

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

R-5

REPLY TO: 6520 Financial Management
2520 Watershed Protection and Management

March 5, 1980

SUBJECT: FFF Operating Plan - Emergency Burn Rehabilitation,
Shadow Branch #3, San Bernardino National Forest

TO: Forest Supervisor, San Bernardino National Forest



We have been advised that your request for additional obligational authority to expend FFF 092 funds during FY 1980 for emergency burn rehabilitation on the subject burn has been approved for \$25,500. This brings your total authority for this burn to \$44,000.

Expenditures should not exceed the above authorizations without prior approval from this office.

ROBERT W. CERMAK

ZANE G. SMITH, JR.
Regional Forester

cc:
Bob Healy, PP&B

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Handwritten: A. Green 3-5-80

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Cal

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Fire Name SHADOW BR. 3

Date of Report 2-15-80

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	7	2	14	1	7	1	7
Water quality	2	1	2	1	2	0	0
Site productivity	5	1	5	0	0	1	5
Wildlife habitat	2	1	2	0	0	0	0
Fish habitat	0						
Other	0						
TOTAL	26		43		19		24
Average weighted index			1.7		0.7		0.9
Net environmental quality benefit index							S

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	10	2	20	1	10	1	10
Employment	0						
Recreational opportunity	0						
Economic stability	0						
Income distribution	0						
Preserve special sites	0						
Other	0						
TOTAL	10		20		10		10
Average weighted index			2		1		1
Net social well-being benefit index							S

EXAMINING IMPACTS OF MANAGEMENT ALTERNATIVES FOR AN EMERGENCY PROGRAM

62. EXPECTED DAMAGE REDUCTION BENEFIT SUMMARY
at current Water Resources Council interest rate of 6.875 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 SEDIMENTS Downstream water storage						
Sediment removal	Cu. Yds.	405,000	2,762,000	210,000	1,502,000	1,260,000
Fish habitat						
Water quality						
FLOOD WATER Land						
Improvements - homes, streets, utilities, etc			4,811,000		3,924,000	887,000
Subtotal watershed			7,573,000		5,426,000	2,147,000
RESOURCE RELATED IMPACTS Range						
Wildlife and recreation						
Timber						
Subtotal resource related			0		0	0
OTHER IMPACTS						
Subtotal other			0		0	0
Total dollars			7,573,000		5,426,000	2,147,000

Fire Name SHADOW BR. 3Date of Report 2-15-80

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.)

	Units	Unit cost	NFS Lands			Other Lands			Total dollars all lands
			No. of units NFS	FFF092 dollars	Other dollars (Name)	No. of units other	Federal dollars (Name)	Non-Fed. dollars (Name)	
58. LAND									
Seeding	Acres	17.80	327	5820					5820
59. CHANNELS									
Opening water courses	Miles								
* Stabilizing streambanks	Miles	20,630	0.75	15470	500,000				515,470
* Gully Plugs	Each	21.00	200	4200					4,200
60. ROADS & TRAILS									
61. MAJOR STRUCTURES									
Preplanned -- from Forest Plans	Each								
TOTAL				25490	500,000				525,490

BURNED AREA REPORT

Fire Name SHADOW BR. 3

Date of Report 2-15-80

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		53. 216	54. FR&T	55. Other Federal (name)	56. Non- Federal (name)	57. Total
						092	102					
FEDERAL NFS	822	327	0.75	0	200	25490	-	**			* 500,000	525,490
Other (name)												
Subtotal Federal	822	327	0.75	0	200	25490					500,000	525,490
NON-FEDERAL State & county												
Indian reservation												
Private	623											
Subtotal Non-Federal	623											
TOTAL	1445	327	0.75		200	25,490					500,000	525,490

*City of San Bernardino funds.

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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 13 500	304,200,000
41. Municipal and domestic water supply	people served 1400	10,000,000
42. Transportation systems	miles 16	3,200,000
43. Water distribution systems (irrigation)	miles 0	
44. Agricultural development (crops, facilities)	acres 0	
45. Industrial development (dams, power, manufacturing)	number 0	
46. Power and communication lines	miles 8	400,000
47. Recreation development	PAOT 0	
48. Fish habitat	miles 0	
49. Other (specify)	Schools	10,000,000
TOTAL HAZARD POTENTIAL (Indicates values threatened by design storm. Does not enter into the R/C.)		327,800,000

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

An intensively developed urban area lies below the burned area. Intense rains during January generated mud flows that filled the Harrison Canyon debris basin. Subsequent rains a few days later generated additional mud flows that overtopped the basin and damaged 31 homes. All residents and a nearby school were evacuated. A third storm generated more mud flows, overtopped the basin, and damaged 33 homes, 31 of which were previously damaged. In addition to the homes damaged by the mud flows, two homes above the basin have been abandoned due to undermining the valley alluvium and six or more could be isolated should the only road into the area be lost due to undermining.

