USDA-FOREST SERVICE FS-2500-8 (7/00)

Date of Report: 9/6/05

**BURNED-AREA REPORT**
(Reference FSH 2509.13)

## PART I - TYPE OF REQUEST

A. Type of Report

[ ] 1. Funding request for estimated WFSU-SULT funds
[ ] 2. Accomplishment Report
[X ] 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 or design analysis
[ ] Status of accomplishments to date

[ ] 3. Final Report (Following completion of work)

## PART II - BURNED-AREA DESCRIPTION

A. Fire Name: Harding

B. Fire Number: CA-TNF-001215

C. State: CA

D. County: Sierra

E. Region: 5

F. Forest: Tahoe

G. District: Sierraville

H. Date Fire Started: 8/24/2005

I. Date Fire Contained: August 30, 2005

J. Suppression Cost: Estimated $4,200,000

K. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles):
2. Fireline seeded (miles):
3. Other (identify):

L. Watershed Number: 1802012302 (Sierra Valley)

M. Total Acres Burned: 2,270
NFS Acres(1,476 ) Other Federal ( 27) State (463 ) Private ( 368 )

N. Vegetation Types: Open sage and eastside side sierra open mixed conifer

O. Dominant Soils: Kyburz, Aldi, Franktown, Trojan

P. Geologic Types: Volcanic flows

Q. Miles of Stream Channels by Order or Class:
Perennial: 0.7 miles Seasonal: 8.1 miles

R. Transportation System

Trails: 0 miles Roads: 1 miles

## PART III - WATERSHED CONDITION

A. Burn Severity (acres): 390 (low) 836 (moderate) 1044 (high)

B. Water-Repellent Soil (acres):

C. Soil Erosion Hazard Rating (acres):
390 (low) 836 (moderate) 1044 (high)

D. Erosion Potential: 5 tons/acre (average over burn)

E. Sediment Potential: 640 cubic yards / square mile

## PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 10

B. Design Chance of Success, (percent): 80

C. Equivalent Design Recurrence Interval, (years): 10

D. Design Storm Duration, (hours): 6

E. Design Storm Magnitude, (inches): 3.5

F. Design Flow, (cubic feet / second/ square mile): 246

G. Estimated Reduction in Infiltration, (percent): 46

H. Adjusted Design Flow, (cfs per square mile): 359

## PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency:

**1. Threats to Human Life:** The following values were identified potentialy "at risk" during the initial phase of the Harding Fire BAER evaluation process: users of State Highway 49, Sierra County road 855 and local Forest Service roads.
No additional risks to users of State Highway 49 is anticipated due to the Harding Fire. It is unlikely that rockfall from the fire to the hiway will occurr. If it does occur, Caltrans has normal maintenance procedures inplace to handle any rock fall. There are no culverts or bridges at-risk during normal precipatation events on government or private land.

**2. Threats to Property:** Values identified "at risk" downstream and downslope include State Highway 49, Sierra County road 855 and local Forest Service roads; private and California State Fish and Game in-holdings

within the Tahoe National Forest boundary; and Palen Reservoir (Located on private land). No emergency situation was identified for any of these properties. It is anticipated that none of these values are at-risk during normal precipitation events.
There are no known occurrences of threatened or endangered plants within the burned area. The greatest potential for negative impacts to the native vegetation and ecosystems within or adjacent to the burned area is the possible introduction of non-native, invasive weed species carried in to the area by fire suppression equipment and activities.
There are no known heritage resources within or adjacent to the burned area which would require emergency protection.

3. **Threats to Water Quality:** All watersheds in the burn area have a potential for short-term increases in sedimentation and associated effects on water quality due to the burn. The streams in and adjacent to the burn area flow into the Sierra Valley. The Sierra Valley is within the Middle Fork Feather River drainage. Beneficial uses of the Middle Fork Feather River include irrigation, stock watering, contact recreation uses, cold and warm water fish habitat, and cold water fish migration and spawning. The effects to riparian and aquatic ecosystems is expected to be only slightly measurable, and that will be localized. None of these beneficial uses are at-risk and there is no anticipated water quality emergency situation.

4**. Threats to Long Term Soil Productivity:** The majority of soils within the burned area are upland soils that contain high percentages of gravel and cobble size rock. Soil textures are generally sandy and permeability is slow to moderately rapid. Site capability for timber production (FSSC) ranges from 4 to 6. Approximately 20% of the burned area is rock outcrop.

Soil erosion is predicted to increase as a result of the fire. However, an emergency for long-term soil productivity was **not** determined for the following reasons:

- 20% of the burned area is rock outcrop and most of the fire has soils with 20-60% surface rock fragments.
- Forest Survey Site Class for soils in the burned area is generally 4or 5. It is not expected that fire effects to these soils will lower the timber producing capability of the soils.
- Despite some fire short-term fire effects to the soil, removal of protective soil cover, and accelerated rates of post-fire erosion, it is unlikely these soils will lose the ability to support the native vegetation that was found before the fire.
- Fire and fire related erosion cycles are common in these ecosystems. It is unlikely that the size and intensity of the Harding Fire is outside the natural range of variability for this area. Natural re-vegetation is expected to occur because a source of viable native seeds still exists. Open sage species are expected to re-sprout rapidly.

