

Date of Report: 8/20/2009

BURNED-AREA REPORT
(Reference FSH 2509.13)**PART I - TYPE OF REQUEST**

A. Type of Report

- ☒ 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)
☐ 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 DESCRIPTIONA. Fire Name: Rim FireB. Fire Number: AZ-TNF-0000067C. State: AzD. County: GilaE. Region: 03F. Forest: Tonto, CoconinoG. District: 04H. Fire Incident Job Code: P3E3P9I. Date Fire Started: 7-20-2009J. Date Fire Contained: 8/13/2009K. Suppression Cost: \$1,500,000

- L. Fire Suppression Damages Repaired with Suppression Funds
 1. Fireline waterbarred (miles): 3.5
 2. Fireline seeded (miles):
 3. Other (identify):

M. Watershed Number: 1502000803, 1506020302

N. Total Acres Burned: 2483 (1901 Tonto NF; 582 Coconino NF)
 NFS Acres(2483) Other Federal () State () Private ()

O. Vegetation Types: mixed conifer, ponderosa pine, chaparral

P. Dominant Soils: Typic Udorthents, Typic Ustorthents, Rock Outcrop, Glossoboric Hapludalfs, Typic Glossoboralfs, Typic Paleboralfs.

Q. Geologic Types: Coconino Sandstone, Kaibab Limestone, Supai Formation

R. Miles of Stream Channels by Order or Class:

Perennial -1.2 miles

Intermittent – 5.7 miles

S. Transportation System

Trails: 3.2 miles

Roads: 8 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 1211 (low) 773 (moderate) 221 (high)

B. Water-Repellent Soil (acres): 608

C. Soil Erosion Hazard Rating (acres):
350 (low) 400 (moderate) 1750 (high)

D. Erosion Potential: 25 tons/acre

E. Sediment Potential: 7000 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

B. Design Chance of Success, (percent): 75

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

D. Design Storm Duration, (hours): 1

E. Design Storm Magnitude, (inches): 2.47

F. Design Flow, (cubic feet / second/ square mile): 323

G. Estimated Reduction in Infiltration, (percent): 24

H. Adjusted Design Flow, (cfs per square mile): 411

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

Subdivisions of private lands exist immediately below the burned area along the East Verde River. These subdivisions are at low increased risk of flooding from increased peak flows from the burned area. Twenty percent of the watershed above the Rim Trail Estates subdivision (the first subdivision below the burned area) burned with moderate to high severity. Burned area as a percent of the contributing watershed area decreases with each successive subdivision down the the East Verde River. Peak flow estimates for pre and post burn conditions at the Rim Trail Estates subdivision are estimated in the table below.

Peak Flows From 1 Hour Thunderstorm
East Verde River Above Rim Trail Estates

Peak flow Return Interval (yrs)	2	5	10	25	50	100
Prefire peak flows (cfs)	100	375	685	1295	1895	2600
Postfire peak flows (cfs)	180	525	930	1645	2320	3100

The Rim Trail Estates subdivision has an instream water diversion that provides potable water to residents of the subdivision. The intake structure and filters are vulnerable to the water quality effects of ash and soil eroded from the burned area.

The Pieper Hatchery Springs are the site of an old Ranger Station (the Rim Ranger Station) and an historic hatchery that operated during the 1930's. The site is a National Register eligible cultural resource site. The remains include rock foundations and earthen rearing and settling ponds. These features are at risk from flooding and erosion from severely burned slopes above the site. Ash and soil carried in the small watersheds that contribute to the remnant rearing ponds pose a risk of filling these ponds with sediment.

The Pieper Hatchery springs and ponds are a proposed site for reintroducing Chiricahua leopard frog, an endangered species. Flooding, ash, and erosion threaten the quality of the proposed reintroduction sites.

Dude Creek is a site proposed for reintroducing Gila Trout. Flooding, erosion, and the water quality effects of ash washed into the creek threaten the quality of the habitat where reintroduction is proposed.

The Highline and Colonel Devin Trails cross through or below the burned area. Users of these trails are at risk from flooding, falling trees, and rolling rocks.

