FI-240

DWR WAREHOUSE
97 JUL 28 PM 3:37

CALFED Category III Proposal

Lower South Fork American River Project

Focusing Efforts in
Tributaries including:

Traverse Creek
Rount Tent Canyon
Soldier Creek
and
Riverton Watersheds

Submitted By: USDA- Forest Service
Eldorado National Forest
John Phipps, Forest Supervisor
100 Forni Road
Placerville, CA 95667

Technical Contact: Christine Mai, Hydrologist
John Carr, Financial Contact
100 Forni Road
Placerville, California 95667
(916)622-5061 office
(916)621-5297 fax

RFP Project Group Type: Watershed Project Implementation

EXECUTIVE SUMMARY

Eldorado National Forest Watershed Improvements and Fire Hazard Reduction in the Cosumnes River and South Fork American River Basins

The Eldorado National Forest has developed two proposals for CALFED Category III projects in the upper watersheds of the Cosumnes River and Lower South Fork American River Basins. Projects include hydrologic restoration work, trail and road improvements and or maintainence, meadow restoration and improvements and fire hazard reduction.

Riparian resources and associated beneficial uses of water will be enhanced through the implementation of projects that decrease non-point sources of pollution, and improve water yield. Through the strategic application of fuel reduction currently occurring on the forest to reduce excessive surface and ladder fuel loads a reduction in wildfire intensity and spread will occur. The proposed projects aid and enhance the forest in linking the strategic application of fire hazard reduction projects as part of the total forest fuel and vegetation management program.

The approach utilized existing watershed improvement and fuel reduction treatments that have been identified in several of the forests environmental analysis, where funding was not included or unavailable.

The proposed activities are consistant with planned Forest Health projects which will be implemented on the forest within the next three years. The identified tasks will not be needed as a result of the planned management activities, but represent needed activities which have been identified during the project planning process, and will not be adequately funded through forest resources to be accomplished in the near future.

Overall watershed health within the upper watershed areas of the Bay-Delta ecosystem is an essential component of providing for health of the Bay-Delta dependent aqcuatic resources. The Eldorado National Forest projects will serve to improve the sediment balance, local storm hydrographs, the quality, quantity and timing of stream flow, and reduce the potential for high intensity wildfires within these watersheds. The improvement of these areas will reduce risks of the cummulative effects of future potential large storm and fire events to downstream beneficial uses of water, including the Bay-Delta ecosystem.

Budget proposals are included by watershed with estimated budget for each treatment and adminstrative overhead estimated at 12%. Fire hazard reduction uses a unit of measure in acres for a specific treatment, while the other work sometimes includes combinations of tasks lumped together. For example non-point pollution through road improvement work could be several tasks, cleaning ditches, removing berms, spot rocking etc.

The qualifications of the Eldorado National Forest staff are commensurate with the required federal X118 qualifications for personel. Employees which will be involved with the proposed projects will perform at the assigned duty level for which they are qualified. Specialists which will be involved in the project implementation include the Forest Soil Scientist, Forest Hydrologists, Forest

Fire Management Specialist, Forest Engineer, and district fire, timber, wildlife, and resource personel.

Monitoring will include opportunities to incorporate the Region 5 Best Management Practices Evaluation Program and other fire management and watershedmonitoring required annually by the Forest Land and Resource Management Plan (USDA, 1998). Monitoring will also be accomplished through on site inspections and interdisciplinary reviews.

Local support for the proposed projects includes El Dorado County Officials, and the El Dorado County and Georgetown Divide Resource Conservation Districts.

Project Description & Approach:

The following watershed and fire hazard treatment opportunities exist in El Dorado County in the South Fork American River Basin. Treatments focus on four watershed areas that contribute flows into the South Fork American River: Traverse Creek, Round Tent Canyon, Soldier Creek and Riverton Watersheds. Objectives of treatment includes controlling sources of active erosion (primarily on roads) and improving soil productivity in areas that are compacted as well as restoring watershed vegetative species and stand structure that supports recurring low intensity wildfires consistent with historic fire return intervals. Fuels management includes strategic application of fuel reduction zones to decrease excessive surface and ladder fuel loads utilizing prescribed fire in combination with hand thinning and piling.

