USDA-FOREST SERVICE Date of Report: 09/17/96

BURNED-AREA REPORT
(Reference FSH 2509.13, Report FS-2500-8)

Entered under Malheur

PART I - TYPE OF REQUEST

A. Type of Report

[X] 1. Funding request for estimated EFFS-FW22 funds
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

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

[ ] 2. Interim Report
  [ ] Updating the initial funding request based on more accurate site data and design analysis
  [ ] Status of accomplishments to-date

[ ] 3. Final report - following completion of work

PART II - BURNED-AREA DESCRIPTION

A. Fire Name: SUMMIT B. Fire Number: OR-UMF-039

C. State: OR D. County: GRANT
E. Region: 06 F. Forest: MALHEUR/UMATILLA
G. District: LONG CK/N.FK.JOHN DAY

H. Date Fire Started: 08/18/96 I. Date Fire Controlled: PENDING
J. Suppression Cost: Approx. $10,000,000

K. Fire Suppression Damages Repaired with EFFS-PF12 Funds:
  1. Fireline waterbarred (miles) 60
  2. Fireline seeded (miles) 30
  3. Other (identify) All closed roads opened for access were reclosed and stabilized, trails used were water-barred, slash and woody material were pulled back onto firelines, water sources were rehabilitated

L. Watershed Number: 1707020391/1707020236

M. NFS Acres Burned: 36,247 Total Acres Burned: 37849
(28,168 Malheur, 8079 Umatilla)
Ownership type:
( )State ( )BLM (1602)PVT ( )____ _____

N. Vegetation Types: High elevation lodgepole pine, subalpine fir, and montane meadows; grand fir, douglas fir, and western larch at mid elevations; and ponderosa pine, juniper, and grassland steppe at low evelations.

O. Dominant Soils: Ash cap soils over granitic subsoils, silty to clay loams both with and without ash caps

P. Geologic Types: Moderately weathered diorites and serpentines, volcanic sediments with some interbedded basalts and andesites

Q. Miles of Stream Channels by Order or Class:
Cl.I 9.7 Cl.II 18.6 Cl.III 52.8 Cl.IV 50.8

R. Transportation System:
Trails: 54.4 (miles) Roads: 231.6 (miles)

PART III - WATERSHED CONDITION

A. Fire Intensity (Acres): 24,952 (low) 5,015 (moderate) 7,893 (high)

B. Water Repellant Soil (Acres): 5,920

C. Soil Erosion Hazard Rating (Acres):
7,650 (low) 14,428 (moderate) 12,524 (high)

D. Erosion Potential: 55 tons/acre
E. Sediment Potential: 7,722 cu. yds/sq. mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period: 1 years.
B. Design Chance of Success: 80 percent.
C. Equivalent Design Recurrence Interval: 5 years.
D. Design Storm Duration: .5 hours.
E. Design Storm Magnitude: .55 inches.
F. Design Flow: 14 cfsm.
G. Estimated Reduction in Infiltration: 26 percent.
H. Adjusted Design Flow: 19 cfsm.

PART V - SUMMARY OF ANALYSIS

A. Describe Emergency:

This fire burned portions of several drainages with moderate to high intensities, and generated substantial areas of hydrophobicity. The terrain where these effects occurred is steep, with mostly highly erosive soils. In these areas, ground cover other than rock, has been largely eliminated (less than 10% remains). Big Boulder Creek and Deadwood Creek and tributaries were particularly hard hit, as well as portions of Elk Creek and Deep Creek. These streams provide habitat for bull trout, chinook salmon, and steelhead. These streams also are tributary to the Middle Fork of the John Day River which is an Oregon State Scenic Waterway. In addition, Desolation Creek and Lake Creek were also impacted to a lesser extent and provide habitat to the same fish species, and are tributary to the Wild and Scenic North Fork of the John Day River. We believe that high fire intensities on these erosive soils have created a situation where a high intensity storm event could transport large amounts of soil from the slopes and into these streams. This would result in unacceptible loss of site productivity, damage to valuable fisheries, and could adversely affect free flowing conditions in the Wild and Scenic River.

B. Emergency Treatment Objectives:

1. Restore effective ground cover on vulnerable, erosive slopes to 50% coverage as soon as possible, to protect the productivity of these sites and to minimize the amount of eroded sediment available for downslope transport.

2. Provide for interception and storage of eroded sediments in ephemeral channels and on side slopes until ground cover is re-established, to avoid impacts to high value streams.

3. Stabilize channels that are vulnerable to damage from increased peak flows, where fire has eliminated large woody debris from the system.

