

Date of Report: 8-27-16

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 DESCRIPTIONA. Fire Name: **Dry Creek Fire**B. Fire Number: **ID-STF-000195**C. State: **Idaho**D. County: **Custer**E. Region: **04 - Intermountain**F. Forest: **14 - Sawtooth**G. District: **04 Sawtooth NRA**H. Fire Incident Job Code: **P4KK3U**I. Date Fire Started: **August 6, 2016**J. Date Fire Contained: **August 12, 2016**K. Suppression Cost: **\$1.6 million (est.)**

L. Fire Suppression Damages Repaired with Suppression Funds:

1. Fireline Rehabilitated (miles): **3.0 miles**
2. Dozer Line Rehabilitated (miles): **2.50 miles**
2. Fireline seeded (miles): **0 miles**
3. Other (identify): **There was a small base camp established outside the fire perimeter and the area it occupied is expected to be seeded later this year. In the meantime boulders were placed around the area to help prevent the public from using the disturbed area.**

M. Watershed Numbers: Elk Creek-170602010101, Mid Valley Creek-170602010103

N. Total Acres Burned: **788 acres**

NFS Acres (774) Other Federal (**0**) State (**0**) Private (14)

O. Vegetation Types:

Cover Type Acres in the Dry Creek Fire	
Cover Type	Acres
Mountain Big Sagebrush Shrubland	32
Upland Grassland	7
Riparian Herbaceous	52
Riparian Woody	37
Lodgepole Pine	653
Developed	7
Total Acres -	788

P. Soils are moderately deep sandy loam. The dominant soil on this land type (S05) is found on the rolling hills and on the mid-slopes within the unit. The soil depth often exceeds 6 feet, has a high volume of round cobbles, and weak horizon development and surface textures of sandy loam with sand to sandy loam subsoil textures. Small areas of this land type have high water tables. There are two minor soils on the land type (02, 03)—both of which occupy the bottom lands immediately adjacent to the streams of the major drainage ways. These soils are characterized by thick, dark colored surface horizons of sandy loam or loam textures over weakly-developed subsurface horizons with loam and clay loam textures. Soil depths exceed 6 feet for most soils, and profiles contain only small percentages of coarse fragments. Many of the soils are saturated with water during part or all of the year.

Q. Geologic Types: The type of geologic structure within the Forest Service burned area is lower Tertiary and Mesozoic granite from the Idaho batholith.

R. Miles of Stream Channels by Order or Class:

First Order: **1.2 miles** Second Order: **0.93 miles** Third Order: **0 miles**

S. Transportation System:

Trails: **2.50** miles Roads: **0.40** miles (system) and **1.10** miles (permitted access)

PART III - WATERSHED CONDITION

A. Burn Severity (acres): **221** (low) **158** (moderate) **355** (high) **54** (unburned)

B. Water-Repellent Soil (acres): **Did Not Measure**

C. Soil Erosion Hazard Rating (acres): **N/A** (low) **N/A** (moderate) **N/A** (high)

D. Erosion Potential: **Did Not Calculate** tons/acre

E. Sediment Potential: **Did Not Calculate** cubic yards/square mile

PART IV - HYDROLOGIC DESIGN FACTORS

Note: The following factors were not calculated mainly due to the fact the fire was small and the change in the hydrologic conditions within the burned area would be minimal.

A. Estimated Vegetative Recovery Period, (years):

B. Design Chance of Success, (percent):

C. Equivalent Design Recurrence Interval, (years):

D. Design Storm Duration, (hours):

E. Design Storm Magnitude, (inches):

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

G. Estimated Reduction in Infiltration, (percent):

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

PART V - SUMMARY OF ANALYSIS

Background: The Dry Creek Fire burned approximately 788 acres between August 6 and August 12, 2016. The cause of the fire was a lightning strike. At its peak there were approximately 250 personnel including engines, dozers, water tender, and air resources which all responded to the fire. There were also retardant drops made on the fire to limit its spread.

A. Describe Critical Values/Resources and Threats:

Summary of Issues to Critical Values:

1) Human Life and Safety:

Post-fire conditions threaten the life and safety of visitors using the Forest Service roads and trails within the fire perimeter. Portions of the roads and trails pass through high/moderate severity burned areas. Normal storm frequencies and magnitudes which typically bring windy conditions can cause heavily burned and now dying trees to fall across the roads and trails creating a possibility of hazard trees falling on or trapping visitors who are on these transportation systems.

The Sawtooth NRA has limited areas for firewood cutting and the roads within the Dry Creek Fire perimeter are one of the few accesses visitors can drive on to cut firewood. The trail system includes the Elk Mountain Loop trail which receives use from hikers and bikers in the summer and a series of roads and road prisms that serve as Nordic ski and snowmobile trails in the winter.

