9-5-2007:

**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: Hardscrabble

B. Fire Number: WY-BTF-035

C. State: Wyoming

D. County: Teton

E. Region: 4-Intermountain Region

F. Forest:Bridger Teton Nataional Forest

G. District: Jackson Ranger District

H. Fire Incident Job Code: P4DV2P

I. Date Fire Started:8-9-2007

J. Date Fire Contained:

K. Suppression Cost: $1,160,000 (8-17-2007)

L. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred and ripped (miles): 0.0 miles
2. Fireline seeded (miles): NONE
3. Other (identify):

M. Watershed Number:
170401020104 – North Fork Fish Creek

N. Total Acres Burned: 3,074
NFS Acres (3,074) Other Federal (0) State (0) Private ( 0 )

O. Dominant Vegetation Types within the fire perimeter: (source:

Bug kill lodgepole pine, whitebark pine, spruce-fir, mixed sagebrush and grass.

P. Dominant Soils within the fire perimeter: (source: Soil Survey, Teton National Forest, 1985):
There are three dominant soil map units within the burned area, map units 253, 263 and 651. Landforms are dominantly glacial moraines, outwash terraces and benches. Elevation ranges from 8700 to 9400 feet and average annual precipitation is about 40 to 50 inches. Soils are formed in glacial till, outwash and residuum derived mainly from local sedimentary sources.

Q. Major Geologic Types Areas of mixed sedimentary rocks including shale, sandstone and conglomerate also occur with some interspersed landslide deposits. Some areas of more recent alluvium are found on alluvial fans and drainage ways adjacent to the project area

R. Miles of Stream Channels by Order or Class:
Intermittent stream miles – unknown Perennial stream miles – 9.02

S. Transportation System

Trails: 2.8 miles Roads: 5.0 miles

## PART III - WATERSHED CONDITION

A. *Burn Severity (acres): 926 (unburned) 627 (low) 1021 (moderate) 500 (high)
*(moderate and high was adjusted from BARC map based on field observations

B. Water-Repellent Soil (acres):

| National Forest | Private land |
|---|---|
| 10 (2%) | 0 |

C. Soil Erosion Hazard Rating (acres):

| | Ownership Acres | |
|---|---|---|
| Soil Erosion Hazard Rating | National Forest | Private land |
| Low | 770 (25%) | 0 |
| Moderate | 1385(45%) | 0 |
| High | 924 (30%) | 0 |

Source: Soil Survey of Bridger National Forest, Western Part, 1993

D. Erosion Potential: 0.98 tons/acre (disturbed WEPP 30 year return period)

E. Sediment Potential 0.68 tons / acre (disturbed WEPP 30 year return period)

## PART IV - HYDROLOGIC DESIGN FACTORS

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

B. Design Chance of Success, (percent): 80-90%

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

D. Design Storm Duration, (hours): 0.5 hrs

E. Design Storm Magnitude, (inches): 0.30 Inches

F. Design Flow, (cubic feet / second/ square mile): 38 csm

G. Estimated Reduction in Infiltration, (percent): 33%

H. Adjusted Design Flow, (cfs per square mile): 48csm

## PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

The Hardscrabble fire was ignited by lightning on August 9, 2007 burning 3,074 acres on the Buffalo District of the Bridger-Teton National Forest. The burn itself is located south east of the Black Rock Ranger Station in Teton County and is just north of the Gros Ventre Wilderness

The BAER team made a ground reconnaissance of the Hardscrabble fire on August 21, 2007. Initial concerns of the BAER team included:

1. Water quality and aquatic habitat integrity and potential impacts from excessive soil erosion and debris movement.
2. Loss of soil and soil productivity through erosion of steeper slopes in areas of moderate and high burn severity.
3. Downstream road drainage structures in or near the fire might be undersized for increases in runoff and debris as a result of the fire.
4. Noxious weeds are known to spread rapidly following fire and may threaten the continuity and health of native plant communities within the burned area and other areas impacted by suppression activities.

### ***Water Quality:***

The Hardscrabble burn is located in the Fish Creek Watershed and there is 9.02 miles of perennial streams within the fire perimeter and there are not any intermittent streams mapped in the burn area. There are three larger streams found within the burned area include North Fork Fish Creek, Beauty Park Creek, and Pink Creek. There are also several unnamed intermittent streams and tributaries within the burn area that will also be affected.

There was some sediment seen in North Fork Fish Creek but it looked to be minimal. There were a few instances where the fire burned over the streams in the burn area but there was still riparian vegetation present, as well as downed material on the hill slopes to act as buffers for overland flow into the streams present within the fire perimeter.

