

**Collaborative Forest Landscape Restoration Program**

**PROPOSAL**

**Lakeview Federal Stewardship Unit**

**Fremont-Winema National Forests  
Lakeview, Oregon**

**May 13, 2010**

## Lakeview Federal Stewardship Unit CFLR Project Proposal

### 1. PROPOSED TREATMENT

There are 433,087 acres of forested National Forest System lands in the 666,937 acre Lakeview Federal Stewardship Unit (LFSU), and 373,834 of those forested National Forest acres are subject to active vegetative management (i.e. not Wilderness, etc). The LFSU encompasses 174,652 private acres that include two large blocks of forested lands managed by The Collins Companies and many smaller blocks of rangelands and forestlands managed by others (see location map). Many of the major landowners are active participants in the Lakeview Stewardship Group.

This proposal addresses the restoration strategy described in the 2010 revision to the [Long-Range Strategy](#) (Strategy) for the LFSU, developed in collaboration with the Lakeview Stewardship Group (see Section 3). The strategy proposes a wide range of treatments within the LFSU and has been updated to reflect the requirements of the CFLR Program. Proposed activities will be limited to National Forest System lands; however, owners of other large tracts in and adjacent to the LFSU, including the Collins Companies and the BLM, are also pursuing the goals of the strategy. The Forest Service, BLM and others work together when property lines bisect watershed boundaries. This allows the management of larger landscapes in a more holistic manner and helps leverage funding. Smaller private landowners are supplementing their personal funds with funding from the Oregon Watershed Enhancement Board, Oregon Department of Fish and Wildlife and others to resolve issues similar to those addressed in this proposal.

Across the Lakeview Federal Stewardship Unit (LFSU) the goals of the Long-Range Strategy are to:

- Sustain and restore a healthy, diverse and resilient forest ecosystem that can accommodate human and natural disturbances.
- Sustain and restore the land's capacity to absorb, store and distribute quality water.
- Provide opportunities for people to realize their material, spiritual, and recreational values and relationships to the forest.

The desired outcome from the vision statement of the Long-Range Strategy is a sustainable forest ecosystem that, through a new understanding of the interrelationships between the people and the land, will ensure quality of life for present and future generations. Success will be measured in terms of this outcome.

All treatments are designed to protect the soil from excessive disturbance, compaction, erosion, loss of nutrients, and invasive plants. An annual multi-party monitoring program that has been underway since 2002 (see Collaboration section) is tracking the watershed effects of activities and will continue. In addition, the Forest Service continues the monitoring required by National, Regional and Forest policies, including the monitoring requirements described in the Forest Plan. The Pacific Northwest Consortium for Enhanced Fire Science Delivery and Adoption will provide regional researchers and technology transfer experts to improve and better focus the monitoring program. The

Consortium will also assist in incorporating new integrated science, including improving resilience under changing climates, as the strategy evolves over time.

The objectives and typical treatments that promote these goals and reach toward the desired outcome include:

<b>OBJECTIVES</b> <b>From the Long-Range Strategy</b>	<b>TYPICAL TREATMENTS</b> <b>and ACTIVITIES</b>
<ul style="list-style-type: none"> <li>• Restore forest health and conditions that approximate historical species composition and stand ages</li> <li>• Restore stand-maintenance fire regimes</li> </ul>	<ul style="list-style-type: none"> <li>• Commercial thinning down to 7” dbh, removal of small trees for biomass (less than 7” dbh), prescribed fire, mechanical slash treatment – mastication, planting , juniper removal</li> </ul>
<ul style="list-style-type: none"> <li>• Maintain and improve aquatic and riparian habitat for native species by lowering stream temperatures and sediment loads</li> <li>• Eliminate and control spread of noxious weeds</li> <li>• Reduce road density while improving remaining roads to minimize impacts on water quality and flow</li> </ul>	<ul style="list-style-type: none"> <li>• Aspen enhancement; in-stream placement of large wood; culvert removal; headcut treatment; enhancement of movement for aquatic organisms</li> <li>• Road maintenance actions including clearing brush and trees from the travel-way, ditch and culvert cleaning, slough and slide removal, blading and watering</li> <li>• Installation of waterbars, dips, and earthen berms and/or cross ditches, decommissioning, and re-contoured to minimize erosion potential</li> <li>• Road closures</li> </ul>
<ul style="list-style-type: none"> <li>• Improve opportunities to fish, hunt and view nature by maintaining and restoring habitats for focal species</li> <li>• Promote environmentally responsible recreation</li> </ul>	<ul style="list-style-type: none"> <li>• Through forest and riparian treatments described above</li> </ul>
<ul style="list-style-type: none"> <li>• Enhance the local economy and community wellbeing thru innovative contractual mechanisms and technologies focused on linking stewardship activities and community well-being</li> <li>• Pursue compensation of local workers at a state-average family wage or higher to accomplish ecosystem management</li> <li>• Promote a local business environment that can take advantage of the products and services of ecosystem management that produces small diameter and under-utilized species</li> </ul>	<ul style="list-style-type: none"> <li>• Design contracts to promote opportunities for year-round, long-duration, stable employment, and by designing product sales and service contracts to promote participation by local vendors, purchasers and contractors</li> <li>• Innovative use of stewardship authorities provide for retained receipts, goods for services, multi-year contracts, and hub zone contracting</li> <li>• Continued adherence to the 2008 Memorandum of Understanding (noted in Section 3) for a sustainable supply of forest products</li> </ul>
<ul style="list-style-type: none"> <li>• Manage upland vegetation to maintain and restore water and moisture absorption, retention, and release-capacity over time</li> <li>• Improve the biophysical structure of soils</li> </ul>	<ul style="list-style-type: none"> <li>• Implement mountain mahogany enhancement and other vegetative treatments (listed above), while using best management practices for soil conservation</li> </ul>
<ul style="list-style-type: none"> <li>• Protect and maintain areas of cultural significance within the forest</li> </ul>	<ul style="list-style-type: none"> <li>• Through consultation with the Klamath Tribes and others with monitoring and adjustments to activities as needed</li> </ul>

The strategy recognizes that not all of the LFSU is equally in need of restoration. Part of the LFSU is within the Gearhart Mountain Wilderness (7,207 acres in the LFSU) and six roadless areas (63,962 acres in the LFSU). These lands would remain roadless and free of logging activities. The strategy focuses on accelerated thinning and prescribed burning with an emphasis on the relatively dry, low-elevation ponderosa pine and mixed conifer forests that cover nearly half of the LFSU. The objective with these treatments is to change fuel strata, resolve the extreme threat of severe fire over a broad area and promote healthy forest conditions. Treatments are planned, developed and implemented on a watershed basis as displayed on the Landscape Map. Where appropriate, treatment areas will be expanded to incorporate adjacent BLM lands.

Large contiguous portions of the project area are at risk of being impacted by extreme wildfire and are in need of treatment. Treatment priorities are based upon:

- The relationship to private lands and the wildland urban interface ([South-Central Lake County Community Wildfire Protection Plan](#));
- Threatened, endangered and sensitive species' habitat (e.g. bald eagle, red band trout and many others);
- Results of the [Southern Oregon/Northern California Coordinated Resource Offering Protocol \(CROP\) analysis](#) (biomass loading);
- [Values Assessment developed by The Nature Conservancy](#) will be used to further inform this process when that assessment is complete;
- Priority watersheds

Restoration activities in the LFSU began in earnest in 2001. From 2001 through 2009, an average of 2,991 acres of commercial treatments; 3,976 acres of non-commercial fuel reduction; and 5,515 acres of prescribed burning occurred each year (some acres overlap). Through 2005 the acres of commercial treatment primarily consisted of fire salvage treatments. Since then, commercial treatments have focused on green tree thinning.

