UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE RO

REPLY TO: 2520/6520

DATE: August 30, 1994

SUBJECT: Authorization for Expending Burned-Area Emergency Rehabilitation Funds (EFFS-FW22) - Heaton Fire

TO: Forest Supervisor, Angeles National Forest

Attached is the approved Burned-Area Emergency Rehabilitation Report for the Heaton fire. You are authorized to expend up to $3,525 of EFFS-FW22 funds to cover costs of the Burned Area Survey Team as indicated in Part VI of the enclosed FS-2500-8 report.

/s/Jim Lawrence for

G. LYNN SPRAGUE
Regional Forester

Enclosure

cc: Z.MORALES, PB
R.Godden:R05H
WSA:W01A
S.Miles:R05F14A
B.Brown:R05F01A

United States Department of Agriculture | Forest Service | Angeles National Forest | S. O.

Reply to: 2500 Date: August 25, 1995

Subject: BAER Report for Heaton Fire

To: Regional Forester, R-5

The initial BAER report for the Heaton Fire is enclosed for your review and approval. No emergency treatments are recommended at this time. However, a meeting will be held on August 26th with the Los Angeles County Road Department to discuss any concerns they may have regarding the Shoemaker Road which has the potential to be impacted from the burn. It is unlikely that any emergency rehabilitation measures will be recommended since this is the infamous "Road To Nowhere" and the continued maintenance of that section of road within the burned area is questionable. The BAER Report will be amended should the need arise.

The Forest is requesting funding in the amount of $3,525.00 for BAER evaluation.

Please direct all questions concerning this report to Bill Brown, BAER Team Leader.

/s/ MICHAEL J. ROGERS
Forest Supervisor

enclosure:

USDA-FOREST SERVICE Date of Report: 08/25/94

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

PART I - TYPE OF REQUEST

A. Type of Report

[X] 1. Funding request for estimated EFFS-FW22 funds
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

[X] 1. Initial Request (Best estimate of funds needed to complete eligible rehabilitation measures)

[ ] 2. Interim Report
[ ] Updating the initial funding request based on more accurate site data and design analysis
[ ] Status of accomplishments to-date

[ ] 3. Final report - following completion of work

PART II - BURNED-AREA DESCRIPTION

A. Fire Name: Heaton B. Fire Number: P50306

C. State: California D. County: Los Angeles
E. Region: Pacific Southwest R5 F. Forest: Angeles
G. District: Mt. Baldy

H. Date Fire Started: 8/16/94 I. Date Fire Controlled: 8/21/94
J. Suppression Cost: $ 1,680,000

K. Fire Suppression Damages Repaired with EFFS-PF12 Funds:
1. Fireline waterbarred (miles) 5.5 (all handline)
2. Fireline seeded (miles) 0
3. Other (identify)

L. Watershed Number: 1807010602

M. NFS Acres Burned: 600 Total Acres Burned: 600
Ownership type:
( )State ( )BLM ( )PVT ( )

N. Vegetation Types: Mountain mahogany/chamise chaparral

O. Dominant Soils: Trigo, granitic substratum - Stukel-Sur-Winthrop family

P. Geologic Types: Granitic, metamorphic, slopes 80-100%

Q. Miles of Stream Channels by Order or Class:
I - 1.8 II - 0.2

R. Transportation System:
Trails: 0.25 (miles) Roads: 0.9 approx (miles)

PART III - WATERSHED CONDITION

A. Fire Intensity (Acres): 110 (low) 276 (moderate) 214 (high)

B. Water Repellant Soil (Acres): 600

C. Soil Erosion Hazard Rating (Acres):
_____ (low) _____ (moderate) 600 (high)

D. Erosion Potential: 139.5 tons/acre
E. Sediment Potential: 89,280 cu. yds/sq. mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period: 7 years.
B. Design Chance of Success: 100 percent.
C. Equivalent Design Recurrence Interval: 10 years.
D. Design Storm Duration: 24 hours.
E. Design Storm Magnitude: 12 inches.
F. Design Flow: 280 cfsm.
G. Estimated Reduction in Infiltration: 35 percent.
H. Adjusted Design Flow: 378 cfsm.

PART V - SUMMARY OF ANALYSIS

A. Describe Emergency:

Based on the B.A.E.R. Team field survey and analysis, the Heaton Fire does not qualify as an emergency, as outlined against the criteria per FSH 2509.13 for the following reasons:

1. **Threat to Human Life**: The Shoemaker Canyon drainage is small, (approx. 300 acres) and only a small portion (20%) was burned. The other drainages are smaller, each leading directly to the East Fork of the San Gabriel River. The watershed of the East Fork is steep, and can produce heavy runoff. However, it is more than 5 miles to the closest human inhabitancy, which are normally prepared for those volumes of runoff. The East Fork at Cattle Canyon becomes relatively flat, with gradients of 5-10% for approx. 1 mile above the first facility. Although there will be some incremental increase of runoff, the amount will not be sufficient to be a threat to human life, since the burned area represents only 1% of the East Fork Watershed.

