COLLABORATIVE FOREST LANDSCAPE RESTORATION PROGRAM PROPOSAL

NEVADA PINYON-JUNIPER PARTNERSHIP PROJECT

HUMBOLDT-TOIYABE NATIONAL FOREST

ELY RANGER DISTRICT

Executive Summary

Dominant forest type(s): Pinyon-juniper woodland, sagebrush and mountain brush communities, aspen, aspen/mixed conifer, and mountain mahogany communities

Total acreage of the landscape: 718,000 acres of NFS Lands
Total acreage to receive treatment: 105,000 over 10 years
Total number of NEPA ready acres: 17,500
Total number of acres in NEPA process: 35,000+

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

- Treatment of pinyon-juniper woodlands to restore sagebrush communities and wildlife habitats.
- Implementation of prescribed fire to maintain and rejuvenate aspen communities.
- Implementation of prescribed fire within sagebrush and mountain brush communities to increase age class diversity and improve wildlife habitats.
- Treatment of vegetation and fuels within the wildland-urban interface (WUI) to reduce risks to communities.
- Treatment of noxious and invasive weed species to restore native communities and wildlife habitats.

Description of the highest priority desired outcomes of the project at the end of the 10 year period:

- Reduced pinyon-juniper densities and increased, more resilient sagebrush communities
- Healthy and actively regenerating aspen communities
- Vegetation communities with balanced age class diversity and healthy herbaceous understories
- Reduced fuels loads and effective fuel breaks within the WUI
- Limited and controlled noxious weed infestations, and aggressive treatment and identification.

Description of the most significant utilization opportunities linked to this project:
Biomass for the Fuels for Schools Program, commercial and personal use fuelwood harvest, and biomass for use in a wood pellet facility.

Name of the National Forest, collaborative groups, and other major partner categories involved in project development:
Humboldt-Toiyabe National Forest. For additional partners associated with the Nevada Pinyon-Juniper Partnership please refer to the enclosed member list.

Describe the community benefit including number and types of jobs created:
This project will contribute biomass for small business development and commercial fuelwood opportunities. The treatments for economics analysis tools estimated 57.3 jobs would be created in association with restoration activities on lands administered by the Forest Service.

Total dollar amount requested in FY11: $806,250
Total dollar amount requested for life of project: $9,163,250

Total dollar amount provided as Forest Service match in FY11: $806,250
Total dollar amount provided as Forest Service match for life of project: $9,163,250

Total dollar amount provided in Partnership Match in FY11: $15,000
Total dollar amount provided in Partnership Match for life of project: $225,000

Total in-kind amount provided in Partnership Match in FY11: $0
Total in-kind amount provided in Partnership Match for life of project: $0

Time frame for the project (from start to finish): 20 years

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INTRODUCTION

The Nevada Pinyon-Juniper Partnership (Partnership) uses public–private cooperation and innovation to address the ecological problems associated with expanding, aging, and overstocked pinyon-juniper woodlands. The goal of the Partnership is to address ecological risks through landscape-level restoration while beneficially using the resulting biomass.

Eighty-seven percent of Nevada's lands are federally managed, and approximately 9 million acres of pinyon-juniper woodland are managed by the Bureau of Land Management (BLM) and USDA Forest Service. Expanding and overstocked pinyon-juniper woodlands impact ecosystem resilience and biodiversity, wildlife habitat, water quantity and quality, and soils and are highly susceptible to catastrophic fire. Yet, proactive management can reduce the introduction of invasive species, such as cheatgrass, and greatly reduce fire suppression and restoration costs. Restoration at the landscape level is an environmental protection imperative and a cost-saving measure. At the same time, biomass generated from treatments can be used for commercial purposes, which will add revenues back into the restoration cycle while creating rural industries and jobs in counties whose private-sector economies are affected by the dominant presence of federal lands.

Clearly, these restoration and economic objectives cannot be reached without an unprecedented level of interagency and public–private cooperation that utilizes the best science, technology, and land management practices. To facilitate and support this effort, Senator Harry Reid has called for the Secretaries of Interior and Agriculture to establish an interagency demonstration project that would restore a landscape-scale area of pinyon-juniper woodland in rural Nevada.

This proposal is a critical piece of the larger Partnership; however, this proposal extends beyond addressing the widespread issues associated with pinyon-juniper woodlands. This project will also restore aspen communities, improve the condition of sagebrush and mountain brush communities, reduce fuel loads and create effective fuel breaks within the wildland-urban interface (WUI), and improve riparian areas. This project will monitor, inventory, and treat all noxious weed infestations on National Forest System lands within the Partnership area. Finally, this project will decommission unauthorized roads in accordance with the Ely Ranger District Travel Management Plan.

ECOLOGICAL, SOCIAL AND ECONOMIC CONTEXT

Landownership Patterns

The Partnership demonstration area includes approximately 718,000 acres managed by the Ely Ranger District, Humboldt-Toiyabe National Forest. Significant acreages of BLM administered lands are included within the demonstration area. The demonstration area includes two focus areas, the southern focus area is located in Lincoln County and the northern focus area is located in White Pine County. This proposal addresses Forest Service lands in White Pine County within the northern focus area. See attached map for additional details about the Partnership demonstration area.

The majority of the lands within the demonstration area are public lands managed by the Humboldt-Toiyabe National Forest and the BLM's Ely District Office. The area also includes lands managed by the State of Nevada and tribal and private lands. Multiagency NEPA analyses are being planned for current and future projects in the demonstration area, including a current

landscape-scale project involving the Forest Service, BLM, and Ely Shoshone Tribe to treat vegetative communities and wildlife habitats across administrative boundaries on Ward Mountain.

Current Vegetative Conditions

Nearly 50 million acres of pinyon-juniper woodlands exist across the West and approximately 9 million acres exist in Nevada. When pinyon-juniper woodlands begin expanding into sagebrush ecosystems, they tend to be subdominant to sagebrush or other existing vegetation (Phase I). Pinyon-juniper woodlands become much more prone to catastrophic wildfire as the trees become co-dominant (Phase II) and dominant (Phase III), and the fuel loads increase. Phase III pinyon-juniper woodlands tend to have little-to-no understory of native grasses and forbs, resulting in ecosystems that are less resilient to fire and more prone to erosion; provide poorer habitat for wildlife; and are at higher risk of invasion by insects, noxious weeds, or other undesirable vegetation. **Experts estimate that 100,000 acres of pinyon-juniper woodland transition from Phase II to Phase III each year in Nevada.**

Scientists and land management professionals agree that the majority of these pinyon-juniper acres are in need of treatment (i.e., removal). Designing the treatment through the expertise of the Partnership will provide the following benefits:

- **Increase flora and fauna biodiversity**
- **Improve watershed health** by increasing water quantity and quality
- **Enhance wildlife habitat** for sagebrush obligate species, such as sage-grouse and mule deer
- **Reduce the risk of catastrophic wildfire** by reducing high fuel loads
- **Improve woodland health** by reducing the potential for beetle kill and protecting old-growth forest from wildfire

The condition of the various vegetation communities within the demonstration area is a direct result of a variety of events and management activities including but not limited to:

- Long-term wildfire suppression
- Historical grazing practices
- Invasions by noxious and nonnative species

Over the past several years, the Forest Service and BLM have been actively planning and executing landscape-scale restoration projects within the demonstration area. Landscape assessments have been completed on the North Schell and Ward Mountain project areas, and results from these assessments are included in this proposal to provide the types and conditions of current vegetation. Current vegetation conditions were determined using The Nature Conservancy's (TNC's) Conservation Action Planning process, which meets criteria outline in the six-step process from the *Federal Guide for Watershed Analysis*[1]. TNC used satellite imagery (Landsat from LANDFIRE), remote sensing, and predictive ecological models. The North Schell Assessment used 30-meter resolution while the Ward Mountain Assessment used sub-meter resolution. Ground plots were used to verify the vegetation. Summaries of the vegetation

[1] Regional Ecosystem Office (REO). 1995. Ecosystem analysis at the watershed scale: federal guide for watershed analysis. Version 2.2. Regional Ecosystem Office, Portland, OR.

conditions within the North Schell and Ward Mountain Assessment Areas are provided in the tables below.

North Schell Area

Summary of current vegetation conditions within the North Schell assessment area

Vegetation Class	Acres	Acres within a Desired Condition	Fire Regime Condition Class Rating[2]
Pinyon-Juniper/Mountain Mahogany Woodland	32,768	26,768	Fair
Aspen/Mixed Montane Forest and Woodland	8,899	3,909	Poor
Montane Sagebrush Steppe	20,215	8,215	Fair
Mixed Sagebrush Shrubland and Grassland	12,835	4,676	Poor
Montane stream/Riparian Woodland and Shrubland	1,755	~0	NA

This analysis identified continued fire suppression as the most critical threat to the North Schell ecological system[3]. Improving Fire Regime Condition Class (FRCC) was identified as an objective for four conservation targets in all vegetation classes except the Montane Stream/Riparian Woodland and Shrubland vegetation class within the North Schell project area.

Ward Mountain

Summary of current vegetation conditions within the Ward Mountain assessment area

Vegetation Class	Acres	Acres within a Desired Condition	Fire Regime Condition Class Rating
Aspen-Mixed Conifer Woodland	2,240	865	
Aspen Woodland	590	390	
Basin Wildrye	1,650	200	
Black Sagebrush	46,660	20,160	
Montane Sagebrush Steppe-Upland	25,610	8,475	
Montane Sagebrush Steppe-Mountain	2,510	2,310	

Fire suppression, grazing, and climate change have affected the current conditions of these landscapes. Pinyon-juniper expansion and increasing densities have significantly affected the various sagebrush communities within the Ward Mountain Project Area. Declining forest and sagebrush-steppe community types and structure pose a threat to ecosystem stability and

[2] The Nature Conservancy. 2008. Conservation Action Planning in the Schell Creek Range: Developing a Watershed Assessment for the North Schell. Page 11.

[3] The Nature Conservancy. 2008. Conservation Action Planning in the Schell Creek Range: Developing a Watershed Assessment for the North Schell. Page 13.

resiliency, as well as to wildlife habitat. Pygmy rabbits, sage grouse, other sagebrush-obligate species, and mule deer are at the greatest risk.

