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

Date of Report: 7/6/2006

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

[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: Tiger-Rock

B. Fire Number: AZ-PNF-000387

C. State: AZ

D. County: Yavapai

E. Region: 03, Southwest

F. Forest: Prescott National Forest

G. District: Bradshaw

H. Fire Incident Job Code: P3CS6R

I. Date Fire Started: 6-29-2006

J. Date Fire Contained: 7-7-2006 (projected)

K. Suppression Cost: $1,500,000.00

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 0
2. Fireline seeded (miles): 0
3. Other (identify): 1 mile lop and scatter slash

M. Watershed Number: Black Canyon Creek (1507010203), Rock fire non-Forest Service - Agua Fria River-Lake Pleasant(1507010205)

N. Total Acres Burned: 6301
NFS Acres(4880) Other Federal (494) State (675) Private (252)

O. Vegetation Types: Chaparral, Desert shrub, minor Ponderosa Pine

P. Dominant Soils: Lithic Haplustalfs

Q. Geologic Types: Granite

R. Miles of Stream Channels by Order or Class: 16.12 Ephemeral gis miles

S. Transportation System

Trails: 6.5 miles Roads: .25 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 2404 (low) 1502 (moderate) 140 (high)

B. Water-Repellent Soil (acres): 140

C. Soil Erosion Hazard Rating (acres):
___ (low) ___ (moderate) 4880 (high)

D. Erosion Potential: 47.3 tons/acre

E. Sediment Potential: 90,611 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

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

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:

Background: The majority of the fire occurred within the Castle Creek Wilderness. The fire occurred in remote inaccessible country. Burn severity was determine through aerial flights and satellite imagery.

Life and private propety:
Trail. The majority of the Castle Creek Trail (TR 239 and 240) is located within the fire perimeter. A potential threat of loss of life and/or limb may occur due to the projected increase of flood events, unstable soils, and falling rocks.

Roads. A high clearance road located on BLM, AZ State Land, and a small portion on FS land (684 and FS9268W) has the potential to be impacted by upstream flood events, increased sediment delivery and unstable soils and falling rocks from the fire. This poses a potential threat to human live and/or limb.

Soils: The majority of the soils are on very steep slopes and have a very rubbly surface fragment category with boulders and rock outcrops. Areas subjected to low burn severity have experienced a minimal loss of ground cover and the majority of the vegetation canopy cover is intact. Moderate burn severity sites experienced partial consumption of the canopy cover. The high burn severity sites vegetation canopy cover and ground cover was totally consumed. The mosaic pattern of the burn severity and high surface rock fragment cover is expected to mitigate some soil loss. However, these soils have not recuperated from two previous wildfires in 1979 and 1994 which has hindered soil function. These damaged soils loss of ground cover and predicted hydrophobic conditions will decrease infiltration rates, increase run-off, and accelerate erosion rates that will contribute to a large increase of soil loss. Soil loss is expected to exceed tolerable levels.

The following table displays the average erosion rates and sediment yield which is based on the average land type and soil characteristics.

Erosion/ Sediment	**Pre-fire**	**Post-fire**
Average Erosion Rate t/acre/yr	22.6	47.3
Total Sediment Yield t/yr	55,192	90,611

Hydrology: These soils inherently have a very high run off rating but the loss of ground cover and predicted hydrophobic soils is expected to increase run-off and increase flow events. The majority of the drainages within the fire perimeter are ephemeral with some interupted intermittent stretches. The channels are high gradient step-pool systems that are armored with bedrock. No vertical or lateral channel instability is expected to occur. Inorganic and orgainic turbidity levels are expected to increase due to a predicted increase of sediment yield and ash flow from post fire events.

Black Canyon is downstream from the fire and located on BLM and AZ State Land. Turbidity levels in Black Canyon are expected to increase along with a potential increase of flow events.

Noxious Weeds: Red Brome and other exotic anuals exists within and near the burned area. Potential for spread of this weed has increased as a result of this fire.

Heritage Resources: There is one prehistoric site with rock art and bedrock metates (site# 02-17) that is potentially elgiable for the National Register of Places. This site is located within a rock outcrop and is well stabilized and not in jeopardy of post fire deterioration.

Wildlife: There is no know threat to wildlife species within the fire perimeter.

Black Canyon, which is located downstream of this fire on BLM and AZ State Land, has potential Desert Sucker populations and leopard frogs. These species are not expected to be impacted because any increase of turbidity and flow events is expected to be within the range of natural variability.

B. Emergency Treatment Objectives:

- Natural Recovery.
- Warn the public at access points of hazardous conditions including flooding and unstable soils. This is intended to mitigate the potential loss of human life or limb.

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

Land NA % Channel NA % Roads/Trails NA % Protection/Safety 30 %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	none	none	none
Channel	none	none	none
Roads/Trails	none	none	none
Protection/Safety	80	80	80

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

F. Cost of Selected Alternative (Including Loss): NA

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: David Moore

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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: Noxious weed detection will be done at appropriate times during the growing season.

Channel Treatments: None

Roads and Trail Treatments: None

Protection/Safety Treatments:

Trail: A total of two signs at two separate locations will be installed to warn the public of potential hazardous trail conditions from flooding, unstable soils, and falling rocks. This is intended to mitigate the potential loss of human life or limb.

Road: A total of one sign will be installed at the access point to road 684 and FS9268W which is located on BLM land. The BLM has provided us permission to install this sign. The sign will warn the public of hazardous road conditions due to flooding, falling rocks, and unstable soils. This is intended to mitigate the potential loss of human life or limb.

