Date of Report: 09/08/00

BURNED-AREA REPORT

(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[x] 1. Funding Request for Estimated WFSU-FW22 Funds

[ ] 2. Accomplishment Report

[ ] 3. No Treatment Recommendation

B. Type of Action

[x] 1. Initial Request (Best estimate of funds needed to complete eligible rehabilitation measures)

[ ] 2. Interim Report

[ ] Updating the initial funding request based on more accurate site data and design analysis

[ ] Status of accomplishments to date

[ ] 3. Final report-following completion of work

PART II - BURNED-AREA DESCRIPTION

A. Fire Name: Manter Fire

B. Fire Number: CA-SQF-2114

C. State: California

D. County: Tulare /Kern

E. Region: Region 5

F. Forest: Sequoia

G. District: Cannell Meadow Ranger District

H. Date Fire Started: 07/22/00

I. Date Fire Controlled: 09/06/2000

J. Suppression Cost: $13,963,764

K. Fire Suppression Damages Repaired with WFSU-PF12 Funds: $1,200,000

1. Fireline waterbarred (miles) 1.6 miles

2. Fireline seeded (miles) 0

3.) Lop and Scatter brush on fireline 10.1

L. Watershed Number: 1803000203/202 South Fork Kern

M. NFS Acres Burned: 55,026

Total Acres Burned: 79,224

( )State (21,036)BLM (3,162)PVT ( )

N. Vegetation Types: Mixed Conifer, Mixed Chaparral, Juniper, Pinion Pine
Hardwood Forest, Herbaceous Sagebrush Scrub

O. Dominant Soils: Haploxerolls, Xerorthenths, Xerochrepts Xeropsamments
And rock outcrops

P. Geologic Types: Granitic and Meta-Volcanic/ Meta-Sedimentary

Q. Miles of Stream Channels by Order:

388	173	93	62	26	23.65
Order 1	Order 2	Order 3	Order 4	Order 5	Order 6

R. Transportation System:

Trails: 57.7 miles Roads: 31.8 miles

PART III – WATERSHED CONDITION

A. Fire Intensity (acres): 11,711 (low) 37,678 (moderate) 29,835 (high)

B. Water-Repellent Soil (acres): 16,000

C. Soil Erosion Hazard Rating (acres): 13,758 (low) 19,751 (moderate) 29,835 (high)

D. Erosion Potential: 27 tons/acre

E. Sediment Potential: Varies by watershed cubic yards / square mile
See attached Table

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period: 15-30 years

B. Design Chance of Success: 64-78% percent

C. Equivalent Design Recurrence Interval: 2 years

D. Design Storm Duration: 6 hours

E. Design Storm Magnitude: 1.8 inches

F. Design Flow: Varies by watershed (see attached) cubic feet per second per square mile

G. Estimated Reduction in Infiltration: 20% percent

H. Adjusted Design Flow: Varies (see attached) cubic feet per second per square mile

PART V - SUMMARY OF ANALYSIS

A. **Describe Watershed Emergency**:

Seventeen large watersheds are completely or partially burned. All of these watersheds drain into the South Fork Kern. The six lowermost subwatersheds contain 66% of the high intensity burn and 41% of the moderate intensity burn. The communities of Pine Creek, Long Valley Loop, and Kennedy Meadows are located in these watersheds. Other resource values at risk within the fire include the pure species of California Golden Trout that occurs only within the Fish Creek drainage and its immediate tributaries, the rich heritage resources subject to erosion throughout the fire area, and large beaver populations and beaver dams along the South Fork Kern River. These beaver dams also pose a threat to life and property downstream as the breeching of the dams one on top of the other could create a cumulative effect that could be translated downstream to South Fork Valley.