Wildfire Conditions

Fire suppression has increased fuel levels throughout the proposal area with the greatest impacts occurring in the low elevations adjacent to the WUI. Increasing fuels in the WUI increases risks to public safety and property.

The assessments that have been completed used spatial analysis tools (satellite imagery, remote sensing, and predictive ecological models) to measure landscape context and disturbance regimes. Specifically, disturbance regimes were measured by calculating the FRCC. The FRCC was used to determine that fire regimes in many areas are outside the natural range of variability due to past land management practices and the invasion of nonnative annual grasses at the lower elevations**.** Additionally, continued fire suppression was identified as the most critical threat to the North Schell ecological systems[4].

Properly managing wildfire in the project area will:

- Promote forest/vegetation resiliency and diversity to reduce the impacts of large-scale, high-severity wildfire on the landscape and allow the use of natural fire as a tool for resource benefits.
- Change the fire behavior within the WUI to provide for firefighter and public safety and reduce the effects of fire on ecosystems.

Current Socio-Economic Conditions

The local economy in White Pine County has long been based on the mining industry (two major mines are currently operating within the county) and has suffered from the traditional boom and bust cycles associated with mining. The economy is now relatively stable because of the high price of locatable minerals such as gold and copper. A State maximum security prison is also located within the county.

The county has had a long-term need to diversify its local economy to reduce impacts from mining boom and bust cycles. This project has the potential to create small business opportunities and diversify the economy in the following ways:

- Provide opportunities for commercial fuel wood operations. One small business has recently become established and is creating job opportunities on the Ely Shoshone Reservation.
- Increase contracting opportunities associated with restoring vegetation communities. Contractors infuse money into the local economy through fuel, lodging, and supply purchases. This partnership has the potential to increase the number of acres treated each year while achieving restoration goals.
- Produce biomass as a byproduct, which would increase the probability of reopening an existing wood pellet facility and creating local jobs.
- Increase the diversity and resiliency of wildlife habitats to help sustain and/or increase trophy elk and mule deer populations. Increasing these wildlife populations would provide hunting

[4] The Nature Conservancy. 2008. Conservation Action Planning in the Schell Creek Range: Developing a Watershed Assessment for the North Schell. Page 13.

and wildlife viewing opportunities, which provide significant economic benefits into the local economy.

SUMMARY OF LANDSCAPE STRATEGY

In 2010, the Partnership was formed to address the multiple issues associated with pinyon-juniper and sagebrush-steppe communities. A primary objective of the Partnership was to bring all agencies and interested groups and individuals together to address these vegetation issues at the landscape scale and across administrative boundaries. East-central Nevada was chosen as the demonstration area because of the significant opportunities for restoration and a strong BLM and Forest Service commitment and track record of successfully completing landscape-scale restoration projects in the area.

Federal, tribal, county, State, private landowners, and non profits such as TNC have and continue to successfully develop and implement projects within the project area. All agencies have worked together on a variety of assessments within the proposal area, including the *Conservation Action Planning in the Schell Creek Range: Developing a Watershed Assessment for the North Schell; the Ward Mountain Restoration Project; An ecological assessment and landscape strategy for native ecosystems in the Ward Mountain Landscape; and Nevada's Wildlife Action Plan: Conservation Action Planning for the Steptoe Basin and Range Landscape.*

Over the past several years, the Forest Service and BLM have emphasized the assessment, planning, and treatment of vegetation communities at a landscape scale within the Partnership demonstration area. These analyses and project areas have varied in size from 20,000 acres to over 300,000 acres and are in various stages of planning and implementation.

Within this landscape, existing projects were identified because of their high potential for successful restoration, including the restoration of sagebrush communities by removing pinyon-juniper expansion, restoring aspen, and treating mature sagebrush steppe and mountain brush communities to increase age class diversity and improve the herbaceous vegetative component. Assessments have been completed to guide the formulation of future cost-effective vegetation management projects that protect, enhance, and restore the ecological integrity of the area. The following is a summary of management projects within the demonstration area.

Forest Service Projects

Projects	Planning Area Acres	Treatment Acres Approved or Proposed	Treatment Acres Completed	Funding
North Schell Restoration Project	78,000	35,000	0	$1,331,000
White Pine Sagebrush Restoration Project	19,000	5,000	1,100	$896,000
Central White Pine Pinyon-Juniper Removal Project	60,000	12,000	2,000	$320,000
Lowry Hazardous Fuels Project	4,500	4,500	1006	$931,800

Ward Mountain Restoration Project	40,000 FS 75,000 BLM 5,000 Other	NA	NA	$350,000

Bureau of Land Management Projects

Projects	Planning Area Acres	Treatment Acres Approved or Proposed	Treatment Acres Completed	Funding
Williams Creek	NA	1,026	1,026	$70,000
White River Sagebrush	NA	673	673	$35,000
Ward Mountain Stewardship	NA	890	890	$757,000
Copper Flat	NA	2,000	2,000	$145,000
Upper Gleason	NA	1,927	1,927	$219,000
Thirty Mile Stewardship	NA	360	360	NA
Moorman Ranch	NA	835	835	$70,000
Cold Spring Stewardship	NA	521	NA	$340,000
Marking Corral	NA	1,750	1,750	$153,000
Bull Canyon	NA	1,200	1,200	$75,000
Bullwhack	NA	800	800	$70,000
Cherry Creek	NA	5,772	5,772	$305,000
Connor’s Summit	NA	215	215	$45,000
North Spring Valley	NA	3,200	3,200	$260,000
Pleasant Valley	NA	3,000	0	$150,000
Sacramento Pass	NA	407	In progress	$212,000
West Schell Bench	NA	900	900	$90,000
Stockade	NA	3,000	3,000	$200,000
North Antelope Thinning	NA	2,153	In progress	$950,000

PROPOSED TREATMENTS

Stakeholder input will be used to identify areas that are accessible, in need of treatment to benefit the maximum number of resource values, and supported by key stakeholders. The project area will be managed under a long-term process of inventory, environmental planning (National Environmental Policy Act [NEPA]), restoration treatments, and biomass utilization. Treatments will be site specific; guided by restoration needs; and carefully designed, closely monitored, and adapted as needed to achieve desired ecological outcomes.

Project Goals and Objectives

Pinyon-juniper woodlands have expanded into the Wyoming, mountain, and basin big sagebrush communities because of several factors including fire suppression across the West (Romme et al. 2008 and Gruell 1999). This pattern can also be seen in the project area. As the pinyon-juniper woodland canopy closes, the herbaceous and shrub understory will lose its resilience to wildfire or other disturbances. Pinyon-juniper woodland expansion has significantly reduced the shrub and herbaceous vegetative community. In addition to the reduction of a desirable understory, the project area has exhibited significant increases in pinyon-juniper stand densities.

The following is a summary of additional project goals and objectives associated with this project:

- Restore vegetative communities, restore and improve wildlife habitats, and reduce fuels to lessen the severity of wildland fire through prescribed fire and/or mechanical treatments
- Improve the health and diversity of vegetation and restore and improve wildlife habitats, particularly winter ranges and important shrub communities, by removing pinyon-juniper expansion and reducing pinyon-juniper stand densities through mechanical treatments
- Restore natural conditions and improve wildlife habitat diversity within Pinyon-juniper and Mountain Mahogany woodlands
- Maintain the overall condition and prevent deterioration of the native ecological systems
- Restore degraded ecological systems to their historic range of variability (HRV) or an "acceptable" range if the HRV is not feasible
- Reduce and prevent expansion of High-Risk Vegetation Classes (e.g., exotic species)
- Manage the Murray Canyon municipal watershed to prevent high-severity events and restore ecological stability
- Treat WUI areas and reduce fuel loads to help protect human settlements and cultural resources from high severity wildfire in and around the project area
- Implement a collaborative restoration vision between the BLM, the Forest Service, the Ely Shoshone Tribe, partners, and stakeholders in the area

Proposed Treatments and Prioritization

Prescribed fire treatments will be implemented to restore and regenerate aspen communities, increase age class diversity and improve the herbaceous vegetative component within higher elevation sagebrush and mountain brush communities, and restore sagebrush ecosystems through the treatment of various Phase I and Phase II pinyon-juniper. Prescribed fire will also be used to reduce slash following mechanical treatments.

Mechanical treatments, including masticators, stewardship contracts/harvest, commercial fuelwood harvest, and other similar methods, will be implemented within Phase II and Phase III pinyon-juniper communities to restore sagebrush/grassland communities; improve the health of the woodlands; enhance wildlife habitats; and in some cases, improve stands to increase pinyon pine nut production.

Treatments using crews and chainsaws will be utilized in Phase I, Phase II, and some aspen habitats. These treatments will maintain and improve sagebrush and aspen communities and will directly restore and benefit habitats for a wide range of wildlife species.

Noxious and invasive species will be inventoried and treated with herbicides to restore native vegetative communities. Road obliteration and restoration will be implemented in accordance with the *Ely Ranger District Travel Management Plan*. These treatments will restore native vegetative communities, improve wildlife habitats, and restore watershed function.

North Schell Restoration Project

Over the next 2 years, approximately 6,000 acres will be treated using a variety of treatment methods, including multiple mechanical methods, prescribed fire, stewardship contracts, and the treatment of noxious and invasive species. The following are treatment priorities for this project:

- Reduce fuels and improve fire protection adjacent to private properties
- Regenerate and restore aspen communities that currently contain a conifer component
- Restore sagebrush steppe and mountain brush communities through the treatment of pinyon-juniper
- Improve mountain mahogany communities though the selective treatment and removal of pinyon-juniper
- Restore and improve riparian communities
- Increase age class diversity and improve the herbaceous vegetative component by treating mature sagebrush steppe and mountain brush communities
- Regenerate stable aspen communities in association with treatments in adjacent sagebrush and mountain brush communities

White Pine Sagebrush Restoration Project

Over the next 2 years, approximately 2,000 acres will be treated with mechanical methods to restore sagebrush ecosystems and improve habitats for mule deer, elk, sage grouse, and other sagebrush-dependent species. Treatments will also include road oblideration, seeding of native species, and the inventory and treatment of noxious and invasive species.