Expected Benefits:

Riparian resources and associated beneficial uses of water will be enhanced by decreasing non-point sources of pollution, improving the water storage capacity of the watershed. Wildfires can have devastating effects on watershed health that in turn, affects the quantity, timing and quality of inflows to the Delta and San Francisco Bay from the upper watersheds. Benefits of these projects include decreasing threat of wildfire to life property and resources. A reduction in wildfire intensity and spread will aid in fire control at smaller sizes and decreased fire suppression costs. A decrease in high intensity wildfire will prevent accelerated runoffs during the times of peak flows and reduce the transport of soil particles and sediment, protect soils, water, and other resource values such as: wildlife, timber, air, recreation and heritage resources.

Fire including, prescribed fire will remain an essential element of these watersheds and will be controlled by the reduction of fuel loads to levels that are consistant with maintaining watershed and forest health.

Background:

The South Fork American River is rated as having very high fire hazard (flammability of dead and live vegetation) and high risk of fire ignitions (human and natural caused). Roughly 25,000 acres within the South Fork American River was burned in the 1992 Cleveland Wildfire and much of the surrounding area continues to be at extreme risk of another catastrophic wildfire. High intensity long duration storms of January 1997 took their toll on the previously burned portions of the South Fork American River resulting in closure of Highway 50 due to numerous large landslides and debris flows. An enormous amount of sediment was delivered to the South Fork of the American River. Prior to the recent impacts, condition of fisheries in the lower portion of the South Fork American River were considered to be sub-optimal (PG&E-1982 and 1991, Calif Dept of Fish & Game-1992 and Eldorado NF Fisheries-1996). In an effort to reduce existing sediment loads and the potential for the impacts that would be associated with another large wildfire, land management treatments are being proposed within four watershed areas that contribute flows into the South Fork American River: Traverse Creek, Round Tent Canyon, Soldier Creek and Riverton Watersheds. The presence of areas known to have poor watershed conditions increases this concern for impacting water quality and down stream beneficial uses of water.

To further validate the concerns for the South Fork American River findings of the recent Sierra Nevada Ecosystem Project indicate the following:

> "The aquatic/riparian systems are the most altered habitats of the Sierra Nevada. Riparian areas have been damaged extensively. Extensive sediment yield into streams remains a widespread water quality problem." (Sierra Nevada Ecosystem Project, Vol 1).

> "Fire is a natural evolutionary force that has influenced Sierran ecosystems for a millenia. Live and dead fuels in todays conifer forests are more abundant and continuous than in the past. Fuel accumulation has increased fire severity more than any other recent human activity. An increasing number of homes and people are at high risk of loss from wildfire unless hazards are mitigated." (Sierra Nevada Ecosystem Project, Vol 1).

Other recent publications have documented the existing condition related to fire hazard and risk of ignition in the Sierra Nevada. The California Spotted Owl: A Technical Assessment of its Current Status contains recommendations to treat surface and ladder fuels as necessary to create a mosaic of fuel profiles that will minimize the probability of extensive stand-destroying wildfires.

Since the early part of this century, two major activities have worked together to greatly influence the structure and function of the forest we see today in the mid-elevations on the Eldorado. The first activity, and the one of greater effect, is fire exclusion; the second is selective harvesting of the large, old ponderosa and sugar pine. Fire exclusion and harvest practices over the last century have caused an increase in the density of fire-intolerant conifer species, such as white fir and incense cedar, both of which are easily killed by low-intensity surface fires typical of a historic fire regime. This has caused an increase in shading to the forest floor and a constantly occurring duff layer, resulting in the inability of shade-intolerant species, such as ponderosa pine and sugar pine, to survive in numbers that would allow for the continuation of these species and the habitats they represent.

These changes have caused an increase in the risk of crown fires. The lack of fire and past harvest practices have caused an increase in surface fuels. Where the predominant overstory still exists, there are now dense understory canopies that, combined with the added surface fuels, create fuel ladders into these upper crowns. These predominant trees should represent the most fire resistant component of the forested ecosystem, but the fuel ladders have put these trees at risk. These trees are also at risk from drought-induced stress, caused by high competition levels represented by dense understory canopies.

