

Date of Report: July 19<sup>th</sup>, 2006

**BURNED-AREA REPORT – Interim #1**  
(Reference FSH 2509.13)

**PART I - TYPE OF REQUEST**

A. Type of Report

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

B. Type of Action

- ☐ 1. Initial Request (Best estimate of funds needed to complete eligible stabilization measures)
- ☒ 2. Interim Report # 1
  - ☐ 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: Beaverhead
- B. Fire Number: AZ-ASF-060304
- C. State: Arizona
- D. County: Greenlee
- E. Region: 03 Southwestern Region
- F. Forest: 01 Apache-Sitgreaves National Forest
- G. District: 030101 Alpine
- H. Fire Incident Job Code: P3CQJ6
- I. Date Fire Started: June 15, 2006
- J. Date Fire Contained: 6/26/06
- K. Suppression Cost: \$800,000
- L. Fire Suppression Damages Repaired with Suppression Funds
  - 1. Fireline waterbarred and seeded (miles): 4.0 miles dozer line
  - 2. Fireline seeded and waterbarred (miles): Miles of hand lines: 2.2
  - 3. Other (identify):
- M. Watershed Number: HUC 1506010101 Upper Black River
- N. Total Acres Burned: 1497 ac  
NFS Acres (1497)    Other Federal ( )    State ( )    Private ( )
- O. Vegetation Types: Ponderosa Pine, and Mixed Conifer, Meadows, and Riparian corridors
- P. Dominant Soils: ASNF TES 537 (Mollic Eutroboralfs / Typic Argiborolls both clayey-skeletal)  
538 (Mollic Eutroboralfs / Lithic Argiborolls both clayey-skeletal)  
672 & 574 (Eutric Glossoboralfs loamy-skeletal and clayey-skeletal)

Q. Geologic Types: Quaternary volcanics: basaltic cinders and lava flows

R. Miles of Stream Channels by Order or Class:

Beaver Creek within or adjacent of fire parameter:

1<sup>st</sup> order: 3.6 river miles

2<sup>nd</sup> order: 1.4 river miles

3<sup>rd</sup> order: 1.3 river miles

Hannagan Creek within or adjacent of fire parameter:

3<sup>rd</sup> order: 1.6 river miles

S. Transportation System

Trails: 0 miles

Roads: 10.5 miles

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

A. Burn Severity (acres): 1435 (low), 32 (moderate), 30 (high)

B. Water-Repellent Soil (acres): 10 ac along ridgetop

C. Soil Erosion Hazard Rating (acres):

673 (low) 436 (moderate) 388 (high)

D. Erosion Potential: 2 - 72 tons/acre

E. Sediment Potential: 1280 – 46k cubic yards / square mile (assume approx 1 ton = 1 yd<sup>3</sup>)

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

A. Estimated Vegetative Recovery Period, (years): 2-3

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

C. Equivalent Design Recurrence Interval, (years): 10

D. Design Storm Duration, (hours): 6

E. Design Storm Magnitude, (inches): 25 year, 1 hour storm (2 inches / hr.)

F. Design Flow, (cubic feet / second/ square mile): see appendix 130

G. Estimated Reduction in Infiltration, (percent): 30%

H. Adjusted Design Flow, (cfs per square mile): see appendix 162

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

6/23/06 Baer Team Field Inspection

Tom Subirge (Leader), Donna Reed, Mike Hill, Bill Wall, Jim Copeland, Linda WhiteTrifaro

### **A. Describe Critical Values/Resources and Threats considered for Interim Report #1:**

- 1) The burn and especially staging and burnout areas and the hand/dozer lines, are susceptible to invasion of noxious weeds locally and from out-of-state crews (Oregon and California) whose equipment had no pre entry undercarriage wash.
- 2) Approximately three-quarters mile of Forest Road 564 is susceptible to high flows from the above/adjacent steep (35%) slope that burned severely. The road will concentrate flows coming off this slope and in its current condition cannot handle these flows without likely blowing out. (Even though this slope is rocky, the amount of runoff and sediment will increase substantially over pre burn conditions.)
- 3) No unacceptable threats to water quality or riparian functions are predicted, although Hannagan and Beaver Creeks will be monitored by the District.
- 3) No critical threats to life or safety are expected, although the District will monitor people use areas (roads, fencelines, camping sites, etc.)

### **B. Emergency Treatment Objectives:**

- 1) Land -- Minimize establishment of noxious weeds
- 2) Roads -- Retain Forest Road 564 integrity/useability

### **C. Probability of Completing Treatment Prior to Damaging Storm or Event:**

Land NA\* % Roads/~~Trails~~ 75 % Channel N/A % Protection/Safety NA %

\* detection and removal of noxious weeds not necessary before storm event (monsoons)

### **D. Probability of Treatment Success**

	Years after Treatment		
	1	3	5
Land (nox. weeds)	85%	95% (Yr 2)	95%
Roads	90%	85%	80%
Channels	--	--	--
Protection/Safety	--	--	--

E. Cost of No-Action (Including Loss): \$50,000

F. Cost of Selected Alternative (Including Loss): \$20,000

### **G. Skills Represented on Burned-Area Survey Team:**

<input checked="" type="checkbox"/> Hydrology	<input checked="" type="checkbox"/> Soils	<input checked="" type="checkbox"/> Geology	<input checked="" 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 checked="" type="checkbox"/> Ecology	<input checked="" type="checkbox"/> Botany	<input type="checkbox"/> Archaeology	<input type="checkbox"/>
<input checked="" type="checkbox"/> Fisheries	<input type="checkbox"/> Research	<input type="checkbox"/> Landscape Arch	<input checked="" type="checkbox"/> GIS	

