MALHEUR NATIONAL FOREST

Executive Summary

Dominant forest type(s): Warm Dry Biophysical Environment, historically ponderosa pine dominated with areas of mixed Douglas Fir/Western Larch/Grand Fir.

Total acreage of the landscape: 690,723 **Total acreage to receive treatment:** 271,980
Total number of NEPA ready acres:113,097 **Total number of acres in NEPA process:**73,235

Description of the most significant restoration needs and actions on the landscape: Priority restoration projects would reduce forest stand density, create a mosaic of historic structures, develop large trees, encourage a transition to more historically present fire resistant species, improve water quality, and wildlife habitat by restoring key components of the landscape.

Description of the highest priority desired outcomes of the project at the end of the 10 year period: At the end of this project, we will have restored ecosystems, both aquatic and terrestrial, to a functional condition with greater ecological resilience to disturbance (fire, insects, and disease), created a predictable flow of work that retains current manufacturing infrastructure, supports new and emerging markets, and produces local economic benefits.

Description of the most significant utilization opportunities linked to this project: As a result of this project, we expect a dramatic increase in the availability of small diameter forest products, including biomass.

Name of the National Forest, collaborative groups, and other major partner categories involved in project development: Malheur National Forest, Blue Mountain Forest Partners, Harney County Resource Collaborative, Sustainable Northwest, Western Environmental Law Center, Malheur Lumber Company, Grant and Harney County governments

Describe the community benefit including number and types of jobs created. Creating a sustainable and predictable supply of byproducts from forest restoration will stabilize local communities and infrastructure and increase restoration related employment by as much as 70% with the creation of 154 new jobs.

Total dollar amount requested in FY11: $2.5 million
Total dollar amount requested for life of project: $22.5 million

Total dollar amount provided as Forest Service match in FY11: $1,765,000
Total dollar amount provided as Forest Service match for life of project: $20,085,000

Total dollar amount provided in Partnership Match in FY11: $550,000
Total dollar amount provided in Partnership Match for life of project: $950,000

Total in-kind amount provided in Partnership Match in FY11: $185,000
Total in-kind amount provided in Partnership Match for life of project: $1,465,000

Time frame for the project (from start to finish): 2011 thru 2019

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I. Ecological, Social, and Economic Context.

The Blue Mountains are located in northeastern Oregon and southeastern Washington. The portion of the range that occurs in Oregon stretches east and southwest of the city of Pendleton to the Snake River along the Idaho/Oregon border. The Southern Blues Restoration Coalition's Collaborative Forest Landscape Restoration Program proposal area – known as "the Southern Blues" – encompasses the southern end of the Blue Mountain range. Most of the Southern Blues are federally owned and managed by the United States Forest Service or the Bureau of Land Management, and consist of about 690,723 acres: approximately 543,963 acres of National Forest System lands, 17,694 acres of Bureau of Land Management (BLM) lands, 126,453 acres of private lands, 1,800 acres of Burns Paiute Tribal lands, and 400 acres of State of Oregon lands.

The Southern Blues extend from approximately 10 miles south of John Day, to 7 miles north of Burns, Oregon. The Strawberry Mountains form the northern boundary of the Southern Blues and contain the headwaters of the Malheur River. The southern boundary encompasses the headwaters of the Silvies River, which drains to the Malheur National Wildlife Refuge. Highway 395, a major transportation corridor from John Day to Burns (70 miles), intersects the Southern Blues (See Map 1 in Maps Section). The primary federal land manager in this area is the Malheur National Forest (MNF).

In her book on forest management in the Blue Mountains, Professor Nancy Langston explains:

> When whites first came to the Blue Mountains of eastern Oregon and Washington in the early nineteenth century, they found a land of lovely open forests full of yellow-bellied ponderosa pines five feet across. These were stately giants the settlers could trot their ponies between, forests so promising that people thought they had stumbled into paradise. But they were nothing like the humid forests to which easterners were accustomed. Most of the forest communities across the inland West were semi-arid and fire-adapted, and whites had no idea what to make of the fires.
>
> After a century of trying to manage the forests, what had seemed like paradise was irrevocably lost. The great ponderosa pines vanished, and in their place were thickets of fir trees. All that replaced them were the favored food for numerous pests. As firs invaded the old pine forests, insect epidemics spread throughout the dry western forests. By 1991, on the five and a half million acres of Forest Service lands in the Blue Mountains, insects had attacked half the forest stands, and in some stands nearly 70 percent of the trees were infested.
>
> Even worse, in the view of foresters and many locals, was the threat of catastrophic fires. Although light fires had burned through the open pines every ten years or so, few had exploded into infernos that killed entire stands of trees. But as firs grew underneath the pines and succumbed to insect damage, far more fuel became available to sustain major fires. By the beginning of the 1990s, one major fire after another was sweeping the inland West, until it seemed as if the forests might all go up in smoke….

> Changes in the land are never just ecological changes. People made the decisions that led to the ecological changes, and their motives for making those decisions were complex. Many environmentalists claim that things went wrong in the inland West because of simple greed: the Forest Service worked hand in hand with the industry to cut trees as fast as they could, and this devastated the forests. Many other people claim just the opposite: the forests fell apart because the Forest Service bowed to the demands of sentimental preservationists and refused to manage intensively enough to save the forest from its natural enemies – fire, insects, and disease.
>
> Neither of these versions tells the whole truth….
>
> To help us decide how many trees to cut, how many cows to graze – how to work with the land, instead of against it – we need a new set of stories about the relationship between wild forests and people. (Langston 1995).

The Southern Blues Restoration Coalition seeks to write those new stories through collaboratively-developed and scientifically-based forest restoration projects that improve ecological resiliency of the land, and contribute to socioeconomic wellbeing of the rural communities found in the Southern Blues.

A. Historical Background.

In 1908, Congress designated portions of the Blue Mountain Forest Reserve as the Malheur National Forest. Until that time, use of the forest had largely been for the incidental use of timber by local landowners, homesteaders, and miners. A few small sawmills existed in isolated locations to serve small settlements, and several larger sawmills existed adjacent to larger communities. Extensive grazing had been occurring for years and was dominated by large (10,000 head) bands of sheep, and large cattle and horse herds.

In the 1910s and 1920s, the Forest Service began to regulate the timber resource by initiating plans to liquidate old growth or "decadent" ponderosa pines without a complete understanding of the local dynamics of frequent fire. Fire management policies developed in the aftermath of the catastrophic 1910 wildfires called for the immediate suppression of all wildfires as a primary Forest Service mission, and the potential benefit of characteristic high frequency/low intensity fires was either not understood or simply not consistent with the suppression mission in place. Managers did not yet know that their well-intentioned policies in fact promoted the stand condition that would create the perfect conditions for large scale catastrophic wildfire decades later.

In 1928, the Forest Service sold a single timber sale of nearly 1 billion board feet to the Edward Hines Lumber Company (See Map-2, Timber Sale Bear Valley Unit), the largest timber sale ever sold in the lower 48 states (Powell, 2008). The Bear Valley Timber Sale ushered in the era of liquidating the large ponderosa pines. For the next 30 years, the harvest goals were to cut 80-85% of all old growth and decadent ponderosa pine timber over 16" in diameter. Harvest plans

were built on assumptions of potential growth rates in young even-aged stands, sustained timber yields, and suitability of existing regeneration. The local communities and Forest Service had a desire to cut the big yellow pine to facilitate increased industrial sawmill capacity; to bring in rail service for shipment of timber and livestock, and to bring in outside capital.

In the 1960s, the Forest Service began to realize that harvesting the big yellow pine on the MNF was not sustainable for more than a few more decades. Nevertheless, high harvest levels continued until the mid-1990s, when the practice of "ecosystem management" gained momentum. Eventually, the Forest Service adopted several interim measures that required new riparian buffers, standards and guidelines, and wildlife protections. The most significant of these – known as the "Eastside Screens" or the "21 inch rule" – restricts the harvest of live trees over 21 inches in diameter at breast height (DBH), and led to the drastic decline in federal timber harvest throughout the Blue Mountains.

Many conservationists applauded these measures as necessary to correct decades of overharvest, and aggressively used the Eastside Screens and other federal environmental laws in court to slow the timber harvest on the MNF to a trickle. Local communities and industries deplored the Eastside Screens, and blamed conservationists and the courts for the decline in their socioeconomic well-being. For example, the reduction in federal timber harvest resulted in the closure of 5 sawmills in John Day and Burns, which significantly affected the main economic driver in the communities.

For almost a decade, litigation, resentment, and distrust created an extremely toxic environment in the Southern Blues. Many considered the MNF – part of what was known as the "Iron Triangle" of once-prolific timber-producing national forests – to be ground zero for the Pacific Northwest timber wars. While western Oregon had the spotted owl, the Blue Mountains had the Eastside Screens.

B. Current Ecological Conditions.

Perhaps the greatest ecological concern in the Southern Blues is the threat of uncharacteristic wildfire. Wildland fire processes have been altered and fires are now often larger and more severe than historic levels, especially in the dry forest types (Quigley and Arbelbide 1997). About 80% percent of the Southern Blues is classified Fire Regime I (dry forest environment) which, if in a natural condition, would burn primarily with low severity. As a result of past management activities, including fire suppression, 100% of the dry forest is currently negatively departed from sustainable stand conditions (Condition Class 2 or 3). The risk of stand replacing fire in the dry forest type threatens the attainment of ecological and socioeconomic goals.

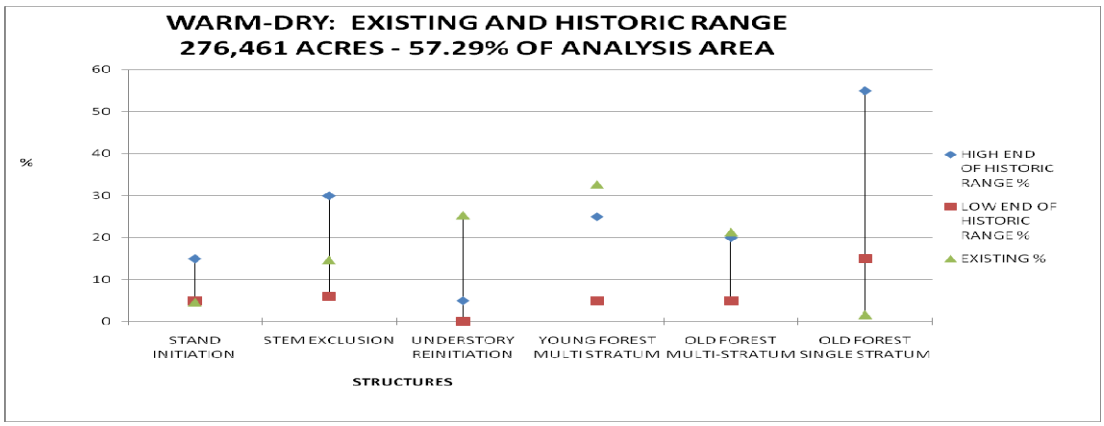
During the 1960s and 1970s, through aggressive fire suppression and due in part to a milder climate, the MNF only had 2 large fires for a total of 234 acres. Over the past 30 years (1980-2010) despite continuing aggressive fire suppression, there have been 71 large fires, burning 305,000 acres on the MNF. Analysis of the burn severity of these large fires is finding that greater proportions of the fire areas are burning with higher severity than would be expected in these Fire Regime I areas. Under current and expected conditions, without increased active

management and the reintroduction of fire, a continued increase in uncharacteristic fire severity is expected in the Southern Blues.