Resource specialists from the forest conducted a landscape level analyses that identified highest priority areas that if treated would provide the greatest reduction in fire hazard and risk of ignition. The forest identified areas in need of treatment because they represent a substantial deviation from what would be expected to occur under a historic fire regime in terms of vegetative structure and content. The American River tributary watersheds which are under focus in this proposal are high priority areas.

Proposed Scope of Work:

Water Quality Improvement Work:

Due to urban interface and mixed ownerships, it has been difficult for the USFS to conduct inventories of existing conditions as well as to plan projects. More work is needed to identify areas that may have degraded watershed conditions.

Restoring soil productivity and hydrologic function on roughly 15 acres of compacted road surfaces, landings and skid trails.
Treating non-point source pollution through road improvement work on roughly 50 miles of roads. Work would include reestablishing proper drainage, cleaning ditches, removing berms, spot rocking, out sloping etc.

Fire Hazard Reduction opportunities will entail treatment of large areas of brush and submerchantable conifer reproduction (ladder fuels) in the Traverse Creek watershed. This would include brush mastication by machine, hand piling, limbing, pruning with handtools and chainsaws and thinning brush and submerchantable (< 10" diameter) small conifer trees to reduce the ability of the fire to spread and climb into tree crowns and there by reduce the intensity of future wildfires that cause significant damage to existing resource values. Treatments would be done with a "slash-buster" machine and 5-20 person crews utilizing chainsaws and handtools.

Fire Hazard Reduction Projects:

Hand applications will focus on surface and ladder fuel build up in Round Tent Riverton Watersheds along streamside management zones, ridgetops and south facing slopes within the 95/96 Round Tent prescribed burn area.

Mechanical treatments will focus on reducing the density and coverage of live brush in the Traverse Creek watershed and reduce the potential for negative fire effects, while increasing the ability to control unwanted wildfires.

Financial project work plans will be completed prior to allocation of funding. Monthly project managers statements will be utilized to monitor progress and track expenditures.

Monitoring and Data Evaluation:

Monitoring will be accomplished through on site inspections and interdisciplinary reviews. Additionally, the forest will utilize the Best Management Practice Evaluation Program and other fuels and watershed monitoring required annually by the Forest Land Resources Management Plan (USDA, 1988). These evaluations are conducted annually by the Forest Hydrologist and the Fire Management Officer.

Implementability:

National Forest management is controlled and guided by numerous state and federal, laws, regulations and policies. All forest management projects will be in compliance with legislation that includes but is not limited to the following: Organic Administration Act of 1897; Multiple Use Sustained Yield Act of 1960; National Forest Management Act (NFMA) of 1976; National Environmental Policy Act (NEPA) of 1969; Endangered Species Act of 1973;

Clean Water Act of 1972; and the Porter Cologne Water Quality Control Act of 1989.

Environmental analysis and documentation required under NEPA is in place for some of the above described projects. Fire hazard reduction environmental documentation is in place for the Round Tent area, while the Traverse Creek watershed will require documentation for the brush mastication projects. Prior to implementation however sensitive plants, wildlife and cultural sites will be revisited to determine if circumstances have changed or if further analysis will be necessary to ensure protection of resources. There are no other permits or easements required, however adjacent private landowners will be encouraged to adopt similar practices on neighboring lands.

Costs and Work Schedule

Watershed Task to complete	Budget Costs: Base Cost	Material & Misc Cost	Admin Overhead @ 12%	Total Cost
Fire hazard reduction:				
Soldier & Round Tent				
Hand Fuel Reduction 200ac	240/ac	10/ac	6,000	$56,000
Water Quality Improvement:				
Riverton & Solider Cr:				
Non-point pollution control				
13 acres aprox = 13 mi rds			34,320	$320,320
Restoring hydrologic function 50 acres			2,160	$20,160
Fire hazard reduction:				
Traverse Creek:				
Environmental Planning			1800	$16,800
Hog Cyn Brush Mastication & Hog Cyn Prescribe Burn 320ac	265/ac	10/ac	10,560	$98,560
Grey Eagle Prescribe Burn 220	115/ac	10/ac	3,300	$30,800
Pegleg Brush Mastication 500	240	10/ac	15,000	$140,000
Kitts Canyon Mastication 135	240	10/ac	4050	$37,850
Water Quality Improvement:				
Traverse Cr:				
Road improvement work			18,000	$168,000
Restoring hydrologic function			1200	$11,200
Watershed Improvement Project Inventory			300	2,800
total for 3 years				$752,490