2. **Threat to Property**: There are no facilities within the Shoemaker drainage, except for a road fill for the Shoemaker Canyon Road. The fill lies adjacent to a hard rock tunnel that serves as a culvert to pass the flows from Shoemaker Canyon. The County removed sediment from behind the fill/culvert area in previous years to protect the fill. This probably occurred in 1976 after the entire Shoemaker watershed burned as part of the Village Fire which burned in 1975. The County will have to evaluate the situation and determine if they need to remove any additional sediment from the debris catchment basin. Sediment flows into this basin are expected to be much less than that which occurred after the Village Fire since only 20% of the Shoemaker Watershed burned in the Heaton Fire.

3. **Loss of Control of Water**: Slopes within the burned area are very steep and water will run off rapidly. Water will run directly into the East

Fork of the San Gabriel River. Control of this water will be achieved at the San Gabriel Reservoir down stream,aprox. 10 miles. Sediment eroded from the burned area, over normal background levels, will result is a minor loss of storage capacity within San Gabriel reservoir. the potential to capture this sediment within or directly below the burned area through the construction of traps or other debris structures is very low due to the extremely steep drainages (a major storm would likely blow out anything constructed), and lack of adequate access.

4. **Threats to Water Quality:** Some water quality degradation will occur from the burned vegetative material and from sediment that will end up in the East Fork. However, this condition can be expected for 1-2 years after the burn, but will be a minor contribution to water quality degradation within the East Fork Watershed due to the relatively small burned area (1% of entire East Fork Watershed).

5. **Threats to Long-Term Productivity:** Based on the field survey, the average soil loss over the burned areas was calulated to be about 139.5 tons per acre per year. Soil damage, however, appears to be minor since the fire burned hot, but fast (there was little understory fuels and slopes were extremely steep (80-100%). A majority of the soils tested showed varying levels of hydrophpbicity, however, when testing adjacent unburned areas there appears to be a natural level of hydrophobic conditions. When tested, at a depth of 1-2 inches, water did not penetrate. There was no apparent damage to the soil at that depth. This appeared to be no different than infiltration reported in the soil survey description. In all cases, no evidence could be found to indicate any threat to long-term soil productivity.

   In addition, the potential to hold soil on exposed slopes through the application of seed was deemed impracticable due to a combination of hydrophobic soil conditions and extremely steep slopes. This area was burned last in 1975 as part of the Village Fire. No treatments were recommended by the BAER Team at that time, other than fire suppression related, and vegetative ground cover appears to have recovered very well.

B. Emergency Treatment Objectives:

   There are no emergency treatment objectives since no emergency exits.

C. Probability of Completing Treatment Prior to First Major Damage Producing Storm:

   Land _____ % Channel _____ % Roads _____ % Other _____ %

D. Probability of Treatment Success

	<----Years after treatment-----> 1	3	5
Land			
Channel			
Roads			
Other			

E. Cost of No-Action (Including Loss): * $ 462,000.00

F. Cost of Selected Alternative (Including Loss): $ 462,000.00

G. Skills Represented on Burned-Area Survey Team:

[x] Hydrology	[x] Soils	[ ] Geology	[ ] Range
[ ] Timber	[x] Wildlife	[x] Fire Mgmt.	[x] Engineering
[ ] Contracting	[ ] Ecology	[ ] Research	[x] Archaeology
[ ] _____	[ ] _____	[ ] _____	[ ] _____

Team Leader: Bill Brown
Phone: (818) 574-5258 DG Address: B.Brown:R05F01A

H. Treatment Narrative:
Describe the emergency treatments, where and how they will be applied, and what they are intended to do. This information helps to determine qualifying treatments for the appropriate funding authorities. For seeding treatments, include species, application rates and species selection rationale.

No treatments recommended at this time.

* The numbers presented in Part V, section E, represent an estimate of what it would cost to remove sediment eroded from the burned area, over normal background levels, from San Gabriel Reservoir were a majority of it will be trapped over a 7-year recovery period. Cost will vary, depending on the method of removal selected (mechanical vs. sluicing), but these numbers represent mechanical removal at $4.00/cu yd.

Part V, section F is the same as section E, since no treatments are recommended by the BAER Team. See part V, section A for the rationale behind the no treatment recommendation. In addition, the BAER Report for the Village Fire, which burned approximately 14,000 acres in 1975, including the entire Shoemaker Watershed, was reviewed to determine what treatments were recommended for this burn as a comparison to Heaton Fire BAER Team recommendations. Rehab of the Village Fire focused on fire suppression rehab only and consisted of water barring and seeding hand and dozer lines. No additional emergency rehabilitation measures were implemented. This is consistent with the recommendations in Heaton BAER Report.

PART VI - EMERGENCY REHABILITATION TREATMENTS AND SOURCE OF FUNDS BY LAND OWNERSHIP

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

All Line Items	Units	Unit Cost $	NFS Lands Number of Units	NFS Lands EFFS-FW22 $	NFS Lands Other $	Other Lands Number of Units	Other Lands Fed $	Other Lands Non-Fed $	Total $
					ident.		ident.	ident.	
A. LAND TREATMENTS									
B. CHANNEL TREATMENTS									
C. ROADS AND TRAILS									
D. STRUCTURES									

E. BAER EVALUATION/ ADMINISTRATIVE SUPPORT

BAER TEAM 3525	Days	235	15	3525			
F. TOTALS 3525				3525			

PART VII - APPROVALS

1. /s/ MICHAEL J. ROGERS — 08/25/94
   Forest Supervisor (Signature) — Date

2. /s/Jim Lawrence for — 8/30/94
   Regional Forester (Signature) — Date