

Date of Report: 8-4-06

**BURNED-AREA REPORT**

(Reference FSH 2509.13)

**PART I - TYPE OF REQUEST**

## A. Type of Report

- ☒ 1. Funding request for estimated emergency stabilization funds  
☐ 2. Accomplishment Report  
☐ 3. No Treatment Recommendation

## B. Type of Action

- ☒ 1. Initial Request (Best estimate of funds needed to complete eligible stabilization measures)  
☐ 2. Interim Report #1  
    ☐ 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: Trailhead FireB. Fire Number: IDSTF001179C. State: IdahoD. County: BoiseE. Region: 04 - IntermountainF. Forest: 14 - SawtoothG. District: 04 SNRAH. Fire Incident Job Code: P4CZ6QI. Date Fire Started: July 19, 2006J. Date Fire Contained: July 31, 2006K. Suppression Cost: \$1,500,000 (est.)

## L. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred (miles): 3.7 miles
2. Fireline seeded (miles): 0 miles
3. Other (identify): Helispot 0.5 acre, Spike Camp 1 acre, ICP20 acres. Helispot and spike camps were recontoured where needed and slash scattered across openings. ICP was located in Grandjean campground and required no rehabilitation. Trails have been waterbarred as part of the suppression damage control.

M. Watershed Number: 170501200804N. Total Acres Burned: 1,040NFS Acres (1,040) Other Federal ( ) State ( ) Private ( )

O. Vegetation Types: Subalpine fir in the higher elevations with White Bark pine and Douglas fire, Lodgepole pine, and sedges and forbs in the lower elevations. Engelmann spruce is typically found in the wet valley bottoms.

P. Dominant Soils: **Cryochrepts, Cryorthents, lithic and typic subgroups. There are inclusions of exposed bedrock and moist to wet soils in the valley bottoms.**

Q. Geologic Types: **Idaho Batholith, granitics**

R. Miles of Stream Channels by Order or Class:

First Order: **3.12 miles**

Second Order: **.36 miles**

Third Order: **1.81 miles**

S. Transportation System

Trails: **1.58 miles**

Roads: **0.0 miles**

### **PART III - WATERSHED CONDITION**

A. Burn Severity (acres): **205** (low) **230** (moderate) **181** (high)

B. Water-Repellent Soil (acres) :**181**

C. Soil Erosion Hazard Rating (acres):

**688** (low) **254** (moderate) **120** (high)

D. Erosion Potential: **3.6** tons/acre

E. Sediment Potential: **77.7** cubic yards / square mile

### **PART IV - HYDROLOGIC DESIGN FACTORS**

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

B. Design Chance of Success, (percent): **40**

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

D. Design Storm Duration, (hours): **1**

E. Design Storm Magnitude, (inches): **0.51**

F. Design Flow, (cubic feet / second/ square mile): **102**

G. Estimated Reduction in Infiltration, (percent): **8**

H. Adjusted Design Flow, (cfs per square mile): **112**

### **PART V - SUMMARY OF ANALYSIS**

**Background:** The Trailhead Fire burned approximately 1,040 acres between July 19 and July 31, 2006. The fire started 1 ¼ miles northeast of Grandjean on the Sawtooth National Recreation Area from human causes. An air attack aircraft from the Boise N.F. responded to the initial report and reported the fire to be 20 to 30 acres. The fire started at the junction of Trail and Silver Creek in an area with no roads. The area contains a number of steep, rocky avalanche chutes, which made the fire difficult to attack from the ground. The fire moved to the north side of Trail Creek towards several large avalanche chutes. A 200-acre burnout occurred to

eliminate unburned fuel between the northeastern edge of the fire and a fairly large avalanche chute on July 27. A helicopter-mounted plastic sphere dispenser "PSD" machine ignited the burnout.