Central White Pine Pinyon-Juniper Removal Project

Over the next 2 years, approximately 4,000 acres will be treated using crews and chainsaws to restore and/or maintain critical sagebrush ecosystems and improve habitats for mule deer, sage grouse, and other sagebrush-dependent species. Treatments will also include the inventory and treatment of noxious and invasive species.

Lowry Hazardous Fuels Project

Over the next 2 years, approximately 3,000 acres will be treated using mechanical methods and limited prescribed fire to reduce fuels within the WUIs around Ely, Nevada. The project will also restore sagebrush/grassland ecosystems and improve habitats for mule deer, elk, sage grouse, and other sagebrush-dependent species. Treatments will also include road obliteration and the inventory and treatment of noxious and invasive species.

Ward Mountain Restoration Project

The Ward Mountain Restoration Project area is a largely unfragmented landscape with diverse Great Basin ecosystems located in the Egan Range and adjoining valleys. The 120,000 acre project area includes BLM and Forest Service managed lands, Ely Shoshone tribal lands, and private lands. The potential for wildfire to spread from Ward Mountain to Ely is a concern. The

fire regime in many of the Ward Mountain systems is outside of the natural range of variability due to past land management practices and the invasion of nonnative annual grasses at lower elevations. Several vegetation communities are in need of restoration to improve or maintain watershed health. The project area includes approximately 40,000 acres of National Forest System lands that include significant wildlife habitats, the municipal watershed for the city of Ely, a Forest Service developed campground, and extensive WUI areas. In 2012, approximately 1,000 acres will be treated on National Forest System lands under this proposal.

Resource Desired Conditions

Fish; Wildlife; and Threatened, Endangered, and Sensitive Species

- Prescribed fire treatments within seral aspen stands will be completed in a way to protect important northern goshawk and flammulated owl habitats while ensuring a balance of age class diversity to ensure long-term viability of the habitats for these species.
- Prescribed fire treatments within the mountain brush and mountain sagebrush communities will be done in mosaic patterns to increase age class diversity, restore the natural condition, and improve the herbaceous vegetative components. These treatments will improve habitat conditions for a variety of wildlife species, including sage grouse, mule deer, and elk.
- Mechanical and chainsaw treatments within pinyon-juniper communities will be completed in mosaic patterns and will restore important winter ranges and sagebrush communities. Individuals and groups of large mature trees will be maintained on the landscape in various patterns to provide cover, provide habitats for bird species, provide for a mix of age classes of habitats, and enhance the health of woodland communities.
- Habitats for sage grouse would be maintained over time through the improvement of age class diversity within the sagebrush communities. Acres of preferred sagebrush habitats would increase as a result of the removal of invading pinyon-junipers woodlands.
- Nesting and brood rearing areas would become healthier through the treatment of noxious and invasive weeds. Nesting habitat for northern goshawks and flammulated owls would be maintained over time by protecting important habitats and rejuvenating seral aspen stands before the aspen component is lost.

Water Quality and Watershed Function

- Water quality and watershed function will be improved by restoring resilient native vegetative communities.
- Restoration within vegetative communities will result in the long-term reduction of soil erosion and improve the functional condition of springs and streams within the project areas.

Invasive and Exotic Species

- Inventory and treatment of noxious weeds is ongoing within the Partnership demonstration area.
- Treatments will be further emphasized before and after treatments in the project areas.
- Existing infestations will be closely monitored and aggressively treated before the infestations become a serious problem.
- Treatments to reduce cheatgrass infestations will occur within the project areas where the spread of the infestation can be prevented.

- Treatments will avoid and/or minimize disturbance in areas with high potential for noxious weed and cheatgrass infestations. “light on the land treatments” may be used in areas with high potential for weeds.

Insect and Disease Concerns

- Monitoring of insect and disease activity will be ongoing within pinyon-juniper, mixed conifer, and aspen communities.
- Treatments will reduce pinyon-juniper densities and increase the health of pinyon-juniper woodlands and sagebrush communities.
- Prescribed fire treatments will rejuvenate aspen communities and reduce insect and disease issues associated with those stands.

Roads and Trails

In February 2009, a Decision Notice was signed approving the *Ely Ranger District Travel Management Plan*. This plan reduces the number of open motorized routes and prohibits motor vehicle use off the designated National Forest System roads and trails. These road closures and the prohibition of motor use off designated routes, along with the proposed vegetation treatments, will improve habitats for wildlife species, restore native plant communities, and improve watershed conditions. Under this proposal, unauthorized roads and trails will be closed and rehabilitated and native vegetation will be restored on the site.

Old Growth and Large Trees

Within pinyon-juniper communities, older trees and identifiable pre-settlement stands of trees will not be targeted for treatments. These trees are often used by a variety of wildlife species (e.g., pinyon jays). These stands occur on rocky outcrops that are generally protected from large wildfire events. No prescribed fire would be initiated within pure mountain mahogany stands although some fire may occur along the edges.

Best Available Science

TNC prepared Conservation Action Plans (CAPs) for the North Schell Creek Range and for Ward Mountain that assess the vegetation conditions of each area. This assessment process used LANDFIRE, satellite imagery, remote sensing, predictive ecological models, and cost-benefit assessments. The Forest Service utilized the landscape assessment processes facilitated by TNC to identify vegetation communities that are in a declining state of health. In addition, literature from Robin Tausch, Jean Chambers, and Rick Miller were reviewed and incorporated into the project designs. The Forest Service has also been involved with research studies implemented within that last couple of years through the Sagebrush Steppe Project. The Forest Service has maintained ecoplots and range transects throughout the proposal area to monitor vegetation conditions. The relevant ecoplots established before projects are begun will be used during and after to monitor short-term and long-term treatment effects.

National Environmental Policy Act Decisions

North Schell Restoration Project

The Environmental Assessment for this project is nearly complete and a Decision Notice will be signed during spring 2011. Treatments are scheduled to begin in June or July 2011.

White Pine Sagebrush Restoration Project

A decision memo approving this project was signed early in 2010; treatments are ongoing.

Central White Pine Pinyon-Juniper Removal Project

A decision memo approving this project was signed early in 2010; treatments are ongoing.

Lowry Hazardous Fuels Project

A Decision Notice approving this project was signed early in 2009; treatments are ongoing.

Ward Mountain Restoration Project

This project is currently being developed and specific treatments and acreages have not been finalized. An interagency environmental assessment will be completed and a decision will be signed in spring 2012 with treatments beginning during summer 2012.

Fire Management

A wide range of prescribed fire treatments are planned within the project areas to restore vegetation communities and wildlife habitats. Prescribed fire within sagebrush and mountain brush communities will be fast-moving, low-severity, and moderate-intensity fires. Within many pinyon-juniper and aspen communities, prescribed burns will be high-intensity, low-severity fires to meet specific objectives. Jackpot burning and minimal amounts of pile burning will also occur in areas where there is a need to reduce slash and fuels following mechanical treatments.

Treating vegetative communities at the landscape scale will improve vegetation diversity and restore native communities to reduce long-term wildfire severity.

The Ely Ranger District in cooperation with the BLM's Ely District Office has identified areas within our Fire Management Plans where wildland fires may be managed for resource benefits. Within these plans, we have identified the risks; safety, cultural, range improvement, and wildlife concerns; WUI areas; other land ownerships; infrastructures; and vegetation types. Using this information, Federal agencies in the demonstration area will be able to successfully manage wildland fires in a way that will restore fire within fire-dependent ecosystems. Once treatments are completed and vegetation communities are restored, greater opportunities to manage wildland fires will exist in the area.

The majority of the demonstration area is within the White Pine County Community Wildfire Protection planning area. The northern portions of Ward Mountain are within the WUI for the town of Ely. Located along the edges, and within the valley adjacent to the National Forest, there are widely scattered residences within the Duck Creek Basin and a couple residential tracks within the Schell Creek Range.

Implementing these restoration strategies will reduce the potential for large, expensive wildfires. Once the ecological departure is reduced across the landscape, the vegetation communities' health will be improved and their resiliency to natural and human-caused disturbances, such as fire, invasive and noxious weeds, diseases, and insects, will increase. Rehabilitation costs will also be reduced.

COLLABORATION AND MULTIPARTY MONITORING

The Partnership is directed by a Steering Committee composed of experts and interests from federal, state, and local governments and a diverse suite of nongovernmental organizations and the private sector. Several federal agencies are critical partners and action agents to this Partnership, including the Department of Interior (Bureau of Land Management, United States Fish and Wildlife Service, Bureau of Indian Affairs); Department of Agriculture (Forest Service, Natural Resources Conservation Service, Rural Development, Agricultural Research Service, Farm Services Agency); and Department of Energy. State of Nevada partners include the Department of Wildlife; Division of Forestry; University of Nevada, Reno; and the State Office of Energy. County governments, Native American tribes, conservation districts, and nongovernmental organizations representing environmental, conservation, and cultural preservation interests are also essential to the process. The collective expertise, wisdom, and resources of these partners will serve to create focus and momentum for accomplishment, and to build in mechanisms for scientific monitoring, self-correction, and accountability.

The partnership has been developing over the past year and recently hosted the Pinyon-Juniper Summit in Las Vegas, Nevada in December 2010. Over 175 people attended the summit representing a wide range of national, regional and local interests.

The Partnership is developing an organization structure that will have three main teams: 1) Restoration Team, 2) Science and Monitoring Team, and 3) Utilization Team (see Attachment C for the organization chart). Each group will play a critical role in ensuring that effective, efficient, and timely restoration projects are designed and implemented in the demonstration area. The coalition of this Partnership, as designed into the organization structure, is from the various perspectives (i.e., land users and business interests, local governments, landowners, public land managers, scientific/academia interests, regional resource emphasis organizations, and political interests). These groups have developed this partnership to achieve their particular objectives; however, the common theme is restoring the landscape with the anticipation that the return on their investment will be a more sustainable, healthy, and productive landscape. During the last decade, federal agencies have identified the need for sagebrush steppe, aspen and pinyon-juniper woodland restoration within the project area. However, only as a result of this partnership has the importance and board-based support for the project been developed. This momentum has allowed the best science and monitoring to be incorporated into the restoration effort. With this Partnership, the likelihood of achieving a sustainable and resilient landscape increases substantially.

