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

Date of Report:

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
[X] 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: Kelly Point Fire

B. Fire Number:MTFNF000023 (P-code P1B3E2)

C. State: MT

D. County: Flathead

E. Region: 01

F. Forest: Flathead

G. District: Spotted BearRD

H. Fire Incident Job Code: P1B3E2

I. Date Fire Started: 8/17/05

J. Date Fire Contained:11/15.05

K. Suppression Cost: $343,412

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

M. Watershed Number:170102090306

N. Total Acres Burned:
NFS Acres(**3,363**) Other Federal ( ) State ( ) Private ( )

O. Vegetation Types: Douglas Fir, Englemann Spruce, & Subalpine Fir

P. Dominant Soils: Cryoboralfs, Cryochrepts, & Cryants

Q. Geologic Types: Precambrain meta-sedimentary (limestones, argillites, quartzites

R. Miles of Stream Channels by Order or Class: First 6.4 miles, Second 4.6 miles

S. Transportation System

Trails: 6.05 miles Roads: miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 664 (low) 2,255 (moderate) 434 (high)

B. Water-Repellent Soil (acres): 598 acres

C. Soil Erosion Hazard Rating (acres):
27 (low) 0 (moderate) 2,860 (high)

D. Erosion Potential: 19.4 tons/acre avg. (range .5 to 31.6tons/acre)

E. Sediment Potential: 6,000 tons/ square mile (adjusted from initial post-fire estimate)

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 2

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

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

D. Design Storm Duration, (hours): NA

E. Design Storm Magnitude, (inches):

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

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

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

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats: **The following is from the initial BAER Report:**

A major percentage of the fire area which is almost the entire Hodag Creek was burned with either a moderate or high soil burn severity. Note that the “moderate” burn severity in this fire area was on the high side of the moderate class. There is significant potential in some areas of the fire for post-fire erosion (excess of 25 tons/acre) to occur if a high intensity rainstorm event were to occur next summer. ……

The BAER Team identified a large number of waterbars associated with the trails in the fire area, that were impacted by the wildfire. There is approximately 2 miles of trail that is at risk of significant post-fire soil erosion. Some existing culverts/waterbars may plug or be overtopped and fail, particularly ones with areas of significant fire above them. There are several ephemeral stream crossings that due to the soil materials, slope steepness, and burn severity, are at risk of major soil erosion/raveling. Some of these stream channels

are crossed by trail #701, which addes to the erosion potential and makes the trails very unsafe for use by the public.

July 17, 2006: July 6, 2006 there was a very high intensity rainstorm that covered the fire area with significant amounts of precipitation. (no site specific rain data available) This rainstorm caused severe soil erosion especially along portions of the Hodag Creek Trail #701 and the South fork Trail #80. Several of the previously constructed trail waterbars were either filled,over-topped, or washed-out. The very high potential for a post-fire erosion event as noted in the initial BAER report unfortunately occurred before adquate natural revegetation had established. There is potential for significant additional soil erosion associated with the trail system and the resulting sediment yield into the tributary streams of the South Fork of the Flathead River (key Bull Trout habitat).

B. Emergency Treatment Objectives:

- Minimize fire effects on water quality and fisheries habitat by reducing the amount of sediment delivered to streams from the fire-impacted system trails.

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

Land __ % Channel __ % Roads/Trails **85** % Protection/Safety __ %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land			
Channel			
Roads/Trails	95	90	75
Protection/Safety			

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

F. Cost of Selected Alternative (Including Loss): **$3,000**

G. Skills Represented on Burned-Area Survey Team:

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

Channel Treatments: NA

Roads and Trail Treatments:

The existing system trails within the Kelly Point Fire had numerous existing erosion/drainage control structures (primarily waterbars). Some of which were installed last fall with BAER funds. The purpose of this proposed work is to maintain those existing drainage structures affected by the July 6th high intensity storm; and/or to install any additional needed drainage control structures needed due to the severe post-fire erosion event.

Maintain Drainage Structures on Trails: To maintain waterbars, drain dips, relief ditches on trails that traverse moderate and high severity burn areas to prevent additional erosion that may occur during additional summer thunderstorms and next spring's snowmelt.

Install New Drainage Structures: Where needed to install any additional waterbars (estimated 12-15), or drain dips; where the severe post-fire erosion has created the need for additional surface water drainage from the trail system.

Protection/Safety Treatments: NA

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.) No specific monitoring plan for this standard treatment is planned of the fire area.

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

			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										
				$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 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										
Trail Waterbars	miles	$1,000	3	$3,000	$0		$0		$0	$3,000
				$0	$0		$0		$0	$0
				$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										
				---			$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										
Total for this request				**$3,000**						

PART VII - APPROVALS

1. _____ _____
Forest Supervisor (signature) Date

2. _____ _____
Regional Forester (signature) Date