Downstream of the fire exist the communities of Onyx, Weldon, and numerous ranches. Values at risk include the towns and ranches, bridges on major roadways, a historic cemetery, South Fork Elementary School, croplands, wells, irrigation ditches, and habitat for the Federally Listed Endangered Willow Flycatcher (see Resources at Risk Downstream of Manter Fire Map). Historic data indicates a past history of flooding in the South Fork of the Kern River Valley. In December 1966 a storm resulted in a streamflow of 27,800 cfs which flooded and severely damaged the city of Onyx. Other flooding occurred on January 25, 1969, February 1980, January 1997, and in 1998 resulting in 9,200 cfs, 4,360 cfs, 4,190 cfs, and 2,520 cfs, respectively. Sierra Way bridge has currently only about 4.5 feet of freeboard below the bridge. This is due to the current sedimentation problem from the South Fork Kern. Given that the average annual flow is approximately 700 cfs prior to the 97,224 acre Manter Fire, it is expected that there is a high potential for a watershed emergency.

There is an excessive watershed response in the burned watersheds because of the large areas of high and moderate burn intensities, highly erosive soils, unstable steep slopes, and high degree of rock outcrop that will provide rapid runoff. Water repellency of soils in the watersheds of concern is moderate with areas of high repellency scattered throughout the burned area. Stream channels in the burned area are heavily loaded with stored sediment. Rain-on-snow events and high intensity thunderstorms are known to occur within the fire area. The overall potential increase in the 2-year, 6-hour storm runoff is 150%, while some watersheds burned so intensely that this flow is expected to increase by 390%. Sediment yields are expected to increase an average of 13.2 times with the most affected watersheds to have sediment yields up to 78 times the normal yield. Because of these factors, it has been determined that there is a fire caused emergency for threats to human life, property, and natural resources. There is a definite risk of floods and debris flows in these watersheds and downstream into the South Fork Valley and the areas of Onyx if a rain-on-snow event or high intensity thunderstorm were to occur.

B. **Emergency Treatment Objectives:**

- Protect Life, Health and Property from debris flow and flooding in the Pine Creek Canyon, Messick Ranch, Kennedy Meadows Fire Station area and the down stream South Fork Kern River area from Bloomfield to Lake Isabella. This includes homes, ranches, roads, bridges, key community structures, historic buildings, and a historic cemetery. Protection of domestic water sources, irrigation wells, high value farmland, and telephone/power grids in the South Fork Kern River Valley.

- Protect life and property in the Pine Creek Drainage Long Valley Loop, Mahogany, Mahogany Creek and Sherman Pass roads by protecting the road from failure and reducing downstream sediment delivery.

- Protect long term soil productivity by reducing soil erosion in those areas that were burned at a high intensity and those areas burned at a moderate intensity and have a large component of high intensity**.**

- Protect Forest Service Sensitive California Golden Trout by reducing bank failure and reducing sediment delivery to Fish Creek and its immediate tributaries where the fire burned at high and very high intensity.

- Evaluate and eliminate potential for noxious weeds spreading into wilderness as a result of the fire.
- Protect heritage resource sites from erosion in areas where the land surface is disturbed by roads and at sites where the burn intensity is high and very high.
- Design and apply emergency rehab treatments to minimize or eliminate anticipated impacts to cultural sites

C. Probability of Completing Treatment Prior to First Major Damage-Producing Storm:

Land 70 % Channel 80 % Roads 75 % Other _____ %

D. Probability of Treatment Success

<----Years after treatment----->

	1	3	5
Land	70	70	80

Channel	65	80	80
Roads	75	75	75
Other			

E. Cost of No Action (Including Loss): $ 83,958,763

F. Cost of Selected Alternative (Including Loss): $ 5,015,240

G. Skills Represented on Burned-Area Survey Team:

[x]	Hydrology	[x]	Soils	[x]	Geology	[x]	Range
[x]	Forestry	[x]	Wildlife	[x]	Wilderness	[x]	Engineering
[x]	Botany	[x]	Ecology	[x]	Recreation	[x]	Archaeology
[x]	Fisheries						

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H. **Treatment Narrative:** All alternatives are considerate of the wilderness values within the fire area and have prescribed the minimum tool necessary to perform the tasks prescribed. All alternatives are in response to emergency conditions and need to be implemented in a timely manner to address the emergency. Therefore chainsaw use as well as blasting hazard trees has been recommended. Helicopters are recommended where necessary to transport crews and materials into remote areas within the wilderness. Any impacts resulting from use of helicopters would be rehabilitated. Roads within the wilderness would be used as little as possible to reduce potential resource damage. The weather stations necessary for early warning will need a tower supported by a cement foundation, all of which is to be removed and rehabilitated after the threat of emergency is passed. The following treatments have been proposed to mitigate the threat to life, property, loss of site productivity, and ecosystem protection. Treatments prescribed for private lands are only recommendations and their implementation may be changed to meet State, County, or Private needs.

