USDA Forest Service

BURNED AREA REPORT

Detailed instructions for use of this form are in the Burned-Area Emergency Rehabilitation Handbook (FSH 2509.13), Section 41.

1. Fire name	2. [X] Request [X] Initial [ ] Interim [ ] Final [ ] Accomplishment report [ ] FFF [ ] Other	3. Date of report
LOCKWOOD		12-4-80

4. State	5. County	6. Congressional District	7. Region	8. Forest	9. Ranger District
CALIF	VENTURA	19	05	Los Padres	Mt. Pinon

10. Supervisor fire no.	11. Date fire started	12. Date controlled	13. Estimated suppression cost $
063	11-26-80	12-01-80	1,500,000.

14. Fire suppression damages repaired with FFF 102 funds
31 mi. firelines waterbarred 34 acres firelines seeded

15. Fire intensity
10 % low 55 % medium 35 % high

NATIONAL FOREST SYSTEM PROBLEM INVENTORY

16. Watershed no.	17. NFS acres burned	18. Water repellant soil
1807010208	5,470	80 % of NFS area burned

19. Vegetation types
40% Chaparral, 20% Pinon-Juniper 40% Pine

20. Geologic types
50% Sandstone, 50% Granite

21. Soil erosion hazard rating	22. Erosion potential	23. Flood peak potential
10 % low 60% med. 30 % high	20,000 cu. yds./sq. mi.	250 cu. ft./sec./sq. mi.

24. Miles of stream channels by Regional order or classes
10 miles class I, 2 miles class II, 4 miles class III, 15 miles class IV

25. Miles of Forest Service roads and trails by maintenance levels
0 mi. level I rds. 0 mi. level II rds. 6 mi. levels III, IV, V rds. 0 mi. trails

CLIMATIC DATA

26. Annual precipitation	27. Design storm rainfall during 6 hour period	
18.0 inches	1.2 inches 2 yr. frequency	2.2 inches 10 yr. frequency
28. Annual runoff	29. Maximum 30 minute intensity storm	
2 inches	.30 inches 2 yr. frequency	.50 inches 10 yr. frequency

SUMMARY OF SURVEY AND ANALYSIS

30. Skills represented on burned area survey team (check)
[X] Hydrology [X] Soils [X] Geology [X] Range [X] Timber [X] Wildlife [X] Fire Management
[X] Engineering [ ] Contracting [X] Local Management [ ] Research [ ] Other

31. Describe emergency
Increase in sediment into a perennial stream which flows into a multipurpose reservoir-Pyramid, damage and or wash out of cluverts.

32. Emergency rehabilitation objective
Reduce on-site erosion resulting from fire. Reduce the velocity of peak flows from laterial channels draining into Piru Creek and Pyramid Reservoir.

33. Personnel needs for rehabilitation project on NFS lands
man-years reassigned for $ man-years new hires for $

34. Probability of completing treatment prior to first major damage-producing storm
Land % Channel % Roads % Other %

35. Net environmental quality benefit index	36. Net social wellbeing benefit index
[ ] Significant [X] Not Significant	[ ] Significant [X] Not Significant

37. Benefit/cost ratio	Net benefits	38. Cost effectiveness index (check one)
.24		[ ] I [ ] II [ ] III [X] IV

39. Forest Supervisor approval & date	Regional Forester approval & date	Date funding approved in WO
Dedy H. Esplin for FREDERIK G. deHOLL 12-12-80		

Treatment not justified. Remainder of report not completed.

ON-SITE AND OFF-SITE DEVELOPMENTS SUBJECT TO 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 as reported on Form 5100-29.)

	No. of units	Estimated value (dollars)
40. Community and urban development	people —	—
41. Municipal and domestic water supply	people served 1,000,000+	1,000,000+
42. Transportation systems	miles 6	100,000
43. Water distribution systems (irrigation)	miles —	—
44. Agricultural development (crops, facilities)	acres —	—
45. Industrial development (dams, power, manufacturing)	number 1	28,000,000
46. Power and communication lines	miles —	—
47. Recreation development	PAOT 15	2,000
48. Fish habitat	miles —	—
49. Other (specify)		
TOTAL HAZARD POTENTIAL (Indicates values threatened by design storm. Does not enter into the B/C.)		28,102,000

NARRATIVE (Optional. May be left out or expanded on additional sheets as needed.)

