Salmon NF

2520 Watershed Protection and Management July 19, 1985

Burned Area Emergency Rehabilitation - Lake Mountain Fire

Regional Forester, R-4

Enclosed for your information is the Burned Area Emergency Rehabilitation Report for the Lake Mountain fire. The Rehabilitation Team did not recommend any burned area treatments for fire damaged watersheds which could appropriately be funded with FFF-092 funding. There were; however, a number of suppression related damages that were evaluated by the Rehabilitation Team. For your information, these are shown in Part VI of the Rehabilitation Report and are further described in the enclosed narrative.

Extensive amounts of bulldozer line was constructed as part of the suppression activities of this fire. Initial watershed protection measures, such as waterbarring and outsloping, were completed as part of the fire mop-up. Additionally, with the exception of the seeding of the firelines to establish a protective vegetative cover, all other emergency rehabilitation work shown on Part VI of the Rehabilitation Report is currently being accomplished. Seed for the fireline has been ordered; however, the actual seeding operations are planned for late September or October. Previous seeding experience on the Salmon Forest has shown that a late fall seeding produces the best establishment results. The estimated seed application costs are $7,575. This will be the amount needed to complete the Lake Mountain fire emergency treatment of suppression damaged areas and facilities.

Richard T. Hauff

RICHARD T. HAUFF
Forest Supervisor

Enclosure

JGuest:sue

United States Department of Agriculture | Forest Service | Salmon NF

Reply to: 2520 Watershed Protection and Management

Date: July 14, 1985

Subject: Burned Area Emergency Rehabilitation: Lake Mountain Fire

To: Forest Supervisor

Enclosed for your review is the Burned Area Report for the Lake Mountain fire. If you concur, please sign the "approval" in Section VII of the report and return it to me. A copy of the report will then be forwarded to the Regional Forester for his concurrence and action.

James E. Guest

JAMES E. GUEST
Branch Chief Range, Recreation,
Wildlife and Watershed

JUL 15 '85

Enclosure

cc:
Schneider (w/report)
Groll D-1 (w/report)
Guillette D-5 (w/report)
~~Guest~~ (w/report)

Copy to those marked and file originals.

Looks Good

USDA—Forest Service

BURNED AREA REPORT

(Reference FSH 2509.13, Report FS-2500-A)

Date of Report: 7/14/85

PART I – TYPE OF REQUEST

1. Type of Report

A. [X] Funding (Request for estimated FFF funds) B. [X] Accomplishment Report

2. Type of Action

A. [ ] Initial (estimated funding is first requested)

B. [ ] Interim

a. [ ] Updating the initial funding request

b. [ ] Supplying information for accomplishments to date on emergency work underway

C. [X] Final

a. [X] Best estimate for funds needed to complete eligible rehabilitation measure

b. [ ] Following completion of funded work

PART II – FIRE LOCATION

1. Fire Name (From Form FS-5100-29)	2. Forest Supervisor's Fire No. (From FS-5100-29)	3. State	4. County
Lake Mountain	700014	Idaho	Lemhi

5. Region	6. Forest	7. Ranger District	8. Date Fire Started	9. Date Fire Controlled	10. Estimated Suppression
R-4	Salmon	Cobalt/Salmon	6/29/85	7/11/85	$ 3,835,000

11. Fire Suppression Damages Repaired with FFF 102 Funds

a. 36.1 miles (firelines waterbarred) b. See comments attached - fall seeding acres (firelines seeded) c. Other (identify) Big game movement barriers

12. Fire Intensity

a. 25 % (low) b. 50 % (medium) c. 25 % (high)

PART III – NATIONAL FOREST SYSTEM PROBLEM INVENTORY

1. Watershed No.	2. NFS Acres Burned	3. Water Repellant Soil
0015-45% 0014-55%	8172	5 % of NFS acres burned

4. Vegetation Types

Douglas-fir/pinegrass
subalpine fir/whortleberry/pinegrass

5. Geologic Types

Quartzite 6,875 acres (84%)
Volcanics 1,297 acres (16%)

6. Soil Erosion Hazard Rating

a. 0 % (low) b. 97.7 % (medium) c. 2.3 % (high)