Work Schedule

Watershed Task to Complete	Survey of changed Circumstances	Start Date	Completion Date
Fire hazard reduction:			
Soldier Cr & Round Tent Cyn	10/1/97	10/1/97	10/31/2000
Traverse Cr	10/1/97	10/1/97	10/31/2000
Water Quality Improvement:			
Riverton & Solider Cr			
Non-point source control	10/1/97	3/1/98	10/31/2000
Restoring hydrologic function	10/1/97	10/98	10/31/2000
Traverse Cr			
Road improvement work	10/1/97	10/1/97	10/31/2000
Restoring hydrologic function	10/1/97	10/1/97	9/30/2000

No negative third party impacts are anticipated as a result of this proposal. Any impacts are considered to be desirable thru in increase in watershed health and function, while reducing the potential for losses to life, property and resources from large intense wildfires.

Applicant Qualifications:

The Forest Service employs a staff of professionals who are trained to complete the tasks at hand. The staff includes but is not limited to hydrologists, a geologist, a soils scientist, botanists, fire management specialists, fuels specialists, wildland fire suppression crews, archaeologists, wildlife biologists, road construction and maintenance crews, heavy equipment operators and forest and road engineers.

Forest hydrologists and the fire management specialist have drafted this proposal and are best suited to provide technical support of the work.

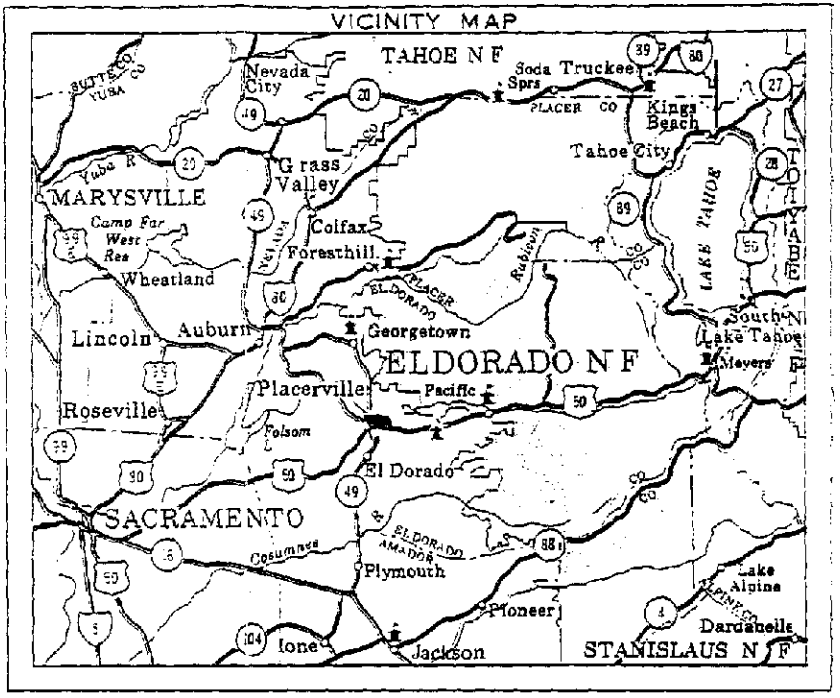
Permanent, seasonal and temporary wildland fire suppression personnel would be best suited to accomplish fire hazard reduction projects.

Soil productivity restoration would be accomplished by either our forest construction and maintenance crew, forest equipment operators (30%) or by contracting (70%).

