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

Date of Report: 9/5/2014

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:Browns

B. Fire Number: AZTNF-000997

C. State:Az

D. County: Gila

E. Region: 03

F. Forest:TontoNF

G. District: 06

H. Fire Incident Job Code: P3h9UC

I. Date Fire Started: 7/26/2014

J. Date Fire Contained:8/19/2014

K. Suppression Cost: $50,000

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles):0
2. Fireline seeded (miles):0
3. Other (identify): Hazard trees removed along trails

M. Watershed Number: 150601050501 (745 acres), 150601060110 (158 acres)

N. Total Acres Burned: 903
NFS Acres(903) Other Federal ( ) State ( ) Private ( )

O. Vegetation Types: Chaparral-141 acres, Juniper-Oak, 334 acres, Sonoran Desert-24 acres, Pinyon-Juniper-52 acres, Ponderaosa Pine-331 acres, Mixed conifer-14 acres, semidesert grassland-7 acres

P. Dominant Soils: Udic Argiustolls

Q. Geologic Types: Granite, Schist

R. Miles of Stream Channels by Order or Class: Ephemeral – 2.9 miles

S. Transportation System

Trails: 5.8 miles Roads: miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 430 (low) 398 (moderate) 73 (high)

B. Water-Repellent Soil (acres): 272

C. Soil Erosion Hazard Rating (acres):
(low) 600 (moderate) 300 (high)

D. Erosion Potential: 10 tons/acre

E. Sediment Potential: 21,500 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

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

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

D. Design Storm Duration, (hours): 6

E. Design Storm Magnitude, (inches): 3.2

F. Design Flow, (cubic feet / second/ square mile): 114

G. Estimated Reduction in Infiltration, (percent): 15

H. Adjusted Design Flow, (cfs per square mile): 208

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

The Browns Fire burned approximately 900 acres of primarily chapparal, juniper-oak woodland and ponderosa pine. The fire was almost entirely within the Four Peaks Wilderness and burned primarily with low to moderate burn severity. The fire achieved resource management objectives in most parts of the burned area. Areas of high burn severity occupy approximately 75 acres within the fire perimeter. High water repellency and low ground cover in these areas increase the likelihood of accelerated erosion and increased peak flows. Rainfall during and after the fire has created rills on severely burned slopes and peak flows that have exceeded channel capacity.

Threats to Human Life and Safety

The primary threat to human life and safety is to hikers along the trail system within and below the moderate and severely burned areas where peak flows at channel crossings, rolling rocks, and falling limbs and trees are possible. The Arizona Trail, A National Scenic Trail that extends 800 miles from Mexico to Utah passes through approximately 1.8 miles of the burned area. The trail crosses two small watersheds that have greater than normal percentages of high burn severity. Hazard trees and limbs may also pose a hazard to trail users

BAER Risk Assessment

Probability of Damage or Loss:	Possible – The Trails within the burned area provide access to the 4 Peaks Wilderness and are popular hiking trails.
Magnitude of Consequences	Major - Loss of life or injury to humans is possible
Risk Assessment	High

Threats to Property

There are approximately 5.8 miles of Forest System trails within the burned area. These trails cross through and below areas of moderate and high burn severity where accelerated erosion and increased peak flows are anticipated. Wood waterbars have been consumed or damaged by fire in some areas, waterbars in severely burned areas have been damaged by runoff and erosion that occurred during and shortly after the fire. Additional damage to trails is likely to occur from future storms.

BAER Risk Assessment

Probability of Damage or Loss	Very Likely – several miles of trails pass through areas of moderate burn severity and approximately ¾ miles of trail pass through areas of high burn severity
Magnitude of Consequence	Moderate – Damage to trails is anticipated
Risk Assessment	Very High

B. Emergency Treatment Objectives:

Post hazard warning signs at two trailheads that provide access to trails entering the burned area to warn trail users about hazards within and below the fire perimeter.

Replace fire damaged waterbars throughout the burned area, construct additional waterbars and dips in and below severely burned areas, and harden stream crossings where trails cross drainages that have burned with primarily moderate to high severity.

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

Land __ % Channel **50** % Roads/Trails **50** % Protection/Safety **50** %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land			
Channel			

Roads/Trails	75	75	75
Protection/Safety	100	90	80

E. Cost of No-Action (Including Loss): 25,000

F. Cost of Selected Alternative (Including Loss):20,000

G. Skills Represented on Burned-Area Survey Team:

[X] Hydrology [ ] Soils [ ] Geology [ ] Range [ ]
[ ] Forestry [X] Wildlife [X] Fire Mgmt. [ ] Engineering [ ]
[ ] Contracting [ ] Ecology [ ] Botany [X] Archaeology [ ]
[ ] 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:

Channel Treatments:

Roads and Trail Treatments:

Replace waterbars damaged by Fire on 5.8 miles of trails within the burn perimeter. Construct additional rock waterbars on one mile of trail passing through areas of primarily high burn severity. Harden stream crossings (ephemeral channels) below watersheds that have burned with primarily moderate to high burn severity.

Remove Hazard trees for safety of crews conducting trail protection work. Most of these trees were removed by fire suppression crews.

Protection/Safety Treatments:

Place 1 hazard warning sign at the Pigeon Spring Trailhead on FT 134 (Pigeon Trail) and 1 hazard warning sign at the Big Oak Flat trailhead on FT 123 (Big Oak Trail)

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.)

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										
				$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 Protection	mi	$2,700	5.8	$15,660	$0		$0		$0	$15,660
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$15,660	$0		$0		$0	$15,660
D. Protection/Safety										
warning signs	ea	500	2	$1,000	$0		$0		$0	$1,000
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Structures				$1,000	$0		$0		$0	$1,000
E. BAER Evaluation										
assessment	ea	2500	1	---	$2,500		$0		$0	$2,500
Insert new items above this line!				---	$0		$0		$0	$0
Subtotal Evaluation				---	$2,500		$0		$0	$2,500
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				$16,660	$2,500		**$0**		**$0**	**$19,160**
Previously approved										
Total for this request				**$16,660**						

PART VII - APPROVALS

1. /s/ Kelly Jardine _____ 9/5/2014
for Forest Supervisor (signature) Date

2. _____ _____
Regional Forester (signature) Date