

07/29/2013

Date of Report:

BURNED-AREA REPORT
(Reference FSH 2509.13)**PART I - TYPE OF REQUEST**

A. Type of Report

- ☒ 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)
☐ 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: Rough Creek B. Fire Number: ID-NPF-000293
C. State: ID D. County: Idaho
E. Region: 01 F. Forest: Nez Perce
G. District: Salmon River Ranger District H. Fire Incident Job Code: P1HQH0
I. Date Fire Started: 07/12/2013 J. Date Fire Contained: 7/22/2013
K. Suppression Cost: \$2,200,000 as of 7/23/2013
L. Fire Suppression Damages Repaired with Suppression Funds
 1. Dozer Fireline repaired (miles): NA – no dozer line
 2. Hand Fireline repaired (miles): 2.0
M. Watershed Numbers:
 National Forest Land
 Salmon River Face (17060209399) 2077 acres; Gus Creek (170602090314) 528 acres;
 Berg Creek (170602090316) 3 acres
N. Total Acres Burned (as of 07/21/2013):
 NFS: 2347 Other Federal (BLM): 0 State: 0 Private: 258

O. Vegetation Types: The fire area is dominated by grasslands on the breaklands with interspersed Ponderosa Pine. Bluebunch wheatgrass, Idaho fescue and other grasses are prevalent. The head of Gus creek is the only area of the burn that is forested and consisted of Douglas Fir and Grand Fir forests with a ninebark understory. The habitat types are shown below:

Habitat Type	Acres	Percent of Burn Area
Grassland steppe, bluebunch wheatgrass predominant	958	37%
Moderately warm and dry most DF and dry GF types	659	25%
ROCK	379	15%
Moderately warm and moderately dry DF with LIBO or dry GF	263	10%
Warm and dry PP or DF/grass types	202	8%
Grassland steppe, Idaho fescue predominant	80	3%
Moderately warm and moist GF/ginger and clintonia types	66	3%
Hardwood forest and woodland draws	0	0%

P. Dominant Soils: The dominant soil Great Group found in the burn area is Ultic Haploxerolls. Most soils in the burn area have surface layers formed in loess that has been influenced by volcanic ash. A layer of this loess was deposited on the survey area approximately 6,700 years ago by the eruption of Mount Mazama in Oregon. Additional loess that has been influenced by volcanic ash was deposited by eruptions of Mount St. Helens and Glacier Peak. These loess deposits range from over 6-inches thick in depressions to very thin deposits that may be mixed with underlying materials on steep southerly aspects at lower elevations to no deposits on the steep breakland soils dominating the burn area. Soil surface layers formed in loess are an excellent medium for plant growth. Soils with the thickest loess surface layers tend to be the most productive. Although most soil surface layers are formed in loess that has been influenced by volcanic ash or loess mixed with subsoil material, lower soil layers are formed in materials derived from other sources. This ash influenced surface layer is resistant to erosion when undisturbed, but if disturbed it has a high risk of surface erosion.

The dominant landform of the burn is the Salmon River Breaklands. Breaklands consist of steep slopes adjacent to rivers and their tributaries. The slopes are oversteepened as a result of streams downcutting faster than the adjoining slopes could retreat. Elevation varies from 1,600 to 6,000 feet and relief of several thousand feet is common. Slopes are long and straight to concave in shape. Gradients exceed 60%. Bedrock is moderately to weakly weathered. Rock outcrop is common. Soils are colluvial, weakly developed, and vary widely in properties. Soils on northerly aspects tend to be deep and skeletal with a mixed ashcap. On southerly slopes, soil depths vary from deep to less than 20 inches in depth. Ash caps are thin or missing on shallow soils and are mixed on others. These lands are the most unstable on the Forest. Stability and the high cost of access limit management potential. Productivity varies from high on the northerly aspects to low or noncommercial for shallow droughty soils on southerly aspects. Regeneration is a problem on southerly slopes because of droughtiness and high soil temperatures.

