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

Date of Report: 08/06/05

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[**x**] 1. Funding request for estimated WFSU-SULT 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 or design analysis
[ ] Status of accomplishments to date

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

PART II - BURNED-AREA DESCRIPTION

A. Fire Name: Pinyon Complex

B. Fire Number: CA-INF-724

C. State: CA

D. County: Inyo

E. Region: 05

F. Forest: Inyo

G. District: Mount Whitney

H. Date Fire Started: 07-22-2005

I. Date Fire Contained: August 14, 2005 @ 1800

J. Suppression Cost: $825,000

K. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 0
2. Fireline seeded (miles): 0
3. Other (identify): Firelines recontoured with topsoil, duff and litter replaced

L. Watershed Number: 5th Field Hydrologic Unit Code # 180901301 (Middle Owens River)

M. Total Acres Burned: 811
NFS Acres(811) Other Federal ( ) State ( ) Private ( )

N. Vegetation Types: 15% Pinyon-Juniper, 35% Sage/Scrub, 50% Mixed Conifer

O. Dominant Soils: Typic Xerochrepts

P. Geologic Types: Granitics, isolated oucroppings of basalt

Q. Miles of Stream Channels by Order or Class: Perennial: 4.03 miles, Intermittent: 3.65 miles

R. Transportation System

Trails: 2.5 miles Roads: 0 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 592 (low) 139 (moderate) 80 (high)

B. Water-Repellent Soil (acres): 70

C. Soil Erosion Hazard Rating (acres):
___ (low) 403 (moderate) 408 (high)

D. Erosion Potential: 7 tons/acre

E. Sediment Potential: 3800 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 5 years

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

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): 15

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

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency:

Background: The Pinyon Complex (Hogback, Pinyon and Oak fires) started on July 24 from lightning. The Hogback fire is the largest of the complex at approximately 655 acres, the Pinyon fire burned approximately 154 acres and the Oak fire is approximately 2 acres. This report addresses threats caused by the Hogback fire. This fire is entirely in the John Muir Wilderness, the decision was made to implement “modified suppression” techniques on this fire and not declare it a “Wildland Fire-Use” fire. The BAER Team identified threats and determined appropriate treatments when the IC determined that the spread of the fire was essentially over.

Threats to Life and Property

- The Sawmill Pass trail through the burn area. There is approximately 2.5 miles of the Sawmill Pass trail within the fire area. This trail is very steep in places with steep switch backs located west of Sawmill Meadow. There is a risk of rockfall, flooding and trail tread degradation leading to increased watershed efficiency and loss of the trail in vulnerable sections. The trail receives a moderate amount of hiker use. Treatments are recommended for sections of the trail that burned with moderate and high severity.

- Aberdeen road (old Highway 395): There is a slight risk to the culvert plugging flooding the road due to additional ash and debris where Sawmill creek crosses the Aberdeen road. There is currently a 14 in. culvert at this location.

Threats to Water Quality

- Sawmill Creek – There is a high likelihood of ash and sediment entering Sawmill Creek causing temporary degradation of water quality. The majority of this risk is within and directly below the fire area. Los Angeles Department of Water and Power (LA DWP) captures flow from Sawmill Creek on the direct on the other side of the Aberdeen road approximately 2 miles from the fire area. This water is mainly used to irrigate alfalfa fields with the remainder transported to the LA aquaduct system.

Threats to Ecosystem Stability

- Noxious/Invasive species: There is a risk of invasion from noxious/invasive weeds into the burned area. The main threat is from Cheatgrass *(Bromus tectorum*) and Russian Thistle (*Salsda tragus*) spread at the helispot and by crews on the handlines and spike camps. Equipment and tools were not washed before use. The Helicopter used the airport in Independence which has known populations of both Cheatgrass and Russian Thistle. The handcrews were from different locations throughout California.
- It is recognized that Cheatgrass is adjacent to the lower elevations of the fire area and will likely spread into the sagebrush/bitterbrush plant community.

B. Emergency Treatment Objectives:

- Reduce the risk of trail tread loss and increased watershed efficiency on the Sawmill Pass Trail.
- Minimize impacts to downstream values at risk.
- Reduce the risk of noxious/invasive weed infestatations.

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

Land __ % Channel **90** % Roads/Trails **90** % Other %

D. Probability of Treatment Success

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

Other			

E. Cost of No-Action (Including Loss): $78,000

F. Cost of Selected Alternative (Including Loss): $56,700

G. Skills Represented on Burned-Area Survey Team:

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

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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.)

