

Date of Report: 8-25-13

**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: McCan FireB. Fire Number: ID-TFD-000336C. State: IdahoD. County: CamasE. Region: 04 - IntermountainF. Forest: 14 - SawtoothG. District: 05 FairfieldH. Fire Incident Job Code: PDHT9CI. Date Fire Started: August 7, 2013J. Date Fire Contained: August 17, 2013K. Suppression Cost: \$4,321,000 (est.)

## L. Fire Suppression Damages Repaired with Suppression Funds:

Note: The following distances and areas are based only on the fire area on Forest Service ground.

1. Fireline waterbarred (miles): 0 miles
2. Fireline seeded (miles): 0 miles
3. Other (identify): There were no Helispots, Spike Camps, or Drop Points created within the area assessed. Most of the fire perimeter within the Forest Service was cold trailed with some possible minor hand lines created but at this time were not expected to be rehabilitated.

M. Watershed Numbers: 170402200204; 170402200205; 170402200206

N. Total Acres Burned: **23,716 acres**

NFS Acres (**2,171**)    Other Federal (**5,400**)    State (**3,777**)    Private (**12,368**)

O. Vegetation Types:

**Cover Type Acres in the McCan Fire**

<b>Cover Type</b>	<b>Acres</b>
Artemisia tridentata ssp. vaseyana Shrubland Alliance	1175
Mountain Shrubland	102
Aspen	251
Douglas-fir	229
Mixed Subalpine and Whitebark Pine Forest	68
Riparian Vegetation	35
Lower Montane-Foothill-Valley Grassland	37
Subalpine-Upper Montane Grassland	86
Barren	3
Introduced Upland Vegetation-	10
<b>Total</b>	<b>1996</b>

P. Dominant Soils: **Soils are shallow and moderately deep sandy skeletal, xeric. The dominant soil on this landtype (4w) is found on the upper and midslopes of the units. The soil is moderately deep and has a gravelly sandy loam surface texture. The subsoil is gravelly loamy sand texture. There are two minor soils on the land type--one of which is confined to ridgetops and upper slopes (4x). This soil is shallow and has a thin gravelly loamy sand or gravelly sandy loam surface horizon. The soil at lower portions of the slopes (4e) is shallow and has a gravelly loamy sand texture throughout the profile. The soils are all relatively high in gravel content with a range from 15 to 30 percent by volume. Rock content of the major soil (4w) varies from 10 to 60 percent.**

Q. Geologic Types: **The type of geologic structure within the Forest Service burned area is Cretaceous granodiorite from the Idaho batholith, as well as complex Eocene intrusive complexes associated with the Challis magmatic episode.**

R. Miles of Stream Channels by Order or Class:

First Order: **9.4 miles**    Second Order: **1.5 miles**    Third Order: **0 miles**

S. Transportation System:

Trails: **2.06** miles    Roads: **1.28** miles

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

- A. Burn Severity (acres): 757 (low) 825 (moderate) 164 (high) 250 (unburned)
- B. Water-Repellent Soil (acres): 370
- C. Soil Erosion Hazard Rating (acres): 0 (low) 1914 (moderate) 82 (high)
- D. Erosion Potential: 0.32 tons/acre
- E. Sediment Potential: 184 cubic yards/square mile

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

- A. Estimated Vegetative Recovery Period, (years): 2.4
- B. Design Chance of Success, (percent): NA
- C. Equivalent Design Recurrence Interval, (years): 10
- D. Design Storm Duration, (hours): 2
- E. Design Storm Magnitude, (inches): 0.92
- F. Design Flow, (cubic feet / second/ square mile): 14.7 cfs/sqmi
- G. Estimated Reduction in Infiltration, (percent): 9
- H. Adjusted Design Flow, (cfs per square mile): 18.5 cfs/sqmi

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

**Background:** The McCan Fire burned approximately 23,716 acres between August 7 and August 17, 2013. The cause of the fire was a lightning strike. At its peak eleven helicopters and 357 personnel were responding to the fire.

