

Executive Summary: Klamath River Restoration and Community Protection

Dominant forest type(s):	<u>Mixed Conifer, some True Fir</u>
Total acreage of the landscape:	<u>202,000 acres</u>
Total acreage to receive treatment:	<u>115,294 acres</u>
Total number of NEPA ready acres:	<u>97,290 acres</u>
Total number of acres in NEPA process:	<u>19,996 acres</u>

Description of the most significant restoration needs and actions on the landscape: Strategic ecosystem restoration to increase resiliency and adapt to changing climate: Reduce fuels, protect property and water quality for people, restore and protect habitat for ESA listed species such as northern spotted owls and salmon, and control invasive species.

Description of the highest priority desired outcomes of the project at the end of the 10 year period: The acres of high-intensity stand replacing fire will be reduced. Private lands and high priority natural and social resources are protected. Fire suppression, risk to fire fighters, and prescribed fire costs will be reduced. The rate of noxious weed spread will be reduced.

Description of the most significant utilization opportunities linked to this project: Both sawlog and biomass products will support local industry infrastructure, and retain and create jobs that will allow future vegetation management projects to proceed.

Name of the National Forest, collaborative groups, and other major partner categories involved in project development: Project development occurred through NEPA and the Healthy Forest Restoration Act involving the Klamath NF, Fire Safe and Watershed Councils from the Salmon River, Happy Camp, and Mid-Klamath River area, Siskiyou County, and the Karuk Tribe. Fire Safe Councils have been the most consistently engaged collaborators to date.

Describe the community benefit including number and types of jobs created. This project will provide 158 jobs. It will create a safer condition to live and work. It will contribute to the restoration of Klamath Basin fisheries for ecological, social, tribal, and economic benefits.

Total dollar amount requested in FY11:	\$ 1,900,000
Total dollar amount requested for life of project:	\$ 16,800,000
Total dollar amount provided as Forest Service match in FY11:	\$ 3,923,000
Total dollar amount provided as Forest Service match for life of project:	\$ 21,400,000
Total dollar amount provided in Partnership Match in FY11	\$ 80,000
Total dollar amount provided in Partnership Match for life of project	\$ 498,500
Total in-kind amount provided in Partnership Match in FY11	\$ 60,000
Total in-kind amount provided in Partnership Match for life of project	\$ 600,000
Time frame for the project (from start to finish):	10 years

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Ecological, Social and Economic Context:

The **Klamath River Restoration and Community Protection** CFLRP Proposal (the Klamath Proposal) is located in the Klamath River Basin. When you think of ongoing fire, fish, and risk issues, you will most likely think of the Klamath River Basin. The Klamath Proposal is the implementation of a suite of projects strategically placed to restore the Klamath River ecosystem and reflects the tip of the iceberg of tremendous scientific study, planning, and collaborative efforts.

The Klamath River communities of Happy Camp, Seiad Valley, Hamburg, and Cecilville lie at the heart of the Klamath Physiographic Province which is recognized as a globally significant bioregion. This region supports a large number of endemic, rare, and sensitive flora and fauna, has the largest strongholds of low elevation temperate forest in the nation, as well a high concentration of wild and scenic rivers. The high biological diversity is due to the complex arrangements of rock and soil types, the large east-west precipitation and temperature gradients, the numerous diverse microclimates created by steep mountainous topography and deep inner gorges, a network of large rivers; and the uncommon east-west orientation of key mountain ranges that provide for terrestrial biological connectivity between coastal and inland mountain ranges. The Klamath Basin is best known for its legendary salmon and steelhead runs. Over 60 salmon streams flow into the mainstem Klamath River, providing the rearing and migration corridor for all salmon and steelhead from tributaries such as Grider, Clear, and Indian Creeks, Shasta, Scott, and Salmon Rivers as the fish travel to and from the ocean. The main river segments of the Salmon River and Klamath River are designated elements of the National and Wildlife Scenic River system, and the mainstem of the Klamath River is a designated Wild and Scenic River containing “Outstandingly Remarkable” anadromous fish values. The proposal area includes “Key Watersheds” that serve as refuge areas to anchor at-risk salmon and steelhead populations. Three large blocks of land given “Late Successional Reserve” (LSR) status and managed for the benefit of species such as the Northern Spotted Owl and Pacific Fisher are high priority treatment areas in the Klamath Proposal. Actions in LSRs protect old growth forests.

Wildfire is the most widespread and dynamic disturbance affecting the Klamath Proposal area. Climate, vegetation and topography are key drivers of the fire regime in the watershed and most fires are ignited naturally by widespread lightning events. Over a century ago, the fire regime was characterized by frequent fires of low- to-mixed severity. Reference conditions based on fire return intervals for the Klamath Proposal area indicate that most it is moderately to severely departed from historic vegetation conditions. These conditions have developed during 100 years of relatively warm climate and effective fire suppression. Forest vegetation has changed from a heterogeneous pattern to a more homogeneous pattern of small openings within dense forest. The forests now have a higher percentage of closed canopy conifer stands, conifer encroachment in meadows and hardwoods stands, and so the fuel hazard is higher than desired. The increase in vegetation density has led to insect and disease attacks in the area and created stands less resilient to drought, warming climate, and intense wildfires.

Fire-return intervals are short (eight to fifteen years) at the lower elevations where most of the communities are established, such as along the Klamath River and Salmon Rivers. Property and community infrastructure are directly affected by wildfires that occur in the mid and upper zones. Fires move quickly through the landscape, sometimes spreading miles in a single day. The Klamath has a recent history of large expensive and destructive fires that have had a negative effect on forests and water resources and put people's property at risk. The Klamath NF as a whole was identified nationally as one of the Forest where fire suppression costs have been excessive, ranging from 15.7 to 74.1 million dollars from 2006 through 2009. Suppression costs for our large fires often run \$1,000,000 per day and with suppression needs lasting for months.

In the mid and upper elevation ecological zones, Wilderness, Riparian Reserves (including unstable lands), and LSRs are the primary land allocations. Research by Taylor and Skinner (Alan H. Taylor and Carl N. Skinner 1998: Fire history and landscape dynamics in a late successional reserve, Klamath Mountains, California, USA. *Forest Ecology and Management* 111: 285-301) concluded that "patterns of past fire severity, inferred from age-classes, indicate that upper slopes, ridge tops, and south- and west-facing slopes experienced more severe fires between 1850 and 1950 than lower slopes or east- and north-facing slopes. Implications are that lower slopes and north and east aspects are more likely than other topographic positions to sustain or promote long-term, closed canopy late-successional conditions. Prescribed fire will likely be an integral component of management plans that successfully maintain natural processes and structures in late-successional reserves in the Klamath Mountains." To identify, protect and improve sustainable habitat for threatened, endangered, and sensitive species of fish and wildlife, projects in the proposal area will continue to use the results of monitoring of Forest Plan implementation, past research, and current ongoing research to understand the effects of ecological disturbance events such as wildfire, and tailor projects to reduce unintended negative effects.

Resource management in the greater Klamath Basin has been contentious for decades. Much of the controversy has been focused on water needs for agriculture versus water needs to sustain and restore the Klamath's world-renowned salmon and steelhead runs. Other issues have revolved around the economic stability of the region. Extensive negotiations between diverse stakeholders throughout the Klamath Basin have led to a compromise and holistic plan for water use and restoration through two linked agreements completed in 2010: the Klamath Basin Restoration Agreement and the Klamath Hydroelectric Settlement Agreement. In the mid-Klamath Sub-basin, a diverse array of stakeholders has formed the Mid Klamath Restoration Partnership (the Partnership) and is completing a restoration implementation plan to address limiting factors to salmon and steelhead recovery on public and private lands. Information from the restoration plan developed to meet TMDL requirements will be incorporated into that plan. The Klamath NF staff often joins efforts with the Salmon River Restoration Council for the benefit of people, water, and fish in the Salmon River Sub-basin. Other partnerships formed through the completion of several Community Wildfire Protection Plans, the Salmon River Sub-basin Restoration Strategy, the 1997 Klamath Basin Assessment, and the 1991 Long Range Plan developed and updated through the 1986 Klamath Act. Interdisciplinary data on existing and desired conditions and opportunities for restoration are compiled in Watershed Analyses, the Forest-Wide Late Successional Reserve Assessment, Community Wildlife Protection Plans and

Strategies for Salmon River and Happy Camp and the 2010 Klamath Fire Management Plan that covers the Klamath Proposal Area. As a result of these many efforts and agreements, there is an unprecedented level of coordination between stakeholders such as private land owners, community groups, the county, state, federal and tribal representatives to restore and protect key values in the Klamath River Basin.

Historically and currently, most residences and communities in the Klamath Proposal area are located along the river corridor with Happy Camp and Seiad Valley being the largest communities along a 100 mile stretch of the Klamath River, The towns of Cecilville, Sawyers Bar, Forks of Salmon, and Black Bear Ranch are home to people along in Salmon River watershed. Many of the Klamath Proposal actions occur within the ancestral territory of the federally recognized Karuk Tribe. Many Karuk people still live in the river communities and comprise a relatively high proportion of the population.

In the late 1800s and throughout most of the 1900s, there were sustained periods of mining and logging, however, these industries have been on a steep decline since the early 1990s. Consequently, the river communities are struggling to maintain infrastructure to implement needed restoration activities. The poverty rate in Siskiyou County is well above the state and national averages and is much higher in all mid-Klamath River communities. For instance, in 2009 the poverty rate in the largest river community, Happy Camp, was 23.7% with an average estimated per-capita income of \$17, 106 and median family income of \$26,769. The unemployment rate in Siskiyou County is about 17%.

The WUI areas along the Klamath River coincide with the Klamath River watershed; the actions result in several important social and recreation benefits. For example, Klamath River Community scenery will be restored and enhanced, supporting local quality of life, recreation, and tourism. This benefits scenic quality within the Klamath Wild and Scenic River, the "State of Jefferson," and "Bigfoot" National Forest Scenic Byway watersheds. Projects designed to meet the Forest Visual Quality Objectives minimize disturbance to these valued scenic areas. The forest health and fuels reduction activities improve scenic attractiveness by enhancing vegetation diversity and density, retaining large trees, restoring native scenic character, and reducing the likelihood of severe wildfire effects to those characteristics. To meet desired conditions for riparian health, recreational and scenic values, noxious weed removal along the river's shores and beaches has been identified. The Salmon and Klamath Rivers contain two distinct recreation settings identified in the Klamath NF's Recreation Facility Analysis. The "River Country" setting offers sightseeing, kayaking, family rafting, camping and fishing within its rugged, remote river canyons and the "Wilderness/Backcountry" provides uncrowded backpacking and equestrian in rugged forest landscapes. The Pacific Crest Trail crosses through the center of the proposal area offering panoramic vistas of these magnificent forest ecosystems.

The Klamath Proposal will improve local socio-economic conditions in the short- and long-term by: increasing employment opportunities in restoration work; increasing economic activity in businesses that directly or indirectly support restoration work; protecting silvicultural investments and long-term timber production capability through thinning and/or prescribed burning of over-dense fire-suppressed stands; utilization of restoration by-products such as saw-timber, biomass, and firewood; protecting and restoring culturally important plants species and

plant communities; and by protecting the biological diversity and aesthetic values of the landscape upon which the tourism and recreation industries depend. A socio-economic monitoring report of forest dependent communities within the Klamath NF boundaries (http://www.fs.fed.us/pnw/pubs/pnw_gtr764.pdf) and a 20-year trend review of federal timber harvest and socio-economic trends in Siskiyou County illustrate the direct relationship of Forest use or non-use to the well-being of local human communities (<http://users.sisqtel.net/armstrng/regulatory%20impacts.htm>).

