USDA-FOREST SERVICE FS-2500-8
(7/00)

Date of Report:
July 12, 2005

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[X] 1. Funding request for estimated WFSU-SULT funds
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

[X] 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 DESCRIPTION

A. Fire Name: Three Fire Complex

B. Fire Number: AZ-TNF-105

C. State: AZ

D. County: Maricopa/Gila Counties

E. Region: 3

F. Forest: Tonto

G. District: Tonto Basin Ranger District

H. Date Fire Started: 6/21/2005

I. Date Fire Contained: 6/29/2005

J. Suppression Cost: $1,808,251

K. Fire Suppression Damages Repaired with Suppression Funds: None – no firelines were constructed on this fire.

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

L. Watershed Number: Low Salt River-Apach Canyon-Saguaro Lake (1506010601), Tonto Ck-Theodore Roosevelt Lk. (1506010505)

M. Total Acres Burned: 19,097
NFS Acres(19,097) Other Federal ( ) State ( ) Private ( )

N. Vegetation Types: Chaparral 80%, Sonoran Desert 15% (Paloverde/Saguaro), Ponderosa Pine/Arizona Oak 5%.

O. Dominant Soils: 70% GES MU486 L. Ustochrepts, LSM 4-U. Ustochrepts, LMS 5 30% GES MU303 L. Torriorthents. LSM 2-T. Ustochrepts, LSM 4

P. Geologic Types: Pre-Cambrian granite on 80% of the burn with smaller amounts of dacite, schist, and granite geneiss.

Q. Miles of Stream Channels by Order or Class: Perennial - 0 miles, Intermittant - 94 miles

R. Transportation System

Trails: 2.55 miles Roads: 22 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 12,124 (low) 4,572 (moderate) 201 (high) 2,099 (unburned)

B. Water-Repellent Soil (acres): 3,630

C. Soil Erosion Hazard Rating (acres):
___ (low) 12,596 (moderate) 6,500 (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 Emergency:

Background: The Three Fire Complex started on June 21, 2005 burning 19,097 acres on Forest Service lands. The fire was contained on June 29, 2005. The Cave Creek Complex Fire also started on June 21, 2005. This fire burned over 200,000 acres and the values at risk were greater. The Cave Creek Complex BAER efforts took presitance over the Three Fire Complex. During the Cave Creek BAER Assessment, team members also assessed the Three Fire Complex. The Three Fire Complex included the Four Fire which burned 3,262 acres entirely in the Four Peaks Wilderness, of which 79% was low burn severity. No values are at risk and no treatments are proposed on the Four Fire.

Threats to Human Life Proprty:

- There is a risk to travelers on several Forest Service Roads in the burned area: 143, 445, 647, and 429 – this road provide access to trail heads, Three Bar Cabin (Department of Game and Fish administrative cabin), and various trails in the fire area. FSRs 143, 445, and 429 are heavily used; FSR 647 is mostly used for administrative access.

- Numerous locations on the road system are at risk of loss of function from flooding, rockfall, culvert failure and road prism degradation.

Threats to Natural Resources:

- Trails: approximately 2.5 miles of trail were moderately burned within the fire area (Chilicut Trail #132 including the Rock Creek Trailhead, and Big Oak Flat Trail #123). These trails are at risk of rock fall, flash floods, and trail tread degradation. In addition all vegetation was burned around the Rock Creek Trailhead allowing access to OHVs. There is a risk of OHV incursion, causing accelerated erosion and preventing native vegetation recovery.

Threats to Ecosystem Function:

- Weeds: (known population of malta starthistle along Hwy 188) – Existing roads, campgrounds and trailheads were used in the fire suppression efforts. Although no dozer lines or staging areas were constructed, all resources entering the fire area traveled through known populations of malta starthistle along Arizona State Highway 188. There is a strong liklihood of this occurance due to the lack of equipment cleaning prior to entering the fire area.