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

##### **Summary of Issues to Critical Values:**

##### **1) Human Life and Safety:**

Post-fire watershed conditions threaten the life and safety of visitors using the Forest Service trail within the fire perimeter. Portions of the trail passes through high/moderate severity burned slopes. Normal storm frequencies and magnitudes can now more easily initiate rill and gully erosion on the upper slopes

above the trail causing debris and rolling rocks to cascade down onto the path. These debris flows and/or rolling rocks which cut through or land on the trail respectively can put the safety of users at risk.

### **Possible Probability of Damage or Loss/Major Consequences – Risk High**

#### **2) Property:**

The Soldier Front trail lies directly below the majority of the high severity which will now be susceptible to intense summer thunderstorms due to the severity of burned acres and the lack of drainage features (e.g. rolling dips, waterbars, etc.) to accommodate increased runoff. Failure of these facilities can increase the likelihood of loss or damage to the system trail contained within the burned perimeter. Prior to the fire, the Fairfield Ranger District was performing maintenance on the trail using an operator and mini-dozer supplied by Idaho State Recreation Department. When the fire began the whole maintenance operation had to be halted until further notice.

### **Possible Probability of Damage or Loss/Major Consequences – Risk High**

#### **3) Native or Naturalized Plant Communities:**

**Threat due to Noxious Weeds** – The McCan Fire area and adjacent BLM, state, and private lands contained seven noxious Idaho plant species and 3 non-native invasive plant species (see Table 1).

Table 1 - Existing noxious/invasive species known to occur in the burn area or adjacent to it.

Diffuse Knapweed ( <i>Centaurea diffusa</i> )	Idaho noxious species
Spotted Knapweed ( <i>Centaurea stoebe</i> )	Idaho noxious species
Canada thistle ( <i>Cirsium arvense</i> )	Idaho noxious species
Rush skeleton weed( <i>Chondrilla juncea</i> )	Idaho noxious species
Leafy spurge ( <i>Euphorbia esula</i> )	Idaho noxious species
Dalmatian toadflax( <i>Linaria dalmatica</i> ssp. <i>dalmatica</i> )	Idaho noxious species
Yellow toadflax ( <i>Linaria vulgaris</i> )	Idaho noxious species
Bull thistle ( <i>Cirsium vulgare</i> )	Non-native invasive
Burdock ( <i>Arctium minus</i> )	Non-native invasive
Cheatgrass ( <i>Bromus tectorum</i> )	Non-native invasive

The risk of noxious and non-native plant establishment in the low intensity burn areas may be low because native vegetation will likely re-establish quickly. However, potential still exists for new invasive and/or spread of existing species as a result of fire suppression activities. At the time of the initial attack fire suppression activities and the following 3 days of activities, no measures were taken to prevent the introduction and spread of any invasive species within the fire area. Fire suppression resources may have been a vector for introduction of non-native species and/or spread of existing populations. Likely areas include where soil was disturbed during suppression efforts, where people and equipment worked, and equipment was parked are within high risk categories for new invasives. In addition, resources may have come in contact with existing noxious/invasive plant populations during suppression activities, spreading existing species into new areas within the fire perimeter.

The spraying treatment's probability of success minimizing the spread of noxious/invasive plant species is based on preceding Fairfield Ranger District's noxious weed treatment program, and EDRR treatments of noxious/ invasive plant species in the South Barker and Deer Creek Fire with a 75% success of native community recovery without noxious/invasive species spread (personal comm. Fairfield Ranger District personnel).

## Possible Probability of Damage or Loss/Major Consequences – Risk Very High

### B. Emergency Treatment Objectives:

The goal of the burned area emergency rehabilitation is to:

- Reduce threats to personal injury and/or human life of visitors.
- Reduce the potential for increased erosion of FS Trail #7631.
- 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 NA %   Protection/Safety NA %

### D. Probability of Treatment Success: Refer to Values at Risk (VAR) Spreadsheet

### E. Cost of No-Action (Including Loss): Refer to Values at Risk (VAR) Spreadsheet

### F. Cost of Selected Alternative (Including Loss): Refer to Values at Risk (VAR) Spreadsheet

### G. Skills Represented on Burned-Area Survey Team:

<input checked="" type="checkbox"/> Hydrology	<input type="checkbox"/> Soils	<input type="checkbox"/> Geology	<input checked="" type="checkbox"/> Range
<input type="checkbox"/> Forestry	<input checked="" 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 type="checkbox"/> Fisheries	<input checked="" type="checkbox"/> Recreation	<input type="checkbox"/> Landscape Arch	<input checked="" type="checkbox"/> GIS