Summary of Landscape Strategy:

This Klamath proposal reflects our commitment and ability to integrate the science and direction of three progressive landscape platforms: The **Cohesive Strategy** of the National Fire Plan, the **Northwest Forest Plan**, and the **Klamath Basin Restoration Agreement**. These platforms were created through collaboration and demand continued collaboration between federal agencies and the local, community, state, and tribal stakeholders. The specific projects identified in the Klamath Proposal reflect the needs brought forward from the largest-scale assessments as refined by the mid-scale assessments (Watershed Analyses and the Forestwide LSR Assessment) and solidified through the most focused efforts (Community Wildfire Protection Plans). The actions in Attachment A reflect the collaboration, often under the formal structure of the Healthy Forest Restoration Act. Attachment C describes the members that we collaborated with to define and refine our actions as well as to concentrate the actions in a way that maximizes effectiveness. See documents at: “Special Interests” at <http://www.co.siskiyou.ca.us/>

The Klamath NF staff, Watershed Councils, and Fire Safe Councils did risk-and-value assessments, evaluating locations of high-risk fuels and watershed conditions overlapped with private lands, social values (such as bear grass, acorns, tribal sites, scenic, and recreation values), fisheries values, and critical wildlife habitat values. Our strategy is to place the location of the treatments **where** there is the most benefit for the greatest number of high-value ecological and human resources. We designed actions so the same methods used to reduce fuels for community protection also restores forest stand health, resiliency to high intensity wildfire, and vegetative diversity which also protects silvicultural investments, protects tribal, scenic and recreation values, and offers long term employment stability and sustainability. The high priority actions for watershed restoration were chosen for this proposal where they overlapped with other forest restoration and community protection needs. The Klamath Proposal also used information from the Klamath NF Recreation Facility Analysis Work Plan describes the recreation setting themes for the Proposal area as “River Country” and “Wilderness/Backcountry,” and assigns target uses, activities, and experiences to meet public expectations.

The landscape strategy addresses the facts that a mosaic of vegetation conditions is needed throughout an area to mimic natural conditions and supply clean cold water that is part of a healthy, resilient ecosystem. For some projects, the WUI and Fire Safe Councils’ data were the primary drivers to highlight protection of private lands and infrastructure and general forest values (Two-Bit, Crawford, Happy Camp Fire Protection Phase 2, Caribou, underburning, noxious weed treatments). For other projects (Thom-Seider, Eddy Gulch, Johnny O’Neil and the

Taylor Creek, Petersburg Pine, Clear Creek and Upper South Fork Roads) data from the Forestwide Late Successional Reserve Assessment, the Elk Strategy, and Watershed Analyses were added to the WUI and Fire Safe Council data to highlight areas where we could protect water quality to benefit salmon and municipal water supplies, Critical Habitat for the ESA-listed Northern Spotted Owl, and winter habitat for elk.

Proposed Treatment

The Klamath Proposal actions will implement the following treatments, as developed from the Landscape Strategy information, and as shown in Attachment G:

<p style="text-align: center;">Treatments occur in these Projects NEPA is completed for all actions except as designated by (*, Decision Date). Also see Attachment A for additional project information.</p>	
Taylor Fuel Small Fuels Treatments	Ben-Horse Cultural Underburn
Long Gibson Underburn	Crawford Vegetation Management (*, 2012)
Upper South Fork Underburn	Happy Camp Fire Protection (HCFP) 03
Dog Paw Plantation Thin	HCFP Commercial Thin Phase Two
Eddy LSR Fuels Reduction/Habitat Protection	HCFP Roadside Understory Fuels Reduction
Blind Horse Reforestation	HCFP Underburn
Petersburg Pines Fuels Reduction (*, 2012)	HCFP Understory Fuels Reduction
Caribou Reforestation	HC Precommercial Thinning/Release and Handpiling 2006
Caribou Site Prep and Reforestation	Road Sediment Reduction - Salmon River
Meadow Restoration	Road Sediment Reduction - Happy Camp
Larry Creek Underburn	Thom-Seider Vegetation Management and LSR Protection
Oak Flat Vegetation Management	Johnny O'Neil LSR Habitat Protection (*, 2012)
Two Bit Vegetation Management (*, 2012)	Noxious Weed Treatment

- **Thinning:** Approximately 16,979 acres of overly dense stands would be thinned to to reduce overall fire hazard in the WUI, protect and restore fire-suppressed natural stands, to protect and re-vitalize overgrown plantations, to increase vegetative diversity, to improve and protect wildlife habitat, and to restore riparian areas.
- **Prescribed Burning:** Prescribed burning is planned for over 64,457 acres of forested ground to reduce fire hazard on a landscape scale, protect silvicultural investments, and to re-introduce fire into the landscape for ecological diversity.
- **Fuel Break Construction and Mechanical Fuel Reduction Adjacent to Private Property:** Approximately 19,359 acres of over-dense fire-suppressed forest adjacent to

private property will be thinned to create shaded fuel breaks up to 500 wide. This fuel reduction will be understory tree thinning and brush removal primarily using hand crews with chainsaws, although some ground is suitable for masticators.

- **Egress/Ingress: Mechanical Fuel Reduction Adjacent to Strategic and Emergency Access Roads:** Approximately 7,684 acres of over-dense fire-suppressed forest adjacent to strategic and emergency access roads will be thinned to create shaded fuel breaks up to 250 feet wide on each side of the roads.
- **Reforestation:** 508 acres of reforestation.
- **Meadow Restoration:** A total of approximately 110 acres of meadow will be restored in 14 meadows where conifers have encroached on the meadow due to fire suppression.
- **Road Stormproofing, Decommissioning, and Maintenance:** Approximately 54 miles of road will be stormproofed and 53 miles of road will be decommissioned in watersheds that are high-priority for at-risk salmon and steelhead. Road Maintenance will be focused on 65 miles of road for safer travel.
- **Noxious Weed Control:** Approximately 1,560 acres of noxious weeds will be treated.

The Klamath Proposal used an “all lands” approach in that all landownership types were considered in developing this landscape strategy. Most non-National Forest land in the Klamath Proposal area is included in the treatment area, and the strategy was developed collaboratively by local Watershed and Fire Safe Councils, private landowners, and the Forest Service. The Klamath Proposal has a combined landscape footprint area of 202,000 acres of which approximately 92% is forested National Forest System lands; 6% is privately-owned small forested land parcels, small ranches, residences; and 2% is State, County, and local government.

The dominant pattern of land ownership in the Klamath Proposal area is that forested National Forest comprises the upslope areas and nearly all of the privately owned land occurs within narrow bands adjacent to the Klamath and Salmon Rivers where there is flat or gently- sloping land that merge abruptly with the steep forested terrain. Most of that privately owned land is within a half-mile of the Klamath and Salmon Rivers and surrounded by forested national forest lands that extend up to the ridgelines. Small pockets of private ranches and residences are located away from valley floors in mid-slope locations where there is some flat and/or gently-sloping ground, such as the Black Bear community near the Eddy Gulch Lookout in the Upper South Fork Salmon watershed. Actions in the Klamath Proposal are concentrated in the Klamath River corridor and the Upper South Fork Salmon watershed because of the high wildfire risk to communities and the need for restoration and protection of forest and aquatic habitats. Treatments are placed in a way to protect multiple resources; especially the WUIs (see Attachments B and G for Maps). When implemented, the actions will meet the overarching goal to create conditions where fire can burn within a natural range of variability or be suppressed with least cost and resource damage.

The specific goals of the Klamath Basin Restoration and Communities Protection proposal are:

Goal 1: Protect life and property from wildfire; greatly reduce the significant cost, number injuries, and deaths incurred during wildfire suppression in the Klamath Mountains;

Goal 2: Create vegetative conditions so that wildfires can be managed safely and fire's role on the landscape can effectively be restored;

Goal 3: Restore and protect important ecologic, social, tribal, and economic values such as clean cold water in municipal and Key watersheds, salmon and steelhead, a mosaic of vegetation conditions that support habitats for Threatened, Endangered, and Sensitive species, as well as deer, elk, bear grass, hard woods (acorn collection) and forest plantations.

Goal 4: Increase economic stability and sustainability.

Goals 1 and 2 are accomplished treating hazardous fuels within the Wildland-Urban Interface and along critical ingress and egress routes of Happy Camp and Seiad Valley and Salmon River as decided through the NEPA process and linked to the Happy Camp Fire Protection Strategy and the Salmon River Community Wildfire Protection Plan (Page 30, for example). 'Treating' hazardous fuels means thinning vegetation using mechanical equipment, hand piling, and prescribed burning. Mechanical thinning may be commercial and may also use 'masticators' to reduce fuels. Fuel treatments in the Thom-Seider, Taylor and Eddy Gulch project include ridgeline mastication of small diameter ladder fuels to reduce the extent of stand-replacing wildfire. In the Upper South Fork of the Salmon River, treatments include the creation of ridge-top fuel-reduction-zones to reduce the likelihood of wildfire spreading from one watershed to another to protect unique fisheries and municipal water sources. Chainsaw cutting and hand-piling of ground and ladder fuels are used to break up the fuel continuity between valley bottoms and upper slopes. Treatments along strategic ridgelines help isolate areas of high fuel loading from recent drought and insect-induced mortality to the conifer overstory (canopy).

Goal 3 will be accomplished by concentrating fuel reduction treatments and vegetation management treatments in the watersheds that have the highest intrinsic ecologic and social value. Fuel reduction treatments are concentrated on lower- and mid-slopes along river and stream corridors to decrease incidence of human-caused wildfires and the intensity of upslope fire runs. The treatments on lower- and mid-slopes along the Klamath River corridors are designed to mimic Karuk cultural burning that was performed prior to the early 1900s. Because fisheries in the Klamath Basin is a critical resource to the culture and economies of the area, we have collaborated on actions to reestablish aquatic connectivity through fish passage remediation, reduce the risk of sediment delivery to stream through road upgrades and decommissioning, and restore key summer refugia (cold water) and winter refugia (floodplain and off-channel habitats). We'll also eradicate noxious weeds and reduce fuels to protect stands of rare endemic tree species from uncharacteristic intense wildfire and, in the long term, water quality.

The combination of actions implemented to meet Goals 1-3 will also meet **Goal 4**. Economic benefits also come from maintaining attractive scenery in an ecologically rich environment which is part of a high quality of life and enjoyable recreation settings that result in tourism.

Many restoration projects across the landscape have been completed since the Klamath NF Land and Resource Management Plan was signed in 1995, especially those that treat low-lying vegetation to reduce chances of stand-replacing wildfire and those that reduce sediment delivery to the river and streams. Treatments to reduce surface fuels have been accomplished on 3,900 acres in the Salmon River portion of the proposal, but we need to do more to meet the Pacific Southwest Region (Region 5) Leadership Intent for Ecological Restoration (May 3, 2010).

The Wildland Fire Management Risk and Cost Analysis Tool (R-CAT) showed a range of results from a fire program cost of approximately \$7,000,000 for the no beneficial use fires scenario to a savings of approximately \$9,000,000 million for the high beneficial use fires scenario. R-CAT is an analysis of fire program costs savings and does not display protecting the intrinsic values such as ecological resilient forests, private property, firefighter safety, clean water, and habitat for Threatened and Endangered Species (Northern Spotted Owls and Coho Salmon). See Appendix B for complete analysis and assumptions.

Treatments to reduce the risk of sediment entering stream channels from roads include decommissioning and storm-proofing roads to change the road prism by out-sloping, creating rolling dips, and eliminating inside ditches and cross drains to keep sediment from moving into streams (hydrologic disconnection). Road improvement projects scheduled for implementation in 2011 through 2019 include replacing 57 culverts with those that can handle 100-year storm flows, armoring 3.2 miles of road to reduce risks of sedimentation, and stabilizing roadbeds in inner gorges to reduce erosion. All vegetation treatments that include harvest of trees more than 10” in diameter (also referred to as commercial thinning treatments) will be accomplished by variable density thinning except in the fire-killed stands. Variable density thinning reduces the overcrowding of trees and uses a series of skips and gaps. Gaps consist of wide thinning in areas to produce a park-like stand; skips consist of untreated, relatively dense patches of trees in other locations to provide closed canopy conditions for wildlife habitat. Together, the three levels of density manipulation provide a forest stand structure similar to conditions found prior to aggressive fire suppression.

