



United States
Department of
Agriculture

Forest
Service

Siskiyou
National
Forest

200 NE Greenfield Road
PO Box 440
Grants Pass, OR 97526-0242

Reply to: 2520 Watershed Protection & Management

July 12, 1988

Subject: FINAL Emergency Burned Area Reports (FS 2500-8) - Galice,
Longwood, and Silver Fires

To: Regional Forester

Enclosed are the final accomplishment reports for the Galice, Longwood, and Silver Fires. A total of \$ 674,404 of the \$ 864,183 authorized was used for emergency burned area rehabilitation on both National Forest and private lands. The following summarizes the expenditures for each fire:

	<u>Amount Expended</u>	<u>Amount Authorized</u>
Galice Fire	\$ 90,194	\$ 110,510
Longwood Fire	\$ 271,707	\$ 349,118
Silver Fire	\$ <u>312,503</u>	\$ <u>404,555</u>
	\$ 674,404	\$ 864,183

A total of \$ 62,566 was obligated in FY 87; the remainder in FY88. Unit costs for rehabilitation treatments shown in the FS-2500-8 reports represent our best estimate of the actual costs.

Based on our experience this last season, maintaining separation of FFF charges between "fire suppression rehabilitation" and "emergency burned area rehabilitation" accounts was difficult. Some very time consuming review of charges was required to track charges to the correct accounts. We thereby recommend that individuals responsible for purchasing, contracting, or implementing fire suppression or emergency burned area rehabilitation work be aware of the types of supplies, services, and treatments that should be appropriately charged to one or the other rehabilitation activity. Distinguishing the differences between the two accounts was obviously not all that clear in the smoke and chaos surrounding three major wildfire complexes, the lengthy duration of the fires, and initiation of planning activities for salvage projects.

We appreciated the help and advice of Gerry Swank and Dallas Hughes of your staff, and Larry Schmidt of the W.O. Watershed and Air Management Staff during this past season. If you have questions regarding the enclosed information, please contact Ivars Steinblums of my staff.

RONALD J. McCORMICK
Forest Supervisor

Enclosures

cc: District Rangers, Galice and Illinois Valley
R. Ettner



LONGWOOD FIRE

7/10/88

PART VI - ELIGIBLE EMERGENCY REHABILITATION MEASURES OR TREATMENTS AND SOURCE OF FUNDS

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	NFS Lands					Other Lands			All Lands
	Units	Unit	No. of	FFF 092	Other \$	No. of	Federal	Non-Federal	Total
		Cost	Units	\$	ident.	Units	\$	\$	\$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
A. LAND									
a. Aerial Seeding 1/	Acres	22	1641	36,102		77	3/	1,694	37,796
b. Aerial Seeding 2/	Acres	45	393	17,685		64	3/	2,880	20,565
c. Aerial Fertiliz.	Acres	41	1876	76,916		141	3/	5,781	82,697
d. Seeding (Hand)	Acres	67	220	14,740					14,740
e. Spread Hay Straw	Acres	382	45	17,205					17,205
f. Cordoning	Acres	1250	1/2	625					625
g. Contour felling	Acres	284	150	42,570					42,570
Subtotal				205,843				10,355	216,198
B. CHANNELS									
a. Straw eros. barrier	Str.	94	179	16,826					16,826
b. Check dams	Str.	151	117	17,667					17,667
c. Jute netting	Acres	600	1	600					600
d. Vegetation for	Acres	310	20	6,200					6,200
bank stabilization in domestic watersheds									
Subtotal				41,293					41,293
C. ROADS AND TRAILS									
a. Storm patrol and	Miles	20	28	520					520
cleanup 4/									
c. Culverts, add 5/	Str.	440	5	2,200					2,200
d. Trail maintenance	Miles	200	5	1,000					1,000
e. Erosion control	Miles	4,325	2	8,650					8,650
Subtotal				12,370					12,370
				\$ 259,506				\$ 10,355	\$ 269,861
D. TOTAL									