In addition to the homes directly affected by the mud flows, mud has been deposited on streets and yards throughout a wide area down stream of the burned area.

The area has been declared a disaster area by Governor Brown. Application has been made by the City of San Bernardino to be declared a disaster area by the Federal Government.

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

1. Fire name SHADOW BR. 3	2. <input type="checkbox"/> Request <input type="checkbox"/> Initial <input type="checkbox"/> Interim <input checked="" type="checkbox"/> Final <input checked="" type="checkbox"/> Accomplishment report <input type="checkbox"/> FFF <input type="checkbox"/> Other	3. Date of report February 15, 1980
4. State CALIF.	5. County SAN BDNO.	6. Congressional District 37
7. Region 05	8. Forest SAN BDNO.	9. Ranger District CAJON
10. Supervisor fire no. 197	11. Date fire started SEPT. 18, 1979	12. Date controlled SEPT. 20, 1979
13. Estimated suppression cost \$ 400,000		
14. Fire suppression damages repaired with FFF 102 funds 4.5 mi. firelines waterbarred 0 acres firelines seeded		
15. Fire intensity 0 % low 20 % medium 80 % high		

NATIONAL FOREST SYSTEM PROBLEM INVENTORY

16. Watershed no. 1807020312	17. NFS acres burned 822	18. Water repellant soil 80% of NFS area burned
19. Vegetation types Chamise - 80%; Buckwheat - 20%		
20. Geologic types Granite and adamellite; Precambrian igneous and metamorphic rock complex		
21. Soil erosion hazard rating 6 % low 4 % med. 90 % high	22. Erosion potential 83,710 cu. yds./sq. mi.	23. Flood peak potential 130 cu. ft./sec./sq. mi.
24. Miles of stream channels by Regional order or classes 2 miles of class IV		
25. Miles of Forest Service roads and trails by maintenance levels mi. level I rds. mi. level II rds. 3 mi. levels III, IV, V rds. mi. trails		

CLIMATIC DATA

26. Annual precipitation 28.4 inches	27. Design storm rainfall during 6 hour period 1.29 inches 2 yr. frequency 2.4 inches 10 yr. frequency
28. Annual runoff 6.8 inches	29. Maximum 30 minute intensity storm 0.34 inches 2 yr. frequency 0.64 inches 10 yr. frequency

SUMMARY OF SURVEY AND ANALYSIS

30. Skills represented on burned area survey team (check) <input checked="" type="checkbox"/> Hydrology <input checked="" type="checkbox"/> Soils <input type="checkbox"/> Geology <input type="checkbox"/> Range <input type="checkbox"/> Timber <input type="checkbox"/> Wildlife <input type="checkbox"/> Fire Management <input type="checkbox"/> Engineering <input type="checkbox"/> Contracting <input checked="" type="checkbox"/> Local Management <input type="checkbox"/> Research <input checked="" type="checkbox"/> Other Botany		
31. Describe emergency To date, 33 homes have been damaged by mud flows and two others are in eminent danger of being undermined and lost in Harrison Canyon.		
32. Emergency rehabilitation objective Stabilize alluvium and reduce peak volumes and velocities.		
33. Personnel needs for rehabilitation project on NFS lands 0.1 man-years reassigned for \$ 2400 0 man-years new hires for \$ 0		
34. Probability of completing treatment prior to first major damage-producing storm Land 0 % Channel 5 % Roads % Other %		
35. Net environmental quality benefit index <input checked="" type="checkbox"/> Significant <input type="checkbox"/> Not Significant	36. Net social well-being benefit index <input checked="" type="checkbox"/> Significant <input type="checkbox"/> Not Significant	
37. Benefit/cost ratio 73	Net benefits \$2,147,000	38. Cost effectiveness index (check one) <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV
39. Forest Supervisor approval & date	Regional Forester approval & date	Date funding approved in WO



UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

SBNF

REPLY TO: 2520 Watershed Protection and Management

August 19, 1980

SUBJECT: Emergency Burn Rehab - Shadow Br. 3

TO: Regional Forester

Attached is the final Accomplishment Report for the Shadow Br. 3 burn rehabilitation. The total amount spent on rehabilitation measures is probably slightly in excess of \$500,000, of which only \$25,490 were Federal funds. The county and city expended about \$500,000 in materials and manpower on this project. An indeterminate number of manhours were volunteered by the public, YACC, and CCC.

From Paul Leger 9/4/80

10/3/79 18500

10/13/79 1100

3/5/80 25000

44600

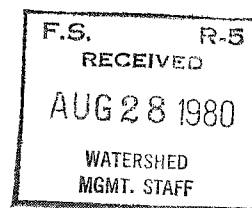
I agree

[Handwritten initials]

David J. Molla

ROBERT R. TYRREL
Forest Supervisor

Enclosure



Report not signed