USDA-FOREST SERVICE FS-2500-8 (6/06)

Date of Report: January 8, 2009

BURNED-AREA REPORT
(Reference FSH 2509.13)
Accomplishmenets are in red.
PART I - TYPE OF REQUEST

A. Type of Report

[] 1. Funding request for estimated emergency stabilization funds
[x] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

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

[x] 2. Interim Report #1
[ ] Updating the initial funding request based on more accurate site data or design analysis
[x] Status of accomplishments to date

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

PART II - BURNED-AREA DESCRIPTION

A. Fire Name:Corral Fire

B. Fire Number:CA-LMU-0002759

C. State: CA

D. County: Lassen

E. Region:5

F. Forest: Lassen

G. District: Eagle Lake

H. Fire Incident Job Code: PND8UM

I. Date Fire Started: June 21, 2008

J. Date Fire Contained: July 8, 2008

K. Suppression Cost:$3.6 million

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles):12 miles on NFS lands.
2. Fireline seeded (miles):
3. Other (identify):

M. Watershed Number: 1808000301, 1802000301, 1808000203

N. Total Acres Burned: 11,406
NFS Acres(4,053) Other Federal (467) State (6) Private (6,345)

O. Vegetation Types: Eastside Pine and isolated areas of Juniper; meadow areas dominated by Big Sagebrush and short herbaceous vegetation.

P. Dominant Soils: Trojan, rhyolitic (Soil Map unit 108); Klicker (Soil Map Unit 49); Sheld, moderatley deep, glacial (Soil Map unit 91); and Los Gatos (Soil Map unit 61).

Q. Geologic Types: Alluvium (Holocene and Pleistocene); Andesite of Slate Mountain; Basalt and tuff of Silva Flat, Basalt of Lava Rock Reservoir, Mafic andesite of Lava Peak, Mudstone, Unconsolidated, moderately to poorly sorted sand, silt and gravel

R. Miles of Stream Channels by Order or Class:

31 miles of seasonal streams

S. Transportation System

Trails: miles Roads: 15.2 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 3,751 (low) 5,327 (moderate) 855 (high)

NFS Lands 1,425 (low) 2,250 (moderate) 204 (high)

B. Water-Repellent Soil (acres): 0

C. Soil Erosion Hazard Rating (acres):
NFS land only: 1,329 (low) 6,212 (moderate) 780 (high)

D. Erosion Potential: 1.8 tons/acre

E. Sediment Potential: 290 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 3 to 10 years

B. Design Chance of Success, (percent): 90

C. Equivalent Design Recurrence Interval, (years): 5

D. Design Storm Duration, (hours): 6

E. Design Storm Magnitude, (inches): 1.0

F. Design Flow, (cubic feet / second/ square mile): 14 (8.3 square mile unnamed watershed) Regional Curve for NE Region, Waananen and Crippen, 1977)

G. Estimated Reduction in Infiltration, (percent): 30

H. Adjusted Design Flow, (cfs per square mile): 21 (8.3 square mile unnamed watershed) Regional Curve for NE Region, Waananen and Crippen, 1977)

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

The Corral Fire was ignited by lightning on June 21, 2008. The area is mostly timbered and most of the fire occurred on privately-held timber lands. Aside from grazing, timber is the only other use of the lands in this area.

The Forest Soil Scientist and Forest Road Manager assessed roads within the fire perimeter in the field, as NFS roads were determined to be one of two values at risk. The second value at risk is the spread of noxious invasive weeds, as there are known populations of Medusahead and perennial pepperweed in the area. The Corral Fire is located in a part of the forest that generally has gentle terrain with the exception of short steep slopes. Streams are ephemeral and poorly developed,except where there are road/stream interactions. Ephemeral streams have no connectivity with any major water body and support no beneficial uses.

Roads in the area were designed to convey run-off and sediment from such gentle terrain under a regime without wildfire. Consequently, the roads have inadequate drainage to convey expected post-fire run-off within areas of high and moderate soil burn severity. There is a risk that run-off would be diverted out of undersized CMP's, causing disasterous road-related failures and off-site erosion. Such failures were averted by the installation of properly sized culverts following the 2004 Straylor Fire, located 7.7 miles to the east. The following summer a thundercell lingered over the Straylor Fire and the emergency road-treatments were implemented successfully. As a result, an emergency has been determined to exist for NFS system roads on the Corral Fire.

Values At Risk	**Disposition After Assessment**
Forest Service Roads-road failures	Emergency: Risk of road related failures within areas of moderate and high burn severity on 15.2 miles of NFS roads.
Noxious invasive plants-spread	Emergency exists from spread of noxious invasive plants.

B. Emergency Treatment Objectives:

1. Mitigate the threat of loss of 15.2 miles of NFS roads within areas of moderate and high burn severity due to increaed post-fire run-off and subsequent road-related failures.
2. Determine if populations of Medusahead and perennial pepperweed are expanding due to the fire.