4. Protect investments in other BAER treatments by limiting access to treatment areas.

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

Land 80 % Channel 80 % Roads 80 % Other _____ %

D. Probability of Treatment Success

	<----Years after treatment-----> 1	3	5
Land	80%	90%	100%
Channel	90%	90%	100%
Roads	90%	95%	100%
Other			

E. Cost of No-Action (Including Loss): $4,658,249

F. Cost of Selected Alternative (Including Loss): $2,069,043

G. Skills Represented on Burned-Area Survey Team:

[X] Hydrology	[X] Soils	[X] Geology	[X] Range
[X] Timber	[X] Wildlife	[ ] Fire Mgmt.	[ ] Engineering
[ ] Contracting	[ ] Ecology	[ ] Research	[ ] Archaeology
[X] Recreation	[ ] _____	[ ] _____	[ ] _____

Team Leader: David Kretzing
Phone: (503) 575-3011 DG Address: R06F04A

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

1. Aerial Seeding: Approximately 7569 acres of highly erosive sideslopes will be aerially seeded to restore ground cover to at least 50%. These slopes were exposed to high fire intensities which reduced existing ground cover to less than 10% which consists mostly of rock and scattered large woody material. The seed mix proposed for use is 40 lb/ac winter wheat. The cereal grain is intended to establish ground cover rapidly and to provide an organic mulch as it dies out, with minimal impact to local native genetic stocks.

2. Contour Log Placement: Approximately 300 acres of contour log placement will be completed along canyon toeslopes, and on steep sideslopes below road culverts where surface flow is likely to be concentrated. This treatment is intended to intercept and store sediment that may move downslope prior to re-establishment of ground cover on the canyon walls.

Channel Treatments

1. Channel Stabilization: An existing stabilized headcut was determined to be vulnerable to renewed activity resulting from increases in peak flow in the South Fork of Desolation Creek. Should this occur, it is estimated that up to 3 miles of stream channel above this point would be subject to scour. In order to prevent this, the existing stable structure will be strengthened with rock rip-rap. Since there is no road access, it is anticipated that materials will likely need to be transported to the site aerially.

Roads and Trails

1. Earth Road Berms: In order to minimize access to areas treated with aerial seeding, we are proposing to close up to 10 road segments. This will protect our investment in seeding from road traffic, and more importantly, ATV use in the area.

2. Culvert Removal: In tandem with the closure devices planned above, we are proposing to remove up to 10 culverts from road segments to be closed. These

culverts generally will be those that are considered to be undersized and incapable of transmitting increased peak flows.

3. Trail Waterbars: We are proposing to waterbar 5 miles of trail within the fire area. The trails to be treated are on erosive granitic soils, and are situated in a manner where they are likely to collect and concentrate surface flow.

PART VI - EMERGENCY REHABILITATION TREATMENTS AND SOURCE OF FUNDS BY LAND OWNERSHIP

NOTE: Emergency rehabilitation is work done promptly following a wildfire and is not to solve watershed problems that existed prior to the wildfire.

Line Items	Units	Unit Cost $	NFS Lands Number of Units	NFS Lands EFFS-FW22 $	NFS Lands Other $ ident.	Other Lands Number of Units	Other Lands Fed $ ident.	Other Lands Non-Fed $ ident.	All Total $
A. LAND TREATMENTS									
AERIAL SEEDING MAL	Ac	$25	7569	$189225					$189225
CONTOUR FALLING MAL	Ac	$200	300	$60000					$60000
B. CHANNEL TREATMENTS									
CHANNEL STAB. UMA	Mi	$6800	3	$20400					$20400
C. ROADS AND TRAILS									
CULVERT REMOVAL MAL	Ea	$1000	10	$10000					$10000
EARTH ROAD BERMS MAL	Ea	$1000	10	$10000					$10000
TRAIL WATERBARS UMA	Mi	$1000	5	$5000					$5000
D. STRUCTURES									
E. BAER EVALUATION/ ADMINISTRATIVE SUPPORT									
SURVEY & ADMIN UMA	Ac	$1.15	8079	$9291					$9291
SURVEY $ ADMIN MAL	Ac	$.85	28128	$23909					$23909
F. TOTALS				$327825					$327825

MALHEUR TOTAL - $293,134 UMATILLA TOTAL - $34,691 If approved, please distribute appropriate amounts directly to each Forest.

PART VII - APPROVALS

1. /s/ F. Carl Pence — 9/17/96
   Forest Supervisor (Signature) — Date

2. /s/ —
   Regional Forester (Signature) — Date