Date of Report: 8-20-12

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 #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: **Eightmile and Deer Hollow** B. Fire Number: **ID-STF-000441**

C. State: **Idaho** D. County: **Cassia**

E. Region: **04 - Intermountain** F. Forest: **14 - Sawtooth**

G. District: **01 Minidoka – Black Pine Division** H. Fire Incident Job Code: **P4G5DR**

I. Date Fire Started: **August 5, 2012** J. Date Fire Contained: **October 2012 (est.)**

K. Suppression Cost: **$900,000 (est.) * Fire cost included within larger Minidoka Complex**

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): **24.6 miles total and 24.6 miles**
2. Fireline seeded (miles): **24.6 miles total and 0 miles**
3. Other (identify):

M. Watershed Number(s): (6^{th} level hydrologic units, percent of watershed acres within fire perimeter):

HU Number	HU Name	% in Fire
170402100305	Outlet Clear Creek	0.6
170402100304	Kelsaw Canyon-Clear Creek	12.8
170402100303	Round Mountain Creek-Clear Creek	3.2
160203090401	Duffy Creek	1.3
160203090206	Black Pine Canyon	0.9

N. Total Acres Burned: **5,651**
NFS Acres(**5,651**) Other Federal (**0**) State (**0**) Private (**0**)

O. Vegetation Types: **Vegetation includes Sagebrush/grasslands, Douglas- Fir, and juniper. Douglas-fir are generally confined to north and east exposures at higher elevations. Sagebrush and juniper cover most of the fire area. Thee are also small patches of aspen and mountain mahogany.**

P. Dominant Soils: **The dominant soils represent the limestone properties of the Phosphoria Formation of the Permian system and consist of Argic Calciorthids, Lithic Calciorthids, Calcixerollic Duriatgids, Pachic Argiborolls, and Argic Pachic Cryoborolls. Soils over the foothills and lower elevation valley bottoms are either loams or silt loams and have high productivity, are generally well drained with depths ranging from 6 to 10 inches. Surface soils on the mountain landforms are gravelly loams and also have moderate to high productivity. The surface erosion from overland flow across the area is low to moderate.**

Q. Geologic Types: **The geology of the Black Pine Range is primarily composed of sedimentary and slightly metamorphosed sedimentary rocks, which range in age from Devonian to Permian eras. The rocks are dominantly limestone, dolomite, and quartizitic sandstone that have been extensively deformed by folding, thrust faulting, and high-angle faulting.**

R. Miles of Stream Channels by Order or Class: **Perennial: 2.98 miles Intermittent: 16.68 miles**

S. Transportation System: **Trails: 0 miles Roads: 2.91 miles**

PART III - WATERSHED CONDITION

A. Burn Severity on National Forest Lands (acres): **3,089** (low) **1,606** (moderate) **370** (high)

Burn severity for streams with potential BAER concerns

Streams	Severity (acres and percent within Hydrologic Unit)				
	High	Moderate	Low	Unburned	Total
Kelsaw Canyon-Clear Creek	370.3 (11.2%)	848.5 (25.8%)	1,651 (50.1%)	432.6 (12.9%)	3293.56

B. Water-Repellent Soil (acres): **677**

C. Soil Erosion Hazard Rating (acres):
0 (low) **5,078** (moderate) **370** (high)

D. Erosion Potential: **Forested: 1-3 tons/acre; Non-forest: 11-12 tons/acre**

E. Sediment Potential: **2,200 cubic yards / square mile (forested); 10,700 cubic yards / square mile (non-forested); average = 6,450 cubic yards / square mile)**

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): **2-5**

B. Design Chance of Success, (percent): **75-100**

C. Equivalent Design Recurrence Interval, (years): **5**

D. Design Storm Duration, (hours): **24**

E. Design Storm Magnitude, (inches): **1.67**

F. Design Flow, (cubic feet / second/ square mile): **see table**

G. Estimated Reduction in Infiltration, (percent): **7**

H. Adjusted Design Flow, (cfs per square mile): **see table**

Streams	Design Flow (cfs per square mile)[1]	
	Pre-fire	Post-fire
Kelsaw Canyon-Clear Creek	6.6	15.4