Watershed Analyses have been completed for Upper Thomas Creek, [Deep Creek](#), [Drews Creek](#), [Chewaucan River](#), and the [Upper Sycan River](#). The following Environmental Assessments and decisions have been completed in recent years: [Burnt-Willow Restoration Project \(2006\)](#), [Jakabe Watershed Restoration \(2006\)](#), [Second Jakabe \(2007\)](#), [Abe Vegetation Management \(2007\)](#), [Launch Integrated Fuels and Vegetation Management \(2008\)](#), [Red Zone Safety Project \(2009\)](#), and [West Drews Vegetation Management \(2009\)](#). Further Environmental Analysis is under way for the [Deuce Fuels Reduction and Vegetation Management Project](#) and the East Drews Projects. NEPA decisions are in place for 2010 and 2011 activities and under development for the years beyond. Implementation is underway for a number of projects that were developed from the [Abe Stewardship](#), [Burnt Willow Stewardship](#), [Launch Stewardship](#), Kava Stewardship, Dent North Stewardship environmental decisions.

Since 2007, a 10-year stewardship contract with The Collins Companies has been used to accomplish these types of projects, the largest use of this authority nationally. This

stewardship contract covers the entire LFSU and has 8 years remaining. There is interest in continuing the use of stewardship authority on future contracts.

The implementation strategy envisions restoration treatments taking place over a twenty-year period to adequately approach the goals across all lands within the LFSU.

Additional funding will allow more rapid progress. The intent of this proposal is to treat all of the lands that need treatments and are available for treatment (e.g. not Wilderness, roadless or other special needs areas) across the LFSU. This area approaches 2/3 of the dry forest types within the landscape as outlined in the 2010 Long-Range Strategy (attached). CFLR funds would make it possible to expedite and increase the amount of acres treated to remove biomass for fuel reduction, apply prescribed fire and implement additional restoration treatments. Without CFLR funds the potential to implement a complete landscape restoration strategy is limited because stewardship receipts are not sufficient to cover the costs of the restoration treatments and other funding sources are limited.

**Comparison of Treatment Actions With and Without CFLR Funds**

<b>Objectives</b>	<b><u>With</u> CFLR Funds (2010-2019)</b>	<b><u>Without</u> CFLR Funds</b>
Reduce the risk of uncharacteristic wildfire and re-establish natural fire regimes	53,773 acres Sawlog Harvest*	53,773 acres
	53,287 acres Biomass Removal for Fuel Reduction*	30,000 acres
	128,899 acres Prescribed Fire*	50,000 acres
Use woody biomass and small-diameter trees	22,251 acres Juniper Thinning (biomass)	11,125 acres
Improve fish and wildlife habitat	1,600 acres Aspen Treatment (biomass)	800 acres
	950 acres Mt. Mahogany Treatment (biomass)	475 acres
	990 acres Old Growth Enhancement (biomass)	495 acres
	802 acres Reforestation	802 acres
	44 Culverts Replaced	20 culverts
	37 miles of Riparian/Stream Improvements	15 miles
Maintain or improve water quality and watershed function	700 acres Meadow Restoration (biomass)	300 acres
	1,400 miles of Road Maintenance	700 miles
	70 miles of Road Re-construction	35 miles
Maintain and Rehabilitate Roads	306 miles of Roads Closed	153 miles
	448 miles of Roads Decommissioned	224 miles
Remediate, control invasive and exotic species	1,300 acres Treated to Control Invasive Plants	653 acres

\*Some treatment acres overlap. The unique acres of forested vegetation treated would be 150,000.

## 2. ECOLOGICAL CONTEXT

The LFSU's eastern boundary includes part of the Warner Mountains, a fault-block mountain range overlooking Nevada's Great Basin Desert. The Unit is bounded by National Forests to the north, south and west and BLM lands to the east. Lying within the rain shadow created by the Cascades, this forest is characterized by drought-tolerant tree species such as juniper and ponderosa pine, with abundant stands of white fir and lodgepole pine at high elevations. About 88% of Forest Service lands within the LFSU are forested. The remainder is composed of sagebrush/steppe ecosystems.

The area receives little precipitation, approximately 15 inches per year, except for the higher mountain locations. Highest monthly precipitation is generally in the winter months in the form of snow; summers are generally quite warm, and winters cold. Even with low precipitation, the LFSU is an important source of water for the agricultural lands and municipalities located in the surrounding, relatively arid valleys. Numerous small lakes, wetlands, springs, stock ponds and reservoirs also occur.

Threatened, endangered and sensitive species found on the LFSU, include bald eagle, Warner sucker, Modoc sucker, redband trout, northwest pond turtle, Oregon spotted frog, Columbia spotted frog, bufflehead, pacific pallid bat, California wolverine, gray flycatcher, blue-leaved penstemon, prostrate buckwheat, green buckwheat and green-tinged paintbrush.

Other major animal species include sage grouse, mule deer, black bear, mountain lion, Rocky mountain elk, and pronghorn antelope. The LFSU includes one of five Oregon initiatives for mule deer habitat improvement and Lake County has been identified as a priority area for sage grouse habitat improvement.

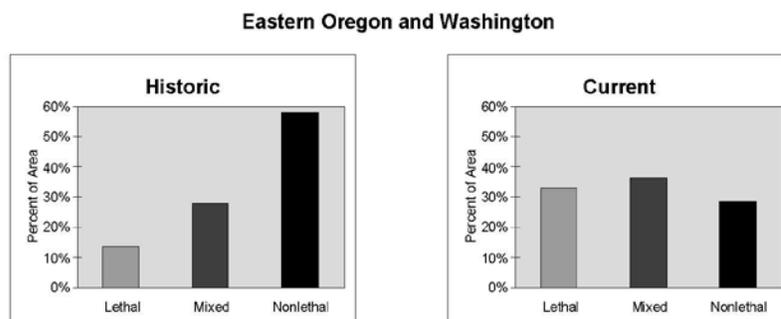
People have markedly changed the landscape with construction of roads and dams, exclusion of fire, and with timber management. These landscape modifications led to the scientific findings of the [Interior Columbia Basin Ecosystem Management Project](#) that this area has low forest integrity and low or moderate aquatic integrity. A 1999 third party review commissioned by Sustainable Northwest and Lake County concluded that past practices had caused: loss of habitat diversity leading toward management-created homogeneity across the landscape, soil compaction, high road densities, loss of mature forest structure, increased density and risk of fire, species conversion from pine-associated to fir-associated types and loss of habitat for threatened and endangered species.

Extensively roaded, dry forests dominate the area. Road construction and grazing activities have changed stream flows, altered riparian vegetation and degraded stream banks. Road densities vary from watershed to watershed, generally in the range of 2.4 to 2.9 miles per square mile. Watershed analyses recommend road mileages in the range of 1 to 2 miles per square mile. The strategy and this proposal aim to approach that level through road decommissioning, rehabilitation, and maintenance.

Juniper trees and invasive plants, like cheatgrass, are spreading rapidly to the detriment of native grasses, aspen groves, meadows and other important habitats.

Forest structure and composition have been substantially altered from historical conditions. Drought, fire suppression, grazing, and intensive logging of large-diameter ponderosa pine all contributed to these changes. Unnaturally dense young forests, several years of drought and an intense pine beetle attack led to thousands of acres of dead lodgepole and ponderosa pine across the landscape in the last few years. This combination of human activity and natural response has led to unhealthy, stressed stands with excessive fuel loads and an extreme risk for severe fire over an exceptionally large area.

