs created: The project supports community social and economic development goals by creating an estimated 93 jobs per year with many more durable jobs expected as local businesses make investments.

Total dollar amount requested in FY11: **$400,000.** Total dollar amount requested for life of project: **$7,600,000.** Total dollar amount provided as Forest Service match in FY11: **$355,000.** Total dollar amount provided as Forest Service match for life of project: **$6,745,000.** Total dollar amount provided in Partnership Match in FY11: **$5,000.** Total dollar amount provided in Partnership Match for life of project: **$95,000.** Total in-kind amount provided in Partnership Match in FY11: **$10,000.** Total in-kind amount provided in Partnership Match for life of project: **$190,000** .Time frame for the project (from start to finish): **2011 – 2020.**

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Ecological, Social, and Economic Context

Situated in west-central New Mexico, the Zuni Mountain Landscape (ZML) is comprised of moderate terrain dominated by ponderosa pine and piñon-juniper ecosystems. Historically this landscape has been culturally important to several Native American Pueblos and Tribes including Laguna, Acoma, and Zuni Pueblos as well as the Navajo Nation and the Ramah Navajo Chapter, and remains so today. Since the late 19th century, the landscape has been critical to surrounding communities and their economic wellbeing through timber, grazing, mining, and game. In fact, the ZML was heavily railroad logged with the arrival of the railroad in the 1880s (Dick-Peddie 1993) [1]. Logging continued through the 1980s albeit at a lower intensity. With the decline of logging and mining in the area, rural communities of Cibola and McKinley counties lost their wood harvesting and processing infrastructure. The economic decline stemming from the loss of traditional forest-based industry has fueled a cycle of poverty that ranks as one of the highest in the state (US Census Bureau 2010).

The ZML encompasses two areas: (1) the fifth code Bluewater watershed in its entirety in the eastern half and (2) the Rio Puerco project area in the western half which spans across forested areas of the fifth code South Fork Rio Puerco and Rio Nutria watersheds and to a lesser extent other fifth code Defiance Draw-Upper Puerco River and Whitewater Arroyo watersheds. The Rio Puerco project area will have a direct impact on the headwaters of the South Fork Rio Puerco and Rio Nutria watersheds. In advance of National Forest System nationwide watershed prioritization at the smaller sixth code watershed scale, the Mt. Taylor Ranger District has already identified their priority areas. The Bluewater watershed drains to Bluewater creek and the Puerco project area drains to the Rio Puerco to the north and the Rio Nutria to the south.

[1] Please access the complete citations on the project webpage here, http://www.forestguild.org/CFLRP/Documents/ZuniMountainLandscape_References.pdf.

Social and Economic Context

By the later half of the 20th century, forest product sales from National Forest System lands in the Southwest were about 300 million board feet per year, of which 80 percent was saw timber (Johnson 1994). Timber harvests from both public and private forests in Arizona and New Mexico peaked in about 1990 when roughly 433 million board feet per year (Covington 2003) were harvested. After this peak, harvests declined dramatically due to limited availability of large trees, threatened and endangered species, appeals and litigation of federal timber sales, and federal budgets (Morgan et al. 2006). The Mexican spotted owl was listed as threatened in 1993; a Federal judge stopped new timber sales on National Forests in Arizona and New Mexico in 1995; and harvests on National Forests in Arizona and New Mexico dropped from about 425 million board feet in 1990 to 48 million board feet in 1996 (Morgan et al. 2006). In 1996 the timber harvesting injunction was lifted, and by 2002 about 74.4 million board feet was harvested in New Mexico providing nearly $48 million dollars in sales (Morgan et al. 2006).

As highlighted in the recent *New Mexico Statewide Natural Resources Assessment* (2010), there are many other economic benefits to forest restoration including renewable energy, recreation, and clean water. New Mexico has significant potential for development of forest biomass as a renewable source of energy. However, use of forest biomass for energy has been limited by the difficulty in setting up wood-to-energy facilities, by inconsistent supply, and high harvesting and transportation costs (Evans and Finkral 2009).

Millions of tourists come to New Mexico each year. In 2003 the 1.2 million people who came *specifically* to participate in outdoor recreation spent $160 million dollars and generated $288 million dollars in indirect spending (CRC & Associates 2007). In New Mexico 787,000 people spent about $297 million dollars watching wildlife during 2006 (USFWS and US Census Bureau 2006), and the total economic impact of people who enjoy watching wildlife is as much as twice that value (La Rouche 2001). The total economic impact of hunting in New Mexico in 2001 was estimated at about $342 million dollars (IAFWA 2002). In the high deserts of New Mexico, water is particularly valuable because of its scarcity. In 2006 the Rio Grande Basin (the largest river system in the state) received 29 percent of its water from the National Forests, and an estimated 0.33 acre-feet-per-year of surface water flows originated from each acre of National Forest System lands in New Mexico (Sedell et al. 2000, Berrens et al. 2006). At $17 per acre-foot, which is the value of water calculated in 2000 just for in-stream flow (Sedell et al. 2000), New Mexico's forests provide at least $93.7 million dollars in clean water annually.

While forests provide a significant value to New Mexico, many of the communities in and around these forested lands are impoverished. For example, the focus watersheds are in one of the most economically disadvantaged area of New Mexico. In the state as a whole, about 14 percent of families are below the poverty line. However this CFLRP proposal focuses on McKinley and Cibola counties where 27 percent and 18 percent of families are below the poverty line (US Census Bureau 2010). In these two counties the per capita income was about $13,400, only 60 percent of the statewide average. In 2009, the unemployment rates for McKinley and Cibola counties were 8.7 percent and 18 percent respectively while statewide the unemployment rate was 6.8 percent (US Census Bureau 2010). Approximately 64 percent of the population in McKinley and Cibola countries is Native American while about 19 percent is Hispanic or Latino (US Census Bureau 2010). The area has a particularly low density of wood

processors and distributors compared to other forested areas of the state (EMNRD Forestry Division 2010). The proposed CFLRP will provide new economic opportunities to a community in desperate need of jobs.

The current economic conditions of the ZML were also recently analyzed as part of the Mt. Taylor Ranger District Travel Management Environmental Assessment which in turn was part of the broader Travel Management Planning process across National Forest System lands. Using the Headwaters Economics model, the analysis found that although the populations within and surrounding the landscape are growing, they exhibit poor resilience to economic downturns.

The analysis also found that prior to the 1990s, extractive industries such as timber and, in particular, uranium mining were keystone elements of the local economies. Local businesses and county economic development offices note that active and passive recreation and visitation are currently very important to local economies and will be in the future (Russell and Adams-Russell 2005, UNM-BBER 2007). There are also two planned subdivisions on private land within the National Forest boundary in the ZML. Due to the 2008 recession, they are not fully built yet but pose a serious risk to the ZBS as any reduction in surface water or shallow ground water will negatively affect the viability of that species.

Ecological Context

In Southwestern ponderosa pine ecosystems, high-intensity fires currently burn across larger areas than they did historically (Swetnam and Betancourt 1998, Westerling et al. 2006). A natural fire regime of predominately frequent, low-intensity surface fires were a part of the natural process that helped shape these ecosystems. Local fire history immediately adjacent to the project area and east of the Continental Divide indicates a pre-settlement fire return interval of every five years (Grissino-Mayer and Swetnam 1997). Like many forests in the West, the focus watersheds have become unnaturally dense since the late 1800s because of relatively recent land management practices that include logging, the disruption of natural fire regimes, and livestock grazing (Cooper 1960, Covington and Moore 1994, Lynch et al. 2000). The management of these uncharacteristically dense forests and their related fire hazard is one of the most important land stewardship issues in the western United States (Noss et al. 2006). Within the Zuni Mountain area, due to the fundamental shift in forest structure, fires are now at risk of burning at a severity, frequency, and scale that is outside of the historic range of variability. The focus watersheds have been identified as one of the highest priorities by the *New Mexico Statewide Natural Resources Assessment* (2010) because of the threat of wildfire and forest health problems.

The 2004 Sedgwick Fire, the most recent large crown fire in the ZML, resulted in the loss of a Mexican spotted owl protected activity center (PAC). The current conditions of the project area show that 60-70 percent of the project area is at risk for active crown fire potential, and 10-20 percent is at risk of passive crown fire potential; (ENMRD Forestry Division 2010). The forest land is dominated by ponderosa pine and piñon-juniper systems with a small amount of dry mixed conifer forest land. Approximately 90 percent of the landscape is in FRCC III, which is highly departed from historic conditions and is highly likely to support crown fire spread.

Another 8 percent is in FRCC II which represent moderately departed conditions along with 2 percent in FRCC I (LANDFIRE 2010).[2]

The focus watersheds also face increased pressure from a changing climate. On average, the climate in the region is likely to be warmer and drier by the end of the 21st century than it was during the 20th century with warmer spring and summer temperatures; reduced snowpack and earlier snowmelts; and longer, drier summer fire seasons (Westerling et al. 2006, IPCC 2007, Dominguez et al. 2010). Warming and drying conditions are likely to cause increased fire activity based on three lines of evidence (Westerling et al. 2006, Westerling and Bryant 2008). Other effects of a warmer, drier climate in the Southwest include reduced growth and increased mortality (Williams et al. 2010). A warming climate and altered precipitation regimes will cause other ecosystem changes such as increased success for bark beetles (Bentz et al. 2010). There is a great deal of uncertainty regarding how a warming climate will manifest itself across the ZML, but forest restoration is a crucial way of fostering resistance and resilience to the impacts of climate change (Millar et al. 2007).