- 1/ Aerial grass seeding using non-serpentine mix.
- 2/ Aerial grass seeding using serpentine mix.
- 3/ Soil Conservation Service "403" Funding for treatments on private lands within burned area.
- 4/ Very few storms this winter resulted in fewer storm patrols than we originally anticipated. Storm patrol funds used for December 1987 storms.
- 5/ Additional culverts were added to handle expected runoff from burned area above roads.
- 6/ Restructuring road drainage system in intensely burned, unstable watershed to handle expected runoff from intensely burned area above road.

SILVER FIRE

7/10/88

PART VI - 1 - ELIGIBLE EMERGENCY REHABILITATION MEASURES OR TREATMENTS
AND SOURCE OF FUNDS FOR 45,000 ACRES OF NON-WILDERNESS LANDS

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	NFS Lands					Other Lands			All Lands
	Units	Unit	No.	FFF 092	Other	No.	Fed \$	Non-	Total
		Cost	Units	\$	\$	Unit		Fed \$	\$
		\$				ident	ident	ident	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
A. LAND									
a. Aerial Seed	Acres	22	3160	69,520					69,520
b. Aerial Seed/Fert	Acres	63	3650	233,600					233,600
c. Aerial Fert	Acres	42	40	1,680					1,680
d. Contour Felling	Acres	318	11	3,498					3,498
e. Checkdam/barriers	Str.	80	44	3,520					3,520
f. Straw mulch	Acres	138	6	828					828
				\$ 312,646					\$ 312,646
B. CHANNELS									
a. Opening water									
courses	Miles								
b. Stabilizing									
streambanks	Miles								
C. ROADS AND TRAILS									
a.									
b.									
Totals				\$ 312,646					\$ 312,646

7/10/88

GALICE FIRE

PART VI - ELIGIBLE EMERGENCY REHABILITATION MEASURES OR TREATMENTS
AND SOURCE OF FUNDS

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	NFS Lands					Other Lands			All Lands
	Units	Unit	No. of	FFF 092	Other \$	No. of	Federal \$	Non-Federal	Total
	Cost	Units	\$		Units	\$		\$	\$
(1)	(2)	(3)	(4)	(5)	ident.	(7)	ident.	identify	(9)
A. LAND									
a. Aerial Seeding 1/	Acres	22	490	10,780					10,780
b. Aerial Seeding 2/	Acres	47	503	23,641					23,641
c. Aerial Fert.	Acres	43	1063	45,709					45,709
d. Hand Seeding/Fert	Acres	48	10	480					480
e. Straw Mulching	Acres	86	5	430					430
f. Contour Felling	Acres	330	10	3,300					3,300
Subtotal				\$ 84,340					\$ 84,340
B. CHANNELS									
a. Check dams	Str.	197	6	1,182					1,182
b. Vegetation for	Acres	110	1	110					110
stabilization of steep erosion									
prone streambanks.									
Subtotal				\$ 1,292					\$ 1,292
C. ROADS AND TRAILS									
a. Storm patrol and	Miles	44	16	700					700
cleanup 3/									
b. Culverts, add 4/	str.	900	1	900					900
Subtotal				\$ 1,600					\$ 1,600
D. TOTAL				\$ 87,232					\$ 87,232

1/ Aerial seeding using non-serpentine seed mix

2/ Aerial seeding using serpentine seed mixture.

3/ Unexpectedly low precipitation resulted in fewer storm events that would have normally required storm patrols. Storm patrols were made in December 1987.

4/ Culvert was added to handle expected runoff from burned area above road.

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

PART I - TYPE OF REQUEST

1. Type of Report

- ☐ A. Funding (Request for estimated FFF funds)
☒ B. Accomplishment Report

2. Type of Action

- ☐ A. Initial (estimated funding is first requested)
☐ B. Interim

☐ Updating the initial funding request.
☐ Supplying information for accomplishments to date
on emergency work underway.

