UNITED STATES DEPARTMENT OF AGRICULTURE FOREST SERVICE

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REPLY TO: 2520/6520

DATE: October 25, 1988

SUBJECT: Authorization for Expending Emergency Burned

Area Rehabilitation Funds (FFF-092) - for the

Divide Fire

TO: Forest Supervisor, Angeles National Forest

Enclosed is the approved Burned Area Report (FSH 2509.13, Form 2500-8).

You are authorized to expend FFF-092 funds for Burned-Area Emergency

Rehabilitation treatments as indicated in Part VI of the FS-2500-8 form.

/s/ PAUL F. BARKER Regional Forester

Enclosure

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

## PART I - TYPE OF REQUEST

1.	Type of	Report
	[X] A. [] B.	Funding (Request for estimated FFF funds) Accomplishment Report
2.	Type of	Action
	[X] A. [] B.	<pre>Initial (estimated funding is first requested) Interim</pre>
	[ ] C.	<ul><li>[ ] Updating the initial funding request.</li><li>[ ] Supplying information for accomplishments to date on emergency work underway.</li><li>Final</li></ul>
		<ul><li>[ ] Best estimate for funds needed to complete eligible rehabilitation measure.</li><li>[ ] Following completion of funded work.</li></ul>
		PART II - FIRE LOCATION
1. 2. 3. 4. 5. 6. 7. 8. 9.	Forest State: County: Region: Forest: Ranger I Date Fin Date Fin Estimate	me (from Form FS-5100-29): DIVIDE Supervisor's Fire No. (from Form FS-5100-29): ANF 5484 CALIFORNIA LOS ANGELES 5 ANGELES District: TUJUNGA ce Started: 10/16/88 se Controlled: 10/21/88 ed Suppression Costs: \$ 2,250,000 oppression Damages Repaired with FFF 102 Funds:
	13.25 0 X	miles (firelines waterbarred) acres (firelines seeded) Other (identify) 250 8' PEELER POLES (\$ 1970.00) 10 1"x12"x15' PLANKS \ (\$ 150.00) 10 3' FENCE POSTS /
L2.	Fire Int	tensity: 10 % (low) 20 % (medium) 70 % (high

### PART III - NATIONAL FOREST SYSTEM PROBLEM INVENTORY

- 1. Watershed No.: 1807010501 1807010201
- 2. NFS Acres Burned: 4280
- 3. Water Repellant Soil: 70% of NFS acres burned
- 4. Vegetation Types: MIXED CHAPARRAL, BIG-CONE DOUGLAS FIR, AND MIXED OAK/
  FIR FORESTS ON SLOPES; OAK, SYCAMORE RIPARIAN COMMUNITY
  IN DRAINAGES
- 5. Geologic Types: UNDIVIDED PRECAMBRIAN METAMORPHIC ROCKS (GNEISS) 65% MESOZOIC GRANODIORITE 35%
- 6. Soil Erosion Hazard Rating:
  0 % (low) 20 % (medium) 80 % (high)
- 7. Erosion Potential: 49,940 CU. YDS/SQ. MILE
- 8. Miles of Stream Channels by Regional Order: 12 MILES
  - 1 5.5 MILES
  - 2 .5 MILES
  - 3 3.0 MILES
  - 4 3.0 MILES
- 9. Miles of Forest Service Trails: 4.3 MILES
  3.3 MILES PACOIMA TRAIL
  1.0 MILE BEAR DIVIDE INTERPRETIVE TRAIL
- 10. Miles of Forest Service Roads by Maintenance Levels:
  - 0 miles (Level I) 1 mile (Level II)
  - 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: 50% SILT FENCES

  100% BEAR DIVIDE STATION SLOPES
  50% OVERALL SEEDING
- 3. Equivalent Design Recurrence Period: 10 years.
- 4. Related Design Storm Duration: 24 hours.
- 5. Related Design Storm Magnitude: 7 inches.
- 6. Related Design Flow 120 cfs.
- 7. Estimated Reduction in Infiltration: 50 percent.
- 8. Adjusted Related Design Flow: 120 cfs.

