

Date of Report: **7/15/2004****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  
☐ 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  
☐ 3. Final Report (Following completion of work)

**PART II - BURNED-AREA DESCRIPTION**A. Fire Name: McGruder FireB. Fire Number: CO-UPD-000058C. State: ColoradoD. County: DeltaE. Region: 02F. Forest: GMUGG. District: Grand ValleyH. Date Fire Started: 7/3/04I. Date Fire Contained: 7/9/04J. Suppression Cost: \$584,000

K. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred (miles): none of NF lands  
2. Fireline seeded (miles): none on NF lands  
3. Other (identify):

L. Watershed Number: 140200051310 & 140200051311M. Total Acres Burned: 2806

NFS Acres( 411 )    BLM ( 993 )    State ( )    Private ( 1402 )

N. Vegetation Types: Pinyon-Juniper Woodlands scattered sage and grass on lower portions( private and BLM), Gamble Oak, Service Berry shrublands on upper National Forest portion.

O. Dominant Soils: There are 10 soil map units that have been identified within the fire area, within the two soil survey areas.(Paonia and Grandmesa-West Elk) The main characteristics are stony,very stony, and

extremely stony clay loams and loams, intermingled with loams and clay loams. Most soils are deep, some areas of sandstone rockoutcrop occur.

P. Geologic Types: Basaltic outwash material over the Mesaverde Member

Q. Miles of Stream Channels by Order or Class: Within the whole fire area: 1<sup>st</sup> order=6.06 mi, 2<sup>nd</sup> order=5.68 mi, 3<sup>rd</sup> order=0.64mi. Within the forest there is just: 2<sup>nd</sup> order=0.75 mi, and 1<sup>st</sup> order=0.68mi.

R. Transportation System

Trails: 0.75 cattle driveway/packtrail on NF Roads: Within the whole fire area; 2mi of rough native surface road, none on NF

### **PART III - WATERSHED CONDITION**

A. Burn Severity (acres): 56 (low) 2470 (moderate; *was observed to be high end of mod.*) 280 (high)

B. Water-Repellent Soil (acres): none observed

C. Soil Erosion Hazard Rating (acres):  
56 (low) 2470 (moderate) 280\_\_\_ (high)

D. Erosion Potential: 3.4-9.9 tons/acre (based on WEPP model, with climate data from Cedaredge)

E. Sediment Potential: 220-600 cubic yards / square mile

### **PART IV - HYDROLOGIC DESIGN FACTORS (for whole burn area)**

(data provided by Dennis Murphey, Hydrologist for BLM, Montrose, CO)

A. Estimated Vegetative Recovery Period, (years): 3-5yrs

B. Design Chance of Success, (percent): 60-80%

C. Equivalent Design Recurrence Interval, (years): 2yr

D. Design Storm Duration, (hours): 1hr

E. Design Storm Magnitude, (inches): 1.5

F. Design Flow, (cubic feet / second/ square mile): 12.3

G. Estimated Reduction in Infiltration, (percent): <10

H. Adjusted Design Flow, (cfs per square mile): 46

### **PART V - SUMMARY OF ANALYSIS**

A. Describe the burn situation

This lightning ignited fire started below the National Forest land on private ownership. It burned through lower PJ Woodland situations on private and BLM lands and into the National Forest into the mountain Shrub-Gambel Oak community. Only 411 acres of National Forest land were burned. This portion of the burn is not considered a watershed emergency. However, there is a real risk that cheatgrass (*Bromus tectorum*) will

expand into this area of the National Forest that has burned. Other Invasive species known to have occurred on the lower portion of the burned area, and currently present around the burn and in unburned islands include cheatgrass (*Bromus tectorum*), Japanese brome (*Bromus japonicus*), alyssium (*Alyssum minus*), and Russian knapweed (*Acroptilon repens*). Other invasive and noxious weeds in and around the area include; Jointed goatgrass (*Aegilops cylindrical*), White top (*Cardaria draba*), Musk thistle (*Carduus nutans* L.), Canada thistle (*Cirsium arvense*), and Russian knapweed (*Cetaurea repens* L.) These weeds are abundant around the burn periphery on access roads to the burn, and on private fields just below the burn. (Source: Amanda Clemens, Rangeland Ecologist, BLM., Montrose office)

This situation presents a real risk for the loss of ecological integrity to this plant community, if these invasives expand into the burned area. It is our concern that unless native vegetation is quickly re-established, the invasion of these non native species, especially Cheat grass, will significantly alter the fire regime on this area and reduce the native productivity and ecological integrity of this section of the National Forest.

Studies and observations from past burns in the vicinity and in similar plant communities, have shown that cheatgrass and alyssium dominate burned areas when there is little competition from other plants in the first two years following the burn. There is no approved herbicide for use on cheatgrass on rangelands in Colorado. As a result, providing competition from other plants is the primary means of control of cheatgrass.