2.5 miles of dozer line were constructed to suppress the fire. The potential for introduction of noxious weeds into the burned area exists in these areas.

B. Emergency Treatment Objectives:

- Provide for user safety on roads and trails by posting signs warning of burned area hazards.
- Prevent invasive species from becoming established within the burned area
- Protect the Pieper Springs Hatchery from erosion and sedimentation

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

Land % Channel % Roads/Trails 90 % Protection/Safety 100 %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	75	75	75
Channel			
Roads/Trails	80	80	80
Protection/Safety	50	50	50

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

F. Cost of Selected Alternative (Including Loss): \$40,000

G. Skills Represented on Burned-Area Survey Team:

<input checked="" type="checkbox"/> Hydrology	<input checked="" type="checkbox"/> Soils	<input type="checkbox"/> Geology	<input type="checkbox"/> Range	<input type="checkbox"/>
<input type="checkbox"/> Forestry	<input checked="" type="checkbox"/> Wildlife	<input type="checkbox"/> Fire Mgmt.	<input checked="" type="checkbox"/> Engineering	<input type="checkbox"/>
<input type="checkbox"/> Contracting	<input type="checkbox"/> Ecology	<input type="checkbox"/> Botany	<input checked="" type="checkbox"/> Archaeology	<input type="checkbox"/>
<input checked="" type="checkbox"/> Fisheries	<input type="checkbox"/> Research	<input type="checkbox"/> Landscape Arch	<input type="checkbox"/> GIS	

Team Leader: Grant Loomis

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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:

Dozer lines will be inspected the first growing season after the fire (Spring of 2010) to detect whether noxious weeds have been introduced into the burned area and if detected will be removed.

Channel Treatments:

Roads and Trail Treatments:

Warning signs will be installed on roads and trails entering the burned area or crossing channels below the burned area to warn public users of burned area hazards.

Protection/Safety Treatments:

Historical features at the Pieper Springs Hatchery will be protected from hillslope runoff by installing wattles to protect remnants of building foundations and fish rearing ponds. (Note: This work has already been accomplished using non-BAER funds).

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	NFS Lands		Other \$	# of units	Other Lands		Total \$
			# of Units	BAER \$			Fed \$	# of Units	
A. Land Treatments									
erosion control logs				\$0	\$4,000		\$0		\$4,000
weed dctn & rmvl	mi	1000	3	\$3,000	\$0		\$0		\$3,000
				\$0	\$0		\$0		\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0
Subtotal Land Treatments				\$3,000	\$4,000		\$0		\$7,000
B. Channel Treatments									
				\$0	\$0		\$0		\$0
				\$0	\$0		\$0		\$0
				\$0	\$0		\$0		\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0
Subtotal Channel Treat.				\$0	\$0		\$0		\$0
C. Road and Trails									
				\$0	\$0		\$0		\$0
				\$0	\$0		\$0		\$0
				\$0	\$0		\$0		\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0
Subtotal Road & Trails				\$0	\$0		\$0		\$0
D. Protection/Safety									
warning signs	ea	200	5	\$1,000	\$0		\$0		\$1,000
				\$0	\$0		\$0		\$0
				\$0	\$0		\$0		\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0
Subtotal Structures				\$1,000	\$0		\$0		\$1,000
E. BAER Evaluation									
	ea	8000	1	---	\$8,000		\$0		\$8,000
<i>Insert new items above this line!</i>				---	\$0		\$0		\$0
Subtotal Evaluation				---	\$8,000		\$0		\$8,000
F. Monitoring									
				\$0	\$0		\$0		\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0
Subtotal Monitoring				\$0	\$0		\$0		\$0
G. Totals				\$4,000	\$12,000		\$0		\$16,000
Previously approved									
Total for this request				\$4,000					

PART VII - APPROVALS

1. /s/ Thomas J. Klabunde (for)
Forest Supervisor

August 20, 2009
Date

2. /s/ David Stewart (for)
Regional Forester (signature)

August 27, 2009
Date