B. Emergency Treatment Objectives:

1. Prevent loss of life and risk to human safety
2. Reduce the threat to property on Forest roads and trails.
3. Reduce risk of degradation of significant natural resources.

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

Land **85** % Channel ___ % Roads **80** % Other ___ %

D. Probability of Treatment Success

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

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

F. Cost of Selected Alternative (Including Loss):

G. Skills Represented on Burned-Area Survey Team:

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

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I. Treatment Narrative:

The following are proposed emergency treatments for the Three Fire Complex Fire. These treatments were devloped based on BAER objectives and team recommendations of proven, effective treatments.

Land Treatments

1. *Install Gates*

Objecive
To mitigate the threat to life.

Method
Install gates to close roads to public use during periods of high risk, such as monsoon and winter storms.

2. *Noxious Weed Detection/Removal* – noxious weed assessment is proposed to determine if noxious weeds will occur in the fire area.

   Objective
   To prevent the introduction and spread of malta starthistle in the fire area.

   Method
   Survey existing roads (in the spring following the fire) for malta starthistle, pull any small infestations.

Roads and Trail Treatments

1. Clean Culverts and leadoff ditches

Objectives
Maintain clear passage of water and debris during storm events.

Methods
Clear culverts, basins and leadoff ditches prior to and after runoff producing storm events with a backhoe.

2. Grade/Shape and re-cut ditches

Objective
Maintain clear passage of water and debris during storm events

Methods
Clear ditches with a grader

3. Culvert replacement – 1 on Forest Road 445

Objective
Facilitate passage of storm water and debris. The fire created conditions that exceed the capacity of existing culvert.

Method
Dig out old culvert, place new culvert and recompact the road prism, following established engineering procedures for the Tonto N.F.

4. Trails; enhance and construct erosion control features

Objective
Provide for trail tread stability and reduce influence of trail system on post-fire accelerated runoff.

Methods
Construct water bars, tread retainers and clean out existing water bars on system trails using the District Trail Crew.

Protection and Safety

1. OHV Barrier

Objective

To prevent excelerated erosion and loss of natural vegetation recovery by blocking access to OHV traffic in the unmotorized portion of the burned area.

Method

At the Rock Creek trailhead install rock barriers, avaliable from a nearby rock source, using the Tonto Basin Trail Crew.

J. Monitoring Narrative: - none

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										
Noxious Weed Detection/Removal	day	350	3	$1,050	$0		$0		$0	$1,050
Subtotal Land Treatments				$16,550	$0		$0		$0	$16,550
B. Channel Treatments										
NONE				$0	$0		$0		$0	$0
Subtotal Channel Treat.				$0	$0		$0		$0	$0
C. Road and Trails										
Road Erosion Control Work	mi	1660	22	$36,520	$0		$0		$0	$36,520
Culvert Replacement	ea	4000	2	$8,000	$0		$0		$0	$8,000
Trail erosion control work	mi	2000	2.5	$5,000	$0		$0		$0	$5,000
Subtotal Road & Trails				$49,520	$0		$0		$0	$49,520
D. Protection & Safety										
OHV Barrier	ea	3000	1	$3,000	$0		$0		$0	$3,000
Install Gates	ea	3100	5	$15,500	$0		$0		$0	$15,500
Subtotal Structures				$18,500	$0		$0		$0	$3,000
E. BAER Evaluation										
Assessment Team				$0	$0		$0		$0	$2,272
Subtotal Evaluation				$0	$0		$0		$0	$2,272
F. Monitoring										
NONE				$0	$0		$0		$0	$0
Subtotal Monitoring				$0	$0		$0		$0	$0
G. Totals				**$69,070**	**$0**		**$0**		**$0**	**$71,342**

PART VII - APPROVALS

1. _Thomas J. Klabunde for:__ _7/15/2005
Forest Supervisor (signature) Date

2. _/s/ Lucia M. Turner_____ _7/15/2005__
Regional Forester (signature) Date