

Date of Report: 10/17/2018

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 # _____
 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: Bible BackB. Fire Number: ID-STF-000299C. State: IdahoD. County: BlaineE. Region: 4F. Forest: Sawtooth NFG. District: Sawtooth NRAH. Fire Incident Job Code: P4L3PW18/0414I. Date Fire Started: August 18, 2018J. Date Fire Contained: October 15, 2018K. Suppression Cost: Approximatly \$800,000.

L. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred (miles): Handline: 0.3, Dozer Line: 0 (*All Distances Located on FS Land*)
2. Fireline seeded (miles): 0
3. Other (identify): _____

M. Watershed Number: 1706020110

Subwatershed Name	Subwatershed #	Total Acres	Acres Burned	% HUC Burned
Germania Creek	170602011003	32,029.46	3,224.29	10.07%

N. Total Acres Burned: 3,224

NFS Acres (3,224) Other Federal (0) State (0) Private (0)

O. Vegetation Types:

Primarily vegetation types are conifer forests which included; whitebark pine mix (572 acres), subalpine fir (445), lodgepole pine (291), Douglas-fir (238), and subalpine fir/whitebark pine (220). Non forest ed vegetation includes mountain big sagebrush, grassland and forb communities (92 acres). Table 1 further breaks down the vegetation cover types and SBS on the SNF.

Table 1. Vegetation Cover Types acres by burn severity in Bible Back Fire on SNF

Vegetation Type	Burn Severity	Acres
Barren/Sparse Vegetation	Unburned/Very Low	73.17
Douglas-fir	Unburned/Very Low	115.45
Engelmann Spruce	Unburned/Very Low	16.45
Forbland	Unburned/Very Low	27.10
Grassland	Unburned/Very Low	1.88
Lodgepole Pine	Unburned/Very Low	184.76
Mountain Big Sagebrush	Unburned/Very Low	54.31
Subalpine Fir	Unburned/Very Low	265.40
Subalpine Fir/Whitebark Pine	Unburned/Very Low	148.20
Whitebark Pine Mix	Unburned/Very Low	608.07
Barren/Sparse Vegetation	Low	2.01
Douglas-fir	Low	60.98
Engelmann Spruce	Low	4.90
Forbland	Low	4.86
Grassland	Low	6.89
Lodgepole Pine	Low	156.30
Mountain Big Sagebrush	Low	21.24
Subalpine Fir	Low	199.95
Subalpine Fir/Whitebark Pine	Low	124.83
Whitebark Pine Mix	Low	380.72
Barren/Sparse Vegetation	Moderate	0.48
Douglas-fir	Moderate	57.84
Engelmann Spruce	Moderate	3.14
Forbland	Moderate	0.25
Grassland	Moderate	14.67
Lodgepole Pine	Moderate	134.28
Mountain Big Sagebrush	Moderate	15.33
Subalpine Fir	Moderate	243.27
Subalpine Fir/Whitebark Pine	Moderate	95.00
Whitebark Pine Mix	Moderate	190.55
Douglas-fir	High	4.07
Lodgepole Pine	High	0.08
Subalpine Fir	High	0.99

P. Dominant Soils: Soils lying over the Challis Volcanics typically have weathered, fractured, and eroded to form well-drained, non-cohesive soils with little soil horizon development, and moderate to low fertility. The soils range from 20 to 60 inches deep, with sandy loam or loamy sandy surface soil textures having 15 to 35 percent gravel. Soil textures and coarse fragments contribute to moderately high infiltration rates with low to moderate runoff potential when undisturbed; inherent soil erosion hazards for the soil map units represented

range from low to high. Cool, moist, moderately deep sandy loam soils occupy north and east aspects and support forest vegetation. Batholith soils on south-facing slopes are typically, single-grain, coarse sandy soils that are mostly dry and sparsely vegetated. Soils that have developed over the glacial alluvial deposits are more developed sandy loam or loamy soils with high coarse rock contents. One factor limiting soil productivity is lack of available moisture during the growing season.

Q. Geologic Types: The burned area is located in White Cloud Range within the ecological subregion Challis Volcanic section. The geology is highly variable, being composed chiefly of volcanic flows with some interbedded flow breccia, mostly of andesitic and rhyolitic composition. In the extreme eastern portion of the study area, the volcanic flows are interbedded with clastic material that is mostly waterlaid and of a tuffaceous nature.

These ranges have been shaped and modified by intense alpine glaciations. Cirques and glacier-scoured rocky ridges are common. The mid-elevations in this section are dominated by the U-shaped valleys formed by glaciers. The lower non-glaciated portion of the Central Mountains are composed of lands that have been shaped mostly by geologic folding and faulting. These lands have been further modified by erosional processes resulting in long, steep dissect mountain slopes.