### ***Soil Productivity:***

Soils in the fire perimeter were tested for hydrophobic conditions and only about 2% were hydrophobic. Due to the relatively large percentages of low and moderate burn intensity and that most of the area is relatively gently sloping, no emergency treatments are recommended.

### ***Transportation Infrastructure:***

The fence along the forest boundary on road 30750 was burned and needs to be replaced. The fence is at an established trailhead and is critical to keeping ATV's from entering the lands beyond that support critical grizzly bear, lynx, and wolf habitats. . About 1500 feet of fence needs to be rebuilt.

### ***Noxious Weeds:***

Noxious weeds are present in the area may increase due to the disturbance caused by the fire and suppression related activities. Anticipate an increase of Canada thistle within the fire and ground-disturbed areas. Would

recommend chemical treatment on large patches adjacent to the road beginning as soon as the fall of 2007. Followed by the introduction of biological controls into the areas.

B. Emergency Treatment Objectives:

None.

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

Land __ % Channel ___ % Roads/Trails ___ % Protection/Safety ___ %

D. Probability of Treatment Success

| | Years after Treatment | | |
|---|---|---|---|
| | 1 | 3 | 5 |
| Land | 80 | 90 | 90 |
| | | | |
| Channel | | | |
| | | | |
| Roads/Trails | 100 | 100 | 100 |
| | | | |
| Protection/Safety | | | |
| | | | |

E. Cost of No-Action (Including Loss): $50,000

F. Cost of Selected Alternative (Including Loss): $11,000

G. Skills Represented on Burned-Area Survey Team:

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

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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:**

Treatment of noxious is recommended throughout the burned area and especially along forest roads 30750 and 30760 and dozer lines.

**Channel Treatments**:

No Channel Treatments Recommended

**Roads and Trail Treatments:**

The fence along the forest boundary on road 30750 was burned and needs to be replaced. The fence is at an established trailhead and is critical to keeping vehicles and ATV's from entering the lands beyond that support critical grizzly bear, lynx, and wolf habitats. About 1500 feet of fence needs to be rebuilt.

**Protection/Safety Treatments:**

No treatments recommended

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 of noxious weeds is recommended.

**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** | | | | | | | | | | |
| Noxious Weed Monitor/Treat | Days | 250 | 20 | $5,000 | $0 | | $0 | | $0 | $5,000 |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Insert new items above this line!* | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Subtotal Land Treatments* | | | | $5,000 | $0 | | $0 | | $0 | $5,000 |
| **B. Channel Treatments** | | | | | | | | | | |
| | | | | $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** | | | | | | | | | | |
| fence replacement | Each | 100 | 50 | $5,000 | $0 | | | | | $5,000 |
| | | | | $0 | $0 | | | | | $0 |
| | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Insert new items above this line!* | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Subtotal Road & Trails* | | | | $5,000 | $0 | | $0 | | $0 | $5,000 |
| **D. Protection/Safety** | | | | | | | | | | |
| Hazard Tree Removal | | | | $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** | | | | | | | | | | |
| | | | | --- | $3,000 | | $0 | | $0 | $3,000 |
| *Insert new items above this line!* | | | | --- | $0 | | $0 | | $0 | $0 |
| *Subtotal Evaluation* | | | | --- | $3,000 | | $0 | | $0 | $3,000 |
| **F. Monitoring** | | | | | | | | | | |
| Effectiveness Monitoring | Days | 250 | 2 | $500 | $0 | | $0 | | $0 | $500 |
| Noxious Weed Monitor/Treat | Days | 250 | 2 | $500 | $0 | | $0 | | $0 | $500 |
| | | | | $0 | $0 | | $0 | | $0 | |
| *Insert new items above this line!* | | | | $0 | $0 | | $0 | | $0 | $0 |
| *Subtotal Monitoring* | | | | $1,000 | $0 | | $0 | | $0 | $500 |
| | | | | | | | | | | |
| **G. Totals** | | | | $11,000 | $3,000 | | **$0** | | **$0** | **$13,500** |
| Previously approved | | | | | | | | | | |
| Total for this request | | | | **$11,000** | | | | | | |

## PART VII - APPROVALS

1. /s/ Michael L. Balboni for — 9/26/07
   Kniffy Hamilton — Date
   Forest Supervisor (signature)

2. /s/ Sheryl Bainbridge for — 9/27/07
   Jack Troyer — Date
   Regional Forester (signature)