The Restoration and Science and the Monitoring teams will interact. They are composed of multi-agency resources specialist representatives of land management agencies, the Forest Service Rocky Mountain Research Station, the USDA Agricultural Research Service, The University of Nevada, Reno, and the US Geologic Service and University of Nevada, Reno, the Eastern Nevada Landscape Coalition and interested publics(see Attachment C). They will provide and discuss current science regarding appropriate restoration techniques and designs and incorporate feedback from past restoration efforts into the design of future projects. Periodically the monitoring/science team and project designers (land management agencies) will discuss what has been learned from putting projects on the ground regarding short-term effects and logistics as well as intermediate to long-term effects. To design the science (research) portion of this task the land managers will interact with scientists and others to elevate the questions toward what it

clearly not known and to focus science on what the managers need to know. In other words focus for applied research. The multiparty monitoring group would examine each proposed project to identify those questions that are central to design and untested or inadequately tested.

The Pinyon-Juniper Partnership Steering Committee is actively working to involve all parties in a large scale research and monitoring effort. Research and monitoring will include participation from the University of Nevada Reno, Rocky Mountain Research Station, Agricultural Research Service, and others. Locally the Eastern Nevada Landscape Coalition has been monitoring related projects and across Nevada, the Synergistic Monitoring Project through the University of Nevada Cooperative Extension has been monitoring vegetation management treatments and fire events. They are accumulating these data into a database and analyzing treatments effects across land ownerships. Both of these projects have been funded by many sources and could support this project with additional funds for monitoring.

The Utilization Team is focused on building capacity within communities and private industry to to effectively utilize biomass which will result during the treatment of Pinyon-juniper. As part of this task this team is looking at new and developing technologies and methods.

UTILIZATION

Treatments within pinyon-juniper communities provide opportunities for using biomass for various products. Pinyon-juniper will be harvested in areas where the dominant age of the stand indicates post-settlement expansion into sagebrush-step ecosystems. Prior to 1860, two-thirds of the landscape was treeless and occupied by sagebrush-steppe communities. Today, less than one-third of the landscape is treeless and more than 90 percent of the trees have been established since the 1860s. In the absence of disturbance, woodlands will continue to expand, mature, and close. The majority of these woodlands will reach Phase III within the next 40–50 years. As stands reach Phase III, biomass shifts from ground fuels to canopy fuels, which significantly alters fire behavior. The shift in overstory biomass marks a decline in sagebrush communities, structural diversity, herbaceous production, and habitat for sagebrush obligates. The decline in understory vegetation translates to a decline in understory seed sources and results in Phase III pinyon-juniper woodlands that are less able to revegetate with native species after disturbance[5].

Estimated Volume and Size of The Material to be Utilized

Pinyon-Juniper Biomass Utilization Studies were conducted in December 2005 for Lincoln and White Pine Counties in Nevada[6]. These studies, sponsored by Lincoln County Regional Development Authority, published a range of biomass tonnage harvested per acre for pinyon-juniper woodlands.

In 2004, the Ward Mountain Fuels Reduction Project in White Pine County was implemented by the BLM's Ely District Office. Average tonnage from two 1.0-acre plots was estimated to be 8.5 tons per acre. Lighter tree densities in another portion of the project area were averaged in and

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[5] Miller R.F., R.J. Tausch, E.D. McArthur, D.D. Johnson, and S.C. Sanderson. 2008. Age structure and expansion of pinyon-juniper woodlands: A regional perspective in the Intermountain West. RMRS-RP-69.

[6] Lincoln County Regional Development Authority (LCRDA). 2005. Pinyon-juniper biomass utilization studies for Lincoln and White Pine Counties, NV. LCRDA, Pioche, NV.

the tons per acre were reduced to an average of 2.9 tons per acre. Another BLM fuels reduction project on Mount Wilson in Lincoln County had an estimated yield of 5–10 tons per acre.

The current Humboldt-Toiyabe vegetation map indicates that in the North Schell and Ward Mountain project areas, there are approximately 9,000 and 13,000 acres of medium density (phase II) pinyon-juniper, respectively, on slopes less than or equal to 30 percent. At 2.9–10 tons per acre, 63,800–220,000 tons of biomass are available. These are the expansion woodlands recommended for treatment to restore sagebrush-step communities before Phase III conditions are reached. Treatments may also occur within Phase III pinyon-juniper stands, which would have significantly higher tons per acre values; however, these treatments would be done cautiously and may require additional costs to reestablish sagebrush and grassland communities.

Post-settlement pinyon and juniper trees that may be harvested under this proposal have an estimated size from 2 to 25 inches diameter root collar (DRC).

Potential Products, Likely Uses, and Potential Values

Biomass Chips—Chips can be used for the Fuels for Schools program, wood pellet products, landscaping products, or to fuel small electrical generation facilities. The White Pine County School District Fuels for Schools program is accepting biomass, which is reducing costs for the local school district. There are also opportunities associated with an existing wood pellet facility, which is currently not operating. Other uses are currently not developed.

Commercial and Personal Use Firewood—A local and a regional market for fuelwood exists. Large-diameter products are readily utilized; however, alternative methods (e.g., chipping or prescribed fire) must be utilized to address slash and small-diameter products. The sale of fuelwood products provides minimal return to the government. Benefits to small business and local economies are slightly higher for fuelwood.

Utilization Strategy

Our utilization strategy includes several components. Several local commercial fuelwood operators may utilize biomass from the various treatments. Personal use fuelwood also provides opportunities for the public to utilize biomass from vegetation treatments. Finally, biomass may be shipped to the White Pine County School District to be used to fuel their Fuels for Schools program.

NEPA analysis for these projects is being completed to allow for a variety of utilization methods and allow the agency to adapt to changing economic and market conditions. The Partnership is actively working to develop markets to utilize biomass and encourage vegetation treatments and restoration activities. This group has wide-spread support and resources to develop markets and small business opportunities to implement the utilization strategy. The Partnership's main focus is to find ways to utilize the material removed from the landscape that will help restoration goals for up to 20 years. More information about the Partnership can be found in the "Collaboration and Multiparty Monitoring" section.

The Partnership is a public–private partnership comprised of state and federal agencies, local governments, nongovernmental organizations, and other stakeholders who are working together to restore the sagebrush-steppe communities while benefitting community development through utilization. The Partnership recognizes that government dollars will simply never be enough to solve the problem, and so other funding sources and innovative ways to reduce costs must be

found, including utilizing the biomass for commercial purposes. Historically, the waste material from pinyon-juniper treatment projects has been chipped and left onsite or burned. Removing this material for commercial use will generate revenue to help offset the cost of large-scale treatment. As members of this Partnership the Forest Service is a key player in the utilization issue.

The Nevada Energy (NV Energy) Reid Gardner Power Station in Clark County, Nevada, is looking at options to utilize large tonnages of woody biomass from Nevada through co-firing at the Reid Gardner Power Station. Sargent & Lundy, Chicago, Illinois, has been hired by NV Energy to analyze co-firing wood with coal. NV Energy tested burning wood with coal in 2009 with marginal success. However, they still have interest in investigating this option, and supply will be a critical factor in their analysis. Some material would come from urban wood waste; however, wildland woody biomass would be needed to make up the estimated 150,000 green tons. The Moapa Band of Paiutes, located adjacent to the power plant, have built a fuel processing facility on their tribal lands in anticipation of processing fuel for the Reid Gardner Power Station. The tribe also has rail access through eastern Nevada, allowing materials to be transported to the site.

New Technology

Because the markets for pinyon-juniper are limited and products made from pinyon-juniper are mostly lower value products. Harvesting, processing, and transporting biomass very far is not economically feasible. However, new technology, and processes—such as mechanized harvesting equipment, equipment that can harvest and process wood in one operation, densification, bundling or compacting technology that reduces the cost of handling and transporting, and on-site processing equipment—are being developed to reduce costs. The partnership is developing working relationships with businesses, other states, the Idaho National Laboratory, and Forest Service laboratories and research stations to utilize these new technologies.

Summary

Supply is a critical factor for building a wood products industry. The invasion of pinyon-juniper woodlands into sagebrush-steppe vegetative communities is a serious issue within the Great Basin. Successfully restoring these lands and utilizing the biomass generated from these treatment projects will not only benefit Nevada, but will serve as a model throughout the West.

BENEFITS TO LOCAL ECONOMIES

If this project is approved for funding, more acres can be treated, which will reduce overall treatment costs, and additional biomass would be produced, which would increase commercial fuelwood opportunities, stewardship contracts, and biomass utilization opportunities. Any increase in commercial fuelwood cutting would increase the number of jobs, and local commercial fuelwood operations are small businesses, some of which are minority owned. Increased biomass availability would increase the potential of reopening the existing biomass facility.

Using contractors would benefit local economies through local purchases such as fuel, lodging, food, and other items necessary for them to complete their contracts. Local contractors may

compete for work and with the increase in biomass material available, there would be increased opportunities for other local entities associated with the business of utilization.

This project will utilize the best value criterion, which will benefit local contractors and the local economy. There will be a variety of mechanisms used to accomplish the Partnership's restoration goals. As mentioned before, this project would boost commercial fuelwood opportunities and increase contracting opportunities as well as the duration and size of contracts.

FUNDING PLAN

Multi-Party Monitoring

The Partnership Steering Committee is actively working to involve all parties in a large-scale research and monitoring effort. Research and monitoring will include participation from the University of Nevada, Reno; the Cooperative Extension Service; the U.S. Forest Service Rocky Mountain Research Station; agency personnel, and others.

U.S. Department of Interior Funding

The BLM is currently funding a wide range of vegetation and fuels treatments within the demonstration area, many of which complement ongoing or proposed treatments on National Forest System lands. The Forest Service and BLM are beginning a joint NEPA analysis on the Ward Mountain Project Area, which is adjacent to the Ely, Nevada. Both agencies have agreed to begin planning and implementing restoration projects across agency boundaries at a true landscape scale.

