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

Date of Report:07/18/2005

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

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

B. Type of Action

[ ] 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

[x] 3. Final Report (Following completion of work)

PART II - BURNED-AREA DESCRIPTION

A. Fire Name: Lookout

B. Fire Number: NM-CIF-187

C. State: New Mexico

D. County: Lincoln and Torrance

E. Region: 3

F. Forest: Cibola

G. District: Mountainair D4

H. Date Fire Started: 5/21/2004

I. Date Fire Contained: 5/31/2004

J. Suppression Cost: $1,500,000.00

K. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles):
2. Fireline seeded (miles):
3. Other (identify): 2.2 Miles of dozer line, 18.2 miles of handline.

L. Watershed Number: 1305000105 Salina Lake
1305000201-East Estancia Basin-South
1305000301-Pajaro Canyon
1305000302-Largo Canyon

M. Total Acres Burned: 5,254 Based on Severity Map
NFS Acres(4,995) Other Federal ( ) State ( ) Private (259)

N. Vegetation Types: Ponderosa pine-Gamble oak

O. Dominant Soils: Vitrandric Eutrudeptes and Vitrandic Haplustalfs

P. Geologic Types: Sandstone, Limestone and volcanic intrusion

Q. Miles of Stream Channels by Order or Class: 1st Order= 9 miles, 2nd Order= 2.25 miles, 3rd Order= 0.20 miles.

R. Transportation System

Trails: 0 miles Roads: 8 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 1,383.2 (low) 951.4 (moderate) 2919.2 (high)

B. Water-Repellent Soil (acres): 1,847

C. Soil Erosion Hazard Rating (acres):
3,062.7 (low) 1647.4 (moderate) 543.7 (high)

D. Erosion Potential: 74.4 tons/acre

E. Sediment Potential: 10,095 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 5

B. Design Chance of Success, (percent): 70

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

D. Design Storm Duration, (hours): 1

E. Design Storm Magnitude, (inches): 1.98

F. Design Flow, (cubic feet / second/ square mile): 411

G. Estimated Reduction in Infiltration, (percent): 60

H. Adjusted Design Flow, (cfs per square mile): 848

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency: The Lookout Fire burned in the Gallinas Mountains of central New Mexico. The Gallinas Mountains are a small mountain range that rises from the surrounding grasslands to a height of 8,630 feet above sea level. The mountain watersheds provide some water in the form of springs for local ranchers, wildlife habitat, slimatic relief for recreation, and a high point for a fire tower and communications site. The lower slopes of the mountains are covered with pinyon-juniper woodlands. The upper slopes support stands of ponderosa pine and some mixed conifer.

Streams flowing from the mountain are ephemeral in that they only flow in direct response to precipitation. Precipitation occurs mostly in the summer months as a result of monsoon conditions which bring in moist air from the Gulfs of Mexico and California. Mean monthly precipitation amounts range from .415 inches in December to 2.82 inches in July.

The main resources of concern include FSR 99 and FSR 102 that provide access to the fire and communication sites, onsite soil productivity, and sownstream private property. Two seriously burnedwatersheds flow off the Forest on to ranch homesteads. The closest is the Sanchez Ranch which sits at the mouth of a 450 acre watershed. It is highly probable that summer storms will bring sediment and ash flows from the mountain onto the private land. Such flows are not likely to damage any structures on the ranch because the canyon is wide and deep where it passes the homes and out buildings. The only risk is potential temporary loss of some forage on lands that will be covered by ash and sediment.

The second ranch is the Surrat Ranch, which is approximately one quarter of a mile from the fire perimeter on a low gradient channel. It is unlikely that serious sedimentation will occur immediately, but over time, sediment will eventually move down the channel and onto the ranch property.

Sediment moving from the steeper slopes will likely clog a few culverts on the Forest Service roads. If not cleaned or replaced with low water crossings, these culverts will fail, resulting in road closures and lost access or detours to the fire tower and communication site.

