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

Date of Report:10-21-2010

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:Bull Fire

B. Fire Number: 22

C. State:WY

D. County:Teton

E. Region: 4

F. Forest:Bridger-Teton

G. District:Jackson Ranger District

H. Fire Incident Job Code: P4FM25

I. Date Fire Started:7-23-2010

J. Date Fire Contained: Not contained as of 10-29-2010

K. Suppression Cost: $2,000,000

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): .25
2. Fireline seeded (miles): 0
3. Other (identify): fence repair and hazard tree removal

M. Watershed Number: Lower Granite Creek 170401030401 and Hoback River-Poison Creek 170401030105

N. Total Acres Burned: 5273
NFS Acres(x) Other Federal ( ) State ( ) Private ( )

O. Vegetation Types: mixed conifer, sage and grass

P. Dominant Soils: Argic Cryoborolls, fine-loamy, mixed – Typic Cryoboralfs, fine-loamy, mixed – Argic Cryoborolls, loamy-skeletal, mixed (Teton Soil Survey).

Q. Geologic Types: Hoback Formation: Interbedded sandstone and claystone with conglomerate. Gannet group: limestone, shale sandstone.

R. Miles of Stream Channels by Order or Class: 1st order= 12.4 miles; 2nd order=2.4 miles; 3rd order=4.6 miles

S. Transportation System

Trails: 4.8 miles Roads:2.1 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 958 (low) 2039 (moderate) 137 (high)

B. Water-Repellent Soil (acres): 1156

C. Soil Erosion Hazard Rating (acres):
0 (low) 784 (moderate) 2350 (high)

D. Erosion Potential: 3.17 tons/acre

E. Sediment Potential: 1352 cubic yards / square mile (based on an erosion rate of 3.17 tons/acre modeled from ERMIT, clay loam, 20% rock, 0%,50%,30% slope, 300ft, moderate soil burn severity)

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 2-3

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

C. Equivalent Design Recurrence Interval, (years): 25

D. Design Storm Duration, (hours): 0.5

E. Design Storm Magnitude, (inches): 0.85

F. Design Flow, (cubic feet / second/ square mile): Little Granite pipe=27.8; Bull Creek=19.4

G. Estimated Reduction in Infiltration, (percent): 22 (based on % area with water repellent soil)

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

PART V - SUMMARY OF ANALYSIS

The Bull Fire started by lightning on July 21, 2010 in the upper headwaters of the Bull Creek drainage east of Hoback Junction. About 75 percent of the fire is within the Gros Ventre Wilderness area. The remaining 25

percent is along the eastern flank of the fire which borders Little Granite Creek and Forest Road 30505. The fire is being managed to meet both protection considerations and resource objectives. As of October 20, 2010 the fire is continuing to burn timber within the interior in the Rough Hollow and Little Granite Creek areas.

A. Describe Critical Values/Resources and Threats:

Human Life and Safety:
As a result of the fire, hazard trees along the Little Granite Creek road, pack trail and Rough Hollow Trail could present a threat to human life and safety, however existing hazard trees were identified by fire crews during supression efforts and were dealt with accordingly. Since suppression efforts are still ongoing, additional hazard trees may be identified and removed. Signs warning the public of this threat are in place at the trailhead and area closures associated with the fire have been lifted by the District Ranger due to the popularity of this area for hunting.

It is the Forest's expectation there is an "Unlikely" (<10 percent) chance for hazard trees to fall in the vicinity of a trail or road; and "Intermediate" consequences to human life if a tree were to fall on someone. This would equate to an "Intermediate" level risk based on the interim BAER direction.

Property:
Portions of the Little Granite Creek road (30505) are expected to receive increased runoff from the adjacent burned area in the area about 0.72 miles upstream from the confluence of Little Granite Creek and Granite Creek. Establishment of drainage and replacement of an undersized culvert will help protect the road from washing out when flooding events occur this fall or next spring during runoff.

It is the Forest's expectation there is a "Likely" (50-90 percent) chance for the culvert capacity to be exceeded; and "Moderate" consequences to the existing culvert and roadway if restoration efforts are not pursued. This would equate to a "High" level risk based on the interim BAER direction.

Natural Resources:
Short-term increases in erosion and sedimentation are expected to be within the natural range of disturbance for this landscape, and no threats outside of this natural range were identified for soil productivity/hydrologic function, water supply/water use, or federally listed TES species. There are potential threats to native plant communities on NFS lands where invasive species or noxious weeds are absent or present in only minor amounts. Canadian Thistle was observed along the Little Granite road, the Little Granite trail and the Rough Hollow trail. It is expected that these infestations may increase to adjacent burned areas.

There is a high probability that noxious weed seeds – either from the immediate vicinity, or from some other location - were transported into the area via firefighters, equipment, and support vehicles that were used for fire monitoring/suppression operations. In addition to areas with moderate or high soil burn severity that are now lacking vegetation, roads and trails used to for access were heavily impacted and are now ideal staging points for noxious weeds. The level of undesirable disturbance makes these locations more susceptible for invasion of noxious weeds. It is the Forest's expectation there is a "Likely" (50-90 percent) chance for noxious weeds to invade areas where they did not previously exist; and "Moderate" consequences to the existing native vegetation if early detection and rapid response (EDRR) efforts are not pursued. This would equate to a "High" level risk based on the interim BAER direction.