BURNED AREA REPORT

Fire Name

Date of Report

SUMMARY OF EMERGENCY REHABILITATION NEEDS BY LAND OWNERSHIP

Land ownership	50. Acres burned	51. Emergency rehabilitation needs				Source of emergency rehabilitation funds for needed work (dollars)						
		Land (acres)	Channel (miles)	Road and Trail (miles)	Other	52. FFF 094	52. FFF 102	53. 216	54. FR&T	55. Other Federal (name)	56. Non-Federal (name)	57. Total
FEDERAL NFS	5470											
Other (name)												
Subtotal Federal	5470											
NON-FEDERAL State & county												
Indian reservation												
Private	170											
Subtotal Non-Federal	170											
TOTAL	5640											

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Fire Name Date of Report

ELIGIBLE EMERGENCY REHABILITATION MEASURES OR TREATMENTS AND SOURCE OF FUNDS
(Emergency rehabilitation is work done promptly following a wildfire and is not to solve watershed problems that existed prior to the wildfire.)

			NFS Lands			Other Lands			Total
	Units	Unit cost	No. of units NFS	FFF 094 dollars	Other dollars (Name)	No. of units other	Federal dollars (Name)	Non-Fed. dollars (Name)	dollars all lands
58. LAND									
Seeding	Acres								
59. CHANNELS									
Opening water courses	Miles								
Stabilizing streambanks	Miles								
60. ROADS & TRAILS									
61. MAJOR STRUCTURES									
Preplanned from Forest Plans	Each								
		TOTAL							

Fire Name Lockwood Date of Report

EXAMINING IMPACTS OF MANAGEMENT ALTERNATIVES FOR AN EMERGENCY PROGRAM

62. EXPECTED DAMAGE REDUCTION BENEFIT SUMMARY
at current Water Resources Council interest rate of 7 3/8 percent

Economic benefit indices	Units of measure	Damage expected				Expected $ damage reduction
		Without treatment		With treatment		
		No. of units	Present value $	No. of units	Present value $	
WATERSHED IMPACTS From/a.f SEDIMENTS Downstream water storage	Ac. ft.					
Sediment removal						
Fish habitat						
Water quality						
FLOOD WATER Land						
Improvements						
Subtotal watershed						
RESOURCE RELATED IMPACTS Range						
Wildlife and recreation						
Timber						
Subtotal resource related						
OTHER IMPACTS						
Subtotal other						
Total dollars						