Current forest stands are now inappropriately uniform in structure, age and size. They are generally very overstocked and often stocked with a species mixture that is substantially departed from historical conditions. Stands have many fewer large trees and snags than are historically appropriate, there has been a massive encroachment of grand fir and Douglas-fir into the under-stories and mid-stories of older trees, and an unprecedented accumulation of fuel has developed to the point where many areas have missed 10 burning cycles. Where environments are too severe to support the encroachment of inappropriate grand or Douglas-fir, then they are alternately occupied by ponderosa pine and juniper in huge numbers of trees per acre, far above any historic density. Based on current data, well over 50% of the dry forests on the MNF are currently in an overstocked condition.

In the past 100 years, the warm vegetation environments – which occur over 57% of the Southern Blues – have undergone the greatest departure from historic conditions (see Chart 1 Below). The existence of Old Forest Single-Story (OFSS) structure, also described as an open park-like structure, has been greatly reduced from pre-1900 levels in these hot and warm forest environments. The amount of old forest structures in moist and cold forest environments (occurring mostly on higher elevation and steeper land) is believed to be within the range of what occurred historically on the landscape, although there have been shifts from single-layer to multi-layer conditions in the dryer end of these environments.

Chart 1. Southern Blues Historic Range of Variability (Warm Dry) and Existing Condition



There have been increases in susceptibility, duration, extent, and severity of disturbances from bark beetles, defoliators, mistletoe, and root diseases due to changes in species composition, stand densities, and structure (Schmitt and Scott 2008). Recent modeling of the potential mortality from disturbances due to insects and disease indicates that approximately 30% of the forested stands in the Southern Blues have the potential to lose over 25% of their total volume in the next 10 years. For example, in the 1970s and 80s spruce budworm and tussock moth outbreaks defoliated vast areas of the Blue Mountains due to the ingrowth of Douglas-fir and

grand fir into previous stands of ponderosa pine. The area has started seeing an increase in spruce budworm defoliation in the past 3 years. All treatments designed to reduce stocking levels will provide increased tree resilience and recovery during and after these outbreaks. Comparing maps 3 and 4 demonstrates the increase in acres affected by pests between 2006 and 2010.

These same changed conditions related to forest composition, structures, and densities have reduced habitat for some wildlife species such as the Region 6 sensitive species white-headed woodpecker, and is believed to have increased the habitat for other species, such as the goshawk, to levels believed to be above historic levels. Various riparian and upland hardwood trees and shrubs – such as aspen and willow – have had their presence, abundance, and vigor reduced by the encroachment of conifers, the lack of historically appropriate low intensity fire disturbance, and utilization by ungulates. Lack of fire disturbance has also resulted in conifer and Western Juniper encroachment in meadow and sagebrush steppe habitats.

Past activities have also affected water quality, watershed function, and aquatic species viability. Most watersheds have high road densities (greater than 2.4 miles per square mile) and increased sediment delivery. High road densities also decreased security for Rocky Mountain elk and other species of wildlife. Culverts may restrict passage to potential spawning and rearing habitats on some fish bearing streams. In the Southern Blues, there are 2,300 miles of high clearance roads, 260 miles of passenger car roads, and 3,600 culverts. The average annual allocated road maintenance budget for the past three years was $100,000 within the Southern Blues, but the total backlog of deferred maintenance is $3,000,000.

Approximately 125 miles of streams are water quality limited for elevated stream temperatures and high bacteria levels, and almost 100 stream miles in the Southern Blues area are water quality limited for sediment. The flow regimes of many streams are affected by dams and water diversions and fish are at risk from a few remaining unscreened irrigation ditches. Removal of in-stream wood, changes in channel morphology, loss of floodplain connectivity, and alteration and loss of riparian vegetation have all contributed to declines in water quality. Consequently, several species of fish (bull trout, mid-Columbia steelhead, and Chinook salmon) and their habitat are protected under the Endangered Species Act due to degraded habitat conditions.

Aquatic exotic species, specifically common carp and brook trout, have altered significant portions of the aquatic ecosystem (including one of the largest natural wetlands in the United States, on the nearby Malheur Wildlife Refuge) affecting threatened and endangered species and over 500,000 waterfowl using the basin wetlands.

C. Desired Future Ecological Conditions.

The desired future ecological condition across the Southern Blues focuses on the dominant hot and warm environments that have undergone the greatest degree of change in the past 100 years. Restoration projects emphasize reducing forest stand density, restoring a mosaic of historic stand structures, and protecting fire- and drought-resistant tree species, restoring stream channels and controlling invasive aquatic species. The desired conditions allow for fire to play its natural role, while significantly decreasing the acres lost to uncharacteristic fire. Insects and disease continue

to play their role at endemic levels. These conditions create a diverse landscape that is resistant to uncharacteristic changes while providing important habitat components, such as hollow trees, dead wood, and snag patches.

Aspen and hardwood sites will be improved through removal of encroaching conifers, protection from ungulates, and where appropriate, reintroduction of natural disturbances such as fire that promote these species. Meadow and shrub steppe habitats will be restored to appropriate ecological conditions. Sediment delivery to streams from roads will be decreased and the landscape road density will be reduced balancing wildlife security needs and public access needs.

II. Summary of Landscape Strategy.

The Malheur National Forest 10 Year Collaborative Forest Landscape Restoration Strategy was developed over a number of years. The strategy began as a Malheur National Forest Strategic Plan that identified resource specific priorities and ranked and mapped subwatersheds on the Forest. In a complementary effort, two established forest collaborative groups, the Blue Mountains Forest Partners and the Harney County Restoration Collaborative, created the "Bigger Look," which identified and mapped important values used to identify treatment priorities within the MNF (See Map 5). The values considered included timber stand densities, fire regimes and ecological departure, key wildlife habitats, old growth, private land adjacency, and economics.

The information from the Bigger Look and Strategic Plan was used to develop the 10 Year Collaborative Forest Landscape Strategy, a joint effort involving the two collaborative groups and the Forest Service. The strategy was formally adopted by both collaborative groups, and is being used by the MNF to guide the program of work for the next 10 years. The complete Strategic Plan can be found at the following link:

http://www.fs.fed.us/r6/malheur/publications/mnf-forest-strategy/forest-landscape-restoration-strategy.pdf

Table 1 shows the areas proposed for treatment over the next 10 years along with the rationale why each area is a priority for treatment. Additional environmental analysis may be completed for specific wildlife and aquatic restoration projects to accomplish restoration priorities.

The Southern Blues was selected as a priority for restoration because of its importance socially, ecologically, and economically to Grant and Harney Counties. Several additional selection factors came into play. First, the area is centrally located between the communities of Burns and John Day, which provide the core workforce and manufacturing infrastructure in both counties. Second, the departure from the historic fire regime, adjacency to private lands, and the amount of Wildland Urban Interface (WUI) within the area was an important consideration. Third, the current vegetation condition of the dry ponderosa pine landscape is overstocked, often with ecologically inappropriate tree species. Similarly, the landscape lacks diversity and large diameter trees and is inappropriately uniform in structure, age and size. There have been recent increases in insect population levels.

Table 1. 10 Year Collaborative Forest Landscape Restoration Strategy for the Southern Blues Project Area

Projects	Target Planning Completion Dated	Ready For Implementation	Acres	Restoration Priorities
*Canyon Creek,	Complete	2010	17,728	F, V , A, T
*16 Road	Complete	2010	2,445	F, V, A, T
*Knox	Complete	2010	19,830	F, V, A, R
*Merit	Complete	2010	21,960	F, V, R, T
Logan Valley Meadow & Aspen Restoration	Complete	2010	347	V, I, M, A
*Damon	Complete	2010	19,421	F, V, I, A, R
*Jane	Complete	2010	31,366	F, V, I
*Soda Bear	2011	2011	20,774	F, V, A, R, I
*Starr	2011	2011	18,282	F, V
*Marshall Devine	2011	2012	34,179	F,V, I, M, R, A
*Upper Pine	2012	2013	32,039	F, V, I, R, A
Pronghorn	2012	2013	18,481	F, V, I
*Elk 16	2012	2013	42,200	F, V, I, A, R, T
*Summit Creek	2013	2014	38,120	F, V, I, A, R, T
*Wolf	2013	2014	35,553	F, V, I, R, A
*Upper Bear/Lake Creeks	2015	2016	39,049	F, V, I, T
*Cliff	2015	2016	29,183	F, V, I
*Rattlesnake	2015	2016	32,205	F, V, I, R, A
*Sagehen	2019	2020	19,301	F, V, I, R, A

F- High Fuel Condition and Wildfire Risk, V- Vegetation Conditions, I- Increasing Insect Levels, A- Aspen Restoration, R- Road Restoration to Improve Aquatic Conditions and Wildlife Security, M- Meadow Restoration, T- Habitat Restoration for Threatened Species, B- Aquatic Invasive Species Control/Eradication for threatened and Sensitive Species *All or a portion of the project area within Wildland Urban Interface (WUI).

III. Proposed Treatments.

A. The Role of Science.

The Southern Blues Restoration Coalition believes that science must guide our forest restoration activities. To that end, we have attempted to incorporate the best available science into our restoration vision. In 2008, the Blue Mountain Forest Partners convened a science forum to collectively examine various principles and theories applicable to forest management. Experts from around the region came to John Day to advise the collaborative on the status of scientific understanding regarding forest management, emerging theories, and areas of accepted scientific consensus. With this information, all collaborative members were “on the same page” regarding “what the science says” about restoration forestry.

Similarly, the collaborative worked with Drs. Norm Johnson and Jerry Franklin to design restoration treatments for the Soda Bear project in 2010. These renowned experts spent three days in the field marking stands for treatment, answering questions from the collaborative, and explaining their restoration vision. The information generated from this unique experience has infused our thinking on restoration prescriptions for future projects.

B. Restoration Goals.

The Southern Blues Restoration Coalition has four restoration goals: 1) Restore landscape resiliency by increasing our ability to achieve multiple objectives in vegetation and fuels, maintain or restore high priority watersheds and riparian sites to healthy condition; 2) Improve collaborative and social capacity by focusing on large landscape-scale areas where we have collaborative support and emphasize building trust and common ground to create a path to restore more complex areas; 3) Increase economic and organizational capacity by maintaining a sustainable flow of work and outcomes, and contribute to retaining an appropriate infrastructure, supporting new and emerging markets, and local economic benefits; and 4) Ensure efficiency and effectiveness by linking restoration of landscapes across all land ownerships and demonstrating a logical progression across the landscape with all partners.

C. Restoration Treatments.

1. NEPA-Ready Projects and Partner Restoration Activities.

The Forest Service has completed the work on 8,356 acres of commercial and pre-commercial thinning, 420 acres of prescribed burning, 15 acres of aspen protection and eight miles of road decommissioning/closures in areas covered by recently completed NEPA. To fully implement these completed decisions, an additional 26,785 acres of thinning, 48,000 acres of burning, 21 miles of road decommissioning, and 36 miles of road closures will need to be accomplished in next 5 years. By the end of 2011, an additional 37,000 acres of restoration work will be available to begin receiving treatment.

Directly adjacent to the Southern Blues, the Burns District of the BLM has completed several vegetation and fuels projects. In the past five years, the BLM has completed 2,199 acres of commercial thinning, 13,654 of pre-commercial thinning, and 9,000 acres of prescribed burning.

On private lands within and adjacent to the Southern Blues, 4,126 acres have been treated to reduce fire hazard, improve stand conditions, treat noxious weeds and improve fish habitat. Projects are funded using National Fire Plan Grants, OWEB Grants, Title II funding along with private funds in partnerships with the Oregon Department of Forestry, Grant and Harney County Soil and Water Conservation Districts and the Natural Resource Conservation Service. Using funds from other recently awarded grants, landowners plan to treat an additional 1,000 acres over the next two years.