These past practices are leading to increasing severity and burned acreages. Lake County Resources Initiative has collected data on the number and acreage of wild fires that burned within and adjacent to the Unit for the period 1980-2005. Notably, in the first decade the fires averaged about 430 acres, but between 1995 and 2005 the average exceeded 6,000 acres. Over the 25-year period, most of the acreage burned in 2002 due to the large Grizzly, Toolbox, and Winter Rim fires. Even omitting the 2002 fires, average acreage in the past decade exceeds 1500 acres, triple the previous decade. Warmer and drier weather patterns due to climate change are making Forest conditions even more susceptible to large-scale wildfire. The following graphics from the [Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin And Portions of the Klamath and Great Basins](#) display these trends at a larger scale, including the LFSU:



Our goal for restored vegetation would more closely match historic conditions, focusing on ponderosa pine, juniper, and shrub-steppe communities. Historically, the ponderosa pine forests were typically open and

park-like, maintained by relatively frequent, low-intensity surface fires at 1 to 25 year intervals. Lodgepole pine forests were maintained by infrequent, intense insect attack followed by high-severity stand-replacing fire. At higher elevations, the mixed conifer and white fir stands saw fire and insect disturbances that varied in frequency and intensity, resulting in a wide range of conditions.

Currently the large contiguous area that has high fuel loads is ready to burn and is well beyond what would be expected under natural conditions. The high fuel loadings and fuel ladders over this large area have resulted from past human management. Therefore, treatments of ponderosa pine stands are needed prior to re-introducing fire to the landscape. Preparation for under burning often involves significant mechanical treatments (e.g. fuel removal) so that the probability of stand replacement fire is reduced.

Reintroducing low-intensity fire will return the ponderosa pine stands to their historic range of variability over time. These treatments should be adapted to the warmer and drier conditions anticipated as a result of climate change.

Similarly, in the lodgepole pine, a stand-replacing fire may cause severe soil damage over a broad area – beyond the extent that would be seen in a stand-replacing fire under natural conditions. Controlling extensive and long-term soil damage may require significant fuel removal.

The Forest has adopted a series of best management practices that constrain operations to limit soil compaction and displacement. In this way, forested lands can be prepared and low intensity fire can be re-introduced without significant adverse watershed effects.

After treatment, conditions similar to those before human intervention are re-established, fire, insects and disease will function in the ecosystem at a moderated level and contribute to sustaining ecosystem functions with less human intervention and much lower cost for continuing ecological restoration treatments.

In recent years, the Forest has been active in controlling grazing, modifying timber management and dealing with invasive species. Several allotment management plans have been completed and an invasive species EIS is being developed ([www.fs.fed.us/r6/frewin/projects/analyses/2007invasives/](http://www.fs.fed.us/r6/frewin/projects/analyses/2007invasives/)) to better refine work in these areas. The forest is aggressive in the treatment of invasive plants and noxious weeds, and works closely with the county and private landowners to control spread. Management activities like logging are closely monitored for compliance with provisions designed to minimize spread of invasive species.

The watershed analyses, noted above, identified a variety of treatments that would improve water quality and watershed function to the benefit of fish, wildlife and threatened and endangered species. Environmental analysis has refined the locations and design of those treatments to best improve the situation for these species. Treatments included in this proposal are in-stream, in riparian areas and in other special habitats such as aspen, mountain mahogany and sage. These treatments will improve water quality, riparian and upland habitats and benefit many species, including threatened and endangered species. The large-scale vegetation treatments will bring insects and disease back to their historic role in the ecosystem. The forest will be better adapted to climate change by significantly reducing drought stress associated with overstocked stands. The reduced potential for large-scale, intense wildfire will also benefit the recreation resource by maintaining visual quality and developed recreation facilities.

### 3. COLLABORATION

Collaborative efforts within the Lakeview Federal Stewardship Unit have been recognized as a national model recognized by The Wilderness Society ([Success Story](#) and [Video](#)), [Sustainable Northwest](#), the [Redlodge Clearinghouse](#), the [High Desert Museum of Bend, Oregon](#), The Forest Service PNW Region (2003 Caring for the Land and Serving People Award) and the U.S. House of Representatives ([Congressional Record, November 1, 2007](#)).

The Lakeview Federal Sustained Yield Unit was created in 1950 pursuant to the Sustained Yield Forest Management Act of 1944. In 1998 the Lakeview Stewardship Group was formed to examine the policies tied to the Unit and generally improve management of the unit. Their leadership and support resulted in the Unit being re-authorized in 2001 as the Lakeview Federal Stewardship Unit (LFSU) with a new restoration-focused [policy statement](#).

Collaborators that make up the Lakeview Stewardship Group (the Group) include The Wilderness Society, The Nature Conservancy, Defenders of Wildlife, Collins Companies, Concerned Friends of the Fremont/Winema, Lake County Chamber of Commerce, Lake County Resources Initiative ([LCRI](#)), Lakeview High School, Oregon Department of Economic & Community Development, Oregon Wild, Sustainable Northwest, local government, community leaders and any others that wish to participate. The Forest Service cooperates with the Group and provides technical assistance.

In 2005, the Group completed a long-range management strategy for the LFSU that was developed with the assistance of the Forest Service and is now being implemented. The Group is nearing completion of the 2010 revision of that Strategy. It is this [2010 Long-Range Strategy for the Lakeview Federal Stewardship Unit](#) that is the basis for this proposal.

The Group:

- in partnership with the University of Washington, explored the feasibility of removing material from overstocked stands for production of electricity
- was instrumental in bringing together partnerships that led to the LFSU being one of five units in the National Forest System evaluated in a [2006 certification study](#).
- identified the need to remove small timber and biomass for forest restoration and the associated need to find a market for these products and:
  - in cooperation with the Forest Service and BLM had Mater Engineering conduct a Coordinated Resource Offering Protocol (CROP) for a biomass plant for electrical generation – a project now being developed by Iberdrola Renewables, the world’s fourth largest electric utility.
  - focused attention on the need for a [small log mill](#) in the area. A \$6.8 million small-log mill was put into operation by The Collins Companies in late 2007 – three national environmental groups were represented at the ribbon cutting.

- fully supported the 2008 signing of a Memorandum of Understanding by the Forest Service, BLM, Oregon Department of Forestry, Collins Companies, Marubeni Sustainable Energy, Lake County, LCRI, Town of Lakeview, and the City of Paisley to provide a framework for restoration that would ensure, to the extent possible, a sustainable flow of biomass materials from Federal lands in the LFSU.
- identified the need for better understanding of ecosystem processes within the LFSU and:
  - brought together expertise and developed a [Long-term Monitoring Program](#) as discussed below.
  - engaged with The Nature Conservancy to make the LFSU a “participating landscape” in [Northwest Fire Learning Network](#) program to implement “a process that accelerates the restoration of landscapes that depend on fire to sustain native plants and animals.”

The Group developed the [Chewaucan Biophysical Monitoring Project](#), which has operated continuously since 2002. The project was designed to answer questions about current conditions and effects of management on the Chewaucan watershed within the LFSU. One of the goals of the monitoring plan was to create a link with local schools, and that was accomplished by recruiting and training, each year, a monitoring field staff composed of high school and college students either currently or previously enrolled in Lake County schools. Hundreds of permanent transects were established in areas identified as characteristic of the Chewaucan sub-watersheds. These baseline transects were designed to be used as controls in future studies and as indicators of change.

In 2006, the [Long-term Monitoring Program](#) expanded into the rest of the LFSU. Emphasis has been placed on matched paired studies, using the initial sites for comparison. Some of the studies performed include: the effects of juniper treatments on soil, water availability, plant communities and erosion; the effects of prescribed burning on soil chemistry, and vegetation response; the impact of conifer removal in aspen stand enhancement; factors affecting mountain pine beetle infestations; the effects of culvert replacements on stream characteristics and fish migration; and a comparison of the recovery of roads decommissioned by sub-soiling, scarification, and blockage. It is expected that this monitoring role will be continued and expanded if this project proposal is accepted.

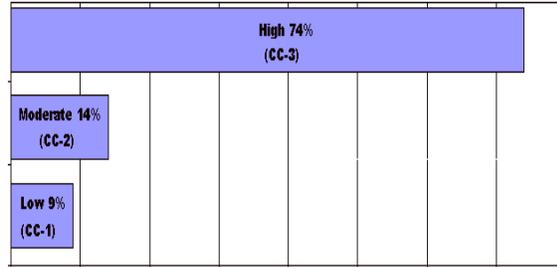
In addition to data being used locally, the monitoring program contributed information – a carbon analysis of prescribed fire treatments – to the West Coast Regional Carbon Sequestration Partnership. That partnership is assessing regional options for reducing CO<sub>2</sub> in the atmosphere.