PART V - SUMMARY OF ANALYSIS

Background: A lightning storm started the Deer Hollow (5,440 acres) and Blackpine (211 acres) fires on the Minidoka Ranger District, Black Pine Division on August 5, 2012. Approximately, 5,651 acres burned between August 5 and August 17, 2012. The Deer Hollow fire burned northeast to War Eagle Peak and south to Moberg Canyon where it is burning through the tops of trees in beetle-killed timber with heavy dead and downed trees. Smokejumpers assigned to the Eightmile Fire made good progress and kept the fire from backing out of the timber. A type 1 incident management team, under the guidance of Incident Commander Beth Lund, arrived on August 8. The Eightmile fire was declared 100% contained on August 16, 2012. The Deer Hollow fire was 95% contained as of August 17, 2012.

A. Describe Critical Values/Resources and Threats:

Summary of Issues:

Human Life and Safety

Post-fire watershed conditions threaten the life and safety of visitors using the Kelsaw Road (Forest Service Road No #70589) road. This road occurs in narrow, canyon bottom that can easily trap storm runoff in portion of the road profile. This road also occurs adjacent and downslope of high/moderate severity burned slopes. Normal storm frequencies and magnitudes can now more easily initiate rill and gully erosion on the severely burned, over-steepened slopes. These "minor" events can activate floods in the smaller tributary drainages that intersect this road, putting the safety of users at risk.

Possible Probability of Damage or Loss/Major Consequences – Risk High

Property

Predicted peak flows in Kelsaw Canyon are expected to see large increases based on the five year recurrence interval. The Kelsaw road (Forest Service Road No #70589) is susceptible to intense summer thunderstorms due to the severity of burned acres and the lack of drainage features (e.g. rolling dips, waterbars, etc.) to accommodate increased runoff. Failure of these facilities can increase the risk to system roads.

Possible Probability of Damage or Loss/Major Consequences – Risk High

Critical Natural Resources

Native or Naturalized Plant Communities - Field reviews indicate that there is a substantial risk of invasive weed invasion along roads and dozer and handlines used during fire suppression activities. This threat is due to a high liklihood that invasive weed seeds were brought into the area by fire equipment that has been used on other wildfires and suppression activity within known invasive weed locations within the burn.

Known invasive weed populations (cheatgrass, black henbane, scotch, Canada and bull thistle, hounds tongue, spotted and diffused knapweed, dyer's woad, white top and star thistle) exist within and immediately adjacent to

[1] Design flow based on single 5-year event for pre-fire (vegetated) and post-fire conditions.

the burned area. Except for cheat grass and bull thistle the plants are also ID listed Noxious weeds. Excluding cheat grass, invasive weed populations are small and isolated to areas along roadways, and drainage bottoms within or adjacent to the burned area. No measures were taken to prevent further spread or introduction of any invasive species within the initial or extended attack of the fire.

The burned area, now lacking desired vegetation that can normally out-compete invasive weeds, supports favorable conditions for initial expansion of nearby populations of invasive weeds. The spread of existing or new invasive species would lead to a reduction of desirable native vegetation. Once invasives establish the long-term impacts would be the loss of soil productivity due to increased solar radiation and runoff, increased fire frequency, loss of suitable wildlife habitat and decreased forage production.

Possible Probability of Damage or Loss/Major Consequences – Risk Very High

B. Emergency Treatment Objectives:

The goal of the burned area emergency rehabilitation is to:

- Reduce threats to personal injury and/or human life of visitors using select system roads.
- Control expected invasion of invasive weeds within the area, especially along and adjacent to Forest roads and dozer lines used by fire equipment and in existing populations within the fire boundary.
- Minimize damage to key system roads within the fire boundary.
- Identify appropriate monitoring activities that estimate the effectiveness of emergency stabilization treatments and identify necessary maintenance and continuation of other approved BAER activities.

