USDA-FOREST SERVICE FS-2500-8 (6/06)

Date of Report: 10/12/2016

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[x] 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)

[x] 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: Wildcat Fire

B. Fire Number: 2016-AZ-KNF-000394

C. State: Arizona

D. County: Coconino

E. Region: 3

F. Forest: Kaibab

G. District: 3

H. Fire Incident Job Code: P3KAK7

I. Date Fire Started: 06/13/2016

J. Date Fire Contained: out on 08/01/16 – no containment

K. Suppression Cost: $2,211,088

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 6.9 miles
2. Fireline seeded (miles): 0
3. Other (identify): N/A

M. Watershed Number: South Canyon (150100010406).

N. Total Acres Burned: 1,507 ac.
NFS Acres (1,506) Other Federal ( ) State ( ) Private ( )

O. Vegetation Types: pinyon pine and oneseed juniper (1488 ac.), ponderosa pine and pinyon pine (19 ac.)

P. Dominant Soils: Lithic Ustochrepts (1,222); Fluventic Ustochrepts, (263 ac.); Mollic Eutroboralfs (19 ac.), Typic Haplustalfs (4 ac.)

Q. Geologic Types: Quaternary surficial deposits (877 ac.) 4, permian sedimentary rocks of the Kaibab and Toroweap formationa (630 ac.)

R. Miles of Stream Channels by Order or Class: 3.84 miles of 1st order streams and 3.49 miles of 2nd order streams.

S. Transportation System

Trails: 0.53 miles Roads: 3.7 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 280 (very low/unburned) 935 (low) 141 (moderate) 151 (high)

B. Water-Repellent Soil (acres): 292

C. Soil Erosion Hazard Rating (acres):
0 (slight) 1351 (moderate) 157 (severe)

D. Erosion Potential: 12.1 tons/acre

E. Sediment Potential: 1,745 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 5

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

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

D. Design Storm Duration, (hours): 1

E. Design Storm Magnitude, (inches): 0.9

F. Design Flow, (cubic feet / second/ square mile): 4.5

G. Estimated Reduction in Infiltration, (percent): 60

H. Adjusted Design Flow, (cfs per square mile): 22

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

Human Life and Safety
Human life and safety for visitors and forest personnel using Forest Roads 8910 and 211, which are important roads that provide access to the area from House Rock Valley. Forest Road 211 provides access to the South Canyon trailhead. Burned area hazard warning signs are recommended at all entry points to the burned area to warn visitors of hazards from flooding, falling trees, etc.

Cultural Resources

There are approximately 30 potentially eligible archeological sites within the fire perimeter that are now at risk of damage and loss from looting/collecting because they are now easily accessible and visible without the vegetation to obscure them. Additionally, there is risk to the sites from erosion and feature damage from burned trees breaking down. Access to the area is very easy, given the existence of roads through the middle of the fire and road closures are not practical. The South Canyon trail crosses the area as well. Additionally, a lack of ground cover is creating site stability issues in some locations. Protection of these resources is important for understanding prehistoric and historic context of human habitation and uses of this portion of the forest.

B. Emergency Treatment Objectives:

1. Provide warnings to forest visitors and travelers on roads and trails entering or below burned areas about hazards from the burned area.
2. Protect approximately 30 archaeological sites and one historic site from potential damage or destruction as described above.

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

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

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	90	100	100
Channel	N/A	N/A	N/A
Roads/Trails	N/A	N/A	N/A
Protection/Safety	N/A	N/A	N/A

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

F. Cost of Selected Alternative (Including Loss):

G. Skills Represented on Burned-Area Survey Team:

[ ] Hydrology	[**x**] Soils	[ ] Geology	[ ] Range
[x] Forestry	[ ] Wildlife	[ ] Fire Mgmt.	[ ] Engineering
[ ] Contracting	[ ] Ecology	[ ] Botany	[x] Archaeology
[ ] Fisheries	[ ] Research	[ ] Landscape Arch	[x] GIS

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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:
A crew will stabilize high priority sites by removing dead trees from atop the structures, and using limbs and wood to create small "check dams" to help channel water away from the features. Additionally, loose vegetation (lop and scattering) will be placed around sites closest to the roads, to help hide the sites until vegetation reestablishes.

