USDA-FOREST SERVICE FS-2500-8 (7/00)

Date of Report: 7-17-02

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[X] 1. Funding request for estimated WFSU-SULT funds
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

[X] 1. Initial Request (Best estimate of funds needed to complete eligible rehabilitation 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: Reese Mountain

B. Fire Number: Wy-227-74

C. State: Wyoming

D. County: Albany County (USFS lands), Platte County

E. Region: 02

F. Forest: Medicine Bow-Routt National Forests

G. District: Douglas Ranger District

H. Date Fire Started: 06/29/02

I. Date Fire Contained: 7/11/02

J. Suppression Cost: $3,500,000

K. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): No fireline on USFS lands
2. Fireline seeded (miles): No fireline on USFS lands
3. Other (identify):

L. Watershed Number: Portions of the following watersheds: 101800110102, 101800110103, 101800110106, 101800110108, 101800110111

M. Total Acres Burned: 19,334 acres
NFS Acres(3,480) Other Federal (2,900) State (1,537) Private (11,417)

N. Vegetation Types: Ponderosa Pine woodlands are the dominant vegetation community within the fire area. Tree density and understory composition and cover vary with aspect and slope. Common understory plants include Ross sedge, elk sedge, bearberry, bitterbrush, and ribes. There are also small stands of aspen that grow primarily in draws and along streams in the larger drainages. Stream valleys are relatively narrow and

are dominated by shrub stands of willow, box elder, poplar, and water birch often with Ponderosa pine overstories and grass/sedge understories and/or aspen stands.

O. Dominant Soils: The soils are mostly loams and clay loam with a large percentage of rock content in the soil profile. The soils are moderate in erodibility, however the large rock cover provides protection from water erosion. Some of the ridgetops in the fire area are granite outcrops with no vegetation growing on them. The area is not prone to mass movement.

P. Geologic Types: The Reese Mountain fire is located on the southern end of the Laramie Peak Range. The geology consists of ancient granite rock thrust up through the sandstone and limestone. The dominant landform is strongly sloping hills to very steep mountains side slope. Highly fractured bedrock outcrops are common to the area (approximately 20 percent of the area). This geology and landforms provided large amount of ground cover of rock fragments.

Q. Miles of Stream Channels by Order or Class: 7.2 miles of USGS blue-line streams

R. Transportation System

Trails: None on USFS lands Roads: None on USFS lands

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 696 acres (low) 2,436 acres (moderate) 174 acres (high)

B. Water-Repellent Soil (acres): Approximately 2,600 acres of weak-moderate repellency. Strong hydrophobicity was generally not noted in the USFS lands within the burned area. The areas of low burn severity showed no increased hydrophobicity.

C. Soil Erosion Hazard Rating (acres):
174 acres (low) 870 acres (moderate) 2436 acres (high)

D. Erosion Potential: 1.2 tons/acre

E. Sediment Potential: 207 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

B. Design Chance of Success, (percent): n/a

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

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

E. Design Storm Magnitude, (inches): 1.7 inches

F. Design Flow, (cubic feet / second/ square mile): 54 cfs/mi^2

G. Estimated Reduction in Infiltration, (percent): 20 %

H. Adjusted Design Flow, (cfs per square mile): 63 cfs/mi^2

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency: The Reese Mountain fire burned largely on private, BLM, and state lands with only a small portion on U.S. Forest Service lands (18%). Due to the ownership patterns and relatively small percent of USFS lands, this assessment focuses only on USFS lands (see attached map). The Reese Mountain fire encompassed all of the 1987 Collins Peak fire area. The same area burned again during the Reese Mountain fire, but fuel loads were lower due to the 1987 wildfire.

The landforms, geology, and soils all influence the runoff characteristics. USFS lands within the Reese Mountain fire are on steep slopes with a high percent of rock outcrop, and the shallow soils contain a high percent of rock fragments. Summer thunderstorm precipitation events exhibit high runoff characteristics naturally due to the high percent of rock outcrops. The rock fragments within the soils naturally provide protection from raindrop impact. In the area of the Reese Mountain fire, vegetative cover is generally less of a controlling factor in storm response than landform characterisitics.

Sparked by lightning in late June, the fire appeared to be a primarily wind driven event, resulting in mixed intensity and fire duration leading to a highly varied mosaic of burn severities. For much of the burn area, the fire burned rapidly through the crowns, sometimes completely consuming the canopy, however often more than half of the 1000 hour downed fuels and duff and litter were charred rather than consumed, even in the more intensely burned portions. Riparian areas were largely unburned or burned at low intensity.

Values at risk within and downstream of the USFS lands are minimal. There are no known Threatened, Endangered, and Sensitive species on USFS lands within the burned area. There is potential habitat for the Laramie Columbine. This columbine is only found in the Laramie Range in shady crevices of north facing granite boulders and cliffs with pockets of rich soil at 6250-8000 ft. Given the habitat that this species occupies and the fact that it evolved in Ponderosa Pine types with regular fire occurrences, the threat to the population should be low.