## A. Describe Critical Values/Resources and Threats:

### Summary of Issues.

- 1) Human Life and Safety. The burned area is entirely within the congressionally designated Sawtooth National Recreation Area (SNRA), a nationally significant recreation resource. With the high volume of use of the recreational area and facilities, there will be a moderate level of risk to forest visitors from falling snags for many years.
  - ▶ The Trail Creek trail and Grandjean campground occur in portions of the floodprone width within or directly downstream of the wildfire
  - ▶ One trailhead at the Grandjean campground provides access to 3 miles of high-use non-motorized recreation trails within the burn that leads into the Sawtooth Wilderness. Backcountry dispersed recreation use by hikers, hunters, and stock-users is heavy.
  - ▶ Several Special Use Permits authorize outfitting and guiding for summer recreation activities and big game hunting.
  - ▶ Post-fire watershed conditions increase the risk to life and safety of SNRA visitors using the Trail Creek trail. The Trail Creek is located adjacent to moderate and low severity burned slopes. Normal storm frequencies and magnitudes can more easily initiate rill and gully erosion on the trail. These "minor" events can cause trail washouts making access along steep slope hazardous and putting the safety of users at risk.
- 2) Property. Existing drainage structures in the Trail Creek trail (small relief culverts) trails are not expected to accommodate increased runoff and accelerated soil erosion, and are likely to concentrate sediment and to adjacent streams. Failure of these small culverts can increase the risk to horse and foot traffic if an eroded sections of trail were unexpectedly encountered. Furthermore, failures of these facilities can contribute to degradation of aquatic conditions.
- 3) Critical Natural Resources.
  - ▶ **Aquatic Resources** - Trail Creek supports Federally listed aquatic species (bull trout) and several other native and non-native species. Bull trout were found following electrofishing in the Trail Creek up to barrier falls just above the Silver Creek confluence in 2004. Brook trout and potential bull/brook trout hybrids were also found in the lower portions of Trail Creek. The presence of brook trout and the limited amount of occupied habitat by bull trout put this local population at risk. Above the barrier falls, only a few stocked cutthroat from the Trail Creek lakes were found. The Trail Creek subwatershed within the burned area is identified as a high priority for restoration and recovery of water quality and fisheries habitat.
  - ▶ **Noxious Weeds** - Known noxious weed populations (Yellow toadflax, Dalmatian toadflax, Rush skeleton weed, Spotted Knapweed, Canada thistle, and Cheatgrass) occur immediately adjacent to the burned area on access roads and at the helibase. There is a high probability that noxious weed seeds were transported into the area via fire fighters, equipment, and vehicles that were used in other areas on wildfire suppression activity within known noxious weed locations. The burned area, now lacking desired vegetation that can normally out-compete noxious weeds, supports unfavorable conditions for expansion of nearby populations of noxious weeds and other invasive species (Cheatgrass). The high level of visitors in the SNRA, specifically stock users, hikers, backpackers, and sightseers, increases the potential for spread of noxious weeds and invasive species throughout the burned area and into the Sawtooth Wilderness Area directly adjacent to the burned area.

## B. Emergency Treatment Objectives:

The goal of the burned area emergency rehabilitation is to:

- Reduce the risk of failure to trail system and sedimentation to fish habitat downstream.
- Reduce threats to personal injury and/or human life of visitors.
- Prevent the spread of invasive plant species into new locations.

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

Land NA % Channel NA % Roads/Trails 90 % Protection/Safety NA %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land			
Channel			
Roads/Trails	80	50	40
Protection/Safety			

E. Cost of No-Action (Including Loss): **\$62,000**

F. Cost of Selected Alternative (Including Loss): **\$85,000**

G. Skills Represented on Burned-Area Survey Team:

<input checked="" type="checkbox"/> Hydrology	<input type="checkbox"/> Soils	<input type="checkbox"/> Geology	<input type="checkbox"/> Range
<input type="checkbox"/> Forestry	<input type="checkbox"/> Wildlife	<input type="checkbox"/> Fire Mgmt.	<input type="checkbox"/> Engineering
<input type="checkbox"/> Contracting	<input type="checkbox"/> Ecology	<input checked="" type="checkbox"/> Botany	<input type="checkbox"/> Archaeology
<input checked="" type="checkbox"/> Fisheries	<input type="checkbox"/> Research	<input type="checkbox"/> Landscape Arch	<input type="checkbox"/> GIS

Team Leader: **TJ Clifford, Hydrologist, Emmett Ranger District**

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Phone: **208-365-7000**

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**Team Members:**

John Chatel, Fisheries Biologist, Sawtooth National Forest

Deb Taylor, NorthZone Botanist, Sawtooth National Forest- Ketchum Ranger District

H. **Treatment Narrative:**

Land Treatments: None

Channel Treatments: None

**Roads and Trail Treatments:**

Purpose of Treatment: The purpose of this treatment is to accommodate increased water flows and associated debris. The objectives for accommodating increased flows are to: 1) stabilize and protect the existing trails; 2) decrease the chances of washing trail fill and surface material into adjacent streams; and 3) minimize trail failure induced flooding that could impact human life and safety.

General Description:

- 1) Remove small 8" culverts in 5 locations that are at risk for flooding and/or debris flows. Culverts will be replaced with armored walkthrough dips.
- 2) Culverts will need to be packed out to the Grandjean Campground for disposal.

