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

Date of Report: 10/2/2006

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

[ ] 1. Initial Request (Best estimate of funds needed to complete eligible stabilization measures)

[X] 2. Interim Report # 1 New text for this interim report is highlighted in gray.
[1] 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: Stone 2

B. Fire Number: ID-CTF-000015

C. State: Idaho

D. County: Oneida

E. Region: 4 – Intermountain Region

F. Forest: Caribou-Targhee NF–Curlew National Grassland

G. District: Curlew National Grassland
Westside Ranger District

H. Fire Incident Job Code: P4C2S3

I. Date Fire Started: 8/5/2006

J. Date Fire Contained: 8/12/2006

K. Suppression Cost: $1,248,495 on 8/14/2006

L. Fire Suppression Damages Repaired with Suppression Funds (Total Burned Area)
1. Fireline waterbarred (miles): 47 (Dozer line 45 miles & Hand line 2 miles)
2. Fireline seeded (miles): 45 (Dozer line will be seeded)
3. Other (identify): None Identified

M. Watershed Number: 1602030919 – Rock Creek and 16020030913 – North Canyon

N. Total Acres Burned: 31,567
NFS Acres (8,658 Curlew NG) Other Federal (21,774 BLM) State (0) Private (1,135)

O. Vegetation Types: The Curlew National Grassland portion of this fire falls into the true “sagebrush steppe” vegetation type and is not considered a “true” grassland. This vegetation type covers the northern portion of the intermountain region where sagebrush is co-dominant with perennial bunchgrasses. Approximately 75% of the grassland has been modified through the introduction of non-native species, especially crested wheatgrass (Agropyron cristatum) and bulbous bluegrass (Poa bulbosa).

P. Dominant Soils: The dominant soils are Hondoho, Lizdale, Ridgecrest, Hymas, Arbone, Hutchley, McCarey, and Araveton. These soils are primarily mollisols and have significant amounts of calcium carbonate in the profile. They are susceptible to wind and water erosion if vegetative cover is removed.

Q. Geologic Types: The bedrock in the northern part of the fires is volcanic in origin, primarily basalt and ryholite. The southern end of the fires has lacustrine and alluvial parent materials. Lake terraces from historic Lake Bonneville, and the alluvial processes since the lake drained have shaped the landscape on the southern end of the fire. Over the majority of the area, a deposit of calcareous loess covers the bedrock.

R. Miles of Stream Channels by Order or Class: 47.2 miles of Intermittent and 1.6 miles of perennial within the burned area on National Forest System Lands

S. Transportation System

Trails: 0 miles

Roads: Total = 20.8 miles on National Forest System Lands:
2.5 miles of county gravel; 1.6 miles of county paved (route 37); 0.1 miles of USFS gravel; 4.3 miles of USFS improved; 10.3 miles of USFS two track; and 2 miles of unmapped/unimproved

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 2,306 – 7% (unburned) 23,058 – 73% (low) 6,202 – 20% (moderate) 0 (high)

Total Burn Area

194 – 2% (unburned) 7,267 – 82% (low) 1,346 – 16% (moderate) 0 (high)

On National Forest System Lands (Curlew NG)

B. Water-Repellent Soil (acres): 800 acres - on National Forest System Lands (Curlew NG)

C. Soil Erosion Hazard Rating (acres):

5,577 (low) 2,727 (moderate) 354 (high)

On National Forest System Lands (Curlew NG)

D. Erosion Potential: 0.36-0.83 tons/acre

E. Sediment Potential: 67 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 1 to 2 years - grasses and forbs
2 to 20 years - shrubs

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

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

D. Design Storm Duration, (hours): 1.0

E. Design Storm Magnitude, (inches): 1.1

F. Design Flow, (cubic feet / second/ square mile): 12.7

G. Estimated Reduction in Infiltration, (percent): 8

H. Adjusted Design Flow, (cfs per square mile): +8.6

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

The Stone 2 Fire burn area is located approximately 25 miles west of Malad, Idaho in Oneida County and approximately 6 miles west of Holbrook, Idaho. The fire started on August 5th by a lightning strike and was contained on August 12th. Twenty seven percent (8,658 acres) of the 31,567 acre fire burned on the Curlew National Grassland. A majority of the burned area occurred on lands administered by the Bureau of Land Management (BLM). The BLM performed a separate BAER analysis and the USFS has loosely coordinated with the BLM to identify values at risk, burn severity, and treatment options. The following values and types of risks were evaluated on the Curlew National Grasslands.