## PART V - SUMMARY OF SURVEY AND ANALYSIS

Τ.	Skills Represented on Burned Area Sdrivey ream ( x appropriate boxes).
	<pre>[X] Hydrology [X] Soils [ ] Geology [X] Range [X] Timber [X] Wildlife [ ] Fire Mgmt. [X] Engineering [ ] Contracting [X] Local Mgmt. [ ] Research [X] Cul Res/Recreation</pre>
2.	Describe Emergency: POTENTIAL THREAT FROM WINTER STORMS TO USFS FACILITIES (BEAR DIVIDE STATION, LIVE OAK DAY USE AREA, ROADS), ON-FOREST AND OFF-FOREST NON-USFS FACILITIES (HOMES, COUNTY FIRE STATION, PACOIMA RESERVOIR), AND BARE WATERSHEDS.
3.	Emergency Rehabilitation Objective: TO MINIMIZE IMPACTS TO 1) BEAR DIVIDE STATION, 2) OTHER EXISTING IMPROVEMENTS, 3) DOWNSTREAM STRUCTURES IN NON-USFS OWNERSHIP, 4) POTENTIAL INCREASE IN OHV ACTIVITY; 5) LIFE EXPECTANCY OF PACOIMA RESERVOIR; AND 6) WATERSHED PRODUCTIVITY.
4.	Probability of Completing Treatment Prior to First Major Damage Producing Storm:  Land 90 Channel 90 % Roads 90 % Other %
5.	Net Environmental Quality Benefit Index: [X] Significant [] Not Significant
6.	Net Social Well Being Benefit Index: [ ] Significant [X] Not Significant
7.	Benefit/Cost Ratio: 10.67
8.	Net Benefits: \$ 2,725,600
9.	Cost Effectiveness Index: [X] I. [ ] III. [ ] IV.

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

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

All Lands 1 Total \$		111,000 2,000 1,3000	12,000 2,850 24,480	\$ 153,630
FFF 092 Other \$ No. of Federal\$ Non-Federal \$ Units	identify (9)			S
Other La Federal\$	1dent. (8)			\$
No. of Units	(7)			
Other \$	1dent. (6)		12,000	\$141,630\$12,000
FFF 092	(5)	111,000 2,000 1,300	12,000 2,850 12,480	\$141,63
No. of Units	(4)	3000 10 2	1.8 7.9 1.3	
Unit	(3)	37 200 650	9 · 9 9 · 9 96 ·	
Units Unit	(2)	Acres Strnd Acres	Miles Miles Miles Miles Stru.	
Line Items	(1)	A. LAND a. Seeding b. Silt Fencing c. Bear Divide Sta. Aat Erosion Con d.	B. CHANNELS  a. Opening water  courses b. Stabilizing  streambanks c. d. d. c. ROADS AND TRAILS a. Road closure b. Slope Stab. c. Debris Ret. c. Debris Ret. a. Preplanned from Forest Plans	E. TOTAL

10/24/88

/S/ G.Roby

APPROVALS

PART VII

10/25/88 Date

Date

Forest Supervisor (Signature)

/S/Andrew A. Leven for Regional Forester (Signature)