Partnership Funding

A wide range of partnership funding is being utilized or is planned within the demonstration area. The following is a summary of those partnership contributions by area:

<u>North Schell Restoration Project</u>

- Planning and a portion of the treatments have been funded through the Southern Nevada Public Lands Management Act. Approximately $1,331,000 dollars was awarded and this funding is available from 2009 -2012.
- The Mule Deer Foundation has awarded $10,000 to remove pinyon-juniper trees and restore sagebrush winter ranges.
- The Rocky Mountain Elk Foundation has committed approximately $20,000 to removing pinyon-juniper trees, restoring sagebrush winter ranges, and implementing prescribed fire activities to rejuvenate aspen communities.

<u>White Pine Sagebrush Restoration Project</u>

- Planning and a portion of the treatments have been funded through the Southern Nevada Public Lands Management Act. Approximately $896,000 dollars was awarded and this funding is available from 2008 -2012.
- Limited treatments were completed through court-ordered probation work.

Central White Pine Pinyon-Juniper Removal Project

- Treatment of 2,000 acres has been funded through the Southern Nevada Public Lands Management Act. Approximately $250,000 dollars was awarded and this funding is available from 2011 -2014.
- The Nevada Department of Wildlife contributed $15,000 to remove pinyon-juniper trees and restore sage grouse habitats.
- The Rocky Mountain Elk Foundation contributed approximately $15,000 to remove pinyon-juniper trees and restore sage grouse habitat.
- During FY 2011 $40,000 of appropriated funding has been committed to this project.

Lowry Hazardous Fuels Project

- Planning and a portion of the treatments were funded through the Southern Nevada Public Lands Management Act. Approximately $431,800 dollars was awarded and this funding is available from 2009 -2012.
- Over the past several years over $500,000 of appropriated funding and funds awarded through American Recovery and Reinvestment Act of 2009 (ARRA) have been used to treat vegetation in the area.

Ward Mountain Restoration Project

- Planning and limited treatments are funded through the Southern Nevada Public Lands Management Act. Approximately $350,000 dollars was awarded and this funding is available from 2010 -2013.

ATTACHMENTS

Attachment A: Planned Accomplishment Table

Attachment B: Reduction of related wildfire management costs

Attachment C & D: Members of the Collaborative Table and Letter of Commitment

Attachment E: Predicted Jobs Table from TREAT spreadsheet

Attachment F: Funding Estimates

Attachment G: Map

- **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[7]	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years[8]	Partner funds to be used over 10 years
Acres treated annually to sustain or restore watershed function and resilience	WTRSHD-RSTR-ANN						
Acres of forest vegetation established	FOR-VEG-EST						
Acres of forest vegetation improved	FOR-VEG-IMP						
Manage noxious weeds and invasive plants	INVPLT-NXWD-FED-AC	6,500 ac	6,500 ac		$650,000.00	$650,000.00	

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

[8] **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[7]	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years[8]	Partner funds to be used over 10 years
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands	INVSPE-TERR-FED-AC						
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions.	S&W-RSRC-IMP						
Acres of lake habitat restored or enhanced	HBT-ENH-LAK						
Miles of stream habitat restored or enhanced	HBT-ENH-STRM						
Acres of terrestrial habitat restored or enhanced	HBT-ENH-TERR	25,125 ac	25,125 ac	3,500 ac	$4,4281,12.00	$4,4281,125.00	$175,000.00
Acres of rangeland vegetation improved	RG-VEG-IMP						

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[7]	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years[8]	Partner funds to be used over 10 years
Miles of high clearance system roads receiving maintenance	RD-HC-MAIN		200				
Miles of passenger car system roads receiving maintenance	RD-PC-MAINT		50				
Miles of road decommissioned	RD-DECOM	20	180				
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						
Miles of system trail maintained to standard	TL-MAINT-STD						

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[7]	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years[8]	Partner funds to be used over 10 years
Miles of system trail improved to standard	TL-IMP-STD						
Miles of property line marked/maintained to standard	LND-BL-MRK-MAINT						
Acres of forestlands treated using timber sales	TMBR-SALES-TRT-AC						
Volume of timber sold (CCF)	TMBR-VOL-SLD						
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production	BIO-NRG						

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[7]	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years[8]	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	11,625 ac	11,625 ac		$3,378,125.00	$3,378,125.00	
Acres of hazardous fuels treated inside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire	FP-FUELS-NON-WUI						
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire	FP-FUELS-WUI	7,000 ac	7,000 ac	1,000 ac	$2,312,500.00	$2,321,500.00	$50,000.00
Number of priority acres treated annually for invasive species on Federal lands	SP-INVSPE-FED-AC						

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[7]	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years[8]	Partner funds to be used over 10 years
Number of priority acres treated annually for native pests on Federal lands	SP-NATIVE – FED-AC						

Proposal Name: Nevada Pinyon-Juniper Partnership	**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)?	**Retrospective was used for the first couple of years since we have had projects currently that we could use costs and production from but majority of it is Prospective due to some of the types of treatments we haven't done yet but Ely BLM has.**
Start year rationale: 2011	Have 78,000 acre project that NEPA will be completed by spring of 2011,with start up of treatments spring of 2011 with other project areas that have ongoing treatments or treatments starting up spring of 2011
End year rationale: 2021	We have a good idea on were we are going with our planning and implementation for at least 10 years
Duration of treatments rationale:	First 6 years would cover treatments, monitoring and the last 4 years would cover monitoring and weed treatments, inventory and monitoring
All dollar amounts entered should reflect undiscounted or nominal costs, as they are discounted automatically for you in the R-CAT spreadsheet tool? Did you provide undiscounted costs, and in what year data are your costs and revenues provided.	We provided undiscounted costs, and costs cover 2011 through 2021
Average treatment cost per acre rationale:	For each fiscal year we took the total cost of all treatments and then divided by number of acres and came up with the cost/ac
Rationale for actual costs per acre of treatment by year is used:	Number of acres divided by the average cost of treatments. The mechanical costs were a average of 3 different type of treatments then divided by the number of acres to be treated
Average treatment revenue per acre rationale:	At present time we do not have any projects that produce revenue but if the PJ Partnership takes off and get utilization going within this proposal area then we have a high probability of producing revenue and the projected timeframe for the PJ Partnership to take off is within two years.
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?	
Total treatment acres calculations, assumptions:	Within a given project area within the proposal we would treat approximately 40% of the acres in that project area

Treatment timing rationale with NEPA analysis considerations:	Some of our project have NEPA completed with a 78,000 acre project that implementation will begin in the Spring of 2011, EA will be completed by Spring of 2011 and future projects that NEPA is not completed will be on line 2013 or sooner. Majority of our implementation will take place spring through late fall
Annual Fire Season Suppression Cost Estimate Pre Treatment, Assumptions and Calculations	Utilized district information, FMO experience and ran the costs by number of acres by an annual cost of $670,000.00/yr
Did you use basic Landfire Data for you Pretreatment Landscape?	No
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?	Ecological departure metric (FRCC), predictive ecological models, cost-benefit assessments, return-on-investment analysis and GIS analysis to help determine and map alternative treatment areas
Did you model fire season costs with the Large Fire Simulator?	No
If, so who helped you with this modeling?	
If not, how did you estimate costs, provide details here:	See white paper of estimation of cost savings of fires in Great Basin
Did you apply the stratified cost index (SCI) to your Fsim results?	No
Who helped you apply SCI to your FSIM results?	N/A
Did you filter to remove Fsim fires smaller than 300acres and larger than a reasonable threshold?	N/A
What is the upper threshold you used?	N/A
Did you use median pre treatment costs per fire season?	N/A
Did you use median post treatment costs per fire season?	N/A
Did you test the statistical difference of the fire season cost distributions using a univariate test?	N/A
What were the results?	N/A
Did you estimate Burned Area Emergency Response (BAER) costs in you analysis?	Yes
Did you use H codes or some other approach to estimate these costs?	Past costs for BAER within this proposal area
Did these cost change between pre and post treatment?	Did not run the models for this information
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?	
Did you include small fire cost estimates in your analysis?	Yes
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?	Utilized the past 7 years fire information that is located on the district. Since we did not run some of the models we did not have that figure.
Did you include beneficial use fire as a cost savings mechanism in your analysis?	
How did you estimate the percent of contiguous area where monitoring is an option for pretreatment landscape?	Utilized the information from our Fire Management Units within our Fire Management Plan
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?	
How did you derive an estimate for the percentage of full suppression costs used in fire monitoring for beneficial use?	From our Fire Management Units within our Fire Management Plan
Did you ensure that you clicked on all the calculation buttons in cells in column E after entering your estimates?	Since we did not run most of the models that were suggested I am not sure if some of these inputs are in the correct spot
Did you make any additional modifications that should be documented?	Other information that you should know. Not sure if I did the SCI information correct so you may want to switch that information off and then the rest of the data may make more sense.

R-CAT Results

Proposal Name: Nevada Pinyon-Juniper Partnership

Start Year	2010
End Year	2019
Total Treatment Acres	100,910.00
Average Treatment Duration	20

Discounted Anticipated Cost Savings - No Beneficial Use		**$ 9,195,817**
Discounted Anticipated Cost Savings - Low Beneficial Use	$	9,195,817
Discounted Anticipated Cost Savings - Moderate Beneficial Use	$	9,195,817
Discounted Anticipated Cost Savings - High Beneficial Use	$	9,195,817

NEVADA PINYON-JUNIPER PARTNERSHIP

February 4, 2011

United States Department of Agriculture
United States Forest Service
Members of Review Panel
Collaborative Forest Landscape Restoration Program
201 14th St., S.W.
Sidney Yates Federal Building
Washington, D.C. 20024

Dear Members of the CFLRP Review Panel:

The Nevada Pinyon Juniper Partnership (the Partnership) is pleased to offer this Letter of Commitment in support of the Collaborative Forest Landscape Restoration (CFLR) proposal being submitted for the performance of landscape level restoration within the Ely District of the Humboldt-Toiyabe National Forest (H-TNF). The CFLR proposal will be a key foundation to support the overall objectives of the Partnership and the request that Senator Reid made on behalf of the Partnership to the Departments of Agriculture and Interior (see attached).

