

Date of Report: 6/1/2007

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 # _____
 ☐ 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: Promontory B. Fire Number: AZ-TNF-000024
C. State: AZ D. County: Gila, Coconino
E. Region: 03 F. Forest : Tonto, Apache-Sitgreaves
G. District: Payson, Black Mesa H. Fire Incident Job Code: P3DE8Y
I. Date Fire Started: 05/13/2007 J. Date Fire Contained: 05/22/2007
K. Suppression Cost: \$4,500,000
L. Fire Suppression Damages Repaired with Suppression Funds
 1. Fireline waterbarred (miles): 11.6
 2. Fireline seeded (miles): 11.6
 3. Other (identify):
M. Watershed Number: 1506010502, 1502001001
N. Total Acres Burned: 4,045
 NFS Acres(4,042) Other Federal () State () Private (3)
O. Vegetation Types: Mixed Conifer, Ponderosa Pine, Riparian Vegetation
P. Dominant Soils: Typic and Lithic Eutroboralfs, Lithic Dystrochrepts, Eutric Glossobralfs, Glossoboric Hapludalfs, Typic Udorthents
Q. Geologic Types: Supai Formation, Coconino Sandstone

R. Miles of Stream Channels by Order or Class: 1st – 10.5; 2nd – 2.6; 3rd – 0.1, perennial – 2.4 miles

S. Transportation System

Trails: 6.3 miles Roads: 17.0 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 3,376 (low) 661 (moderate) 8 (high)

B. Water-Repellent Soil (acres): 669

C. Soil Erosion Hazard Rating (acres):
1,625 (low) 48 (moderate) 2,371 (high)

D. Erosion Potential: 13 tons/acre

E. Sediment Potential: 3,700 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 7

B. Design Chance of Success, (percent): 75

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

D. Design Storm Duration, (hours): 1

E. Design Storm Magnitude, (inches): 2.5

F. Design Flow, (cubic feet / second/ square mile): 190

G. Estimated Reduction in Infiltration, (percent): 80

H. Adjusted Design Flow, (cfs per square mile): 340

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

Threats to human life and safety: The fire burned the headwaters of Christopher Creek. Subdivisions on private lands and the community of Christopher Creek are located immediately downstream of the fire boundary and bordering on Christopher Creek. FEMA floodplain mapping has been completed on these private lands. Homes and other structures are mapped as lying within the limits of the 100 year floodplain. Flood hazards have increased as a result of the fire. The magnitude of the 10 year flood nearly doubles at the upper end of the private lands.

A Forest Service Campground (Christopher Creek Campground) and the R-C Boy Scout Camp border Christopher Creek below the confluence with Hunter Creek. Watershed area is about three times greater at the campground and Boy Scout Camp than at the community of Christopher Creek. Flooding threats are substantially reduced at these sites due to the smaller percentage of the watershed affected by the fire. Peak flows will still be greater than normal at these sites but the magnitude of the increase is less than at locations closer to the burned area. The magnitude of the 10 year flood increases by 25 percent below the confluence with Hunter creek versus a 100 percent increase at the upper end of the private lands closest to the burned area.

Hazardous conditions exist from burned trees, from the potential for rolling rocks, and flash floods along roads, trails, and recreation sites within the burned area. Popular hiking trails include the Highline National Recreation Trail along the base of the Mogollon Rim, The General George Crook National Recreation Trail above the Rim, and the See Canyon and See Spring Trails which follow Christopher Creek from the Highline Trail up to the top of the Mogollon Rim.

Threats to Property: Residences, other buildings, bridges, and culverts exist on tributaries to Christopher Creek and on the mainstem of Christopher Creek below the burned area. These structures are at risk from increased peak flows from the burned area and from floatable debris that could plug culverts and bridges and divert flows out of the channel.

The risk of accelerated erosion of Forest system trails exists within the burned area, especially along those trails (Trail 184 and 185) and portions of trails located adjacent to streams and channels.

Threats of unacceptable degradation to natural or cultural resources: The potential for noxious weeds to become established in the burned area exists from use of fire suppression equipment that may have transported weeds to the fire. Potential for water quality degradation exists from erosion of ash and soil from the burned watershed. Christopher Creek supports both a sport and native fishery. Water quality effects from the fire are likely to affect these populations.

