

**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 DESCRIPTION**

A. Fire Name: Barfoot

B. Fire Number: AZ-CNF-000171

C. State: Arizona

D. County: Cochise

E. Region: 3

F. Forest: Coronado

G. District: Douglas

H. Date Fire Started: July 17, 2005

I. Date Fire Contained: August 3, 2005

J. Suppression Cost: Approx \$500K

- K. Fire Suppression Damages Repaired with Suppression Funds  
    1. Fireline waterbarred (miles): 1  
    2. Fireline seeded (miles): 0  
    3. Other (identify):

L. Watershed Number: 1505020100 (Wilcox Playa)

M. Total Acres Burned: 1714  
    NFS Acres(1714 )   Other Federal ( )   State ( )   Private ( )

N. Vegetation Types: Emory oak/Juniper woodlands, Douglas fir/Ponderosa pine and Chihuahua pine

O. Dominant Soils: Lithic Ustochrepts, Typic Ustochrepts, Typic Dystrochrepts, with many areas of rock outcrop. (from the General Ecosystem Survey, Coronado N. F, Map Units 475, and 476.)

P. Geologic Types: Rhyolite Tuff and Flows

Q. Miles of Stream Channels by Order or Class: 2.5 miles of first order and 2.5 miles of second order

R. Transportation System

Trails: 5 miles      Roads: 0 miles

### **PART III - WATERSHED CONDITION**

A. Burn Severity (acres): 1529 (low & unburned) 185 (moderate) 0 (high)

B. Water-Repellent Soil (acres): 0

C. Soil Erosion Hazard Rating (acres):  
           (low) 127 (moderate) 1587 (high)

D. Erosion Potential: 5.2 tons/acre/year

E. Sediment Potential:        cubic yards / square mile / year

### **PART IV - HYDROLOGIC DESIGN FACTORS**

A. Estimated Vegetative Recovery Period, (years): 2-10

B. Design Chance of Success, (percent): n/a

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

D. Design Storm Duration, (hours): 1

E. Design Storm Magnitude, (inches): 2.45

F. Design Flow, (cubic feet / second/ square mile): 158

G. Estimated Reduction in Infiltration, (percent): 15

H. Adjusted Design Flow, (cfs per square mile): 186

### **PART V - SUMMARY OF ANALYSIS**

A. Describe Watershed Emergency:

The Barfoot Fire burned within the northern portion of the Chiricahua Mountains in the southeastern corner of Arizona. The fire was started by lightning and burned portions of 5 named canyons, including Rock Canyon, Green Canyon, Hoovey Canyon, Pine Canyon and Rattlesnake Canyon. The fire also burned approximately 1% of the Chiricahua Wilderness (1196 acres). The elevations of the fire ranged from 6,400 to 7,900 feet. The vegetation ranged from chaparral and oak woodlands on south facing slopes to ponderosa pines on north facing slopes and canyon bottoms. The fire area drains north-west through several ephemeral drainages. There are no perennial streams within the fire. The fire drains off of the forest toward the west to the Sulphur Springs Valley, which is approximately 20 miles away.

Burn severity was completed by a helicopter flight, visually looking at the fire from roads and trails, and field investigations (ground truthing). Approximately 1529 acres within the fire boundary did not burn or had low burn severity. Approximately 185 acres burned with moderate burn severity. Areas with low severity burned under the trees and shrubs but did not burn the canopy. Areas with moderate severity burned hot enough that the tree and shrub canopy was turned brown or consumed. Grasses in the understory had the canopy burned but the base of the grass plant remained. The grasses should survive and grow again when the summer monsoons start. The soils were not hydrophobic (non-wettable).

The most significant value at risk is the Pine Canyon Camp located in Pine Canyon. 20% of the watershed above the camp was burned and 19% was low burn severity. The 1% (43 acres) which was moderate burn severity was located in steep terrain near the top of the watershed approximately 2 miles away. An unnamed tributary to Pine Canyon confluences at the camp and originates from the west in Section 25. The top 17% of this tributary was burned and all of it was at low severity.

Overall, the fire area was not very large and the watersheds were not burned severely. The increase in flood potential to any of the values at risk due to the fire is very low. Locally, the Barfoot Fire has the potential to cause environmental effects such as flooding, soil erosion and deposition, and changes in stream structure. Due to the loss of vegetative ground cover there will be an increased risk of flash flooding from the fire for the next few years.