Ecological Integrity:

The "sagebrush steppe" vegetation type found in the grassland is dominated by ten sagebush subspecies type. The grassland effected by this fire contains sensitive wildlife species as identified by the Forest Service Intermountain Region and these are Columbia Sharp-tailed Grouse and Greater Sage Grouse. The grassland is managed for multipule use and grazing is one of the uses affected by the fire. In order to protect the burned portions of the Grassland from grazing impacts the following standard from the Final LRMP for the Curlew NG (pg 3-18) was established:

- *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.*

The primary concern for for soils is the post fire erosion potential related to wind and water erosion, due to slope and soil properties, especially in the moderate severity areas. Loss of ground cover and discontinuous water repellency in these areas increases the potential for accelerated erosion. If an intense, heavy rainstorm or wind event occurred before ground cover recovered, valuable topsoil could be lost.

Noxious weeds exist in portions of the burned area. The disturbance of the fire, both the fire and suppression activities, create opportunities for weeds to invade uninfested areas. Areas of low and moderate burn severity are suceptible to invasion by noxious weeds and other non-native invasives (ie cheatgrass).

Reduced water quality within and downstream of the burned area could be reduced from the increases in stream flow and soil erosion from thunderstorms and snow melt due to the loss of ground cover and altered soil properties.

Transportation Infrastructure:

Public roads, road/stream crossings are susceptible to increased erosion due to the loss of ground cover and altered soil properties potentially causing plugging and/or washout. The lost of these structures could also cause resource damage (ie soil loss and water quality degradation)

Critical Heritage Resources:

The result of burning vegetation and duff increases cultural resource site visibility and threat to vandalism. Several recorded sites and isolated artifacts were identified in and around the fire area.

B. Emergency Treatment Objectives:

Ecological Integrity:

The standard in the Final LRMP for the Curlew NG of resting burned allotment pastures is designed to allow for vegetation recovery and reduce soil erosions and water quality impacts. In the SW Peterson-Lonigan pasture containing a partial burned area a range rider will be used to keep cattle out of the black to allow for vegetation recovery and reduce soil erosions and water quality impacts. There are no other vegetation treatments for vegetation recovery. There are no indications that the natural recovery of the existing plant community will have a measurable adverse impact on the watershed stability in the area.

Monitor disturbed fire areas for new noxious weed infestations and reduce the potential of weed spread with initial treatment to reduce/eliminate flowering plants. Data gathered will be used to facilitate prompt treatment

to control weed populations for the purpose of protecting native plant diversity and ecological integrity of the plant communities in the burn area.

Transportation Infrastructure:
Replace undersized stream crossing culverts to prevent plugging and washout and associated resource damage. This treatment is necessary to ensure continued access to the Grassland both for public recreation and critical resource administration work.

C. Probability of Completing Treatment Prior to Damaging Storm or Event:

Land **95** % Channel ___ % Roads/Trails **80** % Protection/Safety ___ %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	90	90	90
Channel	NA	NA	NA
Roads/Trails	90	90	90
Protection/Safety	NA	NA	NA

E. Cost of No-Action (Including Loss): $330,000

F. Cost of Selected Alternative (Including Loss): $105,920

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Louis Wasniewski, Forest Hydrologist, Caribou-Targhee NF & Curlew NG
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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:

Range Rider: The Curlew Cattle Association will graze the unburned portion of the SW Peterson-Lonigan pasture this September and then will rest the entire unit for two growing seasons. A riding treatment is recommended to prevent livestock use in the burned area within the pasture. A range rider is required to ride regularly for two weeks to inspect and to remove any cattle that wander onto the burned portions of the pasture. The cost for rider will be $500.00. Other treatments examined included removing cattle and additional temporary fence. The removal of livestock is unwarranted due to the fact that only a small

percentage of the Forest Service allotment burned. The minimal cost to fence would be with a temporary electric fence. The cost of fence and maintenance responsibility would exceed $1,640.

Monitor and Treat Noxious and Invasive Weeds: Monitor known and high potential infestation sites for noxious and invasive plants.

Location (Suitable) Sites: Primarily along roads, trails in heavily used grazing areas, and along boundary with BLM and other lands.