Collaboration and Multi-party Monitoring:

The actions identified in the Klamath Proposal are consistent with the recently signed Klamath Basin Restoration Agreement (KBRA). The KBRA is a milestone agreement between almost all stakeholders in the Basin. The KBRA is supported by the Secretaries of Department of Agriculture and Interior and the Governors of California and Oregon. Although not a signatory to the KBRA, we collaborated with Siskiyou County when each project was developed. The KBRA effort will formalize a restoration and monitoring plan building on what has been done by the stakeholders (such as the Mid Klamath Restoration Partnership, Salmon River Restoration Council and the Karuk tribe, CA Water Quality Control Board-TMDL) to develop watershed-level restoration plans.

For this proposal, the following stakeholders expressed their interest to collaborate on the development of the Klamath Proposal: Salmon River Restoration Council, Happy Camp Fire

Safe Council, Happy Camp Volunteer Fire Department, Seiad Valley Volunteer Fire Department, Seiad Valley Fire Safe Council, Salmon River Fire Safe Council, Siskiyou County Fire Safe Council, the American Forest Resource Council (AFRC), and the Northern California Resource Center

Groups participating in the development, planning, and implementation of projects included in this project include those listed above as well as: Karuk Tribe, Mid-Klamath Watershed Council, Rocky Mountain Elk Foundation (RMEF), Ducks Unlimited (DU), Quail Unlimited, California Deer Association, the National Fish and Wildlife Foundation, Student Conservation Association, the Northern California Resource Center, The Nature Conservancy National Fire Landscapes and People partnership, Klamath NF, US Fish and Wildlife Service, US National Marine Fisheries Service, National Fish and Wildlife Foundation, California Department of Fish and Game (CDFG), California Department of Transportation, Federal Environmental Protection Agency, California Department of Forestry and Fire Protection, California State Water Resources Quality Control Board, US Bureau of Reclamation, PacificCorps, Timber Products, Shasta Valley Resource Conservation District, and the Wilderness Society

Collaboration with local groups occurs through the use of memoranda of understanding (MOU), project planning under the Healthy Forest Restoration Act and NEPA, field reviews, stream surveys for salmon and steelhead, noxious weed treatments, watershed education and river cleanup, joint development of restoration strategies, actions implemented under cost-share or participating agreements, and training of local residents in skills needed for restoration activities has been occurring since the early 1990's. The Klamath NF participates in the monthly Salmon Learning and Understanding Group meetings hosted by the Salmon River community to exchange ideas, address problems, identify treatments, and create visions for the watershed. The **Mid-Klamath Restoration Partnership** is a group of interested stakeholders that has been meeting since 2007 to develop a restoration implementation plan for the mid-Klamath Region. The Klamath NF worked with the Salmon River Restoration Council to develop the **Salmon River Sub-basin Restoration Strategy** in 2002. The Klamath NF met with local Native American tribal councils on all proposed treatment projects. Decisions were made through NEPA, HFRA, and CEQA, with recommendations that come from the collaborative planning efforts.

The Salmon River Restoration and Fire Safe Councils were instrumental in the development of the Eddy Gulch Late Successional Reserve Fuels/Habitat Protection (www.eddylsrproject.com) Petersburg Pines, Caribou Fire Reforestation and Caribou Site Prep projects. The US Fish and Wildlife Service and the US National Marine Fisheries Service are active participants in project development through the Level-1 ESA Streamlining process. The US Fish and Wildlife Service is a co-planner of Jonny O-Neil Late Successional Reserve project and identified high priority protection areas for spotted owls in the Eddy Project. The US National Marine Fisheries representative did intensive coordination with us to design the Riparian Reserve enhancement part of the Thom-Seider Project. The Siskiyou County Natural Resource Advisor and the AFRC helped develop criteria for the Caribou and Petersburg Pine projects. The Rocky Mountain Elk Foundation and the California Deer Association were involved in the Petersburg Pines project development. All these groups provided ideas and concerns that helped develop the projects in meetings held in local communities and on field trips to project areas.

Noxious weed control is another area of collaboration. The Salmon River Restoration Council has been involved in noxious weed management since the early 1990s. A noxious weed program sponsored by the Salmon River Restoration Council promotes and implements manual removal, mulching, and other non-chemical methods of weed control throughout the watershed. This program has been effective at significantly reducing and eradicating many of the populations of spotted knapweed located throughout the USF and continues to target weed species at prioritized locations associated with large wildfires.

Wildfire is a concern of all parties involved with development of projects in the Klamath Proposal. Wildfire affects their homes, drinking water, favorite fishing hole, the air they breathe, or habitat for species listed under the Endangered Species Act (ESA). The CWPP, a Community Liaison program for increasing communication during wildfires, and support for projects to decrease fuel loading within the Klamath Proposal area are examples of collaboration between the communities and the Klamath NF. The Klamath NF participates in many partnerships to accomplish wildlife, fish, and fuels management treatments in the Klamath Proposal area. The Klamath NF reintroduced elk in the area with the support of the Rocky Mountain Elk (RMEF) and the CA Dept of Fish and Game. The Klamath NF partnered with RMEF and Ducks Unlimited to restore the Petersburg wetlands. The RMEF has also helped sponsor the South Fork Salmon River vegetation treatments and the Station Gulch big game water source/guzzler. Prescribed burning in the Long Gibson area of the Salmon River area is supported by Quail Unlimited, the California Deer Association, and the RMEF.

In addition to the watershed-restoration plans, the monitoring efforts, and the specific input into project design, the commendable accomplishment of these collaborative efforts has been to develop actions the people support and meet ecological goals.

Multi-Party Monitoring Plans are developed under HFRA and focus on changed fuels conditions, such as for the Eddy Gulch LSR and Mt Ashland LSR projects. The primary indicators for HFRA projects are the change in forest canopy and ground fuels. Success will be monitored by comparing the results of the treatments with modeled treated described in the planning documents. Monitoring data are compiled annually in reports which are dispersed to project planner, collaborators other interested parties and posted on the web. The reports are used to modify the design of current projects and in future planning efforts. The LRMP specifies the variety of methods to track performance indicators and requires surveying a wide variety of resources. Other monitoring requirements are negotiated with our partners and regulatory agencies. Other monitoring efforts that cover the Proposal area are:

- Klamath Basin Monitoring Program that focuses on water quality monitoring efforts and results conducted by stakeholders throughout the Basin. www.swrcb.ca.gov/water_issues/programs/
- Fall Chinook salmon spawning surveys that are led by the California Department of Fish and Game and have occurred for over 30 years and involve the Siskiyou Restoration. Conservation District, the Quartz Valley Tribe, Karuk Tribe, Yurok Tribe, Hoopa Tribe, Northern California Resource Center, Salmon River Restoration Council and the Klamath NF. www.fws.gov/yreka/fisheries.html
- Klamath NF migratory bird and spotted owl monitoring (Eddy Gulch and Seiad Creek)

- Klamath NF-Salmon River Restoration Council Noxious Weed monitoring and treatment Agreement. www.srrc.org/programs/noxiousweeds
- Flow and water temperature monitoring by the Klamath NF
- Aquatic and Riparian Effectiveness Monitoring Program (www.reo.gov/monitoring/reports/watershed/aremp/welcome.htm)
- Watershed Condition monitoring as required by the California Water Quality Control Board.

The Klamath Proposal area is an ideal landscape for the “all lands approach” to resource management because of the number of active stakeholders. Partners such as the Salmon River Restoration Council and Mid-Klamath Watershed Council have demonstrated how a non-profit can take the lead for actions on all land ownerships concerning watershed restoration (Seiad Valley), knapweeds, dyers woad, and other invasive plants (Salmon and Klamath River corridors). Similar experiences and opportunities exist for reducing fuels risk, creating safer access roads, improving elk habitat, and protecting watershed values while stimulating the economy. We share information with the local Fish and Wildlife Service Office “Partners” program staff to determine how projects on federal and private land can have cumulative benefits. The Salmon River Restoration Council currently is the largest employer in the Salmon River area, providing jobs to residents, many of whom are displaced woods workers. The Klamath Proposal will foster treatment of an area of rugged terrain with important natural and cultural resource values and a number of engaged partners on a landscape that is prone to high severity large wildfires.

The monitoring efforts are currently financed with appropriated funding, grants to non-profit groups, state funding, and in-kind work. Some CFLRP funds are expected to be used for monitoring. After the implementation of proposed projects, the Klamath NF will continue to monitor the project effects with appropriated funding as in the past. There is \$200,000 allocated for monitoring in the proposal area for FY2011, with \$ 60,000 per year requested from CFLRP.

Utilization:

The expectations to implement all aspects of the Northwest Forest Plan have been supported by maintaining existing infrastructure which makes implementation of the Klamath Proposal realistic. The Northwest Forest Plan emphasizes low, but scheduled timber production. The need to maintain this infrastructure is evident in places such as Happy Camp and Salmon River Ranger Districts, where small local lumber mills were historically common place and nonexistent today. Our strategy accounts for emerging infrastructure. There are currently limited local facilities to process small diameter wood. The community is eager for the future of small wood processing as there is an abundance of this low value material on the landscape and its removal often ties directly to silvicultural, fuels, and habitat restoration objectives. With diminishing budgets we are more challenged each year with how to economically treat areas with a surplus of this material. This could be alleviated by a larger and more stable market created by funding the Klamath Proposal.

Utilizing material from fuel reduction, watershed, and forest restoration projects can enhance the economic feasibility of the projects. Utilization stretches funds available for projects, often allowing more acres to be treated. Challenges arise when low value products such as small diameter material and biomass chips are hauled long distances since haul costs are a major economic variable in remote areas such as these project areas. The Klamath area forest products industry (within economic haul distance) consists of 2 veneer mills as well as 3-4 sawmills in both California and Oregon. Two of the sawmills are supported exclusively by purchased timber much of which comes from Forest service timber sales. Last November one of those mills planned a temporary shutdown due to lack of logs. The purchase of two Forest service timber sales allowed the mill to remain open this winter and kept 140 employees on the job instead of unemployment. Small business set-a-side sales constitute three quarters of the volume offered each year on the Klamath NF. Six of the already initiated projects in this proposal have been purchased by local small businesses who almost exclusively employ Siskiyou County employees. Biomass cogeneration capacity is growing in the area and includes one mill with 100,000 BDT's (Bone Dry Tons) of capacity. Other local biomass utilization in the area is currently limited to hog-fuel; however a cogeneration plant in Yreka is proposed and would greatly increase the potential utilization. A new wood sorting yard is planned for Scott Valley which will allow for storage of all categories of wood products. This will allow the local owners to capitalize on those unpredictable, short-term increases in selling values for the various forest products. Wood from this proposal, particularly biomass sized material, is likely to be stored here.

The proposed integrated fuel treatment project involves:

- Commercial thinning (>10" material)
- Biomass utilization (3"-10" material + tops, limbs, and bole material from thinning)
- Specialty products (poles and firewood)

Haul costs are a significant when operating in the Klamath Proposal area. Although the proposed projects are accessed by paved county roads, long travel distances to processing facilities increase haul costs. Processing roundwood and low value biomass material in one operation have been found to be the most cost effective. By packaging a higher valued saw timber product with a low valued biomass product, we are able to alleviate some of these high operation costs. These efficiencies include having a single cost to move equipment onsite, having a higher valued product carry the cost of cutting and skidding both products, and minimizing ground disturbance with a single entry. Additionally, pole and firewood utilization within treatment areas and landings will help reduce costs since 6" and larger material is more costly to handpile and burn. Maintaining the National Forest firewood program is another economic efficiency since many river-community residents rely on wood heat.

Utilization will consist of approximately 41,500 MBF (83,000 CCF) of sawlog/veneer material, 56,250 BDT of biomass (45,000 CCF), and over 3,200 cords (3,200 CCF) in pole and firewood products. Even in today's depressed timber economy the combined selling value of the sawlogs and the biomass is \$16,721,840.00 with firewood selling for \$200.00 a cord.

Benefits to local economies:

By adopting WUI boundaries as our Proposal area we are focusing the benefits on lessening the threats of destructive wildfires to homes and businesses in the communities of the river corridors for **positive effects** to local communities. By including the Salmon River Key Watershed there are positive effects for the Cecilville residents, recreational fisherman, and the largest natural spring-run of Chinook (King) salmon in California. The entire Klamath Basin is benefitted by the Klamath Proposal because the Salmon River Chinook salmon may be the source population for reintroduction of salmon into the upper Basin. The commercial, sport, and tribal fishing needs in the lower Basin will also benefit from protecting and enhancing the coho and Chinook salmon of the Salmon River, Indian Creek, and Clear Creek watersheds.

