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

Date of Report: 06/30/06

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

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

B. Type of Action

[x] 1. Initial Request (Best estimate of funds needed to complete eligible stabilization 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: Goodale

B. Fire Number: CA-INF-665

C. State: CA

D. County: Inyo

E. Region: 05

F. Forest: Inyo

G. District: White Mnt.

H. Fire Incident Job Code: PNCRC7S

I. Date Fire Started: 6/26/2006

J. Date Fire Contained: 6/29/06

K. Suppression Cost: 1.11m

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles):
2. Fireline seeded (miles):
3. Other (identify): Top soil and brush pulled back on ,5 miles of dozer line and 1.5 miles of handline.

M. Watershed Number:

N. Total Acres Burned: 3,747
NFS Acres(2478) Other Federal (BLM) (1251) State ( ) Private (17)

O. Vegetation Types: Sagebrush/bitterbrush, Cheatgrass and annual bunch grasses

P. Dominant Soils: Soils derived from grantic bedrock on alluvial fans such as the Wrango soil family. The Kiona family found on the basalt lava flow.

Q. Geologic Types: Alluvial fan deposits and basalt lava flow.

R. Miles of Stream Channels by Order or Class:
Intermittent: 8.7 miles; Perennial: .15 miles

S. Transportation System

Trails: _ miles Roads: 1.7 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 2,360 (low) 1,288 (moderate) 0 (high) _102__(Unburned)

B. Water-Repellent Soil (acres): 400 acres (on moderate severity alluvial fan)

C. Soil Erosion Hazard Rating (acres):
3347 (low) 400 (moderate) ___ (high)

D. Erosion Potential: 3 tons/acre (24 month period) Wind erosion was observed and is likely the dominant erosional process in this area.

E. Sediment Potential: 180 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 3-7 years for shrubs depending on severity of burn

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

C. Equivalent Design Recurrence Interval, (years): 25

D. Design Storm Duration, (hours): 6

E. Design Storm Magnitude, (inches): 1.4

F. Design Flow, (cubic feet / second/ square mile): 1.6

G. Estimated Reduction in Infiltration, (percent): 10

H. Adjusted Design Flow, (cfs per square mile): 3

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

Background: The Goodale Fire started on Monday June 26,2006 by lightning burned a total of 3,747 acres with containtment occuring on Thursday June 29 at 1800 hrs. This fire abuts the Division fire (1999) to the south. A large portion of this fire burned through old lava beds and alluvial fans on the east slope of the Sierra Nevada, the fire was carried by annual grasses such as cheat grass (Bromus Tectorum) which is in abundant supply after two above normal precipitation years. The area of moderate burn severity on the alluvial fan

Threats to Human life and Property

- Native surface road on Los Angels Department of Water and Power Lands (PVT), due to the abnormally high precipitation received this past winter a normally dry channel is running water impacting this road. A high intensity thunderstorm in the fire area could lead to further degradation of the road. This stream flows through sections of the moderate burn severity, which could contribute sediment bulking and increase peak flows.

Threats to Ecosystem Stability/Soil Productivity

- Invasive/noxious weed invasion and an increase in vehicles traveling off established roads in the fire are the greatest hazards to soil productivity in the fire area. The fire burned vegetation opening up areas adjacent to the Goodale Creek road, especially in the moderate burn severity areas of the upper alluvial fan. This area contains loose, sandy soils where vehicle traffic becomes highly evident. Disturbance could slow native plant recovery, increase invasive/noxious weeds and decrease soil productivity. The rock and boulder content along with the rough surface of the lava adjacent to the alluvial fan will partially mitigate this concern. Handlines that crossed the road where rehabed and disguised to discourage off-road use. The dozer line and safety zone was rehabed to discourage expansion of the Goodale Creek Road.

- Noxious/Invasive species – There is a risk of invasion of noxious/invasive weeds into the fire area. Cheatgrass (*Bromus tectorum*), Mullein (*Verbascum thapsus*), bull thistle (*Cirsium vulgare*), tansy mustard (*Descurainia Sophia*) and salsify (*Tragopogon Sp*.)

  Fire suppression lines may act as invasive highways carrying noxious weeds and invasive plants into uninfested wildland areas. Uncleaned heavy equipment was used to construct fire suppression lines; this along with numerous trips by heavy equipment and engines into the fire area can lead to new infestations. Following fire, soil nutrient conditions are more favorable towards noxious weeds and invasive species thus promoting their introduction over native plant species. In the case of sagebrush, and bitterbrush habitats, fire increases these areas susceptibility to invasion by cheatgrass and other weeds.