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

Land **75** % Channel **NA** % Roads/Trails **75** % Protection/Safety **100** %

D. Probability of Treatment Success – Refer to Values at Risk (VAR) Spreadsheet

E. Cost of No-Action (Including Loss): – Refer to Values at Risk (VAR) Spreadsheet

F. Cost of Selected Alternative (Including Loss): – Refer to Values at Risk (VAR) Spreadsheet

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: **John Chatel, Forest Fisheries Biologist**

Email:**jchatel@fs.fed.us** Phone:**208-737-3218** FAX: **208-737-3236**

Team Members:
John Chatel, Team Leader, Sawtooth National Forest
Gilbert Jackson, Range Mangement Specialist, Minidoka Ranger District
Nancy, Ady, Range Management Specialist, Burley BLM
Terry Hardy, Soil Scientist, Boise/Sawtooth National Forest
Mark Dallon, Hydrologist, Minidoka Ranger District
Karl Fuelling, Forest Silviculturalist, Sawtooth National Forest
Duwayne Kimball, Engineering, Sawtooth National Forest

H. **Treatment Narrative:**

Protection/Safety Treatments:

Road Hazard Signs

Purpose of Treatment: Ensure maximum visibility and readability of signs warning visitors of the hazards to human life and safety that exist in burned area. Signs are intended to emphasize the increased hazards from debris flows and flooding.

General Description: Install signs at roads and trailheads that enter or are within the burned area or provide access to trails within the burn; warning of increased hazard from falling burned trees, debris flows, and flooding.

Location (Suitable) Sites:

1) One hazard sign at the junction of 589 and 896A (Kelsaw) that accesses the burned area.
2) One hazard sign at the junction of 776 and 896A (Deer Hollow) that accesses the burned area.
3) One hazard sign at the junction of 777 and 025 (Moberg) that accesses the burned area.
4) One hazard sign at the junction of 587 and 082 (Rice) that accesses the burned area.
5) One hazard sign at the War Eagle trailhead (Pole Canyon) that accesses the burned area.

Design/Construction Specifications: Sign and Poster Guidelines for the Forest Service EM7100-15

Land Treatments:

Noxious Weeds Spraying

Purpose of Treatment: Known invasive weed populations (cheatgrass, black henbane, scotch, Canada and bull thistle, hounds tongue, spotted and diffused knapweed, dyer's woad, white top and star thistle) exist within and immediately adjacent to the burned area. Excluding cheat grass populations are small isolated areas along roadways, and drainage bottoms within or adjacent to the burned area. Prevent establishment of new infestations, prevent spread of existing infestations, and prevent increase in weed density in existing infestations.

General Description: When monitoring actions are initiated, Forest or CWMA personnel will be equipped to immediately treat infestations of invasive weeds. This allows for the immediate treatment and eradication (i.e. hand pulling, herbicide application, biological agent control, seeding of native species) of known infestations. BAER funding authorization will be used for the first year (FY 2013) to meet the above objectives. Existing infestations will also be treated as prescribed by CWMA plans at the same time. As appropriate, these actions may be carried out under a combination of BAER and other management authorities. Treatment and monitoring activities occurring after the first year following the fire will be carried out under non-BAER authorizations. The CWMA will be utilized to survey for invasive weeds and/or provide treatments on private lands adjacent to the Forest under the Wyden Authority. A participating agreement with the CWMA and private landowners will be prepared prior to work completed on private lands.

Location (Suitable) Sites: Existing known weed infestations within and directly adjacent to the Deer Hollow and Eight-Mile Fires burned areas on Forest and private land.

Design/Construction Specifications: Select herbicide, application rate, and application timing based on specific weed being treated, and access to the location of the infestation.

Noxious Weed Monitoring

Purpose of Treatment: To detect and respond rapidly to new infestations associated with fire suppression/fire effects of the Deer Hollow and Eight-Mile Fires.