Our vegetation management activities incorporate protecting federal and community investments, restoration of ecological values, providing jobs, rebuilding local capacity, and long-term timber and other resource sustainability for positive effects to the local communities. Treatments will protect investments by reducing wildfire damage to plantations and other stands that will provide a sustainable supply of timber products in the future and associated long-term economic benefits. Many of the projects are centered on creating fire safe communities, which in turn creates a sense of community well being, maintains property values, and the tax base. Maintenance and restoration of ecological and aesthetic values through vegetation treatments and watershed improvement work will benefit communities by providing landscape conditions that support and advance the tourism and recreation industries.

Another community benefit is that as we coordinate and fund restoration treatments occurring on Klamath NF and private lands, local residents and non-governmental organizations in the Klamath Proposal area increase their potential success in obtaining grants. The grants enable local watershed and fire safe councils to create defensible space around their residences, better insure the safety and protection of life on emergency access routes identified in the CWPPs, and complete watershed restoration work. This helps more of the landscape to be restored and become more resilient to wildfires with high severity effects on the watershed while protecting communities and providing for firefighter safety.

There is **local capacity** to conduct restoration work left over from a once robust logging infrastructure and also from the growing tribal and watershed/fire safe council organizations. With the Northwest Forest Plan, additional funding has boosted the Federal planning and implementation throughout this area, alleviating some of the challenges and supporting infrastructure. However this additional funding source is diminishing. There is a need for steady level of implementation so as not to lose the remaining infrastructure as well as to foster infrastructure that is being built by companies as they shift to small material utilization and through the Community College Resources program. This CFLRP project will **provide 157 jobs** to local and regional businesses and stakeholder groups through service and stewardship contracts, grants, and agreements. Given the abundance of project work, these jobs are likely permanent. Local labor or local economic benefits would be used as evaluation criteria to award contracts including the use of existing indefinite delivery/indefinite quantity contracts.

Several different types of contracts will be used to implement these restoration projects including both timber and best value service stewardship contracts. Prescribed burning will be accomplished by utilizing Klamath NF crews as well as local contract crews and equipment contracts. The employees and volunteers of the Fire Safe Counsels, Mid-Klamath Watershed, and Salmon River Restoration Council, all local groups, will continue to implement restoration treatments such as noxious weed reduction on both private and public lands, road restoration, and fuels reduction on private lands. The current implementation schedule includes underburning during the spring and fall of 2011. Treatments are progressing. For example, contracts for selected treatments in the Caribou Fire Restoration were awarded in the fall of 2010. A contract for the mechanical harvesting in Dog Paw plantation has been awarded and this project is expected to be completed in 2011. Other projects include site preparation, both hand-piling, and yarding on the Caribou and Blindhorse projects. Conifer planting in the Caribou area will occur in the spring of 2011. Thinning, biomass removal, cutting and piling of fuels, and mastication in the Eddy LSR will begin in 2011. Thinning of trees in Petersburg Pines is expected to begin in 2012 along with underburning and fuel break construction. Road restoration work will be carried out over the next five years.

Accomplishment of the restoration work would be done through traditional timber sale contracts, service contracts, stewardship contracts, agreements and the Forest Service workforce. Timber sales generally go to purchasers and mills in the regional area or within Siskiyou County and Josephine County. The TREAT spreadsheet in Attachment E provides total numbers of restoration jobs and types such as thinning, watershed, hazardous fuels, manufacturing. This proposal is expected to support 71 jobs and over 3.5 million dollars in wages of forest products related jobs, including logging, processing, and support. These companies are sensitive to the needs of the local population in order to gain support for projects where timber is removed and often hire labor and purchase supplies locally when available. Fuels treatments, restoration services, roads and infrastructure work are all expected to support 74 jobs in the area. Stewardship contracts, using **Best Value criteria** to insure local employment, would be used for forest health and fuels reduction projects with low value product removal. People employed through agreements, contracts or as Forest Service employees with CFLRP funding would be mainly from the local area and would be used for projects such as noxious weed removal, watershed restoration (heavy equipment operation for sediment reduction on roads), fuels reduction work, monitoring, and administration of contracts. The existing contracting capacity is greatly increased when expanded to all of Siskiyou County and adjacent counties. The Happy Camp District presently has an agreement to use a Bureau of Indian Affairs (BIA) crew, which employs local Karuk tribal members, for fuels reduction work, underburning, and wildfire suppression. During fire season, only 10 members of the 20-person crew are funded by the BIA; with grant funding, the District would be able to fund the entire crew for at least part of the year doing fuels reduction work. A local workforce has also been developed through the Northern California Resource Center, the Salmon River Restoration Council, and the Happy Camp and Seiad Valley Fire Safe Councils.

Training is available for local resident, including young adults, for these types of jobs. Three of our partner non-profit organizations have programs in place to provide training for natural resource careers, and the Forest Service routinely provides training for its employees. The Mid-Klamath Watershed Council, the Salmon River Restoration Council, and the Northern California Resource Center have a core mission to provide community-based training that leads to

employment doing natural resource and restoration work. The groups have been successfully operating for ten years and have participating agreements with the Klamath NF to perform resource work. Mid-Klamath Watershed Council's main focus is to increase community and youth involvement in natural resource restoration and they have been training and employing people to complete noxious weed and watershed projects on the Klamath for many years bringing with them additional cost share funding. With additional funding, Mid-Klamath Watershed Council would increase the hiring of youth and other employees from the Happy Camp and Seiad Valley areas to meet commitments for this grant. The Salmon River Restoration Council can hire additional staff to complete labor-intensive work in the Salmon River watershed. Similarly, the Northern California Resource Center has been training people to provide services to the Forest Service and private sector through direct hire and contracting. One of the recent training developments that Northern California Resource Center has been involved with is creation of a 2-year natural resource major offered at College of the Siskiyous (COS). With potential employment from the multi-year funding from a CFLRP grant, community members could gain training through COS by utilizing distance learning opportunities available at the Happy Camp Computer Center; the center was established and is operated through collaborative process between COS, the Happy Camp High School, and the Karuk Community Development Corporation. The Happy Camp and Salmon River Ranger Districts also trains and employs youth by using programs such as the Youth conservation Corps, Siskiyou Temporary Employment, and the Student Temporary Employment Programs; a portion of the funding would be channeled to these programs.

In the local area, businesses and non-governmental organizations, are investing in equipment, tools, and infrastructure to help in restoration efforts. For example, a number of businesses are investing in chipping and chip hauling equipment. A lumber mill within Siskiyou County has added co-generation facility that will process 100,000 tons of wood chips, and the city of Yreka is also working to develop a co-generation facility, projecting needs of 300,000 BDT per year. These facilities could provide processing for biomass from the projects in Klamath Proposal area. Two co-generation facilities in Siskiyou County will decrease the cost of treating small diameter material by providing markets within a reasonable transportation radius.

Two local loggers have been investing in smaller stinger-steered chip vans that will remove chips from roads that were designed for log trucks and cannot be driven by larger chip vans. The smaller equipment would allow removal of small diameter material from areas that would otherwise be inaccessible to chip vans and significantly reduce the costs of removing material generated by restoration treatments. The co-generation plants, the smaller chip vans, and chipping equipment being invested in by non-federal businesses will provide the long-term advantage of reducing the cost of treating small diameter material from the USF and other steep landscapes on the Klamath NF. The Klamath Proposal projects provide an example of treating relatively inaccessible areas that may be applied to other fire-prone areas with steep slopes. Stewardship contracting can encourage private sector entrepreneurs to craft creative, less costly methods of accomplishing planned work. For example, a stewardship contract for the Dogpaw plantation thinning project has been awarded to a local small business that is helping to develop and test the stinger-steered chip vans designed to traverse narrow roads previously inaccessible to the typical chip vans.

The Siskiyou Biomass Utilization Group (SBUG) was formed in 2009. SBUG consists of numerous Siskiyou County stakeholders including the Klamath NF, the Bureau of Land Management, Siskiyou County Government, Fire Safe Councils, the Natural Resource Conservation Service, Fish & Wildlife Service, and several large commercial timberland business owners. The SBUG is dedicated to maximizing the biomass utilization opportunities in Siskiyou County. The efforts of the SBUG along with the results of this proposed project will assist in the development of cost effective biomass utilization pathways in Siskiyou County.

Overall, the Klamath Proposal has strong community-based collaborative support mechanisms that will increase the success of this project while creating local job development and training opportunities for individuals. The Klamath Proposal encourages the success of existing and emerging small business in the natural resource field.

The monitoring plan has been negotiated with our partners to measure the effectiveness of our project design at meeting the purpose and needs of the actions. The monitoring is designed to efficiently answer specific questions without unnecessarily diverting limited from implementing the projects. Some of our current monitoring will serve to track project level benefits such as stream shade, sediment and FireMon. Multiparty implementation monitoring is done to make sure the project is implemented as planned and monitoring the effects of projects has been occurring in the proposal area for a number of years. Monitoring will continue as more restoration projects are implemented, in part, because it is required by the Klamath and Salmon River TMDLs. Multiparty monitoring has included monitoring the effects of noxious weed removal and eradication treatments carried out by the Klamath NF and the Salmon River Restoration Council. The Salmon River Restoration Council has also partnered with the Forest to monitor the effects of Klamath NF management activities and natural disturbances by surveying the number of salmon in the Salmon River. Water quality monitoring by the NCRWQCB, the Klamath NF, and interested groups is planned to assess effects of management activities and natural disturbances on water quality in the river and its tributaries.

Funding Plan

The Wildland Fire Management Risk and Cost Analysis Tool (R-CAT) showed a range of results from a fire program cost of approximately \$7,000,000 for the no beneficial use fires scenario to a savings of approximately \$9,000,000 million for the high beneficial use fires scenario. R-CAT is an analysis of fire program costs savings and does not display protecting the intrinsic values such as ecological resilient forests, private property, firefighter safety, clean water, and habitat for Threatened and Endangered Species (Northern Spotted Owls and Coho Salmon). See Appendix B for complete analysis and assumptions.

The monitoring efforts are currently financed with appropriated funding and in-kind efforts. Some CFLRP funds are scheduled to be used for monitoring. After the implementation of proposed projects, the Klamath NF will continue to monitor the project effects with appropriated funding as in the past. There is \$200,000 allocated for monitoring for FY2011. An additional \$600,000 from CFLRP funds is required to monitor the proposed treatments for the projects over ten years. The budget is appropriate for this project; the budget reflects the number of acres

being treated, the scope of benefits (private land, social and cultural values, water quality, and fish populations) and our requirements under HFRA, ESA, and the Clean Water Act (for TMDLs). The information we gather will dovetail to the needs identified in the Klamath Basin Restoration Agreement.

Attachment F contains the detailed federal and non-federal investments. Other funds contribute to restoration in the proposal area: tribes get granted funds from the Bureau of Indian Affairs, US Bureau of Reclamation, US Fish and Wildlife Service, and other private foundations. The US Fish and Wildlife Service is funding fuels reduction work in the proposal area through their Partner” program. The State of California is funding road restoration work (for reducing the risk of sediment delivery to streams) in the Salmon River and Klamath River tributaries. CalTrans wants to fund off channel fish habitat in Seiad Creek. We have included 5% of the Klamath Basin Restoration Agreement Budget listed in Appendix C-2 of that Agreement as being available for other complementary monitoring, restoration, and protection actions. Those funds are under the jurisdiction of the US Department of Interior and the stakeholders that signed the Klamath Basin Restoration Agreement in 2010.

