USDA-FOREST SERVICE FS-2500-8 (6/06)

Date of Report: 8/11/2007

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[X] 1. Funding request for estimated emergency stabilization funds
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

[X] 1. Initial Request (Best estimate of funds needed to complete eligible stabilization 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: Combine

B. Fire Number: DVF4

C. State: Idaho

D. County: Started in Oneida; burned into Power

E. Region: 4 – Intermountain

F. Forest: Curlew NG – Caribou-Targhee NF

G. District: Westside RD

H. Fire Incident Job Code: PNDVF4

I. Date Fire Started: 8/6/2007

J. Date Fire Contained: 8/8/2007

K. Suppression Cost: Unknown

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 1.5 miles on NFS Lands; Unknown of BLM, State, & Private
2. Fireline seeded (miles): 1.5 miles on NFS Lands will be seeded in Sept./Nov. (seed purchased with P-code); BLM is presently seeding lines on BLM lands.
3. Other (identify): N/A

M. Watershed Number: On NFS Lands – 160203090103-Headwaters of Rock Creek (South), 170402091004-Middle Rock Creek (North), and 170402091005-Upper Rock Creek (North)

N. Total Acres Burned: 7,657

NFS Acres (1,035) Other Federal – BLM (1,076) State (841) Private (4,705)

O. Vegetation Types: Big sagebrush complex, three tip sagebrush, and mountain brush.

P. Dominant Soils: Major soil types in the area affected by the wildfire are primarily molisols with calcic and argillic subsurface horizons. Particle-size classes range from fine-loamy to loamy-skeletal. Two soil profiles were described in the burned area, and both are in a coarse-loamy particle size class. One profile was

classified as a coarse-loamy, mixed, superactive, pachic calcixeroll, and the other a coarse-loamy, mixed, superactive, calcic haploxeralf.

Q. Geologic Types: The Rock Creek drainage has Basin and Range physiographic characteristics and has been influenced by volcanic basalt flows and ancient lake deposits. Soil parent-material is a mix of sandstone, quartzite, basalt, and limestone.

R. Miles of Stream Channels by Order or Class: NFS Lands: Perennial = 0.7 miles; Intermittent = 3.0 miles

S. Transportation System: Trails: NFS Lands = 0 miles Roads: NFS Lands = 3.2 miles of County Road (Kress-Hansen Road)

PART III - WATERSHED CONDITION

A. Burn Severity (acres): **NFS Lands:** 1,035 (low) 0 (moderate) 0 (high)

B. Water-Repellent Soil (acres): **NFS Lands:** 0; Less than 6 acres found on adjacent private lands.

C. Soil Erosion Hazard Rating (acres): Potential for erosion on these soils ranges from low to moderate.
NFS Lands: 1,035 (100%) (low to moderate) 0 (high)

D. Erosion Potential: 0.08 tons/acre for the next 24 months.

E. Sediment Potential: 0.6 cubic yards / square mile for the next 24 months. Sediment delivery was estimated at 1% of eroded material

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 2 years (grasses) and 5 (shrubs)

B. Design Chance of Success, (percent): N/A – no hydrologic-related treatments needed

C. Equivalent Design Recurrence Interval, (years): N/A – no hydrologic-related treatments needed

D. Design Storm Duration, (hours): N/A – no hydrologic-related treatments needed

E. Design Storm Magnitude, (inches): N/A – no hydrologic-related treatments needed

F. Design Flow, (cubic feet / second/ square mile): N/A – no hydrologic-related treatments needed

G. Estimated Reduction in Infiltration, (percent): N/A – no hydrologic-related treatments needed

H. Adjusted Design Flow, (cfs per square mile): N/A – no hydrologic-related treatments needed

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:
Noxious and Invasive Weeds: The rangeland, wildlife habitat, and watershed health values of the area are potentially threatened by an expansion of noxious weeds and invasive plant species. There are minor noxious weed infestations within the burned area. The noxious weeds observed within the area include: *Cirsium arvense* (Canada thistle), *Onopordum acanthium* (scotch thistle), *Carduus nutans* (musk thistle), and *Hyoscyamus niger* (black henbane). Cheat grass (*Bromus tectorum*) and Bulbous Bluegrass (*Poa Bulbosa*) are the known invasive plant species with the area.

Rangeland Resources: Two unit pastures within the Curlew C&H Allotment were partially burned (Table 1). To protect burned areas, the Final Land and Resource Management Plan for the Curlew National Grassland contains the following grazing management standard (page 3-18):

- *Allow no livestock grazing before seed set of the second growing season after natural fires and rangeland planting or seeding. If monitoring shows that this is not adequate to meet resource needs, defer livestock grazing as necessary.*

Table 1. Burned unit pasture summary.