7. Erosion Potential

465 cu. yds/sq. miles

8. Miles of Stream Channels By Regional Order or Classes

Order 1 - 3.0 miles
Order 2 - 4.6 miles

9. Miles of Forest Service Trails

2.39 miles (#8)

10. Miles of Forest Service Roads By Maintenance Levels

a. 4.07 miles (Level I) b. _____ miles (Level II) c. 9.05 miles (Levels III, IV, V)

PART IV – CALCULATED RISK AND CLIMATIC EVALUATION

1. Estimated Vegetative Recovery Period (Years)

Burn intensity - Low 2 years
Med 3 years
~~High 7 years~~

2. Chance of Success Desired By Management (Percent)

90%

3. Equivalent Design Recurrence Period (Years)

Low intensity - 10 years
Med intensity - 13 years
~~High intensity - 28 years~~

4. Related Design Storm Duration (Hours)

6 hours

5. Related Design Storm Magnitude (Inches)

0.8

6. Related Design Flow (cfsm)

10.9

7. Estimated Reduction In Infiltration (Percent)

10%

8. Adjusted Related Design Flow (cfsm)

12.0

Previous edition of this form is obsolete.

FS-2500-8 (11/82)

USDA-Forest Service

ON-SITE AND OFF-SITE DEVELOPMENTS SUBJECT TO HAZARDS[1]

(Reference FSH 2509.13)

Fire Name			Date of Report
Lake Mountain			7/13/85
Line Items (a)	**Type of Units (b)**	**Number of Units (c)**	**Estimated Value $ (d)**
1. Community and urban development	People	N/A	N/A
2. Municipal and domestic water supply	People Served	5	3,000
3. Transportation systems	Miles	2.5	5,000
4. Water distribution systems (irrigation)	Miles	1.5	1,500
5. Agricultural development (crops, facilities)	Acres	160	16,000
6. Industrial development (dams, power, manufacturing)	Number	N/A	N/A
7. Power and communication lines	Miles	N/A	N/A
8. Recreation development	PAOT	N/A	N/A
9. Fish habitat	Miles	N/A	N/A
10. Other (specify)			
11. Total Hazard Potential[2]			$25,500

12. Narrative (Optional - if additional space is needed, attach another sheet.)

[1] Hazards from floods, floating debris, erosion, or sediment because a watershed is impaired by wildfire. (Do not include value of resources damaged or destroyed by the fire reported on FS-5100-29.)

[2] Indicates values threatened by design storm. Does not enter into the B/C.

USDA - Forest Service

SUMMARY OF EMERGENCY REHABILITATION NEEDS BY LANDOWNERSHIP

(Reference FSH 2509.13)

Fire Name: Lake Mountain

Date of Report: July 13, 1985

Landownership	A. Acres Burned	B. Emergency Rehabilitation Needs				C. Source of Emergency Rehabilitation Funds for Needed Work ($)						
		(1) Land (acres)	(2) Channel (miles)	(3) Road & Trail (miles)	(4) Other	1. FFF (a) 092	1. FFF (b) 102	2. Emergency Flood Prevention	3. FR & T	4. Other Federal (Enter fund)	5. Non-Federal (Enter fund)	6. Total
Federal (NFS)	8,172	327		23.0			22,851.					22,851
Other (specify												
Subtotal (NFS)	8,172	327										
Non-Federal (State & County)												
Indian reservation												
Private												
Subtotal (Non-Federal)												
TOTAL	8,172	327		23.0			22,851.					22,851.

D. Remarks

See attached narrative for discussion of roads, seeding mixtures, etc.

NARRATIVE REPORT

LAKE MOUNTAIN FIRE
July 13, 1985

Team members involved in the Lake Mountain fire emergency rehabilitation analysis were:

Team Leader - Jim Guest
Wildlife Biologist - Dick Wenger
Soil Scientist - Gary Jackson
Range Conservationist - Shelley Douthett
Fisheries Biologist - Bruce May
Engineer - Vaughn Stokes

Prior to initiating field reconnaissance and analysis, the Team Leader met with representatives of the Cobalt and Salmon Districts and the Incident Commander and his staff. The purpose of the meetings was to establish the primary objectives for the rehabilitation teams and to work out logistical arrangements.