ATTACHMENTS

Attachment A - Klamath Proposal - *Projected Accomplishments Table* and Project List with Outcomes and Acres Treated

Performance Measure	Code	Number of units to be treated over 10 years using CFLR funds	Number of units to be treated over 10 years using other FS funds	Number of units to be treated over 10 years using Partner Funds[1]	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years[2]	Partner funds to be used over 10 years
Acres treated annually to sustain or restore watershed function and resilience	WTRSHD-RSTR-ANN	77,109	77,109	77,109	\$2,000,000	\$2,000,000	\$250,000
Acres of forest vegetation established	FOR-VEG-EST	0	508	0	\$0	\$208,405	\$0
Acres of forest vegetation improved	FOR-VEG-IMP	12,526	12,526	12,526	\$1,928,438	\$2,428,438	\$0
Manage noxious weeds and invasive plants	INVPLT-NXWD-FED-AC	530	700	330	\$132,500	\$160,400	\$40,500
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands	INVSPE-TERR-FED-AC	See INVSPE-TERR-FED-AC)					
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions.	S&W-RSRC-IMP	77,109	77,109	77,109	\$1,000,000	\$1,000,000	\$0
Acres of lake habitat restored or enhanced	HBT-ENH-LAK	0	0	0	\$0	\$0	\$0
Miles of stream habitat restored or enhanced	HBT-ENH-STRM	3	5	2	(see S&W-RSRC-IMP)		
Acres of terrestrial habitat restored or enhanced	HBT-ENH-TERR	75,382	75,382	75,382	\$3,929,650	\$2,229,650	\$100,000
Acres of rangeland vegetation improved	RG-VEG-IMP	0	0	0	\$0	\$0	\$0

Performance Measure	Code	Number of units to be treated over 10 years using CFLR funds	Number of units to be treated over 10 years using other FS funds	Number of units to be treated over 10 years using Partner Funds[1]	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years[2]	Partner funds to be used over 10 years
Miles of high clearance system roads receiving maintenance	RD-HC-MAIN	See RD-PC-IMP					
Miles of passenger car system roads receiving maintenance	RD-PC-MAINT	See RD-HC-IMP					
Miles of road decommissioned	RD-DECOM	14	14	14	\$0	\$1,482,072	\$0
Miles of passenger car system roads improved	RD-PC-IMP	53	53	53	\$0	\$4,800,000	\$0
Miles of high clearance system road improved	RD-HC-IMP	0	0	0	\$0	\$0	\$0
Number of stream crossings constructed or reconstructed to provide for aquatic organism passage	STRM-CROSTMG-STD	0	0	2 (Karuk Tribe-Hwy 96)	\$0	\$0	\$0
Miles of system trail maintained to standard	TL-MAINT-STD	185	132	76	\$58,000	\$40,000	\$21,500
Miles of system trail improved to standard	TL-IMP-STD	18	15	4	\$36,500	\$30,000	\$6,500
Miles of property line marked/maintained to standard	LND-BL-MRK-MAINT	0	10	0	\$0	\$15,000	\$0
Acres of forestlands treated using timber sales	TMBR-SALES-TRT-AC	0	8,352	0	\$0	\$230,000	\$0
Volume of timber sold (CCF)	TMBR-VOL-SLD	0	82,924	0	\$0	\$2,901,525	\$10,363,000*

Performance Measure	Code	Number of units to be treated over 10 years using CFLR funds	Number of units to be treated over 10 years using other FS funds	Number of units to be treated over 10 years using Partner Funds[1]	CFLR funds to be used over 10 years	Other FS funds to be used over 10 years[2]	Partner funds to be used over 10 years
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production	BIO-NRG	33,320	24,020	20,991	\$3,347,000	\$0	\$5,134,000*
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire	FP-FUELS-NON-WUI	16,233	16,233	0	\$2,800,000	\$2,000,000	\$0
Acres of hazardous fuels treated inside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire	FP-FUELS-NON-WUI	52,436	52,436	0	\$2,528,500	\$2,328,500	\$20,000
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire	FP-FUELS-WUI	29,120	29,120	0	\$2,458,225	\$2,408,225	\$60,000
Number of priority acres treated annually for invasive species on Federal lands	SP-INVSPF-FED-AC	INVPLT-NXWD-FED-AC					
Number of priority acres treated annually for native pests on Federal lands	SP-NATIVE – FED-AC	0	1675	0	0	\$125,625	\$0

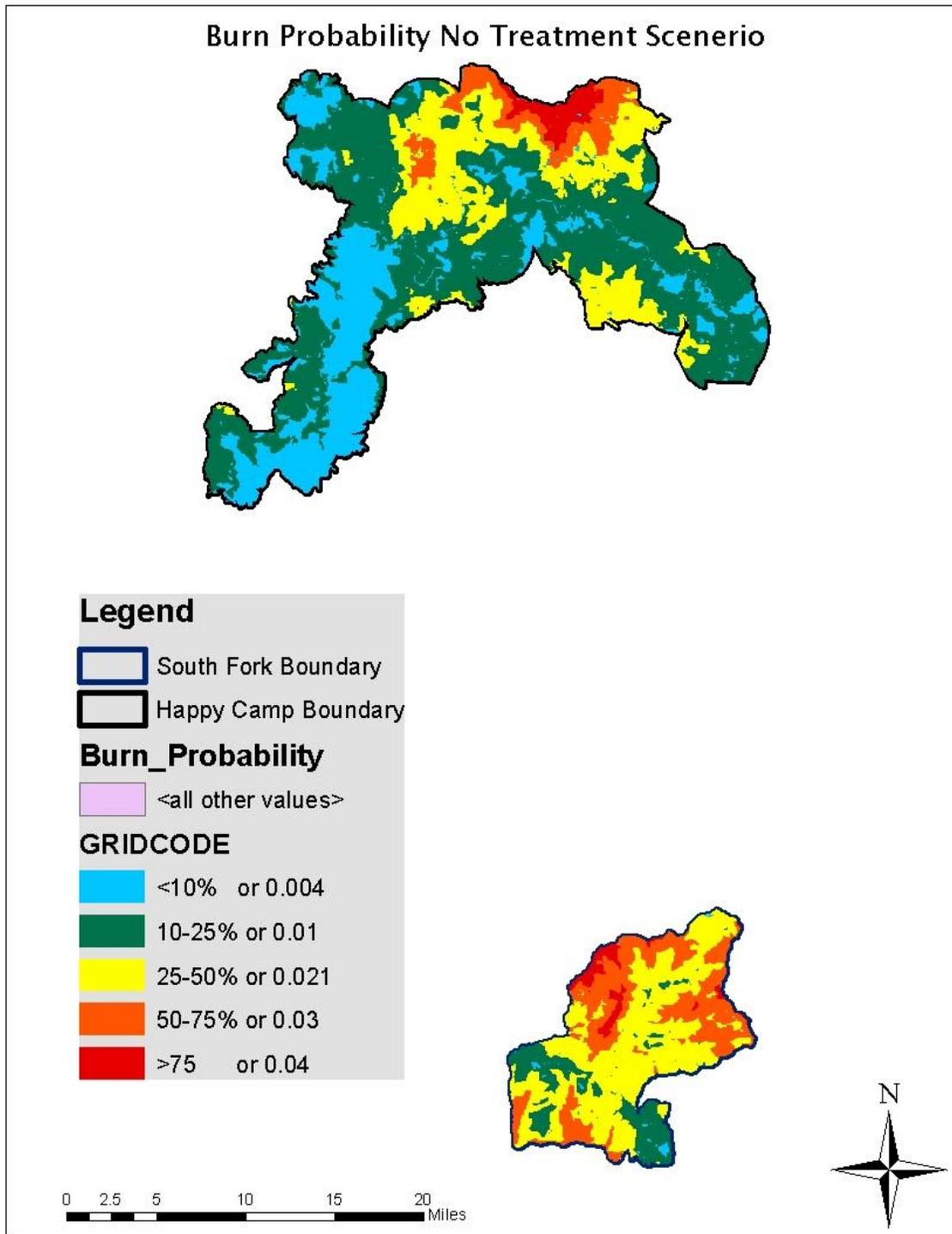
*Includes the purchaser/contractor costs associated to operations; this value is not reflected in funding requests or plans.

Project Name	Thinning (Sawlog, Biomass, Firewood, Pole, hand-pile)			Burning	Fuels Breaks and Egress/Travel Corridors	Planting	Mastication /Grind	Total Acres Treated (some actions occur on the same acre)
	Volume-CCF	Acres	Value	Acres	Acres	Acres	Acres	
(NEPA is completed for all actions except as designated by (*, Decision Date))								
Taylor Fuel Small Fuels Treatments	230	115					160	275
Long Gibson Underburn				1,700				1,700
Upper South Fork Underburn				300				300
Dog Paw Plantation Thin	515	40	\$76,400					40
Eddy LSR Fuels Reduction/Habitat Protection	24,290	930	\$3,160,000	22,630	11,201		2,290	39,231
Blind Horse Reforestation	73	36				73		109
Petersburg Pines Fuels Reduction (*, 2012)	40,300	2,171	\$5,152,000	2,729	3,270			8,170
Caribou Reforestation	1,986	142	\$188,000			220		294
Caribou Site Prep and Reforestation	6,460	215	\$904,000			215		215
Ben-Horse Cultural Underburn				65				65
Crawford Vegetation Management (*, 2012)	11,250	1,708	\$1,500,000	982	105		36	2,831
Happy Camp Fire Protection (HCFP) 03	2,375	321	\$380,000	972	91			1,384
HCFP Commercial Thin Phase Two	5,461	1,343	\$873,760	1,582				2,925
HCFP Roadside Understory Fuels Reduction					543			543

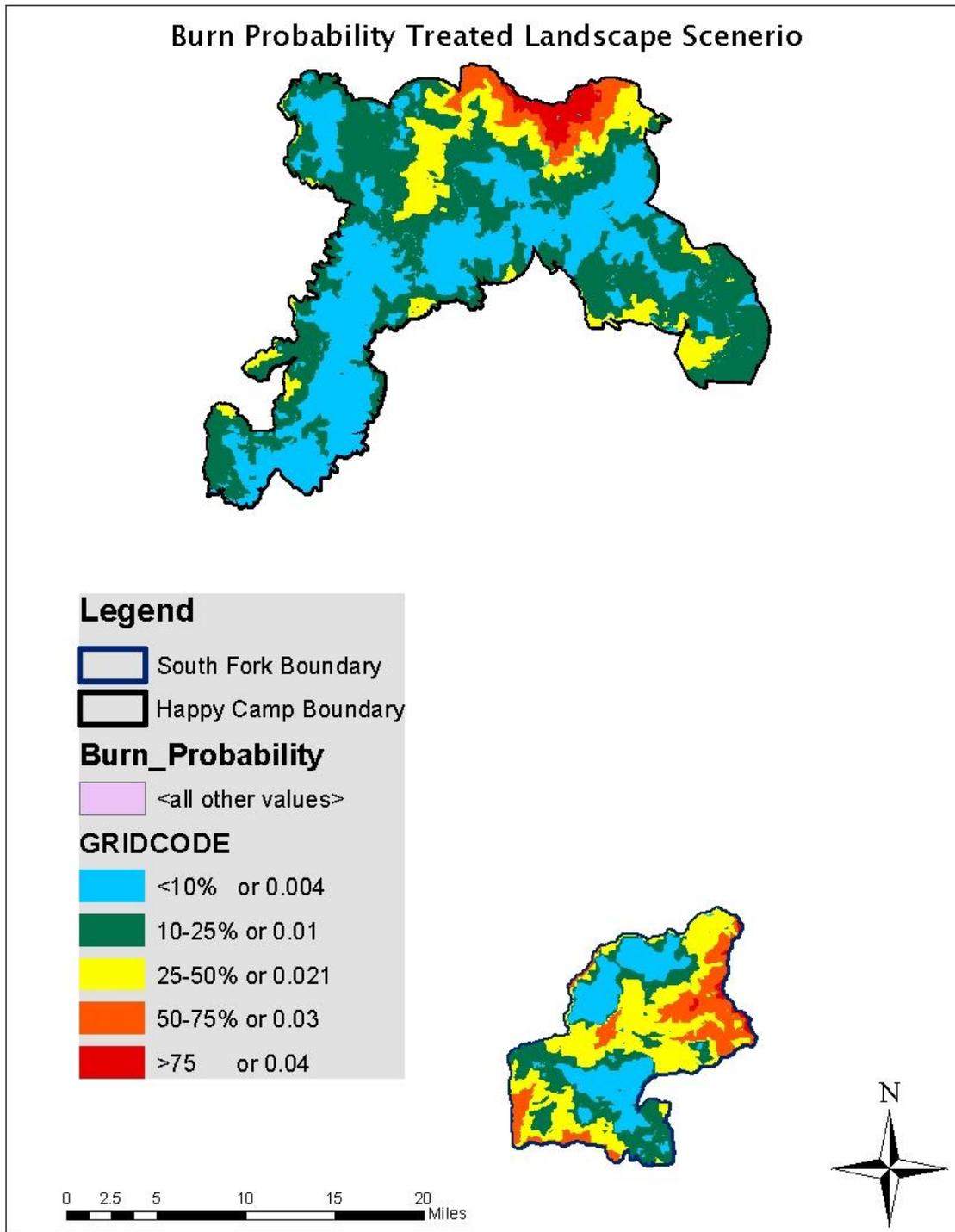
Project Name	Thinning (Sawlog, Biomass, Firewood, Pole, hand-pile)			Burning	Fuels Breaks and Egress/Travel Corridors	Planting	Mastication /Grind	Total Acres Treated
	Volume-CCF	Acres	Value	Acres	Acres	Acres	Acres	
(NEPA is completed for all actions except as designated by (*, Decision Date)								
HCFP Underburn				4,218				4,218
HCFP Understory Fuels Reduction		703						703
Johnny O'Neil LSR Habitat Protection (*, 2012)	7,000	660	\$445,000	1,402			484	2,546
Larry Creek Underburn				26				26
Oak Flat Vegetation Management	3,123	399	\$499,680	916				1,315
HC Precommercial Thinning/Release and Handpiling 2006		4,711						4,711
Thom-Seider Vegetation Management and LSR Protection	15,800	3,711	\$1,993,000	25,110	8,863			37,684
Two Bit Vegetation Management (*, 2012)	12,625	1,514	\$1,550,000	2,825				4,339
Noxious Weed Treatment (total)								1,560
Meadow Restoration (*, 2012)	110 Acres of Meadow is restored (Two Bit and Crawford projects)							110
Road Sediment Reduction - Salmon River	40 miles of roads improved/restored: Upgrades 57 culverts, and storm-proofing, site stabilization on 18 roads in 7 subwatersheds							
Road Sediment Reduction - HC	151 Miles of Roads are improved/restored (Clear, Mill Luther, and Two Bit Projects)							
Total Acres		18,719		65,457	24,073	508	2,970	115,294
Total Volume (CCF) and Estimated Revenue	131,488		\$16,721,84					