Land Treatments:

Helicopter Seeding

Objective: This treatment is prescribed to prevent the loss of life and property in the communities of Pine Creek, Chimney Peak, Kennedy Meadows and downstream in the South Fork Kern Valley. Additionally, seeding has been prescribed to protect soil productivity and reduce the potential for flooding, sedimentation, and debris flows in riparian areas. This treatment is prescribed to reduce the potential for sedimentation to beaver dams, which if breech have the potential to cause a cumulative effect downstream and affect resources as well as life and property.

The fire area is situated in three wilderness areas: Domelands, Sacatar Trail and Chimney Peak. Because of wilderness values it is required that the Public agencies use the "minimum tools necessary". The team explored 7 alternatives recommending various combinations of non-persistent and sterile cereal grains. The team received public input from the community and various user groups regarding the seeding prescriptions. The California Native Plant Society and the Sierra Club has voiced concerns centering around the use of non-native species in the wilderness. BLM's position is very clear on the use of non-natives in the wilderness. The cooperating agencies would like to work in concert and create a true multi-agency BAER plan for Public, Private, and Local lands. Therefore seeding prescriptions have been provided that are consistent among the agencies involved. The Sequoia National Forest Supervisor and the Bakersfield BLM Field Office Manager have jointly selected Alternative 6 which prescribes the seeding of sterile cereal grains on Public Lands within the wilderness and recommends non-persistent cereal grains outside the wilderness on private lands. Seeding has been prescribed for only those lands that were intensively burned and have slopes less than 40%. In the urbanized watersheds the entire basin is seeded using non-persistent grains. In the wilderness only those lands that burned intensely are seeded and only in a strip adjacent to the drainages to provide a "buffer strip" to reduce sediment. The use of this expensive seed is very selective and very judicious.

Seeding Prescription: Most of the high intensity burn occurs within wilderness, and seeding with non-native species is generally incompatible with wilderness objectives. Native grass and shrub seed is not available from local commercial sources, therefore, a sterile seed is recommended. Because sterile grains produces non-viable seed they can not persist on site and become naturalized. The total acreage that meets probability of success criteria within the high intensity burn is 17,000 acres. A total of 29,384 acres burned at a high intensity. Seeding is considered to have a possibility of success in areas with slopes less than 40% and rock outcrop cover less than 50%. 20 seeds per square foot is recommended for the urbanized watersheds and 10 seeds per square foot is recommended for other areas. Non-persistent cereal grains have been prescribed as an alternative to the more expensive sterile cereal grains.

Where: High intensity burn areas with slopes less than 40% and rock outcrops total less than 50%. See Suitable Seeding areas map

Treatment Cost: $1,289,897 for sterile seed on Public Lands ($205,747, USFS; $1,084,100, BLM) and $18,551 for non-persistent seed on Private Lands.

Implementation Schedule: Before the next large rain event; within 2 months

Treatment Monitoring: Monitor for seed density of 10 and 20 seeds per square foot during implementation. Evaluation seed catch, of soil movement on site, evaluate for persistence and establishment of native plant species.

Hydro-mulching

Objective: This treatment is prescribed to provide increased ground cover for erosion control and protection in areas of high burn intensity. This treatment is prescribed to reduce erosion to the road systems that lie adjacent to stream courses thereby reducing the potential of road failure and reducing downstream sediment delivery.

Where: Pine Creek Road, Long Valley Loop Road, Upper Chimney Creek watershed and spot locations on Nine mile road.