Due to the severity of burn on many of the side slopes, and resulting hydrophobic soil conditions, erosion rates will exceed tolerance rates. This accelerated erosion will result in loss of site productivity and watershed condition.

B. Emergency Treatment Objectives: Treatments recommended are intended to provide quick vegetative cover to reduce the accelerated erosion and down stream sedimentation. Reducing the sediment flows will also help protect the road system. Temporary vegetative cover will also help reduce the risk of novious weed invasion.

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

Land **90** % Channel ___ % Roads 90 % Other ___ %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	75	80	95
Channel			
Roads	95	95	95
Other			

E. Cost of No-Action (Including Loss): $312,000

F. Cost of Selected Alternative (Including Loss): $288,000

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Wayne Green

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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: Seed with the Region 3 emergency seed mix at a rate of 15 lbs. per acre. Estimated cost of seed and aerial application is $20.55 per acre. It is estimated that 2,919 acres in the most severely burned watersheds will need seeding. This was completed June 12-15, 2004.

Have had seedlings sowed for planting in 2005 of 40 to 60 acres.

Channel Treatments: None at this time.

Roads and Trail Treatments: (see Engineers Report) One crossing of Pajaro Canyon consisting of two 24 inch culverts will be replaced with a low water crossing. Another crossing in a tributary to Pajaro Canyon had two 18 inch culverts installed August 2004. Motor patrols will be necessary during this summer to keep other culverts cleaned.

Structures: Replacement of Tower toilet planned for FY05.

Tree Removal: Remove fire-damaged trees with imminent risk of falling along FR 99 and 104 and around Gallinas Peak and the communication site perimeter. The purpose of this activity is to provide safe travel corridors and work spaces for the public, Forest Service employees and permittee. Completed 2 miles, Oct. 2004; completed 2 miles June 2005 along allotment fences and private inholding; additional 3 miles planned for summer 2005 along fence and FR 99.

Mulching: Apply rice mulch on approximately 5 acres of high severity burned slopes above the private land (Sanchez Ranch), completed June 2004.

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 consist of vegetation transects to determine the effective cover and to detect the establishment of undesirable weeds. At least two transects will be established in each of the severely burned watersheds. Transects will be measured for the next two years to determine treatment success.

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

Lookout Fire BAER			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										
Archeology				$0	$0		$0		$0	$0
Seeding	acres	$15.47	4119	$63,762	$0		$0		$0	$63,762
Logistics for Seeding				$6,191	$0		$0		$0	$6,191
Mulching	acres	$290	5	$1,450						$1,450
BAER Impliment. Ldr.			1	$7,150						$7,150
Hazard Tree Removal	acres	$278	36	$10,008						$10,008
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$88,561	$0		$0		$0	$88,561
B. Channel Treatments										
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
				$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										
Rds 161,99,102,104A:				$137,059						
Road Prism	miles		7.3	$0	$0		$0		$0	$137,059
Low Water x-ings	ea		5	$0	$0		$0		$0	$0
Culverts	ea		2	$0	$0					
Rolling Dips	ea		49	$0	$0					
Outlet Ditch	lf		440	$0	$0					
Pipe Removal	ea		7	$0	$0		$0		$0	$0
Warning Signs	ea		4	$0	$0					
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$137,059	$0		$0		$0	$137,059
D. Structures										
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
				$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										
				$13,729			$0		$0	$13,729
BAER Team Ldr.				$2,659			$0		$0	$2,659
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Evaluation				$16,388	$0		$0		$0	$16,388
F. Monitoring										
				$1,139			$0		$0	$1,139
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring				$1,139			$0		$0	$1,139
G. Totals				**$243,147**	**$0**		**$0**		**$0**	**$243,147**

PART VII - APPROVALS

1. /s/ Nancy Rose _____ 11/08/05
   Forest Supervisor (signature) Date

2. _____ _____
   Regional Forester (signature) Date