

Date of Report: 7/5/06

BURNED-AREA REPORT
(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 **# 2**
 - ☐ 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: Bear Fire
- B. Fire Number: NM-GNF-000088
- C. State: New Mexico
- D. County: Catron
- E. Region: 3
- F. Forest: Gila NF
- G. District: D4, D5, D6
- H. Fire Incident Job Code: P3CQ3X
- I. Date Fire Started: 6/19/2006
- J. Date Fire Contained: 7/4/06
- K. Suppression Cost: \$7,000,000 estimated
- L. Fire Suppression Damages Repaired with Suppression Funds
 - 1. Fireline waterbarred (miles): 18
 - 2. Fireline seeded (miles): 18
 - 3. Other (identify):
- M. Watershed Number: 15040001030, 15040004060, 15040004040
- N. Total Acres Burned: 51,307
NFS Acres(51,302) Other Federal () State () Private (5)
- O. Vegetation Types: Mixed Conifer, Ponderosa Pine, Pine Grassland
- P. Dominant Soils: Pachic udic haplaborols, Typic Argiustolls, Pachic Argiustolls
- Q. Geologic Types: Basalt, Rhyolite, Gila Conglomerate

1. Several residences on private lands along Willow Creek are threatened by runoff, sediment, and debris from severely burned slopes on NFS lands above the residences.
2. Snow Lake is a popular recreational reservoir at the margin of the burned area that supports a sport fishery. The lake is listed as an impaired water on the State's 303D list due to violations of the temperature standard. Watershed area above the lake is approximately 90 square miles. Burned area within the watershed is approximately 37 square miles (40% of the watershed). Ash

and sediment eroded from the burned area are expected to decrease water quality in an already impaired water body and deposit in the lake. Increases in peak flows and volume of runoff are also expected from the burned area. Floatable debris may clog the emergency spillway, a drop inlet structure protected with a concrete pillar and wire cable trash rack.

3. Three campgrounds occupy areas adjacent to streams draining the burned area. These campgrounds are at risk of flooding from increased peak flows. At-risk campgrounds include: Ben Lilly, Willow Creek, and Gilita Campgrounds
4. The Middle Fork of the Gila River provides habitat for both native and non-native species. The Middle Fork is also identified on the list of impaired waters (303D list) for violation of temperature standards. Non-native species provide a recreational sport fishery. Native species include the federally listed spikedace and loach minnow. Ash and sediment eroding from the burned area are expected to decrease water quality in the Middle Fork of the Gila. Increased peak flows from streams draining the burned area may scour aquatic habitat in some reaches of the Middle Fork while ash and sediment deposits may adversely affect aquatic habitat in other reaches.
5. Gilita Creek, Willow Creek, and Iron Creek provide recreational trout fishing opportunities. Gilita Creek is listed as a special status trout water by the New Mexico Department of Game and Fish. It is also on the 303D list for temperature violations. The upper reach of Iron Creek is identified as a Gila Trout recovery stream. A fish barrier has been constructed and the state plans to renovate the stream in the future so the Gila Trout can be repatriated to the stream. Ash, and sediment eroded from the burned area are expected to degrade water quality in these streams while increased peak flows may scour and degrade the channels. Ash and sediment deposits are also expected to degrade aquatic habitat.
6. The South Fork of Negrito Creek drains from within the burned area. The Creek is listed on the 303D list for violations of the temperature standard. Chiricahua leopard frogs, a federally listed species, are found along this creek.
7. Negrito Creek provides habitat for Loach Minnow approximately 20 miles downstream of the burned area. Ash and sediment eroded from the burned area may degrade aquatic habitat in this creek.
8. Culverts beneath Forest Roads within the burned area are at risk from increased peak flows and from debris jams. Primary roads with at-risk culverts include FR 28 and FR 119.
9. The 157 Trail along Gilita Creek and the 172 Trail into the Gila Wilderness pass through areas of high burn severity. These trails are at risk of accelerated erosion from increased runoff.
10. Much of the Indian Creek watershed burned in the fire. Approximately 35 percent burned with moderate to high severity. This watershed lies within a pasture of the Copper Creek Allotment. Portions of the pasture fence burned in the fire. The loss of portions of the fence will allow livestock to drift into the watershed and impair watershed recovery.
11. Site productivity in severely burned areas has been impaired. Mixed conifer sites are generally deficient in naturally occurring viable seed sources that will sprout following wildfires.
12. Removal of vegetation in moderately and severely burned areas makes these areas more accessible to off road vehicle traffic. Off road vehicle traffic on burned soils can impair watershed recovery and lead to increased erosion.
13. A series of ponds in the private lands at the N Bar Ranch are at risk of increased sedimentation from severely burned slopes above these private lands.
14. Forest Road 28 south of the intersection with the Snow Lake Road passes beneath steep severely burned slopes and is at risk of damage from runoff, sediment and debris from these slopes. Approximately 50 feet of guard rail at the intersection of FR 28 and the Snow Lake Rd has burned up and represents a safety hazard for road users.
15. Hazard trees exist along Forest Roads
16. Noxious weeds may become established within the burned area from suppression operations. Fire suppression equipment came from areas beyond the Gila NF. Wash stations were not required to reduce the potential for spreading noxious weeds into the burned area.