Q. Geologic Types: Dominant rock types include Blue Mountains island arc, metamorphosed volcanic/plutonic complex and Blue Mountains island arc, biotite (+hornblende) gneiss and biotite schist. Rock types include amphibolitic and biotitic paragneisses that formed from volcanogenic sedimentary and volcanic rocks during Cretaceous dynamothermal processes; protoliths probably all Jurassic to Permian volcanic and sedimentary rocks of the Blue Mountains island arc. Also includes tonalitic, trondhjemitic, and granodioritic orthogneisses, some of which formed from Cretaceous intrusions into the Triassic and Permian protolith and others of which may have originated as Jurassic to Permian island arc plutons. Soils formed on the micaceous schist are highly susceptible to mass wasting events.



Fire in the Rocky Slopes of Rough Creek

R. Miles of Stream Channels by Order or Class:

National Forest

1st order 7.4 miles, 2nd order 1.6 miles

S. Transportation System

Trails: National Forest 0 miles

Other 0 miles

Roads: National Forest 3.0 miles

Other 1.8 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 932 (very low) 1558 (low) 115 (moderate) 2 (high)

B. Water-Repellent Soil (acres): 2600 (soils naturally water repellant)

C. Soil Erosion Hazard Rating (acres): 0 (low) 788 (moderate) 1819 (high)

D. Erosion Potential (tons/ac): 15.7 (low) 19.0 (moderate) 19.9 (high)

E. Sediment Potential: exists, not quantified

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 2-4 grass/shrubs 20-50 conifers

B. Design Chance of Success, (percent): 70

C. Equivalent Design Recurrence Interval, (years): 25

D. Design Storm Duration, (hours): 10 hr

E. Design Storm Magnitude, (inches): 1.6 (10hr)

F. Design Flow, (cubic feet / second/ square mile): 68

G. Estimated Reduction in Infiltration, (percent): 12

H. Adjusted Design Flow, (cfs per square mile): 108

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

The primary values at risk resulting from the Rough Creek Fire are transportation infrastructure (roads and culverts), water quality, native fisheries for ESA-listed species, native vegetation communities, and heritage sites.

Infrastructure The 9900 road turns off the Salmon River Road and runs down river providing access to a private residence. The Rough Creek Fire Burn Area is direct above this road for an approximate 2 mile stretch. There were no drainage structures present in this stretch of road and it is anticipated that damage will be caused by additional run-off due to the fire. The first mile has a very steep and rocky bank that was burned above the road. It is anticipated that the fire could cause significant sliding/rolling debris onto the road in this area.

Native vegetation/Soil Productivity: Native vegetation communities and soil productivity are at risk from rapid expansion of noxious weeds from existing populations in the burned area. The Weed Risk Assessment for the Rough Creek Fire on National Forest classified 379 acres (15%) classified as high risk, 1783 acres (68%) as moderate risk, and 445 acres (17%) as low or no risk. Most of the previously identified weed infested sites within the fire were either burned or occur adjacent to burned areas. The warm (hot) and dry Habitat Type Groups (HTG) within the Rough Creek Fire contain known infestations of rush skeleton weed, spotted knapweed, Dalmatian toadflax, and scotch thistle which will most likely expand and dominate the grassland sites permanently. Small infestations of spotted knapweed and rush skeleton weed are scattered along Roads 263A, 9936, and 9900 which all run through the fire area. These sites are not identified on Map 3. Other discrete or small populations continue to be identified within the burned area. These species are invasive weeds that can readily compete with native plants and dominate disturbed sites

Weed susceptibility analysis has identified grass/herb (2267 acres), mixed ponderosa pine (335 acres), and mixed Douglas-fir (6 acres) HTGs. The grass/herb HTG is comprised of bluebunch wheatgrass-sand dropseed-red three awn, sand dropseed river terrace, Idaho fescue-bluebunch, ponderosa pine-Idaho fescue, and mountain-mohogany plant associations. These plant associations are highly susceptible to invasive weeds such as spotted knapweed, toadflax, rabbitbrush, sulfur cinquefoil, scotch thistle, yellow starthistle, and rush skeleton weed (Johnson 1998).

