

Date of Report: 03/04/2003

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: Oracle HillB. Fire Number: AZ-CNF-265C. State: ArizonaD. County: PinalE. Region: 03F. Forest: CoronadoG. District: Santa CatalinaH. Date Fire Started: 07/12/2002I. Date Fire Controlled: Contained 07/17/2002J. Suppression Cost: \$940,000

K. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred (miles): 13
2. Fireline seeded (miles):
3. Other (identify):

L. Watershed Number: 1505020303 (San Pedro River-Kielberg), 1505020304 (San Pedro River-Copper Creek), 1505030108 (Canada del Oro)M. Total Acres Burned: 2,397

NFS Acres(2,359) Other Federal () State () Private (38)

N. Vegetation Types: Broadleaf woodland (evergreen), Southwest desertscrub, chaparral, desert grassland,O. Dominant Soils: Lithic Torriorthents, Lithic Ustochrepts, Aridic UstochreptsP. Geologic Types: Granite

Q. Miles of Stream Channels by Order or Class: 6 miles of 1st order channels

R. Transportation System

Trails: 4 miles Roads: 5 miles

PART III - WATERSHED CONDITION

- A. Burn Severity (acres): 1,156 (low) 644 (moderate) 597 (high)
- B. Water-Repellent Soil (acres): 937
- C. Soil Erosion Hazard Rating (acres):
1,156 (low) 304 (moderate) 937 (high)
- D. Erosion Potential: 12 tons/acre (3 years)
- E. Sediment Potential: 5184 cubic yards / square mile (3 years)

PART IV - HYDROLOGIC DESIGN FACTORS

- A. Estimated Vegetative Recovery Period, (years): 3-10 years, based on previous fires in similar areas.
Will assume a 5 year design life
- 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): 3.7
- F. Design Flow, (cubic feet / second/ square mile): 480
- G. Estimated Reduction in Infiltration, (percent): 50
- H. Adjusted Design Flow, (cfs per square mile): 760

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency:

Based on the BAER Team field survey and analysis the following emergencies exist:

- A YMCA Camp exists a short distance (less than one mile) downstream of the burned area on Bonito Canyon. Facilities at the camp that are potentially at risk from increased peak flows include guest cabins, culverted and bridged stream crossings, picnic sites and a nonfunctioning windmill. This camp is used by large numbers of young people who may also be at risk from increased flooding.
- Other private developments exist below the YMCA camp on Bonito Canyon. Flood risk at these developments is not known but potentially exists.
- At least one home potentially occupies a portion of the floodplain of American Flag Wash approximately one half mile below the burned area.

- Approximately 2 miles of the Arizona Trail and 2 miles of the Cody Trail cross through the burned area. Runoff and erosion control measures are needed to prevent damage to the trail.
- Other homes may exist in areas of increased flood risk below burned areas in the American Hill 6th Code watershed
- Active mine sites exist within the flood plain of Dodge Wash approximately three miles below the burned area.

B. Emergency Treatment Objectives:

The objectives of the proposed treatments are to:

- Promote rapid revegetation of the steep, severely burned area
- Minimize impacts to downstream landowners from increased runoff and accelerated erosion
- Minimize impacts to rangeland, wildlife habitat, and riparian resources
- Protect the Arizona Trail and other trails within the burned area from damage due to accelerated runoff and erosion

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

Land 80 % Channel % Roads 75 % Other 50 %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	10	50	90
Channel			
Roads	75	100	100
Other	75	90	90

E. Cost of No-Action (Including Loss): Cost of no action is \$40,000 (value of trail reconstruction) + \$1,456,000 (value of soil loss)= \$1,496,000

F. Cost of Selected Alternative (Including Loss) : \$49,640 + \$1,388,000 (value of soil loss) = \$1,437,640

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 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 type="checkbox"/> Fisheries	<input type="checkbox"/> Research	<input type="checkbox"/> Landscape Arch	<input checked="" type="checkbox"/> GIS	

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H. Treatment Narrative:

Land Treatments:

Aerial Seeding COMPLETED: Apply seed by fixed-wing aircraft or helicopter to 600 acres in the severely burned areas with the following mix:

Sideoats grama (<i>Bouteloua curtipendula</i>)	3.0 lbs/acre
Sand dropseed (<i>Sporobolus cryptandrus</i>)	1.0 lb/acre
Barley (<i>Hordeum vulgare</i>)	4.0 lbs/acre

Channel Treatments: n/a

Roads and Trail Treatments:

Trails COMPLETED: Remove hazard trees, construct larger and more frequent drainage features, replace burned signs, and build erosion control structures to stabilize trail cross sections on 4 miles of trails. More work is scheduled with National Fire Plan funds.

Roads COMPLETED: Install warning signs on roads and trails entering the burned area or crossing channels draining the burned area.

Structures:

N/A

I. Monitoring Narrative:

As the seeding is done, monitoring to insure that between 20 and 60 seeds per square foot are being seeded. Seeding effectiveness will need to be monitored in the Fall. If sufficient germination has not occurred, another application for funds will be made to reseed.

Currently there are no known Federal or State listed noxious weeds in the fire area. We will be monitoring for occurrence for three years—this request is for year-one funding only.

Part VI – Emergency Rehabilitation Treatments and Source of Funds by Land Ownership

		NFS Lands				Other Lands				All
		Unit	# of	WFSU	Other	# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	SULT \$	\$	units	\$	Units	\$	\$
A. Land Treatments										
Aerial Seeding	acres	45	600	\$27,000			\$0		\$0	\$27,000
		0	0	\$0			\$0			\$0
		0	0	\$0			\$0		\$0	\$0
		0	0	\$0						\$0
Subtotal Land Treatments				\$27,000			\$0		\$0	\$27,000
B. Channel Treatments										
		0	0	\$0			\$0		\$0	\$0
		0	0	\$0			\$0		\$0	\$0
		0	0	\$0			\$0		\$0	\$0
				\$0			\$0		\$0	\$0
Subtotal Channel Treat.				\$0			\$0		\$0	\$0
C. Road and Trails										
Trails	miles	3,750	4	\$15,000			\$0		\$0	\$15,000
Signs (small)	each	250	4	\$1,000						\$1,000
Signs (large)	each	500	2	\$1,000			\$0		\$0	\$1,000
		0	0	\$0						\$0
		0	0	\$0			\$0		\$0	\$0
		0	0	\$0			\$0		\$0	\$0
Subtotal Road & Trails				\$17,000			\$0		\$0	\$17,000
D. Structures										
				\$0			\$0		\$0	\$0
Subtotal Structures				\$0			\$0		\$0	\$0
E. BAER Evaluation										
	person-days	300	15	\$4,500			\$0		\$0	\$4,500
	perdiem	110	4	\$440			\$0		\$0	\$440
G. Monitoring Cost	person-days	350	2	\$700			\$0		\$0	\$700
H. Totals				\$49,640			\$0		\$0	\$49,640

PART VII - APPROVALS

1. _____
Forest Supervisor

Date

2. _____
Regional Forester (signature)

Date

