Date of Report: 10/23/2013

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: Labrador

B. Fire Number: OR-RSF-130426

C. State: OR

D. County: Josephine

E. Region: R6

F. Forest: Rogue River-Siskiyou

G. District: Wild Rivers

H. Fire Incident Job Code: P6HSQ5

I. Date Fire Started: 07/26/2013

J. Date Fire Contained: 09/24/2013

K. Suppression Cost: $8,128,115

L. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred (miles): 5 miles handline; 10 miles dozer line
2. Fireline seeded (miles): 15 miles
3. Other (identify): Some spot rocking of damaged road surfaces, ditches and culverts cleaned where impacted from brushing activities.

M. Watershed Numbers:

Soil Burn Severity Acres by Watershed								
6th HUC	HUC Name	Unburned / Very Low (Acres)	Low Severity (Acres)	Moderate Severity (Acres)	High Severity (Acres)	Total Watershed Burned (Acres)	Total Watershed Acres	Percent Watershed Burned
Watershed 1710031106 Josephine Creek-Illinois River								
171003110604	Rancherie Creek-Illinois River	261	627	183	7	1078	21,153	5%
Watershed 1710031108 Klondike Creek-Illinois River								
171003110801	Florence Creek-Illinois River	268	552	125	0	945	11,908	8%

N. Total Acres Burned: 2,023 acres

NFS Acres(1971) Other Federal (0) State (0) Private (52)

Soil Burn Severity Acres By Land Ownership					
	Unburned / Very Low (ac)	**Low (ac)**	**Moderate (ac)**	**High (ac)**	**Totals (ac)**
Rogue River-Siskiyou NF	477	1179	308	7	1971
NON-FS	29	23	0	0	52
Totals (ac)	506	1202	308	7	2023

O. Vegetation Types: Douglas-fir, Pacific madrone, ponderosa pine, California black oak, canyon live oak, greenleaf manzanita, grasses and forbs. All of the Labrador Fire is within the 2002 Biscuit Fire perimeter, and most was burned in Biscuit. Many slopes in Labrador consist of a re-burn of 11-year-old, early seral brush, resprouted hardwoods and naturally regenerating conifers, as well as underburn of remnant mature conifer stands.

P. Dominant Soils:
Beekman series: Loamy-skeletal, mixed, mesic Typic Xerochrepts
Vermisa series: Loamy-skeletal, mixed, mesic Lithic Xerochrepts
Colestine series: Fine-Loamy, mixed, mesic Typic Xerochrepts
Camas series: Sandy-skeletal, mixed, mesic Fluventic Haploxerolls

Complexes made up of Beekman and Vermisa soils comprise 90% of the fire area, and consist of 60 to 100 percent slopes.

Q. Geologic Types: Jurassic Illinois River plutonic complex including hornblende gabbro-diorite, gabbro, tonalite and trondhjemite (93% of fire area); Pleistocene unconsolidated river terrace deposits (5% of fire area); Jurassic Smith River Subterrane, Josephine Ophiolite ultramafic rocks including amphibolite, dunite and peridotite (2% of the fire area).

R. Miles of Stream Channels by Order or Class: Class 1: 0.07 mi.; Class 2: 0.14 mi.; Class 3: 7.36 mi.

S. Transportation System

Trails: 0 miles Roads: 0 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 1202 acres (low) 308 acres (moderate) 7 acres (high)

B. Water-Repellent Soil (acres): Due to inaccessibility and numerous safety hazards in the black, the burned area assessment had to rely on the BARC imagery and a helicoptor flight. Therefore water-repellency was unable to be field-checked.