The Burns Paiute Tribe has completed about 65 acres of thinning, piling, and burning on their lands in Logan Valley. In 2011, the Tribe has funding for an additional 20 acres of treatments, and will complete about 175 acres of riparian plantings (rose, currents and willows) along streams across their property in Logan Valley. Maintaining and enhancing Native American access to the MNF for traditional uses such as hunting, gathering, and spiritual purposes is an important consideration in our restoration treatments.

By 2015, 452,711 acres – or 80% – of the Southern Blues will have collaboratively developed NEPA decisions. Anticipated projects with expected NEPA decision dates and total project acres are listed in Table 2.

Table 2 – Projects in Proposal Area	**NEPA**	**Total Project Acres**
Canyon Creek, 16 Road, Knox	Complete	43,276
Damon, Jane	Complete	52,787
Starr, Soda Bear, Marshall Devine	2011	73,235
Upper Pine, Pronghorn, Elk 16	2012	92,720
Summit, Sage Hen, Wolf	2013	92,974
Upper Bear, Lake Creek, Cliff, Rattlesnake	2015	100,437

The Southern Blues Restoration Collaborative has a demonstrated ability to leverage additional funds and expeditiously complete restoration treatments on the ground, and to provide economic development. In 2010, the MNF used Recovery (ARRA) money to fund data collection for several collaborative projects. These funds, totaling $3.6 million, were used to contract or hire temporary employees from the local community to complete heritage, soils, botany, wildlife, stream, and vegetation surveys for out-year projects. With an additional $7.5 million in ARRA funds, the MNF was able to award contracts for 3,844 acres of stewardship biomass removal, 9,300 acres of pre-commercial thinning and piling, and 1,700 acres of pile burning in a two year period, on top of the regular forest program of work. With a significant amount of survey work complete, the Forest Service is ahead of their planning schedule and well situated to utilize CFLRP funds for implementation.

2. Terrestrial Restoration.

Primary forest restoration treatments will focus on removal of biomass and small diameter trees, to maximize large tree retention. Consequently, an important objective for vegetation and fuel activities is to utilize wood fiber in the form of saw timber, biomass, and associated wood products. An objective for all restoration activities is to contribute to local employment and integrate multiple outcomes in a cost-effective manner, consistent with the various resource objectives, environmental standards, and contracting authorities. While some restoration treatments have already been completed, much more work is necessary to increase ecological resiliency.

Visually, the Southern Blues contain a vast surplus of Young Forest Multi Strata (YFMS, below). While this forest is a natural step in forest succession, its abundance far exceeds what naturally would have occurred on the landscape. Many of our forests in the Southern Blues are more densely stocked than the representational graphic below:

Our restoration treatments are designed to move Young Forest Multi Strata (above) towards the following two types of older forest (below):

Old Forest Multi Strata (OFMS, left) and Old Forest Single Strata (OFSS, right) depict the older forests historically common on the Southern Blues landscape. OFMS typically consists of large, old ponderosa pine, Douglas-fir, and larch, with an understory of mixed conifer species. OFSS represents the "open, park-like stands" of ponderosa pine that greeted settlers in the 1800s. Images based on Oliver and Larson (1996), O'Hara and others (1996), and Tatum (2006).

To date, the Southern Blues Restoration Coalition has completed most of its work in warm/hot dry forest types, typically dominated by ponderosa pine forest. However, as the Coalition has worked through projects, we have begun to include additional restoration treatments in other forest types, especially cool/cold moist mixed conifer forests. While there is more scientific uncertainty about what restoration treatments are appropriate in mixed conifer forests, and therefore a wider difference of opinion regarding how to restore these forests, the Coalition's firm commitment to "following the science" and working together bode well for successfully completing treatments in the more controversial mixed conifer forests. Our landscape proposal includes thousands of acres – perhaps 10% of the proposal area – in mixed confer forest that are proposed for treatment.

As discussed earlier, the MNF has been heavily grazed in the past, and remains an important forage resource for local ranchers. While the Southern Blues Restoration Coalition has not addressed grazing issues in its forest restoration collaborative work, several local ranchers are

part of the Coalition, and grazing resource issues are taken into consideration in all of our projects. Our goal is to restore forest conditions (i.e., reduce overstocking, increase browse species, protect riparian features, increase underburning to increase grasses and forbs, resting allotments, constructing fencing) so that forested areas are suitable for all types of ungulate use, including livestock.

3. Aquatic Restoration.

In addition to terrestrial restoration projects, we propose a long term (10 year) invasive aquatic control project to eliminate common carp on the upper part of the Silvies River, located in the middle of the Southern Blues, as well as brook trout control on the east side of the Southern Blues landscape. The isolated Forest Service carp population is the source of a much larger population (4.5 billion individuals during high water). These carp populations represent a crisis for the entire Malheur/Harney Lake Basin where they are causing water quality degradation with significant impacts to three MNF sensitive species, and hundreds of other native aquatic and waterfowl species throughout the basin. Overall carp in the Malheur/Harney Lake Basin have cost millions of dollars in resource damage and continual control efforts since the 1950s.

Other aquatic restoration treatments on the MNF include riparian fencing, native species replanting, road removal and decommissioning, and juniper control.

4. Old Growth Retention and Restoration.

Restoration treatments would favor the retention and growth of large and medium size trees across the landscape, and favor understory species and densities appropriate for each site. Where stands have a changed character (i.e. not dominated by seral species and with excessive understories and excessive fuel build-up), there is a need for maintenance treatments to eliminate inappropriate understories and gradually re-introduce fire. Where stands still retain much of their original character, reintroduction of fire would be the best tool to use on a periodic basis to maintain the ecologically correct components and conditions of the stand. Individual large trees would be protected, as would snags and appropriate levels of down wood and debris. Treatments would be designed to improve resiliency to high frequency/low intensity fire, and to keep insects at endemic levels. In all treatments, the irregular spacing of trees with an emphasis on clumps/groups and patches would be emphasized.

5. Fire Restoration.

Much of the Southern Blues landscape has been shaped and created by fire. A major component of the restoration work is to reduce uncharacteristic size and severity of wildfires and allow fire to return to its natural ecological role across the landscape. Within the Southern Blues, 300,000 acres have been identified as Wildland Urban Interface (WUI). Implementation of the Grant and Harney County Community Wildfire Protection Plans will strategically place escapement corridors, treat wildland urban interfaces, modify uncharacteristic wildfire behavior, and increase forest health and resiliency to climate change. The Southern Blues Restoration Coalition has used fire behavior modeling software with the assistance of The Nature Conservancy to design

projects that strategically locates treatment sites that contribute to controlling fire behavior on the landscape.

In the Southern Blues, without CFRLA funding, direct suppression costs are expected to average $2.8 million annually over the next 10 years. Upon completion of forest treatments, large uncharacteristic wildfire acreage could be reduced to 50% of historic average. Cost benefit estimates of CFRLA funded forest restoration treatments find potential savings up to $5.6 million[1] in fire suppression costs over a ten year period within the Southern Blues. Treatments including thinning, slash treatments, biomass removal and underburning are designed to reduce the potential fire behavior and are strategically placed to aid firefighters in the protection of high value areas such as private property and escape corridors. As fire severity is reduced, the potential rehabilitation costs needed to restore and protect soil and water and the costs to replant burned areas will be greatly reduced.

Once proposed treatments are completed, wildfires will be much easier and less costly to control. Frequency and severity of wildfires on the restored landscape would more closely mimic historic conditions with less potential for crown fire and decreased intensity. Fire managers will be able to use wildfire and prescribed fire as tools to maintain areas that have been restored to withstand fire, permitting managers to concentrate on aggressively suppressing wildfire in other high value areas.

6. Road Remediation.

Restoration activities will result in “right-sizing” the road system associated with projects, creating a road system that is safe and responsive to public needs and desires, affordable and efficiently managed, has minimal effects on aquatic and terrestrial systems, and is in balance with available funding. Over the life of the project, it is expected that a minimum 250 miles of road will be decommissioned or closed to help benefit aquatics and wildlife.

7. Wildlife Habitat Restoration

Vegetation restoration will vary by forest type creating a mosaic of habitats for wildlife. Habitat for old growth dependent species such as white headed woodpecker, pileated woodpecker, and goshawk will be developed more rapidly with proposed treatments. Forage habitat for big game will be improved by underburning and removal of encroaching conifers and juniper in meadows and shrub lands. Restoration of aspen, mountain mahogany, and cottonwood habitats by fencing, conifer removal, and underburning will improve habitat for numerous species including deer, elk, and neotropical bird species.

8. Climate Change.

The potential effects from climate change are considered in site-specific treatment design. In the Southern Blues, the most likely outcome of climate change is an increase in average

[1] Estimate is based on average fire suppression cost of wildfires greater than 300 acres at a cost of $1000 per acre.

temperatures and a decrease in overall annual precipitation. However, climate modeling cannot predict the precise nature of changes in areas as small as this landscape area, and it is always possible that cooler or wetter conditions may be a result of climate change. Climate change would be expected to cause an alteration of disturbance regimes with increased fire frequency and severity and more frequency and severe insect and disease outbreaks.

All planned treatments would be appropriate under either scenario: if drier hotter conditions prevailed, our proposed treatments would be appropriate; and if wetter/cooler conditions prevailed, the species and stocking levels would simply allow for more rapid stand growth than expected. Maintenance treatments would therefore occur more frequently to sustain desired conditions.

IV. Collaboration and Multi-party Monitoring.

A. The Southern Blues Restoration Coalition.

Convened in 2006, the Blue Mountains Forest Partners (BMFP) operates on the north end of the MNF in Grant County. The Harney County Restoration Collaborative (HCRC), convened in 2008, operates on the south end of the MNF in Harney County and southern Grant County. Both collaboratives are comprised of diverse individuals including county residents, conservationists, forest contractors, timber company representatives, ranchers, and city and county representatives. In addition, multiple staff from the MNF are active and valuable partners with both collaboratives. These two collaboratives have been working together since 2008, and have recently termed their joint collaboration the "Southern Blues Restoration Coalition."

The two collaboratives have created manuals that outline the groups' vision and goals, governance structure, decision making processes,[2] and modes of operation for participating members. Each collaborative has raised operational funds and hired staff to increase their ability to conduct work on projects and work on identified needs for each group.

The general "zones of agreement" created by the two collaboratives reflect the common ground on the types, scope, and scale of the restoration projects. To date, the Southern Blues Restoration Coalition collaborated on projects covering 78,000 acres. Specifically, the BMFP developed three projects (7,000, 20,000, and 20,000 acres) that were designed to protect lives and property within the adjacent wildland urban interface, and to increase forest health. Common goals for the projects included thinning timber stands to reduce fire, insect, and disease risk; enhancement of old-growth; utilization of prescribed burning; and local job creation. Likewise, the HCRC has designed projects on approximately 31,000 acres within the Southern Blues Landscape with similar restoration objectives.

But increasing the acres treated has not been the only benefit of the Southern Blues Restoration Coalition. Through building common ground on forest management objectives and treatments,

[2] BMFP strives to make decisions by consensus, but if consensus is not possible, the group uses a majority/minority report format for arriving at decisions. HCRC is a consensus-only organization.

the Southern Blues Restoration Coalition has helped to streamline the NEPA planning process, thereby reducing planning and litigation costs for the Forest Service. With the help of the two groups, the Forest Service has been able to operate unencumbered without forest-related litigation in the past four years. This increase in efficiency is a real indicator of the potential the MNF has to make significant gains in achieving its goals of improved forest health and economic vitality through the CFLRP.

