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

Date of Report:

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[ ] 1. Funding request for estimated WFSU-SULT funds
[ ] 2. Accomplishment Report
[X] 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: Centerville

B. Fire Number: UT-NWS-354

C. State: UT

D. County: Davis

E. Region: 04

F. Forest: Wasatch-Cache

G. District: 01

H. Date Fire Started: 07/31/2003

I. Date Fire Contained: 08/03/2003

J. Suppression Cost: $1.2 million

K. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 4 miles
2. Fireline seeded (miles): none
3. Other (identify):

L. Watershed Number: 16020102

M. Total Acres Burned: 500
NFS Acres(**500**) Other Federal ( ) State ( ) Private ( )

N. Vegetation Types: Gambel oak, sagebrush/grass

O. Dominant Soils: : Ridd rocky sandy loam, 30 to 70% slopes, eroded and Kilburn-Francis association, 30 to 50% slopes, eroded.

P. Geologic Types: Archean schist and gneiss, Holocene and Pleistocene landslide deposits, Pleistocene Lake Bonneville Group

Q. Miles of Stream Channels by Order or Class: Order 2 = 1.3 miles

R. Transportation System

Trails: 0 miles Roads: 0 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 146 (low) 184 (moderate) 170 (high)

B. Water-Repellent Soil (acres): 80

C. Soil Erosion Hazard Rating (acres):
125 (low) 265 (moderate) 110 (high)

D. Erosion Potential: 3.5 tons/acre (30 year storm event)

E. Sediment Potential: 2.71 tons/acre (30 year storm event)

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 1 to 3 year in oak brush, 5 to 10 yeas in conifer

B. Design Chance of Success, (percent): 90

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

D. Design Storm Duration, (hours): 1

E. Design Storm Magnitude, (inches): 1

F. Design Flow, (cubic feet / second/ square mile): 74 cfs

G. Estimated Reduction in Infiltration, (percent): 80

H. Adjusted Design Flow, (cfs per square mile): 142 cfs

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency: There is a very low probabability of damage to downslope resources occurring from either flooding or debris flows associated with this fire. The principal reason for this is the existence of a very large sediment/flood detention basin at the mouth of Ford Canyon, and above any Centerville City residential developments or improvements, that any flood event from this fire would have to pass through. Analysis by debris flow experts has shown that the debris basin is large enough to handle the most likely flooding evnts from this canyon (Giraud, 2003). Additionally, WEPP modeling has indicated a potential sediment delivery from high burn severity areas, for a 30 year storm event, to be about 470 tons. The

detention basin has a capacity of approximately 40,000 tons. Water storage for this basin is about 13,000 cubic yards, or about 8 acre feet. There is potential for accelerated soil erosion to occur on the steep high severity burn north facing slopes in the fire. The probability of this erosion occurring and resulting in losses to soil productiivty is very low as the prospect for regeneration of the burned oakbrush is excellent, and the soils on these north facing slopes have a very thick humus enriched topsoil horizon.

B. Emergency Treatment Objectives:

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

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): In the opinion of the assessment team, very little damage has occurred to soil and water resources that will not recover on its own in a very short time period. Therefore, the cost of the no action alternative would be the cost of the initital rehab assessment ($5,500) and the followup monitoring ($5,100).

F. Cost of Selected Alternative (Including Loss): **$10,600**

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Paul Flood

Email: pflood@fs.fed.us Phone: 801-524-3940 FAX:

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:

Channel Treatments:

Roads and Trail Treatments:

Structures:

H. **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.)

The objective of monitoring is to establish the effectiveness of the no action alternative in protecting watershed condition and soil productivity. The natural revegetation response of the sage/grass and oakbrush communities needs to be assessed during the spring of 2004, as well as the intrusion of any weed species. Supplemental BAER reports and funding requests would be prepared and submitted in the event of monitoring results indicating that weed infestations or lack of regrowth are delaying the establishment of erosion preventing ground cover.

References

Giraud, Richard E., 2003. Preliminary post-fire debris-flow and flood hazard assessment for the July-August Centerville fire. Interagency memo, August 15, 2003. State of Utah, Department of Natural Resources, Utah Geological Survey

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										
Assessment	team	5,500	1	$5,500			$0		$0	$5,500
				$0			$0		$0	$0
G. Monitoring Cost	report	5,100	1	$5,100			$0		$0	$5,100
Weeds/Reveg										
H. Totals				**$10,600**			**$0**		**$0**	**$10,600**

PART VII - APPROVALS

1. _/s/ Thomas L. Tidwell_____ _Aug 25 2003_____
   Forest Supervisor (signature) Date

2. _/s/ Cathy Beaty for_____ _9/18/2003_____
   Regional Forester (signature) Date