The following are proposed emergency treatments for the Inyo Complex Fire. These treatments were developed based on BAER objectives, team recommendations of proven, effective treatments, line officer/agency administrator input, as well as BAER team effort and discussion. Preventative treatments are targeted areas with risks to property and safety and ecosystem stability and function. Control treatments are targeted at areas downstream from high and moderate severity areas, as well as at specific high value at risk sites. Treatments with low probability of success were eliminated by use of a preliminary least cost plus risk analysis to refine treatments.

Land Treatments:

1. *Natural Vegetative Recovery*

Objective

This no cost treatment consists of allowing the on-site vegetative material to sprout or germinate to reduce emergency conditions throughout the fire area.

Methods

Observe natural vegetative recovery during the first growing season.

2. *Noxious/invasive weed detection survey and removal*

Objective

Survey for and remove noxious/invasive weeds when found. Noxious/invasive weeds provide risks to ecosystem stability by replacing the native plant community.

Methods

Survey the heli-spot in sawmill meadow the 2 miles of handline and the spike camps where the crews slept. This assessment must be completed in the spring/early summer when plants begin to grow and identification is possible. The priority area for survey is the Heli-spot in Sawmill Meadow.

Identified plants would be removed at the time of the survey. Cheatgrass found at the lower elevations of the fire area would be removed as feasible.
A report would be completed documenting the results of the survey. Additional funding for monitoring, if needed, would be requested at that time.

Accomplishment: Noxious weed surveys were completed this summer. No weeds were detected. Treatment completed

Channel Treatments:

1. *Advisory phone calls with follow-up letters*

Objective
The objective is to advise downstream users of the presences of a burned watershed and associated safety and flooding issues.

Methods
Phone calls have already been made. This treatment proposes follow-up Letters to Inyo County Public Works Department and Los Angeles Department of Water and Power to disclose hazards and associated values at risk such culverts plugging, and increases ash and sediment in the Sawmill Creek Intake This is an effective, low cost treatment.

Accomplishment*: *We reassessed the risk and determined that the phone call was sufficient warning. Treatment was not accomplished due to reassessment of risk.

Roads and Trail Treatments:

1. *Sawmill Pass Trail*

Objective
Upgrade and supplement existing erosion control structures on the Sawmill Pass Trail to facilitate proper water drainage off the trail and preserve the trail tread. .

Method
Place tread retaining structures and waterbars in critical points along the trail in the moderate and high burn severity areas. Approximately 2.5 miles of the trail is in the burned area. Based on the initial field visit the Team concluded that the trail needed approximately 30 waterbars, 45 rock tread retaining structures, 180 square feet of trail retaining wall, 1 stream crossing stabilization and 3-4 logs and/ or hazard trees needed removing for safety to implement emergency stabilization.

Accomplishment: This treatment was accomplished as stated in the request.

2. *Hazard advisory signs*

Objective
Advise the public of the presence of a burned watershed and associated saftey risks on the trail.

Methods
A sign would be placed at the trail head of Sawmill Pass Road and at the pass from Kings Canyon National Park.

Accomplishment: A sign was placed at the trail head on the Inyo. No sign was placed at the pass.

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.)

1. **Trail Treatment effectiveness monitoring**
    - **Monitoring question**: Determine if the trail treatments proposed for the Sawmill Pass Trail were effective in retaining trail tread and retarding erosion.
    - The Forest would observe trail condition next summer.
    - Before and after photographs would be taken to observe and document changes in trail condition. In addition, the monitoring would document effectiveness of specific treatments in specific areas to fine tune future prescriptions.
    - A several page report would be completed after the site visit. The report would include photographs and a recommendation on whether additional treatments are necessary.

Accomplishment: Trail monitoring was accomplished in summer of 2006. We identified the need to clean waterbars and a few lead out ditches. We are completing a more detailed report that should be available in November 2006.

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										
advisory letters	ea	200	2	$400	$0		$0		$0	$400
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Channel Treat.				$400	$0		$0		$0	$400
C. Road and Trails										
Sawmill Pass Trail	mi	8400	2.5	$21,000	$0		$0		$0	$21,000
Signs	ea	700	2	$1,400	$0		$0		$0	$1,400
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$22,400	$0		$0		$0	$22,400
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										
Team	ea	6500	1	$6,500	$0		$0		$0	$6,500
Nx/invasive weed survey	ea	330	3	$990	$0		$0		$0	$990
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Evaluation				$7,490	$0		$0		$0	$7,490
F. Monitoring										
trail	ea	3000	1	$3,000	$0		$0		$0	$3,000
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring				$3,000	$0		$0		$0	$3,000
G. Totals				**$33,290**	**$0**		**$0**		**$0**	**$33,290**

PART VII - APPROVALS

1. _/s/ Jan Cutts (for)_ August 10, 2005
   Forest Supervisor (signature) Date

2. _____ _____
   Regional Forester (signature) Date