Cultural and Heritage Resources: Several existing sites were reviewed and no protection treatments are recommended.

B. Emergency Treatment Objectives:

Human Life and Safety:

- Protect the public from the threat of hazard trees caused by the fire along trails and roads (to be achieved though supression activities).

Property:

- Reduce the threat of the Little Granite Crek road washing out due to undersized culvert.
- Restore trails to prefire conditions by removing downfall from trails next spring and summer.
- Reduce runoff from trails by placing waterbars.

Land

- Prevent the spread of noxious plant species into previously unoccupied locations.

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

Land **na** % Channel **50*** % Roads/Trails **50*** % Protection/Safety **na** %

*Road and channel treatments are weather dependent and there is a storm forecast for the area Sunday, October 17, 2010 which could reduce the chances of completing the work either from too much snow, frozen ground or too much moisture.

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	50	75	75
Channel	100	90	90
Roads/Trails	100	90	90
Protection/Safety			

E. Cost of No-Action (Including Loss): **$150,000**

The cost of the no-action alternative could be significant for a variety of reasons. For example, if the exisitng culvert is plugged and the road wash's out repair costs would be double or triple of what is proposed. If left unchecked, noxious weeds could invade areas previously not occupied by weeds and erradication costs could be significant.

F. Cost of Selected Alternative (Including Loss):$17,860

Completing the reccommended treatments within the first year would result in a much reduced cost.

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Eric Winthers

Email: ewinthers@fs.fed.us Phone: 307 367-5740 FAX: 307 367-5750

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:

Early detection and rapid response techniques will be implemented during greenup next spring and throughout the growing season. Trailheads and roadways will be monitored and weeds will be sprayed as necessary using standard truck mounted equipment. Weed treatments along trails will require a horse pack sprayer.

Channel Treatments:

Replace existing 18 inch culvert on Little Granite road with a 24 inch culvert in order to accomandate expected runoff from burned area above. The existing culvert is too small and expected to become plugged up during spring runoff next year.

Advise WYDOT that the culvert at Bull Creek and Highway 191 is narrow enough that it could be obstructed with debris because bankfull widths above the pipe are 3 to 4 times greater than the culvert diameter.

Roads and Trail Treatments:

Little Granite Creek road will be graded, crowned and ditched to re-establish drainage. An undersized culvert located 0.72 miles upstream from the confluence of Granite and Little Granite Creek will be replaced with a 24 inch culvert. Approximately 50 cubic yards of gravel will be placed in this section of roadway to build up the road to ensure proper drainage and reduce sediment runoff from roadway.

Little Granite Creek trail and the Rough Hollow trail will have waterbars placed to insure adequate drainage and downfall cleared to allow access for trail protection workers. Approximately 4.8 miles will be addressed next summer.

Protection/Safety Treatments:

Hazard trees will be removed from areas along the Little Granite Creek road and at the trailhead, along the Little Granite pack trail and the Rough Hollow pack trail. Portions of the trails are within wilderness and require minumum tool techniques. **To be completed by suppression crews**.

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.)

Weed treatments will be monitored using spray records and maps completed by weed crew.

The culvert and road treatment will be monitored with photo points, both pre and post treatment and after spring runoff.

A small area of riparian that burned in the Little Granite Creek drainage above the trailhead will be monitored for recovery in spring or summer 2011 via photo points.

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	200	15	$3,000	$0		$0		$0	$3,000
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$3,000	$0		$0		$0	$3,000
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 protection	miles	1700	4.8	$8,160	$0		$0		$0	$8,160
road drainage	miles	10000	0.25	$2,500	$0		$0		$0	$2,500
culvert replacement	each	3000	1	$3,000	$0		$0		$0	$3,000
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$13,660	$0		$0		$0	$13,660
D. Protection/Safety										
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Structures				$0	$0		$0		$0	$0
E. BAER Evaluation										
salary	est			$10,000			$0		$0	$0
Insert new items above this line!				---	$0		$0		$0	$0
Subtotal Evaluation				---	$0		$0		$0	$0
F. Monitoring										
road and culvert	each	4	100	$400	$0		$0		$0	$400
weed treatment	each	4	100	$400						$400
riparian monitoring	each	4	100	$0						$0
Insert new items above this line!					$0		$0		$0	
Subtotal Monitoring				$800	$0		$0		$0	$800
G. Totals				$17,460	$0		**$0**		**$0**	**$17,460**
Previously approved										
Total for this request				**$17,460**						

PART VII - APPROVALS

1. /s/ Michael Schrotz (for) Jacqueline A. Buchanan — 10/27/10
   Forest Supervisor (signature) — Date

2. /s/ Harv Forsgren — 11/2/2010
   Regional Forester (signature) — Date