The Group recognizes that the depressed economy has reduced the value of materials being removed under the 10-year Stewardship Contract and has reduced funding available for non-commercial components of restoration. The Group working on other funding options including the possibility of offsetting some of the costs of LFSU management. The Group is supporting field tests to validate the forest carbon model (developed by the University of Washington and Yale University).

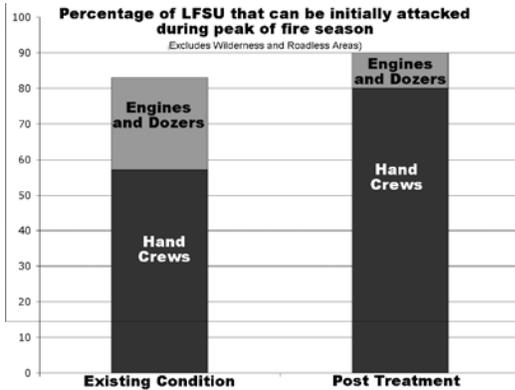
#### 4. WILDFIRE

The LFSU is dominated by high frequency fire regimes, with 86% of the area in FR 1-3. Due to over 100 years of active management and fire suppression, much of the LFSU has higher fuel loadings than historic conditions. The graphic to the right describes the deviations from natural conditions in terms of the Fire Regime Condition Class.

#### Fire Regime Departure Within LFSU



These conditions affect the ability to safely attack wildfire. Under current conditions,



initial attack suppression actions by hand crews on a peak fire season day would be effective on 57% of the LFSU, and engines and dozers could be used to attack another 27%. After restoration, the portion of the landscape that could be initially attacked using hand crews increases from 57% to 80%. Engines and dozers would be used on another 10% of the post treatment landscape. These treatments will create the opportunity to place fire back in its natural ecological role, by creating conditions that support low intensity

fires over most of the fire season.

Treatments in the LFSU are intended to restore fire regimes, especially fire dependent regimes, by treating the entire fuels strata. This will include reduction of surface fuel loadings creating lower flame lengths and reducing rates of spread through the use of prescribed fire raising the canopy base height to reduce crown fire initiation by thinning from below, pruning, and small tree thinning. Finally, thinning from below and multi-story thinning will be used to reduce canopy bulk density and reduce crown fires.

Soil heating affects structure, wetability, clay mineralogy, and microorganisms. Under current conditions the average wildfire would create and sustain temperatures over 500°C. Nitrogen in soils and plants is volatilized above 200°C. Temperatures over 210°C kill bacteria and fungi in the soil. Treatments planned in the unit would, on average, reduce sustained wildfire temperatures to less than 200°C, lowering affects below thresholds for significantly altering soils, fungi, and bacteria.

After the initial treatments the maintenance of the area will be determined on an ecologically appropriate rotation schedule. Field surveys of the units will be conducted and appropriate treatments, using planned ignitions, will be prescribed. Unplanned ignitions will take a role as an ecological process as well. This will create a healthier ecosystem, higher public and firefighter safety, and lower costs.

**Historic Fire Costs:** During the period 1985-2005, approximately 64,000 acres of the LFSU burned in wildfire (source: 2005 Long Range Strategy, LFSU). This is an average of 3215 acres/year over the two decades. Assuming current fire suppression costs of \$1183/ac, annual average costs can be estimated at **\$3.803 million/year**.

**Future strategy:** Approximately 47% (203,500ac) of the LFSU is FR1, a high frequency, low-intensity fire regime typical of mature open pine forests. However, much of this FR1 area supports dense, multi-storied forests vulnerable to uncharacteristic high intensity, stand replacing fire (condition class 3); the current estimate is that about 74% of the LFSU falls in CC3. The restoration strategy focuses on treating the FR1CC3 areas with prescribed fire, usually preceded by mechanical treatments to facilitate the use of fire. Following the restoration of these areas to CC1, wildfires along with management-ignited prescribed fires can be used to maintain these stand conditions, with much less risk of uncharacteristic damage to stands.

The goal of the restoration strategy is to ultimately apply prescribed fire to an average of 12,900 acres of FR1 stands per year within the LFSU, at an average cost of \$25/ac for maintenance burning. To apply fire on every FR1 acre every 15 years, on average 13,500 ac/year would need to be burned, leaving about 670ac/year burned by wildfire.

Management of wildfire in stands of this condition costs much less than stands under current conditions (estimated at \$170/ac compared to suppression costs of \$1183/ac). Not all of the LFSU is FR1; about 36% (156,000 acres) is FR3, characterized by fire return intervals of 35-100 years with mixed severity, and another 4% (17,000 acres) is FR2, with 0-35 year intervals of stand replacing fire. Assuming that current fire management strategies will continue on these acres, about 1155 ac/year can be expected to burn in FR 2 and 3, at a cost of \$1183/acre.

FR1: Future fire suppression costs of \$170/ac and prescribed burning costs of \$25/ac = \$450,000/yr

FR2/3: Future fire suppression costs of \$1183/ac on 1155ac = \$1,370,000/yr

**Total annual average fire costs = \$1.820 million/yr**

**Cost savings: \$1.982 million/year**

From another perspective, an [analysis](#), using the Fremont NF as a study site, was published in the *Journal of Forestry* (January/February, 2006) evaluated a broad range of costs and values associated with fire and fuel management in relation to the LFSU. The study concluded that thinning and fuel treatments as described in this proposal would reduce the risk of severe crown fires and generate a **net** benefit of over \$1,400/acre in high risk forests and \$600/acre in moderate risk forests. This includes a reduction of fire fighting costs ranging from \$231 (moderate risk) to \$481 (high risk) per acre treated. These numbers do not include the value of small logs that are now being sold or the value of biomass that will be sold when the biomass plant in Lakeview is operational.

The Lake County and [South-Central Lake County Community Wildfire Protection Plan](#) Phase 1 and Phase 2 were used in the development of the fuels strategy for the LFSU and adjacent lands.

## 5. UTILIZATION

With the opening of a small log mill in Lakeview, sawlogs down to 7” dbh are being utilized. Implementation of a proposal by Iberdrola Renewables to construct a plant for electrical generation in Lakeview (current estimated investment: \$70 million) would provide greater use of biomass.

The Forest Service has agreed, via the 2008 Memorandum of Understanding (MOU), to make available at least 3,000 acres of biomass-producing treatments on the LFSU each year. Past treatments under the MOU brought biomass to around 300 landings with an average of about 100 tons per landing awaits utilization. The immediate availability of this material improves development feasibility for Iberdrola’s biomass plant. The BLM is currently issuing a new stewardship contract that will allow for multiple task orders to be issued over the next 10 years, making additional biomass available. Implementation of this proposal will accelerate biomass removal and lead to the following supportive treatments on NFS lands (acres partially overlap):

<b>YEAR</b>	<b>BIOMASS REMOVAL ACRES</b>	<b>SAWTIMBER REMOVAL ACRES</b>
2010	5,932	7,583
2011	4,700	4,790
2012	8,630	3,400
2013	9,741	7,000
2014	13,180	5,300
2015	9,430	5,700
2016	10,830	6,700
2017	8,700	6,000
2018	3,430	3,800
2019	2,850	3,500
<b>Total</b>	<b>77,423</b>	<b>53,733</b>

Over the course of ten years, these treatments are expected to produce 123,740 mbf (241,293 ccf) of sawlogs and 465,000 green tons of biomass (6 tons/ac average). Merchantable logs above 7” dbh are now being processed at Collins Companies’ small log mill in Lakeview. Logs in the 5 to 7 inch range, larger cull logs and tops are currently being brought to landings for use as biomass. This is expected to continue under this proposal until the Lakeview biomass plant becomes operational. At that point this material will be sold as biomass and hauled from the landings to the plant.

