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 emergency stabilization funds
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

[X] 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: Beale

B. Fire Number: AZ-KNF-000642

C. State: Arizona

D. County: Coconino

E. Region: 3

F. Forest: Kaibab National Forest

G. District: 1

H. Fire Incident Job Code: P3F7WG

I. Date Fire Started: 07/18/2011

J. Date Fire Contained: 08/26/11

K. Suppression Cost: $ XXXX

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

M. Watershed Number: Upper Spring Valley Wash 150100040201

N. Total Acres Burned:
[X] NFS Acres 5,096 [ ] Other Federal [ ] State [ ] Private

O. Vegetation Types: PIPOS, FEAR, MUMO, ELEL, ABCO, PSMEG

P. **Dominant Soils**: Aquic Haploborolls, Lithic Ustorthents, Mollic Eutroboralfs, Pachic Argiborolls, Typic Argiborolls, Typic Dystrochrepts, Udic Ustochrepts

Q. **Geologic Types**: Holocene to middle Pliocene basaltic rocks.

R. **Miles of Stream Channels by Order or Class**: 8.5 miles of Order 1 ephemeral stream channels, and 3.2 miles of Order 2 ephemeral stream channels

S. **Transportation System**

Trails: 1.24 **miles** **Roads:** 28.57 **miles**

PART III - WATERSHED CONDITION

A. **Burn Severity (acres)**: 4,938 **(low)** 135 **(moderate)** 10 **(high)**

B. **Water-Repellent Soil (acres)**: All high burn severity and 10% of moderate burn severity. Estimate 23 acres.

C. **Soil Erosion Hazard Rating (acres)**: 4,214 **(low)** 464 **(moderate)** 407 **(high)**

D. **Erosion Potential**: 10.09 **tons/acre**

E. **Sediment Potential**: 2,149 **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):

1) Threat of small populations of bull thistle and dalmation toadflax expanding throughout a large portion of the fire area resulting in a reduction of native speices and a decline in watershed condition.

2) A 100 yard section of a historic buried railroad grade caught fire and caused the over-topping road to fail. To the fix the problem, our dozer created a low water crossing at the site. This allowed the road to remain open and water to flow through the ephemeral stream channel. The only issue that remains is that this low water crossing needs a solid road bed of rock/gravel. Without a solid rock base this low water crossing will erode, causing down channel sedimentation. In addition, vehicles will cause rutting and may get stuck in this section of the road.

B. Emergency Treatment Objectives (narrative):

1) Treat existing small noxious weed areas before they move into the larger fire area.

2) Fill the low water crossing with rocks/gravel before the crossing erodes down channel and before we have public vehicle safety issues.

Both treatments will improve watershed condition and prevent additional watershed problems.

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	95	95
Channel	100	100	100
Roads/Trails	100	100	100
Protection/Safety	100	100	100

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

If the small noxious weed populations are not treated, they will likely spread throughout the fire area. Twelve acres of weeds could spread to 2000 acres in the fire area. Treatment costs is $100/ac.

If the low water crossing is not improved with rock/gravel the road will likley wash out and vehicles could be damaged crossing it.

F. Cost of Selected Alternative (Including Loss):

Twelve acres of herbicide treatment on bull thistle and dalmation toadflax is $1,200. This treatment will prevent the spread of the noxious weeds to the surrounding fire area.

Trucking in rock/gravel to the low water crossing from a local source and spreading it will cost $2000. This treatment will significantly reduce erosion and provide for public safety.

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Mike Hannemann/Kit MacDonald/Jason Stevens

Email: mhannemann@fs.fed.us **Phone**: 928-635-8299 **FAX**: 928-635-8208

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 12 acres of bull thistle and dalmation toadflax 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 and a lead to a decline in watershed condition.

Channel Treatments: The new low water crossing needs a solid road bed of rocks/gravel to prevent erosion and down channel sedimentation. This work will also improve public safety by insuring a safe low water crossing and improve watershed condition.

Roads and Trail Treatments: same as Channel Treatment

Protection/Safety Treatments: same as Channel Treatment

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 and spring of 2012. Treatment of infestations would occur in fall of 2011 and spring of 2012 to minimize spread within fire affected areas ($1,600).

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										
		100	12	$1,200	$0		$0		$0	$1,200
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$1,200	$0		$0		$0	$1,200
B. Channel Treatments										
		2000	1	$2,000	$0		$0		$0	$2,000
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Channel Treat.				$2,000	$0		$0		$0	$2,000
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	3	---	$1,350		$0		$0	$1,350
Insert new items above this line!				---	$0		$0		$0	$0
Subtotal Evaluation				---	$1,350		$0		$0	$1,350
F. Monitoring										
		400	4	$1,600	$0		$0		$0	$1,600
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring				$1,600	$0		$0		$0	$1,600
G. Totals				$4,800	$1,350		**$0**		**$0**	**$6,150**
Previously approved										
Total for this request				**$4,800**						

PART VII - APPROVALS

1. Stuart M. Lang (Acting) — Forest Supervisor (signature) — 8/25/11 — Date

2. _____ — Regional Forester (signature) — _____ — Date