B. Emergency Treatment Objectives:

Remove floatable debris from approximately one mile of the mainstem of Christopher Creek to reduce the likelihood of forming debris jams and to prevent plugging of culverts on private lands below the burned area.

Construct additional erosion control on high vulnerability trails within the burned area to prevent damage to this infrastructure.

Remove hazard trees along roads and recreation sites within the burned area for the protection of the public and remove hazard trees on trails where trail stabilization work will be completed to protect crews implementing the trail work.

Install signs warning the public of potential hazards within the burned area on roads and trails entering the fire perimeter.

Detect and remove noxious weeds potentially introduced into the burned area by suppression equipment.

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

Land 95 % Channel 95 % Roads/Trails 95 % Protection/Safety 95 %

D. Probability of Treatment Success

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

E. Cost of No-Action (Including Loss):\$285,000

F. Cost of Selected Alternative (Including Loss):\$190,000

G. Skills Represented on Burned-Area Survey Team:

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

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.)

Land Treatments:

The Forest weed specialist will inspect areas where weeds may have been introduced to the burned area and remove any infestations that are detected. Inspection will occur in the spring of 2008. Areas to be inspected include dozer lines, safety zones, and roads used by suppression equipment within the burned area.

Channel Treatments:

Floatable debris greater than six inches in diameter that is not firmly embedded in the channel bottom will be removed from the channel to prevent formation of debris dams that could increase flood hazards or plug downstream bridges and culverts. Floatable debris would be removed from the mainstem of Christopher Creek for approximately one mile above the crossing of the creek by the Highline Trail.

Roads and Trail Treatments:

Trail stabilization work will be completed along the See Canyon (Trail 184) and See Springs Trail (Trail 185). Additional water bars and leadout ditches will be constructed at high risk locations (combinationa of moderate to steep slopes and moderate to high burn severity) along approximately 3.5 miles of trail to prevent damage to these system trails. Trees posing a hazard to workers completing the trail stabilization work will also be removed.

Protection/Safety Treatments:

Hazard trees will be removed along FR 289 (approximantely 1/5 mile) that provides access to the Christopher Creek trailhead (See Canyon Trail 184) and from the area adjacent to the Christopher Creek trailhead and parking area.

Signs warning the public of hazards within and below the burned area will also be posted at key locations on roads and trails within and below 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.)

Part VI – Emergency Stabilization Treatments and Source of Funds

Interim #

			NFS Lands				Other Lands			All	
		Unit	# of		Other		# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	BAER \$	\$		# of units	\$	Units	\$	\$
A. Land Treatments											
weed dtctn & rmvl	ea	1500	1	\$1,500	\$0			\$0		\$0	\$1,500
				\$0	\$0			\$0		\$0	\$0
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Land Treatments				\$1,500	\$0			\$0		\$0	\$1,500
B. Channel Treatments											
fltbl debris rmvl	mile	10,000	1	\$10,000	\$0			\$0		\$0	\$10,000
				\$0	\$0			\$0		\$0	\$0
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Channel Treat.				\$10,000	\$0			\$0		\$0	\$10,000
C. Road and Trails											
trail stblztn	mile	\$3,500	3.5	\$12,250	\$0			\$0		\$0	\$12,250
				\$0	\$0			\$0		\$0	\$0
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Road & Trails				\$12,250	\$0			\$0		\$0	\$12,250
D. Protection/Safety											
Hazard trees	mile	\$1,300	0.5	\$650	\$0			\$0		\$0	\$650
warning signs	ea	300	12	\$3,600	\$0			\$0		\$0	\$3,600
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Structures				\$4,250	\$0			\$0		\$0	\$4,250
E. BAER Evaluation											
	ea	\$9,000	1	---	\$9,000			\$0		\$0	\$9,000
Insert new items above this line!				---	\$0			\$0		\$0	\$0
Subtotal Evaluation				---	\$9,000			\$0		\$0	\$9,000
F. Monitoring											
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Monitoring				\$0	\$0			\$0		\$0	\$0
G. Totals				\$28,000	\$9,000			\$0		\$0	\$37,000
Previously approved											
Total for this request				\$28,000							

PART VII - APPROVALS

 1. /s/ Tom Klabunde
 for Forest Supervisor (signature)

6/4/2007
 Date

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

6/5/07
 Date