General Description: Monitoring areas disturbed by suppression and BAER actions, and the burned area. Monitoring will be at an intensity and frequency to identify the spread or occurrence of weed infestations following the fire event and recovery. This monitoring will be funded in part by BAER and in part through other authorities where pre-fire management has taken place through the Forest Service or CWMA. Monitoring will be conducted for the first year after the fire. Monitoring needs following this period will be conducted under normal program authorities. A minimum of five years of monitoring

should be implemented by other program authorities. All weed spread preventative measures will be monitored to ensure no weed seed at these preventative sites gets spread onto adjacent lands.
Location (Suitable) Sites: Monitoring areas disturbed by suppression actions and the burned area. Monitoring within the burned area will focus on areas with existing noxious weed infestations, adjacent areas, and disturbed areas. Some of these areas are listed below.

a) Fire suppression roads, trailhead, dozer and hand lines, area around mapped weed locations, and Forest lands.

Monitoring areas disturbed by BAER and other recovery actions. All activities in the BAER implementation process especially ground disturbing activities should be monitored for weed establishment or seed spread.

b) Road emergency response actions.

Design/Construction Specifications: Thorough reconnaissance will be conducted in and around all sites identified in the Noxious Weed Assessment. These sites will be monitored by crews on foot or by vehicle as appropriate. If noxious weed infestations are identified an appropriate treatment will be implemented to eradicate or control the infestation (i.e. hand pulling, herbicide application, biological agent control, seeding of native species).

Channel Treatments: None

Roads Treatments:
Road Drainage Maintenance

Purpose of Treatment: The purpose of these treatments is to restore road drainage and decrease the chance of failure in narrow canyons with few turnouts.
General Description: Clean and enhance existing rolling drainage dips and run-off ditches, install new rolling drainage dips and run-off ditches, place rip-rap armament on road fill encroached by drainage, and place gravel on short section of susceptible powdered road situated below alluvial fan.
Location (Suitable) Sites: Kelsaw Road (Forest Service Road No #70589).
Design/Construction Specifications: FHWA Standard Specifications for Roads and Bridges on Federal Highway Projects (FP-03) with Forest Service supplemental specifications.
Road Storm Patrols - The purpose of the monitoring is to evaluate effectiveness of the emergency stabilization treatments completed on Kelsaw Road (#70589) road and to identify needed to maintenance and/or treatment repair. Engineering and hydrologists will survey these roads two times. Two trips will be during or after high intensity storm events.

I. **Monitoring Narrative:** None

Part VI – Emergency Stabilization Treatments and Source of Funds Interim # 1

			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											
Noxious Weed Treatment	Each	13,398	1	$13,398	$0			$0		$0	$13,398
Subtotal Land Treatments				$13,398	$0					$0	$13,398
B. Channel Treatments											
				$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											
Road Drainage Maintenance	Each	17,570	1	$17,570	$0			$0		$0	$17,570
				$0	$0			$0		$0	$0
				$0	$0			$0		$0	$0
Insert new items above this line!				$0	$0			$0		$0	$0
Subtotal Road & Trails				$17,570	$0			$0		$0	$17,570
D. Protection/Safety											
Hazard Warning Signs	Each	5	400	$2,000	$0			$0		$0	$2,000
				$0	$0			$0		$0	$0
Insert new items above this line!				$0	$0			$0		$0	$0
Subtotal Structures				$2,000	$0			$0		$0	$2,000
E. BAER Evaluation											
Assessment Team	Report	16,545	1	---				$0		$0	$0
Insert new items above this line!				---	$0			$0		$0	$0
Subtotal Evaluation				---	$0			$0		$0	$0
F. Monitoring											
Noxious Weeds					$0						
Road Storm Patrols					$0						
Subtotal Monitoring				$0	$0					$0	$0
G. Totals				$32,968	$0			**#VALUE!**		**$0**	**$32,968**
Previously approved											
Total for this request				**$32,968**							

PART VII - APPROVALS

1. /s/ Rebecca S. Nourse 8/20/12 .
Forest Supervisor (signature) Date

2. _____ _____
Regional Forester (signature) Date