Location (Suitable) Sites: (see map in project files)

- 1) Mapped intermittent and perennial crossings on #7453 Trail Creek.

Design/Construction Specifications:

- 1) Forest Service Specifications for walkthrough dips.

Protection/Safety Treatments: None

**Protection/Safety Treatments:**

**Road and Trail Hazard Signs**

Purpose of Treatment: Ensure maximum visibility and readability of signs warning SNRA visitors of the hazards to human life and safety that exist in burned area. Signs are intended to emphasize the increased hazards from falling burned trees, and potential for debris flows and flooding.

General Description: Install signs at all roads and trailheads that enter or provide access to trails in the burned area.

Location (Suitable) Sites: (see map in BAER report)

- 1) One hazard sign at trailhead at the Grandjean campground that accesses the burned area.
- 2) Two hazard signs at trail junctions (7640 Iron Creek and Stanley Lake/7453 Trail Creek and 7452 S.F. Payette River/7453 Trail Creek) within the burned area.
- 3) One hazard sign located at the entrance to the Grandjean campground.
- 4) One hazard sign between the two campsites located closest to the mouth of Trail Creek.

Design/Construction Specifications:

- 1) Trail Signs: Reflectorized wood backed signs (2' x 2') with letter size according to USFS Handbook specifications mounted on 4" x 4"x 8' posts at heights and distances mandated in USFS Handbook.

**I. Monitoring Narrative:**

**Noxious Weed Monitoring**

The purpose of Noxious Weed Monitoring is early detection of noxious weed introduction in the burned area and suppression sites as a result of suppression or wildfire activity. Early detection of noxious weed infestations will minimize the spread and initiate rapid treatment to new infestations associated with fire suppression/fire effects. Noxious weed species and invasives found during the monitoring will be treated at time of identification.

Authorized individuals will conduct all monitoring to insure compliance with specific, detailed requirements (intensity, frequency, funding, timing, length of time, locations, etc). Monitoring will be conducted following established R4 Monitoring methods.

Monitoring will be done at intensity and frequency to identify spread or occurrence of weed infestations following the fire event and recovery. Monitoring will be accomplished by a two person crew or contract crew over a three day period. Initial monitoring will take place after the fire (beginning late Summer/Fall of 2006). Additional monitoring may be requested depending what is found within the burned area.

Monitoring areas are identified as:

- Grandjean Campground – fire camp operations
- Forest Service Trail #7453 originating at Grandjean Campground to Trail Creek Lakes spot fire
- 2 Helispots – helispot along Forest Service Road #824 helispot #1 on the southern ridgeline of Trail Creek drainage
- Forest Service Road #824 in fire camp
- Vehicle Washing Station along FS Road #824
- Three Spike camps – Zulu and Xray spike camps located just off forest Service Trail #7453 spike camp in the Wilderness Area at Trail Creek Lakes established during spot fire suppression

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

Interim 1

Part IV - Emergency Stabilization Treatments and Control of Invasive Plant Species										
			NFS Lands				Other Lands			All
		Unit	# of		Other		Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	BAER \$	\$		\$	Units	\$	\$
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										
Culvert Removal and Fords	Sites	300	5	\$1,500	\$0		\$0		\$0	\$1,500
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
Insert new items above this line!				\$0	\$0		\$0		\$0	\$0
Subtotal Road & Trails				\$1,500	\$0		\$0		\$0	\$1,500
D. Protection/Safety										
Hazard Warning Signs	each	300	5	\$1,500	\$0		\$0		\$0	\$1,500
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
Insert new items above this line!				\$0	\$0		\$0		\$0	\$0
Subtotal Structures				\$1,500	\$0		\$0		\$0	\$1,500
E. BAER Evaluation										
Assessment Team	Report	4,500	1	---			\$0		\$0	\$0
Insert new items above this line!				---	\$0		\$0		\$0	\$0
Subtotal Evaluation				---	\$0		\$0		\$0	\$0
F. Monitoring										
Noxious Weeds	Acres	132	25	\$3,300	\$0		\$0		\$0	\$3,300
Insert new items above this line!				\$0	\$0		\$0		\$0	\$0
Subtotal Monitoring				\$3,300	\$0		\$0		\$0	\$3,300
G. Totals				\$6,300	\$0		\$0		\$0	\$6,300
Previously approved										
Total for this request				\$6,300						

## PART VII - APPROVALS

1. /s/Ruth Monahan 08/07/06  
Forest Supervisor (signature) Date

2. /s/ William P. LeVere for 08/10/2006  
Regional Forester (signature) Date