C. Soil Erosion Hazard Rating (acres):
61 (slight) 22 (moderate) 7 (severe) 1933 (very severe)

D. Erosion Potential: 4.8 tons/acre

E. Sediment Potential: 3031 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 10

B. Design Chance of Success, (percent): 90

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

D. Design Storm Duration, (hours): 24

E. Design Storm Magnitude, (inches): 12

F. Design Flow, (cubic feet / second/ square mile): 62

G. Estimated Reduction in Infiltration, (percent): 2

H. Adjusted Design Flow, (cfs per square mile): 63

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

Human Life and Safety: The Labrador Fire burned in very steep (typical slopes are 60 to 100%), rocky terrain, on many slopes that had previously been burned by the Biscuit Fire in 2002. There is a higher than usual amount of old snags and downed logs on the landscape that have been further weakened and destabilized, resulting in more safety risk than usual for low to moderate severity burn areas. However, the Labrador Fire burned in an area with no National Forest System roads or trails, which greatly minimizes potential exposure of people to upland burned area hazards.

The Labrador fire burned along nearly two miles of Illinois River corridor designated as Scenic in the National Wild and Scenic Rivers system. Utilizing the final burn severity map, in the Scenic river corridor approximately 4 acres burned at high severity, 48 acres burned at moderate severity and 236 acres burned at low severity. Recreational use for camping and hiking of this area of the Wild Rivers Ranger District is low due to limited access with private property to the south of the burned area and along the north side of the river (the Josephine County community of Oak Flat). However, recreationists can access the Labrador burned area by white water boating or fording the Wild and Scenic Illinois River.

Overall recreational use of the Scenic section of the Illinois River adjacent to the Labrador fire burned area is very low as compared to the upstream Scenic section due to the difficult white water and a very short rafting season from April through May. Recreational use primarily consists of white water boaters on multi-day trips which depart from Miami Bar and take out at Oak Flat (Curry County) at the end of the Wild section of the Illinois River.

The presence of fire killed trees (and the well-documented increased likelihood of fire killed trees for windthrow) in the burned area from the Biscuit fire in 2002 and the Labrador fire could present a hazard to recreationists with falling trees.

Utilizing the BAER Risk Assessment matrix the Probability of Damage or Loss would be *Unlikely and Possible depending on the time of year*. During the rafting season, April through May, it is possible that white water boaters may access the Labrador burned area and there would be a Possible Probability of Damage or Loss. However, it is not expected since Miami Bar is less than a mile from the burned area and there is little reason to stop that early into a trip. Otherwise, outside of the rafting season the recreational use is very low due to water levels, so there would be an Unlikely Probability of Damage or Loss. The Magnitude of Consequences would be *Major* with loss of life or injury to humans from falling trees, resulting in *Intermediate to High* risk. **Treatments recommended – Burned Area Warning signs.**

Property: There are no buildings, water systems, utility systems, road and trail prisms, dams, wells or other significant investments on NFS lands. With no BAER critical values, there is no risk to NFS property. **No Treatments Recommended.**

There is a private land inholding along the Illinois River within the Labrador Fire burn perimeter, which includes a residence and outbuilding near the river. The private property is on a broad floodplain/terrace. The mountain slopes on Forest Service lands upslope of the private property were largely low severity burn, with a low amount of scattered moderate severity and unburned. Most of the unburned areas are at the base of the slopes adjacent to and within the private inholding.

Natural Resources:

- *Water used for municipal, domestic, hydropower, or agricultural supply or waters with special Federal or State designations on NFS lands.*
  - The Labrador fire burned along nearly two miles of Illinois River corridor designated as Scenic in the National Wild and Scenic Rivers system. Utilizing the final burn severity map, in the Scenic river corridor approximately 4 acres burned at high severity, 48 acres burned at moderate severity and 236 acres burned at low severity. The natural rugged character of the Illinois River Wild and Scenic River Corridor has not been adversely affected by the Labrador Fire. Probability of Damage or Loss is *Unlikely*; Magnitude of Consequences is *Minor*, resulting in *Very Low* risk. **No Treatments Recommended.**
  - Loss of water clarity on the Wild and Scenic sections of the Illinois River is a threat from the Labrador Fire. Following the 2002 Biscuit Fire, monitoring of turbidity on the Illinois River and some of its tributaries was conducted for two years during storm events. The Biscuit Fire had large areas of severe, moderate and low burn severity. Results of the monitoring showed no increase in turbidity. The Labrador Fire was much smaller and the fire severity predominatly low and moderate. Based on that and the Biscuit monitoring results the Labrador Fire will not affect water clarity of the Wild and Scenic Illinois River. Probability of Damage or Loss is *Unlikely*; Magnitude of Consequences is *Minor*, resulting in *Very Low* risk. **No Treatments Recommended.**
  - There are no domestic water rights on the Illinois River adjacent to the Labrador fire area or nearby downstream. There is a water right on Baker Creek for a private home. Based on the moderate and low burn severity and amount of unburned area in that drainage, water quality will not be effected by the fire. Probability of Damage or Loss is *Unlikely*; Magnitude of Consequences is *Minor*, resulting in *Very Low* risk. **No Treatments Recommended**.