Fire Name   DIVIDE   A. ENVIRONMENTAL QUALITY BENEFIT INDE   Weight   Without Treatment	XX AC C	Date of Report 10/21/88  Treatment Weighted (f)		
Environmental Factor	XX	eatment Weigh (f)	ŗ.	
Erosion and sediment   Factor   Factor   Factor   Factor   Factor   Column	₹	Weigh (f)		
Site productivity	0 1 0		Actual (g)	erence Weighted (h)
Mater quality	0 1 0	10	F	10
. Water quality         4         1           . Site productivity         2         0           . Wildlife habitat         5         1           . Fish habitat         NA         NA           . Other         NA         NAXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	0 1	0	F	3
. Site productivity         2         0           . Wildlife habitat         5         1           . Fish habitat         1         0           . Other         NA         NA           . Other         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	0	7	0	0
Wildlife habitat         5         1           Fish habitat         1         0           Other         NA         NA           Other         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		0	0	0
Fish habitat	0	0	Н	5
. TOTAL  . TOTAL  . TOTAL  . TOTAL  . Average weighted index . AXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	0	0	0	0
TOTAL  XXXXXXXXX Average weighted index Average weighted index Net environmental quality Net environmental quality Net environmental quality Net environmental quality XXXXXXXXXXXXXX XXXXXXXXXXXX XXXXXXXXX	NA	NA	NA	NA
Average weighted index  AXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXX	14	XXXXXXXX	18
benefit index benefit index    Social Criteria   Social Weight Weight Without (a)	XXXXXXX XXXXXXX XXXXXXXX	56 XXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	.72
Social Criteria Weight Without (a)  Life, health, safety 10 2  Employment 10 2  Recreational opportunity 5 1  Economic stability 1 0	<u>~</u> ]	XXXXXXXXXX	XXXXXXX	<u>ا</u> ا
Employment 10 2 2 2 Employment 1 0 0 Recreational opportunity 5 1 Economic stability 1 0	With d Actual (e)	reatment Weighted (f)	Actual (g)	Weighted (h)
. Economic stability 1 0 0 1 0 1 0 1 1 0 1 1 0 0 1 1 1 0 0 1 1 1 0 0 1 1 1 0 0 1 1 1 1 0 0 1	1	10		10
Recreational opportunity 5 1 . Economic stability 1 0	0	0	0	0
. Economic stability 1 0		5	0	0
	0	0	0	0
	· 	_	_	_

ve special sites					
	0	0	0	0	0
7 Other	NA	NA	NA NA	NA	NA
XXX 10	25	XXXXXX	15	XXXXXXXX	10
XXX XXX xe weighted index XXX	1.19	XXXXXXX	.71	XXXXXXXX	84.
10 Net social well-heing benefit index XXXXXXXXX XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXX	SN
1					

FS-2500-8a (11/82)

D. EXPI	EXPECTED DAMAGE	REDUCTION BI	DAMAGE REDUCTION BENEFIT SUMMARY	λλ		
Note: At current Water Resources Council	l,interest rate	ite 6	percent			
5	<del> </del>	Without	Damage Treatment	Expect With T	ed reatment	Expected \$
	Measure	No. of Units	Present Value (\$)	No. of Units	Present Value (\$)	Damage Reduction
(a)	(b)	(c)	(d) (t)	(e)	(£)	000000000000000000000000000000000000000
I. Watershed Impacts Sediments	XXXXXXXX	XXXXXXXXX	XXXXXXXXX	XXXXXXXXX	XXXXXXXXXX	**************************************
1. Downstream water storage	AC-FT	2,593	518,628	2,723	544,600	25,972
2. Sediment removal	CU YDS	172,200	688,800	163,590	654,590	34,210
3. Fish habitat	i.	1	Î	Ē	•	-
4. Water quality	AC-FT	2,593	2,593	2,723	5 174	2,581 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
II. Flood Water	-	-	-	-	-	-
					•	
Z. warer improvements	XXXXXXXXX	XXXXXXXXXX		XXXXXXXXX		
3. Subtotal, Watershed III. Resource Related Impacts	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXX	62,763 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1. Range	1	î	1	1	9	
2. Wildlife and Recreation	RVD	6,067	110,357	17,362	205,535	95,178
3. Timber	ŧ	1	1	-	•	1
4. Subtotal, Resource Related IV. Other Impacts	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXX	XXXXXXXXXXXXXX
1. ROADS	MILES	9.7	$\widehat{}$	( )		
2. Subtotal, Other V. TOTAL DOLLARS	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	xxxxxxxxxx	15,94
	REMARKS	RKS		-		