R. Miles of Stream Channels by Order or Class:

Perennial: 5.87 miles

Intermittent: 3.68 miles

S. Transportation System (within the fire perimeter)

Trails: 7.79 miles

Roads: 0.77 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 963 (low) 753 (moderate) 5 (high) 1,530 (unburned within the Fire perimeter)

B. Water-Repellent Soil (acres): None/low 15% Medium 35% Strong 50%

C. Soil Erosion Hazard Rating (acres): 17 (low) 929 (moderate) 2278 (high)

D. Erosion Potential (tons/acre): not calculated

E. Sediment Potential: not calculated

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years):

Grass/Forbs	1-3 yrs
Shrubs	8-10 yrs
Conifers	20

B. Design Chance of Success, (percent):

C. Equivalent Design Recurrence Interval, (years): 10 yr

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

- E. Design Storm Magnitude, (inches): 0.74
- F. Design Flow, (cubic feet / second/ square mile): 0.0
- G. Estimated Reduction in Infiltration, (percent):
- H. Adjusted Design Flow, (cfs per square mile): 18.2

PART V - SUMMARY OF ANALYSIS

Background: The Bible Back Fire burned a total of 3,224 acres between August 18, 2018 and October 15, 2018. The lightning caused fire originally started approximately seventeen miles south east of Stanley, Idaho on land administered by the Sawtooth National Recreation Area. The fire burned east from Washington Basin into Chamberlin Basin.

- 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 a fire perimeter. There are portions of roads and trails which do pass through moderate to low severity burned areas within the Bible Back Fire perimeter. Normal storm frequencies and magnitudes within the burn area typically bring isolated showers and windy conditions. These isolated showers can cause increased over land flows which have the ability to transport rock and debris from the upper slopes onto the transportation routes. The winds also can cause the 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.

There are segments Forest Service roads and trails within the fire perimeter that lie at the bottom of drainages which, after storms pass through, create a threat to the safety of those individuals caught on these routes during one of these typical isolated storm and/or wind events.

Possible Probability of Damage or Loss (Likely) /Magnitude of Consequences (Moderate): Risk Assessment = High

2) Property:

The property types within the fire perimeter include system roads and trails and are further shown in the following table:

Trail or Road Number	Mileage
Livingston Mill-Castle Divide Trail (#7047)	3.56
Washington Lake Trail (#7109)	2.16
Germania Creek Trail (#7111)	0.50

Most of these assets are located in unburned to low intensity burned severity areas which typically would result in a lower chance of needing to make costly repairs. The potential to have damage occur due to being heavily eroded due to increase in runoff is intermediate if the storm event is very isolated.

Possible Probability of Damage or Loss (Possible) /Magnitude of Consequences (Moderate):
Risk Assessment = Intermediate

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 Bible Back Fire area and adjacent lands contained 11 noxious Idaho plant species and 4 non-native invasive plant species (Table 3).

Table 3. Existing noxious and non-native invasive plant species on public and private lands

Species	Status
Rush skeletonweed (<i>Chondrilla juncea</i>)	Idaho noxious species
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
Black henbane (<i>Hyoscyamus niger</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>Leidium draba</i> ssp. <i>draba</i>)	Idaho noxious species
Yellow toad flax (<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 native plant communities and soil productivity can be severely impacted in a fire due to the spread of non-native and noxious weeds from existing populations and the introduction of new species. The presence of non-native invasive species may prevent establishment of desirable perennial grasses and can increase future fire hazards. Fire suppression resources may have been a vector for introduction and/or spread of existing populations. High probability areas of spread and introduction of noxious weeds, include where soil was disturbed during suppression efforts, and where people and equipment staged. Fire resources may have spread noxious species during suppression activities into new areas within the fire perimeter.

Noxious and non native invasive species are likely to establish at a much faster rate, further impacting emerging natives. Keeping new or expanding noxious and non-native plant species from becoming established is a high priority across federal, state, and private lands ownership boundaries. Non-native invasive species often either have rhizomatous root structures, or produce abundant seed coupled with high germination rates enabling seedlings to establish rapidly following fire. The presence of non-native invasive species may prevent establishment of desirable perennial grasses and can increase future fire hazards. Prevention and treatment of invasive species prior to populations becoming established and expanded is a key point in restoring desired native vegetation within the burn area and reducing long-term cost of containment, control and eradication. An aggressive monitoring and treatment program is needed to deal with noxious and non-native invasive plants. This effort is expected to be a short, mid, and long-term process.

Possible Probability of Damage or Loss (Very Likely) /Magnitude of Consequences (Moderate):
Risk Assessment = 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 N/A % Channel N/A % Roads/Trails N/A % Protection/Safety 100 %

D. Probability of Treatment Success

Treatment	Years after Treatment		
	1	3	5
Land	--	--	--
Channel	--	--	--
Roads/Trails	--	--	--
Protection/Safety	80	70	60

Initially, visitors will heed the warning signs. Complacency is expected after the initial year unless there is a damaging event.

E. Cost of No-Action (Including Loss): \$18,000

The values at risk directly lost through No-Action includes: damage to water quality, loss of soil productivity (as impacted by noxious weed potential and erosion), recreational opportunities, and trail surfacing and cross section.