Treatment Costs: 162 acres @ $2000/acre = $324,000

Implementation Schedule: Implement all treatments as soon as possible and/or before fall**.**

Treatment Monitoring:
Implementation: Assure that the proposed treatment is implemented and constructed to the identified standards.
Effectiveness: Monitor sediment movement offsite.

Mastication Mulching

Objective: This treatment is proposed to minimize soil erosion on high burn intensity ground by providing increased ground cover to reduce displacement of soil from precipitation impacts. Also to reduce sedimentation of Fish Creek, which supports a population of pure, California Golden Trout.

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Where: Areas of high and moderate burn intensity on machine operable slopes in Mahogany and Fish Creek drainages outside the wilderness. These two areas were chosen for this prescription because of the road accessibility, relatively gentle slope gradients and cost effectiveness. This treatment is cost effective as this location would require large transport costs if straw mulch were used. Straw mulching costs can be as much as $1,300 an acre.

Treatment Costs: 1120 acres @ $450/acre = $504,000

Pine Shavings/Needle Mulching

Objective: This treatment addresses concerns of surface stabilization in areas of high burn intensity. This prescription was chosen for this area because native materials can be gathered in the vicinity, transported to the specific site and finally spread for a minimal cost.

Where: Rodeo Flat

Treatment Costs: 5.5 acres @ $3,750/acre = $20,625

Implementation Schedule: Implement treatment as soon as possible and/or before fall.

Hazmat Survey/Treatments

Objective: Reduce impacts to water quality from hazardous materials.

Conduct hazardous materials survey/treatment of burned FS/BLM radio tower shed site and home-sites to prevent downstream contamination and provide protection to homeowners and workers implementing emergency watershed treatments.

Where: Bear Peak and Pine Creek

Treatment Costs: 9 sites @$2,200 ea =$19,800

Implementation Schedule: Implement treatment as soon as possible and before significant rainfall.

Structural Treatments:

Straw Bale Check and Straw Wattles Dams

Objective: Prevent soil erosion, protect aquatic resources, provide protection to slopes to help minimize down cutting and reduce the potential of debris flows/flooding. Treatments will help reduce the amount of ash entering perennial and intermittent streams in the intensely burned areas.

Where: Intensively burned lands in Pine Creek Watershed, Manter Meadows, and Rodeo Flat. See Pine Creek treatments map

Treatment Cost: 174 dams @ $729/dam = $126,846; 3,375 straw wattles @$100/ea = $337,500

Implementation Schedule: Implement all treatments before first major storm.

Treatment Monitoring:
Implementation: Assure that the proposed treatments were implemented and constructed to the identified standards.
Effectiveness: Monitor sediment accumulation behind straw dams and wattles.

Planting Treatments:

Willow Planting

Objective: Reduce the impacts of the fire to water quality and bank stability through planting of willows in the intensely burned area adjacent to Fish Creek in Rodeo Flat. This area is one of the few areas where fire burned completely to the creek and removed all riparian vegetation. It is not expected that willows will re-sprout as they currently give no indication of growth. Resprouting of vegetation has already occurred in other similar areas.

Where: High intensity burn area within riparian area adjacent to Rodeo Flat.

Treatment Cost: 0.5 acre @ 2000/acre = $1000

Implementation Schedule: Before the next large rain event; within 2 months

Treatment Monitoring: Monitor next spring for establishment of planted willows.

Private Land Treatments Not Included in Other Treatment Sections:

Concrete K-rails and Sandbags

Objective: Structure Protection

1. Installation of 100 feet of concrete K-rail with sandbags placed at the bottom to protect the Messick Ranch pump house, domestic well and water storage facility.

2. Structural protection with sandbags will be made available for use in the Pine Creek, Messick Ranch, and Kennedy Meadows Fire Station area. Approximately 5,000 sandbags with sand will be stockpiled for structure protection in these areas. Staging locations are the BLM Chimney Peak Fire Station and the Kennedy Meadows Fire Station.