☒ C. Final

- ☐ Best estimate for funds needed to complete eligible
rehabilitation measure.

- ☒ Following completion of funded work.

PART II - FIRE LOCATION

1. Fire Name (from Form FS-5100-29): Galice
2. Forest Supervisor's Fire No. (Form FS-5100-29): 762469
3. State: Oregon
4. County: Josephine
5. Region: Pacific Northwest
6. Forest: Siskiyou
7. Ranger District: Galice
8. Date Fire Started: August 30, 1987
9. Date Fire Controlled: 1900 Hrs., September 26, 1987
10. Estimated Suppression Costs: \$4,013,946
11. Fire Suppression Damages Repaired with FFF 102 Funds:

29 miles (firelines waterbarred, 8.7 FS; 20.3 BLM)

25 miles (firelines seeded)

7.1 miles (seeded and fertilized, all FS)

12. Fire Intensity: 40 % (low) 30 % (medium) 30 % (high)

PART III - NATIONAL FOREST SYSTEM PROBLEM INVENTORY

1. Watershed No.: 1710031026 and 1710031109
2. NFS Acres Burned: 4935 FS; (21,140 FS plus BLM)
3. Water Repellant Soil: 20 % of NFS acres burned

4. Vegetation Types: Tanoak, Douglas-fir, and white fir Series
5. Geologic Types: Serpentine 15%, Meta-igneous 40%, Granitics 5%, Metasediments 40%
6. Soil Erosion Hazard Rating:

30% (low)	45% (medium)	25% (high)
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7. Erosion Potential: 500-1000 cu. yds/sq. mile
8. Miles of Stream Channels by Regional Order or Classes: I (.75), II (2.9), III (13.0), IV (24.1).
9. Miles of Forest Service Trails: 1 Mile, Trail #1130
10. Miles of Forest Service Roads by Maintenance Levels: I (2.96), II (32.6), III, IV, V (0).

PART IV - CALCULATED RISK AND CLIMATIC EVALUATION

1. Estimated Vegetative Recovery Period: 5 Years
2. Chance of Success Desired by Management: 80 Percent
3. Equivalent Design Recurrence Period: 25 Years
4. Related Design Storm Duration: 6 Hours
5. Related Design Storm Magnitude: 3.8 Inches
6. Related Design Flow: 292 CFSM
7. Estimated Reduction in Infiltration: 25 Percent
8. Adjusted Related Design Flow: 365 CFSM

PART V - SUMMARY OF SURVEY AND ANALYSIS

1. Skills Represented on Burned Area Survey Team ("x" appropriate boxes):

<input checked="" type="checkbox"/> Hydrology	<input checked="" type="checkbox"/> Soils	<input checked="" type="checkbox"/> Geology	<input checked="" type="checkbox"/> Local Community
<input checked="" type="checkbox"/> Timber	<input checked="" type="checkbox"/> Wildlife	<input type="checkbox"/> Fire Mgmt.	<input checked="" type="checkbox"/> Engineering
<input checked="" type="checkbox"/> Contracting	<input checked="" type="checkbox"/> Silviculture	<input checked="" type="checkbox"/> Fish	<input checked="" type="checkbox"/> Archeology
2. Describe Emergency: Moderate to severe burn intensity on 3000 acres.
3. Emergency Rehabilitation Objective: To prevent loss of life, damage to property and damage to soil and water resources by effective and prompt rehabilitation measures.
4. Probability of Completing Treatment Prior to First Major Damage Producing Storm:

Land 90 %	Channel 75 %	Roads 75 %	Other ___ %
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5. Net Environmental Quality Benefit Index:

<input checked="" type="checkbox"/> Significant	<input type="checkbox"/> Not Significant
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6. Net Social Well Being Benefit Index:

<input checked="" type="checkbox"/> Significant	<input type="checkbox"/> Not Significant
-------------------------------------------------	------------------------------------------
7. Benefit/Cost Ratio: 3.3:1
8. Net Benefits: \$ 268,000
9. Cost Effectiveness Index: ☒ I. ☐ II. ☐ III. ☐ IV.