Forest restoration is the primary solution to the problem of increased fire risk caused by decades of fire suppression in fire-adapted forests (Allen et al. 2002). The risk of uncharacteristic fire will be reduced by thinning and prescribed fire as part of a broad forest restoration strategy. Prescribed fire will reestablish natural fire regimes by using historical fire return intervals as guidance within the project area. In areas where forest density, fuel arrangement, or tree size compromises prescribed fire effectiveness, mechanical treatments will be implemented prior to burning. Eventually, conditions in the pine and dry mixed conifer should support more frequent surface fires that were historic in the area. This will facilitate the use of prescribed fire and increased management of wildland fire to meet resource objectives for maintaining the natural fire regime.

In addition to the upland ecosystems previously described, the Puerco project area hosts significant aquatic habitat. The headwaters of the Rio Nutria and its tributaries are critical to the Zuni Bluehead Sucker which is listed as endangered in New Mexico under the authority of the New Mexico Wildlife Conservation Act of 1995. The *Zuni Bluehead Sucker Recovery Plan* (Carmen 2004) indicates that the current known distribution of the state endangered species are only found north of the Nutria Box in stretches of the Upper Nutria, Agua Remora, and Tampico Draw which occur almost exclusively on lands managed by the Mt. Taylor Ranger District and the Nature Conservancy. In partnership with the New Mexico Department of Game and Fish, the Cibola National Forest began managing for the conservation of the Zuni Bluehead Sucker in 1979 by fencing riparian areas and listing it as a sensitive Southwestern species in 1988. The recovery plan (Carmen 2004) indicates that erosion, grazing, and road density negatively impact its population and habitat.

Summary of Landscape Strategy

Embracing the USDA Forest Service mission to "sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations," the

[2] A color map of FRCC can be accessed here, http://www.forestguild.org/CFLRP/Maps/frcc_color.pdf.

Zuni Mountain Landscape (ZML) strategy[3], rooted in the science of ecological restoration, will pursue a multipronged approach including:

- Restoring forested ecosystem structure and processes,
    - protecting old and large trees
    - removing excess small trees
    - returning fire to the ecosystems at appropriate intervals
- Stabilizing forest restoration-based businesses through a long-term wood supply,
- Improving hydrologic function,
    - reduced sublimation of snow fall (Essery et al. 2003; Woods et al. 2006)
    - establish vegetation conditions that may increase water availability
- Protecting the Zuni Bluehead Sucker,
    - from post crown fire erosion events
    - reduce unauthorized use of roads near existing populations
- Sustaining a restoration workforce in Cibola and McKinley counties through increased forest work and available wood fiber,
- Creating a culture of forest restoration across the landscape through the public involvement process,
- Continuing education and outreach efforts with local non-profits and Youth Conservation Corps crews,
- Determining effectiveness of the restoration effort by monitoring a broad array of ecological and socioeconomic indicators, and
- Continuously improving management through an adaptive management process driven by the multiparty monitoring process.

The strength of the ZML is both the maturity of the collaboration and the focus on utilization. The ZML strategy stems from over five years of collaboration between educators, non-profit organizations, agencies, Tribes, and businesses through the Wood Industries Network (WIN). Established in 2005, WIN has been the forum for establishing restoration business partnerships; pursuing grants, contracts, and agreements across multiple land jurisdictions; and evaluating monitoring data and making management recommendations among other efforts. Despite WIN's on-the-ground successes since its inception, the unmet restoration needs of the landscape are significant.

The highest risk to the health, resilience and function of the ZML are large high-intensity crown fire events. Such events put a variety of key ecosystem components in jeopardy. Given that 90 percent of the landscape is classified in FRCC III, or highly departed from its historic range of variability, the primary goal of the ZML strategy is to move the landscape towards FRCC I, or a low departure.

Treatment areas in the Bluewater watershed were delineated in the 2003 Environmental Impact Statement (EIS). The Mt. Taylor Ranger District selected stands for restoration based on many factors including forest structure, fire history, access, and slope. In the Puerco project area, the planning process is underway and restoration treatments will be selected through a collaborative

[3] Please access the complete Zuni Mountain Landscape Strategy on the project webpage here: http://www.forestguild.org/CFLRP/Documents/ZuniMountainLandscapeStrategy.pdf

process with the multiparty team. The Zuni Bluehead Sucker will be a focus of planning in the Puerco project area and will build on the Zuni Bluehead Sucker Recovery Plan. Restoration of the forests in the upper Zuni River watershed will reduce the risk of high severity fire eliminated populations and provide the best hope of increasing water availability for the Zuni Bluehead Sucker (Baker 1999, Ffolliott and Thorud 1977; Kaye et al 1999). Because sediment from roads poses a direct threat, the project will reduce unauthorized use of limited-access roads near existing Zuni Bluehead Sucker populations through new gates and other appropriate measures.

Also, Cibola and McKinley counties have unemployment rates higher than the state and nation. Sustaining or creating restoration related jobs will significantly improve the socioeconomic conditions of the landscape. Paired with the jobs, the landscape restoration effort will stabilize and grow local businesses.

In New Mexico, local forest businesses have difficulty competing for Forest Service contracts, sales, and agreements and often lose work to out-of-state firms because the size and duration of projects does not match the capacity of local businesses. The ZML is in a unique position to direct a portion of the restoration work to local outfits through a 10-year Stewardship Agreement (2010-2019) with the National Wild Turkey Federation (NWTF) which utilizes best value criteria. During the first year, the NWTF Stewardship Agreement contracted with local practitioners to restore 1,000 acres and utilize wood from restoration. This site will also serve as a Forest Service Region 3 demonstration area of the desired conditions for uneven age ponderosa pine management to provide for wildlife habitat and watershed improvement, forest health, and hazardous fuels reduction. Another partner on the NWTF Stewardship Agreement is the Rocky Mountain Elk Foundation who in 2010 donated $10,000 in cash to restore forest structure to 20 acres of ponderosa pine. By investing in long-term agreements and contracts and utilizing best-value criteria, the Cibola National Forest and USFS Region 3, has responded to the needs of local industry. The ZML supports this overall strategy to restore forest health and grow local businesses.

The Zuni Mountain Landscape multiparty monitoring and adaptive management plan will expand upon the smaller scale CFRP monitoring efforts to monitor ecological and socioeconomic changes and restoration effectiveness as well as build an adaptive management process to make use of the data.

Landscape Linkages

Linking centers of utilization and manufacturing capacity is essential to stimulate the growth of forest-based rural development in New Mexico. This linking (of utilization and manufacturing) centers on forested landscapes that have already been identified by Forest Service timber staff and the NM Forest and Watershed Restoration Institute as critical to the long-term success of forested landscape restoration in New Mexico. Forest-based collaboratives successfully bring together diverse interests to share common goals, identify and address barriers to rural economic development, and create economic and capacity efficiencies through increased communication and cooperation. For example, WIN, the forest-based business collaborative in Grants, New Mexico has revived their local economy. Prior to its creation, virtually no forest-based business capacity existed in the community, and only limited timber sales were occurring on the local national forests. Because of WIN and the collaboration between public, private, and community

interests, a coordinated ecological and economic structure now exists to restore forested acres and utilize wood products to support economic development goals.

New Mexico forest-based collaboratives exist in the ZML and the Jemez Mountains. The following actions support growth and connectivity (particularly between the ZML and the Jemez Mountains CFLRP project) of forest based-industry centers leading to a functional forest-based industry network:

(1) Identify Forest industry stakeholders in forest industry zones (ZML and the Jemez) and
    (a) Forest-dependent communities' ecosystem service goals, needs, and gaps.
    (b) Public and private forested area wood supplies and existing management goals.
    (c) Forest industry capacity, goals, needs, and gaps.
    (d) Partner assets, resource needs, and barriers to success related to the above.
(2) Define integrated, triple bottom line, cross-jurisdictional Hub forest industry zones.
    (a) Develop and implement long-term forest stewardship plans, agreements, and/or contracts.
    (b) Develop, enhance, and integrate businesses—bolstered by the assistance action programs described above—to sustainably steward local and regional forest resources and capture multiple forest value streams.
    (c) Address forest restoration, watershed protection, recreation, and other high-priority community needs.
    (d) Address equipment and facility capacity issues (infrastructure development, transportation, utilization)
(3) Provide technical forestry assistance for cost-effective equipment selection and operation, mill set up/operation, and other topical issues. Training will include hands-on operations and mentoring.
(4) Provide on-the-ground training for contractors regarding sustainable forestry, forest restoration, and silvicultural prescription development and implementation.
(5) Provide business assistance and mentoring in needed areas including project costing, financial management, bid development, web marketing, and insurance.
(6) Address the need for capitalization assistance by identifying forestry business financing mechanisms so that small forest businesses can access loans for investment capital.
    (a) Develop an advisory subcommittee from among the project partners to work with the lend entity on program implementation.
    (b) Provide forestry technical expertise to guide loan-making decisions.