Attachment B : Results Cost Savings: (See Attachment for full documentation, data sources and assumptions at “Special Interests” at <http://www.co.siskiyou.ca.us/>)

R-CAT Results	
Proposal Name: Klamath River Restoration and Community Protection	
Start Year	2011
End Year	2020
Total Treatment Acres	116,789.00
Average Treatment Duration	15
Discounted Anticipated Cost Savings - No Beneficial Use	\$ (7,014,878)
Discounted Anticipated Cost Savings - Low Beneficial Use	\$ (787,180)
Discounted Anticipated Cost Savings - Moderate Beneficial Use	\$ 2,949,438
Discounted Anticipated Cost Savings - High Beneficial Use	\$ 9,177,136



Burn probability is defined as the probability of a pixel (90m X 90m) burning under a specified number of random ignitions (5000). Burn probabilities provide a method of evaluating a landscape for fuel treatment effectiveness. Burn probabilities are related to how large fires occur on a given landscape and under specified weather conditions.



Burn probability is defined as the probability of a pixel (90m X 90m) burning under a specified number of random ignitions. Burn probabilities provide a method of evaluating a landscape for fuel treatment effectiveness. Burn probabilities are related to how large fires occur on a given landscape and under specified weather conditions.

Proposal Name: Klamath River Restoration and Community Protection	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:	Start in which funding and implementation would occur.
End year rationale:	The projects are proposed to last 10 years for the CFLRP.
Duration of treatments rationale:	The vegetation types and area support a historical fire return interval of about 12 to 26 years. We suspect that treatments would be effective for 15 years on average.
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, costs were based on nominal estimates in year 2011.
Average treatment cost per acre rationale:	This was based by experienced silviculturists on similar projects in the area and applied a spreadsheet of cost/acre per NEPA project for this proposal. An average cost/acre for all projects was used for this analysis.
Rationale for actual costs per acre of treatment by year is used:	We used cost/acre rather than total cost for our Analysis -- See Comment above
Average treatment revenue per acre rationale:	This was based by experienced silviculturists on similar projects in the area and applied a spreadsheet of cost/acre per NEPA project for this proposal. An average cost/acre for all projects was used for this analysis and was based on current markets (2010/2011)

Proposal Name: Klamath River Restoration and Community Protection	Documentation Page
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?	Fire program cost analysis only.
Total treatment acres calculations, assumptions:	We combined two project areas as one -- simply added the two project areas. See final question below for further assumptions.
Treatment timing rationale with NEPA analysis considerations:	We assumed 10 years for the proposal. For treatment timing, we simply divided total acres by 10, assuming approximately about the same amount of implementation would be completed each year.
Annual Fire Season Suppression Cost Estimate Pre Treatment, Assumptions and Calculations	We used the FSIM runs to get an average fire size. We then used suppression P-Code data from 2001 to 2007 and sorted the data to reflect cost/acre on fires in similar size to the FSIM runs. The data provided a cost per acres, which was \$1,957.25 and multiplied it by the FSIM average fire size for pre-treatment which was 2,500 acres. We used the same average fire cost of 1957.25 for post treatments and average fire size from FSIM of 1675 acres.
Did you use basic Landfire Data for you Pretreatment Landscape?	We used the California Fuels Landscape from the Region 5 Strategic Support Group
Did you modify Landfire data to portray the pretreatment landscape and fuel models?	We used the California Fuels Landscape from the Region 5 Strategic Support Group
Did you use ArcFuels to help you plan fuel treatments?	Yes, we used arcfuels -- California Fuels Landscape LCP for pre and post treatments. The data was then ran through FSIM. Assumptions for treatment included prescribed fire treatment for underburn only areas (assumed a 2' flame length prescribed fire) of treatment and a general thin from below (thin from below to 50% canopy Cover) followed by

Proposal Name: Klamath River Restoration and Community Protection	Documentation Page
	underburn for areas to be thinned -- note that thinned areas will be followed up with prescribed fire.
Did you use other modeling to help plan fuel treatments, if so which modeling?	Each NEPA project had a fire and fuels report that used various modeling (Behave Plus, Flammap, Arcfuels, FVS-FFE, etc.) that helped design fuel treatment areas.
Did you model fire season costs with the Large Fire Simulator?	Yes.
If, so who helped you with this modeling?	WWETAC-- PNW -- Nicole Vaillant
If not, how did you estimate costs, provide details here:	N/A -- We used Large Fire Simulator
Did you apply the stratified cost index (SCI) to your Fsim results?	No, we used mean fire size from FSIM for pre and post treatment. We then applied SCI cost based on fires on the Klamath National Forest From 2001 to 2007 that ranged from 1,000 to 6,000 acres since FSIM average fire size was between 1,500 and 2800 acres. We also used 2 wildland Fire Use costs/acre to distinguish between cost/acre of wildfire versus wildfire for resource benefit.
Who helped you apply SCI to your FSIM results?	Larry Hood-- Region 5 Fire Planning Specialist provided data -- Clint Isbell Klamath National Forest Applied Cost/Acre based on data.
Did you filter to remove Fsim fires smaller than 300acres and larger than a reasonable threshold?	No -- we just used mean fire size within the project area.
What is the upper threshold you used?	N/A See Comment Above
Did you use median pre treatment costs per fire season?	Yes
Did you use median post treatment costs per fire season?	Yes
Did you test the statistical difference of the fire season cost distributions using a univariate test?	No
What were the results?	N/A

Proposal Name: Klamath River Restoration and Community Protection	Documentation Page
Did you estimate Burned Area Emergency Response (BAER) costs in your analysis?	Yes
Did you use H codes or some other approach to estimate these costs?	We looked at H-Codes but did not use for analysis. On average we have spent ~370,000 dollars on BAER costs per year over the past 5 years (2005-2010) on the Klamath N.F. This number was reduced to 5% of total suppression costs to the national average to reflect an average sized fire based on the FSIM runs for the area (i.e. the H-Code BAER Costs Reflects some fires that were relatively large, therefore the number was reduced to reflect a more realistic average fire size rather than large fire events only). 5% was done for pre and and 3% post treatment because High Fire Severity (i.e. where most are BAER work is) would be reduced post treatment..
Did these cost change between pre and post treatment?	Yes -- We used 5% of total suppression costs for pre and 3% total suppressio cost for post.. Suppression costs were based on average fire size and associated SCI cost/acre.5% was done for pre and and 3% post treatment because High Fire Severity (i.e. where most are BAER work is) would be reduced post treatment.
Did you estimate long term rehabilitation and reforestation costs in your analysis?	Yes
How did you develop these estimates, and did these cost change between pre and post treatment?	Estimates were based by experienced silviculturists on average costs of previous projects in the nearby area. Yes, they changed pre vs. post treatment
Did you include small fire cost estimates in your analysis?	No

Proposal Name: Klamath River Restoration and Community Protection	Documentation Page
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?	N/A
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?	This was based on the Land Management Plan / Fire Management Plan. Although all the area is available for fire for beneficial use, we predict that approximately 25% (low) to 50% (high) would actually be considered for beneficial use fire.
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?	This was based on land management plan and fire management plan direction and goals for the area. Communities at risk were also considered (i.e. most all of the Salmon River area would be a strong candidate for beneficial fire use, were only portions of Happy Camp area would be considered due to communities at risk).
How did you derive an estimate for the percentage of full suppression costs used in fire monitoring for beneficial use?	Past costs data on the Klamath National Forest for Beneficial use fires versus fire suppression costs.
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?	Happy Camp Project Area and South Fork Of Salmon River Project Area was combined for this analysis. Weighted averages were used -- Happy Camp had approximately 132,000 acres for a project area and Salmon River had approximately 70,000.

Attachment C - Members of the Collaboration Groups:

Two efforts are recognized: 1) Collaboration on building the Klamath CFLRP Proposal, and, 2) Collaboration on designing projects through Healthy Forest Restoration Act, National Fire Plan, National Historic Preservation Act, FWS and NMFS ‘early involvement’ per Endangered Species Act Streamlining policy, and NEPA.

Collaboration on building the Klamath CFLRP Proposal			
Organization Name	Contact Name	Phone Number	Role in Collaborative
Klamath National Forest	Dan Blessing	530-841-4521	KNF Natural Resource Staff Officer
Happy Camp Fire Safe Council	George Harper	530 493-2990	Participates in restoration planning on behalf of the Happy Camp Fire Safe Council
Seiad Fire Safe Council	George . Jennings, Glen Briggs	530 496-3343	Participates in restoration planning on behalf of the Seiad Fire Safe Council
Salmon River Fire Safe Council	Robert Will	530 462-4641	Participates in restoration planning on behalf of the Salmon River Fire Safe Council
Salmon River Restoration Council	Petey Brucker, Lyra Cressey	530 462-4665	Participates in restoration planning on behalf of the Salmon River Restoration Council, Core Member of the Mid Klamath Restoration Partnership
Siskiyou County	Ric Costales	530 842-8012	Member of Mid-Klamath Restoration Partnership; participates in restoration planning; advises Siskiyou County on natural resource issues.
Upper Mid-Klamath Watershed Council	Larry Alexander	530 468-2888	Coordinator, participates in restoration planning on behalf of the Upper Mid-Klamath Watershed Council
Northern California Resource Center	Larry Alexander	530 468-2888	Director, participates in restoration planning on behalf of the Northern California Resource, provides training and employment for natural resource restoration, partners with the Community College to educate and provide technical training in resource management.

