Date of Report: 08/28/2011

BURNED-AREA REPORT

(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report					
[X] 1. Funding request for estimated er[] 2. Accomplishment Report[] 3. No Treatment Recommendation	nergency stabilization funds				
B. Type of Action					
[X] 1. Initial Request (Best estimate stabilization measures)	e of funds needed to complete eligible				
[] 2. Interim Report # [] Updating the initial fundin or design analysis [] Status of accomplishments	g request based on more accurate site data				
[] 3. Final Report (Following completion	n of work)				
PART II - BURNED-A	AREA DESCRIPTION				
A. Fire Name: Armstrong	B. Fire Number: AZ-KNF-000806				
C. State: Arizona	D. County: Coconino				
E. Region: 3	F. Forest: Kaibab National Forest				
G. District: 4	H. Fire Incident Job Code: P3GB4D				
. Date Fire Started: 08/20/2011	J. Date Fire Contained: 10/05/2011				
K. Suppression Cost: \$ 267,000					
 Fire Suppression Damages Repaired with Suppression Funds Fireline waterbarred (miles): 0 Fireline seeded (miles): 0 Other (identify): N/A 					
·	d Horse Wash Headwaters) 341 ac per Red Horse Wash) 2,337 ac				
N. Total Acres Burned: 2,678 [X] NFS Acres [] Other Federal	[] State [] Private				
O. Vegetation Types: PIPOS, PIED, QUGA, J	UMO. ARTR2. ATCA2. HECO26. PASM				

- **P. Dominant Soils**: Lithic Ustochrepts, Fluventic Ustochrepts, Typic Eutroboralfs, Cumulic Haploborolls, Lithic Haploborolls
- **Q. Geologic Types**: Gray to tan, cherty limestone of Kaibab and Toroweap Formations, and underlying white to tan, fine-grained Coconino Sandstone. Limestone was deposited in a shallow sea, and sandstone was deposited in near-shore dunes and beach settings. (270-280 Ma)
- **R. Miles of Stream Channels by Order or Class**: 2.94 miles of 1st order ephemeral stream channels, 2.56 miles of 2nd order ephemeral stream channels, and 1.18 miles of 3rd order ephemeral channels.
- S. Transportation System

Trails: 0 miles Roads: 6.97 miles

PART III - WATERSHED CONDITION

- A. Burn Severity (acres): 1,025 (low) 73 (moderate) 5 (high)
- **B.** Water-Repellent Soil (acres): None observed.
- C. Soil Erosion Hazard Rating (acres): 2,547 (low) 85 (moderate) 46 (high)
- D. Erosion Potential: 5.41 tons/acre average
- E. Sediment Potential: 3,462 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years):

N/A

B. Design Chance of Success, (percent):

N/A

C. Equivalent Design Recurrence Interval, (years):

N/A

D. Design Storm Duration, (hours):

N/A

E. Design Storm Magnitude, (inches): N/A

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

G. Estimated Reduction in Infiltration, (percent): N/A

H. Adjusted Design Flow, (cfs per square mile): N/A

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats (narrative):

Values at Risk:

The risk matrix below, Exhibit 2 of Interim Directive No. 2520-2010-1, was used to evaluate the risk level for each value identified during the assessment. Only treatments that had a risk of Intermediate or above are discussed below, but all values at risk are included in the Tables in the Appendix. Additionally more information on the values at risk by watershed that are driving treatments can be found in the appendix.

Probability	Magnitude of Consequences								
of Damage	Major	Minor							
or Loss	RISK								
Very Likely	Very High	Very High	Low						
Likely	Very High	High	Low						
Possible	High	Intermediate	Low						
Unlikely	Intermediate	Low	Very Low						

Wildfire management efforts may have introduced and spread non-native invasive species into the burn area with the potential to impact native plant communities. There are known non-native invasive plants in the area prior to the fire. These include populations of cheatgrass (*Bromus tectorum*) and Russian thistle (*Salsola kali*).

Probablity of Damage or Loss: Likely- based on lack of competing native vegetative ground cover.

Magnitude of Consequence: Major – loss of native plant communities, loss of soil productivity, and degraded watershed condition occur where invasive and noxious weeds populations are found.

Risk Level: High – invasive species detection surveys and treatment of infestations during early summer and fall.

B. Emergency Treatment Objectives (narrative):

Treat small noxious weed areas before they expand within the larger fire area. These populations are generally found along roads, trails, firelines, drop zones, fence rows, and other disturbed areas within the fire perimeter.

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

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

D. Probability of Treatment Success

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

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

If the small noxious weed populations are not treated, they will likely spread throughout the fire affected area. An estimated 21 acres of invasive and noxious weeds could spread throughout adjoining portions of the fire affected area. Treatment costs is \$100/ac.

- **F.** Cost of Selected Alternative (Including Loss): Twenty-one acres of herbicide treatment for cheatgrass and Russian thistle is \$2,100.00. This treatment will prevent the spread of the noxious weeds to the surrounding fire area.
- G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Mike Hannemann/Kit MacDonald

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.)

<u>Land Treatments</u>: Treat 21 acres of cheatgrass and Russian thistle with herbicide from a UTV with qualified applicators. This treatment will prevent spread of these noxious weeds to a large portion of the fire area. Without this treatment the weeds would reduce native species populations, lead to a decline in watershed condition, and adversely affect National Park Service lands.

Channel Treatments: None recommended

Roads and Trail Treatments: None recommended

Protection/Safety Treatments: None recommended

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.)

Monitoring for presence of invasive and noxious weeds during fall of 2011, spring of 2012, and late summer of 2012. Treatment of infestations would occur in spring of 2012 and late summer of 2012 to minimize spread within fire affected areas (\$2,100).

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

Part VI – Emer	gency				is and 5	ource			Interin	
		-	NFS La	nds			Other L			All
		Unit	# of		Other	# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	BAER \$	\$	units	\$	Units	\$	\$
A. Land Treatments										
		100	21	\$2,100	\$0		\$0		\$0	\$2,100
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
Insert new items above this line!				\$0	\$0		\$0		\$0	\$0
Subtotal Land Treatments				\$2,100	\$0		\$0		\$0	\$2,100
B. Channel Treatmen	ts									
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
Insert new items above this line!				\$0	\$0		\$0		\$0	\$0
Subtotal Channel Treat.				\$0	\$0		\$0		\$0	\$0
C. Road and Trails										
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
Insert new items above this line!				\$0	\$0		\$0		\$0	\$0
Subtotal Road & Trails				\$0	\$0		\$0		\$0	\$0
D. Protection/Safety										
-				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
Insert new items above this line!				\$0	\$0		\$0		\$0	\$0
Subtotal Structures				\$0	\$0		\$0		\$0	\$0
E. BAER Evaluation				· ·						·
		450	4		\$1,800		\$0		\$0	\$1,800
Insert new items above this line!					\$0		\$0		\$0	\$0
Subtotal Evaluation					\$1,800		\$0		\$0	\$1,800
F. Monitoring										,
j j		500	4	\$2,000	\$0		\$0		\$0	\$2,000
Insert new items above this line!				\$0	\$0		\$0		\$0	\$0
Subtotal Monitoring				\$2,000	\$0		\$0		\$0	\$2,000
				. ,	¥ -		1		1 1	. ,
G. Totals				\$4,100	\$1,800		\$0		\$0	\$5,900
Previously approved										•
Total for this request				\$4,100						

PART VII - APPROVALS

1.	/s/ Michael R. Williams	_10/14/11_
	Forest Supervisor (signature)	Date
2		
۷.	Regional Forester (signature)	Date