Team Leader: **Shawn Robnett, Assistant Forest Engineer, Sawtooth NF**

Email: **srobbnett@fs.fed.us**   Phone: **208-737-3206**

FAX: **208-737-3236**

#### Team Members:

Mark Dallon, Hydrologist, Sawtooth National Forest

John Shelly, Range, Sawtooth National Forest

Steve Frost, Recreation, Sawtooth National Forest

Bonnie Luckman, GIS Technician, Sawtooth National Forest

David Skinner, Wildlife Biologist, Sawtooth National Forest

### H. Treatment Narrative:

#### **Human Life and Safety Treatments:**

#### **Trail Hazard Signs -**

Purpose of Treatment: Ensure maximum visibility and readability of signs to warn public of hazards on trails and recreation sites in the burned area and to minimize erosion caused by cross country travel through the burned area.

General Description: Install signs at all trailheads and trails that enter or are within the burned area or provide access to trails within the burn warning of increased hazards and install carsonite posts to protect watersheds by deterring cross country travel through open burned areas.

Location (Suitable) Sites: Phillips Creek, Free Gold Creek, South Fork Soldier Creek, North Fork Soldier Creek, Chimney Creek Trailheads need 12" x 18" reflectorized signs. Carsonite signs are needed on Phillips Creek, Free Gold Creek, South Fork Soldier Creek, North Fork Soldier Creek, and Soldier Front Trails.

Design/Construction Specifications:

1. Vinyl reflectorized 12"x18" trail signs, mounted on 4"x4"x8' posts at heights and distances mandated in USFS Handbook.
2. Vinyl reflectorized stickers, 4"x12", mounted on carsonite posts.

**Property Treatments:**

**Trail Drainage -**

Purpose of Treatment: To ensure drainage structure is sufficient to divert water effectively given increased runoff and increased sediment movement.

General Description: Construct 25 rolling dips/water bars and maintain existing drainage features with a dozer on the Soldier Front trail within high and moderate burn areas to ensure water is diverted to prevent erosion and failure of the trail tread. The work will be done for free by the Idaho State Recreation Department who will be supplying an operator and mini-excavator. The costs for this work is for the Forest Service personnel who directs the work.

Location (Suitable) Sites: Trail sections within or directly down slope from high / moderate severity burned areas. Trails within the burn area intersect approximately 3.25 miles of high and moderate intensity burn. Treatments will be focused in areas with the greatest potential for flow onto the trail surface, such as drainage bottoms and areas of past flows.

Design/Construction Specifications: According to USFS Trails Handbook 2309.18, 5, exhibit 15.

**Native or Naturalized Plant Community Treatments:**

**Noxious Weeds -**

Purpose of Treatment: To prevent known infestations from spreading and/or increasing in density, to detect and respond rapidly to new infestations associated with fire suppression/fire effects of the McCan Fire. In the proposed herbicide spraying treatment areas, if treatment was not implemented the probability of irretrievable loss of the native plant community due to the invasion of noxious and non-native invasive species is certain that noxious and non-native species would out-compete native plant species. The spraying treatment's probability of success minimizing the spread of noxious/invasive plant species is based on preceding Fairfield Ranger District's noxious weed treatment program, and EDRR treatments of noxious/ invasive plant species in the South Barker and Deer Creek Fire with a 75% success of native community recovery without noxious/invasive species spread (personal comm. Fairfield Ranger District personnel).

General Description: When monitoring actions are initiated, Forest or CWMA personnel will be prepared to survey for and immediately treat noxious weeds. Monitoring will be conducted 3 times a

year (spring, summer, and fall) to identify the spread or occurrence of weed species following the fire event and recovery. This allows for the immediate treatment and eradication (i.e. hand pulling, herbicide application, biological agent control, seeding of native species) of known infestations.

