Forest Service

Rogue River-Siskiyou National Forest
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Medford, OR 97504-4119
541-618-2200

Fremont-Winema National Forest
1301 South G St
Lakeview, OR 97630
541-947-2151

File Code: 2520 Date: October 9, 2014
Route To:

Subject: Initial Burned Area Emergency Response Report for 790 Fire

To: R6 Regional Forester

REPLY DUE OCTOBER 16, 2014

The 790 Fire was contained on September 30, 2014 and represents the initial request to begin burned area rehabilitation treatments.

A review of Critical Values and potential threats was conducted by the Rogue River-Siskiyou National Forest and the Fremont-Winema National Forest.

The treatments identified in this initial plan represent the following critical values and threats:

- Property – To storm patrol the Big Ben Creek culvert crossing on Rogue River-Siskiyou NF Forest Service Road 37 this fall and through next year, and perform clean-out if needed to prevent damage to the road.

No emergency threats to Critical Values are expected from the 790 Fire on the Fremont-Winema NF at this time.

Initial treatment for the 790 fire has been proposed at an approximate cost of $2,500 to address this critical value/resource and threat, and report storm patrol actions.

This initial request represents the treatment needed for immediate action.

Electronic copy of the 2500-8 report is attached, as well as a burn severity map and cost/risk worksheet.

Please contact Joni Brazier at (541) 471-6760 if you have any questions.

ROBERT G. MACWHORTER
Forest Supervisor

CONSTANCE CUMMINS
Forest Supervisor

cc: Karen A Bennett, Mitchell G Wilkinson, Margaret Bailey, Allan D Hahn, Amy L Markus

USDA-FOREST SERVICE FS-2500-8 (6/06)

Date of Report: 10/08/2014

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: 790 Fire

B. Fire Number: OR-RSF-140790

C. State: OR

D. County: Jackson Co.; Klamath Co.

E. Region: R6

F. Forest: Rogue River-Siskiyou NF; Fremont-Winema NF

G. District: High Cascades RD; Klamath RD

H. Fire Incident Job Code: 0610 P6JB94

I. Date Fire Started: 7/31/2014

J. Date Fire Contained: 9/30/2014

K. Suppression Cost: $15,849,560 as of 9/25/14

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): est. 25 miles
2. Fireline seeded (miles): est. 5 miles planned (all outside wilderness)
3. Other (identify): approx. 15 acres rehabbed and seeding planned on other dozer disturbed areas, such as heliwells, etc.

M. Watershed Number: 1710030702 (SF Rogue River); 1801020303 (Long Lake Valley-Klamath Lake)

6th Field Watersheds within Burned Area, as well as 7th Field Watershed to better analyze effects

6th field watershed	HUC	Total Acres	Acres Burned	Percent Burned
Upper South Fork Rogue River	171003070201	30,421	2,718	9%
Threemile Creek	180102030301	27,800	298	1%
Cherry Creek (sub-watershed)	180102030301_1	10,300	292	2.8%

Burn Severity by HUC6 (& HUC7 where needed to better analyze effects)

6th field watershed	Unburned Acres (%)	Low Acres (%)	Moderate Acres (%)	High Acres (%)
Upper South Fork Rogue River	27,703 (91%)	1,280 (4%)	1,005(3%)	93 (0.3%)
Threemile Creek	27,502 (99%)	116 (0.4%)	76 (0.2%)	0.4 (0.002%)
Cherry Creek (sub-watershed)	10,002 (97.7%)	116 (1.1%)	76 (0.7%)	0.4 (0.004%)

N. Total Acres Burned: 3,023 acres
NFS Acres(3,023) Other Federal (0) State (0) Private (0)

There are 2,725 acres on the Rogue River NF, and 298 acres on the Winema NF within the Sky Lakes Wilderness. Total acres of the 790 Fire in the Sky Lakes Wilderness is 2,995 acres.

O. Vegetation Types: Mountain Hemlock zone, Shasta red fir zone, white fir zone. Overstory includes mountain hemlock, Shasta red fir, white fir, Douglas-fir, ponderosa pine; understory of grouse and thin-leaved huckleberry, Pacific rhododendron.