I. **Monitoring Narrative:**

Because of insufficient recovery due to past fires and the threat of expansion of red brome, the high and moderate burn severity portions of this fire normally would be proposed for emergency stabilization seeding. Since the area is in designated wilderness, a determination was made to not seed at this time. Monitoring of this decision will allow for a subsequent seeding request within the emergency timeframe if it is discovered that an unnatural loss of the wilderness resource is occurring.

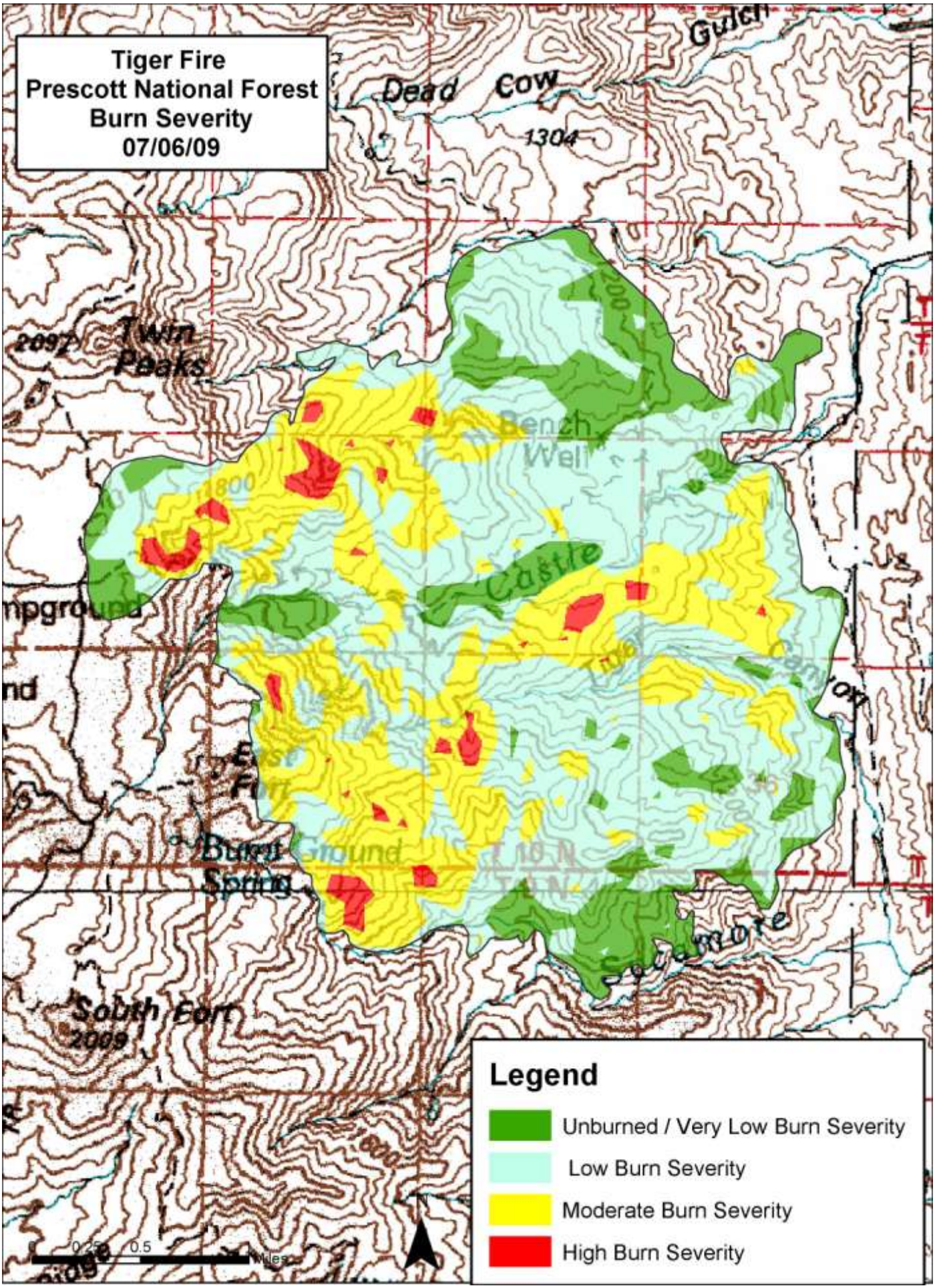
Part VI – Emergency Stabilization Treatments and Source of Funds **Interim #**

			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										
Nox weed detection	days	300	3	$900	$0		$0		$0	$900
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$900	$0		$0		$0	$900
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										
Warning signs	sign	700	3	$2,100	$0		$0		$0	$2,100
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$2,100	$0		$0		$0	$2,100
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										
				---	$1,400		$0		$0	$1,400
Insert new items above this line!				---	$0		$0		$0	$0
Subtotal Evaluation				---	$1,400		$0		$0	$1,400
F. Monitoring										
	days	300	3	$900	$0		$0		$0	$900
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring				$900	$0		$0		$0	$900
G. Totals				$3,900	$1,400		**$0**		**$0**	**$5,300**
Previously approved										
Total for this request				**$3,900**						

PART VII - APPROVALS

1. */s/ Alan Quan* — *7-6-06*
   Forest Supervisor (signature) — Date

2. */s/ Abel M. Camarena (for)* — 7-7-06
   Regional Forester (signature) — Date


Tiger Fire
Prescott National Forest
Burn Severity
07/06/09
Dead Cow
Gulch
1304
Twin Peaks
2092
Bench Well
Castle
Burnt Spring
South Fork
2009
T 10 N
Legend
Unburned / Very Low Burn Severity
Low Burn Severity
Moderate Burn Severity
High Burn Severity
0.25
0.5
Miles