By increasing stakeholder collaboration and linking forest-based industry capacities between the ZML and the Jemez Mountains, significant barriers to forest industry growth in New Mexico will be eliminated. Forest acres and treatments to meet landowner and community needs will be identified and contractors will be supplied with access to wood supply and reliable work. Marketing opportunities for local wood products will be identified, and small businesses will be provided with the assistance needed to engage potential buyers. The collaborator liaison position, described in detail in the monitoring section will engage with the Jemez Mountain collaborative to realize the landscape linking goals and objectives outline above.

To realize the ecological and socioeconomic elements of the ZML strategy, the collaborators will continue to use best value contracting authorities to support local wood harvesting and utilization

businesses. Support from municipal and county government's loan assistance program tools will enable these businesses to grow in response to the available acres and material.
The restoration goal and objectives closely align with the New Mexico Forest Restoration Principles[4]. Developed over a 3 year period through an intensive and open collaborative process with a diverse group of stakeholders, including several members of the ZML collaborative, the principles provide a pathway for successful restoration and layout sideboards of the social license for forest restoration. Furthermore, the Bluewater EIS, the foundation of the ZML strategy and completed in 2003, served as a template for the NM Principles due to the Districts extensive efforts to collaborate with communities and forest scientists in the EIS planning.

Proposed Treatment
To restore the ZML, a combination of mechanical treatment, pile burning, and broadcast burning will be used to complete treatment of the Bluewater watershed area. Where appropriate, treatment could be a combination of pre-commercial thinning, uneven-aged stand restoration, and meadow restoration. For the remaining Bluewater untreated areas, which total approximately 24,000 acres, mechanical treatments will occur from 2011 through the end of 2017 at a minimum of 2,000 acres per year. After 2017 all Bluewater treatment blocks will be mechanically treated but some may still need to be burned. In 2011, approximately 1,000 acres that are available for prescribed burning from previously treated Bluewater blocks will be burned.

In the Puerco project area, a combination of mechanical treatment, brush disposal and mastication, broadcast and pile burning, invasive weed management, and road decommissioning and closures will be analyzed for inclusion once the NEPA process begins, which could be as early as 2012. A key component of the Puerco project area NEPA analysis will be including those treatments that will improve habitat for the Zuni Bluehead Sucker in its one location on Forest Service lands and to ensure that our actions do not adversely affect nearby populations on private lands.

On average, 2,000 acres of mechanical treatment per year will allow for 3,000 acres per year of prescribed burning within one to three years after mechanical treatment. The Puerco project area portion then would be mechanically treated starting in 2017 at a rate of approximately 2,000 acres per year and prescribed burning, brush disposal, and applicable road closures would follow one to three years after mechanical treatment.[5] Constructing in-stream structures and closing or decommissioning roads may be included within the NEPA analysis of the Puerco project analysis area. It is expected that implementation of the Puerco project area will continue after the 10-year CFLRP timeline to provide the stabilized businesses with a sustainable wood supply and to prepare acres for prescribed fire.

The District anticipates service work to help attain the desired future conditions such as thinning trees less than 5 inches in diameter or hand thinning in Mexican Spotted Owl protected activity centers of trees less than 9 inches in diameter.

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[4] The NM Forest Restoration Principles can be found in Appendix I of the Zuni Mountain Landscape Strategy which can be accessed here, http://www.forestguild.org/CFLRP/Documents/ZuniMountainLandscapeStrategy.pdf.
[5] A chart of proposed treatments can be accessed here, http://www.forestguild.org/CFLRP/Documents/ZML_TreatmentChart.pdf.

There have been several private landowners within and adjacent to the Bluewater Environmental Impact Statement (EIS) project boundary that have implemented hundreds of acres of ponderosa pine restoration on their lands. A proposed ecosystem restoration project on the Fort Wingate property that the U.S. Army will be returning to Zuni Pueblo and the Navajo Nation potentially could be adjacent to the Puerco project area; the Army's proposed project, while adjacent to this proposal's treatment area, is not considered to be part of this proposal. Other federal and state agencies are implementing projects within and adjacent to the Zuni Mountains area, but these projects also are not part of the CFLRP proposal.

Recent Forest Management History
There are seven current National Environmental Policy Act decisions in the landscape. These are:

- 1999: Mt. Sedgwick/Bluewater Allotments Environmental Assessment
- 1999: Bluewater Creek Improvement Project
- 2002: Bluewater Creek Riparian Restoration Project
- 2002: Bluewater Road Realignment
- 2003: Bluewater Watershed Environmental Impact Statement
- 2010: Integrated Pest Management of Noxious/Invasive Plants Environmental Assessment
- 2011: Agua Media-Copperton Ponderosa Pine Restoration Decision Memo

Since the signing of the Bluewater EIS Record of Decision in December of 2003, 1,725 acres of ponderosa pine stands have been treated with mechanical treatment; of those, 1,300 acres have been treated with prescribed fire. In addition, 2,500 acres of meadow restoration and 3,100 acres of piñon-juniper stands have been treated with mechanically and of those, 200 acres have been treated with prescribed fire. Across the assorted Bluewater treatment blocks lie 3,510 acres of ponderosa pine restoration that are currently under contract and are in various stages of completion.

Within the Bluewater EIS project area, to date, 90 percent of burned and mechanically-treated acres are considered to be within the desired condition in regards to fuel loadings. Approximately 80 percent of mechanically-treated ponderosa pine stands and 100 percent of mechanically-treated piñon-juniper stands have achieved the desired stand conditions. For most stands, recent treatment was the first or second entry since the railroad-logging days of the late nineteenth and early twentieth centuries where most ponderosa pine was clearcut (Dick-Peddie 1993). The principles that guided the mid-twentieth century entries are unknown. Using more recent restoration guidelines such as the New Mexico Forest Restoration Principles, these treatments under the Bluewater EIS are the first entry of several planned over many decades to reach a desired future condition. Subsequent mechanical removal and prescribed burning will move the end state closer to the desired condition.

Restoration Strategy
Additionally, a restored landscape will provide more opportunity to manage unplanned ignitions under a wider array of responses other than full suppression. The **Wildland Fire Decision Support System** (WFDSS) will be used for all unplanned ignitions to guide and document

wildfire management decisions. Full suppression may still occur; however, unplanned ignition will gradually be used more as a tool for maintaining forest and meadow ecosystems in this area.

Treatments will focus on specific forest and land use types. In piñon-juniper stands, treatments will focus on restoring the grassland and shrub vegetation community to reduce potential high fire hazards. The treatment would leave approximately 20 to 40 trees per acre and the residual stand would reflect the species mix currently on site (Albert et al. 2004). Patches of trees on north and east facing slopes would be designated as thermal and hiding cover for large mammals and not treated. Wildland Urban Interface treatments will be integrated with the two Community Wildfire Protection Plans (CWPPs) that exist for this area, the Cibola County CWPP and McKinley County CWPP, both of which designate much of the ZML as wildland urban interface. Guidance from the CWPPs will be used during the planning to develop treatments and meet community protection and fire management objectives.

In the ponderosa pine restoration areas, restoration treatment is designed to restore conditions within the historic range of variability and to create stands that allow fire to return to its natural role. Thinning would also increase biodiversity by encouraging brush and grass growth; increase ecosystem resilience by incorporating a natural frequent fire return interval; and improve hydrologic function by reducing the basal area to historic conditions. The silviculture prescription would reduce basal area to an average of 30 to 70 square feet per acre across most of the treatment stands. This reduction is in line with the best available science on ponderosa pine restoration (Fiedler and Keegan 2003, Moore et al. 2004, Hunter et al. 2007).

A restored landscape that is resilient to fire and allows for managing natural ignitions will result in reduced fire suppression costs and rehabilitation costs. Suppression costs for Region 3 for the past 20 years averaged $251 per acre versus $112 per acre for managing unplanned ignitions by responses other than full suppression. Snider et al. (2006) found that hazardous fuels reduction treatments in the Southwest can save $238-$600 per acre in future suppression costs alone. Some economic cost analyses that were conducted on similar landscapes calculated potential present net value change in rehabilitation and fire damage costs for high value areas as high as $929 per acre. Simulations have found that the acres burned and associated costs are exponentially reduced in treated areas as compared to non-treated areas (Omi and Martinson 2002, Pollet and Omi 2002). The R-CAT model (see Attachment E) corroborates these studies and estimates between $37 and $42 million in wildfire suppression cost savings for the $8 million investment proposed. The Gila National Forest in Region 3 has estimated costs of managing fires to meet resource objectives to range from $35-209 per acre (estimate from Gila National Forest). Considering these figures, the ability to use unplanned fire in this area could result in significant cost savings.

Collaboration and Multiparty Monitoring

To support, learn from, and fully realize the ZML strategy, the collaborators will pursue a collaborative consensus-based multiparty monitoring process comprised of stakeholders and other interested parties (the multiparty monitoring team), alongside a public information process to share project progress and allow the two-way flow of information between the project and the public. The strategy primarily calls for forest thinning, prescribed fire, and the management of natural fires in piñon-juniper, meadows, ponderosa pine, and small amounts of mixed conifer

systems. Over the 10 project years and the 15 years of monitoring, the watersheds along with the surrounding communities and economies will respond in various ways to the landscape scale treatment. Members of WIN will serve as the core multiparty monitoring team. They have developed a comprehensive monitoring approach built off of leaders in ecosystem restoration and monitoring (Sauer 1998, Friederici 2003, Mansourian and Vallauri 2005, Walker et al. 2007, Rietbergen-McCracken et al. 2008).