3. Install 3,300 feet of concrete K-Rail with sandbags placed at the bottom to protect approximately 17 homes, the South Fork School and bus storage site, Methodist Church, Weldon State Preschool, Pastor's house and garage, South Fork Women's Club, Historic A-Brown Mill Site, Kern River Preserve Audubon buildings, Historic Onyx house, store and out-buildings, Smith Ranch meat locker, Historic Cottage Grove Cemetery, and Bloomfield historic house and new footbridge.

4. Provide sandbags and sand for structural protection of homes in central locations where flooding is imminent. Suggested locations may be the South Fork School bus yard, Audubon Preserve entrance, and the Onyx Ranch area. These sandbags will be filled with sand, loaded into dump trucks by a front-end loader and delivered to sites

requiring protection. Crews will be made available to fill and position sandbags in coordination with local emergency agencies.

Treatment Cost: Treatment cost for lands within the Manter Fire is $22,500. Treatment cost for lands downstream in the South Fork Kern River Valley is $226,500.

Implementing Schedule: Install the proposed treatments within the Manter Fire perimeter and South Fork of Kern River Valley prior to the first major rain storm.

Treatment Monitoring: Monitor structure protection success or failure.

Retro-fit Ditches, Levees and Berms

Objective: Structure Protection

1. Reconstruct approximately 100 feet of ditch berm at the Messick pump house to keep the existing stream in its normal channel. This channel will then allow the water to flow away from the pump house into the meadow area and also away from the road.

2. Reconstruct existing levees adjacent to the South Fork School soccer field, the school bus storage yard, and across from the Onyx store and house.

3. Open existing irrigation ditch along the Hafenfeld irrigated pasture to allow floodwaters to flow back into the existing river channel. Where this ditch meets Sierra way is the low spot for road breaching as discussed in the section on "Private Treatments".

Treatment Cost: $4,050

Implementing Schedule: Install the proposed treatments within the Manter Fire perimeter and South Fork of Kern River Valley prior to the first major rain storm.

Treatment Monitoring: Monitor structure protection success or failure.

Blowing Snow

Objective: This treatment addresses public safety along Nine Mile Road and Pine Creek Canyon Roads.

1. Install 300 feet temporary snow fence in key locations in Pine Creek to prevent snow-pack/tree damage to existing structures and the access road system.

2. Replace approximately 600 feet of existing snow fence on the Nine-Mile road destroyed by the fire.

Treatment Cost: $2,100

Implementing Schedule: Install the proposed treatments prior to the first major rain storm.

Treatment Monitoring: Review effectiveness of treatment for keeping snow off of the road and on the hillside.

Mines

Objective: Protect public health and safety.

Resource Condition Assessment: The fire created an attractive nuisance out of three old mine structures, and destabilized or exposed the sites.

Emergency Determination: The three old mine shaft/adit structures, prior to the fire, were not visible to forest/wilderness users. Currently, these mines are either next to a trail or visible from roads. They are very dangerous and currently pose a hazard to curious people.

Treatments to Mitigate Emergency: Fill in or take other appropriate action to eliminate these potential hazards.

Treatment Cost: $2,400 for equipment rental with operator and blasting

Implementation Schedule: By October 2000.

Treatment Monitoring: Be present when work is performed to ensure complete closure.

Channel Treatments:

Flood Early Warning System

Objective Due to the large number of acres classified as high and moderate burn intensity, type of erosive soils, unstable steep slopes, and high degree of rock outcrops that will provide rapid runoff into the South Fork of the Kern River, and the history of rain-on-snow and high intensity thunderstorms in the area causing local flooding and property damage, a Flood Early Warning System is needed. A plan will be developed with a precipitation threshold that will trigger flood and debris flow warnings to County Emergency Response units in the Pine Creek, Kennedy Meadows, Upper Chimney Peak and South Fork of the Kern River Valley downstream from the Manter Fire area. Incorporated into this warning system are existing Remote Automatic Weather Stations (RAWS) at Bear Peak in the southern fire area and in Fish Creek at Blackrock Station in the north. Because of the large area burned, 9 additional GOES Data Collection Platforms donated by Kern County will be installed at locations determined by the National Weather Service in consultation with hydrologists from the respective counties, USFS, BLM and National Resources Conservation Service. Most of the units will be placed in wilderness areas and will require some digging and pouring of a 1x2 foot concrete pad for each site. These sites will remain in place for 3 years and then all evidence of the site including the concrete pad will be removed. At a minimum, the precipitation gages will be installed at a density of no less than one station per 15 square miles. The gages will be real-time with data logged every 15 minutes and be accessible via the Internet. Two real-time flow stations will also be installed, one in the Pine Creek drainage to warn full time residents of flood and debris flows and the other at the lower end of Rockhouse Basin in the Kern River to provide early warning to downstream emergency response teams for activation of the Emergency Flood Evacuation Plan for residents living within the floodplain of the South Fork of Kern River. County Emergency Response agencies will develop and implement the flood evacuation plan in conjunction with the National Weather Service forecasts. Maintenance of the precipitation gages will be contracted with the appropriated county. This treatment will be funded through a cost share between USFS, BLM and Kern County.

Treatment Cost:

- Develop precipitation thresholds - 40 hours X $300/hr = $12,000.00
- Coordinate with NWS for forecasts 32 hours X $100/hr = $ 3,200.00
- Install GOES Data Collection Platforms Precipitation Gages:
  Equipment costs: $7,000/station X 9 stations = $63,000.00
  Setup Costs: 80 hours X $100/hour = $ 8,000.00
  Maintenance: 40 hours/year X $100/hour X 4 Years = $16,000.00
  Subtotal = $87,000.00
- Install real time flow stations:
  Equipment costs: $5,000/station X 2 stations = $10,000.00
  Setup Costs: 20 hours X $100/hour = $ 2,000.00
  Rating Curve development: 80 hours X $100/hour = $ 8,000.00
  Maintenance: 60 hours/year X $100/hour X 4 Years = $24,000.00
  Subtotal = $44,000.00
- Flow Assessment/Modeling:
  Hydrologist or Civil Engineer Surveying:
  80 hours X $150/hour = $12,000.00
- Evacuation/procedure plan development and warning signs: $20,000.00

Implementation Schedule: Develop precipitation threshold and coordinate with NWS immediately. Develop evacuation plans for area at risk immediately.

- Contact lead agencies to develop flood evacuation plan for impacted areas.
- Flood warning signs should be posted at trailheads and roads within the burn area.

- Post flood warning signs downstream in South Fork Valley

Roads and Trail Treatments

Roads

Objective: The absence of vegetative cover within the fire area will result in increased runoff and accelerated drainage flows. As a result of these increased flows, surface, rill and gully erosion will increase. The road treatments prescribed will meet adjusted design flows of 2.5 to 4.2 times the normal runoff.

The table below depicts the road numbers or names, road lengths, and ownership. The location of each road is shown on the attached Roads to be Treated map. Cost breakdown by ownership is located in the spreadsheet.

Road	Length	Ownership		
		USFS	BLM	Private
21S32	3.2	X		
21S32A	1.0	X		
21S32C	0.9	X		
21S32D	1.0	X		
21S65A	0.8	X		
22S05	8.4	X		
Big Pine Creek 6.3		X	X	
Long Valley Loop	7.2		X	X
Rock House Basin	3.0		X	
Total =	31.8			

Treatment to Mitigate Emergency: Construct, reconstruct or install the following measures: 1) culverts, 2) metal end sections (MES), 3) low-water crossings, 4) earth berms, 5) rolling dips, 6) water bars, 7) riprap and 8) spillway inlet assemblies (SIA).

Treatment Cost: 1) $4,200 2) $1,250 3) $34,125 4) $2 or $1.50 5) $345 6) $105 7) $315 and 8) $1,750.

Total cost $707,988

Implementation Schedule: Install all these treatments prior to the first rain.

Treatment Monitoring: Monitor sediment accumulation, structure efficiency or failure.

Recreation and Wilderness Trails
Public Information

Objective: Protect the public from the hazardous conditions created by the fire.