B. Emergency Treatment Objectives:

1. Reduce runoff, sediment and debris hazards above recreation residences.
2. Reduce sediment and ash delivered to Snow Lake and ponds on private lands at N Bar Ranch
3. Reduce water quality impacts to perennial streams supporting sport fisheries and native fish.
4. Protect site productivity.
5. Reduce runoff, sediment and debris impacts to roads, trails and campgrounds within the burned area.
6. Protect treated and recovering areas from livestock and ORV impacts.
7. Prevent the introduction and establishment of noxious weeds into the burned area.
8. Warn road and trail users of safety hazards within the burned area.
9. Protect driver safety on FR 28.
10. Prevent sewage from discharging into Willow and Gilita Creeks.

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

Land 75 % Channel 75 % Roads/Trails 75/50 % Protection/Safety 75 %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	75	85	95
Channel	90	90	90
Roads/Trails	75	85	95
Protection/Safety	90	90	90

E. Cost of No-Action (Including Loss): \$15,394,150

F. Cost of Selected Alternative (Including Loss): \$9,818,600

G. Skills Represented on Burned-Area Survey Team:

☒ Hydrology ☒ Soils ☐ Geology ☐ Range ☒ Recreation
☒ Forestry ☐ Wildlife ☐ Fire Mgmt. ☒ Engineering ☐
☐ Contracting ☐ Ecology ☐ Botany ☒ Archaeology ☒ Fisheries ☐
Research ☐ Landscape Arch ☒ GIS

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H. Treatment Narrative:

Land Treatments:

1. Hand seed and straw mulch approximately 40 acres of severely burned slopes above private lands along Willow Creek.

Purpose: reduce runoff and erosion above private lands (Approved 7/6/06)

2. Hand or machine mulch approximately 50 acres of severely burned slopes above FR 28 South of the intersection with the Snow Lake road.
Purpose: protect FR 28 **(Approved 7/7/06)**
3. Seed 10,400 acres of moderately and severely burned areas with a seed mix consisting of: cereal barley @ 6 seeds per sq ft, June Grass @ 11 seeds per sq ft, Arizona Fescue @ 2 seeds per sq ft, and Mountain Brome @ 6 seeds per sq ft. Cereal barley provides a quick nonpersistent annual ground cover. June Grass and Mountain Brome provide a perennial cool season ground cover. Arizona Fescue provides a high elevation ground cover.
Purpose: reduce runoff, erosion, & sediment yield; protect site productivity. **(Approved 7/7/06)**
4. Install 3 miles of temporary fence above the Indian Spring watershed in the Copper Creek Allotment.
Purpose: to prevent livestock from drifting into the Indian Spring watershed and impairing recovery of watershed condition. Portions of this watershed will be seeded and livestock exclusion is needed to allow recovery of vegetative ground cover. **(Approved 7/7/06)**

Additional treatments proposed in interim #2

5. Detect and remove noxious weeds.
Purpose: Reduce potential for noxious weeds to become established in the burned area where they would impair the stability and function of ecosystems.

Channel Treatments:

1. Remove floatable debris from channels for 0.5 miles above culverts along Level 3 and 4 Roads.
Purpose: Prevent culverts from clogging and protect road system. Reduce potential for road washouts that would increase sediment and debris in streams and lakes within and below the burned area. **(Approved 7/7/06)**

Additional treatments proposed in interim #2

2. Clean out sediment traps above Snow lake. Sediment traps exist in Snow Canyon and School Canyon.
Purpose: to reduce ash, sediment and debris from affecting water quality in Snow Lake, and potentially plugging the emergency outlet spillway.

Roads and Trail Treatments:

1. Replace guard rail at the intersection of FR 28 and the Snow Lake Road.
Purpose: Replace necessary safety feature along FR 28 **(Approved 7/7/06)**

Additional treatments proposed in interim #2

2. Stabilize three miles of trails in moderately and severely burned areas. Trails to be stabilized include approximately 2 miles of the 157 Trail and 1 mile of the 172 Trail.
Purpose: Reduce trail damage and prevent increased erosion and sedimentation.
3. Improve drainage along approximately 8 miles of roads through moderately and severely burned areas. Roads proposed for drainage improvements include: FR 28 – 3.5 miles, FR 119 – 1 mile, FR 153 – 0.5 miles, Gilita Ridge Road – 2 miles, Snow Tank Rd – 0.5 miles, FR 157 – 0.5 miles.
Purpose: to protect road system and reduce sediment and debris discharged into streams and lakes within and below the burned area.
4. Conduct storm inspection/response surveys.
Purpose: to reduce likelihood of road washout and protect the transportation infrastructure.