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

2) Property:

The types of property within the fire perimeter include Park Creek Overlook that contains parking for approximately 7 – 10 vehicles plus a restroom, the Elk Creek Meadows CG which has three designated camp sites, 1.5 miles of road, and 2.5 miles of trail. Some of these assets are located in the high/moderate intensity burned areas but due to the geography of the burned watershed the chances of damages are low thus the cost to make needed repairs would not be that significant if any damages were to occur due to an increase in runoff.

Possible Probability of Damage or Loss/Major Consequences – Risk Low

3) Native or Naturalized Plant Communities:

Threat due to Noxious Weeds – Based on information received from the SNF and Custer County CWMA from pre-fire treatments and inventories, the Dry Creek Fire area and adjacent lands contained 13 noxious Idaho plant species and 6 non-native invasive plant species (Table 1).

Table 1. Existing noxious and non-native invasive plant species on public and private lands

Species	Status
Canada thistle (<i>Cirsium arvense</i>)	Idaho noxious species
Spotted knapweed (<i>Centaurea stoebe</i>)	Idaho noxious species
Diffuse Knapweed (<i>Centaurea diffusa</i>)	Idaho noxious species
White Top (<i>Cardaria draba</i>)	Idaho noxious species
Houndstongue (<i>Cynoglossum officinale</i>)	Idaho noxious species
Leafy Spurge (<i>Euphorbia esula</i>)	Idaho noxious species
Hoary alyssum (<i>Berteroa incana</i>)	Idaho noxious species
Hoary Cress (<i>Leidum draba ssp. draba</i>)	Idaho noxious species
Rush skeletonweed (<i>Chondrilla juncea</i>)	Idaho noxious species
Dalmatian toadflax (<i>Linaria dalmatica</i>)	Idaho noxious species
Yellow toadflax (<i>Linaria vulgaris</i>)	Idaho noxious species
Bull thistle (<i>Cirsium vulgare</i>)	Non-native invasive
Common tansy (<i>Tanacetum vulgare</i>)	Non-native invasive
Cheatgrass (<i>Bromus tectorum</i>)	Non-native invasive
Mullein (<i>Verbascum thapsus</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 during the days that followed, very little 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. Expected areas of non-native species and/or spread include where: soil was disturbed during suppression efforts, personnel and equipment operated, 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.

A major vegetation issue identified post fire included threats to the ecological integrity of native plant communities from the introduction and expansion of noxious and invasive plant species. The burned area, now lacking desired vegetation that can normally compete with invasive species, is vulnerable to the spread of existing noxious and non-native seed sources (cheatgrass). Even in the low intensity and SBS areas, it will take a minimum of one growing season for native vegetation to reestablish and compete with invasive species. The probability of loss of native plant community diversity due to noxious and invasive species is very likely and the magnitude of the consequences is moderate. Therefore, the risk is very high to potentially adversely affect hundreds of acres of public lands if they are not monitored and treated effectively.

Spotted knapweed, yellow toadflax, rush skeletonweed, Canada thistle, and cheatgrass are the most widespread species in the area, and highest risk of potential spread into the burn area. Other noxious weeds known to occur on Sawtooth National Forest, state and private lands listed in Table 2, are also very aggressive and would require immediate attention if identified in the burn or suppression activity areas.

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 using the existing transportation systems.
- 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 type="checkbox"/> Hydrology	<input checked="" type="checkbox"/> Soils	<input type="checkbox"/> Geology	<input checked="" type="checkbox"/> Range
<input type="checkbox"/> Forestry	<input type="checkbox"/> Wildlife	<input type="checkbox"/> Fire Mgmt.	<input checked="" 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: **srobnett@fs.fed.us** Phone: **208-737-3206**

FAX: **208-737-3236**

Team Members:

Deb Taylor, Botanist, Sawtooth National Forest

Robert Garcia, Range, Sawtooth National Forest

Susan James, Recreation, Sawtooth National Forest

Jeremy Hobson, GIS Specialist, Sawtooth National Forest

Tom Stewart, Soils, Sawtooth National Forest

H. Treatment Narrative:

Human Life and Safety Treatments:

Road and Trail Hazard Signs -

Purpose of Treatment: Ensure maximum visibility and readability of signs to warn public of hazards on the roads, 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 the trailhead and campground and along the trails and road that enter or are within the fire perimeter warning of increased hazards when entering the burned area.

Location (Suitable) Sites: A total of two “Entering Burned Area” signs will be posted on each end of where FS Road 630 enters the fire perimeter.