History of Collaboration and Leveraging of Resources

In the past decade there have been steadily increasing forest restoration, collaboration, and wood utilization investments within and adjacent to the ZML. Beginning in 2001, there have been eight Collaborative Forest Restoration Program grants on District, Tribal, BLM, and State Land Office lands. These grants have restored forest structure across a few thousand acres, established the Wood Industries Network (WIN), addressed wood utilization and marketing, and explored niche markets for restoration wood. In addition, there have been two Forest Product Laboratory woody-biomass utilization grants and two New Mexico Association of Counties wildland-urban interface grants. On the District, there are 2 active Stewardship Contracts and a 10-year Stewardship Agreement. There have also been service contracts, American Recovery and Reinvestment Act funded restoration treatments, Indefinite Delivery Indefinite Quantity (IDIQ) contracts, and riparian restoration in the Bluewater watershed. On private lands, NM State Forestry and Soil and Water Conservation Districts have partnered to treat acres to reduce fire and insect outbreak risk.

This CFLRP marks a well planned, comprehensive approach to build on the strength of established collaboration. The following collaborative meetings were held in support of the ZML proposal:

- August, 2010: Initial CLFPR planning held with Cibola NF staff and Forest Guild
- September, 2010: Wood Industries Network endorse CFLRP proposal for Zuni Mountains
- November, 2010: Initial landscape strategy planning meeting
- January, 2011: Landscape strategy planning session[6]

The multiparty monitoring process comprised of project stakeholders will follow a process more robust but similar to the five-step monitoring process outlined in the *Multiparty Monitoring and Assessment of Collaborative Forest Restoration Projects: Short Guide for Grant Recipients (*Moote et al 2010). Once funded, ecological and socioeconomic monitoring coordinators will be charged to:

1. Convene a multiparty monitoring meeting to solidify or confirm monitoring indicators, protocols, and roles;
2. Begin installing monitoring equipment and gathering baseline data;
3. Synthesize data and trends from all monitoring subgroups (e.g. Zuni Bluehead Sucker, elk, vegetation, snowpack, water quality and quantity, job development, education, etc.) for annual monitoring meetings;
4. Prepare the five-year and final monitoring progress reports; and

[6] On January 10, 2011 over 40 collaborators attended the landscape strategy meeting. The sign-in sheets can be accessed here, http://www.forestguild.org/CFLRP/Documents/01102011_SignInSheet.pdf.

5. Prepare recommendations for multiparty monitoring team adaptive management decisions.

In addition to the ecological and socioeconomic monitoring coordinator positions, the project will fund an overall collaborator liaison position to facilitate the multiparty monitoring team, implement the public information sharing process, and collaborate in the linking landscape initiative described in the landscape strategy with the Jemez Mountains, and interface with project implementation to avoid any potential monitoring and implementation conflicts. Finally the collaborator liaison will carry forward the multiparty monitoring team's adaptive management recommendations with the Cibola National Forest.

The public information sharing process led by the collaboration liaison position will hold biennial community meetings in key communities within and surrounding the ZML including Grants, Milan, Gallup, Thoreau, McGaffey Lake, Bluewater, Ramah, Pinehill, and Zuni Pueblo. These meetings will relay project activities and progress with members of the interested public as well as gather input to relay to managers and the multiparty monitoring team.

History of Adaptive Management in the Zuni Mountain Landscape
The Mt. Taylor Ranger District and the Cibola National Forest have been pursuing adaptive management alongside many collaborators on a small scale for CFRP projects for several years now. WIN is the collaborative group that also functions as the multiparty monitoring team for several CFRP grants. WIN currently meets quarterly although it has at points met monthly. For the past six years, WIN's greatest accomplishments have been the leveraging of more than $2 million in multi-jurisdictional grants and Forest Service contracts and sales through communication and collaboration aimed at forest restoration, community protection from wildfire, and wood utilization. These successes brought forest structure restoration from a non-existent activity on the forest to a collaborative effort preparing several thousand acres for prescribed fire.

Through WIN meetings, the District has engaged in adaptive management with all parties at the table. For example, pre- and post-monitoring data from meadow restoration treatments across several hundred acres indicated the prescription removed too few trees from tree-encroached meadows. The multiparty monitoring team concluded that the diameter limit for tree removal needed to be increased to meet resource objectives. As part of the multiparty monitoring team, District staff increased the diameter limit to the maximum allowed by the analysis and proceeded to implement the revised prescription across thousands of acres that were treated under a service contract.

In another example, a local biomass processing business in need of material approached a CFRP grantee to modify their grant to assist with product removal and hauling in order to keep the businesses viable in the short term as well as assist the businesses in gaining experience with forest biomass removal, hauling, and processing. Through the multiparty monitoring process, District and Cibola National Forest staff recognized the mutual benefits of modifying the business's wood sale and the CFRP grant and made it happen. This example illustrates the success of the existing multiparty monitoring infrastructure, albeit currently limited to CFRP projects, as well as the District and Cibola National Forest's commitment to managing their

resources adaptively. The Zuni Mountain Landscape Strategy will continue to pursue adaptive management and is building the necessary feedback loops into project implementation (Stankey et al 2005).

Multiparty Monitoring Goals

The Zuni Mountain Landscape project, following the ecosystem monitoring objectives from the Forest Landscape Restoration Act (PL 111-11, Sec. 4003(c)), will determine progress towards restoration actions that:

- Contribute toward restoration of pre-fire suppression old-growth forest and other structural and compositional conditions representative of the historic variability within each ecosystem.
- Reduce the risk of uncharacteristic wildfire, and re-establish natural fire regimes.
- Improve fish and wildlife habitat, including endangered, threatened and sensitive species.
- Maintain or improve water quality and watershed function, and mitigate climate change impacts.
- Prevent, remediate, or control invasions of exotic species.
- Contribute woody by-products for social and economic community benefits.

The multiparty monitoring team will specifically monitor the extent to which the project can:

- Identify changes in ecosystem structure, function, and processes toward or away from the Zuni Mountain Landscape Strategy.
- Identify changes in local economies resulting from the project both directly and indirectly.
- Monitor changes in project goals.
- Affect management changes as identified by monitoring data and/or observations.

To monitor objectives of the Act and the Zuni Mountain Landscape Strategy, the multiparty monitoring team will evaluate how the treatments have affected forest structure and composition, wildfire behavior and fuels, watershed and stream quality and function, wildlife habitat, restoration business stabilization, job sustainability, and wood utilization effects. Untreated vegetation “control” units will be established for each cover type receiving a restoration treatment to distinguish treatment effects from non-treatment related spatial and temporal variations. A rigorous scientific sampling design paired with an extensive data collection program will be implemented for 15 years to provide communities, agencies, and land managers with high confidence transparent data to use in decision making processes. In addition to monitoring individual indicators (Zuni Bluehead Sucker, surface fuels, etc.) the multiparty monitoring team will analyze the cumulative effects of the implementation of the restoration strategy for both ecological and socioeconomic areas.

Monitoring Indicators

Table 1. Ecological.

Topic	Indicators	Method	Interval
Hydrology	• Quantity and quality of stream water discharged from	Expand existing USGS gauges for stream discharge quantities to	Continuous as allowed by equipment and season.

	landscape.	run tRIBS hydrological models (Ivanov et al., 2004; Vivoni et al., 2007). Water quality measured with Sonde recording instrumentation.	
Climate	• Precipitation, air temperature, wind speed and direction, relative humidity, solar radiation, soil temperature and moisture, snow water equivalent.	Two Campbell meteorological stations along with a SNOTEL site in collaboration with ongoing NOAA efforts.	Continuous.
Vegetation	• Changes in forest structure and composition. • Meeting prescription specifications.	USFS Common Stand Exams paired with point-intercept transects to run FSVeg. Contract inspections by District staff.	Pre, post, five, and 10 years post across forest types in treated and non-treated control units. During and post implementation for contract inspections.
Mammals	• Changes in population, distribution, and habitat quality of large and small mammals.	Monitoring large mammals will use Long et al. (2009) methods while small mammals will follow Parmenter et al. (2003) and Laake et al. (1993) methods.	Pre, post, five, and 10 years post across forest types in treated and non-treated control units.
Invertebrates	• Changes in beneficial and detrimental insects and other invertebrates. • Changes in composition of aquatic macro invertebrates.	USDA Systematic Entomology Laboratory (SEL) and Smithsonian Institution (SI) using malaise traps, light traps, pitfall traps, grasshopper density rings, and sweep nets (Leather 2005).	Pre, post, five, and 10 years post across forest types in treated and non-treated control units.
Fish	• Changes in Zuni Bluehead Sucker habitat and population.	In collaboration with ZBS Recovery Team using established ZBS methods.	Annually
Birds	• Changes in bird species composition and abundance along with northern	Time standard point counts that also document observable activities, and Forest	Pre, post, five, and 10 years post across forest types in treated and non-treated control

	goshawk and turkey monitoring.	Service protocols for northern goshawk.	units.
Wildfire effects	• Changes in wildfire risk and behavior. • Smoke management effects.	Forest and fuels metrics needed to run fire models. Standard prescribed and wildfire-use smoke management techniques.	Pre, post, five, and 10 years post across forest types in treated and non-treated control units.