Due to the lack of competition for biomass materials, those materials are expected to sell at base rates, \$0.25/ccf. This amounts to less than \$35,000 over the ten-year period of this proposal. However, selling the biomass creates a variety of benefits ranging from the reduced cost of pile burning to the value of generated electricity. Sawlog sales will return \$18/ccf in 2010 and an average of around \$28/ccf for the remainder of the ten-year period. This totals to \$6,192,000 over this ten-year proposal. These amounts will be used to help offset the costs of moving the non-commercial materials to landings under

the stewardship contract that resulted in the removals (\$210/ac or \$16,259,000 over 10 years). Approval of this proposal will cover the remainder of these costs and allow completion of the other ecological restoration work outlined elsewhere in this proposal.

If this material were left on the ground after sawlog removal, the cost of underburning to meet the goals for the treatments would be about \$300 per acre, spread over 3 entries, and would be a higher risk operation. Once removed to landings the underburning can be completed in one entry at around \$25 per acre for a savings of \$275 per acre treated. Smoke management issues would also reduce the ability to treat the number of acres proposed. The biomass plant will be equipped with the latest pollution control equipment, allowing the material to be burned there without smoke issues.

The biomass will ultimately be used to produce electricity. This adds considerable value to the raw biomass and contributes to the country's energy independence. Due to biomass fueled power plants qualifying for various state Renewable Power Standards (RPS), the output of a power plant in Lakeview fueled by biomass will earn a premium price. Current information provided by the developer indicates the market price should be around \$90/MWhr, including the renewable attributes. The plant being developed for Lakeview is designed to produce 22 MW and operate 8,100 hours per year (92.5% availability). Thus, this plant should generate about 178,200 MWh/yr of electricity with a wholesale value in the vicinity of \$16 million per year. Biomass from the LFSU combined with biomass from other sources is making this plant possible. The availability of this power is clearly a benefit to the people of the U.S.

The sawlogs will be processed into lumber at the Lakeview sawmill, again adding considerable value to the raw materials. Once converted to boards at the Lakeview sawmill the wholesale value would be nearly \$40 million at current wholesale lumber prices. The availability of this lumber is clearly a benefit to the people of the U.S.

## 6. INVESTMENTS

The Collins Companies invested approximately \$6,700,000 in a small-log sawmill in Lakeview that is now processing logs from private and federal lands down to 7” dbh. Lakeview Co-Generation LLC, a subsidiary of Iberdrola Renewable Resources, is developing a 22MW biomass plant and plans to invest \$70 million in it. The State of Oregon will provide up to a \$10 million tax credit and the Federal government will provide a 30% tax credit if the plant is 5% complete by the end of this year. These two investments create a huge increase in restoration capacity. The following tables, developed by the [Oregon Business Development Department](#), display the job and income impacts associated with the biomass plant and the small log mill.

### Employment:

Impact Type	Direct	Indirect	Induced	Total
Small log mill	65	29	15	110
Biomass Plant	328	59	47	435
<b>Total</b>	<b>393</b>	<b>88</b>	<b>63</b>	<b>545</b>

### Labor Income (Wages):

Impact Type	Direct	Indirect	Induced	Total
Small log mill	\$4,267,046	\$1,598,825	\$388,000	\$6,253,871
Biomass Plant	\$14,234,517	\$2,811,562	\$1,188,328	\$18,234,412
<b>Total</b>	<b>\$18,501,563</b>	<b>\$4,410,387</b>	<b>\$1,576,328</b>	<b>\$24,488,283</b>

Of the 435 jobs associated with the biomass plant, 316 are linked to construction over the next two years, 92 are associated with logging and 27 are associated with plant operations jobs. The non-construction jobs are expected to continue indefinitely. The Forests’ ability to provide materials to these facilities is critical to their development and continued operation. When focusing only on the economic impacts associated with this proposal, the Treatments for Restoration Economics Analysis Tool revealed the following total employment and income effects:

Average Annual Impacts	Employment (Part and Full-time Jobs)	Labor Income (2009 Dollars)
Commercial Forest Products	121.8	\$5,637,920
Other Project Activities	72.6	\$2,965,901
FS Implementation and Monitoring	25.5	\$613,220
<b>Total Project Impacts</b>	<b>219.9</b>	<b>\$9,217,040</b>

Lake County Resources Initiative ([LCRI](#)), a non-profit corporation, provides training opportunities to better equip local contractors to compete for work in the woods. The Forest Service has been setting aside contracts for HUB Zone contractors to encourage local employment. LCRI administers a program (see Collaboration section) that trains and employs local high school and college students to perform a wide range of monitoring activities within the LFSU.

Since 2002, the Fremont-Winema Resource Advisory Committee has allocated \$2,933,795 of Title II funds for restoration projects in the LFSU. These projects address juniper control, small-tree thinning, fuels treatments, noxious weed control, fish passage,

and monitoring. More than \$500,000 has been allocated to third-party monitoring efforts developed by the Lakeview Stewardship Group. Projects underway in 2010 include 774 acres of small-tree thinning and fuels treatments for a total cost of \$200,500 plus \$395,537 for projects that will improve trail conditions, enhance wildlife and fish habitat, restore watershed conditions and treat thousands of acres for noxious weeds. Similar funding is expected in 2011.

The Oregon Watershed Enhancement Board (OWEB) has been focusing restoration funding on private lands within the Goose Lake watershed that are both within the boundaries of the LFSU and hydrologically connected to it. From 2001 through 2009 OWEB provided \$284,161 (plus \$127,941 match) for a variety of restoration projects in the LFSU. Projects for 2010 total \$469,330 (plus \$127,941 match) and include juniper thinning, stream bank stabilization, road enhancements and other restoration. For 2011, the amount jumps to \$1,039,807 (plus \$13,200 match) primarily for the Goose Lake Wetland Enhancement and Riparian Restoration Project.

The Lake County Watershed Council has been working closely with the Forest Service and private landowners to return an important native desert redband trout fishery to the Chewaucan River, with dramatic results. Funding from [Title II](#), OWEB, Oregon Department of Fish and Wildlife (ODF&W), private landowners and Forest Service appropriated funds led to a number of restoration projects since 2002 including the removal of most barriers to the passage of aquatic organisms. Efforts are underway to remove the final barriers on private lands toward the mouth of the river, to return the trout fishery. Additional investments from OWEB, ODF&W and others, for aquatic and upland habitat improvements as well as data collection, will total \$1,068,000 between 2010 and 2012.

The Lake County Weed Management Area expects to provide over \$100,000/year for noxious weed control on public and private lands within and adjacent to the LSU.

Lake County will receive an estimated \$2.5 million in mitigation funds from the [Ruby Pipeline Project](#) (construction to begin this year). This will be spent on habitat and watershed improvement work on public and private lands within and adjacent to the LFSU.

Funding from the National Forest Foundation, ODF&W and others will be used to treat 1,745 acres to improve mule deer habitat. Funding under Oregon's mule deer initiative is estimated at \$30,000 per year. ODF&W expects to provide \$80,000 for sagebrush-juniper treatments in the Warner Mountains (eastern part of the LFSU). NRCS and others are funding sage grouse habitat improvements on nearly 2,000 acres between 2010 and 2012. Lake County Resources Initiative received a National Forest Foundation grant, of \$42,700 to be spent on habitat improvements within the LFSU in 2010 and 2011.

The Forest Service is currently planning 54 projects over the 10-year term of this proposal. Forest Service investment in these projects is estimated at a total of \$40,012,000. Of that, funding obtained from this proposal would contribute \$28,056,300.

## 7. FUNDING ESTIMATE

Funding estimate tables for the 10 years of this proposal are provided below. The tables for FY-2010 and 2011 are reasonably accurate. In the out years, anticipated funding sources are incorporated in the tables, but they are less certain. Overall, the proposal is scaled for practical implementation given the resource and management constraints that apply to this area.