SEDIMENT - WATER STORAGE IMPROVED 5% WITH SEEDING. SEDIMENT - 10% CHANCE OF CAPITAL FLOOD BEFORE RECOVERY. WATER QUALITY - \$ .90/AC-FT WITH TREATMENT VS. \$ 1.00/AC-FT WITHOUT TREATMENT

USDA-Forest Service			
ON-SITE AND OFF-SITE DEVELOPMENTS SUBJECT TO HAZARDS 1	T TO HAZARD	$\mathbf{s}_1$	
(Reference FSH 2509.13)			
Fire Name DIVIDE			Date of Report 10/21/88
Line Items (a)	Type of Units (b)	Number of Units (c)	Estimated Value \$ (d)
1. Community and urban development	People	004	1,200,000
2. Municipal and domestic water supply	People Served	70,000	1,100,000
3. Transportation systems	Miles	12.4	225,000
4. Water distribution system (irrigation)	Miles	ı	ı
5. Agricultural development (crops, facilities)	Acres	F	L
6. Industrial development (dams, power, manufacturing)	Number	1	583,000
7. Power and communication lines	Miles	1.5	44,000
8. Recreation development	PAOT	200	376,000
9. Fish habitat	Miles	ſ	and the second s
10. Other (specify) FOREST SERVICE ADMINISTRATIVE SITE	Number	· ·	· ·
11. Total Hazard Potential	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	(3,528,000)
12. Narrative (Optional- if additional space is needed, attach another sheet). 1. Damage to 100 downstream homes (est. worth \$400,000 ea.) below Bear Canyon with 4 people	h another s ) below Bea	heet). r Canyon with	14 people
per home. 2. Based on release of 1000 ac-ft/yr and 50 gal/person/day use. \$200/ac-ft=capacity. 3. County Roads - 5.9 miles. F.S. Roads 6.5 miles. Average based on \$18.150 rehab costs.	use. \$200 e based on	/ac-ft=capaci \$18.150 rehab	ty.
4. No significant systems 5 No significant use of that twne		-	
Cost to remove sediment from Pacoima Reservoir 1.5 miles of SCE Powerline, unknown mileage of	erosion po	based on erosion potential and acres burned. telephone and other utility lines.	cres burned.
8. Based on present use figurés. 9. No perennial streams.		)	

Based on Facility Condition Report Replacement Value. Bear Divide Station. 10.

l 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  $\mathrm{B}/\mathrm{C}.$ 

FS-2500-8b (11/82)

SUMMARY OF EMERGENCY REHABILITATION (Reference FSH	NEEDS BY 2509.13)	LANDOWNERSHIP	Д	Date of Report_	10/21/88	
Landownership	A. Acres Burned	B Emergency (1) Land (2 (acres)	ency Rehabilitation (2) Channel (3 (miles)	ion Needs (3) Road & Trail (miles)	(4) Other	
Federal (NFS)	3,660	687		9.7		
Other (specify)						
Subtotal (NFS)	3,660	687		9.7		
Non-Federal (State & County)						
Indian Reservation						
Private	620					
Subtotal (Non-Federal)	620					
TOTAL C. Source of Emerge	4,280 ncy Rehabilita	687 tion Funds f	Emergency Rehabilitation Funds for Needed Work (	6.7		
Landownership	1 FFF (a) 092 (b)	) 102 2. Em	Emergency 3. FR & T Flood Prevention	x T 4. Other Federal (Enter	5. Non- Federal (Enter	6. Total
Federal (NFS)	141,630				-	141,630
Other (specify) L.A. County				12,000		12,000
Subtotal (NFS)						153,630
Non-Federal (State & County)						
Indian Reservation			••••			

Private				
Subtotal (Non-Federal)				
TOTAL	141,630		12,000	153,630
D. Remarks				
				FS-2500-8c (11/82)