The Partnership's purpose, structure, and motivation make it uniquely suited to adding significant value to the proposed project. The overarching goal of the Partnership is to enable landscape scale restoration treatments with utilization of the resulting biomass as a beneficial outcome, with those practices to be informed by science and supported by monitoring and adaptive management principles (see attached schematic depicting the relationship among the three Program Tracks of Resource Restoration, Science and Monitoring, and Utilization).

The Partnership has 48 members on its Steering Committee representing conservation and environmental advocacy groups (the largest proportion), local government and economic development, state agencies, federal agencies, Native Americans, the university system, and industry including biomass, agriculture, mining, and other. The Partnership has more than 250 people on its master list, 170 of whom attending the Pinyon Juniper Restoration and Utilization Summit in North Las Vegas on December 8 & 9, 2010. USDA Under Secretaries Dallas Tonsager, of the Rural Development mission area, and Harris Sherman, of the Natural Resources and the Environment mission area, as well as Bureau of Land Management Director Bob Abbey each addressed the Summit and each commended the Partnership for its focus and level of commitment

NEVADA PINYON-JUNIPER PARTNERSHIP

to positive interaction among the three "legs of the stool", with a clear commitment to being restoration led.

The Partnership has completed an evaluation of the State of Nevada in regards to its objectives and has determined the primary focus area, thus our highest priority candidate area in Nevada, is eastern Nevada in White Pine, Lincoln and Nye Counties in large part due to the merging of habitat needs, wildfire impacts, resource improvement needs, local support and federal land management already in tune with landscape treatment principles. The local USDA Forest Service and Bureau of Land Management district offices have advanced and led in the area of landscape treatments, including fostering the idea of utilization of biomass from treatment.

The intensity of the need for restoration within the H-TNF as identified in this proposal cannot be overstated. It falls within the Partnership's highest priority area, and within that area half of the over 1.5 million acres of Pinyon and Juniper is estimated to either be in a decadent condition, referred to as Phase III density, or is moving to the decadent Phase III condition within a 10 year period. Existing funds and other available resources are inadequate to prevent or mitigate this conversion. Presently there is a planned action to treat just 27,000 acres within the next 5 years, yet recent history indicates that in the 2004-2010 timeframe more than 580,000 acres were lost to fire in the Ely District of the Bureau of Land Management alone, and an average of $3.2 million was spent each year in that district for emergency stabilization and rehabilitation treatments. The risk of loss to fire, disease and/or insect damage, leaving burned areas at risk for invasion by exotic weeds and increased soil erosion, continues and escalates with each passing year. This proposal will greatly expand the acreage and effectiveness of needed treatments. Furthermore, a treatment of this size, over this number of years, is likely to catalyze significant forms of utilization. As just one example, the Partnership is at present meeting with two mining companies in the region to discuss biomass heat and power opportunities.

At this moment, the Partnership is beginning its phase of collaborative action. Attached is a list of the membership within each of the three Program Tracks. These professionals are meeting this month (February 4 and February 11) to identify concrete contributions of their expertise to the goals of the Partnership and to on-the-ground restoration activities. Already the USDA Agricultural Research Service is able to commit $200,000 for each of the next two years to the Science and Monitoring function of the Partnership. If this CFLR proposal is funded, it will enable multiple agencies, organizations, and utilization investors represented on our Program Tracks to target their resources to collaborative action with the H-T forest. As an example, a tribal fuel preparation enterprise that is nominated to receive funding under Secretary Vilsack's Wood to Energy Initiative has the potential to expand to other tribes within the region of this proposal if it is funded.

NEVADA PINYON-JUNIPER PARTNERSHIP

On behalf of the membership, we wish to thank the leadership of the Humboldt-Toiyabe National Forest for their forethought, commitment and support of a landscape approach to our resource needs relating to the Pinyon and Juniper encroachment and densification problems. We cannot accomplish significant change without this commitment. The funding of this project will be a key component here as well as a scientifically based opportunity to inform decision-making and treatment for all of the 50 million acres of Pinyon and Juniper areas in the west.

Sarah Adler
Co-chair
Nevada Pinyon-Juniper Partnership and
State Director, USDA Rural Development

Doug Martin
Co-chair
Nevada Pinyon-Juniper Partnership and
Director, Nevada Tahoe Conservation District

HARRY REID
NEVADA

MAJORITY LEADER

United States Senate

WASHINGTON, DC 20510–7012

October 08, 2010

The Honorable Ken Salazar
Secretary of the Interior
U.S. Department of the Interior
1849 C Street, NW
Washington, DC 20240

The Honorable Tom Vilsack
Secretary of Agriculture
U.S. Department of Agriculture
1400 Independence Ave., SW
Washington, DC 20250

Dear Secretaries Salazar and Vilsack:

One of the key natural resource management issues we face in Nevada today is pinyon-juniper encroachment. The spread of these trees must be met with a multi-agency, landscape-scale approach. Your involvement in this effort is key since the Bureau of Land Management (BLM) and the Forest Service (USFS) manage tens of millions of acres in Nevada.

The expansion of pinyon-juniper woodlands over many decades has seriously degraded wildlife habitat for species ranging from the mule deer to sage grouse. Further, the dense growth of pinyon-juniper poses widespread risk of catastrophic fire that could sterilize soils and threaten historic sites, private property and established communities. Finally, pinyon-juniper forests consume tremendous amounts of water, which deprives other plant and animal species in the region and can dry up valuable seeps and springs.

These impacts can be effectively addressed only by landscape-level planning and action. Such action would create jobs through commercial development opportunities associated with a reliable supply of excess woody biomass.

A diverse group of stakeholders and federal, state and local agencies in Nevada are already championing a project of this sort. I support their efforts and stand ready to work on related legislation and on securing the funding needed to carry out this critical endeavor.

Addressing the pinyon-juniper issue in Nevada will require an unprecedented local, state, and federal partnership in addition to significant collaboration between public and private entities. Nevadans are eager to meet this challenge, but we need your help. I ask that the Departments of Interior and Agriculture join together with key Nevada stakeholders to implement a landmark pinyon-juniper demonstration project in east-central Nevada.

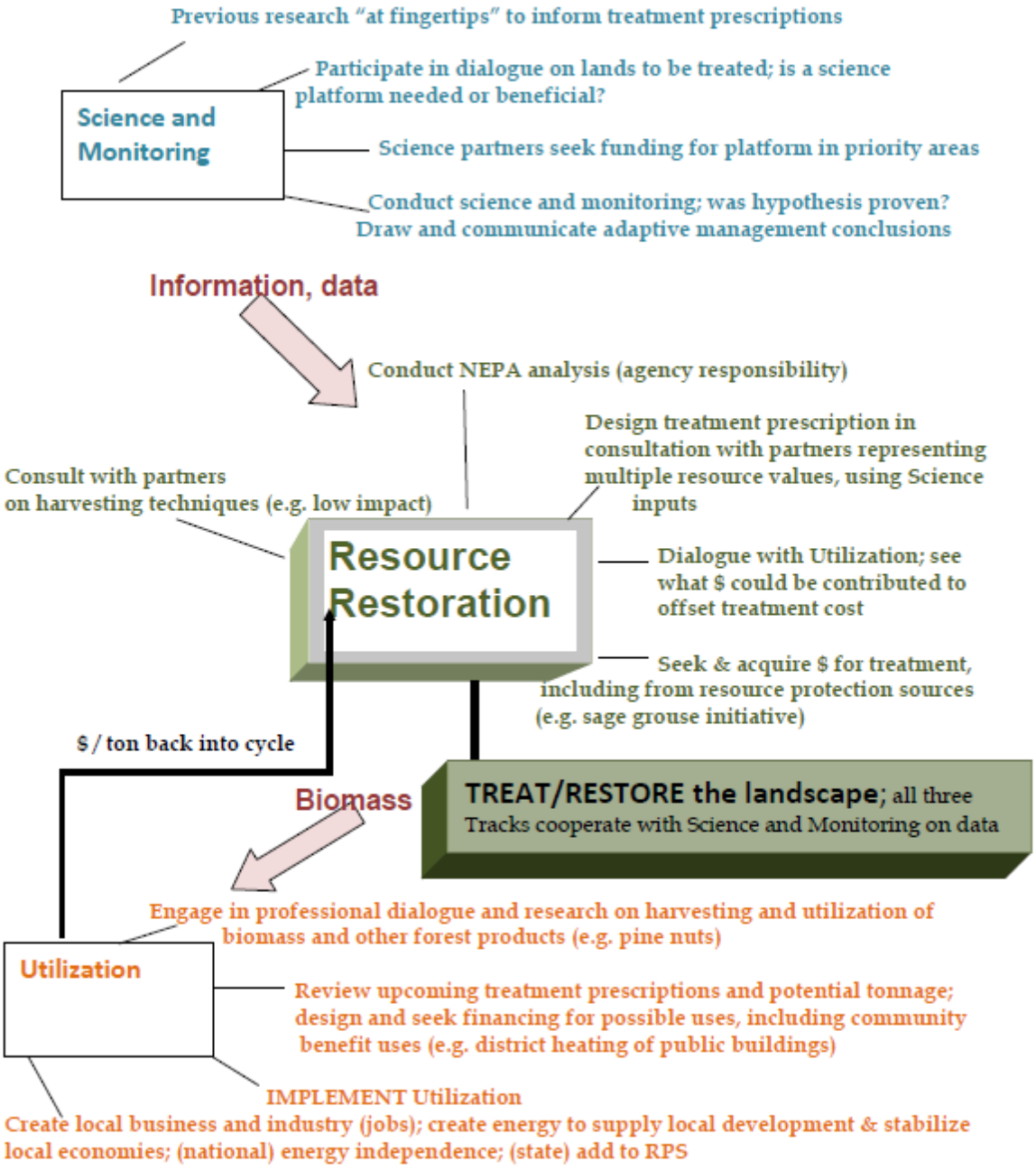
I look forward to working with you and your agencies to get an effective restoration effort in place as soon possible. Please contact me or my staff at (202) 224-3542 if I can provide any additional information.