- *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 Nome Creek, Labrador Creek, Baker Creek, and/or Salmon Creek and tributaries, into the Illinois River. However, of the 1078 acres within the fire perimeter in the Rancherie Creek-Illinois River subwatershed, 82% was unburned or low severity, and of the 945 acres within the fire perimeter in the Florence Creek-Illinois River subwatershed, 87% 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, including 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.**

- *Critical habitat or suitable occupied habitat for federally listed threatened or endangered terrestrial, aquatic animal, or plant species on NFS lands.*
  - SONCC coho salmon critical habitat in the Illinois River adjacent to the Labrador Fire. Based on amount of low and moderate burn severity along the river and side drainages (e.g. Nome and Labrador Creeks) and likely potential for mass wasting or debris torrents, as well as potential effects of the fire to stream shading: *Possible* probability and *Minor* Magnitude = *Low* Risk. **No Treatments Recommended.**

- There is no designated Critical Habitat for northern spotted owls within the fire perimeter. There is one historic nest site within the fire perimeter, that experienced a low severity underburn with a mix of low and moderate severity along the adjacent slopes. The probability of damage or loss is ***Possible*** and the magnitude of consequences is ***Moderate***, resulting in ***Intermediate*** 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 native plant communities and sensitive plant habitat within the Labrador Fire area are cloistered. The impacted habitat is isolated without roads and bordered by the Illinois River which acts as a barrier to human travel and other invasive plant vectors. The forested and serpentine areas are susceptible to the spread of an existing infestation and the establishment of new noxious weed infestations. The potential threat is the spread of non-native invasive plant species (particularly noxious weeds as designated by the Oregon Dept. of Agriculture) into the burned area. Noxious weeds known within 1000 feet of the fire perimeter are meadow knapweed, Scotch broom, Canada thistle, false brome. There is currently only one known noxious weed occurrence within the fire perimeter (Scotch broom on the east edge).

LABRADOR FIRE NOXIOUS WEED INFESTATIONS

Within Perimeter

CYSC4_0113 *Cytisus scoparius* (scotch broom) CYSC4
- 100 feet from East Boundary (Oak Flat)

Outside of Perimeter

CEDE5_0351 *Centaurea debeauxii* (meadow knapweed)
- 600 feet from east boundary

CIAR_0019 *Cirsium arvense* (Canada thistle)
- 600 feet from east boundary

CEDE5_23 *Centaurea debeauxii* (meadow knapweed)
- 700 feet from east boundary

BRSY_0002 *Brachypodium sylvaticum* (false brome)
- 1000 feet from east boundary
- Potential to establish on Illinois River on west bank

RARE PLANTS WITHIN CLOSE PROXIMITY TO LABRADOR FIRE

Sensitive

SOLE3 *Sophora leachiana* (western sophora)
- 500 feet from perimeter

ERCE *Erigeron cervinus* (Siskiyou daisy)
- 2300 feet from perimeter

CYFA *Cypripedium fasciculatum* (clustered lady slipper)
- 1200 feet from perimeter

Strategic

ALBO *Allium bolanderi* (bolander onion)
- 1300 feet from perimeter

There is a need for BAER detection surveys and noxious weed treatment within the Labrador fire area. The existing Oregon State listed noxious weed infestations within the fire perimeter and surrounding areas are at moderate to high risk of spreading into the newly burned and disturbed areas. The infestations are composed of wind disseminated species. This places the acres, within the Labrador Fire's perimeter, that have incurred moderate and severe burn intensity at risk from noxious weed spread and establishment.