7/10/88

PART VI - ELIGIBLE EMERGENCY REHABILITATION MEASURES OR TREATMENTS
AND SOURCE OF FUNDS

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	NFS Lands					Other Lands			All Lands Total \$
	Units	Unit	No. of	FFF 092	Other \$	No. of	Federal\$	Non-Federal	
	Cost	Units	\$		Units		\$		
(1)	(2)	(3)	(4)	(5)	ident. (6)	(7)	ident. (8)	identify (9)	
A. LAND									
a. Aerial Seeding 1/	Acres	22	490	10,780					10,780
b. Aerial Seeding 2/	Acres	47	503	23,641					23,641
c. Aerial Fert.	Acres	43	1063	45,709					45,709
d. Hand Seeding/Fert	Acres	48	10	480					480
e. Straw Mulching	Acres	86	5	430					430
f. Contour Felling	Acres	330	10	3,300					3,300
Subtotal				\$ 84,340					\$ 84,340
B. CHANNELS									
a. Check dams	Str.	197	6	1,182					1,182
b. Vegetation for	Acres	110	1	110					110
stabilization of steep erosion									
prone streambanks.									
Subtotal				\$ 1,292					\$ 1,292
C. ROADS AND TRAILS									
a. Storm patrol and	Miles	44	16	700					700
cleanup 3/									
b. Culverts, add 4/	str.	900	1	900					900
Subtotal				\$ 1,600					\$ 1,600
D. TOTAL									
				\$ 87,232					\$ 87,232

1/ Aerial seeding using non-serpentine seed mix

2/ Aerial seeding using serpentine seed mixture.

3/ Unexpectedly low precipitation resulted in fewer storm events that would have normally required storm patrols. Storm patrols were made in December 1987.

4/ Culvert was added to handle expected runoff from burned area above road.

PART VII - APPROVALS

Forest Supervisor (Signature)

Date

Regional Forester (Signature)

Date

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Forest Supervisor (Signature)

Date

Regional Forester (Signature)

Date

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

PART I - TYPE OF REQUEST

1. Type of Report

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- ☐ A. Initial (estimated funding is first requested)
☐ B. Interim

☐ Updating the initial funding request.
☐ Supplying information for accomplishments to date
on emergency work underway.
☒ C. Final

☐ Best estimate for funds needed to complete eligible
rehabilitation measure.
☒ Following completion of funded work.

PART II - FIRE LOCATION

1. Fire Name (from Form FS-5100-29): Longwood Complex
2. Forest Supervisor's Fire No. (from Form FS-5100-29): 762477
3. State: Oregon and California
4. County: Josephine, OR and Del Norte, CA
5. Region: Pacific Northwest (R-6)
6. Forest: Siskiyou
7. Ranger District: Illinois Valley
8. Date Fire Started: 8/30/87
9. Date Fire Controlled: 9/10/87
10. Estimated Suppression Costs: \$4.3 million
11. Fire Suppression Damages Repaired with FFF 102 Funds:
 - 27 miles (firelines waterbarred)
 - 20 miles (firelines seeded - about 70-90%)
 - 20 miles (firelines fertilized - about 70-90%)
12. Fire Intensity: 20 % (low) 30 % (medium) 50 % (high)