BAER funding authorization will be used for the first year (FY 2014) to meet the above objectives. Existing infestations will also be treated as prescribed by Forest and CWMA. As appropriate, these actions may be carried out under a combination of BAER and other management authorities. Treatment and monitoring activities occurring after the first year following the fire will be carried out under non-BAER authorizations. The CWMA will be utilized to survey for noxious weeds and/or provide treatments on private lands adjacent to the Forest under the Wyden Authority. A participating agreement with the CWMA and private landowners will be prepared prior to work completed on private lands. A minimum of five years of monitoring should be implemented by other program authorities.

Location (Suitable) Sites: The treatment locations will focus on areas with existing noxious weed infestations, adjacent Forest Service land areas to the burned area, and areas disturbed during suppression activities as they relate to the Forest Service land.

Noxious weeds also occur along the roads and trails used by equipment to access the fire, parking areas, the incident spike camp, and helibases. Some treatment locations are in remote areas and will require extra time to access each site. More specifically those areas will include the following:

- a) 4 miles of FS roads; 70133.
- b) 3 miles of FS trail 7631
- c) 1 Acre @ Helispot in saddle between Peak 1 & 2
- d) Approximately 180 acres of cross country travel during suppression activities
- e) EDRR weed monitoring and potential for treatment on an estimated 425 acres of moderate and 64 acres high intensity and/or severity burn area with risk of noxious/invasive plant species colonization.

Design/Construction Specifications: Select herbicide, application rate, and application timing based on specific weed species.

## **I. Monitoring Narrative:**

**Trail Hazard Signs:** Regularly inspect signs for visibility and ask visitors if they saw signs.

**Trail Drainage:** Visual inspection during spring runoff and in the fall prior to next snow season. Monitoring will be conducted by district recreation staff.

**Noxious Weeds:** All activities in the BAER implementation process especially ground disturbing activities will be monitored for weed establishment or seed spread.

All weed spread preventative measures will be monitored to ensure no weed seed collected at these preventative sites gets spread onto adjacent lands.

**Part VI – Emergency Stabilization Treatments and Source of Funds (Initial)**

Line Items	Units	Unit Cost	NFS Lands		Other \$	Other Lands			All Total \$
			# of Units	BAER \$		# of units	Fed \$	# of Units Non Fed \$	
<b>A. Land Treatments</b>									
Noxious Weed Treatment	acres	19.593	489	\$9,581	\$0		\$0	\$0	\$9,581
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0	\$0	\$0
<b>Subtotal Land Treatments</b>				\$9,581	\$0		\$0	\$0	\$9,581
<b>B. Channel Treatments</b>									
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0	\$0	\$0
<b>Subtotal Channel Treat.</b>				\$0	\$0		\$0	\$0	\$0
<b>C. Property</b>									
Trail Drainage Improv.	each	146.85	25	\$3,671	\$0		\$0	\$0	\$3,671
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0	\$0	\$0
<b>Subtotal Road &amp; Trails</b>				\$3,671	\$0		\$0	\$0	\$3,671
<b>D. Protection/Safety</b>									
Hazard Warning Signs	each	143.67	15	\$2,155	\$0		\$0	\$0	\$2,155
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0	\$0	\$0
<b>Subtotal Structures</b>				\$2,155	\$0		\$0	\$0	\$2,155
<b>E. BAER Evaluation</b>									
Assessment Team	Report	0	1	\$2,000			\$0	\$0	\$2,000
<i>Insert new items above this line!</i>				---	\$0		\$0	\$0	\$0
<b>Subtotal Evaluation</b>				---	\$0		\$0	\$0	\$2,000
<b>F. Monitoring</b>									
Noxious Weeds				\$0	\$0		\$0	\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0	\$0	\$0
<b>Subtotal Monitoring</b>				\$0	\$0		\$0	\$0	\$0
<b>G. Totals</b>				\$15,407	\$0		\$0	\$0	\$17,407
Previously approved									
Total for this request				\$15,407					

**PART VII - APPROVALS**

- /s/REBECCA S. NOURSE \_\_\_\_\_  
Forest Supervisor (signature)

August 27, 2013 \_\_\_\_\_  
Date
- /s/ Chris Iverson (for) \_\_\_\_\_  
Regional Forester (signature)

9/4/13 \_\_\_\_\_  
Date