The Team Leader, Incident Commander, and Salmon District representative made a helicopter overview of the fire area on Wednesday, July 9. The remainder of the rehabilitation team made an overview flight the following day, July 10. Ground reconnaissance and sampling was performed on July 11.

Emergency Watershed Protection Work

A member of the rehabilitation team (Dick Wenger) was assigned to work with the tractor operations as an adviser on water bar spacing and construction and location and design of structures to prohibit unnecessary vehicle access.

Big Game Movement Barriers

Extensive barriers to big game movement were created when dozer lines were constructed in dense timber. To alleviate this problem, openings were made at 200 foot intervals to allow for movement routes. This rehabilitation need was accomplished simultaneously with the construction of water bars on the firelines.

Proposed Emergency Seeding to Protect Watershed Values from Exposed Firelines, etc.

Approximately 327 acres of fireline, fire camp locations, helispots, heavy equipment staging areas, etc., are recommended for seeding to establish a vegetative cover and prevent unacceptable on-site watershed damage.

Three seed mixtures are to be used in revegetating cat roads, handlines, and miscellaneous camp, helispot, drop points, and loading area sites.

Approximately 254 acres of catline will be aerially reseeded at a seeding rate of 21 pounds per acre. The mixture is as follows:

Smooth brome	5
Orchard grass	4
Timothy	4
Intermediate wheatgrass	4
Red clover	4
	21 pounds

A catline was constructed along a dry ridge having a south exposure and no barrier protection like the timbered catlines have. For these 59 acres, a seeding mixture at a seeding rate of 23 pounds per acre is recommended.

Russian wild rye	4
Crested wheatgrass	2
Thickspike wheatgrass	4
Bluebunch wheatgrass	6
Needle and thread grass	2
Yellow sweet clover	1
Intermediate wheatgrass	4
	23 pounds

In those small areas experiencing heavy human or equipment traffic (based on the kind of existing presuppression vegetation), the following seed mixture is recommended at a rate of 14 pounds per acre. This mixture will be hand seeded and along with the good forb composition in adjacent areas should come back quickly.

Meadow foxtail	5
Mountain brome	3
White clover	1
Smooth brome	2
Canada bluegrass	2
Orchard grass	1
	14 pounds

Handline will be reseeded using the same mixture as the bulk of the catline. There are approximately 9 acres and it can all be done with a hand seeder.

A late fall application of seed is recommended by the rehabilitation teams. Previous seeding experience on the Salmon National Forest has shown that late fall seeding produces the best results.

Stream Channels - Riparian Zones

Condition of the stream channels and riparian zones were reviewed by the rehabilitation team's fisheries biologist. Generally, a good filter strip or buffer zone exists between burned areas or constructed fireline and the riparian/stream channel zones. It is felt that impacts to the

aquatic environment will be within acceptable limits if the emergency watershed protection measures recommended in this report are performed. No special riparian zone/stream channel treatments are recommended.

System Road Rehabilitation

Due not only to the volume of traffic, but also the heavy loads being hauled, the road prism on approximately 23 miles of system road was significantly damaged. To insure proper drainage and avoid unacceptable watershed damage, it is recommended these roads be bladed, outsloped, and repaired.

Submitted by: James E. Guest

Date: July 13, 1985

ADDENDUM

Miscellaneous

- Several panels of buck/pole and log/block fence were either badly damaged or destroyed by the fire suppression activities.

- Four Forest Service redwood signs were damaged or destroyed during fire suppression activities.

- A short section of irrigation ditch was severely damaged on the Roy Hoffman Ranch when bulldozers and other heavy equipment crossed the ditch. It is recommended this section of ditch be repaired by the installation of a 20-foot section of culvert.

It is recommended the miscellaneous items listed be repaired or replaced as part of the emergency fire rehabilitation. Estimated costs to make these repairs are shown in Section VI of the Rehabilitation Report.

* With the exception of the seeding of fire lines and other disturbed areas, all the emergency rehabilitation work shown on Part VI of the report either has been, or is currently being, accomplished. Seed to accomplish the fireline seeding has been ordered; however, the actual seeding operations are planned for late September or October. The estimated seed application costs are $7,575. This will be the amount needed to complete the Lake Mountain fire rehabilitation needs.