Fire Name Date of Report

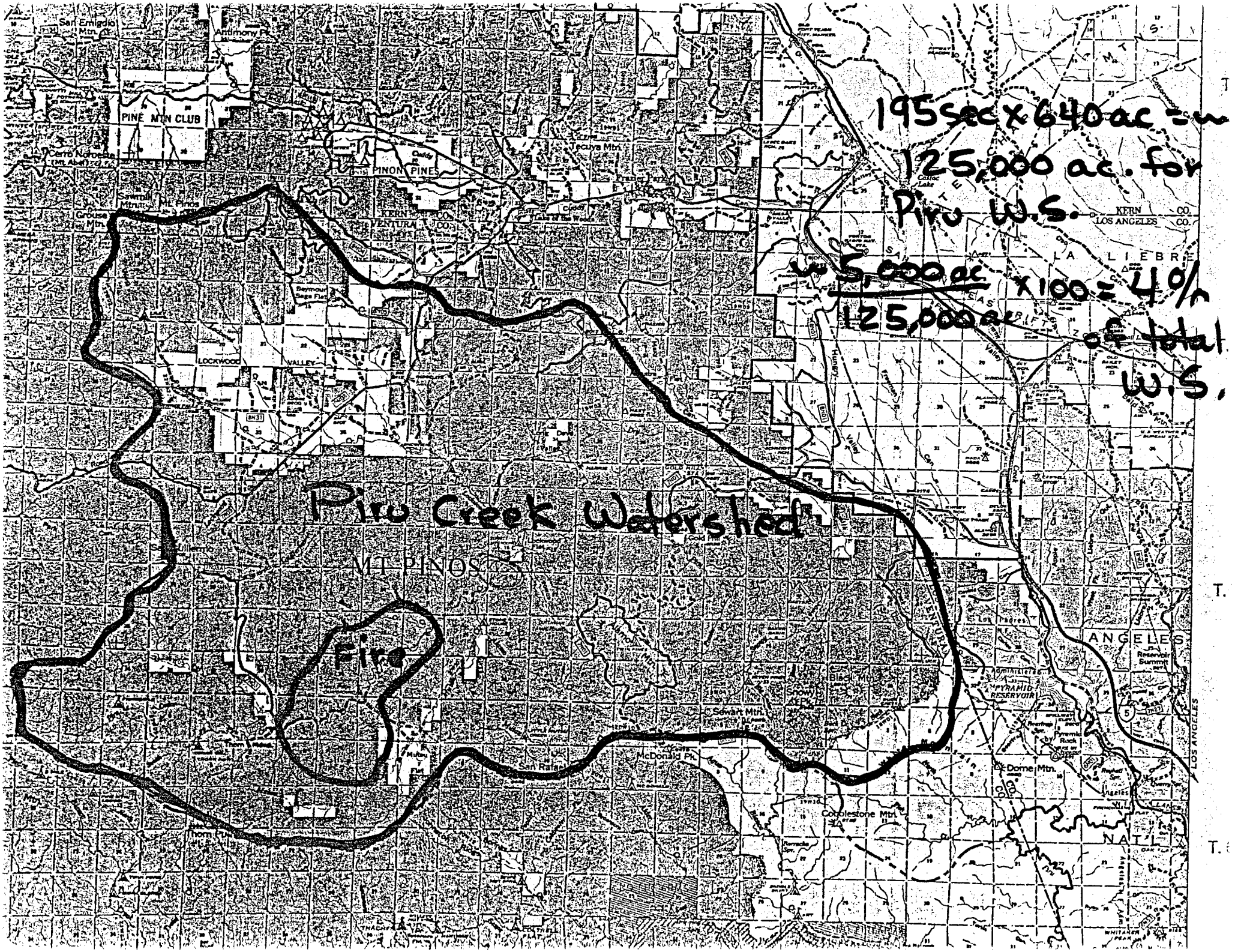
EXAMINING IMPACTS OF MANAGEMENT ALTERNATIVES FOR AN EMERGENCY PROGRAM

63. (Table 4) ENVIRONMENTAL QUALITY BENEFIT INDEX

ENVIRONMENTAL CRITERIA	Weight Factor	Without treatment		With treatment		Difference	
		Actual	Weighted	Actual	Weighted	Actual	Weighted
Erosion and sediment	10	2	20	1	10	1	10
Aesthetic land quality	8	1	8	1	8	0	0
Water quality	8	1	8	1	8	0	0
Site productivity	10	1	10	0	0	1	10
Wildlife habitat	1	0	0	0	0	0	0
Fish habitat	3	0	0	0	3	0	0
Other TIMBER	8	1	8	1	8	0	0
TOTAL	48		54		37		20
Average weighted index			1.13		.71		.42
Net environmental quality benefit index							NS

64. (Table 5) SOCIAL WELL-BEING BENEFIT INDEX

SOCIAL CRITERIA	Weight Factor	Without treatment		With treatment		Difference	
		Actual	Weighted	Actual	Weighted	Actual	Weighted
Life, health, safety	4	0	0	0	0	0	0
Employment	1	0	0	0	0	0	0
Recreational opportunity	9	0	0	0	0	0	0
Economic stability	1	0	0	0	0	0	0
Income distribution	1	0	0	0	0	0	0
Preserve special sites	8	0	0	0	0	0	0
Other RARE II	10	0	0	0	0	0	0
TOTAL	34		0		0		0
Average weighted index			0		0		0
Net social well-being benefit index							0


195 sec x 640 ac =
125,000 ac. for
Piru W.S.
= 5,000 ac x 100 = 4%
125,000 ac
of total
W.S.
Piru Creek Watershed
MT PINOS
Fire
PINE MTN CLUB
PINON PINES
LOCKWOOD VALLEY
KERN CO.
VENTURA CO.
LOS ANGELES CO.
ANGELES
PYRAMID RESERVOIR
Cobblestone Mtn.
Dome Mtn.
McDonald Pk.
San Rafael
Gewart Mtn.
Black Mtn.
Grouse Mtn.
Sawmill Mtn.
Mt. Pinos
Antimony Pk.
San Emigdio Mtn.
Cerro Noroeste (Mt. Abel)
Pecuya Mtn.
Hungry Valley
T.
T.

EMERGENCY REHABILITATION SURVEY - TEAM REPORT

LOCKWOOD FIRE - 11/26/80

MT. PINOS RANGER DISTRICT
LOS PADRES NATIONAL FOREST

Prepared by: Edward J. Gornowski - Team Leader

Approved by: David F. Alexander
District Ranger

CONTENTS

NARRATIVE

LOCKWOOD FIRE REHABILITATION PLAN

INTRODUCTION

The Lockwood Fire began at approximately 1130 hours on November 26, 1980. It was contained at 1800 hours on November 30, 1980. The total burn area was 5,640 acres, of which 5,470 acres are National Forest System lands. The fire burned intensively over approximately 35% of the total area. Damage to improvements was minimal and occurred primarily through suppression activities. The fire burned up to three private residences. All were protected.