Heritage: After a review of the Nez Perce National Forest Heritage Resource Department files, it was determined that 7 previously documented cultural resource sites were located within the Rough Creek Fire perimeter and within APE on the NPNF. No new cultural resource sites were located during post fire BAER inventory within the fire area perimeter. One site was removed from the record as a result of previous documentation work. All 6 of the total known sites were revisited during the BAER field review process. From site visits and reviewing the GIS fire severity burned area reflectance classification map (BARC), 3 sites within the fire area were burned over while 3 sites were not burned. Fire severity at the 3 burned sites include: low and unburned/very low severities, generally involving grass, brush, and occasional small groups of scattered trees.



Low severity burn in the grasslands on the Salmon River Breaklands.

B. Emergency Treatment Objectives:

Roughly 5% of the burned area was of moderate to high severity. However, much more the burned area is on steep hillslopes with highly erosive soils. Thus, even low burn severity slopes devoid of overstory canopy or ground cover are at heightened risk of severe erosion and greatly increased runoff. Furthermore, most of the burned area on NFS land is characterized as landslide prone. In this landscape, burn severity alone is an inadequate indicator of post-fire erosion and runoff risk.

Emergency treatment objectives are to protect roads from erosion damage and to prevent the expansion of noxious weeds in areas burned in the fire. The first mile of Forest Service road 9900 has a very steep and rocky bank that was burned above the road. It is anticipated that the fire could cause significant sliding/rolling debris onto the road in this area. Funding is requested to remove the potential debris after summer/fall rain storms and the spring runoff. New populations of noxious weeds will be treated in the first growing season following the fire, allowing for a more robust native vegetation recovery.

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

Land 70% Channel N/A Roads/Trails 70% Protection/Safety NA

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Weed treatment	50	50	50
Roads	70	80	90

E. Cost of No-Action (Including Loss): >\$50,000

The potential cost of no action includes severe erosion damage on public roads needed for FS and public access. The cost of repairing roads would most likely exceed the cost of the selected alternative. The value

of protecting the ecological integrity and soil productivity of the burned area from noxious weed infestation likely exceeds the cost of weed treatment and monitoring, although this too was not quantified.

F. Cost of Selected Alternative (Including Loss): ~\$75,000

In accordance with the revised Forest Service manual, the risk matrix below, Exhibit 2 of Interim Directive No.: 2520-2013-1, was used to evaluate the Risk Level for each value identified during the Rough Creek fire BAER assessment. Only treatments that had a risk of Intermediate or above are recommended for BAER authorized treatments.

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

Probability of Damage or Loss: The following descriptions provide a framework to estimate the relative probability that damage or loss would occur within 1 to 3 years (depending on the resource):

- Very likely. Nearly certain occurrence (90% - 100%)
- Likely. Likely occurrence (50% - 89%)
- Possible. Possible occurrence (10% - 49%)
- Unlikely. Unlikely occurrence (0% - 9%)

Magnitude of Consequences:

- Major. Loss of life or injury to humans; substantial property damage; irreversible damage to critical natural or cultural resources.
- Moderate. Injury or illness to humans; moderate property damage; damage to critical natural or cultural resources resulting in considerable or long term effects.
- Minor. Property damage is limited in economic value and/or to few investments; damage to critical natural or cultural resources resulting in minimal, recoverable or localized effects.