C. Probability of Completing Treatment Prior to Damaging Storm or Event:

Land __ % Channel ___ % Roads/Trails **95** % Protection/Safety ___ %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	90	95	100
Channel			
Roads/Trails	90	95	100
Protection/Safety			

E. Cost of No-Action (Including Loss):$185,000

F. Cost of Selected Alternative (Including Loss): $144,820

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Andrew Breibart

Email: abreibart@fs.fed.us Phone:530-252-6456 FAX:530-252-6458

H. **Treatment Narrative:**

(Describe the emergency treatments, where and how they will be applied, and what they are intended to do. This information helps to determine qualifying treatments for the appropriate funding authorities. For seeding treatments, include species, application rates and species selection rationale.)

Land Treatments:

Noxious Invasive Weeds ($4,927) Populations of Medusahead are known to be within the fire perimeter and perennial pepperweed is know to be just outside of the fire perimeter. Surveys will begin in 2009 during the flowering periods of weed species. Completion of surveys along dozer lines, staging areas, and known invasive plant populations will be the first priority. The second survey priorities will be along roads, handlines, and drop points. Surveys of general habitats in the burned area will be the lowest priority. All locations of weed species will be documented and mapped using GPS equipment. Surveys will be completed using the NRIS protocol available at the national website: http://fsweb.ftcol.wo.fs.fed.us/frs/rangelands/index.shtml Results will be entered into the NRIS database.

GS – 9 Botanist	$235/day x 5 days =	$1,175
GS – 5 Bio Tech	$130/day x 1 pay periods (10 days) =	$1,600
GS – 5 Bio Tech	$130/day x 1 pay periods (10 days) =	$1,600
Mileage:	1200 @ 0.46/mile =	$552
	Total Cost Estimate for FY 2009 = $	**$4,927**

Channel Treatments: NA

Roads and Trail Treatments:

Total Road costs are $86,700. Road work to be contracted out costs $76,700. Storm patrol will be done by force account and costs $5,000. Engineering support costs $5,000.

Road Number	Miles	Work Description	Quantity	Item Cost	Total Road Cost
			#	$	$
35N03		Install 36" x40' CMP	1	4,720	4,720
		Armor crossings	4	3,000	12,000
		Construct dips	10	500	5,000
Total	***5.5***				***21,720***
35N02		Install 36" x40' CMP	3	4,720	14,160
		Construct dips	4	500	2,000
Total	***2.3***				***16,160***
35N06		Install 36" x40' CMP	2	4,720	9,440
		Construct dips	3	500	1,500
Total					***10,940***
35N06A		Armor crossings	2	3,000	6,000
		Construct dips	10	500	5,000
Total	***1.4***				***11,000***
Other Contract Costs		Mobilization	1	4,000	4,000
	9.2	Hazard Tree Removal		1,400	12,880
Total					***16,880***
Contract	**9.2**	**Total**	**1**		**76,700**
Storm Patrol	15.2	Force Account	4	1,250	5,000
Engineering Support		Total	1	5,000	5,000
Total		**Road Package**			**86,700**

Total emergency treatments for roads cost $53,000. Salaries represent $11,000 of the total and a road contract for Hat Creek Construction represents the remaining $42,000. Hat Creek construction completed the bulk of the work, with the exception of the replacement of an 18” x 40’ CMP with a 40” x 40’ CMP on 35N03. This project was completed via force account. Work was done on NFSR 35N02, 35N03, 35N06, and 35N06A.

Hat Creek completed the following tasks.

- 22 rolling dips with riprap outlets were installed for $11,200.
- 4 low water crossings were installed for $4,467.
- One 24”x30’ CMP was installed for $1,680
- One 30”x30’ CMP was installed for $2,130.
- 42 culverts/catch basins were cleaned for $14,910.
- Mobilization, materials, stump removal cost $7,370.

Photograph of constructed rolling dip and culvert, cleared of debris.

Photograph of 1 of 4 low water crossings.

Photography displaying project work completed by force account.

Protection/Safety Treatments: NA

I. **Monitoring Narrative:**

(Describe the monitoring needs, what treatments will be monitored, how they will be monitored, and when monitoring will occur. A detailed monitoring plan must be submitted as a separate document to the Regional BAER coordinator.)

Part VI – Emergency Stabilization Treatments and Source of Funds **Interim #**

			NFS Lands				Other Lands			All
		Unit	# of		Other	# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	BAER $	$	units	$	Units	$	$
A. Land Treatments										
noxious invasive weeds	plan	4,927	1	$4,927	$0		$0		$0	$4,927
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$4,927	$0		$0		$0	$4,927
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										
storm patrol	ea	1,250	4	$5,000	$0		$0		$0	$5,000
road work	contract	76,700	1	$76,700	$0		$0		$0	$76,700
engineering support	ea	5000	1	$5,000	$0		$0		$0	$5,000
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$86,700	$0		$0		$0	$86,700
D. Protection/Safety										
				$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										
Assessment	ea			---		1	$3,060		$0	$3,060
Insert new items above this line!				---	$0		$0		$0	$0
Subtotal Evaluation				---	$0		$3,060		$0	$3,060
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				$91,627	$0		**$3,060**		**$0**	**$94,687**
Previously approved										
Total for this request				**$91,627**						

PART VII - APPROVALS

1. ***/s/ Lorene T. Guffey for Kathleen S. Morse*** ***2/9/09***
   Forest Supervisor (signature) Date

2. _____ _____
   Regional Forester (signature) Date