Collaboration on designing projects			
Organization Name	Contact Name	Phone Number	Role in Collaborative
Klamath National Forest contacts	David Hays, Ken Harris, Cark Varak, Nick Larson	530 842-2316	District Rangers and staff: coordinated with interested parties in the development of the Klamath Proposal and the specific projects over the last four years.
Karuk Tribe	Leaf Hilman	530 627-3446 x 3013	Member of Mid-Klamath Restoration Partnership; participates in restoration planning; decision-maker for the Karuk Tribe on natural resource issues
Siskiyou County Fish and Game Commission	George Harper	530 493-2990	Participates in restoration planning on behalf of the Siskiyou County Fish and Game Commission
Mid Klamath Watershed Council	Will Harling	530 627-3202	Participates in restoration planning on behalf of the Mid-Klamath Restoration Council
Happy Camp Volunteer Fire Department	Charlie Fehely	530 493-2643	Participates in restoration planning on behalf of the Happy Camp Volunteer Fire Department
Seiad Valley Volunteer Fire Department	Tom Mopas	530 496-3164	Participates in restoration planning on behalf of the Seiad Valley Volunteer Fire Department
The Nature Conservancy	Lynn Decker	801 320-0524	Will collaborate on fuels and fire planning (National Fire, Landscapes and People Partnership with USFS/DOI)
US Fish and Wildlife Service	Gary Curtis	530 841-3117	Fisheries contact at FWS. Core member of the Mid Klamath Restoration Partnership.
Klamath National Forest	Julie Perrochet and Jon Grunbaum	530 841-4418, 530 593-719	Fisheries contact at KNF. Core member of the Mid Klamath Restoration Partnership.
National Marine Fisheries Service	Don Flickinger	530 841-3111	Participates in restoration planning on behalf of the National Marine Fisheries Service, especially Thom-Seider and Two Bit projects.
National Fish and Wildlife	Jim Sedell	202 857-0166	Participates in restoration planning on behalf of the

Foundation			National Fish and Wildlife Foundation
California Department of Fish and Game	Gary Flosi	707 725-1060	Participates in watershed restoration planning on behalf of the California Department of Fish and Game
California Department of Transportation	Brian Humprey	530 225-2719	Participates in restoration planning on behalf of the California Department of Transportation (Seiad ponds for over-winter salmon habitat)
Federal Environmental Protection Agency	Tim Wilhite	530 841-4577	Participates in restoration planning on behalf of the Federal EPA Tribal Liaison Program. Also includes Gail Louis for monitoring in the Klamath Basin.
California State Water Resources Quality Control Board	Clayton Creager, Ben Zabinsky	707 576-2666	Participates in restoration planning on behalf of the California State Water Resources Quality Control Board
PacifiCorp	Diane Barr	541 776-5433	Participates in restoration planning on behalf of PacifiCorp. PacifiCorp participates in the Mid Klamath Partnership and provides \$500,000 annually for coho enhancement (mainly to tribes and private land owners)
Timber Products	Chris Chase	530 842-2310 x1241	Participates in restoration planning on behalf of Timber Products
American Forest Resource Council	Rick Svilich	530 842-3345	Participates in restoration planning on behalf of the local timber purchasers
Shasta Valley Resource Conservation District	Adriane Garalde	530 842-6121	Participates in restoration planning on behalf of the Shasta Valley Resource Conservation District
Rocky Mountain Elk Foundation	Mike Ford	530 842-2021	Participates in restoration planning on behalf of the Rocky Mountain Elk Foundation, especially Petersburg Pines project.
California Deer Association	Matt Rogers	530 713-2309	Participates in restoration planning on behalf of the California Deer Association, especially Petersburg Pines Project
National Wild Turkey Federation	John Thiebes	541 772-9908	Participates in restoration planning on behalf of the National Wild Turkey Federation
Wilderness Society	Rich Fairbanks	541 899-9558	Gave project review and attended field trips that helped finalize the proposed action for Petersburg Pines.

Attachment D - Members of the Collaborative

(Click on image of each letter, or see the full Letters at “Special Interests” at <http://www.co.siskiyou.ca.us/>)

The Klamath collaboration group is formed of interested parties who have been working as a cohesive group, addressing Forest wide plans, and separately, representing specific interest areas or geographic regions. The collaborators have worked with planners from the Klamath National Forest to develop the individual projects meeting the goals stated in the CFLR proposal. Many of the collaborators have emphasis areas and interests. For example, the Seiad Fire Safe Counsel is most concerned with activities improving the fire safeness of Seiad Valley and Hamburg. This group has been instrumental in the development of the Thom-Seider Vegetation Management project. Similarly, the Salmon River Fire Safe Council emphasized the need to protect areas in the Upper South Fork of the Salmon River, especially egress and ingress routes. The table of interested parties included in Attachment C reflects two efforts of collaboration: 1) building the CFLRP Proposal, and 2) groups who have collaborated on the design of individual projects. The groups have helped the Forest craft projects to address the multiple concerns of this diverse assemblage.

Since the Klamath proposal is focused on implementing planned projects, the collaboration group would help to prioritize these activities. These groups are committed to assisting the Klamath NF with identifying high priority restoration areas as well as identifying where the greatest value will be gained. Taking an ‘all lands’ approach will bring greater effectiveness to treatments on national forest and private lands and ensure the expectations of the collaborators and public are met.

The collaboration group will also assist the Klamath NF with measuring the success of the activities. Tiering to the interests and concerns of individual collaborators, parts of the plan to measure success have been and will continue to be developed to align with the implementation schedule. This will be done through formal and informal monitoring.

The Klamath NF is taking great care to not exclude any interested parties based on their ability to participate. The majorities of the collaborators are volunteer, nonprofit, underfunded, or have limited time available to participate. Understanding this, the Klamath NF is committed to maintaining an open door to all interested parties, and remaining fluid enough to respond to the needs and expectations of the public.



February 8, 2011

Klamath National Forest
1312 Fairlane Road
Yreka, CA 96097

Ref: Klamath River Restoration and Community Protection Proposal

To Whom It May Concern:

The Klamath collaboration group is formed of interested parties who have been working both together and separately for many years to meet the goals stated in the CFLR proposal. The collaborators have worked with planners from the Klamath National Forest to design the many individual projects listed in the proposal. The CFLR would help to fund the implementation of these projects so that the planned actions would be accomplished.

The goals of the Klamath River Communities CFLR landscape strategy are to: protect life and property from wildfire; greatly reduce the significant cost, number injuries, and deaths incurred during wildfire suppression in the Klamath Mountains; increase the effectiveness of wildfire management so that fire adapted ecosystems can be safely and more readily restored; protect and restore high priority watersheds; protect and restore ecologic, cultural, and economic values at risk; and increase economic stability and sustainability.

Implementation of the CFLR project will also improve local socio-economic conditions in the short- and long-term by: increasing employment opportunities in restoration work; increasing economic activity in businesses that directly or indirectly support restoration work; protecting silvicultural investments and long-term timber production capability through thinning and/or prescribed burning of over-dense fire-suppressed stands; utilization of restoration by-products such as saw-timber, biomass, and firewood; protecting and restoring culturally important plants species and plant communities; and by protecting the biological diversity and aesthetic values of the landscape upon which the tourism and recreation industries depend.

NORTHERN CALIFORNIA RESOURCE CENTER
P.O. BOX 342
FORT JONES, CA 96032
530-468-2888
WWW.CALIFORNIARESOURCECENTER.ORG



Salmon River Restoration Council

PO Box 1089 ♦ 25631 Sawyers Bar Rd ♦ Sawyers Bar, CA 96027

Email: info@srcc.org ♦ webpage: www.srcc.org

Phone: (530) 462-4665 ♦ fax: (530) 462-4664

February 16, 2011

Klamath National Forest
1312 Fairlane Road
Yreka, CA 96097

Re: Klamath River Restoration and Community Protection Proposal

To Whom It May Concern:

The Salmon River Restoration Council and Salmon River Fire Safe Council have worked with planners from the Klamath National Forest to design the many individual projects listed in the proposal. The CFLR would help to fund the implementation of these projects so that the planned actions would be accomplished.

The goals of the Klamath River Communities CFLR landscape strategy are to: protect life and property from wildfire; greatly reduce the significant cost, number injuries, and deaths incurred during wildfire suppression in the Klamath Mountains; increase the effectiveness of wildfire management so that fire adapted ecosystems can be safely and more readily restored; protect and restore high priority watersheds; protect and restore ecologic, cultural, and economic values at risk; and increase economic stability and sustainability.

Implementation of the CFLR project will also improve local socio-economic conditions in the short- and long-term by: increasing employment opportunities in restoration work; increasing economic activity in businesses that directly or indirectly support restoration work; protecting silvicultural investments and long-term timber production capability through thinning and/or prescribed burning of over-dense fire-suppressed stands; utilization of restoration by-products such as saw-timber, biomass, and firewood; protecting and restoring culturally important plants species and plant communities; and by protecting the biological diversity and aesthetic values of the landscape upon which the tourism and recreation industries depend.

The Salmon River Restoration Council (SRRC) is a private, non-profit corporation located in Sawyers Bar, Siskiyou County, California. Our mission is to assess, protect, and maintain the Salmon River ecosystem with the

Attachment E -- TREAT - Treatments for Restoration Economic Analysis Tool

Klamath River Community Protection CFLRP

Select Your FS Region Below

Region_5 ▼

Enter Funding and Employment

Enter Total Proposed Funding	54,228,003
Enter number of years for project implementation	10
Annual Project Funding	5,422,800
Enter percent of this funding that is going to be used for contracted work (<u>Regional firms only</u>)	90%
Enter percent of this funding that is going to be used for Force Account Implementation & Monitoring	10%
Totals -- must be less than or equal to 100%	100%
Enter Annual Force Account FTEs For Implementation & Monitoring	8

Contract Funding Distributions: Enter % of Contracted Funding Applied to Categories Below

Description	Types of Products	Project Percent
Facilities, Watershed, Roads and Trails		20%
Abandoned Mine Lands		0%
Ecosystem Restoration, Hazardous Fuels and Forest Health	<p>No commercial products. Primarily labor intensive, simple mechanical treatments such as thinning with chain saws, piling and burning, etc.</p>	51%
Contracted Monitoring (Does not include in-kind and volunteer contributions)	Services Contracted for monitoring	0%
Thinning and Biomass Harvesting	<p>Includes only commercial products (also commercial firewood). Includes chipping in the woods and mechanical treatments such as commercial logging, mastication, etc.</p>	29%
Totals -- must be less than or equal to 100%		100%

% of
Total

Enter amount of harvest volume, if any, that will be produced by the project

CCF	82,924.00	70.8%
MBF		0.0%
Dry Tons	37,768.00	26.9%
Cords	3,224.00	2.3%
Total CCF==>	117,067.11	100%
Annual Total CCF==>	11,706.71	

Product Distributions: Enter % of Harvest Processed by Firms Based in Model Area

Description	Types of Prdts Shipped	Volume Percent
Sawmills and wood preservation	lumber, bolts, woodchips, pallets, posts, poles, pressure and creosote treated lumber	42%
Veneer and plywood manufacturing	veneer, plywood	28%
Engineered wood member and truss manufacturing	various engineered products, trusses	0%
Reconstituted wood product manufacturing	particleboard, fiberboard, hardboard, OSB	0%
Wood container and pallet manufacturing	wood boxes, flats, baskets, casks, crates and pallets	0%
Prefabricated wood building manufacturing	residential/ farm bldgs, sections, & panels	0%
All other miscellaneous wood product manufacturing	wood dowels, wood handles, toothpicks	0%
Pulp Mills	pulp only	0%

Paper Mills	paper of all types	0%	
Paperboard Mills	paperboard	0%	
Paperboard Container Manufacturing	paper boxes, containers, cartons,tubes	0%	
Biomass--Cogen	electricity and heat	27%	
Firewood (Commercial)	commercial firewood		
Firewood (Home Use)	firewood for home use	3.0%	
Totals -- must be less than or equal to 100%			100%

Note: All dollar data assumed to be 2010 dollars

ATTACHMENT E - Predicted Jobs Table from Treat Spreadsheet

Region 5

TREAT Project Impacts for: Klamath River Community Protection CFLRP

SUMMARY TABLES: Average Annual Impacts

	Employment (# Part and Full-time Jobs)	Labor Inc (2010 \$)
Commercial Forest Products	71.6	\$3,668,678
Other Project Activities	73.7	\$3,552,121
FS Implementation and Monitoring	12.2	\$553,729
Total Project Impacts	157.5	\$7,774,528