All meetings for the Southern Blues Restoration Coalition are, and have always been, open to the public. The collaboratives meet every other month or as needed. The frequency of the committee meetings changes seasonally, with more meetings occurring in the summer months to gather in the forest to discuss projects on which the collaboratives are working, and fewer meetings during the hunting and holiday seasons.

B. Multiparty Monitoring.

To better understand the on-the-ground results of restoration projects and to increase the effectiveness of future projects on the MNF, the Southern Blues Restoration Coalition is currently developing a multiparty monitoring protocol in close consultation with the MNF. The multiparty monitoring process is complementary and in coordination with the current MNF monitoring protocols, and will conduct implementation, effectiveness, and process to achieve ecological, social, and economic objectives. It was important to the Southern Blues Restoration Coalition and the Forest Service that the goals were developed jointly so the monitoring protocols would be identical for the entire forest to allow the MNF staff to utilize the data and information produced. A joint Monitoring Committee has developed goals for monitoring, and has identified tentative indicators for the social, economic, and ecological objectives.

1. Socioeconomic Monitoring.

The goal for socioeconomic monitoring is to identify actual and potential economic activities within the MNF for Grant and Harney County residents and businesses. The Monitoring Committee recruited a graduate student from the University of Oregon to help develop the social and economic indicators and the methods for data collection that will be used over time. While the indicators for socioeconomic monitoring are not final, the potential objectives are to: 1) Document how contracts issues on the MNF during the last five years have been influencing the local economy; 2) Document traditional forest products coming from the MNF; 3) Estimate impacts of these activities on the local economy; 4) Estimate the future potential of traditional forest products; 5) Document non-timber forest products such as woody biomass, timber, fir boughs, berries, and mushrooms; and 6) Estimate the impacts and future potential of these activities on the local economy.

2. Implementation Monitoring.

This monitoring will involve individual members of the collaboratives completing qualitative surveys in the forest after a project has been complete. The surveys will be synthesized for discussion and influence on future projects. They will also serve the purpose of enabling

forthright discussions on the affects of forest treatments based on the purpose and need for each project. Effectiveness monitoring will be quantitative and conducted using protocols developed with MNF staff to ensure data collected is compatible with Forest Service databases, and will be used to inform forest management decisions.

3. Effectiveness Monitoring.

The Monitoring Committee has consulted experts to develop ecological indicators based on the groups' interests and goals. Data collection and analysis for ecological monitoring will be conducted by independent consultants and presented to the collaboratives and the MNF staff. The tentative goals and indicators are as follows:

- Reduction in wildfire hazard and severity, particularly in the WUI. *Potential indicators:* surface fuels; ladder fuels; crown fuels/canopy closure; tree density; effects of wildfire in treated versus untreated areas; changes in condition class; potential for wildfire severity; acres treated.
- Forest structure and retaining large/old trees, with particular focus on ponderosa pine. *Potential indicators:* live and dead tree diameter and height; mortality of old trees after treatments; browse species for ungulate use
- Determine effects of removal of fir species in riparian hardwood restoration projects. *Potential indicators:* stream conditions; water temperature; shade surveys.
- Wildlife population trends, with a focus on northern goshawk. *Potential indicators:* presence/absence surveys before and after treatments.

4. Process Monitoring.

In addition, the joint Monitoring Committee is dedicated to monitoring the success and well-being of the Southern Blue Restoration Coalition. The monitoring program will measure participation at full group and committee meetings and on field trips, rates of NEPA project completion, and changes in collaborative member opinions through biannual surveys. This data will be useful for tracking progress of the collaboratives and for outreach and fundraising purposes. Data collection and analysis will be completed by staff from the collaboratives or an independent contractor and presented to the collaboratives and the MNF staff.

5. Success.

Success of the multiparty monitoring will be measured by 1) the consistency of the implementation of the protocols over time, 2) the use of the results in helping the collaboratives find common ground on contentious issues and 3) the use by the MNF to influence future forest management decisions. It is important to both collaboratives that the development of the protocols, data collection and analysis are collaboratively developed and conducted in a manner that ensure objectivity with the goal of bringing helpful information to advance the goals of the collaborative and those of the MNF through adaptive management.

V. Utilization.

A. Wood Products.

Woody material generated from restoration treatments will be available for many products that can be processed locally. The Southern Blues area is still home to a number of wood product firms, unlike many other locations in the west. Local firms are able to process sawlogs, generate electricity from biomass, produce wood pellets and bricks for home and commercial heating plants, produce posts and poles for fencing, and supply firewood for home heating.

Currently, pine saw logs, which are generally produced from trees 12" DBH and larger, can be processed at a mill in John Day (Malheur Lumber Company) while another local mill (Prairie Wood Products), is presently idle due to lack of supply, can process all species of logs down to an 4" DBH top. These facilities provide high value products to consumers in the United States and around the world. Approximately 240 million board feet of saw logs are estimated to come from the Southern Blues over the next 10 years.

The Southern Blues Restoration Collaborative has analyzed the potential for biomass utilization for the Southern Blues, considering the ecological need for restoration; soil, water, and wildlife needs; and socioeconomic capacity. Restoration byproducts in the form of biomass (i.e., material less than 8" DBH) would come from tops of saw logs and small diameter tree thinning. This woody fiber would be used locally at the newly built Malheur Lumber pellet plant for densified fuel (pellets or bricks) or animal bedding shavings. The smaller trees and limbs could be used for hog fuel at the one operational mill or at the currently shuttered co-generation plant.

In current markets, the removal of biomass alone is not economical. When biomass and saw logs are removed concurrently, biomass removal becomes more feasible. On recent contracts, the saw log/biomass volume ratio has been about 50/50. We have found that it is important that this ratio remain relatively constant so that restoration treatments are economically viable.

The MNF estimates that absent CFLRP funding, about 1 million green tons of biomass will be available for removal over the next 10 years within the Southern Blues. With CFLRP funding, as much as 2.5 million green tons of biomass will be available over the life of the proposal. Availability of CFLRP funds are a critical factor in contributing to the sustainability of local woods products industries and jobs for contractors.

B. Leveraging Assets.

The MNF has a unique 5 year/$50 million dollar "Collaborative Restoration Stewardship" contract authority that makes combining the removal of biomass and low value material economically feasible. The value of the products will return nearly 75% of the cost of the restoration thinning back to the MNF, which will be used to accomplish additional restoration work that otherwise may not occur. Strategically using Forest Service receipts in this manner provides the MNF an opportunity to shift appropriated funds typically used for implementation to other restoration needs and planning.

C. Available Infrastructure.

As mentioned earlier, the Southern Blues area is home to a number of existing firms that utilize woods products. It is important to retain these facilities both for the local economic benefits and also to help fund badly needed forest restoration treatments. Any product produced removes excess biomass from the forest and reduces the cost of alternative methods of disposal, like piling and burning, and any value created from sale of forest products can offset a portion of the treatment costs.

In 2010, Malheur Lumber Company (MLC) – a key partner in both collaboratives – and Bear Mountain Forest Products were awarded a $5 million grant through the American Recovery and Reinvestment Act for construction of a pellet and briquetting plant. The facility, which is appropriately scaled for the quantity of biomass available in the surrounding area requires 45,000 green tons of biomass annually in the form of clean wood chips. MLC will also add a whole log shaver to utilize small diameter material to make shavings for bedding material, pellets, and briquettes; and the shaver will utilize an additional 12,000 tons of material per year. MLC's diversification of wood products will create a total of 23 new jobs locally, and will retain its existing 80 employees. In addition, MLC utilizes 25 MMbf of sawtimber material annually. The 23 new jobs in Grant County has a local economic impact equivalent to2,300 jobs in an urban area such as Portland, Oregon; making these new jobs a reality would reduce Grant County unemployment to 12% from approximately 17%.

Prairie Wood Products is a high speed small log facility located in Prairie City that is capable of utilizing 50 million board feet of small logs annually. Adjacent to the sawmill is a 9 MW co-generation plant that can utilize 200,000 green tons per year of biomass for electricity generation to operate its dry kilns with approximately 8 MW being sold back to the electrical grid. When operating, this facility employs 55 people. This facility is currently idle.

Grant Western Lumber in John Day is capable of milling 30 million board feet per year and would employ 40 people. This facility is currently idle.

VI. Benefits to Local Economies

A. Economic Considerations.

The rural communities in the Southern Blues have relied on their natural resources of timber, agriculture, and ranching since their founding. The area is sparsely populated, and the population of Harney and Grant Counties is approximately 15,000 residents. As a result of low population density, political influence and social services are limited, and the access to services has declined dramatically in the past 20 years as timber harvest levels have declined. Declining forest products and housing markets have greatly reduced employment and economic vitality in this region's small communities. Indeed, in December 2010, the seasonally adjusted unemployment rate for Harney County was 16.6% and 16.3% for Grant County; Harney County is second in the State of Oregon, and Grant County is third, for unemployment.

B. Job Creation.

Given declining populations and forest health, economic development associated with forest restoration is critical to the continued viability of the Southern Blues. Presently, 92 jobs are supported by restoration activities on the MNF. Additional seasonal positions were added with the assistance of ARRA funds, which have provided a much needed boost to our communities. However, with CFLRP funds, we expect a 70% increase in long-term restoration employment within our communities, which will bring 154 new jobs to Grant and Harney Counties. New CFLRP funds would allow us to maintain and build on the present employment gains made possible through ARRA funds. For more information, please see Attachment E.

CFLRP funds, and the direct and indirect economic effects associated with it, would provide a consistent source of potential jobs for the communities, which in turn would allow both businesses and populations to stabilize and perhaps to grow. The predictable and stable supply of various raw materials will allow industries and contractors to invest in infrastructure and innovation. Currently, uncertainty about securing adequate funds to treat a predictable acreage precludes such innovation.

C. Training Opportunities.

Training and Employment Consortium, Rural Development Initiatives Program, Eastern Oregon University, and the MNF will provide training opportunities. HCRC, BMFP, and Grant and Harney Counties will sponsor trainings and support services to assist local contractors in effectively competing and in rebuilding capacity where necessary. A long-standing priority of the two collaboratives is an economic forum to discuss employment and development opportunities. We hope to conduct this forum in 2011.

In 2009, a wood fiber utilization study was conducted in Grant County that summarized the available local contractor pool, and concluded that the available labor is substantial.

D. Best Value Criteria and Other Contracting Authorities.

Best value criteria will be used to ensure local economic benefit is a high priority in contract award. Numerous different mechanisms will be used to accomplish restoration including stewardship contracts, service contracts, timber sale contracts, agreements, and force account projects, depending on which tool best fits the job. Linking the economic benefits and support or enhancement of local infrastructure will be one of the criteria used to determine which mechanism for the restoration work is selected.

VII. Funding Plan.

Forest Service investments will be drawn from normal appropriated budget, Regional earmarks, and from retained receipts collected from Stewardship projects. The MNF will be committing funds from the following line items: Hazardous Fuels Reduction, Timber Sale Preparation;

Vegetation Management; Road Maintenance; Aquatic and Wildlife; Watershed; and Stewardship project receipts. Additional program areas may become contributors as specific restoration activities are identified over the proposal period.