PART III - NATIONAL FOREST SYSTEM PROBLEM INVENTORY

1. Watershed No.: Illinois River, 1710031114 and 1710031115
2. NFS Acres Burned: 9916 (8256 FS, 160 BLM, 700 PVT CA, 800 PVT OR)
3. Water Repellant Soil: 20 % of NFS acres burned
4. Vegetation Types: Tanoak, white fir, and Douglas-fir Series.
5. Geologic Types: Metasediments(50%), Serpentinitic(20%), Gabbro/Diorite(30%)
6. Soil Erosion Hazard Rating:
25 % (low) 50 % (medium) 25 % (high)
7. Erosion Potential: 500-1000 cu. yds/sq. miles
8. Miles of Stream Channels by Regional Order or Classes: 8mi/I, 6.5/II.
9. Miles of Forest Service Trails: 2.5 10/III, 14/IV
10. Miles of Forest Service Roads by Maintenance Levels:
0 miles (Level I) 23.7 miles (Level II) 4.5 miles (Levels III, IV, V)

PART IV - CALCULATED RISK AND CLIMATIC EVALUATION

1. Estimated Vegetative Recovery Period: 5 years.
2. Chance of Success Desired by Management: 80 percent.
3. Equivalent Design Recurrence Period: 25 years.
4. Related Design Storm Duration: 6 hours.
5. Related Design Storm Magnitude: 3.8 inches.
6. Related Design Flow 240 cfs.
7. Estimated Reduction in Infiltration: 25 percent.
8. Adjusted Related Design Flow: 300 cfs.

PART V - SUMMARY OF SURVEY AND ANALYSIS

1. Skills Represented on Burned Area Survey Team ("x" appropriate boxes):
☒ Hydrology ☒ Soils ☒ Geology ☒ Wildlife & Fish
☒ Timber ☒ Silviculture ☐ Fire Mgmt. ☒ Engineering
☒ Contracting ☒ Local Mgmt. ☐ Research ☒ Local Resident
2. Describe Emergency: Moderate to Severe burn intensity on approx. 7500 ac.
3. Emergency Rehabilitation Objective: Prevent loss of lives, property, and resources by reducing accelerated on-site erosion and stream sedimentation.
4. Probability of Completing Treatment Prior to First Major Damage Producing Storm: Land 75 % Channel 75 % Roads 90 % Other ___ %
5. Net Environmental Quality Benefit Index
☒ Significant ☐ Not Significant
6. Net Social Well Being Benefit Index:
☒ Significant ☐ Not Significant
7. Benefit/Cost Ratio: 1.4:1
8. Net Benefits: \$125,000
9. Cost Effectiveness Index: ☒ I. ☐ II. ☐ III. ☐ IV.

7/10/88

**PART VI - ELIGIBLE EMERGENCY REHABILITATION MEASURES OR TREATMENTS
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Line Items	NFS Lands					Other Lands			All Lands Total
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c. Aerial Fertiliz.	Acres	41	1876	76,916		141	3/	5,781	82,697
d. Seeding (Hand)	Acres	67	220	14,740					14,740
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Subtotal				205,843				10,355	216,198
B. CHANNELS									
a. Straw eros. barrier	Str.	94	179	16,826					16,826
b. Check dams	Str.	151	117	17,667					17,667
c. Jute netting	Acres	600	1	600					600
d. Vegetation for bank stabilization in domestic watersheds	Acres	310	20	6,200					6,200
Subtotal				41,293					41,293
C. ROADS AND TRAILS									
a. Storm patrol and cleanup 4/	Miles	20	28	520					520
c. Culverts, add 5/	Str.	440	5	2,200					2,200
d. Trail maintenance	Miles	200	5	1,000					1,000
e. Erosion control	Miles	4,325	2	8,650					8,650
Subtotal				12,370					12,370
				\$ 259,506				\$ 10,355	\$ 269,861
D. TOTAL									

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2/ Aerial grass seeding using serpentine mix.

3/ Soil Conservation Service "403" Funding for treatments on private lands within burned area.

4/ Very few storms this winter resulted in fewer storm patrols than we originally anticipated. Storm patrol funds used for December 1987 storms.

5/ Additional culverts were added to handle expected runoff from burned area above roads.

6/ Restructuring road drainage system in intensely burned, unstable watershed to handle expected runoff from intensely burned area above road.