### FY-2010

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in <b>FY 2010</b> to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2010 Funding Type	Dollars/Value Planned
FY 2010 Funding for Implementation	2,476,200
FY 2010 Funding for Monitoring	130,000
1. USFS Appropriated Funds	897,500
2. USFS Permanent & Trust Funds	107,000
3. Partnership Funds	206,200
4. Partnership In-Kind Services Value	240,000
5. Estimated Forest Product Value	522,300
6. Other (specify) RAC Title II, Legacy Roads, Recovery Act	633,200
FY 2010 Total (total of 1-6 above for matching CFLRP request)	2,606,200
FY 2010 CFLRP request (must be equal to or less than above total)	<b>2,606,200</b>
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2010 Funding Type	Dollars Planned
USDI BLM Funds	
USDI (other) Funds	200,000
Other Public Funding	205,750
Private Funding	135,250

**FY-2011**

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in <b>FY 2011</b> to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2011 Funding Type	Dollars/Value Planned
FY 2011 Funding for Implementation	3,243,600
FY 2011 Funding for Monitoring	133,900
1. USFS Appropriated Funds	1,382,100
2. USFS Permanent & Trust Funds	34,700
3. Partnership Funds	340,000
4. Partnership In-Kind Services Value	154,500
5. Estimated Forest Product Value	523,900
6. Other (specify)RAC Title II, Ruby Pipeline Mitigation	942,300
FY 2011 Total (total of 1-6 above for matching CFLRP request)	3,377,500
FY 2011 CFLRP request (must be equal to or less than above total)	<b>3,377,500</b>
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	
USDI (other) Funds	87,000
Other Public Funding	261,100
Private Funding	103,000

**FY-2012**

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in <b>FY 2012</b> to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2012 Funding Type	Dollars/Value Planned
FY 2012 Funding for Implementation	4,890,500
FY 2012 Funding for Monitoring	137,800
1. USFS Appropriated Funds	954,500
2. USFS Permanent & Trust Funds	29,300
3. Partnership Funds	159,000
4. Partnership In-Kind Services Value	212,000
5. Estimated Forest Product Value	435,200
6. Other (specify) RAC Title II, Ruby Pipeline Mitigation, CIP	3,238,300
FY 2012 Total (total of 1-6 above for matching CFLRP request)	5,028,300
FY 2012 CFLRP request (must be equal to or less than above total)	<b>4,000,000</b>
Funding off NFS lands associated with proposal in FY 2012 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2012 Funding Type	Dollars Planned
USDI BLM Funds	
USDI (other) Funds	
Other Public Funding	72,000
Private Funding	212,000

**FY-2013**

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in <b>FY 2013</b> to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2013 Funding Type	Dollars/Value Planned
FY 2013 Funding for Implementation	2,894,800
FY 2013 Funding for Monitoring	141,700
1. USFS Appropriated Funds	1,170,700
2. USFS Permanent & Trust Funds	61,000
3. Partnership Funds	163,500
4. Partnership In-Kind Services Value	218,000
5. Estimated Forest Product Value	676,600
6. Other (specify) Ruby Pipeline Mitigation, CIP	746,700
FY 2013 Total (total of 1-6 above for matching CFLRP request)	3,036,500
FY 2013 CFLRP request (must be equal to or less than above total)	<b>3,036,500</b>
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	
USDI (other) Funds	51,500
Other Public Funding	51,500
Private Funding	218,000

**FY-2014**

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in <b>FY 2014</b> to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2014 Funding Type	Dollars/Value Planned
FY 2014 Funding for Implementation	2,949,700
FY 2014 Funding for Monitoring	146,900
1. USFS Appropriated Funds	1,214,000
2. USFS Permanent & Trust Funds	41,400
3. Partnership Funds	169,500
4. Partnership In-Kind Services Value	226,000
5. Estimated Forest Product Value	739,400
6. Other (specify) Ruby Pipeline Mitigation	706,300
FY 2014 Total (total of 1-6 above for matching CFLRP request)	3,096,600
FY 2014 CFLRP request (must be equal to or less than above total)	<b>3,096,600</b>
Funding off NFS lands associated with proposal in FY 2014 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2014 Funding Type	Dollars Planned
USDI BLM Funds	
USDI (other) Funds	56,500
Other Public Funding	56,500
Private Funding	226,000

**FY-2015**

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in <b>FY 2015</b> to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2015 Funding Type	Dollars/Value Planned
FY 2015 Funding for Implementation	1,869,500
FY 2015 Funding for Monitoring	150,800
1. USFS Appropriated Funds	1,156,500
2. USFS Permanent & Trust Funds	37,800
3. Partnership Funds	174,000
4. Partnership In-Kind Services Value	232,000
5. Estimated Forest Product Value	420,000
6. Other (specify)	0
FY 2015 Total (total of 1-6 above for matching CFLRP request)	2,020,300
FY 2015 CFLRP request (must be equal to or less than above total)	<b>2,020,300</b>
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	
USDI (other) Funds	58,000
Other Public Funding	58,000
Private Funding	232,000

**FY-2016**

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in <b>FY 2016</b> to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2016 Funding Type	Dollars/Value Planned
FY 2016 Funding for Implementation	2,436,900
FY 2016 Funding for Monitoring	154,700
1. USFS Appropriated Funds	1,153,000
2. USFS Permanent & Trust Funds	37,000
3. Partnership Funds	178,500
4. Partnership In-Kind Services Value	238,000
5. Estimated Forest Product Value	925,600
6. Other (specify) CIP	59,500
FY 2016 Total (total of 1-6 above for matching CFLRP request)	2,591,600
FY 2016 CFLRP request (must be equal to or less than above total)	<b>2,591,600</b>
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	
USDI (other) Funds	59,500
Other Public Funding	59,500
Private Funding	238,000

**FY-2017**

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in <b>FY 2017</b> to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2017 Funding Type	Dollars/Value Planned
FY 2017 Funding for Implementation	2,636,100
FY 2017 Funding for Monitoring	159,900
1. USFS Appropriated Funds	1,231,200
2. USFS Permanent & Trust Funds	38,800
3. Partnership Funds	184,500
4. Partnership In-Kind Services Value	246,000
5. Estimated Forest Product Value	1,095,500
6. Other (specify)	0
FY 2017 Total (total of 1-6 above for matching CFLRP request)	2,796,000
FY 2017 CFLRP request (must be equal to or less than above total)	<b>2,796,000</b>
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	
USDI (other) Funds	61,500
Other Public Funding	61,500
Private Funding	246,000

**FY-2018**

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in <b>FY 2018</b> to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2018 Funding Type	Dollars/Value Planned
FY 2018 Funding for Implementation	2,102,300
FY 2018 Funding for Monitoring	165,100
1. USFS Appropriated Funds	1,130,500
2. USFS Permanent & Trust Funds	33,700
3. Partnership Funds	190,500
4. Partnership In-Kind Services Value	254,000
5. Estimated Forest Product Value	620,600
6. Other (specify) Legacy Roads	38,100
FY 2018 Total (total of 1-6 above for matching CFLRP request)	2,267,400
FY 2018 CFLRP request (must be equal to or less than above total)	<b>2,267,400</b>
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	
USDI (other) Funds	63,500
Other Public Funding	63,500
Private Funding	254,000

**FY-2019**

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in <b>FY 2019</b> to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2019 Funding Type	Dollars/Value Planned
FY 2019 Funding for Implementation	2,093,900
FY 2019 Funding for Monitoring	170,300
1. USFS Appropriated Funds	1,196,700
2. USFS Permanent & Trust Funds	48,300
3. Partnership Funds	196,500
4. Partnership In-Kind Services Value	262,000
5. Estimated Forest Product Value	495,200
6. Other (specify) CIP	65,500
FY 2019 Total (total of 1-6 above for matching CFLRP request)	2,264,200
FY 2019 CFLRP request (must be equal to or less than above total)	<b>2,264,200</b>
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	
USDI (other) Funds	65,500
Other Public Funding	65,500
Private Funding	262,000