F. Cost of Selected Alternative (Including Loss): (Not Estimated)

It was assumed the primary treatments (noxious weed treatment and road and trails drainage treatment) would be successful in reducing resource values lost through No-Action by 80 percent. The remaining resource values lost (as a factor of success) were added to the cost of the primary land treatment.

G. Skills Represented on Burned-Area Survey Team:

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

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

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Team Members:

Thom Stewart, Soils, Sawtooth National Forest
Mark Dallon, Hydrologist, Sawtooth National Forest
Deb Taylor, Botanist, Sawtooth National Forest
Brandt Hines, GIS Specialist, Sawtooth National Forest

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:

Noxious Weeds -

Purpose of Treatment: To identify new infestations of noxious weeds in burned areas. Effectively treat noxious species and reduce the spread within the Bible Back fire area. 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 overall recreational experiences. EDRR treatment implemented within the next growing season could reduce the risk of introduction and spread of noxious species in the burned area and areas disturbed by fire suppression activities.

General Description: Forest Service and Custer County Cooperative Weed Management Area treatment efforts will continue in the area and include an emphasis on managing the potential for introduction and spread of noxious weed species in the burned area, and repaired suppression activity areas. EDRR for the burned area would be an integral part of the SNF weed management program. 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.

Location (Suitable) Sites: EDRR treatment will be focused on monitoring suppression activities areas.

Table 4. EDRR treatment will be focused on monitoring suppression activities areas.

Trail or Road #	Miles	Acreage
Livingston Mill-Castle Divide Trail #7047	3.56	
Washington Lake Trail #7109	2.16	
Germania Creek Trail #7111	.50	
Suppression Activities EDRR	Miles	Acreage
4 helispots, 1 dip site		10
Hand Line	.01	
Historic cabin protection site		1
Cross country travel	10	20
Suppression Activities EDRR TOTAL	16.23	41

Design/Construction Specifications: Increased EDRR monitoring would be implemented in the Bible Back Fire area to detect the introduction of invasive species into new areas and reduce spread of the limited extent known occurrences. EDRR would occur in late summer and fall. The Bible Back fire is a remote location and will require EDRR to occur on foot. The SNF weed management program monitors noxious weed populations treated with herbicide until the infestation no longer persists.

Channel Treatments:

There are no recommended treatments to any of the channels that reside within the fire perimeter.

Roads and Trail Treatments:

There are no recommended treatments to any roads or trails within the fire perimeter.

Protection/Safety Treatments:

Hazard Warning Signs -

Purpose of Treatment: The purpose of "Hazard Warning" signs is to reduce the risks to human life and safety by warning all users of existing threats while traveling the authorized routes within the areas susceptible to flooding, debris flows, hazards trees, and all other risks attributable to post fire events on the landscape.

General Description: This treatment is for installation of "Entering Burned Area" warning signs where the one road and trails access the Bible Back Fire perimeter.

Location (Suitable) Sites: The proposed location of the hazard warning signs for the trails and road, listed in the table below, will be placed at the Forest Boundary where each route crosses onto the forest and except for the road the other location of the signs will be placed where the specified route crosses the fire perimeter.

Route Name and Number	Total Number of Signs
Livingston Mill-Castle Divide Trail (#7047)	2
Washington Lake Trail (#7109)	2
Germania Creek Trail (#7111)	2

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.)

Road and Trail Hazard Warning Signs: Regularly inspect the warning signs for visibility and when able ask visitors if they saw signs and if they understood the warnings listed.

Noxious Weeds: The Sawtooth NF weed management program personnel would monitor noxious weed infestations treated with herbicide. Field personnel will GPS occurrences and size of areas of infestation, photo points, 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

Interim #

			\$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	\$0
<i>Subtotal Land Treatments</i>			\$4,526	\$0	\$0	\$0	\$0	\$4,526
B. Channel Treatments								
			\$0	\$0	\$0	\$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	\$0
<i>Subtotal Channel Treat.</i>			\$0	\$0	\$0	\$0	\$0	\$0
C. Road and Trails								
Road&Trail Stabilizati	Miles		\$0	\$0	\$0	\$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	\$0
<i>Subtotal Road & Trails</i>			\$0	\$0	\$0	\$0	\$0	\$0
D. Protection/Safety								
Hazard Warning Signs	Each	\$172.00	6	\$1,032	\$0	\$0	\$0	\$1,032
				\$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>				\$1,032	\$0	\$0	\$0	\$1,032
E. BAER Evaluation								
			---			\$0	\$0	\$0
<i>Insert new items above this line!</i>			---			\$0	\$0	\$0
<i>Subtotal Evaluation</i>			---	\$0		\$0	\$0	\$0
F. Monitoring								
				\$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				\$5,558	\$0	\$0	\$0	\$5,558
Previously approved								
Total for this request				\$5,558				

PART VII - APPROVALS

1.


Forest Supervisor (signature)


Date

2.

Regional Forester (signature)

Date

