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

Date of Report: August 21, 2000

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: O'Neil Basin Complex

B. Fire Number: P44711

C. State: Nevada

D. County: Elko

E. Region: R4

F. Forest: Humboldt-Toiyabe

G. District: Jarbidge

H. Date Fire Started: August 1, 2000

I. Date Fire Controlled: Contained on August 12, 2000

J. Suppression Cost: Estimated approximately $1.5 million

K. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 7.1
2. Fireline seeded (miles):
3. Other (identify):

L. Watershed Number: 1604010120, 1704021321, and 1704021320

M. Total Acres Burned: 31194
NFS Acres(9248) Other Federal (20356) State ( ) Private (1590)

N. Vegetation Types: Sagebrush, Bitterbrush, Bunchgrasses, Idaho Fescue, Mountain mahogany, Aspen, Subalpine Fir, Cottonwood

O. Dominant Soils: Silt/Sand Loam

P. Geologic Types: Limestone, shale, chert, rhyolite, tuffs; landslide deposits on upper watersheds

Q. Miles of Stream Channels by Order or Class: Order 1 – 22 miles, Order 2 – 7 miles, Order 3 – 5 miles Order 4- 1 mile

R. Transportation System

Trails: 4 miles Roads: 11 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 2312 (low) 4624 (moderate) 2312 (high)

B. Water-Repellent Soil (acres): 3699 Moderate, 924 High

C. Soil Erosion Hazard Rating (acres):
4624 (low) 2774 (moderate) 1848 (high)

D. Erosion Potential: 2 tons/acre

E. Sediment Potential: 1331 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): Grasses 1-2 years, Aspens and cottonwoods 5-10 years

B. Design Chance of Success, (percent): Not applicable

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

D. Design Storm Duration, (hours): ___

E. Design Storm Magnitude, (inches):

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

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

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

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency:

The O'Neil Basin Complex was a series of fires consisting of the Camp Creek, Cold Springs, Wildcat, Sun, Mahogany and Stag fires about 40 miles southeast of Jackpot, Nevada. The fires, which started on or around August 1, 2000, were believed to be lightning caused. About 31,200 acres of mixed National Forest System lands, BLM, and private lands were burned before the fire was contained on August 12 by Forest Service, BLM, NDF, and contract crews. Approximately 9200 acres of Forest burned in five major drainages, including about 1900 acres of the Jarbidge Wilderness.

The burned area on the Forest is steep and rocky in the upper reaches sloping down to rolling benches above the flats consisting of BLM and private land. Ranches are situated below the NFS lands on most of the

drainages. Prior to the fire, vegetation consisted of sagebrush, bitterbrush, bunchgrasses and Idaho fescue, with numerous thick pockets of mountain mahogany, aspen and subalpine fir. Cottonwoods and numerous species of shrubs were present along riparian areas. Wildlife values associated with the area include elk, Mule deer and sage grouse, with wild fish in all the major drainages. The wildcat drainage contains the threatened Lahanton Cutthroat Trout.

The fire intensity was moderate over much of the burned area. However, many areas experienced high burn intensity, particularly on the flatter slopes and areas of thick vegetation. Burn intensity was generally low on the steep, rocky ridges. Vegetation in the drainage bottoms and riparian areas was largely unburned although areas of moderate and high burn intensity were noted, especially along Camp Creek. Of the 9200 burned acres on NFS lands, about half exhibited moderate to high water repellency. These areas were generally on the benches and hillsides sloping down into the riparian areas. Very little water repellency was noted in soils in the riparian areas. Grazing of areas with water repellent soils is not recommended since hoof action would likely mobilize soils, which would be transported into the creeks during storm events. Grazing may also introduce non-native plant species into the burned areas.

Watershed

The major drainages impacted by the fire included Wildcat, Sun, Camp, Cottonwood and Canyon Creeks. All five drainages exhibit perennial flow and contain fish and mature riparian areas. The burn intensity and water repellency observations noted above indicated that increased transport of sediment to the creeks can be expected. However, since much of the riparian and vegetated areas along the streams are intact, much of the increased sediment load will be removed before overland runoff reaches the creeks.

Based on our observations of water quality and quantity, channel integrity, vegetation, soils and geology, we are not recommending any structural or revegetation treatments in the drainage bottoms for the following reasons:

Numerous unburned willow, aspen and cottonwoods remain in the riparian areas and should quickly resprout to help maintain channel stability,

In each drainage, there is at least a mile of unburned stream and associated riparian vegetation between the burned area and any inhabited structures on the creeks, and

Although the bunchgrasses within the burned area were destroyed, most still retained tillers, which should quickly resprout with the first significant rain and limit sediment flow into the creeks.