Cost Estimates:

- ACE Crew 1 session (8 (10 hr. day session) $12400
- FS Archaeologists Supervision (3 archaeologists) $7300
  GS11 3650
  GS9 $2930
  Arch Intern $760

Interim No. 1 Funding Request Narrative:
Additional archaeological sites were identified in the burned area. Some of these sites occur inside the Saddle Mountain Wilderness, while others are outside the Wilderness area. Treatment is recommended to prevent visitors from finding archaeological sites and pilfering artifacts. Aerial seeding is recommended to conceal these sites from potential looters. The area where the Wildcat Fire occurred is very remote and difficult for law enforcement to adequately patrol. Aerial seeding is the preferred treatment method since the Wildcat Fire is 2 miles from the Fuller Fire where aerial seeding is already planned. Consultation with the Regional Heritage Program Manager and the Regional Wilderness program manager indicate this is the preferred method since no ground-disturbing activities would be required to protect archaeological sites from looting. An additional $125,895 is therefore requested for aerial seeding.

Initial Funding Requested:	**$ 19,740**
Requested Additional Funding:	**$125,895**
Total Funding Requested (arch sites):	**$145,635**

Channel Treatments:

N/A

Roads Treatments:
Funding is requested to stabilize Forest Service Road 445 within the fire perimeter. This road approximately bisects the fire from northeast to southwest. The road is subgrade (i.e., below the level of surrounding terrain) and has captured and diverted ephemeral streamflow exposing a water pipeline that that is installed in the road bed. This pipeline delivers water to wildlife drinkers and stock tanks in the House Rock Valley Wildlife Management Area. The work will require a crew of 4 equipment operators for one week and the following machinery: backhoe, small dozer, dump triuck, and front end loader. Road material will be transported from a nearby pit and placed on the portion of the road where the pipeline is now exposed. The material will be placed in a manner that "rolls the grade" of the road surface while providing ptrotective cover for the pipeline. Water lead out ditches will be installed at all water control structures. Approximately 5 to 7 rolling grade dips and assicociated lead out ditches will be installed

Protection/Safety Treatments:

Warning signs are recommended to invorm forest visitors of post-wildfire threats such as falling trees, flooding, road washouts, and debris flows.

I. **Monitoring Narrative:**

Monitoring of seeding treatment effectiveness and for the presence of invasive and noxious weeds will be conducted for the first 2 years following the seeding treatment. If invasive or noxious weeds are detected, they will be treated using either manual treatment methods or through use of approved pesticides (herbicides) in accordance with the Final Environmental Impact Statement for Integrated Treatment of Noxious or Invasive Weeds - Coconino, Kaibab, and Prescott National Forests (2005).

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 $	$	units	$	Units	$	$
A. Land Treatments										
Arch Site Protection	job	$19,740	1	$19,740						
Arch Sites in Wilderness	acres	$109	1155	$125,895			$0		$0	$125,895
Subtotal Land Treat.				$145,635	$0		$0		$0	$125,895
C. Road and Trails										
Road hardening	days	$3,600	5	$18,000	$0		$0		$0	$18,000
Storm Patrol	days	$300	5	$1,500			$0		$0	$1,500
Subtotal Road & Trails				$19,500			$0		$0	$19,500
D. Protection/Safety										
Warning signs	ea.	$300	4	$1,200	$0		$0		$0	$1,200
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Structures				$1,200	$0		$0		$0	$1,200
E. BAER Evaluation										
Person Days	days	$300	4	---	$1,200		$0		$0	$1,200
Insert new items above this line!				---	$0		$0		$0	$0
Subtotal Evaluation				---	$1,200		$0		$0	$1,200
F. Monitoring										
					$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring				$0	$0		$0		$0	$0
G. Totals				$166,335	$1,200		**#REF!**		**#REF!**	**#REF!**
Previously approved										
Total for this request				**$166,335**						

PART VII - APPROVALS

1. _____ _____
Forest Supervisor (signature) Date

2. _____ _____
Regional Forester (signature) Date