The hazard warning signs for the trails will be installed at all public accesses to the fire perimeter which includes the Park Creek Overlook, Elk Mountain Loop trail, Elk Creek Campground, and the summer and winter trail routes.

Design/Construction Specifications:

1. Hazard signs for the overlook, campground, and trails shall measure, at a minimum, 18 inches X 24 inches and consist of 0.08 inch aluminum, sheeted in high intensity yellow with black letters.
2. Hazard signs along the roads shall measure, at a minimum, 30 inches by 36 inches and consist of 0.08 inch aluminum, sheeted in high intensity yellow with black letters.

Property Treatments:

As stated previously, due to the low gradient topography of the fire perimeter the likelihood of the existing roads and trails being damaged due to excessive runoff is low and adding additional drainage features would most likely not increase the protection of the identified travel systems.

Native or Naturalized Plant Community Treatments:

Noxious Weeds -

Purpose of Treatment: To identify and effectively treat noxious species. To reduce the spread of the existing or establishment of new noxious and non-native plant species within the Dry Creek fire area including Forest roads, dispersed campsites, vehicle pullouts, and all areas used for fire suppression activities. The spread of noxious and non-native plant species could result in a reduction in the diversity of the native plant communities, and loss of soil productivity that would affect forage for wildlife and livestock in the area, and the scenic beauty and the overall recreational experiences. EDRR treatment implemented within the next growing season and through three consecutive growing seasons could reduce the risk of spread and introduction in the Dry Creek fire.

General Description: Forest Service and Custer Cooperative Weed Management Area treatment efforts will continue in the area and include an emphasis on managing the potential for spreading weed infestations in the burned area, and rehabilitated suppression activity areas. EDRR for the burned area would be an inherent part of the SNF weed management program. It would also include an education element targeting public recreational user groups, private land owners, and livestock grazing allotment permittees. EDRR treatments would be annual spring/summer treatments with follow up in the fall. This treatment will take place in accordance with the Forest Noxious Weed Management Plan. The Dry Creek fire incident did not implement a vehicle washing station during the initial attack or the following 15 days of suppression and rehabilitation activity.

Location (Suitable) Sites: The EDRR treatment will be focused on monitoring areas used during suppression activities. These areas include: 2.5 miles of dozer line, 3 miles of hand line, 1 mile of Forest System Roads, 1 mile of user created road (closed during suppression rehab), 1.2 miles of State highway 21, Stanley Lake pit ICP 3 acres, drop points 2 acres, pull outs 1 acre, dispersed campsites 9 acres. Additionally, the Cape Horn stock driveway 1 mile and greater highway 21 corridor bisecting the burned area focusing early detection of rush skeleton weed invasion, and heavily used recreation destinations adjacent to the burn area approximately 22 acres.

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

I. Monitoring Narrative:

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

Noxious Weeds: The Sawtooth National Forest weed management program would monitor noxious weed infestations treated with herbicide. Field personnel will GPS occurrences, size of areas of infestation, and use transect protocols to record relative abundance or coverage to build species trend (stable, increasing) data for area.

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 \$	
A. Land Treatments									
Noxious Weed Treatment	acres	228.14	37	\$5,250	\$0		\$0	\$0	\$5,250
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0	\$0	\$0
<i>Subtotal Land Treatments</i>				\$5,250	\$0		\$0	\$0	\$5,250
B. Channel Treatments									
(None)				\$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
<i>Subtotal Channel Treat.</i>				\$0	\$0		\$0	\$0	\$0
C. Property									
(None)				\$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
<i>Subtotal Road & Trails</i>				\$0	\$0		\$0	\$0	\$0
D. Protection/Safety									
Hazard Warning Signs	each	109.1	10	\$1,091	\$0		\$0	\$0	\$1,091
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0	\$0	\$0
<i>Subtotal Structures</i>				\$1,091	\$0		\$0	\$0	\$1,091
E. BAER Evaluation									
Assessment Team	Report	0	1	\$800			\$0	\$0	\$800
<i>Insert new items above this line!</i>				---	\$0		\$0	\$0	\$0
<i>Subtotal Evaluation</i>				---	\$0		\$0	\$0	\$800
F. Monitoring									
Noxious Weeds				\$0	\$0		\$0	\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0	\$0	\$0
<i>Subtotal Monitoring</i>				\$0	\$0		\$0	\$0	\$0
G. Totals				\$6,341	\$0		\$0	\$0	\$7,141
Previously approved									
Total for this request				\$6,341					

PART VII - APPROVALS

1. KIT MULLEN _____
Forest Supervisor (signature) Date

2. NORA RASURE— /s/ George C. Iverson (for) 9/28/16
Regional Forester (signature) Date