  Due to the change in plant structure and fuel loads, fires often burn much hotter than pre-settlement fires. These more intense fires can promote the invasion of exotics, most commonly cheatgrass. At elevations below 6500 feet, cheat grass can begin to out-compete native shrubs and perennial grasses. If there is a reoccurring fire before native vegetation has had an opportunity to re-establish itself, the plant community may become entirely dominated by cheatgrass so that a type conversion takes place. A more frequent fire cycle will then become established that will be a consistent threat to life and property.

B. Emergency Treatment Objectives:

- Minimize impacts to downstream roads
- Reduce the risk of noxious/invasive weed establishment
- Reduce the risk of degradation to ecosystem function and soil productivity.

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

Land 100__ % Channel ___ % Roads/Trails ___ % Protection/Safety **_100_** %

D. Probability of Treatment Success

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

E. Cost of No-Action (Including Loss): **$14,450 + loss of ecosystem stability (nx/invasive weeds)**

F. Cost of Selected Alternative (Including Loss): **$7,250**

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Todd Ellsworth

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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:

1. *Natural Vegetative Recovery*

Objective
This no cost treatment consists of allowing the on-site vegetative material to sprout or germinate to mitigate adverse post-fire conditins throughout the fire area.

Methods
Observe natural vegetative recovery during the first growing season.

2. *Advisory Letter*

Objective:
Advise downstream users of the presence of a burned watershed and associated safety and flooding issues.

Methods:
A letter will be written to the Los Angeles Department of Water and Power discussing the risk of flooding on their road downstream of the fire. The letter will also discuss using an alternate route to the Gauging station on Goodale Creek. This letter is a follow-up to the initial contact made to them discussing the risk to their road. This is an effective, low cost treatment.

Channel Treatments:

N/A

Roads and Trail Treatments:

N/A

Protection/Safety Treatments:

1. *OHV Patrol*

Objective
Additional patrol will help deter potential off-road use into the burned area. The patroller can rake out new tracks and repair resource damage in a timely manner. Provide the public with post-fire conservation information and field presence.

Methods
Provide additional OHV patrols for a total of 10 days, emphasizing high use time such as holiday weekends and hunting season. This area receives a moderate amount of OHV use, especially throughout the fall, winter and spring months. The technician will also provide the public with information regarding post-fire recovery and the importance of staying on existing roads throughout the fire area. The Forest has an OHV technician that can perform this work. The technician will document if incursions occur and take corrective action.

2. *Advisory signs*

Objective
This treatment is preventative. Signs will be placed in the two access points encouraging visitors to stay on main roads to facilitate native plant recovery, decrease noxious/invasive weed vectors and protect soil productivity.

Methods
Place two (2) advisory signs at entry points into the fire. Signs will be durable in nature, have two wooden posts, explaining the importance of staying on existing roads to allow vegetative and ecosystem recovery.

3. *Noxious weeds*

Objective:
Evaluate and eliminate the potential for noxious weed establishment and spread, as a result of the fire.

Methods:
The parking area and handline will be inspected for newly established weed occurences. Monitoring will including documentation and hand pulling new weed occurrence at the time of inspection, and subsequent entry into the FACTS database.

Surveys will occur once likely in June of 2007. If any plants are found and treated based upon the first year's survey, additional funds for continued survey and treatment may be requested in the future.

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										
Advisory Letter	ea	250	1	$250	$0		$0		$0	$250
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$250	$0		$0		$0	$250
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. Protection/Safety										
OHV Patrols	days	250	10	$2,500	$0		$0		$0	$2,500
Advisory signs	ea	500	2	$1,000	$0		$0		$0	$1,000
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Structures				$3,500	$0		$0		$0	$3,500
E. BAER Evaluation										
salary				$2,500			$0		$0	$0
Insert new items above this line!					$0		$0		$0	$0
Subtotal Evaluation				---	$0		$0		$0	$0
F. Monitoring										
NX weeds	days	350	2	$700	$0		$0		$0	$700
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring				$700	$0		$0		$0	$700
G. Totals				$6,950	$0		**$0**		**$0**	**$4,450**
Previously approved										
Total for this request				**$6,950**						

I. **Monitoring Narrative:**

N/A

PART VII - APPROVALS

1. //s//Jeff Bailey — 7/06/2006
   Forest Supervisor (signature) — Date

2. /s/ R. L. Sutton (for) — 7/13/06
   Regional Forester (signature) — Date