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

Date of Report: June 29, 2005

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: Aztec

B. Fire Number: AZ-CNF-000117 /P 3BU22

C. State: Arizona

D. County: Santa Cruz

E. Region: 3

F. Forest: Coronado

G. District: Sierra Vista

H. Date Fire Started: June 18, 2005

I. Date Fire Contained: June 24, 2005

J. Suppression Cost: $1,542,000

K. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): about 3.5
2. Fireline seeded (miles): 0
3. Other (identify):

L. Watershed Number: 1505030102

M. Total Acres Burned: 1300
NFS Acres(1123) Other Federal ( ) State ( ) Private (177)

N. Vegetation Types: grassland, mixed juniper-oak woodland, and Chihuahua pine

O. Dominant Soils: Lithic Ustichrept

P. Geologic Types: Rhyolite and Andesite

Q. Miles of Stream Channels by Order or Class: 2.1 miles of first order streams,

R. Transportation System

Trails: 0 miles Roads: 7.6 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 1160 (low & unburned) 140 (moderate) 0 (high)

B. Water-Repellent Soil (acres): 0

C. Soil Erosion Hazard Rating (acres):
1160 (low) 140 (moderate) ___ (high)

D. Erosion Potential: 12.3 tons/acre

E. Sediment Potential: 5831 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

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

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

D. Design Storm Duration, (hours): 1

E. Design Storm Magnitude, (inches): 2.31

F. Design Flow, (cubic feet / second/ square mile): 255

G. Estimated Reduction in Infiltration, (percent): 4%

H. Adjusted Design Flow, (cfs per square mile): 264

PART V - SUMMARY OF ANALYSIS

A. Describe Emergency: The fire area was not very large and the watersheds were not burned severely. The increase in flood potential to any of the values at risk due to the fire is very low. Locally, the Aztec Fire has the potential to cause environmental effects such as flooding, soil erosion and deposition, and changes in steam structure. Recommend placement of warning signs (flood hazard) at the bottom of Flux Canyon along FR 812 and at the Forest Boundary and at bottom of Alum Gulch at the forest boundary.

At this time no prescriptions to prevent erosion or flooding following the Aztec Fire are proposed.

The area burned is part of a mining district that saw heavy gold and silver mining 100 to 130 years ago. The fire burned through one mine (Chief mine) an abandoned and inactive underground mine scheduled for CERCLA response action in 2006. The timbers that spanned and blocked the opening of the mine shaft were completely burned, leaving an unsecured 6 foot by 8 foot opening to the underground workings. This open vertical shaft poses a severe risk of human injury or death.

Forest road 812 will be affected by runoff from the fire. The channels immediately upstream of road crossings along with many of the ditches and culverts draining the road are currently plugged with debris. This situation provides no allowance for the additional water and debris that will be produced by the fire posing a high risk of road washout. The road is a forest service road that is needed to access the area for the CERCLA cleanup and provides access to other areas on the Forest.

B. Emergency Treatment Objectives:

Make the area safe for the public
Maintain road cross-sections for access to mines for pending clean-up actions

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

Land **n/a** % Channel **90**% Roads **90** % Other **70** %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	N/A	N/A	N/A
Channel	80	70	50
Roads	90	90	80
Other			

E. Cost of No-Action (Including Loss): $210,000 *
* Injury to one person falling into the Chief Mine estimated as $100,000 cost
F. Cost of Selected Alternative (Including Loss): $140,000 **
** Soil lost from the burn area is valued at $100,000

G. Skills Represented on Burned-Area Survey Team:

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

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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: n/a

Channel Treatments: Remove debris from channels adjacent to road system

Roads and Trail Treatments: Remove debris from ditches and culvert entrances; Install signs indicating the area has been burned and local flooding, erosion, and falling rocks and trees are likely.

Structures: Construct a fence to keep the public out of the immediate vicinity of the Chief Mine shaft. A chain link fence would be most effective, but the remoteness of the area may require materials that more easily transported. Regardless of the type of fence constructed, a sign with information described in the Health and Safety Code Handbook (FSH 6709.11) 22.81d.

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.)

Monitoring will be done as part of our Forest Plan and Range Allotment monitoring. In addition, this area is monitored by the Arizona Department of Environmental Quality for acid mine drainage, and work will be done in the near future to stablize abandoned mines which will be monitored..

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										
Debris Clearing	mile	3750	1	$3,750			$0		$0	$3,750
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Channel Treat.				$3,750			$0		$0	$3,750
C. Road and Trails										
Culvert and ditch clean	mile	3750	2	$7,500			$0		$0	$7,500
Warning Signs	each	100	5	$500			$0		$0	$500
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Road & Trails				$8,000			$0		$0	$8,000
D. Structures										
Fence at Chief Mine	each	7000	1	$7,000			$0		$0	$7,000
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Structures				$7,000			$0		$0	$7,000
E. BAER Evaluation										
Robert Lefevre	days	500	5	$2,500			$0		$0	$2,500
Yvonne Young	days	300	5	$1,500			$0		$0	$1,500
Salek Shafiqullah	days	500	3	$1,500						$1,500
Eli Curiel	days	500	2	$1,000						$1,000
Chris LaBlanc	days	300	3	$900						$900
F. Monitoring				$0			$0		$0	$0
G. Totals				**$26,150**			**$0**		**$0**	**$26,150**

PART VII - APPROVALS

1. /s/ Jeanine A. Derby — 6/30/2005
   Forest Supervisor (signature) — Date

2. /s/ Lucia M. Turner — 7/1/2005
   Regional Forester (signature) — Date