Unit Pasture Name	Percent Burned	Total Pasture Area (acres)	Burn Severity
NW Peterson-Lonigan	11%	1,415	low
East Kurtz Riparian	66%	1,261	low

Water Quality: Water quality within and downstream of the burned area could be reduced due to the loss of ground cover and altered soil properties. Increases in streamflow and soil erosion could result from thunderstorms and snowmelt. No emergency treatments to protect water quality are recommended.

Soil Productivity: The low severity burn reduced ground cover and increased the potential for erosion. This increase in erosion is expected to be minor and will not negatively affect soil productivity.

Protection of Life and Property: Given the low burn severity and the remote nature of the fire, there is a very small risk to life and property. The Kress-Hansen County Road and State Route 37 may experience flash flooding at the crossings on Rock Creek. However, that risk is not greatly influenced by the fire.

As a precaution, a GIS shapefile of the burned perimeter has been given to the National Weather Service (NWS) in Pocatello. The NWS uses the burned perimeter to better forecast weather and flash flood warnings.

- Contact Information: Sherrie Hebert, Service Hydrologist. National Weather Service, Pocatello, Idaho. (208) 233-0834; sherrie.hebert@noaa.gov

B. Emergency Treatment Objectives:

Treatment L1 - Monitor and Treat Noxious Weeds and Invasive Plants: The objective of this treatment is to protect the ecological integrity of the area by minimizing the establishment and spread of noxious weeds and other invasive plant species within the burned area.

Treatment L2 – Rangeland Resource Protection: The objective of this treatment is to protect the burned rangeland within existing allotment pastures to meet the range protection standard in the Final Land and Resource Management Plan for the Curlew National Grassland.

C. Probability of Completing Treatment Prior to Damaging Storm or Event: Weed treatments will be done in spring of 2008. Temporary fencing will be done prior to grazing season.

Land: 100 % Channel: N/A % Roads/Trails: N/A % Protection/Safety: N/A %

D. Probability of Treatment Success:

Treatments	Years after Treatment		
	1	3	5
Land	90%	90%	90%
Channel	N/A	N/A	N/A
Roads/Trails	N/A	N/A	N/A
Protection/Safety	N/A	N/A	N/A

E. Cost of No-Action (Including Loss): $140,250: The BAER cost/risk spreadsheet was used to estimate this value with the following assumptions: 1) Approximately 27 acres are at risk to noxious weeds and invasive plant species infestation; 2) Approximately 160 acres of rangeland is at risk to not being rested; and 3) The

rangeland resources, wildlife habitat value, and site productivity values were each assumed to be valued at $250/acre for a total of $750/acre.

F. Cost of Selected Alternative (Including Loss): $20,625: This includes $6,600 for treatment implementation and an estimated $14,025 worth of resource values that may be lost even with treatment. The BAER cost/risk spreadsheet was used to estimate this value with the following assumptions: 1) Approximately 27 acres will be treated for noxious weeds and invasive plant species; 2) The 1.5 miles of temporary fence will protect approximately 160 acres of rangeland; 3) Probability of treatment success is 90%; and 4) The rangeland resources, wildlife habitat value, and site productivity values were each assumed to be valued at $250/acre for a total of $750/acre.

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Brad Higginson, Hydrologist – Caribou-Targhee NF/Curlew NG
Email: bhigginson@fs.fed.us Phone: (208) 557-5786 FAX: (208) 557-5826

Team Leader Trainee: Kara Kleinschmidt, Soils Scientist – Caribou-Targhee NF/Curlew NG
Email: kkleinschmidt@fs.fed.us Phone: (208) 557-5781 FAX: (208) 557-5826

Team Members: Rose Lehman, Botanist – Caribou-Targhee NF/Curlew NG
Hans Bastian, Rangeland Resources – Westside Ranger District

H. **Treatment Narrative:**

Land Treatments:

Treatment L1 *- Monitor and Treat Noxious Weeds and Invasive Plants:* Monitor known populations and high potential infestation sites for noxious weed and invasive plant spreading. Treatment and monitoring will be accomplished at the Ranger District level.

The County typically treats noxious weeds along the Kress-Hansen road. However, that treatment is not effective against the invasive species of concern (cheat grass and bulbous bluegrass).

Suitable Sites: The fire perimeter is the priority area for monitoring and treatment. This includes the Kress-Hansen County Road, the dozer lines (1.5 miles), and other high vehicle activity areas that occurred during fire suppression efforts. The area for this treatment is estimated at 27 acres (road and dozer line length times 50 ft into the fire area).