**5. Threats of Noxious and Invasive Weed Invasion:** Current inventory of noxious weeds in and around the Harding Fire show no current infestations of noxious or invasive weeds. There is a concern that the equipment used to fight the fire could have brought weeds in. No treatment is recomended at this time.

**6. Threats to Wildlife Resources:** The Harding Fire, fire-associated activities and post-fire conditions will not affect any federally listed species or their critical habitat as identified on the U.S. Fish and Wildlife Service list of species for the Tahoe National Forest (April 10, 2001). This list includes: bald eagle, California red-legged frog, Valley elderberry longhorn beetle and Lahontan cutthroat trout. The only federally listed species adjacent to the fire area is Lahontan cutthroat trout which was introduced and resides in Palen Reservoir and portions of Antelope Valley Creek. The reservoir is on private land and most of the creek is on state fish and game land. We talked to Jim Lidberg with the California Department of Fish and Game and he concurred that no treatment was necessary for the protection of the trout.

The Harding Fire did not result in any emergency or long term threats to wildlife resources. Wildlife habitats were affected by the fire and fire-related activities, however, the habitats affected are not limiting in the area and natural processes will recover this area over time. Potential additional OHV access to the burn area would be limited due to the fire or suppression efforts. All potential new access points will be blocked under the suppression rehab effort. No BAER treatments are being recommended for T&E wildlife resources.

B. Emergency Treatment Objectives:

No emergency treatments are recommended.

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

Land __ % Channel __ % Roads __ % Other __ %

D. Probability of Treatment Success

| | Years after Treatment | | |
|---|---|---|---|
| | 1 | 3 | 5 |
| Land | N/A | N/A | N/A |
| | | | |
| | | | |
| Channel | N/A | N/A | N/A |
| | | | |
| | | | |
| Roads | N/A | N/A | N/A |
| | | | |
| Other | N/A | N/A | N/A |
| | | | |

E. Cost of No-Action (Including Loss):

F. Cost of Selected Alternative (Including Loss):

G. Skills Represented on Burned-Area Survey Team:

[ X] Hydrology [X ] Soils [ ] Geology [ ] Range [ X] Silviculture
[ ] Forestry [X ] Wildlife [ ] Fire Mgmt. [ ] Engineering [ ]
[ ] Contracting [ ] Ecology [ X] Botany [X ] Archaeology [ ]
[ X] Fisheries [ ] Research [ ] Landscape Arch [X ] GIS

Team Leaders: Randy Westmoreland, Tim Biddinger

Email: rwestmoreland@fs.fed.us Phone: 530-994-3401 ext 6625 FAX:

tbiddinger@fs.fed.us 530-478-6249

H. **Treatment Narrative:**

No emergency treatments are recommended.

I. **Monitoring Narrative:**

No emergency monitoring is recommended.

**Part VI – Emergency Rehabilitation Treatments and Source of Funds by Land Ownership**

| Line Items | Units | Unit Cost | # of Units | WFSU SULT $ | Other $ | # of units | Fed $ | # of Units | Non Fed $ | Total $ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| **A. Land Treatments** | | | | | | | | | | |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Insert new items above this line!* | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Subtotal Land Treatments* | | | | $0 | $0 | | $0 | | $0 | $0 |
| **B. Channel Treatments** | | | | | | | | | | |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Insert new items above this line!* | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Subtotal Channel Treat.* | | | | $0 | $0 | | $0 | | $0 | $0 |
| **C. Road and Trails** | | | | | | | | | | |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Insert new items above this line!* | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Subtotal Road & Trails* | | | | $0 | $0 | | $0 | | $0 | $0 |
| **D. Structures** | | | | | | | | | | |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Insert new items above this line!* | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Subtotal Structures* | | | | $0 | $0 | | $0 | | $0 | $0 |
| **E. BAER Evaluation** | | | | | | | | | | |
| **BAER Team Evaluation** | | $500 | | $0 | $0 | 10 | $5,000 | | $0 | $5,000 |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Insert new items above this line!* | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Subtotal Evaluation* | | | | $0 | $0 | | $5,000 | | $0 | $5,000 |
| **F. Monitoring** | | | | | | | | | | |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Insert new items above this line!* | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Subtotal Monitoring* | | | | $0 | $0 | | $0 | | $0 | $0 |
| | | | | | | | | | | |
| **G. Totals** | | | | **$0** | **$0** | | **$5,000** | | **$0** | **$5,000** |
| | | | | | | | | | | |

## PART VII - APPROVALS

1. /s/ Steven T. Eubanks — 9/8/2005
   Forest Supervisor (signature) — Date

2. _____ — _____
   Regional Forester (signature) — Date