Table 2. Socioeconomic.

Topic	Indicators	Method	Interval
Wood utilization	• How many and what type of products are being used. • Where are they processed and sold. • What are the effects of the project on the businesses?	Reporting requirements built into contract mechanisms paired with interviews of wood processors and utilizers.	Quantitative data compiled annually, interviews conducted biennially.
Wildfire suppression cost savings	• Changes in wildfire suppression costs.	Track and evaluate wildfire related costs (suppression and rehabilitation) from treatments compared with costs from similar 10-year period.	Compile over 15-year period.
Livestock grazing	• Economic benefits of restoration on local ranching economy.	Changes in grazing regimes and interviews with permitees.	Pre- and post-mechanical treatments and post-prescribed fire.
Cultural resources protection	• Protection of cultural resources from treatments.	Existing methods used by forest.	Post treatments and atfive and 10 years.
Restoration business stabilization	• Capacity building assessment. • Interviews.	Reporting requirements built into contract mechanisms.	Compiled annually.
Job Sustainability	• Direct, indirect, and induced jobs by length and job type. • Interviews with contractors and businesses.	Reporting requirements built into contract mechanisms.	Compiled annually.
Training, outreach, and education	• Education materials, events, and people affected.	Reporting requirements built into contract mechanisms.	Compiled annually.

	• Trainings by type, people trained, and total training hours. • Interviews.		
Ecosystem services	Recreation (passive and active) use and tourism.		Recreation use and tourism data compiled biennially.

Utilization

The ZML wood harvesters and wood utilization businesses have been steadily increasing their capacity from relatively no capacity in 2000 to the current capacity to treat roughly 1,300 acres of ponderosa pine and 1,000 acres of piñon-juniper restoration per year. It should be clear that this proposal is not to create local wood harvesting utilization from a standstill but rather will strengthen and stabilize existing businesses. The CFLRP will provide treatment subsidies which are the missing link to realizing landscape-scale forest restoration in the ZML. That is why 80 percent of the requested funds are being put towards on-the-ground restoration.

Wood utilizers are currently handling wood from approximately 2,300 acres per year across jurisdictions. Both the wood harvesters and the wood utilizers from the ZML currently treat acres and procure wood from outside the ZML to account for the imbalances between the costs of reduced cost acres and their availability in the ZML and between acres treated in the ZML and acres of wood supply needed.

Implementation of the ZML strategy will guarantee subsidized acres and material using active stewardship authorities that will enable these businesses to stabilize and grow. The subsidies are needed due to the depressed wood markets (due to the effects of the 2008 recession on the housing markets and low-cost foreign imports) and the inability of the woody by-products from restoration to sufficiently offset treatment costs. It is anticipated that after 10 years the wood harvesters and utilizers will have stabilized to the point where mechanical treatments will require minimal, if any, subsidization.

Beyond the proposed treatments, the District and the Cibola National Forest are committed to Puerco project area NEPA, which will add 15 additional years of wood supply to local wood harvesters and utilizers. These decadal investments will establish a sustainable wood supply for utilization as well as having a stabilizing effect on these businesses.

Table 3. Wood harvesters and utilizers.

Wood harvesters	Current capacity (acres/year)	Projected capacity (acres/year)
Restoration Solutions	1,000	1,500
Ramah Navajo Chapter; ponderosa pine	300	600
Ramah Navajo Chapter; piñon-juniper	1,000	1,250
Utilizers	Current needs (acres/year)	Projected needs (acres/year) for all capacity building initiatives across multiple

		landscapes.
Mt. Taylor Millwork and Machine (pellets, cants, dimensional lumber, mulch/composte)	450	900
Roger Tucker Inc. (LEED) playground material, animal bedding, chip supplier to SFCCC, erosion control waddles, dimensional lumber, cants, mulch/compost, firewood)	300	600
Ramah Navajo Chapter (firewood, vigas, and latillas)	200	400
Small firewood operations (~10)	150	250

Table 3 also illustrates that the proposed treatments and increased wood utilization are scaled to existing wood utilization and treatment businesses. A worry with other CFLRP proposals is that if an agency puts out a 10 year wood supply, who will use it, and will there be markets. Table 3 shows that the ZML has the industrial capacity to handle the wood.

Benefits to Local Economies

Investments in fuels reduction on National Forest System lands act as an economic stimulus to rural communities and have been shown to generate millions of dollars of economic output as well as hundreds of jobs sustained or created (Hjerpe and Kim 2008). Similar results are expected to result from implementation of the proposed treatments and the ZML strategy. The TREAT model anticipates the creating or sustaining 93 direct, indirect, and induced jobs per project year. Findings from the five-year multiparty monitoring report from the White Mountain Stewardship Contract (Sitko and Hurteau 2010), also in Region 3, indicates that wood utilization businesses will make additional capital investments and hire more people. The anticipated ripple effect in the economies local to the ZML is likely to have a greater impact due to their already economically depressed condition and accompanying high unemployment rates.

The park-like conditions associated with a restored forest are often favored by active and passive recreationists and vehicular tourism. Tourism to and across the ZML has a recognized benefit to the local economies (CRC & Associates 2007; La Rouche 2001; and IAFWA 2002). In addition to tourism, quality active and passive recreation provides significant benefits to local economics. Since 2009 mountain biking use in the ZML has increased dramatically with the introduction of a 24-hour race event. This event, supported by the NM Council of Governments Economic Development Department, brings cyclists to the ZML from around the Western states and is accompanied by volunteer trail maintenance crews. Continuation and expansion of active recreation such as this will strengthen the local economic stimulus.

Funding Plan

There are several strengths to the proposed funding plan that relate to the financial burden on the Cibola National Forest or Region, implementation mechanisms, and appropriateness of the request. The treatments are anticipated to significantly move the landscape towards FRCC I and stabilize restoration businesses without burdening the Cibola National Forest or Region 3 with the generation of millions of dollars of matching funds.

The District and the Cibola National Forest can provide for matching funds to the CFLRP funding within its current budget capacity without asking or expecting for contributions from the Region to make this project work. In a federal fiscal environment where funding is moving towards competitive allocation while base funding is often diminishing, the ability of the various Regions around the country is becoming limited to supply additional matching funds for landscape-scale projects.

Additionally, the presence of the Stewardship Agreement with the National Wild Turkey Federation that is already in place will expedite implementation and avoid challenges such as the tying up of cash for a cancellation ceiling required under long-term Stewardship Contracting but not under a Stewardship Agreement. This increases the likelihood of success.

The funding request for multiparty monitoring is reasonable at less than 15 percent of the annual request. Moote el al. (2010) suggest 15 percent of restoration project budgets be allocated to monitoring; and the effectiveness monitoring proposed, aside from providing high confidence data, is intended to detect change towards or away from restoration goals. Similarly, the proposed multiparty process is expected to generate $20,000/year of non-federal in-kind donations to the project. These expectations are based on five years of tracking non-federal in-kind donations of time and resources to restoration projects in the ZML.

Other federal investments surrounding the ZML are anticipated, particularly by El Malpais National Monument (National Park Service) and the BLM. The BLM estimates they will spend about $150,000 per year on thinning and prescribed fire while El Malpais National Monument assists the Mt. Taylor Ranger District with prescribed fire resource staff to supplement District staff during prescribed burns.

The project anticipates significant non-federal investments surrounding the ZML, particularly by restoration thinning and utilization businesses, the State of New Mexico, and by the National Wild Turkey Federation's Stewardship Agreement. The New Mexico State Land Office and NM State Forestry manage over 20,000 acres in and around the ZML and restore approximately 160 acres annually. These investments are expected to be maintained. Similar to the findings reported by the five-year monitoring report by the White Mountain Stewardship Contract (Sitko and Hurteau 2010), with a long-term federal commitment, restoration-oriented businesses invest heavily in jobs and infrastructure. For example, a biomass conversion facility near the ZML has already purchased an additional pellet mill and saw mill in the last 18 months.

There have also been other significant non-federal investments within and surrounding the ZML that are expected to continue such as:

- Monitoring of ZBS populations by the NM Department of Game and Fish;

- Stream restoration and monitoring by NM Environment Department, NM State Land Office, Cottonwood Gulch Foundation, and WildEarth Guardians;
- Private landowner thinning and wood utilization projects through assistance from the Bernalillo District of NM State Forestry, McKinley and Lava Soil and Water Conservation Districts, and the NM Forest and Watershed Health Office;
- Forest restoration thinning and wood utilization by the NM State Land Office:
- Trail maintenance and infrastructure by volunteer mountain biker user groups; and
- The state-funded Forest Guild Youth Conservation Corp crew who assist the District on range, forestry, and recreation efforts.

