USDA-FOREST SERVICE FS-2500-8 (6/06)

Date of Report: 10/26/2015

2015

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[X] 1. Funding request for estimated emergency stabilization funds
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

[X] 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 DESCRIPTION

A. Fire Name: Sheep and Granite Creek (Thompson Divide Complex)

C. State: Montana D. County: Flathead

E. Region: Northern (1) F. Forest: Flathead

G. District: Hungry Horse H. Fire Incident Job Code: Sheep - P1J12S15, Granite - P1J12T15

I. Date Fire Started: August 9, 2015 J. Date Fire Contained: September 20, 2015

K. Suppression Cost: $

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 2.0
2. Fireline seeded (miles): 0
3. Other (identify): 0

M. Watershed Numbers: 170102070302 (Sheep), 170102070203 (Granite)

N. Total Acres Burned: 2,171 (Sheep), 913 (Granite Creek)
NFS Acres (3,084) Other Federal () State () Private ()

O. VegetationTypes: Douglas fir, ponderosa pine, larch, sub-alpine fir, riparian

P. Dominant Soils: The following landtypes are within the burned areas:

LANDTYPE	Landform	Parent Material	Erodibility
II	Cirque Basins	Glacial Till and Metasedimentary Rocks	Moderate
III	Glaciated Mountain Slopes and Ridges	Glacial Till and Metasedimentary Rocks	Low
VI	Cirque Headwalls and Alpine Ridges	Metasedimentary Rocks	Low
VII	Glacial Trough Walls and Structural Breaklands	Glacial Till and Metasedimentary Rocks	Moderate

Q. Geologic Types: The burned area lies on the following Belt Supergroup formations: Quaternary Alluvium, Sheppard, Snowslip, Mount Shields, Bonner, McNamara, and Garnet formations. These formations include a variety of lithologies including quartzite, limestone, siltite, and argillite.

R. Miles of Stream Channels by Order or Class:

Stream miles by order within perimeter.

Stream Order	Sheep Fire Length (Miles)	Granite Creek Fire Length (Miles)
1	2.4	3.2
2	3.3	0.0
3	0.0	0.0
4	0.0	1.6
5		
Grand Total	5.7	4.8

S. Transportation System

Trails: 3.0 miles (Sheep) Trails: 1.5 miles (Granite Creek) Roads: 0.0 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): (unburned); 784 (low); 2,000 (moderate); 300 (high)

B. Water-Repellent Soil (acres): High severity portions have varying degrees of water repellency

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

D. Erosion Potential: 0.8 tons/acre

E. Sediment Potential: 0.5 tons/acre

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 3

B. Design Chance of Success, (percent): 80

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

D. Design Storm Duration, (hours): 6 hour

E. Design Storm Magnitude, (inches): 1.5 inches

F. Design Flow, (cubic feet / second/ square mile): 5.5 cfs/mi^2

G. Estimated Reduction in Infiltration, (percent): 30

H. Adjusted Design Flow, (cfs per square mile): 75 cfs/mi^2

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

Summary of Potential Watershed Response

The Sheep Fire is located in the Sheep Creek watershed and a small face (composite) watershed called McDonald Creek. Sheep and McDonald Creeks are 2nd and 1st order streams, respectively, and they drain directly into the Middle Fork Flathead River. The Granite Creek Fire is located in the lower third of the Upper Granite Creek watershed, which is tributary to the Middle Fork Flathead River. The majority of precipitation in the burned areas occurs as snow during the winter months. Peak discharges typically occur during snowmelt, snowmelt mixed with rain, or in rare cases, rain-on-snow. Runoff potential is relatively high in areas that experienced high burn severity, particularly on the steep, south-facing hillslopes with high burn severity. Erosion potential is relatively high on the steep hillslopes with moderate and high burn severity.