Non-Federal investments in the Proposal Area are numerous. Sustainable Northwest (SNW) has embarked on a five-year project called the "Dry Forest Investment Zone" (DFIZ) which aims to build community business, and nonprofit capacity to address regional challenges related to a) accelerated forest stewardship to produce multiple value streams, including clean water, carbon, biodiversity, as well as traditional value-added wood products, b) utilization of woody biomass for traditional and value-added products and energy production, c) technical and leadership skills related to facilitating diverse stakeholder groups, project design and implementation, multi-party monitoring, and nonprofit management. The Southern Blues Restoration Coalition has partnered with SNW, and is part of the DFIZ program.

SNW has raised funds from the U.S. Endowment for Forestry and Communities, USDA Rural Development, and other private foundations and donors to support activities across the whole DFIZ region. SNW committed to support the MNF in FY11 with $40,000 for activities in Grant and Harney County, and will leverage additional funds through their work across 10 other eastern Oregon counties consistent with mutually defined objectives. Additional partnership investments are show in Table 3 in Appendix F.

The wood products industry is a significant non-federal investor and local contractors are ready to diversify from traditional equipment to systems that better lend themselves to handling small material especially if a foreseeable future is present to merit substantial capital investments.

Local county government has invested in this Proposal Area. Harney County recently updated its Community Wildfire Protection Plan (CWPP), which was instrumental in developing the Jane Project. Grant County has a completed CWPP which aided the completion of the 16 Road and Damon Projects. Grant County is in the process of updating its CWPP.

Funding for development of this proposal and future monitoring will come from monetary contributions and in-kind work from both of the collaborative groups, High Desert Partnership, Sustainable Northwest and Western Environmental Law Center. All groups, including the Forest Service, have committed to the need to fund multi-party monitoring at approximately 5% of the project implementation cost.

Significant investments have occurred on adjacent non-federal lands. Several private landowners have participated in restoration projects using matching funds from state and private forestry funds and OWEB grants to reduce fire hazard and improve forest health. The Silvies Ranch has been removing juniper, thinning conifers and underburning the past few years to improve conditions on their lands. The Silvies Ranch is also a big contributor to watershed restoration and carp removal projects along the Silvies River, including a commitment to complete $200,000 of work each year.

The Grant and Harney County Soil and Water Districts have completed and plan to continue investing (OWEB, Title II) in restoration work including riparian fencing, juniper control, off-channel livestock water systems, noxious weed treatments and other fish habitat improvement projects on private land.

The Burns Paiute Tribe has been funding and is in the process of completing restoration work on their lands within the Southern Blues Coalition Area.

VIII. 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	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years	Partner funds to be used over 10 years
Acres treated annually to sustain or restore watershed function and resilience	WTRSHD-RSTR-ANN	N/A	N/A	N/A	N/A	N/A	N/A
Acres of forest vegetation established	FOR-VEG-EST	N/A	N/A	N/A	N/A	N/A	N/A
Acres of forest vegetation improved	FOR-VEG-IMP	3,375	16,000	N/A	$472,500	$472,500	N/A
Manage noxious weeds and invasive plants	INVPLT-NXWD-FED-AC	1,250	1,000	250	$450,000	$375,000	$75,000
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands	INVSPE-TERR-FED-AC	N/A	N/A	N/A	N/A	N/A	N/A
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions.	S&W-RSRC-IMP	450	300	150	$150,000	$100,000	$50,000
Acres of lake habitat restored or enhanced	HBT-ENH-LAK	N/A	N/A	N/A	N/A	N/A	N/A
Miles of stream habitat restored or enhanced	HBT-ENH-STRM	90	10	80	$1,495,000	$100,000	$1,395,000
Acres of terrestrial habitat restored or enhanced	HBT-ENH-TERR	72,000	64,000	24,000	$775,000	$590,000	$185,000
Acres of rangeland vegetation improved	RG-VEG-IMP	155,000	133,000	30,000	$900,000	$750,000	$150,000
Miles of high clearance system roads receiving	RD-HC-MAIN	N/A	750	N/A	N/A	$1,000,000	N/A

Performance Measure	Code	Number of units to be treated over 10 years using CFLR funds	Number of units to be treated over 10 years using other FS funds*	Number of units to be treated over 10 years using Partner Funds	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years	Partner funds to be used over 10 years
maintenance							
Miles of passenger car system roads receiving maintenance	RD-PC-MAINT	N/A	750	N/A	N/A	$1,300,000	N/A
Miles of road decommissioned	RD-DECOM	50	50	N/A	$250,000	$250,000	N/A
Miles of passenger car system roads improved	RD-PC-IMP	N/A	10	N/A	N/A	$100,000	N/A
Miles of high clearance system road improved	RD-HC-IMP	N/A	20	N/A	N/A	$200,000	N/A
Number of stream crossings constructed or reconstructed to provide for aquatic organism passage	STRM-CROS-MTG-STD	N/A	3	N/A	N/A	$600,000	$50,000
Miles of system trail maintained to standard	TL-MAINT-STD	N/A	80	N/A	N/A	$100,000	N/A
Miles of system trail improved to standard	TL-IMP-STD	N/A	5	N/A	N/A	$25,000	N/A
Miles of property line marked/maintained to standard	LND-BL-MRK-MAINT	N/A	70	N/A	N/A	$350,000	N/A
Acres of forestlands treated using timber sales	TMBR-SALES-TRT-AC	93,750	75,000	N/A	N/A	$5,400,000	N/A
Volume of timber sold (CCF)	TMBR-VOL-SLD	360,562	288,450	N/A	$5,400,000	$5,400,000	N/A
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production	BIO-NRG	540,000	540,000	N/A	N/A	$6,000,000	N/A

Performance Measure	Code	Number of units to be treated over 10 years using CFLR funds	Number of units to be treated over 10 years using other FS funds*	Number of units to be treated over 10 years using Partner Funds	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years	Partner funds to be used over 10 years
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire	FP-FUELS-NON-WUI	33,375	99,000	N/A	$3,600,000	$6,500,000	N/A
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire	FP-FUELS-WUI	33,375	99,000	N/A	$3,600,000	$6,500,000	N/A
Number of priority acres treated annually for invasive species on Federal lands	SP-INVSPE-FED-AC	N/A	N/A	N/A	N/A	N/A	N/A
Number of priority acres treated annually for native pests on Federal lands	SP-NATIVE – FED-AC	N/A	N/A	N/A	N/A	N/A	N/A

*Restoration treatments have the potential to meet multiple performance measures. For example fuel treatments in the WUI may also benefit forest vegetation improvement. Acres and funding shown in this table for each performance measure is from multiple codes. Actual total acres to be treated are 271,980 including vegetation/fuels/timber/wildlife/aquatic treatments. Actual FS and Partner matching funds is $22.5 million.

IX. Attachment B: R-CAT Spreadsheet.

R-CAT Results

Proposal Name: Southern Blues Restoration Coalition

Start Year	2011
End Year	2019
Total Treatment Acres	182,300.00
Average Treatment Duration	15 years
Discounted Anticipated Cost Savings - No Beneficial Use	**$(3,080,468)**
Discounted Anticipated Cost Savings - Low Beneficial Use	$3,721,545
Discounted Anticipated Cost Savings - Moderate Beneficial Use	$5,583,482
Discounted Anticipated Cost Savings - High Beneficial Use	$7,445,420

Proposal Name: Southern Blues Coalition	**Documentation Page**
This page is intended to help you record and communicate the assumptions and calculations that feed the risk and cost analysis tool package spreadsheet	**Response / Information Column**
Was the analysis prospective (projecting activities, costs and revenues that are planned by the proposal) or retrospective (using actual acres, revenues and costs in an analysis looking back over the life of the project)?	**Prospective**
Start year rationale:	2011, the first year we would treat the ground with CFLRP $'s
End year rationale:	2019, The last year the act allows funding
Duration of treatments rationale:	The project is mostly FR - I, with a fire return interval of 10-20 years. Picked 15 as the average. This is when we need to consider a maintenance treatment (rxfire) or we start loosing the effectiveness due to regeneration, and duff/surface fuel buildup.
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.	Yes, all values are based on 2010
Average treatment cost per acre rationale:	Cost for 1/2 the acres treated each year, Considers mechanical treatment costs and rxfire. Based on $300/acre for 1/2 the acres = $150/acre. For 2011, I used a lower value based on the fact that the money is not going to be available until late summer, so not much opportunity to get contracts out.
Rationale for actual costs per acre of treatment by year is used:	Actual contract costs were not used. Costs included contract administration, monitoring and reporting.
Average treatment revenue per acre rationale:	revenue from 1/2 the acres treated. Based on an average of $20/ccf, and average of 6 ccf/acre. Assumes a steady timber sale program of about 10,000 acres per year.

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?	**Forest Service only**
Total treatment acres calculations, assumptions:	Assumes a steady 10,000 acres of commercial treatments per year. Increases over time are from non-commercial and biomass treatments funded with FS dollars and CFLRP match. These treatments are primarily the mechanical/undrburning "footprint" acre treatments within the CFLRP area.
Treatment timing rationale with NEPA analysis considerations:	With the completed NEPA, we have a shelf stock of 26,785 acres of mechanical, non-commercial treatments. Each year the forest expects to complete the NEPA on 2-3 projects in the CFLRP area which will add an additional 9,000 acres of shelf stock each year. At an average of $300/acre to treat these acres, even with CFLRP $'s, we will not over achieve our shelf stock during the life of the act. I based the annual treatment acres on the premisis that we get 2.5 million in CFLRP and match with 2.5 million, we can accomplish the acres as listed and the other restoration work listed in the proposal.
Annual Fire Season Suppression Cost Estimate Pre Treatment, Assumptions and Calculations	The Malheur keeps track of suppression costs anually, by fire size class on a 10 year average. From this I was able to calculate the average suppression costs for large fires (>300 acres) and small fires (<300 acres). I then reduced the annual acres burned by 32%, which is the percent of the CFLRP area compared to the whole forest.
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?	Yes, during the project analysis, the fuels specialist use different tools to assess and plan fuel treatments on the landscape. They use INFORMS/MSN, and FLAMMAP primarily.
Did you model fire season costs with the Large Fire Simulator?	No
If, so who helped you with this modeling?	N/A
If not, how did you estimate costs, provide details here:	For post treatment suppression costs, I assumed a 50% savings. Professional judgment lead me to believe 50% savings was close due to expected savings due to less mop-up time, reduced rehab, and the ability to use less expensive suppression resources.
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?	I did not use Fsim, but I did filter out the Egley fire from the pre-tretment suppression costs. The Egley fire was 6 times the size of any other fires in the 10 year average period.
What is the upper threshold you used?	The largest fire in the 10 year period was 15,000 acres when Egley is taken out.
Did you use median pre treatment costs per fire season?	Yes
Did you use median post treatment costs per fire season?	No, see line 22
Did you test the statistical difference of the fire season cost distributions using a univariate test?	No
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?	No, profesional judgment which was similar to what the Deschutes NF found.
Did these cost change between pre and post treatment?	Yes
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?	I used 5% of the suppression cost for pre-treatment and 3% for 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?	See #15 above. I used the same process, except I used fires less than 300 acres. The cost are reduced due to the potential for less resistance to control one the acres are treated.
Did you include beneficial use fire as a cost savings mechanism in your analysis?	Yes
How did you estimate the percent of contiguous area where monitoring is an option for pretreatment landscape?	I did not see the model ask this question
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?	I based the percentage on my knowledge of what the Forest Plan (under-revision) will allow. The percentages are not based on full monitoring for "fire use", but are an estimate of potential for modified suppression strategies that may involve monitoring and/or limited actions.
How did you derive an estimate for the percentage of full suppression costs used in fire monitoring for beneficial use?	Professional judgment.
Did you ensure that you clicked on all the calculation buttons in cells in column E after entering your estimates?	Yes