Resource Condition Assessment: The fire created numerous hazards to the recreating public from the creation of burned snags, which could fall at any time, widow makers, stump holes, burned directional signs, and trees across the trail.

Emergency Determination: The Dome Land Wilderness is a popular recreational area. Numerous trees, snags, and widow makers are expected to fall, without warning, from now until the first winter storms. Many of these hazards are along trails and near popular camp sites.

Treatments to Mitigate Emergency: Issue a Forest Order closing the most hazardous parts of the burned area to all public use until after the first winter storms. Make a public handout with a map to explain the reasons for the temporary closure, post it in appropriate offices, trailheads, and on agency web pages.

Treatment Cost: About $ 250 for materials.

Implementation Schedule: ASAP but not later than September 1, 2000.

Treatment Monitoring: Follow up to ensure implementation immediately after completion of the BAER report.

Wilderness protection

Objective: Maintain the wilderness character (primitive recreation, solitude, naturalness) using minimum tool criteria to maintain and correct trail tread erosion, deterioration of trails on steep grades, and reduce excessive sediment movement into swales, drainages and meadows. Wilderness Boundaries will be patrolled, hazard signs and barriers installed, and other corrective actions taken to protect the wilderness and 58 miles of trails within the wilderness areas. Existing hazard trees adjacent to the trails will be felled when they pose a threat to public safety.

Resource Condition Assessment: The high fire intensity eliminated brush, trees, and ground cover from much of the wilderness areas within the fire perimeter. Fire vehicles used many of the old closed routes within the wilderness. Parts of the wilderness boundaries and old closed routes were previously protected from vehicle entry by the brush and trees consumed in the fire.

Emergency Determination: Trees in the high and moderate burn intensity areas were destroyed or killed exposing old closed routes. The most recent wilderness additions were created in 1994 and there remains a public desire to be able to again drive vehicles into areas closed by wilderness designation. Vehicle use of these old closed routes will diminish the wilderness character of these areas.

Treatments to Mitigate Emergency: Hire a seasonal park ranger to patrol the burned area wilderness boundaries, install hazard signs and barriers as required, provide public information, and correct safety hazards. If BAER treatments use the closed routes in the wilderness, they will be rehabilitated as part of the pull out. Any other rehabilitated of closed routes will be funded using fire suppression dollars or closing using the trails with appropriated funds. See the trail repair and recreation sections.

Treatment Cost: Salary, supervision, vehicles, signs, supplies - $ 59,660

Implementation Schedule: Hire a park ranger beginning October 2000, if possible, and hire a seasonal park ranger in 2001 and 2002.

Treatment Monitoring: Monitor the level of vehicle access into the wilderness. Report on needs for the next year at the end of the work period.

Trail Repair

Objective: there are 58 miles of hiking, equestrian trials including the Pacific Crest Trail in the Domeland Wilderness located in the moderate, and high intensity burned areas. Most if not all of the ground cover was destroyed including large numbers of large Jeffrey pine, red and white fir and Pinyon pine trees. It is expected that fire killed trees will continue to fall over causing potential diversion of runoff onto the trail tread and increased trail erosion. Emergency signs will be posted so that users will be aware of potential hazards. Trail crews will be needed in both 2001 and 2002 to repair erosion damage to the trail. It is expected that continuous maintenance of the trail, tread, and drainage is more cost effective than not maintaining the trail and having to repair a much larger problem resulting from ineffective drainage or channel diversion from fallen trees or large earth failures.

Resource Condition Assessment There are 58 miles of trail within the burned area. Trail damage is expected to result from diversion of flow down the trail because of downed woody material re-routing water. Trail damage is also expected to occur because of debris slides, accumulation of sediment, and sloughing resulting from the lack of hillside vegetation.

Emergency Determination: Erosion, sloughing, and fallen trees will cause erosion and deposition affecting the stability and existence of the trails in the wilderness. Within the mapped moderate burn zones; there are numerous pockets of high intensity burn along the trail corridors based on post-fire field inspections. The Domeland Wilderness is a popular recreational area. Trails will become indistinct, lost and or erode away without the clearing of downed trees, removal of sedimentation and correction of drainage. This work needs to be done on a continuous basis to identify

minor problems before they create major more expensive problems.

