USDA-FOREST SERVICE FS-2500-8 (7/00)

September 13, 2002

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[X] 1. Funding request for estimated WFSU-SULT funds
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

[ ] 1. Initial Request (Best estimate of funds needed to complete eligible rehabilitation measures)

[x] 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: Biscuit

B. Fire Number:P65833

C. State:California /Oregon

D. County:Del Norte, CA, Curry & Josephine, OR

E. Region: 05/06

F. Forest: Six Rivers/Rogue River and Siskiyou

G. District:Chetco/Gold Beach and Gallice/Illinois Valley, Rogue River and Siskiyou NFs, R-6, Smith River National Recreational Area, Six Rivers NF, R-5.

H. Date Fire Started: July 13,2002

I. Date Fire Controlled: **UNK**

J. Suppression Cost:145.5 million dollars

K. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles):137 existing dozer line, 182 road, 33 hand line, 80% complete
2. Fireline seeded (miles): unk
3. Other (identify): numerous safety zones ripped and seeded

L. Watershed Number: 17100310 17100311, 17100312 , 18010101

M. Total Acres Burned**: 499.965**
NFS Acres(**489,000**) Other Federal (**8700**) State (**300**) Private **(2700**) County (**60**)

N. Vegetation Types: Seven plant series: Shasta red fir, white fir, jeffrey pine, Douglas-fir, tanoak, western hemlock, Oregon white oak.

O. Dominant Soils: Silt loam, gravelly loam

P. Geologic Types: Metamorphic volcanic rocks, metamorphic sediments, ultramafic with peridotite, and serpentine

Q. Miles of Stream Channels by Order or Class: Class 1 = 241, Class 2 = 255, Class 3 = 1,797, Class 4 =4,592, Total = **6,885**.

R. Transportation System

Trails:**315** miles Roads:**570** miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): **207,000** (low) **115,000** (moderate) **79,000** (high)

B. Water-Repellent Soil (acres): **40,000**

C. Soil Erosion Hazard Rating (acres):
307,400 (low) 114,300 (moderate) 78,800 (high)

D. Erosion Potential: 18 – 259 (ave. = 83) tons/acre

E. Sediment Potential: 5,200 – 74,620 (ave = 15,500) cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 20

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

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): 315

G. Estimated Reduction in Infiltration, (percent): 20

H. Adjusted Design Flow, (cfs per square mile): 356

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency:

The Biscuit Fire is located approximately 26 miles southwest of Grants Pass, Oregon. It has become the largest wildfire in Oregon in the last century. It was started by lightning activity and first reported on July 13, 2002 and was contained on September 6, 2002. Interior islands are expected to burn until a season ending precipitation event occurs. The Biscuit Fire includes most of the Kalmiopsis Wilderness and stretches from 10 miles east of the coastal community of Brookings, Oregon, south into California, east to the Illinois Valley and north to within a few miles of the Rogue River. The fire encompasses lands in Oregon's Josephine and Curry Counties and Del Norte County in California.

Values and type of risk:

PUBLIC HEALTH AND SAFETY; 1) Potential public water supply contamination from increased sedimentation and ash delivery to include the following areas, Gasquet, Crescent City and Smith River, CA from the Smith River, Gold Beach and Nesika Beach, OR from the Rogue River, Brookings and Harbour, OR from the Chetco River. 2) Damage and/or contamination of spring boxes and diversions which provide individual (private) water supplies along the Illinois River at Agness, Oak Flat, Upper River Oak Flat and on Spud Road, OR. 3) Access to private inholding, residences, businesses and permitted actions threatened by hazard trees and large rolling debris/rock, 4) Exposed (burned) vault toilets which can overflow after rains or into which public could fall.

CRITICAL HERITAGE RESOURCES – recently exposed ground followed by erosive rains at known heritage resource sites, may result in the theft/loss of certain critical artifacts. A known "vision quest" site is threatened by deadfall. Sites are inventoried and are eligible for inclusion on the National Register of Historic Places. These represent a majority of prehistoric sites documented on the Siskiyou National Forest. This work would only occur with concurrance of SHPO and affected tribes.

FOREST HEALTH – direct and indirect effects of emergency rehabilitation on the incidence and possible spread of Port-Orford-cedar root disease (*Phytophthora lateralis*). The spread of which is almost always fatal to Port-Orford-cedar.

TRANSPORTATION INFRASTRUCTURE – critical access within and downstream of National Forest and resource access necessary for BAER implementation and monitoring are at risk to damage by increased duration of effective discharge and debris delivery resulting in excessive scour and blocked or breached drainage structures. Of specific concern are FDR #s; 4103, 4201, 2500, 4402 and 2300 (Bear Camp Road).

ECOLOGICAL INTEGRITY/SITE PRODUCTIVITY – 1) direct and indirect effects of fire and rehabilitation on the incidence and possible spread of weeds which may put native plant communities at risk, 2) loss of soil productivity and site quality as the result of accelerated soil erosion and loss.

T & E HABITAT – under the Endangered Species Act: listed as threatened*;* coho salmon (*Oncorhynchus. kisutch*), coho salmon critical habitat, northern spotted owl (*Strix occidentalis caurina*), northern spotted owl critical habitat, marbled murrelet (*Brachyramphus marmoratus*), marbled murrelet critical habitat and as endangered*,* MacDonald's rockcress (*Arabis mcdonaldiana*), may be diresty and indirectly effected by fire and fire effects.

WATER DEPENDENT USERS – private landowners' use of irrigation and domestic hydropower from the Illinois River which can be damaged or destroyed by debris laden waters resulting from runoff from burned areas within the watershed.