Did you make any additional modifications that should be documented?	No

X. Attachment C: Members of the Collaboratives.[3]

Partner	Organization/Association	Collaborative Group	Role in Collaborative
Jon Reponen	Burns District, BLM	HCRC	Federal Partner
Rick Vetter	Malheur National Forest	HCRC, BMFP	Federal Partner
Curt Qual		HCRC, BMFP	Federal Partner
Teresa Raaf		HCRC, BMFP	Federal Partner
Elaine Kohrman		HCRC, BMFP	Federal Partner
Roy Walker		HCRC, BMFP	Federal Partner
Ryan Falk		HCRC, BMFP	Federal Partner
Mike Tatum (Ret.)		HCRC, BMFP	Federal Partner
Eric Wunz		HCRC, BMFP	Federal Partner
Cindy Glick		HCRC, BMFP	Federal Partner
John Gubel		HCRC, BMFP	Federal Partner
Dan Hubbard		HCRC, BMFP	Federal Partner
Jimi Gustafson		HCRC	Federal Partner
Lori Bailey		HCRC	Federal Partner
Roy Schwenke		HCRC	Federal Partner
Justin Sharpe		HCRC	Federal Partner
Eric Crook		HCRC	Federal Partner
Rick Vetter		HCRC	Federal Partner
Mark Webb	Grant County Judge	BMFP	Member/ Operations Committee
Boyd Britton	Grant County Commissioner	BMFP	Member
Steve Grasty	Harney County Commissioner	HCRC	Member
Glen Johnston	Backland Logging	HCRC, BMFP	Member
Kirk Ausland	Oregon Department of Forestry	HCRC	Member
Angie Johnson		BMFP	Member/Project Subcommittees
Tim Lillebo	Oregon Wild	HCRC, BMFP	Operations Committee/Project Subcommittees
Dan Little	Oregon Natural Desert Association	HCRC	Member
Hilda Allison	High Desert Partnership	HCRC	Member
Bill Renwick		HCRC	Member
Karen Coulter	Blue Mountains Biodiversity Project	HCRC	Member/Project Subcommittees
Amanda Benton	High Desert Partnership	HCRC	
Jack Southworth	Southworth Brothers Ranch	HCRC	Facilitator/Member
Bryan Nelson	Local Landowner	BMFP	Member
George Meredith	Local Landowner/Retired Business Executive	BMFP	Operations Committee
Mike Browning	Bear Creek Timber Company	BMFP	Member/Local Contractor
Diane Browning	Bear Creek Timber Company	BMFP	Member/Local Contractor
Mat Carter	Crown Cattle Company	BMFP	Member
Glenn Johnston	Backlund Logging Company	BMFP	Member/Subcommittees/Local Contractor
Dave Traylor	Grant County Forest Commission	BMFP	Member

[3] To protect members' privacy, contact information is available upon request.

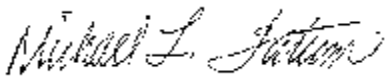
Dave Hannibal	Grayback Forestry Inc.	BMFP	Operations Committee/Project Subcommittees
Irene Jerome	Jerome Natural Resource Consultants, Inc	BMFP	Executive Director
King Williams	King Inc., Grant County Forest Commission	BMFP	Member/Project Subcommittees
Charlie O'Rorke	O'Rorke Logging	BMFP	Member/Project Subcommittees
Art Andrews Jeff Maben Mike Billman	Malheur Lumber Company	BMFP, HCRC BMFP, HCRC BMFP, HCRC BMFP, HCRC	Member Member Operations Committee/Project Subcommittees
Maia Enzer Patrick Shannon	Sustainable Northwest	BMFP BMFP	Member Operations Committee/Subcommittees
Susan Jane Brown	Western Environmental Law Center	BMFP	Operations Committee/Project Subcommittee Leader
Dan Bishop	Prairie Wood Products	BMFP	Member/Project Subcommittees
Roje Gootee	Rush Creek Ranch LLC	BMFP	Operations Committee/Project Subcommittee Leader
Josh Walker	Resident	BMFP	Member
Zach Williams	King Inc.	BMFP	Member/Project Subcommittees

XI. Attachment D: Letter of Commitment

The members of the Southern Blues Restoration Coalition Super-Collaborative – listed in Attachment C – support the foregoing Collaborative Forest Landscape Restoration Program proposal, and are committed to partnering in the implementation of the restoration plan outlined in the proposal.

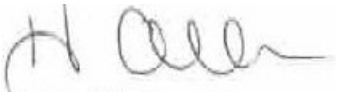
The undersigned individuals were directly involved in the development of the proposal, and are also committed to partnering in its implementation.

Susan Jane Brown (BMFP)
Western Environmental Law Center



Mike Tatum (BMFP, HCRC)
Malheur National Forest (Ret.)

Patrick Shannon (BMFP, HCRC)
Sustainable Northwest



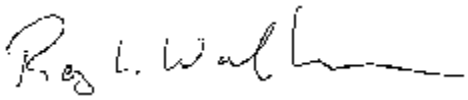
Hilda Allison (HCRC)
High Desert Partnership

Irene Jerome, Executive Director
Blue Mountains Forest Partners

Bill Renwick (HCRC)
High Desert Partnership

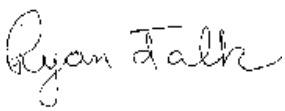
Curt Qual (BMFP, HCRC)
Malheur National Forest

George Meredith (BMFP)
Landowner



Roy Walker (BMFP, HCRC)
Malheur National Forest

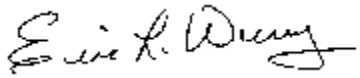
Mike Billman (BMFP)
Malheur Lumber Company



Ryan Falk (BMFP, HCRC)
Malheur National Forest

Dave Hannibal (BMFP)
Grayback Forestry

Rick Vetter (BMFP, HCRC)
Malheur National Forest



Eric Wunz (BMFP, HCRC)
Malheur National Forest

Amanda Benton (HCRC)
High Desert Partnership

XII. Attachment E: TREAT Spreadsheet Detailed Average Annual Impacts Table

	Employment (# Part and Full-time Jobs)			Labor Inc (2010 $)		
	Direct	Indirect and Induced	Total	Direct	Indirect and Induced	Total
Thinning-Biomass: Commercial Forest Products						
Logging	15.4	24.6	40.0	1,000,745	1,126,984	2,127,728
Sawmills	12.0	25.8	37.8	716,679	1,022,098	1,738,778
Plywood and Veneer Softwood	-	-	-	-	-	-
Plywood and Veneer Hardwood	-	-	-	-	-	-
Oriented Strand Board (OSB)	-	-	-	-	-	-
Mills Processing Roundwood Pulp Wood	2.2	9.3	11.5	222,822	404,430	627,252
Other Timber Products	-	-	-	-	-	-
Facilities Processing Residue From Sawmills	6.0	24.1	30.1	553,798	991,634	1,545,431
Facilities Processing Residue From Plywood/Veneer	-	-	-	-	-	-
Biomass--Cogen	0.2	0.1	0.3	19,444	9,946	29,390
Commercial Firewood	0.0	0.0	0.0	$0	$0	$0
Total Commercial Forest Products	**35.8**	**83.9**	**119.7**	**2,513,488**	**3,555,091**	**6,068,579**
Other Project Activities						
Facilities, Watershed, Roads and Trails	1.7	1.1	2.8	$91,109	$50,385	$141,494
Abandoned Mine Lands	0.0	0.0	0.0	$0	$0	$0
Ecosystem Restoration, Hazardous Fuels, and Forest Health	21.8	4.1	25.9	$692,275	$166,785	$859,060
Contracted Monitoring	0.0	0.0	0.0	$0	$0	$0
FS Implementation and Monitoring	1.6	3.8	5.4	$433,052	$156,622	$589,674
Total Other Project Activities	**25.1**	**9.0**	**34.1**	**$1,216,436**	**$373,792**	**$1,590,229**
Total All Impacts	**60.9**	**92.9**	**153.8**	**$3,729,925**	**$3,928,883**	**$7,658,808**

XIII. Attachment F: Funding Estimates.

Table 3. Anticipated Partnerships within the Southern Blues Project Area

Federal and Non-federal Investments that are Anticipated within the Landscape	
Sustainable Northwest (SNW)	In-Kind Assistance with proposal development, multi-party monitoring plan and Dry Forest Investment Zone.
Oregon Department of Forestry (ODF)	Assistance with contract administration through Economic Recovery Funding.
Western Environmental Law Center	In-Kind Assistance with proposal development, project subcommittee leader on two collaborative group projects.
Training and Employment Consortium (TEC)	Training opportunities and workforce to complete wildlife and aquatic habitat restoration projects.
Rocky Mountain Elk Foundation (RMEF)	Funding and volunteer workforce for big game habitat restoration projects including aspen restoration, prescribed fire to enhance forage, juniper removal, meadow restoration, water source development, and road closures/decommissioning.
Oregon Hunters Association (OHA)	Funding and volunteers for big game habitat restoration including aspen and meadow restoration
Burns Paiute Tribe	Funding and workforce to complete aquatic vegetation restoration and threatened bull trout habitat protection. Key partner in invasive brook trout control/eradication to reduce negative impacts to bull trout, fish passage improvement, fish screens, riparian fencing, and riparian planting
Secure and Rural Schools (Title II)	Funding for thinning and other vegetation enhancement, stewardship contracting, water developments for ungulates, and hardwood and riparian restoration.
Blue Mountains Elk Initiative (BMEI)	Funding for elk habitat enhancement including aspen restoration, forage enhancement and juniper removal, water source development, and road closures/decommissioning.
Oregon Watershed Enhancement Board (OWEB)	Funding for aquatic and riparian restoration
Grant and Harney County Soil and Water Conservation Districts	Administration and implementation of funded water, soil, and vegetation restoration projects.
Bureau of Land Management (BLM)	Personnel for carp control/eradication
U.S. Fish and Wildlife Service (USFWS)	Funding and personnel for carp and brook trout control/eradication

Oregon Department of Fish and Wildlife Service (ODFW)	Funding and personnel for carp and brook trout control/eradication, fish screens and passage, and road closures.
Iowa State University	Personnel for carp control/eradication in the Silvies River basin
Non-Federal Investments that are Anticipated Outside the Landscape	
Silvies Ranch	$200,000 per year towards Aquatic Restoration Projects on the Silvies River and matching funds towards State and Private Forestry grants in partnership with Oregon Department of Forestry.
Southworth Ranch	Riparian and terrestrial restoration on the Southworth Ranch in Bear Valley.
Burns Paiute Tribe	$33,000 towards thinning, piling, chipping and controlled burning on their forested ground adjacent to the project. Planting hardwoods, wild roses and currents along tributaries of the Malheur River.
Grant County Soil and Water Conservation District	Title II and Oregon Watershed Enhancement Board (OWEB) funds for riparian and terrestrial restoration projects on private land in Bear Valley.
Harney County Soil and Water Conservation District	Title II and Oregon Watershed Enhancement Board (OWEB) funds for riparian and terrestrial restoration projects on private land in Silvies Valley and other adjacent areas.