Wildlife

Wildcat Creek contains Lahontan cutthroat trout (LCT), a species designated by the U.S. Fish and Wildlife Service as a federally listed threatened species. Although the fire burned into aspen stands along the northern tributary of Wildcat Creek, most of the riparian along the main stem of the creek on the Forest was unburned. Thus, increased sedimentation of Wildcat Creek as a result of the fire should not significantly affect the LCT.

Spotted frogs, a designated Forest Service sensitive species, is present in limited numbers near a large beaver pond on Cottonwood Creek and in an unnamed drainage north of the middle fork of Canyon Creek. Although impacts of the fire on the frogs are unknown, significant portions of their habitat in these two drainages was burned.

The Northern Goshawk, also a designated Forest Service sensitive species, is known to inhabit areas north of the area affected by the burn. Although Goshawks have not been recorded in the burned area, considerable potential habitat was destroyed.

The area from Camp Creek north to Canyon Creek is critical winter range for a newly reintroduced herd of elk. The herd was reintroduced in 1991 and 1992 and has achieved a population of about 270 head. This area is also an important staging area for mule deer prior to their fall migration. Much of the critical elk and deer

habitat experienced a moderate to high burn intensity with almost complete loss of the grass and shrub forage resource. Seeding of up to 2000 acres of upland areas is recommended to accelerate revegetation of the critical winter elk range and Mule deer staging areas. Seeding should be conducted in September of this year to take advantage of fall rains, which usually occur, in the area. The recommended species and application rates include antelope bitterbrush (3 pounds/acre), mountain snowberry (3 pounds/acre), Saskatoon serviceberry (2 pounds/acre), blue elderberry (1 pound/acre), golden currant (1 pound/acre), mountain brome (2 pounds/acre), Idaho fescue (1 pound/acre), bluebunch wheat grass (1 pound/acre), Great Basin wildrye (1 pound/acre), arrowleaf balsamroot (2 pounds/acre), northern sweet vetch (2 pounds/acre), and tailcup lupine (2 pounds/acre). The recommended seed mix favors ungulate management but will also provide for erosion control. The eastern area of the Jarbidge has relatively few non-native plants and thus this recommended seed mix is comprised of only native vegetation. Funds for the supplemental seeding will be pursued through cooperative agreements with the Nevada Department of Wildlife, the BLM and the Rocky Mountain Elk Foundation.

Weeds

Canada thistle has been observed in most of the drainages affected by the burn. Spotted knapweed has also been observed in Cottonwood Canyon along the riparian. Because of the potential for increased spread of weeds following the fire, monitoring is recommended. Contingencies for noxious weed treatment in the drainages impacted by the fire should also be developed.

Heritage Resources

Fred Frampton, a Forest Service Archaeologist, inspected the burned area to determine potential impacts to cultural resources. The fire did burn through a few recorded lithic scatters, but damage was minimal. Overall, there were no significant heritage resource concerns expressed by Fred as a result of the fire.

Range

In accord with current Humboldt-Toiyabe National Forest range policy, it is recommended that allotments in the area be rested for two years following the burn. Because the riparian areas in the impacted drainages are essential to recovery of the burned area, a longer period of rest may be appropriate. At the end of the initial two-year rest period, the burned areas should be reevaluated to determine if grazing should be resumed.

B. Emergency Treatment Objectives:

The objective of the weed monitoring program is to prevent weed infestations of NFS lands. Canada thistle and spotted knapweed have been observed in the burned areas and there is concern that infestations will increase following the fire.

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

Land weed monitoring - 0 % Channel ___ % Roads ___ % Other ___ %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land			
Weeds	0%		
Channel			

Roads			
Other			

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

F. Cost of Selected Alternative (Including Loss):

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
[ ] Fisheries	[ ] Research	[ ] Landscape Arch	[ ] GIS

Team Leader: Chris Butler

Email: Chris Butler/R4/USDA@FSNOTES Phone: 775-778-0222 FAX: 775-778-0299

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:

Weeds: Monitoring of disturbed sites within the burned area for noxious weeds is recommended for one year. If additional monitoring or a treatment program is needed, an interim request for funding will be prepared. Other sources of funding for weed control will also be sought.

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.)

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										
Weed monitoring	Trips	$200	3	$600			$0		$0	$600
				$0			$0			
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Land Treatments				$600			$0		$0	$600
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										
				$0			$0		$0	$0
				$0			$0		$0	$0
G. Monitoring Cost				$0			$0		$0	$0
H. Totals				**$600**			**$0**		**$0**	**$600**

PART VII - APPROVALS

1. /s/ BEN G. SIMINOE (for) 9-6-00
   Forest Supervisor (signature) Date

2. _____ _____
   Regional Forester (signature) Date