Protection/Safety Treatments:

1. Install hazard warning signs.

Purpose: To warn road and trail users of hazards created within the burned area (Approved 7/7/06).

2. Pump vault toilets at the Gilita and Willow Creek campgrounds

Purpose: These toilets are within the floodprone area of Gilita and Willow Creeks. Pumping is necessary to prevent raw sewage from discharging to these creeks during flood events. (Approved 7/7/06)

Additional treatments proposed in interim #2

3. Install ORV closure order signs and fund issuance of legal notices informing the public of the ORV closure within the burned area.

Purpose: To prevent impairment of watershed recovery and natural resource damage by ORV use within the burned area.

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.)

1. Pace transects will be completed to record seeding success and mulching success
2. Photo points will be installed to record general watershed recovery.
3. Implementation monitoring will be conducted to ensure treatments were installed properly
4. Effectiveness of ORV closure will be monitored.

Part VI – Emergency Stabilization Treatments and Source of Funds
Interim # 2

Line Items	Units	Unit Cost	NFS Lands		Other \$	Other Lands			All Total \$
			# of Units	BAER \$		# of units	Fed \$	# of Units Non Fed \$	
A. Land Treatments									
seed abv Willow Ck - Apprvd 7/6	acres	125	40	\$5,000	\$0		\$0	\$0	\$5,000
mulch abv Willow Ck - Apprvd 7/6	acres	375	40	\$15,000	\$0		\$0	\$0	\$15,000
mulch abv FR 28 - Apprvd 7/7	acres	400	50	\$20,000	\$0		\$0	\$0	\$20,000
seed svrly burned areas - Apprvd 7/7	acres	40	10400	\$416,000	\$0		\$0	\$0	\$416,000
temporary fence- Apprvd 7/7	miles	3500	3	\$10,500	\$0		\$0	\$0	\$10,500
adjust seeding cost	acres	-15	10400	-\$156,000	\$0		\$0	\$0	-\$156,000
detect/ remove nox weeds	ea	10000	1	\$10,000	\$0		\$0	\$0	\$10,000
<i>Subtotal Land Treatments</i>				\$320,500	\$0		\$0	\$0	\$320,500
B. Channel Treatments									
debris removal- Apprvd 7/7	miles	2000	2.5	\$5,000	\$0		\$0	\$0	\$5,000
clean sediment traps	ea	1000	5	\$5,000	\$0		\$0	\$0	\$5,000
				\$0	\$0		\$0	\$0	\$0
<i>Subtotal Channel Treat.</i>				\$10,000	\$0		\$0	\$0	\$10,000
C. Road and Trails									
replace guard rail- Apprvd 7/7	ft	54	50	\$2,700	\$0		\$0	\$0	\$2,700
road drainage	miles	2000	8	\$16,000	\$0		\$0	\$0	\$16,000
storm inspection/response	day	1500	5	\$7,500	\$0		\$0	\$0	\$7,500
trail stabilization	miles	3200	3	\$9,600	\$0		\$0	\$0	\$9,600
				\$0	\$0		\$0	\$0	\$0
<i>Subtotal Road & Trails</i>				\$35,800	\$0		\$0	\$0	\$35,800
D. Protection/Safety									
pump vault toilets- Apprvd 7/7	ea	250	4	\$1,000	\$0		\$0	\$0	\$1,000
hazard warning signs- Apprvd 7/7	ea	300	20	\$6,000	\$0		\$0	\$0	\$6,000
implement ORV closure order	ea	2500	1	\$2,500	\$0		\$0	\$0	\$2,500
<i>Subtotal Structures</i>				\$9,500	\$0		\$0	\$0	\$9,500
E. BAER Evaluation									
Assessment costs	ea	28000		---	\$28,000		\$0	\$0	\$28,000
				---	\$0		\$0	\$0	\$0
<i>Subtotal Evaluation</i>				---	\$28,000		\$0	\$0	\$28,000
F. Monitoring									
implementation/effectiveness	ea	5,000	1	\$5,000	\$0		\$0	\$0	\$5,000
ORV closure monitoring	day	300	24	\$7,200	\$0		\$0	\$0	\$7,200
				\$0	\$0		\$0	\$0	\$0
<i>Subtotal Monitoring</i>				\$12,200	\$0		\$0	\$0	\$12,200
G. Totals				\$388,000	\$28,000		\$0	\$0	\$416,000
Previously approved				\$481,200					\$481,200
Total for this request				-\$93,200					

PART VII - APPROVALS

1. /s/ Marcia R. Andre
Forest Supervisor (signature)

07/06/06
Date

2. /S/ Abel M. Camarena (for)
Regional Forester (signature)

07/12/06
Date