Sincerely,

Harry Reid

HARRY REID
United States Senator

The overarching goal of the Pinyon Juniper Partnership is to enable restoration treatments and practices to be informed by science, with utilization as a beneficial outcome that puts money back into the restoration cycle; additionally, treatment results inform the larger body of scientific knowledge – with benefits compounding over time of focus.



Nevada Pinyon-Juniper Program Tracks

Resource and Restoration Program Track

Name	Organization/Agency Affiliation
Betsy Macfarlan	Executive Director Eastern Nevada Landscape Coalition
Carol Carlock	USDA Forest Service Humboldt-Toiyabe National Forest
Connie Simkins	Executive Secretary N-4 State Grazing Board
Coreen Francis	Supervisory NRS Bureau of Land Management
Dan Nelson	White Pine County Extension Educator University of Nevada Cooperative Extension
Dave Tepovich	Crew Coordinator The Great Basin Institute Nevada Conservation Corps
Dave Torell	Rocky Mountain Elk Foundation
Doug Martin	District Manager Nevada Tahoe Conservation District
Dusty Moller	UNR Business Environmental Program
Eric Petlock	Renew Nevada
Gary Elmer	Manager P&P Ventures LLC.
Gregg Tanner	Staff Biologist Nevada Wilderness Project
Jeanne C. Chambers	Rocky Mountain Research Station U.S. Forest Service
Jeff White	Director, Environmental Stewardship Environmental and Social Responsibility Department Newmont USA Limited
Jeremy Drew	Northern Nevada Chapter of Safari Club International and the Coalition for Nevada's Wildlife
John D. Cantlon	DuPont Land Management
John Hiatt	Conservation Chair Red Rock Audubon Society
John McLain	Principle Resource Concepts, Inc.

Nevada Pinyon-Juniper Program Tracks

Resource and Restoration Program Track

Name	Organization/Agency Affiliation
John Swanson	BAVNR, natural Resources & Environmental Sciences
Jose Noriega	USDA Forest Service Humboldt-Toiyabe National Forest
Katie Fite	Western Watersheds Project
Kelly Clark	USDA Rural Development Public Affairs Specialist
Kim Rollins	Associate Professor, Sage Steppe Project University of Nevada, Reno
Lee Turner (co chair?)	Nevada Department of Wildlife Habitat Specialist
McKinley-Ben Miller	Biomass Forester Bureau of Land Management
Mike Pellant	Great Basin Restoration Initiative Bureau of Land Management
Pat Murphy	Nevada Fire Safe Council
Rosey Thomas	Ely District Director Bureau of Land Management
Ryan Shane	Resource Management Officer Nevada Division of Forestry
Sandy Gregory	Hazardous Fuels Management Program Lead Bureau of Land Management
Sherm Swanson	Department of Natural Resources and Environmental Science University of Nevada Cooperative Extension
Stan Raddon	President Carson City Renewable Resources
Steep Weiss	Forester Bureau of Land Management
Tye Peterson	Fire Management Officer Bureau of Land Management, Ely District

Nevada Pinyon-Juniper Program Tracks

Science and Monitoring Program Track

Names	Organization/Agency Affiliation
Annette Moller	BEC Environmental, Inc.
Coreen Francis	Supervisory NRS Bureau of Land Management
Dan Nelson	White Pine County Extension Educator University of Nevada Cooperative Extension
David Bubenheim	NASA Ames Research Center
Doug Martin	District Manager Nevada Tahoe Conservation District
Dusty Moller	UNR Business Environmental Program
Gail Durham	Nevada Division of Forestry, DCNR
Gary McCuin	University of Nevada Cooperative Extension, Eureka County
Jeanne C. Chambers	Rocky Mountain Research Station U.S. Forest Service
Jeff Van Ee	Associate Director Nevada Outdoor Recreation Association
JJ Goicoechea	NV Cattleman's Association
John Tull	Conservation Director Nevada Wilderness Project
Keirith Snyder	Ecohydrologist USDA-ARS
Lee Turner	Nevada Department of Wildlife Habitat Specialist
Mark Weltz	USDA – Agricultural Research Service
Penny Frazier	Owner Goods from the Woods
Robin Tausch	Research Range Specialist U.S. Forest Service Rocky Mountain Research Station
Sherman Swanson	University of Nevada Cooperative Extension
Stan Raddon	President Carson City Renewable Resources
Steep Weiss	Forester Bureau of Land Management

Nevada Pinyon-Juniper Program Tracks

Science and Monitoring Program Track

Names	Organization/Agency Affiliation
Tamzen Stringham	Rangeland and Riparian Scientist University of Nevada Reno
Tim Griffiths	National Sage Grouse Initiative Coordinator USDA NRCS
Zach Peterson	Forester Bureau of Land Management

Nevada Pinyon-Juniper Program Tracks

Utilization Program Track

Name	Organization/Agency Affiliation
Bob Rummer	Project Leader, Forest Operations Research, Southern Research Station, USDA Forest Service
Coreen Francis	Supervisory NRS Bureau of Land Management
Dan Nelson	White Pine County Extension Educator University of Nevada Cooperative Extension
Dean Borges	Sustainable Economic Development Associates (SEDA), LLC
Donna Bath	LS Power
Doug Martin	District Manager Nevada Tahoe Conservation District
Dusty Moller	UNR Business Environmental Program
Eric Petlock	Renew Nevada
Gary Elmer	Manager P&P Ventures LLC., Lincoln County, NV
Hank Volger	
Jackie Phillips	Communications Manager Nevada Institute for Renewable Energy Commercialization (NIREC)
Jane Moyle	Executive Director Nevada Rural Electric Association
Jim Croce	President and CEO Nevada Institute for Renewable Energy Commercialization
Jim Endres	Government Affairs Group Executive Director McDonald Carano Wilson LLP
Larry Rackley	SEDA, LLC
Lauren Scott	President/CEO Apollog Bioenergy, Inc.
Mark Williams	Business & Cooperatives Programs Specialist USDA Rural Development
McKinley-Ben Miller	Biomass Forester Bureau of Land Management
Mike Ford	The Conservation Fund

Nevada Pinyon-Juniper Program Tracks

Utilization Program Track

Name	Organization/Agency Affiliation
Mike Reed	Research Associate Center for Regional Studies University of Nevada, Reno
Morris Huffman	Biomass Coordinator, Woody Biomass Utilization Partnership (Idaho)
Pete Konesky	Energy Program Manager Staff Engineer Nevada State Office of Energy
Stan Raddon	President Carson City Renewable Resources
Steep Weiss	Forester Bureau of Land Management
Sue LeVan-Green	Program Manager U.S. Forest Service, Forest Products Laboratory

Region 4

TREAT Project Impacts for: Nevada Pinyon-Juniper Partnership

SUMMARY TABLES: Average Annual Impacts

	Employment (# Part and Full-time Jobs)	Labor Inc (2010 $)
Commercial Forest Products	30.7	$1,141,976
Other Project Activities	17.9	$633,369
FS Implementation and Monitoring	8.7	$713,098
Total Project Impacts	57.3	$2,488,443

Note

Employment is full, part-time, and temporary jobs (direct and secondary). Labor Income is the value of wages and benefits plus Proprietor's Income (direct and secondary)

Other Project Activities (ecosystem restoration, etc.) are labor intensive and therefore will produce higher employment impacts relative to commercial harvest activities which are highly mechanized and are not as labor intensive.

Impacts-Jobs and Income

The economic impacts of the restoration strategy are reported in this worksheet. No data entry is required, and the summary table may be cut a paste directly into the proposal. As reported here, the jobs and labor income are a result of the direct, indirect and induced effects, and are assumed to last the life of the project.

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	15.8	13.5	29.3	532,857	484,675	1,017,532
Sawmills	-	-	-	-	-	-
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	-	-	-	-	-	-
Facilities Processing Residue From Plywood/Veneer	-	-	-	-	-	-
Biomass--Cogen	1.0	0.4	1.4	90,922	33,523	124,445
Commercial Firewood	4.6	1.2	5.7	$81,407	$44,300	$125,707
Total Commercial Forest Products	**21.4**	**15.0**	**36.4**	**705,186**	**562,498**	**1,267,684**
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	9.4	2.4	11.8	$365,291	$93,703	$458,994
Contracted Monitoring	0.1	0.2	0.3	$10,274	$5,944	$16,218
FS Implementation and Monitoring	4.4	4.4	8.7	$513,965	$162,599	$676,563
Total Other Project Activities	**13.9**	**7.0**	**20.8**	**$889,529**	**$262,245**	**$1,151,775**
Total All Impacts	**35.3**	**22.0**	**57.3**	**$1,594,716**	**$824,743**	**$2,419,459**

Attachment F: Funding Estimates

(***Copy table and provide the planned funding for each additional fiscal year***). 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	$1,577,500.00
2. FY 2011 Funding for Monitoring	$50,000.00
3. USFS Appropriated Funds	$806,250.00
4. USFS Permanent & Trust Funds	
5. Partnership Funds	$15,000.00
6. Partnership In-Kind Services Value	
7. Estimated Forest Product Value	
8. Other (specify)	
9. FY 2011 Total (total of 1-6 above for matching CFLRP request)	$821,250.00
10. FY 2011 CFLRP request (must be equal to or less than above total)	$806,250.00
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 20xx Funding Type	Dollars Planned
11. USDI BLM Funds	$1,162,000.00
12. USDI (other) Funds	
13. Other Public Funding	
Private Funding	

(***Copy table and provide the planned funding for each additional fiscal year***). 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	$3,085,000.00
2. FY 2012 Funding for Monitoring	$90,000.00
3. USFS Appropriated Funds	1,570,000.00
4. USFS Permanent & Trust Funds	
5. Partnership Funds	$35,000.00
6. Partnership In-Kind Services Value	
7. Estimated Forest Product Value	
8. Other (specify)	
9. FY 2012 Total (total of 1-6 above for matching CFLRP request)	$1,605,000.00
10. FY 2012 CFLRP request (must be equal to or less than above total)	$1,570,000.00
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 20xx Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	
Private Funding	