## 8. FUNDING PLAN

The following table summarizes the ten-year funding associated with this project on an annual basis:

**TEN-YEAR FUNDING PLAN FOR CFLRP MATCH**

<b>FY</b>	<b>Appropriated Funding</b>	<b>Other Funding *</b>	<b>CFLRP Funding</b>	<b>TOTAL</b>
<b>2010</b>	\$1,004,500	\$1,601,700	\$2,606,200	\$5,212,400
<b>2011</b>	\$1,416,800	\$1,960,700	\$3,377,500	\$6,755,000
<b>2012</b>	\$983,800	\$4,044,500	\$4,000,000	\$9,028,300
<b>2013</b>	\$1,231,700	\$1,804,800	\$3,036,500	\$6,073,000
<b>2014</b>	\$1,255,400	\$1,841,200	\$3,096,600	\$6,193,200
<b>2015</b>	\$1,194,300	\$826,000	\$2,020,300	\$4,040,600
<b>2016</b>	\$1,190,000	\$1,401,600	\$2,591,600	\$5,183,200
<b>2017</b>	\$1,270,000	\$1,526,000	\$2,796,000	\$5,592,000
<b>2018</b>	\$1,164,200	\$1,103,200	\$2,267,400	\$4,534,800
<b>2019</b>	\$1,245,000	\$1,019,200	\$2,264,200	\$4,528,400
<b>Total</b>	<b>\$11,955,700</b>	<b>\$17,128,900</b>	<b>\$28,056,300</b>	<b>\$57,140,900</b>

\* Other Funding: Partnerships, product value and other.

The Regional Forester has been using appropriated funds for planning, implementation, and monitoring of ecological restoration treatments on NFS lands in the LFSU since the Long-Range Strategy was initially developed in 2005. The Regional Forester expects to continue funding at levels similar to those summarized above. In addition, the Regional Forester will be providing approximately \$300,000 per year for planning activities in support of these projects.

A ten-year stewardship contract is in place for the LFSU. FY-2010 and FY-2011 CFLRP funds can be immediately obligated to this contract via task orders and work can begin at once.

Multiparty monitoring has been underway in the LFSU since 2002 as described in Section 3, above. All parties are committed to the effort and have obtained needed funding from a variety of sources. It is expected that this monitoring will continue well beyond the next 15 years.

In addition, the 2000 renewal of the Policy for the LFSU, as signed by the Chief of the Forest Service, requires annual monitoring of additional socio-economic indicators including local labor and local contractors used. Purchasers of timber within the LFSU are required to supply this information.

## 9. USDI FUNDING

The BLM actively manages lands adjacent to the Lakeview Stewardship Unit, and while this proposal includes no specific restoration treatments on USDI lands, the activities on BLM ground continue to complement and supplement the work occurring on NF and other lands. The National Forest and BLM staff in the area work together on projects that cross boundaries (e.g., Chewaucan juniper cutting and burning).

There is some USDI funding incorporated in this proposal as partner funding in 2011 and beyond (see Section 10), however, it is U.S. Fish and Wildlife Service funding for restoration activities on National Forest Lands.

## 10. OTHER FUNDING

This proposal covers only actions on National Forest lands. Private landowners are actively involved in land restoration, and several large landowners are active participants in the Lakeview Stewardship Group. Watershed councils, made up of private landowners and land management agencies, have a history of working cooperatively on projects that cross land ownership boundaries; recent restoration work across ownerships includes removal of fish barriers on stream systems and conducting landscape-scale prescribed burn projects.

Several external partners have committed funds and in-kind work for restoration on National Forest, often in concert with work on adjacent private lands. Partnership funding for work on NFS lands is coming from the following sources:

2010	Partner	Contribution
	OWEB-Upper Chewaucan Habitat Enhancement	\$46,500
	Levitt Ranch,USFWS - Cox Flat Survey	\$10,000
	OWEB - Water Users TA Grant/Stream Flow Measurements	\$12,000
	Houret,Mantua - Thomas Creek Work	\$75,000
	OWEB, USFWS, landowners - Crooked Creek Reconnaissance/Survey	\$40,000
	National Forest Foundation	\$22,700
	<b>CASH TOTAL</b>	<b>\$206,200</b>
	Collins Pine (Cooperative Road Agreement) - Road maintenance	\$70,000
	Third-party monitoring	\$100,000
	Bauers Creek Maxwell Ranch	\$70,000
	<b>IN KIND TOTAL</b>	<b>\$240,000</b>

2011	Partner	Contribution
	USFWS - Thomas Creek Tributary Headcut Stabilization	\$6,200
	OWEB-Upper Chewaucan Habitat Enhancement	\$47,800
	Lake County Watershed Council - Dry Valley Restoration	\$91,800
	JWTR,OWEB - Howard Creek Restoration	\$70,600
	ODFW - Mule Deer Initiative	\$30,900
	USFWS, NAWCA, EQUIP - Hay Creek Meadow/West Drows	\$72,100

upland treatment	
National Forest Foundation	\$20,600
<b>CASH TOTAL</b>	<b>340,000</b>
Pacific Northwest Consortium for Science Delivery and Adoption	\$51,500
Third-party monitoring	\$103,000
<b>IN KIND TOTAL</b>	<b>\$154,500</b>

<b>2012</b>	<b>Partner</b>	<b>Contribution</b>
	ODFW - Mule Deer Initiative	\$31,800
	National Forest Foundation	\$21,200
	Expected OWEB & USFWS	\$106,000
	<b>CASH TOTAL</b>	<b>\$159,000</b>
	Pacific Northwest Consortium for Science Delivery and Adoption	\$53,000
	Lake County Weed Management	\$53,000
	Third-party monitoring	\$106,000
	<b>IN KIND TOTAL</b>	<b>\$212,000</b>

Notes:

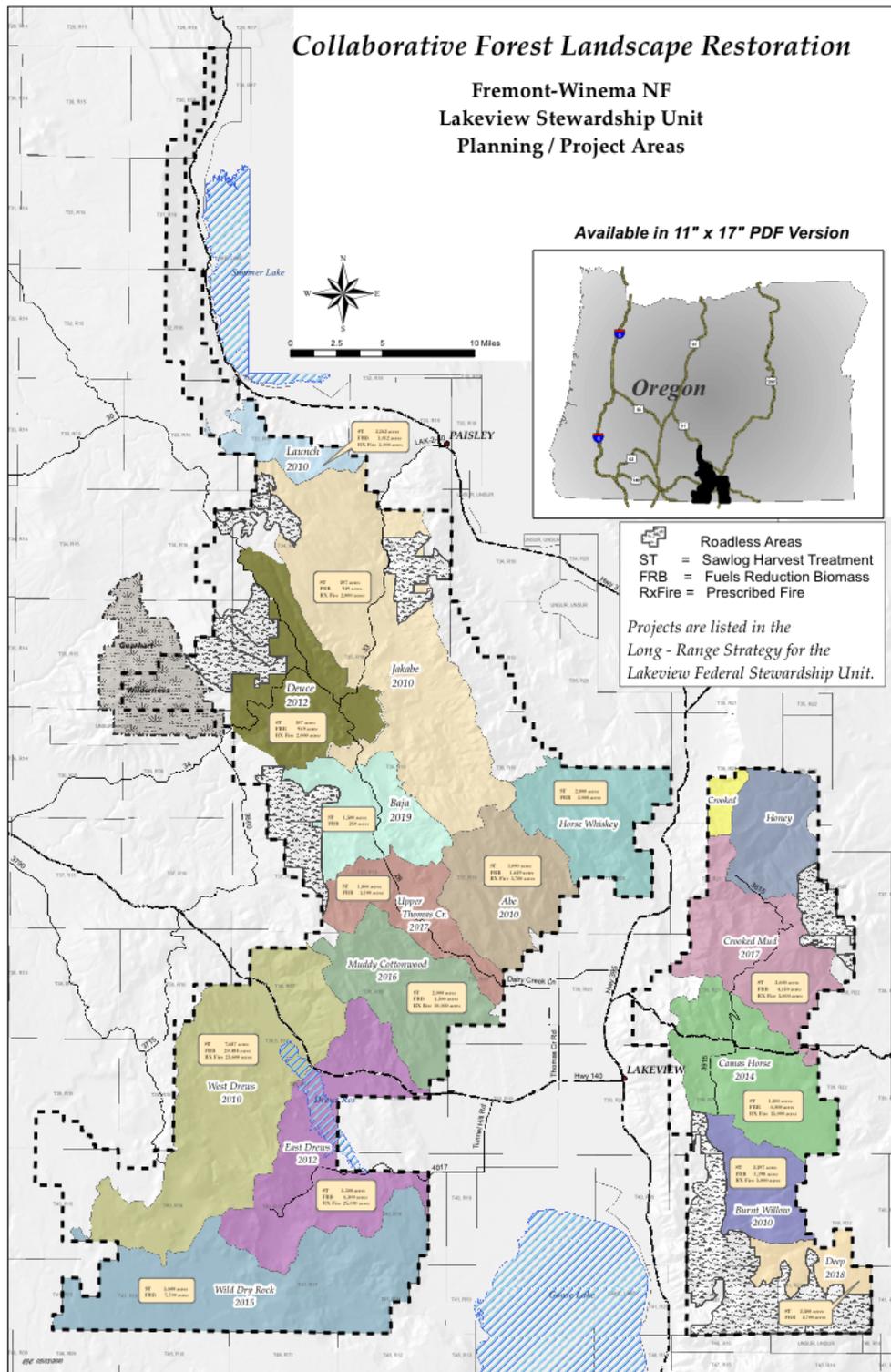
- OWEB = Oregon Watershed Enhancement Board (State)
- JWTR = Jeld-Wen Timber Resources (Private)
- ODFW = Oregon Department of Fish and Wildlife (State)
- USFWS = U.S. Fish and Wildlife Service (Federal)
- NAWCA = North American Wetlands Conservation Act (USFWS program)
- EQUIP = Environmental Quality Incentives Program (USDA-NRCS program)

Beyond 2012, partnerships are estimated to continue with the ongoing programs as listed for 2012. Section 6 describes the past and expected future performance of the partners.

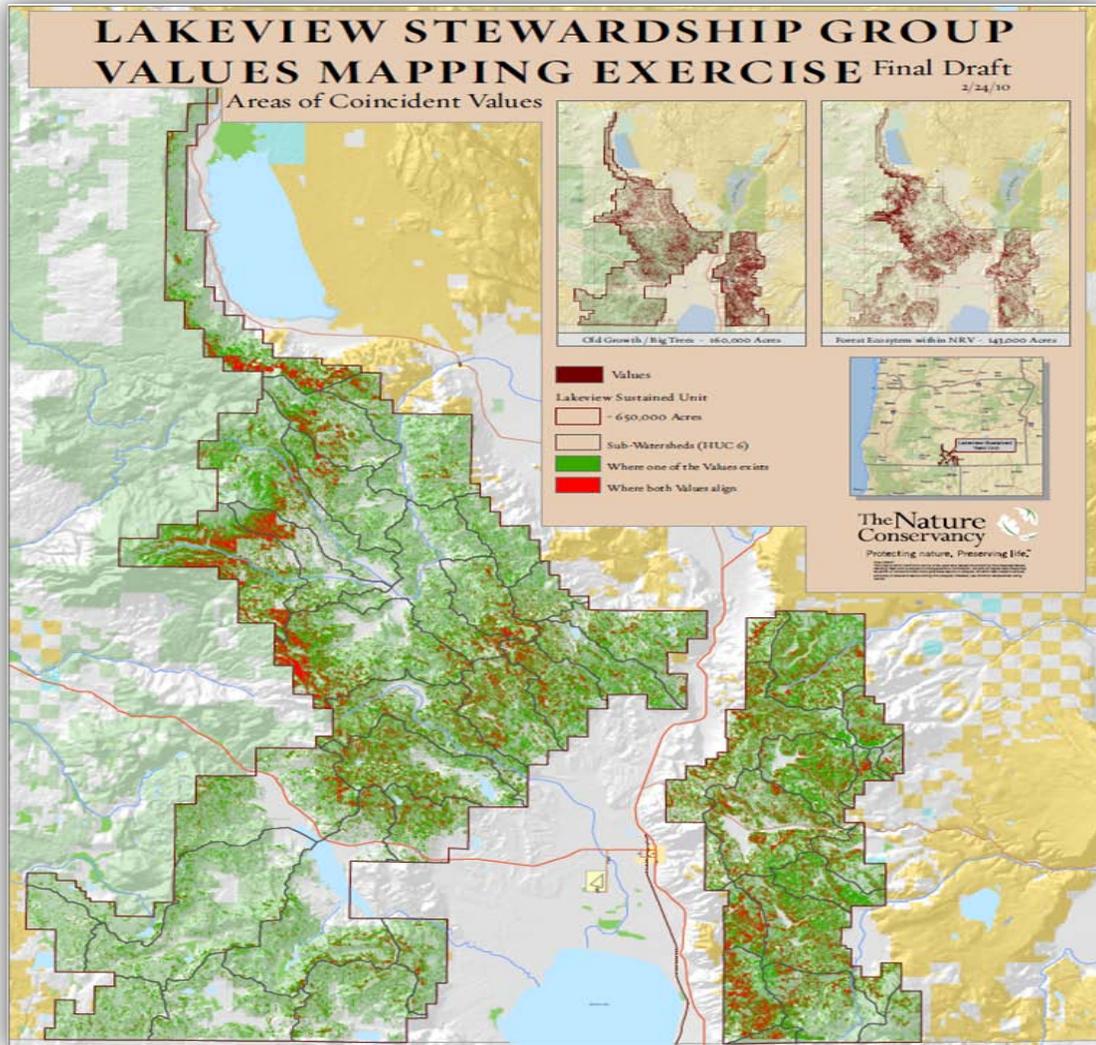
Supporting letters from the following partners are on file:

- The Collins Companies
- Sustainable Northwest
- Oregon Department of Fish and Wildlife
- Lake County Watershed Council





The above landscape map is 11x17 inches at full size. A PDF version (7 MB) may be found at: <http://tinyurl.com/CFLRP-LS>



The Lakeview Stewardship Group chose the values below for the final draft

### **Old Growth / Large Trees**

- Assumes that Trees with Large and X-Large structure are Old Growth.
- Based on new Forest Structure Classification process.
- Classification process – we used the Interagency Mapping Assessment Protocol Classes.

### **Forest Ecosystem within Natural Range of Variability**

- Value assumes that areas identified require treatments to restore Natural Range of Variability within the Forest Ecosystem.
- Based on USFS Regional (Plant Association Guide) and LANDFIRE (Structural and FRCC) data.
- Identifies stands that are in a Frequent Fire Regime that are in the Mid and Late Successional Stage and are also highly Departed based on FRCC.

## **12. LANDSCAPE STRATEGY**

The restoration strategy described in the 2010 revision to the Long Range Strategy for the Lakeview Stewardship Unit is the basis of this proposal. The strategy is based on a common vision and set of goals and objectives developed by the Lakeview Stewardship Group and adopted by the U.S. Forest Service. The strategy provides a framework for ecological restoration of lands within the Unit, which are the focus of this proposal. Projects and their associated activities on National Forest lands are designed to be consistent with the guidelines contained in the long range strategy.

The 2010 Long Range Strategy for the Lakeview Stewardship Unit is available at:  
<http://www.fs.fed.us/r6/frewin/projects/lfsu/>