

## BURNED-AREA REPORT

(Reference FSH 2509.13)

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

☒ 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)

A. **Fire Name:** Lower

B. **Fire Number:** AZ-GCP-000138

C. **State:** Arizona

D. **County:** Coconino

E. **Region:** 3

F. **Forest:** Kaibab National Forest

G. **District:** 4

H. **Fire Incident Job Code:** PPGA92

I. **Date Fire Started:** 08/19/2011

J. **Date Fire Contained:** 10/05/2011

K. **Suppression Cost:** \$ 170,000

L. **Fire Suppression Damages Repaired with Suppression Funds**

1. **Fireline waterbarred (miles):** 0

2. **Fireline seeded (miles):** 0

3. **Other (identify):** N/A

M. **Watershed Number:** 150200160904 (Upper Lee Canyon)

N. **Total Acres Burned:** 1,788 (Approximately 1,714 acres on Kaibab National Forest and approximately 74 acres on National Park Service, Grand Canyon National Park)

☒ **NFS Acres**      ☒ **Other Federal**      ☐ **State**      ☐ **Private**

O. **Vegetation Types:** PIPOS, PIED, QUGA, ARTR2, HECO26

**P. Dominant Soils:** Lithic Ustochrepts and Typic Eutroboralfs

**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:** 8.16 miles of 1<sup>st</sup> order ephemeral stream channels, 0.93 miles of 2<sup>nd</sup> order ephemeral stream channels, and 1.23 miles of 3<sup>rd</sup> order ephemeral channels.

**S. Transportation System**

**Trails:** 2.27 miles

**Roads:** 5.92 miles

**PART III - WATERSHED CONDITION**

**A. Burn Severity (acres):** 1,011 (**low**)      197 (**moderate**)      0 (**high**)

**B. Water-Repellent Soil (acres):** None observed.

**C. Soil Erosion Hazard Rating (acres):** 1,362 (**low**)      20 (**moderate**)      330 (**high**)

**D. Erosion Potential:** 2.86 tons/acre average

**E. Sediment Potential:** 537 cubic yards / square mile

**PART IV - HYDROLOGIC DESIGN FACTORS**

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

**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.

<b>Probability of Damage or Loss</b>	<b>Magnitude of Consequences</b>		
	Major	Moderate	Minor
	<b>RISK</b>		
Very Likely	<b>Very High</b>	<b>Very High</b>	<b>Low</b>
Likely	<b>Very High</b>	<b>High</b>	<b>Low</b>
Possible	<b>High</b>	<b>Intermediate</b>	<b>Low</b>
Unlikely	<b>Intermediate</b>	<b>Low</b>	<b>Very Low</b>

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*).

Probability 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 XXX%   Roads/Trails XXX%   Protection/Safety XXX%**

### **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 area. An estimated 20 acres of invasive and noxious weeds could spread to 1,788 acres in the fire area, including Grand Canyon National Park if left untreated. Treatment costs is \$100/ac.

**F. Cost of Selected Alternative (Including Loss):** Twenty acres of herbicide treatment on cheatgrass and Russian thistle is \$2,000.00. This treatment will prevent the spread of the noxious weeds to the surrounding fire area, including Grand Canyon National Park.

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

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

**Team Leader:** Mike Hannemann/Kit MacDonald

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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:** Treat 20 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 (\$2,000).

**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	\$	\$
<b>A. Land Treatments</b>										
	100		20	\$2,000	\$0		\$0		\$0	\$2,000
				\$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>				\$2,000	\$0		\$0		\$0	\$2,000
<b>B. Channel Treatments</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 Channel Treat.</i>				\$0	\$0		\$0		\$0	\$0
<b>C. Road and Trails</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 Road &amp; Trails</i>				\$0	\$0		\$0		\$0	\$0
<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>										
	450		4	---	\$1,800		\$0		\$0	\$1,800
<i>Insert new items above this line!</i>				---	\$0		\$0		\$0	\$0
<i>Subtotal Evaluation</i>				---	\$1,800		\$0		\$0	\$1,800
<b>F. Monitoring</b>										
	500		4	\$2,000	\$0		\$0		\$0	\$2,000
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Monitoring</i>				\$2,000	\$0		\$0		\$0	\$2,000
<b>G. Totals</b>				\$4,000	\$1,800		\$0		\$0	\$5,800
Previously approved										
Total for this request				\$4,000						

**PART VII - APPROVALS**

1. /s/ Michael R. Williams 10/14/2011  
Forest Supervisor (signature) Date
2. /s/ Corbin N. Newman, Jr. 10/21/11  
Regional Forester (signature) Date