

Date of Report: 09/05/2013

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 DESCRIPTION

- A. Fire Name: Moose Meadows
- B. Fire Number: MT-BDF-000118
- C. State: MT
- D. County: Granite
- E. Region: 01
- F. Forest: Beaverhead-Deerlodge
- G. District: Pintler
- H. Fire Incident Job Code: P1HSC6
- I. Date Fire Started: 07/25/2013
- J. Date Fire Contained: 85% as of 9/5/2013
- K. Suppression Cost: \$7,149,329 as of 9/5/2013
- L. Fire Suppression Damages Repaired with Suppression Funds
 - 1. Fireline waterbarred (miles):
 - 2. Fireline seeded (miles):
 - 3. Other (identify): Dozer line: 3.5 miles ; Handline: 4 miles
- M. Watershed Number: 170102020805, 170102020902, 170102020804
- N. Total Acres Burned: 3500
NFS Acres(3500) Other Federal () State () Private ()
- O. Vegetation Types: Lodgepole, Subalpine fir, and Whitebark Pine
- P. Dominant Soils: Loamy-skeletal, mixed, superactive Andic Eutrocrypts
- Q. Geologic Types: Quartzite

R. Miles of Stream Channels by Order or Class: 6 miles (all Stream Order 1)

S. Transportation System

Trails: 3 miles Roads :0 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 1448 (low) 1536 (moderate) 550 (high)

B. Water-Repellent Soil (acres): all high severity portions have varying degrees of water repellancy

C. Soil Erosion Hazard Rating (acres):
____ (low) 3300 (moderate) 200 (high)

D. Erosion Potential: _____ tons/acre

E. Sediment Potential: _____ cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

This part of the report was not completed since watershed emergency conditions for the Moose Meadows Fire did not occur.

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

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: Life, 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

Human Life and Safety: Trail Conditions

Three miles of NFS are within the Moose Meadows fire perimeter and have been burned over with a moderate to high intensity wildfire leaving many snags along the trail corridor. Trail #8020 is used predominately during hunting season and during the summer by an Outfitter operating under a special use permit.

Risk Assessment – Threats to trail users from hazard trees

Probability of Damage or Loss: Possible

Magnitude of Consequence: Moderate – personal injury

Risk Level: Intermediate – Install warning signs at appropriate locations to warn forest users of post-fire hazards.

Natural Resources: FS Trail

Three miles of NFS are within the Moose Meadows fire perimeter and have been burned over with a moderate to high intensity wildfire. The trail system provides non-motorized access for recreation opportunities, hunting opportunities, and wildlife surveys. Areas of moderate to high burn severity have the potential to negatively affect the structural integrity of the trail prism due to increased erosion and the burning of tree roots underneath the trail prism. Hydrophobicity is minimal, occurring at the surface. Accelerated erosion is still likely to occur, but will decrease as vegetation becomes established. In addition, needle cast will reduce potential erosion and sediment delivery.

Risk Assessment – Threats to the trail resource

Probability of Damage or Loss: Possible to Likely – Based on minimal hydrophobicity and duff layer consumption during fire

Magnitude of Consequence: Moderate – Erosion hazard is elevated in some areas; portions of the trail are already failing due to the burning out of large roots underneath the trail prism and subsequent erosion.

Risk Level: Intermediate to High – Portions of the trail occurring in moderate to high burn severity are susceptible to increased erosion and failure of the trail prism due to burned out roots and subsequent erosion.

Natural Resources: Native Plant communities

Noxious weeds/invasive plant species pose a threat to the composition, structure, and function of native plant communities. Depending on burn severity and site potential, fire as a disturbance process has the potential to greatly exacerbate infestations of certain noxious weed species. Soil disturbances resulting from all levels of burn intensities in a wildfire incident and fire suppression related activities (hand lines, drops spots, camps, etc,) that cause vegetation and soil alteration provide optimum conditions for noxious weed invasion. Trail corridors are vulnerable to noxious weed invasion. Burning removes existing vegetation, increasing the prevalence and spread of existing weed populations.

There are known infestations of spotted knapweed, yellow toadflax, and oxeye daisy adjacent to burned areas. Staging areas were often located in close proximity to known infestations and the burned area. Daily driving from one side of the fire to the other has increased the potential of weed spread. The cargo sling area at Helibase was located adjacent to a spotted knapweed infestation; potentially spreading spotted knapweed across the fire perimeter at various sling spots and helispots.

