USDA-FOREST SERVICE FS-2500-8 (5/00)

Date of Report: 2/5/05

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[ ] 1. Funding request for estimated WFSU-FW22 funds
[X] 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 and design analysis
[ ]Status of accomplishments to date

[X] 3. Final report - following completion of work

PART II - BURNED-AREA DESCRIPTION

A. Fire Name: Picture Fire

B. Fire Number: AZ-TNF-097

C. State: Arizona

D. County: Gila

E. Region: 03

F. Forest: Tonto NF

G. District: Pleasant Valley and Tonto Basin

H. Date Fire Started: 6/17/03

I. Date Fire Contained: 06/26/03

J. Suppression Cost: $5,500,000

K. Fire Suppression Damages Repaired with -PF12 Funds
1. Fireline waterbarred (miles): 14
2. Fireline seeded (miles): 14
3. Other (identify):

L. Watershed Number: 1506010504 – 1098 acres, 1506010501 – 11430 acres

M. NFS Acres Burned: 12,335 Total Acres Burned: 12,529
Other ownership type: ( )State ( )BLM (194)PVT ( ) ( )

N. Vegetation Types: Ponderosa Pine/Arizona White Oak (5,613 acres); Pinyon/Juniper/Arizona White Oak (5,620 acres); Alligator Juniper Woodland (767 acres); Alligtor Juniper Savanna (283 acres); Chaparral (246 acres).

O. Dominant Soils:Udic Haplustlafs, LSM, 5,0; Lithic Ustorthents, LSM, 5,0; Udic Haplustalfs, LSM, 4, +1; Lithic Ustorhtents, LSM, 4, +1.

P. Geologic Types: Apache Group (Limestone, Shale, Quartzite) – 92%; Tertiary Sediments (Limestone, Shale, Conglomerate) – 6%; Granite – 2%.

Q. Miles of Stream Channels by Order or Class: 1st Order: 34.6 miles, 2nd Order: 10.2 miles, 3rd Order: 8.6 miles, 4th Order 5.9 miles

R. Transportation System

Trails: _____ miles Roads: 33.9 miles

PART III - WATERSHED CONDITION

A. Fire Intensity (acres): 8,328 (low & unburned); 619 (low to moderate); 2,064 (moderate); 1,247 (moderate to high); 271 (high)

B. Water-Repellent Soil (acres): 2,393

C. Soil Erosion Hazard Rating (acres):
5,819 (low) 5,112 (moderate) 1,598 (high)

D. Erosion Potential: 6.9 tons/acre

E. Sediment Potential: 2220 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period: 5 years

B. Design Chance of Success: 60 percent

C. Equivalent Design Recurrence Interval: 10 years

D. Design Storm Duration: 24 hours

E. Design Storm Magnitude: 4.2 inches

F. Design Flow: 430 cubic feet per second per square mile

G. Estimated Reduction in Infiltration: 20 percent

H. Adjusted Design Flow: 525 cubic feet per second per square mile

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency:

Approximately 30 percent of the fire burned with moderate to high intensity. Private lands within the burned area do not contain structures that would be at risk from flooding. Private lands downstream from the burned area contain structures that would be at low risk of flooding. Ash and runoff from a burned hillslope above a structure on the ZT Ranch (private land within the burned area) may affect this structure but is probably not a

risk to life. Water quality effects to streams within and below the burned area are expected but probably not preventable. Native fish (headwaters chub, Sonoran sucker and Speckled Dace) exist within and below the burned area and may be affected by water quality impacts. The streams draining the burned area are a tributary to Spring Creek. Populations of native fish exist in Spring Creek upstream of the confluence with streams draining the burned area. These populations may serve as a source for repopulating fire impacted streams if populations in these streams are affected by burned area runoff. Two stock tanks (McBride Tank and Headquarters Tank), within the burned area, are potential Chiricahau Leopard Frog habitat (a threatened species) . The watershed above Headquarters tank has not been burned. 30 to 40% of the watershed above McBride Tank burned with moderate intensity burn. Watershed area above the tank is approximately 20 acres. Roads within the burned area are at risk of damage from runoff, sediment and debris washed from severely burned slopes above the roads. Two National Register eligible cultural resource sites are at risk of degradation from runoff, erosion and sediment.

B. Emergency Treatment Objectives:

1. Protect two known National Register eligible cultural resource sites from erosion.
2. Protect potential Chiricahua leopard frog habitat in McBride Tank from sediment and ash.
3. Remove hazards trees from FR 609 and 416 in the burned area.
4. Reduce potential for runoff and sediment to impact a structure on the ZT Ranch.
5. Monitor for spread of noxious weeds within the burned area.
6. Post safety hazard warning signs

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

Land 90 % Channel 90 % Roads 90 % Other 90 %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	75	90	95
Channel	75	90	95
Roads	95	95	95
Other	75	90	95

E. Cost of No-Action (Including Loss): $1,756,600

F. Cost of Selected Alternative (Including Loss): $1,527,000

G. Skills Represented on Burned-Area Survey Team:

[X] Hydrology [X] Soils [X] Geology [X] Range [X] Noxious Weeds
[ ] Forestry [X] Wildlife [ ] Fire Mgmt. [ ] Engineering [ ]
[ ] Contracting [ ] Ecology [ ] Research [X] Archaeology [ ]

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.)