Treatments to Mitigate Emergency: Extra trail crews have been proposed for this fall to address the immediate trail integrity and public safety hazards. In addition, a four person trail crew is needed specifically to clear, repair, maintain drainage, and place hazard signs on the burned over trails and within the dispersed camping areas during the 2001 and 2002 seasons. A waiver will be requested to use chainsaws, within the Domeland Wilderness, to quickly clear the trails of the expected large number of fire killed fallen trees. When feasible and if neccessiary, blasting would be used to remove trees too dangerous to fell with a chainsaw.

Treatment Cost: Trail crew, supervision, equipment, and expenses - $ 265,882

Implementation Schedule: Bring in extra crews this fall to address immediate problems and hire a crew for the 2001 and 2002 seasons to keep the trails functional and draining properly by clearing fallen, fire killed trees sedimentation, maintaining drainage, and addressing areas of accelerated erosion.

Treatment Monitoring: Evaluate the trail drainage and tread function.

Recreation Use Areas

Objective: Reduce damage to wilderness and biological resources from stock use and make dispersed use areas safe.

Resource Condition Assessment: The fire completely burned the public pasture and equestrian camping area at Manter Meadow.

Emergency Determination: Without restoration of the public pasture, there will be degradation of Manter Meadow, biological resources of the area, and conflicts with the backpacker camping areas.

Treatments to Mitigate Emergency: Restore the public pasture fence and equestrian camping area.

Treatment Cost: Fencing materials and transportation - $ 2,260 using project funds.

Implementation Schedule: The work will be completed in the spring of 2001, using volunteer labor by the Back Country Horsemen of California.

Treatment Monitoring: Monitor the work of the Back Country Horsemen to ensure the public pasture fence is rebuilt to standard.

Early Warning System for Wind Blown Dust and Ash

Objective: Protect public health by observing the effects of wind-blown dust and ash and, if necessary, notifying air regulatory agencies.

Where: Bald Mountain Lookout

Treatment Cost: No cost.

Implementation Schedule: The early warning system was implemented on August 31, 2000.

Treatment Monitoring: By January, 2001, the Sierra Nevada Air Resource Specialist will review effectiveness with the respective Air pollution Control Districts.

Range

Rest grazing allotments for a minimum of two years within the A. Brown Allotment and the Rockhouse Basin Unit of the Fish Creek Allotments and evaluate release based on vegetation. Adjust grazing utilization as necessary to protect resource values, specifically riparian vegetation.

Treatment Cost
See Range Management BAER Report for Cost of Treatment. (Summary: Cost to the US Government to defer payments from two allotments for two years = $2,134.00)

Implementation Schedule
No grazing will be permitted within the A.Brown Allotment and the Rockhouse Basin Unit of the Fish Creek Allotments for the 2001 and 2002 grazing seasons. In 2003, utilization of the forage will be controlled by use of existing allowable use standards that were in place prior to this fire. Any additional adjustments needed in the utilization, in order to continue protecting the riparian resources, will be made.

Noxious Weeds

Objective: Treatment to Mitigate Emergency: Inspect dozer-lines; locate, document and destroy any noxious weeds found growing in target areas. Treatment will be implemented during June-July 2001.

Treatment Cost: $10,000.

Implementation Schedule: 10 days project time during the timeframe of July 1-15, 2001.

Treatment Monitoring: Objectives identified in proposed treatments will be followed to assure accomplishment of complete eradication of noxious weeds in those areas affected by fire disturbance.

PART VI - EMERGENCY REHABILITATION TREATMENTS AND SOURCE OF FUNDS BY LAND OWNERSHIP

See attached spreadsheet

PART VII – APPROVALS

1. _____ _____
Sequoia National Forest Supervisor Date

2. _____ _____
Bakersfield BLM Field Manager Date

3. _____ _____
Regional Forester Date

4. _____ _____
State Director Date