At this time no prescriptions to prevent erosion or flooding following the Barfoot Fire are proposed.

B. Emergency Treatment Objectives:

N/A

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

N/A

D. Probability of Treatment Success

|         | Years after Treatment |     |     |
|---------|-----------------------|-----|-----|
|         | 1                     | 3   | 5   |
| Land    | N/A                   | N/A | N/A |
|         |                       |     |     |
| Channel | N/A                   | N/A | N/A |
|         |                       |     |     |
| Roads   | N/A                   | N/A | N/A |
|         |                       |     |     |
| Other   |                       |     |     |
|         |                       |     |     |

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

F. Cost of Selected Alternative (Including Loss):

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: \_\_ Salek Shafiqullah

Email: sshafiqullah@fs.fed.us Phone: (520) 388-8377

FAX: (520) 388-8305

**Team Members:**

Salek Shafiqullah, Hydrologist  
Mike Natharius, Soil Scientist  
Gary Helbing, Wildlife  
Marcello Martinez, Range  
Mark Willis, Range  
Bill Gillespie, Archeology/Heritage  
Ruben Morales, Fire Management

**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:

No land treatments are proposed. Most of the grasses that burned within the fire had the canopy removed but the base of the plants remained. The fire probably did not burn hot enough to kill the plants. The grasses should start to regrow as soon as the area receives moisture from the summer monsoons. The vegetative ground cover from the grasses should recover within 1-3 years. The oaks within the fire should start to have sprouts and regrow within 1 year and they should start to provide a litter layer from leaf cast within 3 to 6 years. Seeding is not recommended.

Channel Treatments:

No channel treatments are proposed due to the steep rocky nature of the channel network, and the flashy hydrologic response of the watersheds.

Roads and Trail Treatments:

No road and trail treatments are proposed. No roads are within the fire perimeter and most of the fire area is within a wilderness.

Structures:

No structures are proposed.

**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.)

No formal BAER monitoring is proposed. However, monitoring in this area continues to be done by the District as part of the Forest Plan and/or Range Allotment monitoring.

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

| Line Items                        | Units | Unit Cost | NFS Lands  |              | Other \$       |  | Other Lands   |               | All Total \$   |
|-----------------------------------|-------|-----------|------------|--------------|----------------|--|---------------|---------------|----------------|
|                                   |       |           | # of Units | WFSU SULT \$ |                |  | # of units \$ | # of Units \$ |                |
| <b>A. Land Treatments</b>         |       |           |            |              |                |  |               |               |                |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
|                                   |       |           |            | \$0          |                |  | \$0           |               |                |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
| <i>Subtotal Land Treatments</i>   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
| <b>B. Channel Treatments</b>      |       |           |            |              |                |  |               |               |                |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
| <i>Subtotal Channel Treat.</i>    |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
| <b>C. Road and Trails</b>         |       |           |            |              |                |  |               |               |                |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
| <i>Subtotal Road &amp; Trails</i> |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
| <b>D. Structures</b>              |       |           |            |              |                |  |               |               |                |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
| <i>Subtotal Structures</i>        |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
| <b>E. BAER Evaluation</b>         |       |           |            |              |                |  |               |               |                |
| <b>Team</b>                       |       |           |            | \$0          | \$3,000        |  | \$0           | \$0           | \$3,000        |
|                                   |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
|                                   |       |           |            | \$0          |                |  |               |               | \$0            |
|                                   |       |           |            | \$0          |                |  |               |               | \$0            |
|                                   |       |           |            | \$0          |                |  |               |               | \$0            |
| <b>F. Monitoring</b>              |       |           |            | \$0          |                |  | \$0           | \$0           | \$0            |
| <b>G. Totals</b>                  |       |           |            | <b>\$0</b>   | <b>\$3,000</b> |  | <b>\$0</b>    | <b>\$0</b>    | <b>\$3,000</b> |

**PART VII - APPROVALS**

1. \_\_\_\_\_  
Forest Supervisor (signature)

\_\_\_\_\_  
Date

2. \_\_\_\_\_  
Regional Forester (signature)

\_\_\_\_\_  
Date