Note

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

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

Impacts-Jobs and Income

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

Detailed Average Annual Impacts Table

	Employment (# Part and Full-time Jobs)			Labor Inc (2010 \$)		
	Direct	Indirect and Induced	Total	Direct	Indirect and Induced	Total
Thinning-Biomass: Commercial Forest Products						
Logging	14.5	17.3	31.9	709,140	879,056	1,588,196
Sawmills	7.4	14.1	21.5	399,805	620,164	1,019,969
Plywood and Veneer Softwood	3.9	4.4	8.4	213,229	258,190	471,420
Plywood and Veneer Hardwood	-	-	-	-	-	-
Oriented Strand Board (OSB)	-	-	-	-	-	-
Mills Processing Roundwood Pulp Wood	-	-	-	-	-	-
Other Timber Products	-	-	-	-	-	-
Facilities Processing Residue From Sawmills	1.5	3.4	4.8	111,945	168,625	280,570
Facilities Processing Residue From Plywood/Veneer	1.3	3.0	4.3	99,507	149,889	249,396
Biomass--Cogen	0.4	0.3	0.7	38,352	20,775	59,128
Commercial Firewood	0.0	0.0	0.0	\$0	\$0	\$0
Total Commercial Forest Products	29.0	42.5	71.6	1,571,979	2,096,699	3,668,678
Other Project Activities						
Facilities, Watershed, Roads and Trails	7.9	5.1	13.0	\$515,996	\$279,743	\$795,739
Abandoned Mine Lands Ecosystem Restoration, Hazardous Fuels, and Forest Health	0.0	0.0	0.0	\$0	\$0	\$0
Contracted Monitoring	50.1	10.7	60.7	\$2,042,267	\$532,127	\$2,574,394
FS Implementation and Monitoring	0.0	0.0	0.0	\$0	\$0	\$0
	9.2	3.0	12.2	\$374,802	\$150,557	\$525,360
Total Other Project Activities	67.2	18.7	85.9	\$2,933,066	\$962,428	\$3,895,493
Total All Impacts	96.2	61.2	157.5	\$4,505,045	\$3,059,127	\$7,564,171

Attachment F (Funding) - Klamath Proposal

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2011 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2011 Funding Type	Dollars/Value Planned
1. FY 2011 Funding for Implementation	\$2,632,000
2. FY 2011 Funding for Monitoring	\$200,000
3. USFS Appropriated Funds	\$2,832,000
4. USFS Permanent & Trust Funds	\$30,000
5. Partnership Funds	\$80,000
6. Partnership In-Kind Services Value	\$60,000
7. Estimated Forest Product Value	\$921,000
8. Other (specify)	\$0
9. FY 2011 Total (total of 1-6 above for matching CFLRP request)	\$3,923,000
10. FY 2011 CFLRP request (must be equal to or less than above total)	\$1,900,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2011 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds	
13. Other Public Funding	
14. Private Funding - PacifiCorp Coho Enhancement Fund	\$250,000

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2012 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2012 Funding Type	Dollars/Value Planned
1. FY 2012 Funding for Implementation	\$1,800,000
2. FY 2012 Funding for Monitoring	\$200,000
3. USFS Appropriated Funds	\$2,000,000
4. USFS Permanent & Trust Funds	\$25,000
5. Partnership Funds	\$46,500
6. Partnership In-Kind Services Value	\$60,000
7. Estimated Forest Product Value	\$220,000
8. Other (specify)	\$0
9. FY 2012 Total (total of 1-6 above for matching CFLRP request)	\$2,351,500
10. FY 2012 CFLRP request (must be equal to or less than above total)	\$1,665,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2012 Funding Type	Dollars Planned

11. USDI BLM Funds	
12. USDI (other) Funds - 5% of KBRA Appendix C-2 (Agreement related to Klamath Dams and Restoration, may also include BLM, NMFS, EPA, Bureau of Indian Affairs, and USDA)	2,071,300
13. Other Public Funding -	
14. Private Funding - PacifiCorp Coho Enhancement Fund	\$250,000

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2013 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2013 Funding Type	Dollars/Value Planned
1. FY 2013 Funding for Implementation	\$1,800,000
2. FY 2013 Funding for Monitoring	\$200,000
3. USFS Appropriated Funds	\$2,000,000
4. USFS Permanent & Trust Funds	\$25,000
5. Partnership Funds	\$46,500
6. Partnership In-Kind Services Value	\$60,000
7. Estimated Forest Product Value	\$220,000
8. Other (specify)	\$0
9. FY 2013 Total (total of 1-6 above for matching CFLRP request)	\$2,351,500
10. FY 2013 CFLRP request (must be equal to or less than above total)	\$1,665,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2013 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds - 5% of KBRA Appendix C-2 (Agreement related to Klamath Dams and Restoration, may also include BLM, NMFS, EPA, Bureau of Indian Affairs, and USDA)	\$ 5,139,300
13. Other Public Funding -	
14. Private Funding - PacifiCorp Coho Enhancement Fund	\$250,000

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2014 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2014 Funding Type	Dollars/Value Planned
1. FY 2014 Funding for Implementation	\$1,800,000
2. FY 2014 Funding for Monitoring	\$200,000
3. USFS Appropriated Funds	\$2,000,000
4. USFS Permanent & Trust Funds	\$25,000

5. Partnership Funds	\$46,500
6. Partnership In-Kind Services Value	\$60,000
7. Estimated Forest Product Value	\$220,000
8. Other (specify)	\$0
9. FY 2014 Total (total of 1-6 above for matching CFLRP request)	\$2,351,500
10. FY 2014 CFLRP request (must be equal to or less than above total)	\$1,665,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2014 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds - 5% of KBRA Appendix C-2 (Agreement related to Klamath Dams and Restoration, may also include BLM, NMFS, EPA, Bureau of Indian Affairs, and USDA)	\$ 5,829,200
13. Other Public Funding -	
14. Private Funding - PacifiCorp Coho Enhancement Fund	\$250,000

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2015 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2015 Funding Type	Dollars/Value Planned
1. FY 2015 Funding for Implementation	\$1,800,000
2. FY 2015 Funding for Monitoring	\$200,000
3. USFS Appropriated Funds	\$2,000,000
4. USFS Permanent & Trust Funds	\$25,000
5. Partnership Funds	\$46,500
6. Partnership In-Kind Services Value	\$60,000
7. Estimated Forest Product Value	\$220,000
8. Other (specify)	\$0
9. FY 2015 Total (total of 1-6 above for matching CFLRP request)	\$2,351,500
10. FY 2015 CFLRP request (must be equal to or less than above total)	\$1,665,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2015 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds - 5% of KBRA Appendix C-2 (Agreement related to Klamath Dams and Restoration, may also include BLM, NMFS, EPA, Bureau of Indian Affairs, and USDA)	\$ 4,697,650
13. Other Public Funding -	
14. Private Funding - PacifiCorp Coho Enhancement Fund	\$250,000

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2016 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2016 Funding Type	Dollars/Value Planned
1. FY 2016 Funding for Implementation	\$1,800,000
2. FY 2016 Funding for Monitoring	\$200,000
3. USFS Appropriated Funds	\$2,000,000
4. USFS Permanent & Trust Funds	\$25,000
5. Partnership Funds	\$46,500
6. Partnership In-Kind Services Value	\$60,000
7. Estimated Forest Product Value	\$220,000
8. Other (specify)	\$0
9. FY 2016 Total (total of 1-6 above for matching CFLRP request)	\$2,351,500
10. FY 2016 CFLRP request (must be equal to or less than above total)	\$1,665,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2016 Funding Type	Dollars Planned
11. USDI BLM Funds	\$4,634,900
12. USDI (other) Funds - 5% of KBRA Appendix C-2 (Agreement related to Klamath Dams and Restoration, may also include BLM, NMFS, EPA, Bureau of Indian Affairs, and USDA)	
13. Other Public Funding -	
14. Private Funding - PacifiCorp Coho Enhancement Fund	\$250,000

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2017 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2017 Funding Type	Dollars/Value Planned
1. FY 2017 Funding for Implementation	\$1,800,000
2. FY 2017 Funding for Monitoring	\$200,000
3. USFS Appropriated Funds	\$2,000,000
4. USFS Permanent & Trust Funds	\$25,000
5. Partnership Funds	\$46,500
6. Partnership In-Kind Services Value	\$60,000

7. Estimated Forest Product Value	\$220,000
8. Other (specify)	\$0
9. FY 2017 Total (total of 1-6 above for matching CFLRP request)	\$2,351,500
10. FY 2017 CFLRP request (must be equal to or less than above total)	\$1,665,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2017 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds - 5% of KBRA Appendix C-2 (Agreement related to Klamath Dams and Restoration, may also include BLM, NMFS, EPA, Bureau of Indian Affairs, and USDA)	4,692,000
13. Other Public Funding -	
14. Private Funding - PacifiCorp Coho Enhancement Fund	\$250,000

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2018 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2018 Funding Type	Dollars/Value Planned
1. FY 2018 Funding for Implementation	\$1,800,000
2. FY 2018 Funding for Monitoring	\$200,000
3. USFS Appropriated Funds	\$2,000,000
4. USFS Permanent & Trust Funds	\$25,000
5. Partnership Funds	\$46,500
6. Partnership In-Kind Services Value	\$60,000
7. Estimated Forest Product Value	\$220,000
8. Other (specify)	\$0
9. FY 2018 Total (total of 1-6 above for matching CFLRP request)	\$2,351,500
10. FY 2018 CFLRP request (must be equal to or less than above total)	\$1,665,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2018 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds - 5% of KBRA Appendix C-2 (Agreement related to Klamath Dams and Restoration, may also include BLM, NMFS, EPA, Bureau of Indian Affairs, and USDA)	\$ 5,861,750
13. Other Public Funding -	
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 2019 Funding Type	Dollars/Value Planned
1. FY 2019 Funding for Implementation	\$1,800,000
2. FY 2019 Funding for Monitoring	\$200,000
3. USFS Appropriated Funds	\$2,000,000
4. USFS Permanent & Trust Funds	\$25,000
5. Partnership Funds	\$46,500
6. Partnership In-Kind Services Value	\$60,000
7. Estimated Forest Product Value	\$220,000
8. Other (specify)	\$0
9. FY 2019 Total (total of 1-6 above for matching CFLRP request)	\$2,351,500
10. FY 2019 CFLRP request (must be equal to or less than above total)	\$1,665,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2019 Funding Type	Dollars Planned
11. USDI BLM Funds	
12. USDI (other) Funds - 5% of KBRA Appendix C-2 (Agreement related to Klamath Dams and Restoration, may also include BLM, NMFS, EPA, Bureau of Indian Affairs, and USDA)	\$5,335,000
13. Other Public Funding -	
Private Funding	\$0

Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2020 to match funding from the Collaborative Forested Landscape Restoration Fund	
Fiscal Year 2020 Funding Type	Dollars/Value Planned
1. FY 2020 Funding for Implementation	\$1,800,000
2. FY 2020 Funding for Monitoring	\$200,000
3. USFS Appropriated Funds	\$2,000,000
4. USFS Permanent & Trust Funds	\$25,000
5. Partnership Funds	\$46,500
6. Partnership In-Kind Services Value	\$60,000
7. Estimated Forest Product Value	\$220,000
8. Other (specify)	\$0
9. FY 2020 Total (total of 1-6 above for matching CFLRP request)	\$2,351,500
10. FY 2020 CFLRP request (must be equal to or less than above total)	\$1,665,000
Funding off NFS lands associated with proposal in FY 2010 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund)	
Fiscal Year 2020 Funding Type	Dollars Planned

11. USDI BLM Funds	
12. USDI (other) Funds - 5% of KBRA Appendix C-2 (Agreement related to Klamath Dams and Restoration, may also include BLM, NMFS, EPA, Bureau of Indian Affairs, and USDA)	\$ 6,095,500
13. Other Public Funding -	
Private Funding	\$0

Attachment G: Also see Siskiyou county website, at “Special Interests” at <http://www.co.siskiyou.ca.us/>