In addition to the past accomplishments, funding opportunities and continued efforts mentioned above, the Cibola expects through the ZML that collaboration and coordination would continue and be strengthened on fuels reduction and restoration projects that are cross-jurisdictional. These treatments would be coordinated by the Cibola, WIN and with all land managers in the area such as BLM, State Land, State Forestry and private landowners. Through collaboration the cross-jurisdictional treatments' prescriptions and objectives would complement each other and achieve the most effectiveness and benefit for all collaborators. Also, the Cibola is actively dialoging and partnering with the Rocky Mountain Elk Foundation and National Wild Turkey Federation on present and future funding opportunities for money to be invested on acres treated in the ZML. Those funding sources would be from Rock Mountain Elk Foundation PAC grants and through National Wild Turkey Federation fund raising events locally and nationally. As the Cibola continues to partner and build relationships with these organizations there is an expectation that funding to the ZML from these organizations will increase.

Attachment A: Planned Accomplishment Table

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	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years	Partner funds to be used over 10 years
Acres treated annually to sustain or restore watershed function and resilience	WTRSHD-RSTR-ANN	0	0	0	0	0	0
Acres of forest vegetation established	FOR-VEG-EST	1900	0	0	$570,000	0	0
Acres of forest vegetation improved	FOR-VEG-IMP	18,667	0	333	$5 million	$600,000	$100,000
Manage noxious weeds and invasive plants	INVPLT-NXWD-FED-AC	0	500	0	0	$750,000	0
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands	INVSPE-TERR-FED-AC	0	0	0	0	0	0
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions.	S&W-RSRC-IMP	15,000	0	333	$4.5 million	0	$100,000
Acres of lake habitat restored	HBT-ENH-LAK	0	0	0	0	0	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	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years	Partner funds to be used over 10 years
or enhanced							
Miles of stream habitat restored or enhanced	HBT-ENH-STRM	0	0	0	0	0	0
Acres of terrestrial habitat restored or enhanced	HBT-ENH-TERR	18,667		333	$5 million	$600,000	$100,000
Acres of rangeland vegetation improved	RG-VEG-IMP	0	0	0	0	0	0
Miles of high clearance system roads receiving maintenance	RD-HC-MAIN		20	100		$12,000	$600,000
Miles of passenger car system roads receiving maintenance	RD-PC-MAINT		450	0		$1.5 million	0
Miles of road decommissioned	RD-DECOM	0	0	0	0	0	0
Miles of passenger car system roads improved	RD-PC-IMP	0	0	0	0	0	0
Miles of high clearance system road improved	RD-HC-IMP	0	0	0	0	0	0
Number of stream crossings constructed or reconstructed to	STRM-CROS-MTG-STD	0	0	0	0	0	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	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years	Partner funds to be used over 10 years
provide for aquatic organism passage							
Miles of system trail maintained to standard	TL-MAINT-STD	0	0	0	0	0	0
Miles of system trail improved to standard	TL-IMP-STD	0	0	0	0	0	0
Miles of property line marked/maintained to standard	LND-BL-MRK-MAINT	0	15	0	0	$60,000	0
Acres of forestlands treated using timber sales	TMBR-SALES-TRT-AC	18,242	0	333	$4,872,600	$600,000	$100,000
Volume of timber sold (CCF)	TMBR-VOL-SLD	116,000	0	0	$5 million	$600,000	0
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production	BIO-NRG	360,000	0	0	$5 million	$600,000	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	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years	Partner funds to be used over 10 years
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire	FP-FUELS-NON-WUI	0	0	0	0	0	0
Acres of hazardous fuels treated inside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire	FP-FUELS-NON-WUI	0	0	0	0	0	0
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire	FP-FUELS-WUI	18,667	27,000	333	$5 million	$4.4 million	$100,000
Number of priority acres treated annually for invasive species on Federal lands	SP-INVSPE-FED-AC	0	0	0	0	0	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	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years	Partner funds to be used over 10 years
Number of priority acres treated annually for native pests on Federal lands	SP-NATIVE –FED-AC	1,967	2,700	33	$530,100	$440,000	$10,000

Attachment B: Reduction of related wildfire management costs

R-CAT Results

Proposal Name: Zuni Mountain CFLRP

Start Year	2011
End Year	2020

Total Treatment Acres	46,000.00
Average Treatment Duration	15

Discounted Anticipated Cost Savings - No Beneficial Use	**$ 37,875,613**

Discounted Anticipated Cost Savings - Low Beneficial Use	**$ 38,823,358**

Discounted Anticipated Cost Savings - Moderate Beneficial Use	**$ 48,706,981**

Discounted Anticipated Cost Savings - High Beneficial Use	**$ 42,388,683**

Attachment C: Collaborator Table
Please be sure to include contact information for a Forest Service representative that is on the collaborative as well.

Organization Name	Contact Name	Phone Number	Role in Collaborative (6)
Bureau of Indian Affairs, Laguna Agency	1. Taurus Diaz	505-552-6001	1. Multiparty monitoring team
Bureau of Land Management, Albuquerque Field Office	1. Todd Richards 2. Zach Saavedra	1. 505-259-8487 2. 505-508-6093	1. Federal land manager, leveraging of treatments, multiparty monitoring team, assisted with development of proposal 2. Multiparty monitoring team, federal land manager, leveraging of treatments, assistance with prescribed fire coordination
B&M Range and Forestry Management Services	1. Tom Marks	505-287-5585	1. Multiparty monitoring, technical assistance provider
Cibola National Forest	1. Nancy Rose 2. Ian Fox 3. Livia Crowley 4. Lance Elmore 5. Beverly DeGruyter 6. Mary Dereske 7. Richard Graves 8. Susan Millsap	505-346-3900	1. Project leaership 2. Core team, lead Cibola National Forest representative, assisted with proposal development 3. Soils and hydrology 4. Project management, proposal contributor 5. Wildlife biologist 6. Recreation, archaeology, engineering, lands and minerals 7. Transportation engineer 8. Wildlife and watersheds
Cottonwood Gulch Foundation	1. Michael Sullivan	505-248-0563	1. Education and outreach
El Malpais and El Morro	1. Kayci Cook-Collins	505-285-4641	1. Research and

National Monuments and NPS Continental Divide National Scenic Trail Coordinator	2. David Dukart		science, outreach and education 2. Federal land manager, leveraging of treatments, multiparty monitoring team, assisted with development of proposal, assistance with prescribed fire coordination
Fish and Wildlife Service	1. Angela James 2. Chris Kitcheyan 3. Melissa Mata	1. 505-342-9900 2. 505-342-9900 3. 505-761-4743	1. Multiparty monitoring team, Zuni Bluehead Sucker (ZBS) group 2. Multiparty monitoring team, ZBS group 3. Multiparty monitoring team, ZBS group
Forest Guild	1. Michael DeBonis 2. Zander Evans 3. Eytan Krasilovsky 4. Marcos Roybal 5. Orlando Romero	505-983-8992	1. Proposal contributor 2. Proposal contributor 3. Core tea, proposal contributor 4. Collaboration, education, and outreach 5. Collaboration
McKinley County	1. Chairman Dallago 2. Commissioner Jackson 3. Commissioner Bowman Muskett 4. Doug Decker	505-722-3868	4. Multiparty monitoring team, socioeconomic group, assisted with development of proposal
Mt. Taylor Machine and Millwork	1. Matt Allen	505-287-9469	1. Wood utilizer, multiparty monitoring team, socioeconomic group, assisted with proposal development
Mt. Taylor Ranger District	1. Matt Reidy 2. Ed Baca 3. Erin Brown 4. Jeanne Dawson 5. Donald Olson 6. Anthony Pacheco 7. Linda Popelish 8. Arnold Wilson 9. Virginal Yazzie-Ashley 10. Consuelo Zamora	505-287-8833	1. Multiparty monitoring team, 2. Prescribed fire, 3. Archaeology, 4. Implementation and proposal contributor 5. Timber sales 6. Prescribed fire manager 7. Archaeology 8. Recreation,

			9. Range 10. Wildlife
New Mexico Department of Game and Fish	1. Eliza Gilbert	505-476-8130	1. Non-federal natural resource manager, multiparty monitoring team, ZBS specialist
National Wild Turkey Federation	1. Scott Lerich 2. Michael Jasper	1. 575-434-2936 2. 575-420-9480	1. Core team, multiparty monitoring team, 2. Education and outreach
New Mexico Environment Department	1. Mike Matush	505-827-0505	1. Multiparty monitoring team, assisted with development of proposal, non-federal land manager, leveraging of funds for treatments
New Mexico Forest and Watershed Restoration Institute	1. Andrew Egan 2. Joe Zebrowski	505-426-7146	1. Core team and multiparty monitoring, 2. Core team and assisted with proposal development
New Mexico State Forestry – Bernalillo District Forester	1. Todd Haines	505-867-2334	1. Private lands leveraging, Multiparty monitoring team, assisted with development of proposal
New Mexico State Forestry - Forest and Watershed Health Office	1. Susan Rich 2. Terrell Treat	1. 505-345-2080 2. 505-345-2200	1. Multiparty monitoring team, leveraging of treatments on non-federal lands, assisted with proposal development 2. Non-federal land manager, multiparty monitoring team, assisted with development of proposal
New Mexico State Land Office	1. Jim Norwick 2. Mark Meyers	505-827-4453	1. Non-federal land manager, leveraging of treatments, 2. Multiparty

			monitoring team, assisted with development of proposal
Pueblo of Laguna	1. Frank Ortiz Cerno 2. Ann Ray 3. Vic Sarracino	1. 505-552-7512 2. 505-331-6683 3. 505-917-8260	1. Multiparty monitoring team, local Tribal land manager, assisted with development of proposal 2. Multiparty monitoring team, 3. Multiparty monitoring team
Pueblo of Zuni	1. Kirk Bemis 2. Nelson Luna	505-782-5852	1. Land manager, Multiparty monitoring team, assisted with development of proposal 2. Land manager, Multiparty monitoring team
Ramah Navajo Chapter	1. Michael Henio 2. Costly Beaver 3. Ed Wallhagen	505-775-7120	1. Multiparty monitoring team, local Tribal land manager, restoration thinning workforce, 2. Implementation, 3. Multiparty monitoring team
Restoration Solutions	1. Brent Racher	575-937-5551	1. Multiparty monitoring team, socioeconomic group, assisted with development of proposal, restoration thinning operator
Rose Springs Timber	1. Matthew Silva 2. Darrin Thompson	1. 505-270-0339 2. 505-240-1519	1. Private Landowner in ZML 2. Private landowner manager in ZML
The Nature Conservancy	1. Robert Findling	505-988-3867	1. Multiparty monitoring team, non-federal land owner in ZML
University of Tennessee, Dendrochronologist	1. Henri Grissino-Mayer	865-974-6029	1. Research and science, fire history data collection