P. Dominant Soils: Soils are sandy loams and loams derived from glacial till.

Q. Geologic Types: Geology consists of approximately 50 acres of Early High Cascades basaltic andesite, 490 acres of Late High Cascades andesite, and 2480 acres of Quaternary glacial deposits.

R. Miles of Stream Channels by Order or Class:

Stream Class (miles) by HUC6 within the Fire Perimeter:

	Total
Class 1	3.3
Class 2	0.2
Class 3	0.3
Total	**3.8**

S. Transportation System

Trails: 1.5 miles (Pacific Crest Trail) Roads: 0 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 1396 (low) 1082 (moderate) 94 (high)

B. Water-Repellent Soil (acres): 1176 acres
Hydrophobic properties were weak to strong throughout the fire area, in unburned as well as low, moderate, and high severity. No clear correlation was found based on burn severity or soil textures. Strong hydrophobicity was typically found deeper in the soil on moderate and high severity, and more weak than strong hydrophobic tendancies were found in unburned areas, leading to the assumption that hydrophobic tendencies would likely linger in the soil longer on moderate and high severity, so those are the acres counted.

C. Soil Erosion Hazard Rating (acres):
2788 (low) 226 (moderate) 0 (high)

D. Erosion Potential: Range of 1.1 to 5.3 tons/acre (per runoff producing event)
Based on the the amount of moderate and high and the way the fire burned with mixed severity across the landscape, it is expected that erosion rates will be on the lower end of this range for the modeled storm event.

E. Sediment Potential: Range of 86 to 408 cubic yards / square mile (per runoff producing event)
Based on the the amount of moderate and high and the way the fire burned with mixed severity across the landscape, it is expected that sediment actually reaching stream channels will be on the lower end of this range for the modeled storm event.

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years):	7-10 years
B. Design Chance of Success, (percent):	75%
C. Equivalent Design Recurrence Interval, (years):	25 years
D. Design Storm Duration, (hours):	24 hours
E. Design Storm Magnitude, (inches):	5.5 inches
F. Design Flow, (cubic feet / second/ square mile):	121 cfs/mi^2
G. Estimated Reduction in Infiltration, (percent):	12%
H. Adjusted Design Flow, (cfs per square mile):	135 cfs/mi^2

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

Human Life and Safety: The 790 Fire burned almost entirely within the Sky Lakes Wilderness, and in a portion of the wilderness that has no trails except for a portion of the Pacific Crest Trail on the Cascade Divide. The Pacific Crest Trail was utilized during fire fighting efforts and snag hazards for fire fighter safety were addressed during suppression, and trail safety concerns were mitigated to the point where the trail was deemed safe to be re-openned to the public. Also being on the ridgeline, there is no threat of rolling debris and rocks that could harm users. Utilizing the BAER Risk Assessment Matrix the probability of future risks to human life and safety are Unlikely, and magnitude of consequence could be major to moderate if a snag were to fall and kill or injure someone, resulting in Low to Intermediate risk. **Since immediate hazards were addressed during fire suppression, No Treatments recommended at this time.**

Property: Forest Service Road 37, a paved road on the Rogue River-Siskiyou NF, is outside the burn perimeter, but two drainages that were affected by the fire have culvert crossings on the 37 Road. Both Sam Creek and Big Ben Creek cross this road. Post-fire streamflows from a 25-year, 24- hour storm event are predicted to increase approximately 125% at these sites. The culvert at Sam Creek is adequately sized for this storm; however, the double culverts at the Big Ben Creek crossing are undersized for the predicted flow. There is a large amount of forested area between the burned area and only 962 acres, or 15%, of this design watershed has high to moderate burn severity. This road is closed in the winter due to high snowpack, keeping traffic out of the area during the highest likelihood of failure. The probability of damage or loss is possible and the magnitude of consequences would be moderate resulting in an Intermediate risk. The cost of repairing or replacing the stream crossing if damage were to occur, versus the inexpensive costs of storm patrolling to prevent damage, would be cost effective and easy to implement. **Storm Patrol Recommended, especially when the road opens in the spring.**