An afternoon short duration high intensity thunderstorm dropped 1.4 inches of rain on July 3rd, and was followed by a similar event of 0.75 inches on July 4th. These precipitation events greatly aided in containment and control of the fire. Field reconnaissance following these events found movement of ash off of the burned areas, but only minor amounts of soil erosion. The rain also promoted rapid resprouting of root crowns which were not consumed during the fire, and green-up was evident in many locations.

USFS lands drain into a variety of watersheds and drainages. There are several reservoirs on the Notch Peak Ranch private land within the burn area in the Collins Creek drainage. Although there is a potential for the fire to increase sedimentation to these reservoirs, only 175 acres of USFS lands would potentially affect these reservoirs. These 175 acres lie within the 1987 Collins Peak burn, and therefore burn intensities and burn severities on these acres were low to moderate during the Reese Mountain fire and runoff properties are not expected to change following the Reese Mountain fire. A small portion of the northside of the top of Reese Mountain is on USFS lands. This area is primarily rock outcrop, and drains into Collins Creek downstream of the Notch Peak reservoirs.

The remainder of the USFS lands drain into various drainages of which the USFS lands comprise only a small percent of each of the following watersheds: Ashley Creek, Grizzly Creek, Sheep Camp Creek, Rabbit Creek, and Lefthand Luman Creek.

Due to the natural landforms and runoff patterns, the mosaic nature of the burn with predominantly moderate to low burn intensities, the location of the USFS lands relative to other ownerships and watershed boundaries, and the 1987 Collins Creek burn, it is felt that there are no emergency treatments required at this time.

Based on experience from the Murphy Ridge fire in 1996, noxious weeds are likely to expand in the burned area. Canda thistle is endemic in the burned area, and there is potential for Dalmation Toadflax, Cheat Grass , knapweed, and leafy spurge which are adjacent to the area. For this reason funding is being requested to monitor noxious weeds,and if found, an interim report would be filed requesting funds to treat the weeds.

B. Emergency Treatment Objectives: There are no emergency treatments requested at this time except for noxious weed monitoring.

C. Probability of Completing Treatment Prior to First Major Damage-Producing Storm: N/A

Land __ % Channel __ % Roads __ % Other __ %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land			
Channel			
Roads			
Other			

E. Cost of No-Action (Including Loss): N/A

F. Cost of Selected Alternative (Including Loss): N/A

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Kirk Wolff assisted by Liz Schnackenberg

Email: kwolff@fs.fed.us Phone (970)870-2226 FAX: (970)870-2284
lschnackenberg@fs.fed.us (970)870-2234

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.)

No treatments are recommended at this time.

Land Treatments:

Channel Treatments:

Roads and Trail Treatments:

Structures:

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.)

Noxious weed monitoring: Based on experience from the Murphy Ridge fire in 1996, noxious weeds are likely to expand in the burned area. Monitoring of areas seeded or areas with high potential for noxious weeds will be initiated in June 2003. Monitoring will include field observations and photo points. GPS technology will be used to document weed infestation locations and the data entered into the GIS system for tracking. If monitoring reveals noxious weed infestation, a treatment plan will be developed and an interim 2500-8 report filed to request additional fund for treatment of weeds. All treatments would follow protocols and guidelines established in the Medicine Bow-Routt National Forests 1995 Weed Environmental Assessment. Monitoring will focus on high risk areas, and the information will be shared with the Albany County Weed Board. At the end of each season a monitoring report will be sent in with the interim 2500-8 report, with results of the prior season's work.

Part VI – Emergency Rehabilitation Treatments and Source of Funds by Land Ownership

			NFS Lands				Other Lands			All
		Unit	# of	WFSU	Other	# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	SULT $	$	units	$	Units	$	$
A. Land Treatments										
				$0			$0		$0	$0
				$0			$0			
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Land Treatments				$0			$0		$0	$0
B. Channel Treatments										
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Channel Treat.				$0			$0		$0	$0
C. Road and Trails										
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Road & Trails				$0			$0		$0	$0
D. Structures										
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Structures				$0			$0		$0	$0
E. BAER Evaluation										
Survey team				$3,050			$0		$0	$3,050
				$0			$0		$0	$0
F. Monitoring	day	250	5	$1,250			$0		$0	$1,250
G. Totals				**$4,300**			**$0**		**$0**	**$4,300**

PART VII - APPROVALS

/s/ Michael M. Murphy (for):

1. MARY H. PETERSON — 7-18-2002
   Forest Supervisor (signature) — Date

/s/ Margo Lamphere (for):

2. RICK D. CABLES — 7-19-2002
   Regional Forester (signature) — Date