(***Copy table and provide the planned funding for each additional fiscal year***). 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 2014 Funding Type	Dollars/Value Planned
1. FY 2014 Funding for Implementation	$3,960,000.00
2. FY 2014 Funding for Monitoring	$90,000.00
3. USFS Appropriated Funds	$1,732,500.00
4. USFS Permanent & Trust Funds	
5. Partnership Funds	$35,000.00
6. Partnership In-Kind Services Value	
7. Estimated Forest Product Value	
8. Other (specify)	
9. FY 2014 Total (total of 1-6 above for matching CFLRP request)	$1,767,500.00
10. FY 2014 CFLRP request (must be equal to or less than above total)	$1,732,500.00

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 20xx Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	
Private Funding	

(***Copy table and provide the planned funding for each additional fiscal year***). 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	$3,435,000.00
2. FY 2015 Funding for Monitoring	$90,000.00
3. USFS Appropriated Funds	$1,745,000.00
4. USFS Permanent & Trust Funds	
5. Partnership Funds	$35,000.00
6. Partnership In-Kind Services Value	
7. Estimated Forest Product Value	
8. Other (specify)	
9. FY 2015 Total (total of 1-6 above for matching CFLRP request)	$1,780,000.00
10. FY 2015 CFLRP request (must be equal to or less than above total)	$1,745,000.00
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 20xx Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	

(***Copy table and provide the planned funding for each additional fiscal year***). 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	$1,712,500.00
2. FY 2016 Funding for Monitoring	$90,000.00
3. USFS Appropriated Funds	$866,250.00
4. USFS Permanent & Trust Funds	
5. Partnership Funds	$35,000.00
6. Partnership In-Kind Services Value	
7. Estimated Forest Product Value	
8. Other (specify)	
9. FY 2016 Total (total of 1-6 above for matching CFLRP request)	$918,750.00
10. FY 2016 CFLRP request (must be equal to or less than above total)	$883,750.00
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 20xx Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	
Private Funding	

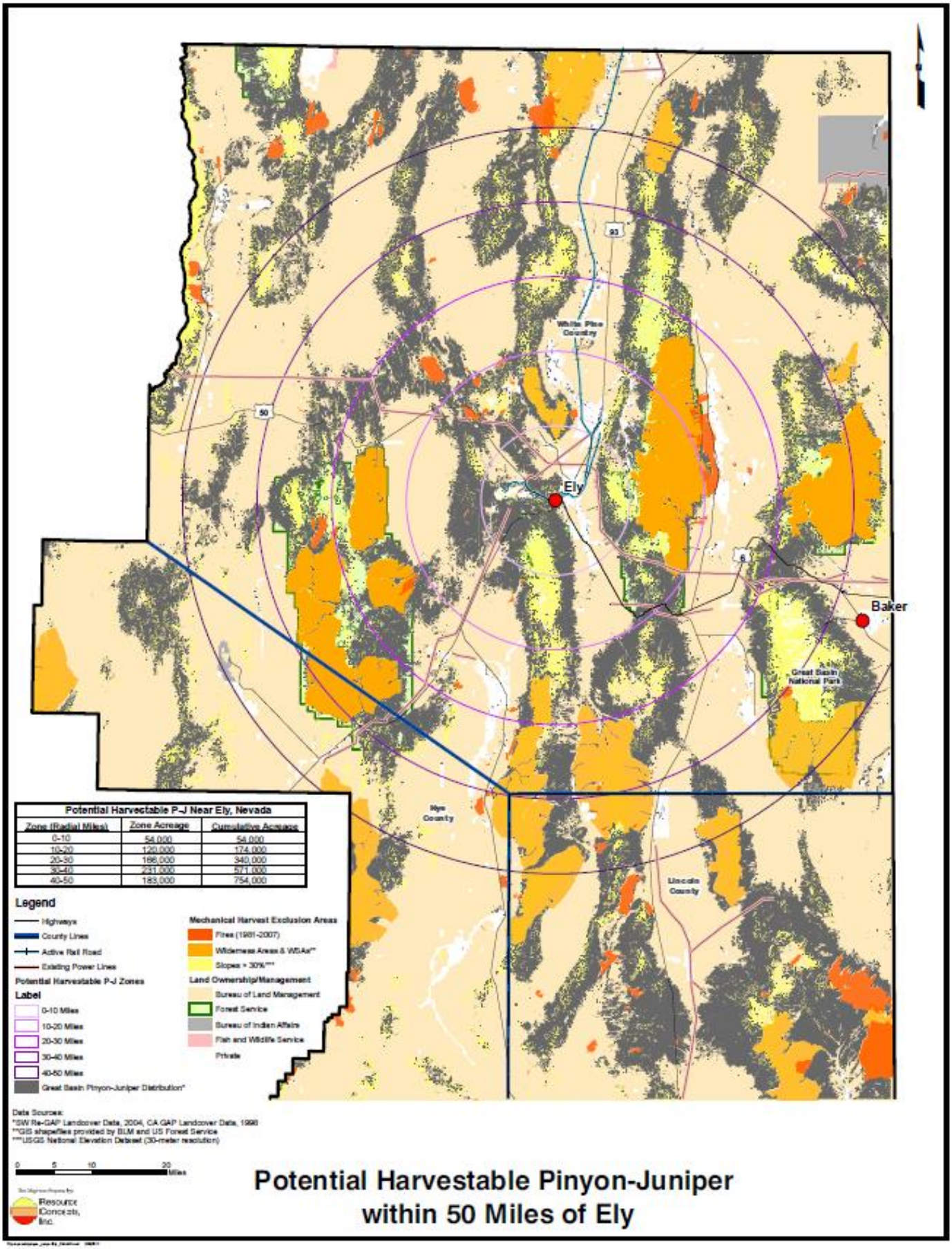
(***Copy table and provide the planned funding for each additional fiscal year***). Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2017 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2017 Funding Type	Dollars/Value Planned
1. FY 2017 Funding for Implementation	$2,922,500.00
2. FY 2017 Funding for Monitoring	$90,000.00
3. USFS Appropriated Funds	$1,488,750.00
4. USFS Permanent & Trust Funds	
5. Partnership Funds	$35,000.00
6. Partnership In-Kind Services Value	
7. Estimated Forest Product Value	
8. Other (specify)	
9. FY 2017 Total (total of 1-6 above for matching CFLRP request)	$1,523,750.00
10. FY 2017 CFLRP request (must be equal to or less than above total)	$1,488,750.00
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 20xx Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	
Private Funding	

(***Copy table and provide the planned funding for each additional fiscal year***). 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	$200,000.00
2. FY 2018 Funding for Monitoring	$50,000.00
3. USFS Appropriated Funds	$125,000.00
4. USFS Permanent & Trust Funds	
5. Partnership Funds	
6. Partnership In-Kind Services Value	
7. Estimated Forest Product Value	
8. Other (specify)	
9. FY 2018 Total (total of 1-6 above for matching CFLRP request)	$125,000.00
10. FY 2018 CFLRP request (must be equal to or less than above total)	$125,000.00
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 20xx Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	
Private Funding	

(***Copy table and provide the planned funding for each additional fiscal year***). 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	$200,000.00
2. FY 2019 Funding for Monitoring	$50,000.00
3. USFS Appropriated Funds	$125,000.00
4. USFS Permanent & Trust Funds	
5. Partnership Funds	
6. Partnership In-Kind Services Value	
7. Estimated Forest Product Value	
8. Other (specify)	
9. FY 2019 Total (total of 1-6 above for matching CFLRP request)	$125,000.00
10. FY 2019 CFLRP request (must be equal to or less than above total)	$125,000.00
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 20xx Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	
Private Funding	

(***Copy table and provide the planned funding for each additional fiscal year***). 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	$200,000.00
2. FY 20120 Funding for Monitoring	$50,000.00
3. USFS Appropriated Funds	$125,000.00
4. USFS Permanent & Trust Funds	
5. Partnership Funds	
6. Partnership In-Kind Services Value	
7. Estimated Forest Product Value	
8. Other (specify)	
9. FY 2020 Total (total of 1-6 above for matching CFLRP request)	$125,000.00
10. FY 2020 CFLRP request (must be equal to or less than above total)	$125,000.00
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 20xx Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	
Private Funding	

(***Copy table and provide the planned funding for each additional fiscal year***). Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2021 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2021 Funding Type	Dollars/Value Planned
1. FY 2021 Funding for Implementation	$200,000.00
2. FY 2021 Funding for Monitoring	$50,000.00
3. USFS Appropriated Funds	$125,000.00
4. USFS Permanent & Trust Funds	
5. Partnership Funds	
6. Partnership In-Kind Services Value	
7. Estimated Forest Product Value	
8. Other (specify)	
9. FY 2021 Total (total of 1-6 above for matching CFLRP request)	$125,000.00
10. FY 2021 CFLRP request (must be equal to or less than above total)	$125,000.00
Funding off NFS lands associated with proposal in FY 2021 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 20xx Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	
Private Funding	


White Pine County
Ely
Baker
Great Basin National Park
Nye County
Lincoln County
93
50
6
Potential Harvestable P-J Near Ely, Nevada
Zone (Radial Miles) | Zone Acreage | Cumulative Acreage
0-10 | 54,000 | 54,000
10-20 | 120,000 | 174,000
20-30 | 166,000 | 340,000
30-40 | 231,000 | 571,000
40-50 | 183,000 | 754,000
Legend
Highways
County Lines
Active Rail Road
Existing Power Lines
Potential Harvestable P-J Zones
Label
0-10 Miles
10-20 Miles
20-30 Miles
30-40 Miles
40-50 Miles
Great Basin Pinyon-Juniper Distribution*
Mechanical Harvest Exclusion Areas
Fires (1981-2007)
Wilderness Areas & WSAs**
Slopes > 30%***
Land Ownership/Management
Bureau of Land Management
Forest Service
Bureau of Indian Affairs
Fish and Wildlife Service
Private
Data Sources:
*SW Re-GAP Landcover Data, 2004, CA GAP Landcover Data, 1998
**GIS shapefiles provided by BLM and US Forest Service
***USGS National Elevation Dataset (30-meter resolution)
0 5 10 20 Miles
Resource Concepts, Inc.
Potential Harvestable Pinyon-Juniper within 50 Miles of Ely