Design/ Construction Specification(s):

1. Conduct short-term monitoring (up to three years) of noxious/invasive weed infestation into the burn area.
2. Monitoring and mapping protocols will be established and implemented by the District Rangeland Specialist.
3. All species identified as invasive according to the Forest Noxious Weed Management Plan should be assessed.
4. If year 1 work reveals significant populations of weeds that may pose threats to the ecological integrity of native plant communities, prepare supplemental funding requests in a timely manner to the Regional BAER Coordinator to facilitate the treatment of these areas. Prioritize treatments based on jurisdictional weed management plans.
5. If FY 2007 work reveals additional populations of noxious/invasive weeds as a result of the fire in areas not identified in this specification, prepare supplemental funding requests in a timely manner to the Regional BAER Coordinator to monitor these populations and determine if control measures are necessary.
6. If year 2 and year 3 monitoring is warranted, prepare supplemental funding requests in a timely manner, in those years respectively, to the Regional BAER Coordinator to monitor these populations and determine if control measures are necessary

Cost:

Description	Cost
The District Range Specialist shall make one trip in early May and a final inspection in September ($280/day X 2 day)	$560
Chemicals and Equipment for Treatment.	$700
Weed Crew. ($120/day/person X 2 people X 3 day)	$720
One day to write-up summary report. (280/day)	$280
Treatment Cost for FY 2007	**$2260**

Channel Treatments: No treatments identified

Roads and Trail Treatments:

Meadow Brook Crossing on Hansen Road (29027): Install a 50 ft long, 108" csp (128" x 83" arch). The Forest would arrange for an agreement with Oneida County such that BAER funds would be used to purchase the materials (CSP, rip-rap, and road base) while the County would provide for all installation costs. The drainage area is 22.8 mi^2. The present pipe is 48 inch by 44 ft long pipe (3/4 of length) & CMP (1/4 of length). The crossing has a moderate diversion potential if plugged. The culvert is greatly undersized for the expected runoff and debris. A total of 77% of the watershed was burned by the Stone 2 and Bowen Fires (56% by Stone 2 and 21% by Bowen). The pre-fire 100-year flood for at this location is estimated at 330 cfs (ft^3/s) with a 90% confidence interval of 137 – 791 cfs (USGS, 2006). This closely corresponds to the expected flow from the 25 year 1 hour design storm. This route is County jurisdiction and maintenance.

Interim Report 1 Additions: Upon further investigation, a 60 foot long culvert is needed at this site in order to provide a safe travel width on the road. A 50 foot culvert has already been ordered, but the company can provide a 10 foot extension and band for approximately $3,000 in cost.

Meadow Brook Creek Crossing on Kress-Hansen Road (29026): Install a 50 ft long, 108" csp (128" x 83" arch). The Forest would arrange for an agreement with Oneida County such that BAER funds would

be used to purchase the materials (CSP, rip-rap, and road base) while the County would provide for all installation costs. Road 29026 crosses Meadow Brook Creek near its intersection with road 29027. The drainage area is 12.8 mi^2. Roughly 70% of the watershed was burned by the fires. This culvert is greatly undersized for the expected runoff and debris; the existing pipe is 90-95% submerged/buried. The pre-fire 100-year flood at this location is estimated at 225 cfs (ft^3/s) with a 90% confidence interval of 93 – 546 cfs (USGS, 2006). This route is County jurisdiction and maintenance.

Protection/Safety Treatments: No treatments identified

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.)

See treatment descriptions above. Aside from the monitoring specified within the treatments, no additional monitoring is proposed.

Part VI – Emergency Stabilization Treatments and Source of Funds **Interim # 1**

			NFS Lands				Other Lands			All
		Unit	# of		Other	# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	BAER $	$	units	$	Units	$	$
A. Land Treatments										
Range Rider				$0	$0		$0		$0	$0
Noxious Weed				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$0	$0		$0		$0	$0
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										
Rd 29027 Crossing	each	$3,000	1	$3,000	$0		$0		$0	$3,000
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$3,000	$0		$0		$0	$3,000
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										
Team Cost				---	$0		$0		$0	$0
Insert new items above this line!				---	$0		$0		$0	$0
Subtotal Evaluation				---	$0		$0		$0	$0
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				$3,000	$0		**$0**		**$0**	**$3,000**
Previously approved				$37,420						
Total for this request				**$3,000**						

PART VII - APPROVALS

1. /s/Larry Timchak — 10/02/2006
   Larry Timchak — Date
   Forest Supervisor (signature)

2. /s/ William P. LeVere for — 10/10/06
   Jack Troyer — Date
   Regional Forester (signature)