There is an immediate threat of noxious weeds infesting, spreading, and establishing in vulnerable habitats changing the structure and composition of native plant communities. This is especially important in locations of suitable rare plants habitat. There are many locations of rare plants adjacent to

the fire boundary. Detection surveys and noxious weed treatments are necessary to prevent any additional negative impacts to native plant communities and potential rare plant habitat. Probability of damage or loss is ***Likely*** and the magnitude of consequences is ***Moderate***, resulting in ***High*** risk. **Treatments Recommended – Noxious weed/Invasive species early detection rapid response.**

Cultural and Heritage Resources: The Rogue River-Siskiyou National Forest (Wild Rivers Ranger District) has no documented cultural resource sites within the burned area boundaries of the Labrador Fire. Therefore, no sites represent "critical or non-critical values" from a National Register of Historic Places perspective, and there is No risk to the BAER Cultural and Heritage Resources critical value. **No Treatments Recommended.**

Due to the high concentration of historic (mining) activity along the course of the Illinois River and its tributaries, the fire may have revealed evidence of previously unknown activity within the fire boundary. If the opportunity arises, selected monitoring of some burned-over locations would be recommended, utilizing other funding sources.

B. Emergency Treatment Objectives:
The primary objectives of the burned area emergency treatments are to:

- Minimize the effects of changed post-fire hillslope hazards along the Illinois River Scenic Corridor on human life and safety.
- Minimize the increased potential for the spread of invasive and noxious weeds.

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

Land **80** % Channel **N/A** % Roads/Trails **N/A** % Protection/Safety **90** %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	70	80	80
Protection/Safety	85	90	95

E. Cost of No-Action (Including Loss): See attached VAR Analysis

F. Cost of Selected Alternative (Including Loss): See attached VAR Analysis

G. Skills Represented on Burned-Area Survey Team:

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

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H. **Treatment Narrative:**

Land Treatments:

Invasive Plant Early Detection surveys by 2 district Biological Science Technicians in late spring/early summer 2014 along and within the fire perimeter in moderate and high burn severity areas (excluding the southwestern portion of the burn area). If new infestations of noxious weeds or other worrisome invasive plants are detected, fund for treating (hand-pulling, digging, covering with black plastic, etc.) will be requested in summer 2014.

Channel Treatments: None proposed.

Roads and Trail Treatments: None proposed.

Protection/Safety Treatments:

Install burned area hazard warning signs at McCaleb Ranch and Miami Bar put-in, warning users of increased hazards from falling/fallen burned trees on the slopes along the Scenic Illinois River. One reflectorized, aluminum backed sign would be mounted on existing bulletin boards at each location.

I. **Monitoring Narrative:**

Implementation: Simple implementation monitoring and documentation will be conducted for each treatment to ensure that it is implemented correctly following specifications. Results of this monitoring will be submitted in an Interim or Final 2500-8, Accomplishment Report.

Effectiveness: Warning signs would be inspected regularly during the recreation season, to assure consistent visibility and readability to the public.

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										
Noxious Weed Detection	Acres	$18	275	$4,950	$0		$0		$0	$4,950
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$4,950	$0		$0		$0	$4,950
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										
				$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										
Hazard signs	Each	$250	2	$500	$0		$0		$0	$500
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Structures				$500	$0		$0		$0	$500
E. BAER Evaluation										
Assessment Team	Report	$4,500	1	---	$4,500		$0		$0	$4,500
Insert new items above this line!				---	$0		$0		$0	$0
Subtotal Evaluation				---	$4,500		$0		$0	$4,500
F. Monitoring										
compilation of monitoring	Each	1000	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				$6,450	$4,500		**$0**		**$0**	**$10,950**
Previously approved										
Total for this request				**$6,450**						

PART VII - APPROVALS

1. _____ _____
Forest Supervisor (signature) Date

2. _____ _____
Regional Forester (signature) Date