#### B. Emergency Treatment Objectives:

To establish native perennial vegetation as soon as possible to prevent a large invasion of cheat grass and other invasive species into this portion of the burn area. This will also help to reduce erosion and protect soil productivity.

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

Land    % Channel    % Roads    % Other    %

#### D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	70%	80%	90%
Channel			
Roads			
Other			

#### E. Cost of No-Action (Including Loss): \$45,000

#### F. Cost of Selected Alternative (Including Loss): \$30,000

#### G. Skills Represented on Burned-Area Survey Team:

<input checked="" type="checkbox"/> Hydrology	<input checked="" type="checkbox"/> Soils	<input type="checkbox"/> Geology	<input checked="" type="checkbox"/> Range
<input type="checkbox"/> Forestry	<input checked="" type="checkbox"/> Wildlife	<input type="checkbox"/> Fire Mgmt.	<input type="checkbox"/> Engineering
<input type="checkbox"/> Contracting	<input checked="" type="checkbox"/> Ecology	<input checked="" type="checkbox"/> Botany	<input checked="" type="checkbox"/> Archaeology
<input type="checkbox"/> Fisheries	<input type="checkbox"/> Research	<input type="checkbox"/> Landscape Arch	<input checked="" type="checkbox"/> GIS

Team Leader: For Whole Burn...Dennis Murphy, Hydrologist, BLM  
For National Forest portion: Terry Hughes, Soil Scientist, GMUG Natl. Forest

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Phone: 970-874-6661\_

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#### H. Treatment Narrative:

Land Treatments: We propose to aerially seed the NF portion of the burn late this fall (2004) in conjunction with BLM seeding. This was also the advice of Dr. Alan Stevens, Professor with the Agronomy Dept at Snow College, in Ephraim Utah. He is working on the Uncompahgre Plateau, mapping areas of Cheat grass as part of the UP(Uncompahgre) Project and visited the burn on Thursday July 8th. The NF portion of the burn has large amounts of coarse fragments on the soil surface( stones and boulders ranging from 30-60+% surface cover) which makes any seedbed preparation impractical. Since site prep is not possible, a late fall/early winter seeding, should have the seed on the ground either just before snowfall or with a light snow cover. These conditions have been observed to help position the seed for germination as the snow melts in the spring.

Seed mix proposed:

Indian Ricegrass-----6 lbs. PLS/acre

Slender Wheatgrass-----6 lbs. PLS/acre

Western Wheatgrass-----8 lbs. PLS/acre

TOTAL-----20 lbs. PLS/acre

Channel Treatments:

No treatments planned

Roads and Trail Treatments:

No treatments planned

Structures:

None planned

#### I. Monitoring Narrative:

Ocular macroplot monitoring (following protocols described in R-2's Range Analysis Handbook) will occur a few times a year for the next 2-3 years, to determine seeding success or failure and monitor any increase in the cheat grass populations.

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

Line Items	Units	Unit Cost	# of Units	WFSU SULT \$	Other \$	# of units	Fed \$	# of Units	Non Fed \$	Total \$
<b>A. Land Treatments</b>										
Seed Purchase	acre	51	411	\$20,961	\$0		\$0		\$0	\$20,961
Seed testing	lots	100	5	\$500	\$0		\$0		\$0	\$500
mixing&handling	lbs	0.25	8220	\$2,055	\$0		\$0		\$0	\$2,055
application	acre	10	411	\$4,110						\$4,110
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<b>Subtotal Land Treatments</b>				\$27,626	\$0		\$0		\$0	\$27,626
<b>B. Channel Treatments</b>										
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<b>Subtotal Channel Treat.</b>				\$0	\$0		\$0		\$0	\$0
<b>C. Road and Trails</b>										
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<b>Subtotal Road &amp; Trails</b>				\$0	\$0		\$0		\$0	\$0
<b>D. Structures</b>										
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<b>Subtotal Structures</b>				\$0	\$0		\$0		\$0	\$0
<b>E. BAER Evaluation</b>										
Baer plan Prep	plan	1		\$5,230	\$0		\$0		\$0	\$5,230
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<b>Subtotal Evaluation</b>				\$5,230	\$0		\$0		\$0	\$5,230
<b>F. Monitoring</b>										
Range Con 5days/yr	yr	1300	3	\$3,900	\$0		\$0		\$0	\$3,900
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<b>Subtotal Monitoring</b>				\$3,900	\$0		\$0		\$0	\$3,900
<b>G. Totals</b>				\$36,756	\$0		\$0		\$0	\$36,756

## PART VII - APPROVALS

1. /s/ Kevin T. Riordan  
Forest Supervisor (signature)

7/15/2004  
Date

2. /s/ Alan R. Flesh for  
Regional Forester (signature)

7/20/04  
Date