Compliance with contract requirements, standard terms and conditions:

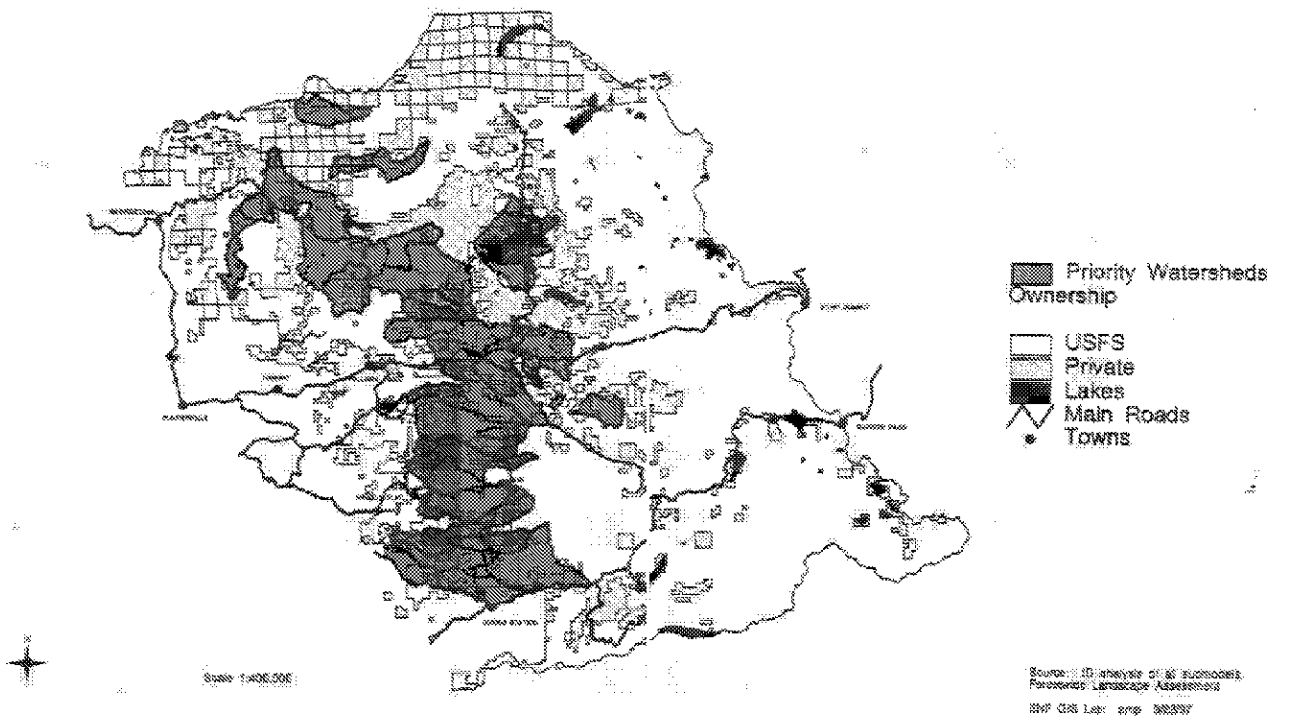
Any and all contract work would be in compliance with the guidelines set forth in the CALFED Request for Proposal Requirements as applicable to Federal agencies in addition to those required by federal guidelines.

(8)


VICINITY MAP
TAHOE N F
Nevada City
Soda Sprs
Truckee
PLACER CO
Kings Beach
Tahoe City
LAKE TAHOE
Yuba R
MARYSVILLE
Grass Valley
Colfax
Camp Far West Res
Foresthill
Wheatland
Rubicon
PLACER
ELDORADO
Georgetown
Lincoln
Auburn
ELDORADO N F
South Lake Tahoe
Meyers
Placerville
Pacific
Roseville
Folsom
El Dorado
SACRAMENTO
Cosumnes
ELDORADO
AMADOR
Plymouth
Lake Alpine
Pioneer
Dardanelle
Ione
Jackson
STANISLAUS N F

ELDORADO NATIONAL FOREST
Priority Watersheds

Forestwide Landscape Assessment Project



I-005222