G. Skills Represented on Burned-Area Survey Team:

[x] Hydrology	[x] Soils	[x] Range	[x] Weeds
[] Forestry	[] Wildlife	[] Fire Mgmt.	[x] Engineering
[] Contracting	[x] Ecology	[x] Botany	[x] Archaeology
[x] GIS	[] Air Quality	[] Research	[x] Fisheries
[x] Recreation			

Team Leader: Cara Farr

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H. Treatment Narrative:

Land Treatments:

Areas infested with noxious weeds will be treated within the burn perimeter to reduce the probability of spread into uninfested burned areas. BAER funding is only available for the first year of the treatments (fall 2013 to spring 2014). In fall 2013 and spring 2014, new weed populations will be treated. If subsequent monitoring identifies weeds populations not effectively removed with initial treatment, additional treatment will be planned, and funds requested in an interim request. Many of the weeds are difficult to find the first year after a fires, so the acres of high risk within the burn perimeter will be covered twice to ensure that all

weeds are located and treated effectively. Other funding sources will be sought in out-years to treat any expansions of noxious weeds identified in subsequent monitoring. All of this work will be accomplished using ground-based equipment. Treatment will include the following:

- Mix of backpack spraying and hand-pulling, as appropriate, in fall 2013 and spring/early summer 2014 before weeds begin to seed
- Using approved herbicides and application techniques based on weed species, topography and environmental factors, in compliance with NPNF Weeds EIS.

Channel Treatments/Roads and Trail Treatments:

Channel and road treatments will be targeted at effectively preventing rolling and sliding debris from the entering the roadway along several drainages in the first several years following the fire. A series of checkdams will be installed on multiple drainages that were judged to be at high risk of elevated post-fire runoff above road 9900 to prevent debris from entering the roadway. Without proposed treatments, overland flow and erosion will likely damage the roads as well as transport sediment to streams, impacting aquatic habitat. In the steep terrain and granitic soils of the burned area, roads would likely be heavily eroded in the first year following the fire in their current condition.

Protection/Safety Treatments: No protection/safety treatments prescribed at this time.

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.)

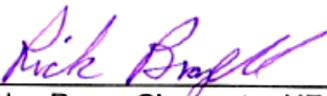
Monitoring of channel and road trail treatments will occur during and after implementation in 2013-2014 to ensure that treatment objectives are met. Channel/road treatments will be monitored again after snowmelt and during the summer to evaluate effectiveness.

In summer/fall 2014 all of the known areas of infestation will be re-surveyed by NP-CNF Weeds staff. Any noxious weed populations not effectively treated during initial treatment efforts will be targeted for additional herbicide application.

VI – Emergency Stabilization Treatments and Source of Funds

Line Items	Units	Unit Cost	NFS Lands		Other \$	Other Lands				All Total \$
			# of Units	BAER \$		# of units	Fed \$	# of Units	Non Fed \$	
A. Land Treatments										
Weed treatment & assessment	acre	180	50	\$9,000						
Subtotal Land Treatments				\$9,000	\$0		\$0		\$0	\$0
B. Channel Treatments										
Checkdams	each	300	30	\$9,000						
Subtotal Channel Treat.				\$9,000	\$0		\$0		\$0	\$0
C. Road and Trails										
Subtotal Road & Trails				\$0	\$0		\$0		\$0	\$0
D. Protection/Safety										
Subtotal Structures				\$0	\$0		\$0		\$0	\$0
E. BAER Evaluation										
Assessment					\$10,000		\$0		\$0	\$0
Subtotal Evaluation					\$10,000		\$0		\$0	\$0
F. Monitoring										
Channel treatment effectiveness	day	280	10	\$2,800			\$0		\$0	\$0
Subtotal Monitoring				\$2,800	\$0		\$0		\$0	\$0
G. Totals				\$20,800	\$10,000		\$0		\$0	\$0
Previously approved										
Total for this request				\$20,800						

PART VII - APPROVALS

1.  07/29/2013
Rick Brazell, Nez Perce-Clearwater NF Forest Supervisor Date

2. _____ 07/ /2013
Faye, Krueger, Region 1 Regional Forester