1. Two cultural resource sites in moderately to severely burned areas would be protected by seeding and mulching to prevent erosion. One site would have two to four strawbale check dams installed in gullies below the site to reduce the potential for these gullies to headcut into the site. The watershed above the gullies (which includes the site) would be seeded and mulched to reduce erosion and to reduce runoff into the gully which could trigger further headcutting. The second site would be treated by seeding and mulching only, to reduce erosion potential.
2. McBride Tank is considered potential Chiricahua Leopard Frog Habitat. Watershed area above the tank is approximately 20 acres. About 40% of the watershed burned with moderate intensity. The potential for permanent impairment to ecosystem structure and function exists if the tank fills with ash and sediment from the burned slopes. Proposed treatment is seed the moderately burned areas and to construct 2 – 4 strawbale checkdams in the drainage above the tank to capture sediment and ash before it reaches the tank.
3. Remove trees that pose an immediate hazard to users of the 609 and 416 roads. Administrative closure of these roads is not considered practicable. The 416 Road provides access to private lands, both roads are popular roads during hunting season, and the 609 road provides high clearance vehicle access between Tonto Basin and State Highway 288 via Malicious Gap, and is used by 4 wheel drive enthusiasts. Use level of these roads places them in a moderate risk category. Hazard trees that would be expected to fall onto the roads within the next 6 months would be removed. 12.9 miles of road would be treated.
4. 5 acres of burned slopes above a log cabin on the ZT Ranch private lands would be seeded to reduce potential for runoff and erosion to impact this structure.
5. The main travel route from fire camp and the incident command post was through an area with known noxious weeds. It is possible that noxious weeds were transported to the burned area. Monitoring would be conducted within the burned area to determine if noxious weeds have invaded the burned area.
6. Post warning signs on roads entering the burned area that hazards from rolling rocks, falling limbs and trees, and flash floods exist within the burned area. Six warning signs would be installed.

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.)

Fire camp, Incident command center, the main helibase and travel routes to the fire were located in areas of known noxious weeds. Monitoring will be conducted to assess whether noxious weeds have been transported into and are establishing pioneer populations within the burned area. Dozer lines, helipads and drop points, and system roads within the burned area will be monitored. Approximately 14 miles of dozer line, four helispots, three helicopter drop points along the fire perimeter and three to the northeast of the fire, were created during the fire. Five miles of system roads were used for transportation of crews or as fire line along the fire's perimeter; an additional 8 miles of road within the final perimeter of the fire were used at some point for either fireline or transportation during the fire. These sites will be monitored for spread of noxious weeds. Monitoring will require 6 days time of the Forest noxious weed specialist at a cost of $250 per day.

Treatment Accomplishments

- 16 acres of land were seeded. These include; areas above private land, a stock tank (Mcbride Tank) with potential Chiricahua leopard frog habitat, and two cultural resource sites.
- Straw mulch was spread over two cultural resource sites and straw bale check dams were constructed in drainages leading to the sites
- Straw wattles were placed in the watershed leading to McBride Tank.
- Hazard trees were removed along 10 miles of roads to remain open through the burned area.
- Hazard warning signs were placed on roads leading to the burned area
- Monitoring to detect and remove noxious weeds was conducted.

PART VI - EMERGENCY REHABILITATION TREATMENTS AND SOURCE OF FUNDS BY LAND OWNERSHIP

			NFS Lands			Other Lands		All
Line Items	Units	Unit Cost $	Number of Units	WFSU-SULT $	Other $ --------	Number of Units	Fed $ -------	Total $
A. Land Treatments								
Seeding and wattles	Acres	$185	16	$2960				$2960
mulching	sites	$500	2	$1000				$1000
B. Channel Treatments								
Straw Bale Check Dams	ea	$138	3	$414				$414
C. Roads and Trails								
Hazard Tree Removal	mile	$123	10	$1226				$1226
Safety signs	ea	$180	6	$1080				$1080
Noxious Weed Monitoring	day	$250	6	$1500				$1500
D. Structures								
E. BAER Evaluation								
Assessment	each	$9583	1	$9583				$9583
Infrared imagery	each	$2765	1	$2765				$2765
F. Totals								$20,528

PART VII - APPROVALS

1. /s/ Thomas J Klabunde 2/7/05
   Forest Supervisor (signature) Date

2. _____ _____
   Regional Forester (signature) Date