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
FY 2011 Funding for Implementation	$2,437,500
FY 2011 Funding for Monitoring	$62,500
1. USFS Appropriated Funds	$1,350,000
2. USFS Permanent & Trust Funds	$15,000
3. Partnership Funds,	$550,000
4. Partnership In-Kind Services Value	$185,000
5. Estimated Forest Product Value	$400,000
6. Other (specify)	$0
FY 2011 Total (total of 1-6 above for matching CFLRP request)	$2,500,000
FY 2011 CFLRP request (must be equal to or less than above total)	$2,500,000
Funding off NFS lands associated with proposal in FY 2011 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2011 Funding Type	Dollars Planned
USDI BLM Funds	$0
USDI (other) Funds	$0
Other Public Funding	$0
Private Funding	$0

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
FY 2012 Funding for Implementation	$2,437,500
FY 2012 Funding for Monitoring	$62,500
1. USFS Appropriated Funds	$1,145,000
2. USFS Permanent & Trust Funds	15,000
3. Partnership Funds	$50,000
4. Partnership In-Kind Services Value	$160,000
5. Estimated Forest Product Value	$1,130,000
6. Other (specify)	$0
FY 2012 Total (total of 1-6 above for matching CFLRP request)	$2,500,000
FY 2012 CFLRP request (must be equal to or less than above total)	$2,500,000
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 2012Funding Type	Dollars Planned
USDI BLM Funds	$0
USDI (other) Funds	$0
Other Public Funding	$0
Private Funding	$0

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2013 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year **2013** Funding Type	Dollars/Value Planned
FY 2013 Funding for Implementation	$2,437,500
FY 2013 Funding for Monitoring	$62,500
1. USFS Appropriated Funds	$1,145,000
2. USFS Permanent & Trust Funds	15,000
3. Partnership Funds	$50,000
4. Partnership In-Kind Services Value	$160,000
5. Estimated Forest Product Value	$1,130,000
6. Other (specify)	$0
FY 2013 Total (total of 1-6 above for matching CFLRP request)	$2,500,000
FY 2013 CFLRP request (must be equal to or less than above total)	$2,500,000
Funding off NFS lands associated with proposal in FY 2013 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2013 Funding Type	Dollars Planned
USDI BLM Funds	$0
USDI (other) Funds	$0
Other Public Funding	$0
Private Funding	$0

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2014 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year **2014** Funding Type	Dollars/Value Planned
FY 2014 Funding for Implementation	$2,437,500
FY 2014 Funding for Monitoring	$62,500
1. USFS Appropriated Funds	$1,145,000
2. USFS Permanent & Trust Funds	15,000
3. Partnership Funds	$50,000
4. Partnership In-Kind Services Value	$160,000
5. Estimated Forest Product Value	$1,130,000
6. Other (specify)	$0
FY 2014 Total (total of 1-6 above for matching CFLRP request)	$2,500,000
FY 2014 CFLRP request (must be equal to or less than above total)	$2,500,000
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 2014Funding Type	Dollars Planned
USDI BLM Funds	$0
USDI (other) Funds	$0
Other Public Funding	$0
Private Funding	$0

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
FY 2015 Funding for Implementation	$2,437,500
FY 2015 Funding for Monitoring	$62,500
1. USFS Appropriated Funds	$1,145,000
2. USFS Permanent & Trust Funds	15,000
3. Partnership Funds	$50,000
4. Partnership In-Kind Services Value	$160,000
5. Estimated Forest Product Value	$1,130,000
6. Other (specify)	$0
FY 2015 Total (total of 1-6 above for matching CFLRP request)	$2,500,000
FY 2015 CFLRP request (must be equal to or less than above total)	$2,500,000
Funding off NFS lands associated with proposal in FY 2015 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2015 Funding Type	Dollars Planned
USDI BLM Funds	$0
USDI (other) Funds	$0
Other Public Funding	$0
Private Funding	$0

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
FY 2016 Funding for Implementation	$2,437,500
FY 2016 Funding for Monitoring	$62,500
1. USFS Appropriated Funds	$1,145,000
2. USFS Permanent & Trust Funds	15,000
3. Partnership Funds	$50,000
4. Partnership In-Kind Services Value	$160,000
5. Estimated Forest Product Value	$1,130,000
6. Other (specify)	$0
FY 2016 Total (total of 1-6 above for matching CFLRP request)	$2,500,000
FY 2016 CFLRP request (must be equal to or less than above total)	$2,500,000
Funding off NFS lands associated with proposal in FY 2016 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2016 Funding Type	Dollars Planned
USDI BLM Funds	$0
USDI (other) Funds	$0
Other Public Funding	$0
Private Funding	$0

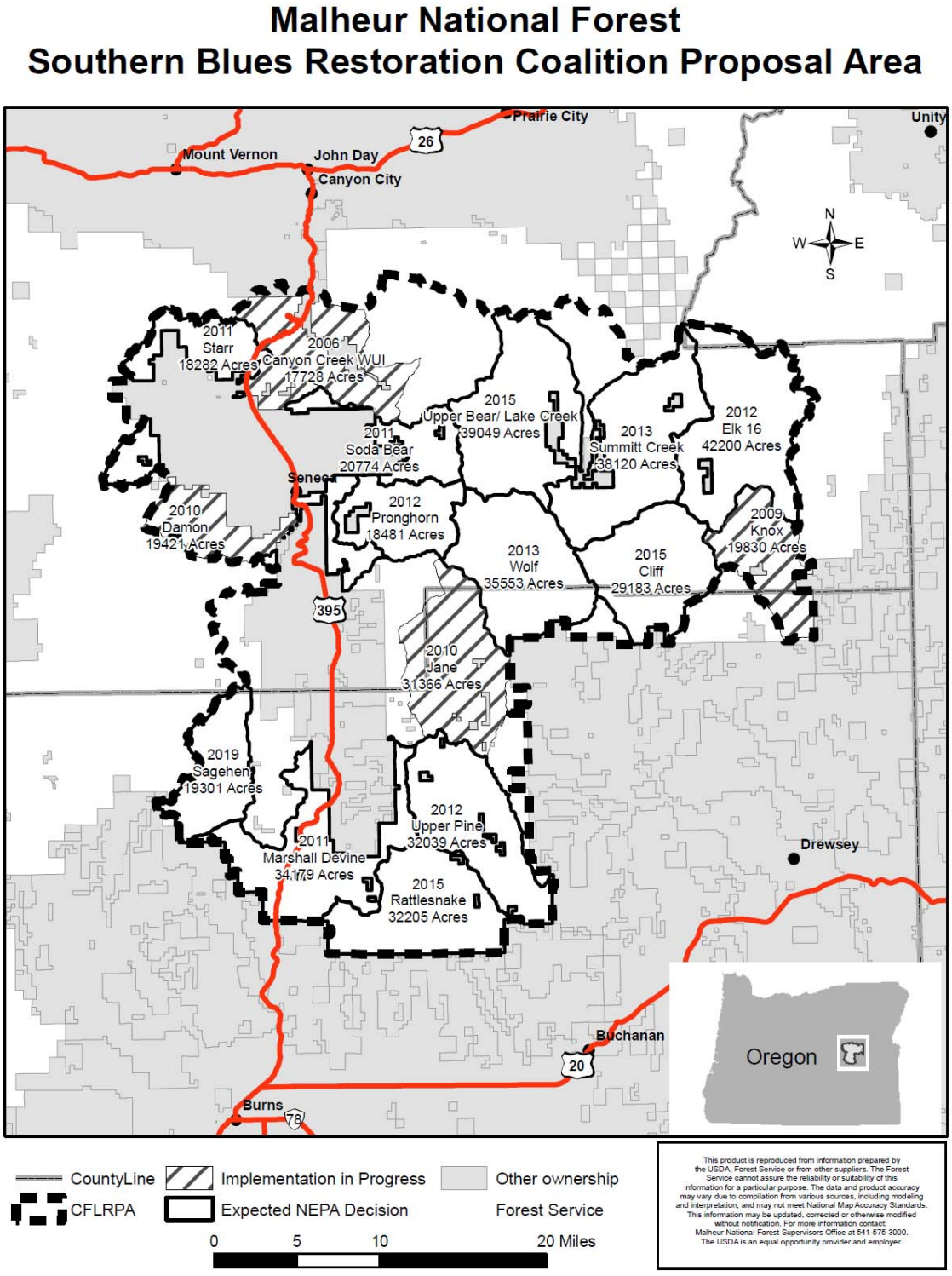
Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2017 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year **2017** Funding Type	Dollars/Value Planned
FY 2017 Funding for Implementation	$2,437,500
FY 2017 Funding for Monitoring	$62,500
1. USFS Appropriated Funds	$1,145,000
2. USFS Permanent & Trust Funds	15,000
3. Partnership Funds	$50,000
4. Partnership In-Kind Services Value	$160,000
5. Estimated Forest Product Value	$1,130,000
6. Other (specify)	$0
FY 2017 Total (total of 1-6 above for matching CFLRP request)	$2,500,000
FY 2017 CFLRP request (must be equal to or less than above total)	$2,500,000
Funding off NFS lands associated with proposal in FY 2017 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2017 Funding Type	Dollars Planned
USDI BLM Funds	$0
USDI (other) Funds	$0
Other Public Funding	$0
Private Funding	$0

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
FY 2018 Funding for Implementation	$2,437,500
FY 2018 Funding for Monitoring	$62,500
1. USFS Appropriated Funds	$1,145,000
2. USFS Permanent & Trust Funds	15,000
3. Partnership Funds	$50,000
4. Partnership In-Kind Services Value	$160,000
5. Estimated Forest Product Value	$1,130,000
6. Other (specify)	$0
FY 2018 Total (total of 1-6 above for matching CFLRP request)	$2,500,000
FY 2018 CFLRP request (must be equal to or less than above total)	$2,500,000
Funding off NFS lands associated with proposal in FY 2018 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2018 Funding Type	Dollars Planned
USDI BLM Funds	$0
USDI (other) Funds	$0
Other Public Funding	$0
Private Funding	$0

