

Date of Report: 8/22/05

BURNED-AREA REPORT

(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

- ☒ 1. Funding request for estimated WFSU-SULT funds
☐ 2. Accomplishment Report
☐ 3. No Treatment Recommendation

B. Type of Action

- ☒ 1. Initial Request (Best estimate of funds needed to complete eligible rehabilitation 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: PeachvilleB. Fire Number: AZ-TNF-143C. State: AZD. County: PinalE. Region: 03F. Forest: TontoG. District: GlobeH. Date Fire Started: 7/18/05I. Date Fire Contained: 8/03/05J. Suppression Cost: \$200,000

K. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred (miles): 0.22
2. Fireline seeded (miles): 0.22
3. Other (identify):

L. Watershed Number: 1505010004, 1505010002, 1506010307.M. Total Acres Burned:

NFS Acres(8,447) Other Federal () State () Private (560)

N. Vegetation Types: Chaparral, Steppe Grasslands, Sonoran Desert, Arizona Cypress, Pinyon/Juniper/Oak Woodlands.,O. Dominant Soils: Typic Haplustalfs, Lithic Haplustalfs, Lithic Ustorthents, Aridic Haplustalfs, Ustic HaplargidsP. Geologic Types: TKv (Acid igneous rocks), Schist, Diabase, CDI (Limestone)

Q. Miles of Stream Channels by Order or Class: 1st order – 22 miles, 2nd order – 4.5 miles, 3rd order - .2 miles

R. Transportation System

Trails: 0 miles Roads: 16 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 3,512 (low) 3,020 (moderate) 0 (high)

B. Water-Repellent Soil (acres): 1,510

C. Soil Erosion Hazard Rating (acres):
659 (low) 3,156 (moderate) 5,193 (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): 3-5

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

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

D. Design Storm Duration, (hours): 24

E. Design Storm Magnitude, (inches): 3.5

F. Design Flow, (cubic feet / second/ square mile): 330

G. Estimated Reduction in Infiltration, (percent): 20

H. Adjusted Design Flow, (cfs per square mile): 445

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency:

- An increase in peak flows at private lands below the burned area. Private lands occur along Queen Creek from Superior to the Whitlow Ranch Dam, approximately eight miles below Superior, and along Silver King Wash from just north of Highway 60 to the confluence with Queen Creek. Boyce Thompson Arboretum is located along both Queen Creek and Silver King Wash and has hiking trails that cross both streams.
- Decrease in water quality in reaches of streams with perennial flow within and below the burned area. Streams with reaches of perennial flow below the burned area include Queen Creek, Haunted Canyon and Pinto Creek. Perennial flow occurs for a short reach within the burned area at Pump Station Spring near the OMYA Mine.

- Adverse effects to aquatic habitat in reaches of streams affected by runoff from the burned area
- Safety hazards to users of NFS lands and private lands (roads and trails) within and below the burned area from flash floods, rolling rocks and debris.
- Accelerated erosion and potential failure of a tailings pond embankment at the Silver King Mine.
- Weeds may have been introduced to the area along roads and cat lines where non local equipment was used to suppress the fire.

B. Emergency Treatment Objectives:

- Temporarily close FDR 342 between the OMYA Mine and the 650 Rd to reduce hazards to users of this road.
- Reroute runoff around the tailings pond embankment at the Silver King Mine to reduce likelihood of failure of the embankment and subsequent discharge of tailings material onto NFS lands.
- Warn users of Forest roads and trails of hazards from the burned area.
- Detect and remove noxious weeds if any have been introduced into the burned area.

C. Probability of Completing Treatment Prior to First Major Damage-Producing Storm:

Land 50 % Channel % Roads 50 % Other %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	50	75	90
Channel			
Roads	90	90	90
Other			

E. Cost of No-Action (Including Loss): \$47,000

F. Cost of Selected Alternative (Including Loss): \$24,000

G. Skills Represented on Burned-Area Survey Team:

☒ Hydrology ☒ Soils ☐ Geology ☐ Range ☐
☐ Forestry ☐ Wildlife ☐ Fire Mgmt. ☒ Engineering ☐

☐ Contracting ☒ Ecology ☐ Botany ☒ Archaeology ☐
☒ Fisheries ☐ Research ☐ Landscape Arch ☒ 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: Extend berm above Silver King Mine approximately 150 feet to reroute runoff away from tailings pond embankment. Berm will be constructed with a dozer. Berm would be located on NFS lands.

Assess whether weeds have been introduced into areas where off Forest equipment was used to fight the fire and remove if weeds are present. Conduct assessment following the winter rains.

Channel Treatments:

Roads and Trail Treatments: Construct two barrier gates on FDR 342 to temporarily close access into the burned area on this road. Moderately burned slopes above this road are expected to render this road impassable shortly. Gates will reduce the likelihood of Forest users being exposed to safety hazards such as flash floods, rolling rock, and debris washing from these slopes.

Install warning signs at wash crossings below the burned area to warn road users of the hazards of flash floods.

Structures:

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 Rehabilitation Treatments and Source of Funds by Land Ownership

Line Items	Units	Unit Cost	# of Units	WFSU SULT \$	Other \$	# of units	Fed \$	# of Units	Non Fed \$	Total \$
A. Land Treatments										
berm abv Silver King	ea	2500	1	\$2,500	\$0		\$0		\$0	\$2,500
				\$0	\$0		\$0		\$0	\$0
dtct and rmv nxs wds	ea	1500	1	\$1,500	\$0		\$0		\$0	\$1,500
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Land Treatments				\$4,000	\$0		\$0		\$0	\$4,000
B. Channel Treatments										
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Channel Treat.				\$0	\$0		\$0		\$0	\$0
C. Road and Trails										
Gates	ea	4500	2	\$9,000	\$0		\$0		\$0	\$9,000
signs	ea	200	8	\$1,600	\$0		\$0		\$0	\$1,600
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Road & Trails				\$10,600	\$0		\$0		\$0	\$10,600
D. Structures										
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Structures				\$0	\$0		\$0		\$0	\$0
E. BAER Evaluation										
assessment	ea	3000	1	\$0	\$3,000		\$0		\$0	\$3,000
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Evaluation				\$0	\$3,000		\$0		\$0	\$3,000
F. Monitoring										
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Monitoring				\$0	\$0		\$0		\$0	\$0
G. Totals				\$14,600	\$3,000		\$0		\$0	\$17,600

PART VII - APPROVALS

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

8/22/05
Date

2. /s/ Rudy Gutierrez, Jr
(for) Regional Forester

8/23/05
Date