Design Specifications:

1. The District Rangeland Specialist will develop and use monitoring and mapping protocols similar to those used on previous BAER treatments (e.g. Rattlesnake and Stone II Fires).
2. All species identified as noxious or invasive according to the Forest Noxious Weed Management Plan should be assessed. Prioritize treatment based on jurisdictional weed management plans.
3. If year 1 work reveals significant populations of weeds, the Forest will prepare supplemental funding requests (up to Year 3). If year 2 and year 3 monitoring and treatment is warranted, prepare supplemental funding in those years as necessary.

Cost:

Description	Cost
One pre-season trip and a final inspection by District Range Specialist ($300/day X 2 day)	$600
Chemicals and Equipment for Treatment	$700
Weed Crew ($130/day/person X 2 people X 1 day)	$260
One day to write-up summary report. (300/day)	$300
Treatment Cost	**$1,860**

Treatment L2 *– Rangeland Resource Protection:* Burned rangeland would be rested for at least two growing seasons by using 1.5 miles of temporary electric fencing in the NW Peterson-Lonigan Pasture (11% burned) and by resting the East Kurtz Riparian Pasture (66% burned).

Temporary Fencing of the NW Peterson-Lonigan Pasture: The Forest would direct the Curlew Cattle Association to rest the burned area for two growing seasons within this pasture. Rest would be accomplished by constructing approximately 1.5 miles of temporary electric fence near the burn perimeter.

Complete removal of livestock from this pasture is unwarranted because only 11% burned. Continued use of the unburned portion would be very helpful since several other pastures on the allotment are presently rested due to the Stone 2 and Bowen Fires that occurred in 2006. In addition, the East Kurtz Riparian will be rested for at least two growing seasons as a result of this fire (see below).

Design Specifications: The Forest will provide up to $5,000 worth of materials. The grazing association will supply any remaining materials that may be necessary. The association will also install, maintain, and remove the fence when cattle are removed from pasture.

Rest of the East Kurtz Riparian Pasture: The Forest will direct the Curlew Cattle Association to rest the East Kurtz Riparian pasture for at least two growing seasons, or until objectives are achieved. The Forest will monitor vegetation and ground cover recovery to document when conditions are acceptable to allow for grazing.

Table 2. Summary of Treatment L2.

Unit Pasture Name	Grazing Schedule/Treatment
NW Peterson-Lonigan	Graze unburned portion in 2008 & 2009. Evaluate grazing of the burned area in 2010.
East Kurtz Riparian	Rest entire unit in 2008 & 2009. Evaluate grazing of the unit in 2010.

Cost:

Description	Cost
One pre-season trip and a final inspection by District Range Specialist ($300/day X 2 day)	$600
Temporary electric fence in the NW Peterson-Lonigan Pasture (1.5 miles X $3,333/mile)	$5000
Rest of the East Kurtz Riparian Pasture	$0
Treatment Cost	**$5,600**

Channel Treatments: N/A – No channel treatments appear to be necessary.

Roads and Trail Treatments: N/A – No road and trail treatments appear to be necessary.

Protection/Safety Treatments: The National Weather Service (NWS) will be given a GIS shapefile of the fire location to be used for future flood forecasting needs.

I. **Monitoring Narrative:**

See Treatment L1 and L2 description above. Aside from the monitoring specified within those treatments, no additional monitoring is proposed.

Part VI – Emergency Stabilization Treatments and Source of Funds **Interim #**

Line Items	Units	Unit Cost	# of Units	BAER $	Other $	# of units	Fed $	# of Units	Non Fed $	Total $
A. Land Treatments										
L1: Monitor/Treat Weeds & Invasives	acres	$69	27	$1,860	$0		$0		$0	$1,860
L2: Rangeland Resource Protection	miles	$3,733	1.5	$5,600	$0		$0		$0	$5,600
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$7,460	$0		$0		$0	$7,460
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										
				$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 Road & Trails				$0	$0		$0		$0	$0
D. Protection/Safety										
				$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										
				---	$2,850		$0		$0	$2,850
Insert new items above this line!				---	$0		$0		$0	$0
Subtotal Evaluation				---	$2,850		$0		$0	$2,850
F. Monitoring										
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring				$0	$0		$0		$0	$0
G. Totals				$7,460	$2,850		**$0**		**$0**	**$10,310**
Previously approved										
Total for this request				**$7,460**						

BAER Evaluation Approved - $2850 charge to H4BAER override 0460
BAER Implementation approved on 8/23/07 $0

PART VII - APPROVALS

1. Lawrence A. Timchak — 8/15/07
Forest Supervisor (signature) — Date

2. _____ — _____
Regional Forester (signature) — Date