Attachment D: Letter of Commitment

February 10, 2011

Corbin Newman
Regional Forester
USDA Forest Service
Southwest Region Office
333 Broadway SE
Albuquerque, NM 87102

Dear Mr. Newman:

The undersigned members of the Zuni Mountains Collaborative are writing to express our unified support and commitment to the Zuni Mountain Collaborative Forest Landscape Program proposal. Members of the collaborative have been involved in the development of the restoration strategy and are committed to working together with the broader project community to make the initiative a success.

By planning at the multiple watershed level, the Zuni Mountains landscape strategy approaches forest restoration and economic development at a scale that achieves meaningful ecological, social, and economic results across jurisdictional boundaries. The project plan identifies a land base anchored by prioritized national forest system land in need of restoration and adjacent high priority tribal, state, and private land holdings.

The Zuni Mountain landscape strategy stems from over five years of collaboration between educators, non-profits, agencies, Tribes, and businesses through the Wood Industries Network (WIN). Established in 2005, WIN has been the forum for establishing restoration business partnerships, pursuing grants, contracts, and agreements across multiple land jurisdictions, and evaluating monitoring data and making management recommendations. Building on the collaborative formed by the WIN, the Cibola National Forest and the Zuni Mountain Forest Restoration Team invited stakeholders from all sectors operating at the local and state level to partner and form the broader Zuni Mountains restoration partners.

The restoration partners propose to restore forest structure and processes via an ecological restoration strategy across thousands of acres of unnaturally dense ponderosa pine, and piñon-juniper forests. Through mechanical thinning and the reintroduction of fire into these ecosystems, the restoration partners also aim to increase ecosystem resiliency to climate change, drought, and forest pathogens. The collaborators will pursue implementation and effectiveness monitoring through a multiparty process in order to accomplish these goals, determine restoration effectiveness, and determine the ecological, social, and economic effects. Since 2003 the Cibola National Forest and other land managers have focused forest and riparian restoration efforts in the Bluewater watershed, and through CFLRP funding, will be able to realize

landscape scale multijurisdictional restoration across watersheds paired with sustainable restoration treatment and utilization businesses.

A key component of the restoration strategy is to address the highest risk to the health, resilience, and function of the landscape by large high intensity crown fire events. Such events put a variety of key ecosystem components in jeopardy. Given that 90 percent of the landscape is classified in fire regime condition class (FRCC) III, or highly departed from its historic range of variability, the primary goal of the landscape strategy is to move the landscape towards FRCC I, or a low departure.

The project will also stabilize an incubating forest restoration-based economy in the region. Cibola and McKinley counties have unemployment rates higher than the state and nation. Sustaining or creating restoration related jobs will significantly improve the socioeconomic conditions of the landscape. Paired with the jobs, the 10-year landscape restoration effort will provide stabilized supply of materials and investment to grow local businesses. Upon the completion of the project, the shared vision of a healthy functioning forest system that supports biodiversity and rural social and economic goals will be achieved. The CFLRP program is an important tool that leverages existing investments in improving forest health and economic development.

The roles and responsibilities of the Zuni Mountain Forest Restoration Team made up of the Cibola National Forest, National Wild Turkey Federation, Wood Industries Network of Cibola and McKinley Counties, Forest Guild, and NM Forest and Watershed Restoration Institute and broader collaborative stakeholders are described in the proposal.

Thank you for your consideration of this proposal.

Sincerely,

Print Name and Organization	Signature
Susan Rich EMNRD Forestry Division Forest and Watershed Health Office	
B&M Range and Forestry Management Services Jim Bates and Thomas Marks General Partners	
Matt Wunder, PhD Chief, Conservation Services Division New Mexico Dept. of Game and Fish	
Taurus Diaz Laguna Agency Bureau of Indian Affairs	
Kayci Cook Collins, Superintendent El Malpais National Monument National Park Service	
Todd Haines Bernalillo District Forester New Mexico State Forestry	
Jim Norwick Director of Field Operations NM State Land Office	
Andrew Egan, PhD, Director NM Forest and Watershed Restoration Institute	
Michael Sullivan Executive Director Cottonwood Gulch Foundation	
Lance Elmore Fuels Specialist Cibola National Forest	
Livia Crowley Cibola National Forest	
Mary Dereske Cibola National Forest	
Beverly DeGruyter (C. Zamora acting) Cibola National Forest	
Susan Millsap Cibola National Forest	

Print Name and Organization	Signature
Eytan Krasilovsky Community Forestry Forest Guild	
Michael DeBonis Executive Director Forest Guild	
Zander Evans Research Director Forest Guild	
Scott P. Lerich Conservation Biologist National Wild Turkey Federation	
Ian Fox Timber Program Manager Cibola National Forest	
Rodger Martinez President Ramah Navajo Chapter	
Robert Findling Conservation Biologist The Nature Conservancy	
David Dallago Chairman McKinley County	
Carol Bowman-Muskett Commissioner McKinley County	

Print Name and Organization	Signature
Jon Ray P.O.L.	
Ann R. Ray POL	
Victor Sarracino	
MIKE MATUSH/NMED	
Brent Racher Restoration Solutions	
J. Matthew Allen MT. Taylor Machine LLC	
MATTHEW SILVA ROSE SPRINGS TIMBER, LLC	
TERRELL TREAT New Mexico State Forestry	
Matthew P. Reidy District Ranger	
J. Matthew Allen for N. Mex Forest Ind. Assoc.	(NMFIA)
Marcos Raybal UNM - Planning student	
Nancy Rose Cibola NF+G	

Attachment E: Predicted jobs table from TREAT spreadsheet

Detailed Average Annual Impacts Table

	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	19.0	14.4	33.4	411,709	949,345	1,361,054
Sawmills	16.5	25.7	42.2	626,513	1,142,134	1,768,647
Plywood and Veneer Softwood	-	-	-	-	-	-
Plywood and Veneer Hardwood	-	-	-	-	-	-
Oriented Strand Board (OSB)	-	-	-	-	-	-
Mills Processing Roundwood Pulp Wood	-	-	-	-	-	-
Other Timber Products	-	-	-	-	-	-
Facilities Processing Residue From Sawmills	3.1	7.1	10.2	100,690	133,011	233,700
Facilities Processing Residue From Plywood/Veneer	-	-	-	-	-	-
Biomass--Cogen	0.5	0.2	0.7	48,692	18,119	66,811
Commercial Firewood	1.3	0.4	1.7	$25,873	$14,699	$40,572
Total Commercial Forest Products	**40.4**	**47.8**	**88.3**	**1,213,476**	**2,257,309**	**3,470,785**
Other Project Activities						
Facilities, Watershed, Roads and Trails	0.0	0.0	0.0	$0	$0	$0
Abandoned Mine Lands	0.0	0.0	0.0	$0	$0	$0
Ecosystem Restoration, Hazardous Fuels, and Forest Health	0.4	0.1	0.5	$15,153	$4,165	$19,318
Contracted Monitoring	0.9	0.8	1.7	$50,422	$34,896	$85,317
FS Implementation and Monitoring	1.4	0.9	2.2	$99,361	$33,590	$132,952
Total Other Project Activities	**2.7**	**1.8**	**4.5**	**$164,936**	**$72,651**	**$237,587**
Total All Impacts	**43.1**	**49.6**	**92.8**	**$1,378,411**	**$2,329,960**	**$3,708,372**

Attachment F: Funding Estimates

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	$284,000.00
2. FY 2011 Funding for Monitoring	$116,000.00
3. USFS Appropriated Funds	$355,000.00
4. USFS Permanent & Trust Funds	
5. Partnership Funds	$5,000.00
6. Partnership In-Kind Services Value	$10,000.00
7. Estimated Forest Product Value	$30,000.00
8. Other (specify)	
9. FY 2011 Total (total of 1-6 above for matching CFLRP request)	$400,000.00
10. FY 2011 CFLRP request (must be equal to or less than above total)	$400,000.00
Funding off NFS lands associated with proposal in FY 2011 (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	$568,000.00
2. FY 2012 Funding for Monitoring	$232,000.00
3. USFS Appropriated Funds	$710,000.00
4. USFS Permanent & Trust Funds	0
5. Partnership Funds	$10,000.00
6. Partnership In-Kind Services Value	$20,000.00
7. Estimated Forest Product Value	$60,000.00
8. Other (specify)	
9. FY 2012 Total (total of 1-6 above for matching CFLRP request)	$800,000.00
10. FY 2012 CFLRP request (must be equal to or less than above total)	$800,000.00