Risk Assessment – Threats to native plant communities.

Probability of Damage or Loss: Very Likely - Based on traffic levels and proximity to known weed infestations.

Magnitude of Consequence: Major – Loss of native plant communities and spread of toxic weeds.

Risk Level: Very High – Invasive species detection surveys and spraying within and adjacent to the burned area. Primary risk comes from the existing infestations adjacent to the burned area.

B. Emergency Treatment Objectives:

As noted above, threats to life, property, and/or natural resources could potentially result from post-fire conditions in the burned area. For these reasons the primary treatment objectives are:

- Install warning signs at appropriate locations to warn forest visitors of post-fire hazards.
- Mitigate the post-fire effects to the trail system with the installation of drainage structures and retention walls.
- Minimize potential effects of post-fire conditions on native plant communities by assessing and controlling noxious weeds.

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

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

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	90	NA	NA
Channel	NA	NA	NA
Roads/Trails	90	NA	NA
Protection/Safety	NA	NA	NA

E. Cost of No-Action (Including Loss):_ \$45,000

F. Cost of Selected Alternative (Including Loss):_ \$28,000

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

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H. Treatment Narrative:

The proposed treatments on National Forest System lands can help to reduce the impacts of 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 NFS lands given the local setting.

Protection/Safety Treatments

Sign Installation: Install warning signs at appropriate locations to warn forest users of post-fire hazards.

Land Treatments

Trail Treatments: Installation of drainage structures and stabilization structures will be in accordance with EM-7720-102 standard specification for construction of trails.

- Install drainage structures and trail stabilization where necessary along 2 miles of trail.

Hazard Trees: Protect BAER workers from dangerous trees along trail corridor where they are working. Only trees presenting clear and present danger will be removed.

Noxious Weed Detection and Treatment: Treat noxious weeds/invasive species spread adjacent to and within the burned area to reduce the population and help prevent the spread and establishment of noxious weeds, especially within the moderate to high intensity burn areas. Noxious weed treatment will be implemented in accordance with the 2002 Beaverhead-Deerlodge National Forest Noxious Weed Control EIS.

- Spray noxious weeds on 167 acres (est).
- Assess noxious weed spread..

I. Monitoring Narrative:

Effectiveness of weed treatments will be monitored through visual observation. Continual assessment of weed establishment and spread will occur this fall and early next spring. If assessments determine additional weed treatments are necessary, an interim 2500-8 will be submitted.

Part VI – Emergency Stabilization Treatments and Source of Funds

Interim #

			NFS Lands				Other Lands				All
		Unit	# of		Other		# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	BAER \$	\$		units	\$	Units	\$	\$
A. Land Treatments											
Weed Treatment	acres	100	167	\$16,700	\$0			\$0		\$0	\$16,700
Weed Assessment	acres	75	10	\$750	\$0			\$0		\$0	\$750
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Land Treatments				\$17,450	\$0			\$0		\$0	\$17,450
B. Channel Treatments											
				\$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											
Trail Erosion Control	miles	930	2	\$1,860	\$0			\$0		\$0	\$1,860
Retaining Wall Constr	feet	62	15	\$930	\$0			\$0		\$0	\$930
Hazard Tree Removal	miles	350	2	\$700	\$0			\$0		\$0	\$700
Materials	each	500	1	\$500							
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Road & Trails				\$3,990	\$0			\$0		\$0	\$3,490
D. Protection/Safety											
Post-fire Hazard Signs	each	7	215.43	\$1,508	\$0			\$0		\$0	\$1,508
				\$0	\$0			\$0		\$0	\$0
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Structures				\$1,508	\$0			\$0		\$0	\$1,508
E. BAER Evaluation											
				---				\$0		\$0	\$0
Insert new items above this line!				---	\$0			\$0		\$0	\$0
Subtotal Evaluation				---	\$0			\$0		\$0	\$0
F. Monitoring											
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Monitoring				\$0	\$0			\$0		\$0	\$0
G. Totals				\$22,948	\$0			\$0		\$0	\$22,448
Previously approved											
Total for this request				\$22,948							

PART VII - APPROVALS

 1. _____
 Forest Supervisor (signature)

 Date

 2. _____
 Regional Forester (signature)

 Date