No structures/culverts were identified from the headwaters of Cherry Creek to the Fremont-Winema FS boundary. The first culvert encountered downstream of the FS boundary is at West Side Road (C.R. 531). No impacts are expected on this non-FS resource due to the 790 Fire. **No Treatments Recommended.**

Natural Resources:

- *Soil productivity and hydrologic function on NFS lands.* After a fire there is the potential threat of increased soil erosion affecting site productivity, and ash flows and increased peak flows that could cause streambank erosion in Big Ben Creek and Sam Creek. Of the 2725 acres within the fire perimeter in the Upper South Fork Rogue River subwatershed, 60% was unburned or low severity, and of the 298 acres within the fire perimeter in the Threemile Creek subwatershed, 75% was unburned or low severity. The remaining areas of moderate and high severity are at some risk for loss of long term soil productivity, but soil movement is tempered by a high amount of surface rock and mosaic nature of remaining vegetation and surface litter, particularly within the drainage bottoms. The probability of damage or loss is *possible* and the magnitude of consequence would be *minor* resulting in *Low* risk. **No Treatments Recommended.**

- *Native or naturalized communities on NFS lands where invasive species or noxious weeds are absent or present in only minor amounts.*
  The Sky Lakes Wilderness supports native plant communities that have been relatively unimpacted from noxious weed populations. No known populations of noxious weeds are located within the fire perimeter, and the nearest known populations are located over 1 mile away with no easy vectors of spread into the burn. Utilizing the BAER Risk Assessment Matrix the probability of damage or loss to the native populations within the burn in the wilderness is *Unlikely*, and the magnitude of consequences would be *Moderate*, because if weed populations did invade, they would be difficult to combat due to difficult accessibility. This results in *Low* risk. **No Treatments Recommended.**

B. Emergency Treatment Objectives:

The primary objective of the burned area emergency treatment is to minimize or prevent damage to Forest Service Road 37, using inexpensive and easy-to-implement methods.

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

Land **N/A** % Channel **N/A** % Roads/Trails **80** % Protection/Safety **N/A** %
Snowpack in the winter typically closes the 37 road. If a rain-on-snow event were to occur when the 37 road is still impassible to vehicle traffic, there is the risk that damage could occur before storm patrol/culvert clean-out could reach the site.

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Roads/Trails	85	90	95

E. Cost of No-Action (Including Loss): $250,000

F. Cost of Selected Alternative (Including Loss): $39,000

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Joni D. Brazier

Email: jdbrazier@fs.fed.us Phone: (541) 471-6760 FAX: (541) 471-6512

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: None proposed.

Channel Treatments: None proposed.

Roads and Trail Treatments: Storm patrol the Big Ben stream crossing on Rogue River-Siskiyou NF FS Road 37 to assure debris does not plug the culverts and cause the crossing to get overtopped and erode the road, or blow out the crossing.

Protection/Safety Treatments: None proposed.

I. **Monitoring Narrative:**

Implementation: Documentation of storm patrol actions to be reported in an Interim or Final 2500-8, Accomplishment Report.

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

			NFS Lands			Other Lands				All
Line Items	Units	Unit Cost	# of Units	BAER $	Other $	# of units	Fed $	# of Units	Non Fed $	Total $
A. Land Treatments										
				$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 Land Treatments				$0	$0		$0		$0	$0
B. Channel Treatments										
				$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										
Storm Patrol stream crossin	Visits	$500	3	$1,500	$0		$0		$0	$1,500
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$1,500	$0		$0		$0	$1,500
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										
Assessment Team	Report	$3,500	1	---	$3,500		$0		$0	$3,500
Insert new items above this line!				---	$0		$0		$0	$0
Subtotal Evaluation				---	$3,500		$0		$0	$3,500
F. Monitoring										
Monitoring reporting	Report	$1,000	1	$1,000	$0		$0		$0	$1,000
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring				$1,000	$0		$0		$0	$1,000
G. Totals				$2,500	$3,500		$0		$0	$6,000
Previously approved										
Total for this request				$2,500						

PART VII - APPROVALS

1. Forest Supervisor (signature)
Rogue River-Siskiyou NF

10/9/14
Date

Forest Supervisor (signature)
Fremont-Winema NF

10-9-14
Date

2. Regional Forester (signature)

10.17.14
Date