Funding off NFS lands associated with proposal in FY 2012 (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	
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	$568,000.00
2. FY 2013 Funding for Monitoring	$232,000.00
3. USFS Appropriated Funds	$710,000.00
4. USFS Permanent & Trust Funds	0
5. Partnership Funds	$10,000.00
6. Partnership In-Kind Services Value	$20,000.00
7. Estimated Forest Product Value	$60,000.00
8. Other (specify)	
9. FY 2013 Total (total of 1-6 above for matching CFLRP request)	$800,000.00
10. FY 2013 CFLRP request (must be equal to or less than above total)	$800,000.00
Funding off NFS lands associated with proposal in FY 2013 (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	
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	$568,000.00
2. FY 2014 Funding for Monitoring	$232,000.00
3. USFS Appropriated Funds	$710,000.00
4. USFS Permanent & Trust Funds	0
5. Partnership Funds	$10,000.00
6. Partnership In-Kind Services Value	$20,000.00

7. Estimated Forest Product Value	$60,000.00
8. Other (specify)	
9. FY 2014 Total (total of 1-6 above for matching CFLRP request)	$800,000.00
10. FY 2014 CFLRP request (must be equal to or less than above total)	$800,000.00
Funding off NFS lands associated with proposal in FY 2014 (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	
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	$568,000.00
2. FY 2015 Funding for Monitoring	$232,000.00
3. USFS Appropriated Funds	$710,000.00
4. USFS Permanent & Trust Funds	0
5. Partnership Funds	$10,000.00
6. Partnership In-Kind Services Value	$20,000.00
7. Estimated Forest Product Value	$60,000.00
8. Other (specify)	
9. FY 2015 Total (total of 1-6 above for matching CFLRP request)	$800,000.00
10. FY 2015 CFLRP request (must be equal to or less than above total)	$800,000.00
Funding off NFS lands associated with proposal in FY 2015 (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	
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	$568,000.00
2. FY 2016Funding for Monitoring	$232,000.00
3. USFS Appropriated Funds	$710,000.00
4. USFS Permanent & Trust Funds	0
5. Partnership Funds	$10,000.00
6. Partnership In-Kind Services Value	$20,000.00
7. Estimated Forest Product Value	$60,000.00
8. Other (specify)	
9. FY 2016 Total (total of 1-6 above for matching CFLRP request)	$800,000.00
10. FY 2016 CFLRP request (must be equal to or less than above total)	$800,000.00
Funding off NFS lands associated with proposal in FY 2016 (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	
Private Funding	

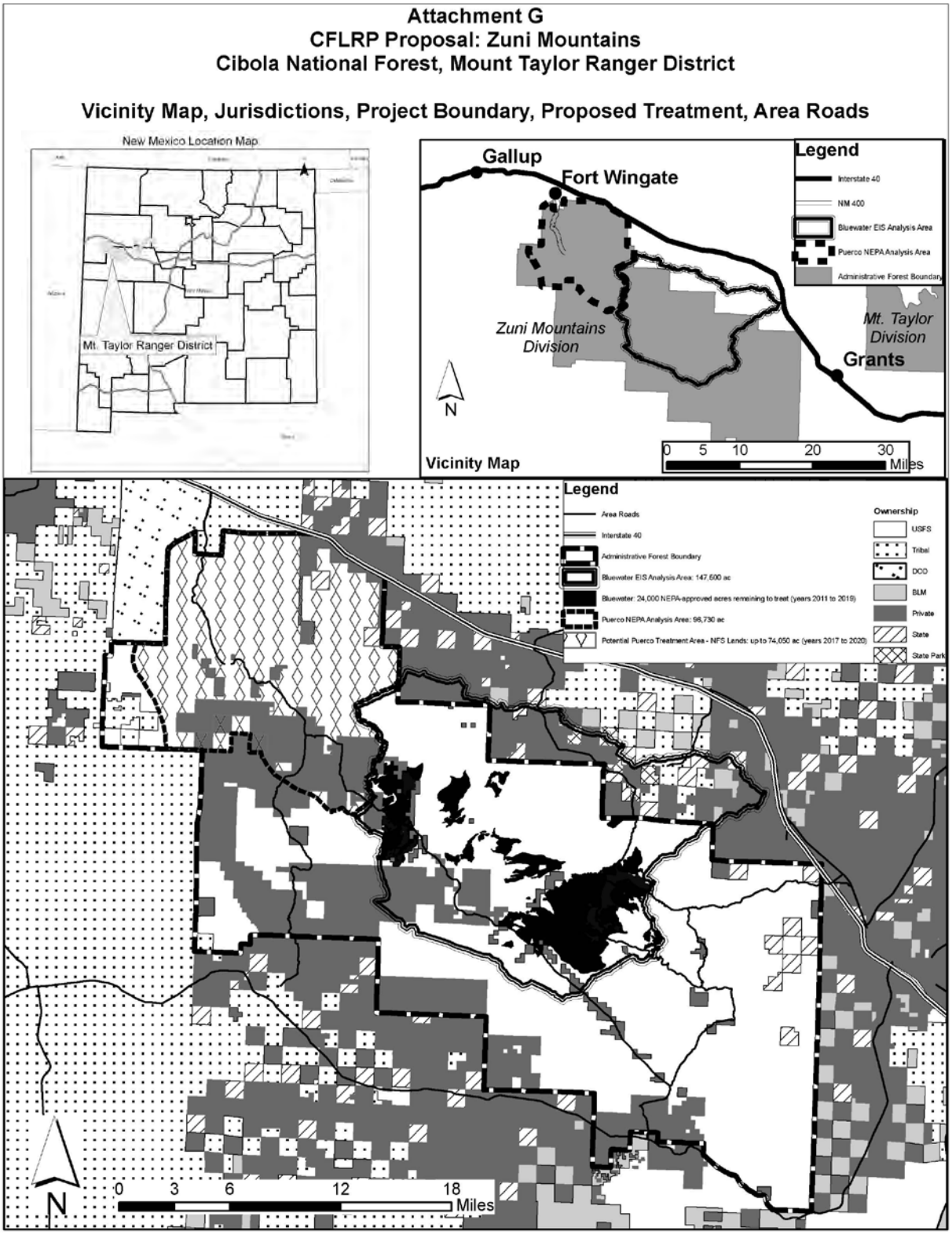
Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2017 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2017 Funding Type	Dollars/Value Planned
1. FY 2017 Funding for Implementation	$568,000.00
2. FY 2017Funding for Monitoring	$232,000.00
3. USFS Appropriated Funds	$710,000.00
4. USFS Permanent & Trust Funds	0
5. Partnership Funds	$10,000.00
6. Partnership In-Kind Services Value	$20,000.00
7. Estimated Forest Product Value	$60,000.00
8. Other (specify)	
9. FY 2017 Total (total of 1-6 above for matching CFLRP request)	$800,000.00
10. FY 2017 CFLRP request (must be equal to or less than above total)	$800,000.00
Funding off NFS lands associated with proposal in FY 2017 (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	$568,000.00
2. FY 2018Funding for Monitoring	$232,000.00
3. USFS Appropriated Funds	$710,000.00
4. USFS Permanent & Trust Funds	0
5. Partnership Funds	$10,000.00
6. Partnership In-Kind Services Value	$20,000.00
7. Estimated Forest Product Value	$60,000.00
8. Other (specify)	
9. FY 2018 Total (total of 1-6 above for matching CFLRP request)	$800,000.00
10. FY 2018 CFLRP request (must be equal to or less than above total)	$800,000.00
Funding off NFS lands associated with proposal in FY 2018 (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	
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 2019Funding for Implementation	$568,000.00
2. FY 2019 Funding for Monitoring	$232,000.00
3. USFS Appropriated Funds	$710,000.00
4. USFS Permanent & Trust Funds	0
5. Partnership Funds	$10,000.00
6. Partnership In-Kind Services Value	$20,000.00
7. Estimated Forest Product Value	$60,000.00
8. Other (specify)	
9. FY 2019 Total (total of 1-6 above for matching CFLRP request)	$800,000.00
10. FY 2019 CFLRP request (must be equal to or less than above total)	$800,000.00

Funding off NFS lands associated with proposal in FY 2019 (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	
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	$568,000.00
2. FY 2020 Funding for Monitoring	$232,000.00
3. USFS Appropriated Funds	$710,000.00
4. USFS Permanent & Trust Funds	0
5. Partnership Funds	$10,000.00
6. Partnership In-Kind Services Value	$20,000.00
7. Estimated Forest Product Value	$60,000.00
8. Other (specify)	
9. FY 2020 Total (total of 1-6 above for matching CFLRP request)	$800,000.00
10. FY 2020 CFLRP request (must be equal to or less than above total)	$800,000.00
Funding off NFS lands associated with proposal in FY 2020 (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	

Attachment G: Maps
For additional maps, please access,