Values at Risk:

The risk matrix below was used to evaluate the Risk Level for each value identified during Assessment (Exhibit 2 of Interim Directive No.: 2520-2010-1). Proposed treatments and their associated risk levels are discussed below in the following categories: Human Life and Safety, Property, and Natural Resources.

Probability of Damage or Loss	**Magnitude of Consequences**		
	Major	Moderate	Minor
	RISK		
Very Likely	**Very High**	**Very High**	**Low**
Likely	**Very High**	**High**	**Low**
Possible	**High**	**Intermediate**	**Low**
Unlikely	**Intermediate**	**Low**	**Very Low**

Natural Resources: Native Plant communities

Noxious weeds are present in the burned areas. These populations while currently small in size have the potential with the available seed bed created by the fire to spread into burned areas.

Risk Assessment – Threats to native plant communities.

Probablity of Damage or Loss: Likely - Based on burn severity and proximity to potential weed populations.

Magnitude of Consequence: Moderate – Loss of native plant communities and spread of noxious weeds.

Risk Level: High – Invasive species treatment is needed on known population locations adacent to burned areas. Primary risk comes from the existing populatons that are present along existing trails.

B. Emergency Treatment Objectives:

The primary treatment objective is to reduce the potential for noxious weed spread into burned areas.

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

Land **0** % Channel **N/A** % Roads/Trails **N/A** % Protection/Safety **N/A** %

Weed spraying will begin during the summer of 2016. Timing of storm events does not necessarily play a role in the potential for weed spread.

D. Probability of Treatment Success

	Years after Treatment		
	1	2	3
Land	0	100	N/A
Channel	N/A	N/A	N/A
Roads/Trails	N/A	N/A	N/A
Protection/Safety	N/A	N/A	N/A

E. Cost of No-Action (Including Loss): $ 4,500

F. Cost of Selected Alternative (Including Loss): There remains a 10% chance that the proposed treatments for this initial work may not succeed. Total cost of the action alternative plus this 10% chance of failure is $ 3,780

G. Skills Represented on Burned-Area Survey Team:

[X] Hydrology	[X] Soils	[ ] Geology	[ ] Range
[] Forestry	[ ] Wildlife	[ ] Fire Mgmt.	[ ] Engineering
[X] Recreation	[ ] Ecology	[X] Botany	[ ] Archaeology

[X] Fisheries [ ] Research [ ] Landscape Arch [ ] GIS

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H. Treatment Narrative:

The proposed treatments on National Forest System lands can help to reduce the impacts of the fire, but treatments will not completely mitigate the effects of the fire. The treatments listed below are those that are considered to be the most effective on National Forest System lands given the local setting including topography and access. The attached Excel worksheet summarizes the funding request.

- Spray newly established weeds.
- Spray existing populations of weeds in and adjacent to burned area.

I. Monitoring Narrative:

PART VII - APPROVALS

1. /s/Chip Weber _____ _____
   Forest Supervisor Date

2. /s/_
   Regional Forester Date

			NFS Lands	
		Unit	# of	
Line Items	**Units**	**Cost**	**Units**	**BAER $**
A. Land Treatments				
Sheep Fire Weed Spraying (backcountry)	acres	200	5	$1,000
Granite Fire Weed Spraying (backcountry)	acres	200	4	$800
Subtotal Land Treatments				$1,800
B. Channel Treatments				
Insert new items above this line!				$0
Subtotal Channel Treat.				$0
C. Road and Trails				
Insert new items above this line!				$0
Subtotal Road & Trails				$0
D. Protection/Safety				
Post-fire Hazard Signs	each	400	3	$1,200
Insert new items above this line!				$0
Subtotal Structures				$1,200
E. BAER Evaluation				
Team Evaluation	each			

Insert new items above this line!				---
Subtotal Evaluation				$3,000
F. Monitoring				
Post-fire Monitoring	each			$0
Insert new items above this line!				$0
Subtotal Monitoring				$0
G. Totals				**$3,000**