B. Emergency Treatment Objectives:

PUBLIC HEALTH AND SAFETY – reduce sediment transport (where possible), reduce the potential of debris matrixes forming after road failures, eliminate the potential exposure to human devired contaminants. Reduce risk to public and employees by removal of snags alond needed travelway corridors.

CRITICAL HERITAGE RESOURCES – prevent the loss of irreplaceable heritage resources

FOREST HEALTH - prevent the further spread of POC root disease by use of "wash stations"

TRANSPORTATION – reduce the potenial for loss of necessary transportation infrastructure for rehabilitation and primary access to residences or businesses.

ECOLOGICAL INTEGRITY/SITE PRODUCTIVITY – reduce the potential of weed spread and contamination by utilizing "weed free" materials, locally produced native seeds and rapidly germinating seed (cereal barley

(*Hordeum vulgare*) at a rate that should be compatible with local natualy native reproduction and rare plant communities.

T & E HABITAT – reduction of sediment delivery from other needed treatments will indirectly provide less impact to aquatic dependent species. Seeding with barley for site productivity may indirectly provide forage for small mammals.

WATER DEPENDENT USER – sediment reduction and transportation infrastructure treatment to reduce potential losses to irrigation and domestic hydropower

C. Probability of Completing Treatment Prior to First Major Damage-Producing Storm:

Land **70** % Channel **n/a** % Roads **50** % Other **90** %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	60	80	80
Channel	n/a	n/a	n/a
Roads	50	70	70
Other	90	90	90

E. Cost of No-Action (Including Loss): **29.6 million dollars**

F. Cost of Selected Alternative (Including Loss):**25 million dollars**

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Gregory A. Kuyumjian/Jon R. Brazier

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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: Aerial straw bale application (5450 acres) with high burn severity, highly erodable soils (primarily granitics) with strong hydrophobic conditions on a large percentage of the treatment area. Seeding (2940 acres) with a quick germinating annual (barley) at a light application (50 pounds/acre) to provide immediate cover to reduce erosion from acres of high burn severity on steeper slopes. Seeding (200 acres) with native seeds on areas with high burn severity where it is believed that the native seed bank has been compromised. Fall specific hazard trees in areas necessary for rehabilitation treatments.

Channel Treatments: None proposed.

Roads and Trail Treatments: Hazard warning signs on National Forest Sytem Roads at the edge of the burn and high risk areas. 200 signs at $150.00 each installed. – Funded ($30,000) with Initial 2500-8 on August 28, 2002. Signs ordered.

Road treatments: Road drainage emergency treatments (426 miles – 50 % BAER represented by the following); Replace undersized culverts (18), remove culverts (20), install drainage structures (90), armor culvert outlets (75), repair/clean inlets/outlets (115), fill repair(14), road drainage improvement (33 miles). Per mile average includes heritage support as there were a number of burned out wooden culverts. Fall specific hazard trees along roads necessary for rehabilitation access and primary access routes to residences or businesses.

Structures: Pump, sanitize and cap or fill 15 burned vault toilets. Fifteen toilets at $2000.00 each, cost reflects remote location. Ten funded ($20,000) with initial 2500-8 on August 28, 2002. Additional vaults identified by current assessment.

Wash Station: Three or more vehicle wash stations to sanitize vehicles moving out of Port Orford cedar zones. Stations will be located on the east, west, and south sides of the fire. Funded ($120,000) with initial 2500-8 on August 8 2002.

Critical Heritage Resources: Schedule site treatment after first rains to recover vaulable, non-renewable surface heritage resources. Site characterization, cataloging and reporting will be completed with Forest program of work or alternative funding. Fell hazard trees around “vision quest” site to reduce the potential for site degredation.

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 request and plan (s) will be submitted with the next interim 2500-8 and will include weeds and storm patrols.

Application of seed and straw will be monitored during implementation.

Part VI – Emergency Rehabilitation Treatments and Source of Funds by Land Ownership

			NFS Lands				Other Lands			All
		Unit	# of	WFSU	Other	# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	SULT $	$	units	$	Units	$	$
A. Land Treatments										
native seed (hand)	acre	200	200	$40,000			$0		$0	$40,000
aerial seed (barley)	acre	45	2940	$132,300			$0			$121,500
aerial mulch	acre	750	5450	$4,087,500			$0		$0	$4,087,500
recover heritage	site	1800	20	$36,000		20	$25,000		$0	$61,000
Subtotal Land Treatments				$4,295,800			$25,000		$0	$4,310,000
B. Channel Treatments										
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Channel Treat.				$0			$0		$0	$0
C. Road and Trails										
road emergency	miles	1310	213	$279,030		213	$279,030		$0	$558,060
emergency signs				$0			$0		$0	$0
snags along roads	miles	2000	82	$164,000			$0		$0	$164,000
				$0			$0		$0	$0
Subtotal Road & Trails				$443,030			$279,030		$0	$722,060
D. Structures										
vault toilets		2000	5	$10,000			$0		$0	$10,000
POC Wash Stations							$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Structures				$10,000			$0		$0	$10,000
E. BAER Evaluation										
		290,000	1	$290,000			$0		$0	$290,000
IMPLEMENTATION	day	16,000	36	$576,000			$0		$0	$576,000
(IC with ICP)										
G. Monitoring Cost				$0			$0		$0	$0
H. Totals				**$5,614,830**			**$304,030**		**$0**	**$5,908,060**

PART VII - APPROVALS

1. /s/ Scott D. Conroy — 9/13/02
   Forest Supervisor (signature) — Date

1. /s/ Lou "SE" Woltering — 9/13/02
   Forest Supervisor (signature) — Date

2. /s/ Richard Sowa (for) — 9/16/02
   Regional Forester (signature) — Date