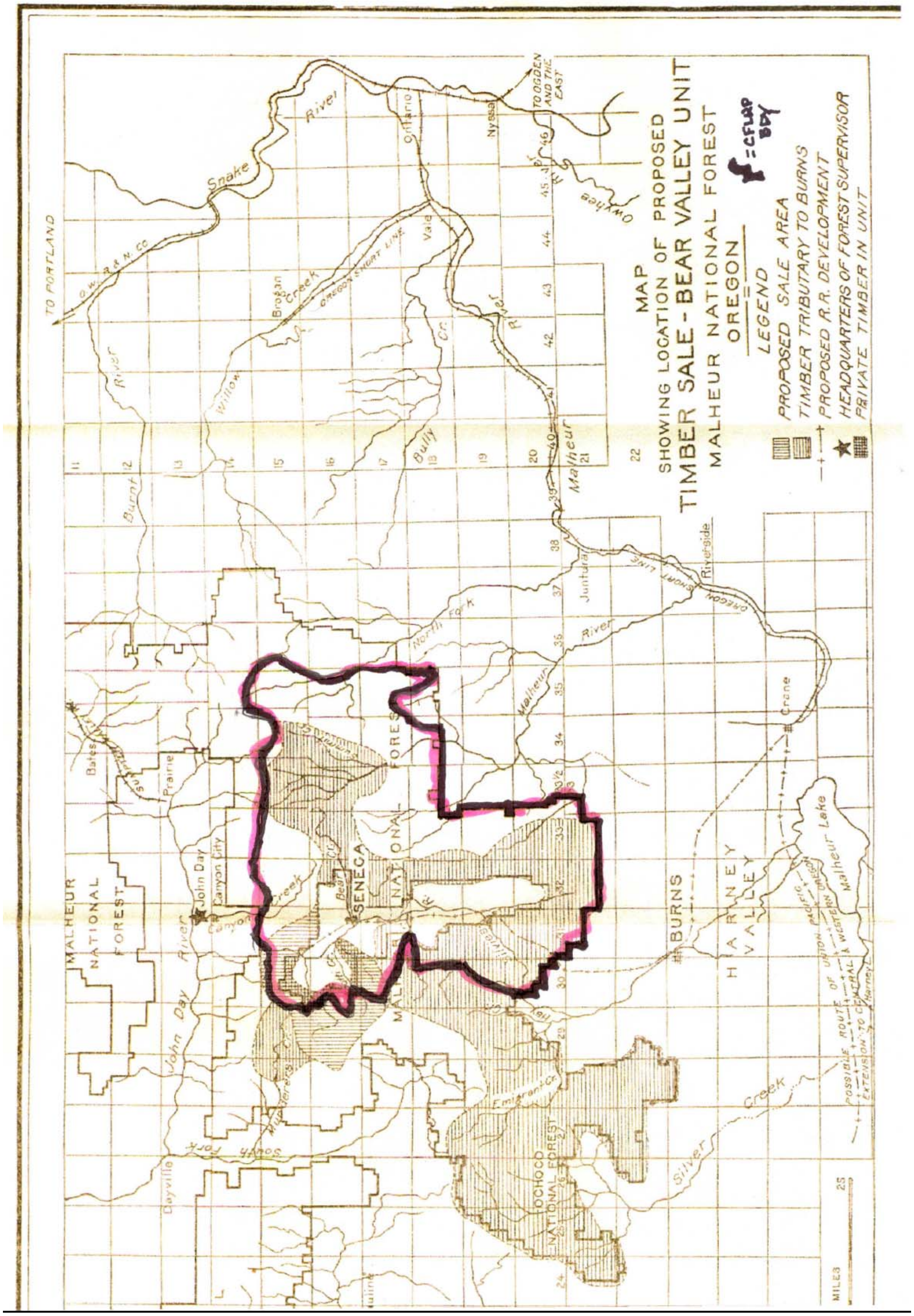
Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2019 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year **2019** Funding Type	Dollars/Value Planned
FY 2019 Funding for Implementation	$2,437,500
FY 2019 Funding for Monitoring	$62,500
1. USFS Appropriated Funds	$1,145,000
2. USFS Permanent & Trust Funds	15,000
3. Partnership Funds	$50,000
4. Partnership In-Kind Services Value	$160,000
5. Estimated Forest Product Value	$1,130,000
6. Other (specify)	$0
FY 2019 Total (total of 1-6 above for matching CFLRP request)	$2,500,000
FY 2019 CFLRP request (must be equal to or less than above total)	$2,500,000
Funding off NFS lands associated with proposal in FY 2019 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2019 Funding Type	Dollars Planned
USDI BLM Funds	$0
USDI (other) Funds	$0
Other Public Funding	$0
Private Funding	$0

XIV. Attachment G: Maps.

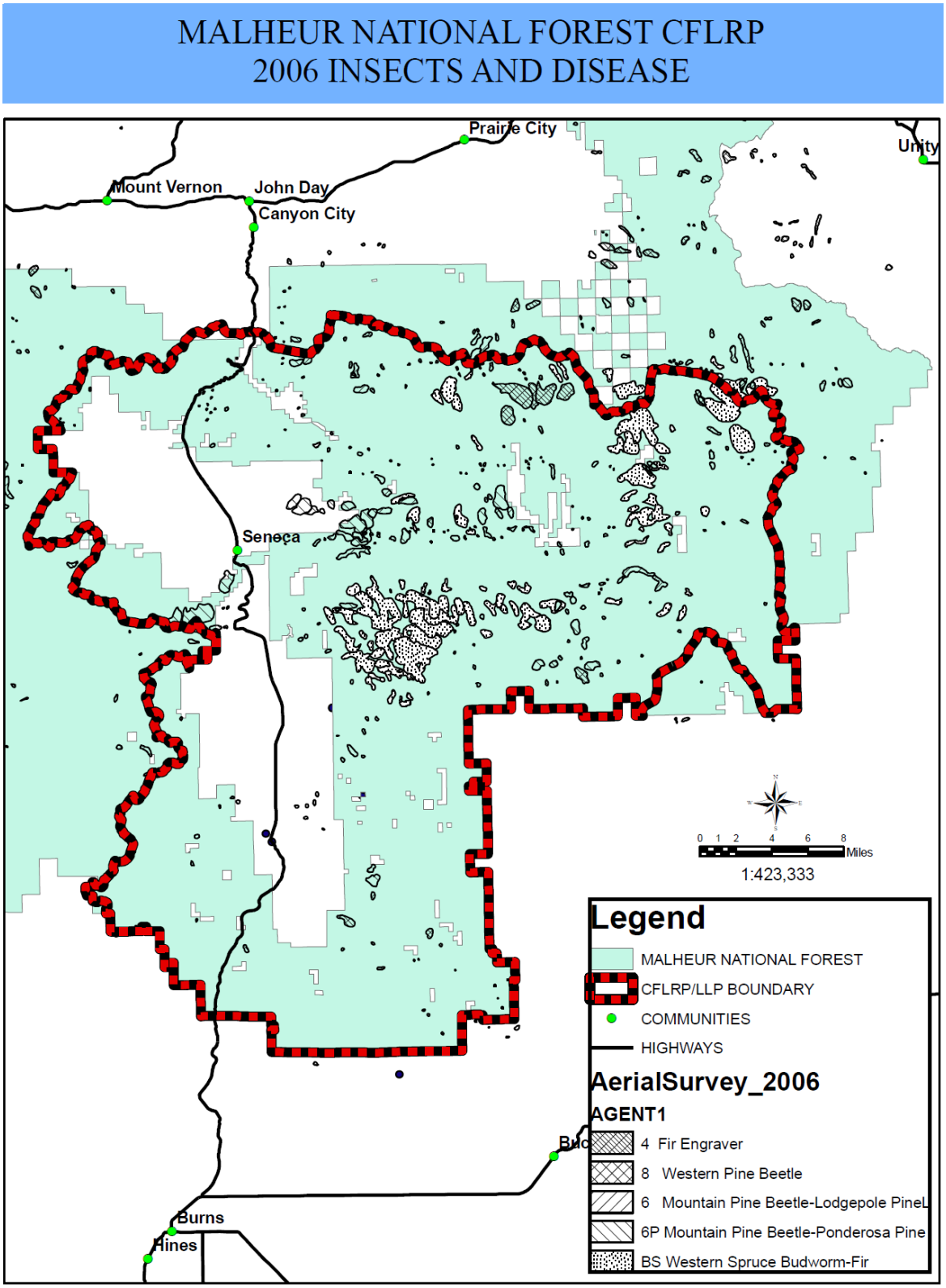
Map 1. Southern Blues Restoration Coalition Proposal Area.



Map 2. Bear Valley Timber Sale.

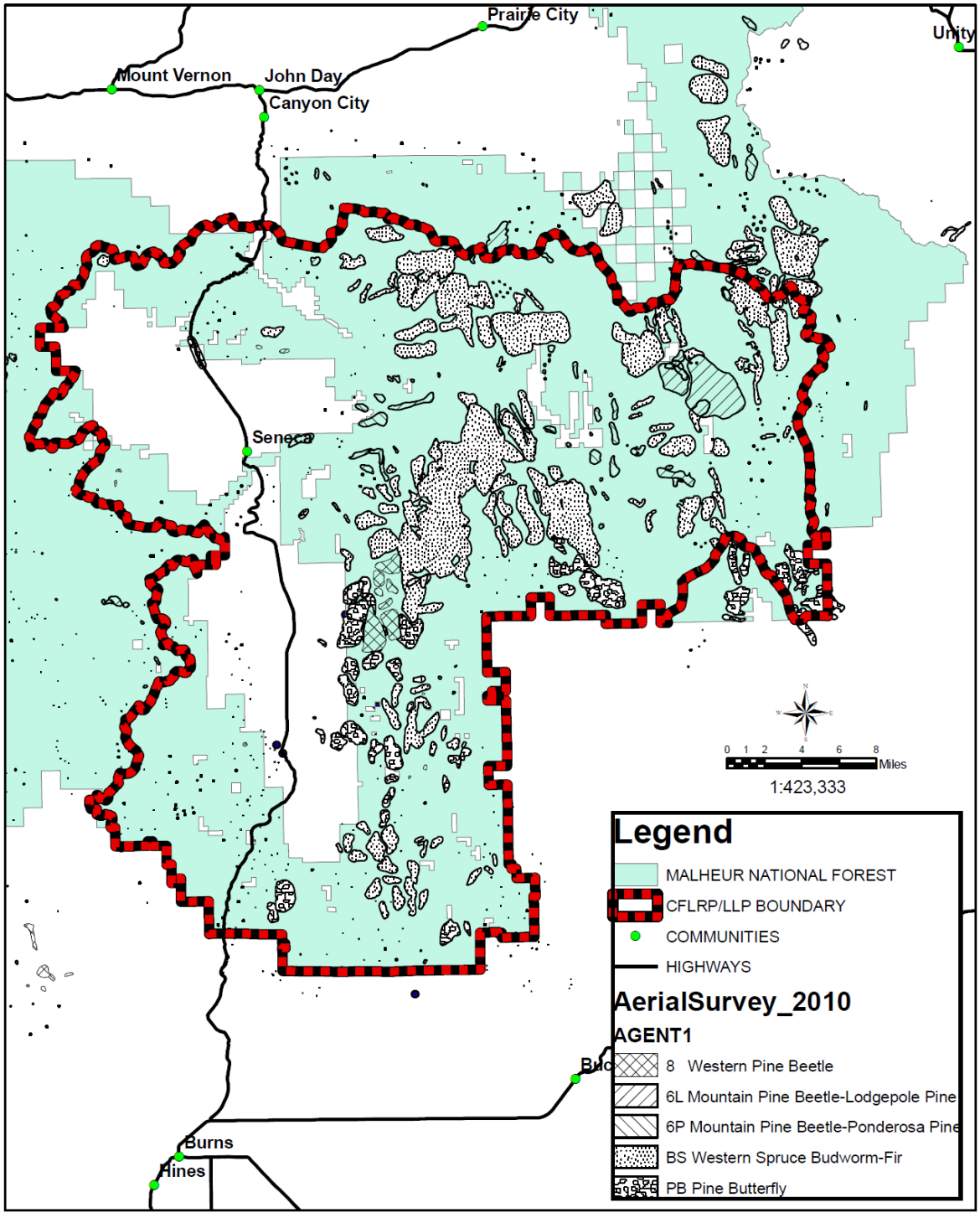

MAP
SHOWING LOCATION OF PROPOSED
TIMBER SALE - BEAR VALLEY UNIT
MALHEUR NATIONAL FOREST
OREGON
LEGEND
PROPOSED SALE AREA
TIMBER TRIBUTARY TO BURNS
PROPOSED R.R. DEVELOPMENT
HEADQUARTERS OF FOREST SUPERVISOR
PRIVATE TIMBER IN UNIT
= CFLRP BDY
TO PORTLAND
TO OGDEN AND THE EAST
MALHEUR NATIONAL FOREST
OCHOCO NATIONAL FOREST
SENECA
BURNS
HARNEY VALLEY
Malheur Lake
John Day
Canyon City
Crane
Riverside
Juntura
Vale
Nyssa
Ontario
Brogan
Dayville
MILES

Map 3. 2006 Insects and Disease.



Map 4. 2010 Insects and Disease.

MALHEUR NATIONAL FOREST CFLRP
2010 INSECTS AND DISEASE



Map 5. The Big Look.

Big Look Analysis with CFLRPA Boundary