Tom Subirge: ASNF SO Forest Riparian Prog Mgr / soils / geology / watershed specialist  
Dustin Walters: ASNF SO Hydrologist / watershed / GIS  
Mitchel White: ASNF SO Forest Ecologist / forest reference for fire and restocking livestock  
Linda WhiteTrifaro: Alpine District Biologist / wildlife / seeding  
Bill Wall: Alpine District Fisheries Biologist / Fire Incident Resource Advisor  
Donna Reed: Alpine District Range Staff / livestock grazing mgt  
Mike Hill: Alpine District Range Tech / noxious weeds /range developments  
Georgia Morris: Apine District GIS

Team Leader: Tom Subirge - Apache-Sitgreaves NFs

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## H. Treatment Narrative:

### 1. Land Treatment:

**Noxious weed detection and treatment:** Survey for noxious weeds along the 4 miles of dozer line, the 2.2 miles of hand line, and in staging and burnout areas. Survey during fall 2006 and spring/summer 2007. Remove noxious weed plants as soon as identified and before seed heads are produced. Removal is primarily by hand grubbing with removal of reproductive parts off site for proper disposal. Hand spraying of herbicides may also be needed (utilized provided that the Forest noxious weed EA and decision are completed).

### 2. Road (only) Treatment:

**Waterbar and drainage structures:** Install waterbars and drainage ditches frequently as needed along FR 564 to handle increased flows from the immediate steep slope above the road which was severely burned. See Appendix 1 and 2 for details, and Appendix 3 for additional photos.

### 3. Channel Treatments: None.

4. Protection/Safety Treatments: None. [Note: Navopache Electric Coop is falling burned trees along their powerline from where the fire started; they will also waterbar down the ridgetop once felling is completed.]

## I. Monitoring Narrative:

- A) Inspection of FR 564 will take place fall 2006 and and spring/summer 2007 to determine if waterbars and drainage structures are effective in diverting runoff before flows concentrate enough to damage the road surface/bed.
- B) Other-- Authorization of Livestock Grazing post fire. *This monitoring to be conducted by District personnel and is not included in the request for funds under BAER at this time.*

This fire burned on the Foote Creek C&H Allotment (summer portion). The Fire Severity Map for the Beaverhead Fire records that the majority of acres burned were of low severity. The North Thomas Pasture and East Thomas Pasture also had a few areas of moderate severity, while the West Thomas Pasture had one area of about 25 acres that received high severity and one area of moderate severity. Ground cover photo monitoring sites (GPS'd) have been established (see the following map).

Field inspections will be conducted to evaluate re-establishment of vegetative ground cover and sufficient grass forage production to justify re-entry of livestock into burned areas. It is anticipated that livestock will need to be restrained from the burned area for at least 2 years, to provide for and sustain sufficient recovery. Approximate standards for re-entry are included in the initial BAER funding request.

# Part VI – Emergency Stabilization Treatments and Source of Funds

Interim #1

Line Items	Units	Unit Cost	NFS Lands		Other \$	Other Lands				All Total \$
			# of Units	BAER \$		# of units	Fed \$	# of Units	Non Fed \$	
<b>A. Land Treatments</b>										
Nox weed detect/trt	acre	50	36	\$1,800	\$0		\$0		\$0	\$1,800
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Land Treatments</i>				\$1,800	\$0		\$0		\$0	\$1,800
<b>B. Channel Treatments</b>										
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Channel Treat.</i>				\$0	\$0		\$0		\$0	\$0
<b>C. Road and Trails</b>										
road drainage	mile	2400	0.75	\$1,800	\$0		\$0		\$0	\$1,800
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Road &amp; Trails</i>				\$1,800	\$0		\$0		\$0	\$1,800
<b>D. Protection/Safety</b>										
				\$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
<i>Subtotal Structures</i>				\$0	\$0		\$0		\$0	\$0
<b>E. BAER Evaluation</b>										
assessment	days	290	17	---	\$4,930		\$0		\$0	\$4,930
<i>Insert new items above this line!</i>				---	\$0		\$0		\$0	\$0
<i>Subtotal Evaluation</i>				---	\$4,930		\$0		\$0	\$4,930
<b>F. Monitoring</b>										
Drainage effect.	days	300	4	\$1,200	\$0		\$0		\$0	\$1,200
Livestock reentry	days	300	4		\$1,200		\$0		\$0	\$1,200
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Monitoring</i>				\$1,200	\$1,200		\$0		\$0	\$2,400
<b>G. Totals</b>				\$4,800	\$6,130		\$0		\$0	\$10,930
Previously approved										
Total for this request				\$4,800						

## PART VII - APPROVALS

1. /s/ Elaine J. Zieroth  
Forest Supervisor (signature)

7/26/2006  
Date

2. /s/ Abel M Camarena  
Regional Forester (signature)

7/27/2006  
Date

# APPENDICES

**See separate Appendices Interim #1 document**

**Which contains the Watershed Technical Report, Burn Severity Map, Culvert Location Map, Literature Cited, Watershed Data, and Photos**