The fire falls within a RARE II study area. It affects the Piru and Mutau Creek watersheds. Vegetation consists primarily of chapparral types, pinyon-juniper and jeffrey pine. The jeffrey pine is found primarily along the lower drainages, the other types throughout the slopes and upper drainages.

The burn area contains approximately 4 miles of Piru Creek, ¼ mile of Mutau Creek, and 23 miles of intermittent streams. Stream channels are generally narrow. Waters collected from these streams flows down the Piru Creek to Pyramid Reservoir 25 miles away.

The terrain is heavily dissected by intermittent and ephemeral streams. Slopes are generally steep rapidly tailing off into Piru Creek and Mutau Flat. Average slope gradiant is about 45%. Soils are composed of 60% silty-clay loams and sandy-clay loams and 40% granities.

SURVEY TEAM

The District Ranger requested a survey team on 11/28/80. The team was assembled at the fire on 11/29/80.

Organization:

Edward J. Gornowski	Team Leader - Forest LMP Core Team Member
Gary Jackson	Forest Soils Scientist
Jim Wilson	District Forester
Clifford Fox	District Wildlife Biologist
Ray Budzinksi	District Range Conservationist

Input was obtained from :

Bob Blecker	Forest Hydrologist
Don Camenson	Forest Economist
Linn Shipley	District Range Technician

Procedures

All procedures identified in FSH 2509.13 Burned-Area Emergency Rehabilitation Handbook were followed by the team.

The team identified policies and objectives for Emergency Rehabilitation and discussed concerns the District Ranger had for the specific fire area after arriving at the fire on 11/29/80.

Ranger's Concerns:

Priorities:

1. Soil/water
2. Timber resource
3. Range/Wildlife/Fishery

- minimize sedimentation in Piru Creek/Pyramid Reservoir
- Limited timber resource on the Forest. Valuable for aesthetics, recreation. Need to maintain the resource (possible need for follow-up salvage sale.)
- RARE II
- timing of first damage-producing storms (very little time)
- seed species (if needed) in RARE II. Don't introduce exotics, perennials.
- tractor lines
- grazing allotment

After delay due to suppression activities, the team conducted a reconnaissance flight of the area on 11/30/80. Areas apparantely intensively burned were mapped along with other data needed to initially define homogeneous areas.

A base map and overlays were prepared to delineate resources, improvements, and physical data within the burn area. (appendix)

Initial observations were supplemented by field reconnaissance and soil analysis plots. Preliminary data indicated approximately 2000 acres of high fire intensity and the likelyhood of an extensive hydrophobic soil condition. Preliminary assessments of damages and potential treatments were developed by the team. (Appendix)

The team advised the suppression organization on suppression-caused rehabilitation needs. The team leader established a file system and assigned team members duties.

EMERGENCY REHABILITIATION OBJECTIVES

The team, and District Ranger felt that some emergency rehabilitation measures may be warranted and the emergency was defined as follows:

Describe Emergency: Potential increase in sediment in perennial stream flowing into a multipurpose municipal water supply. (Pyramid Lake)

Emergency Rehab. Objectives: Reduce on-site erosion resulting from the fire area. Reduce the velocity of flow in tributary channels draining into Piru Creek.

EMERGENCY REHABILITATION

Alternatives

The burned area survey team broke the rehabilitation of the burned area into three groupings of treatments: (1) land treatments, (2) channel treatments, and (3) road treatments. Possible treatments in each of these groupings were then listed as well as the pros and cons of the treatment (refer to Tables 1-3).

The team next came up with evaluation criteria to rank the possible treatments within each grouping. These criteria were taken from emergency rehabilitation objectives, necessary criteria to qualify for emergency rehabilitation, and concerns of the District Ranger. The team, with the assistance of the District Ranger, then weighted the evaluation criteria with respect to importance. A rating of 10 was given to the most important criteria with lower values indicating varying degrees of importance.

Keeping in mind the pros and cons of the proposed treatments, each treatment was rated by the evaluation criteria. A rating of 10 was given to the treatment which best met the individual evaluation criteria. The other treatments received values consistent with their ability to meet the criteria. These ratings were multiplied by the importance of each criteria, and then summed for each proposed treatment (see table 4). The resulting values were examined to determine which treatments would be used for rehabilitation. After a discussion with the District Ranger, 6 treatments were selected for possible inclusion in the rehabilitation plan (see Table 5).