

United States
Department of
Agriculture

Forest
Service

RO

Glennallen

Reply To: 2520/6520

Date: October 7, 1993

Subject: Authorization for Expending Burned-Area Emergency Rehabilitation
Funds (EFFS-FW22) - Glennallen Fire

To: Forest Supervisor, Angeles National Forest

Attached is the approved Burned-Area Emergency Rehabilitation Report for the Glennallen fire. You are authorized to expend up to \$13,000 of EFFS-FW22 funds for channel clearing, wall #1 and BAER team costs as shown in Part VI of the enclosed FS-2500-8 report. These protective measures should be applied as soon as possible.

Your request for \$1,390 of EFFS-FW22 and \$40,000 EWP for aerial hydroseeding is not approved at this time. The first choice for funding emergency treatments on NFS lands is with the EFFS-FW22 authorization. EWP funds may be requested for use on NFS lands when other funding sources are insufficient or exhausted. We understand the rationale for requesting EWP funds is that aerial hydroseeding could be considered "experimental" and would not qualify for EFFS-FW22 funding. A similar qualification exists for EWP funds. One criteria for EWP eligibility is that measures are economically and environmentally defensible and technically sound (FSM 3541.12). If a measure meets this criteria, then it would also qualify for EFFS-FW22 funding.

Although aerial hydroseeding has not been used for emergency watershed treatments in southern California, there are elements of this treatment that have demonstrated effectiveness elsewhere. The tackifier and soil stabilizer included in the mix have been used in many different applications to hold soil particles in place. Physically holding soil particles together has a greater chance of success than seeding alone. Considering the steep slopes and loose soil conditions, seeding alone would have a very low chance of success. Aerial hydroseeding could be considered a measure that technically improves the chance of success. The next concern is cost. To qualify for EFFS-FW22 funding, the treatment must provide the necessary protection in an environmentally acceptable manner at least cost. There may be alternatives to the \$10,545 cost for the bucket. Chuck Goudey of our Range and Watershed Management Staff will work with you to try and find lower cost alternatives to see if aerial hydroseeding could become a qualifying treatment.

/s/ Richard O. Benjamin for

RONALD E. STEWART
Regional Forester

Enclosure

United States
Department of
Agriculture

Forest
Service

Angeles
National
Forest

701 N. Santa Anita Ave.
Arcadia, CA 91006

Reply to: 2500

Date: October 1, 1993

Subject: Glenallen Fire, Angeles National Forest

To: Regional Forester, R-5
Attn: Burn Rehab Coordinator, RWM Staff

The attached Burned Area Emergency Report (BAER) is an initial funding request for an estimated EFFS-FW22 to conduct post suppression rehabilitation of the Glenallen Fire Incident.

If there are any questions or needed clarification, please contact the BAER team members Tom Ryan or Mike McCorison, at this office. Because of the small size of this fire (40 Acres), we did not initially feel it necessary to submit a BAER Report. However, after subsequent meetings and consultation with other public agencies involved, it became apparent there is a need to address the potential erosion and other downstream impacts to the adjacent urban areas.

This proposal consist of a multi-agency funding request, with the following government agencies and their expected contributions and funding levels. The Forest Service will perform channel clean out of vegetation, debris removal, assist in aerial seeding of special hydromulch mix and provide administrative and monitoring services. The Soil Conservation Service will also assist in slope stabilization and aerial seeding and in addition provide for the construction critical barrier walls needed to protect homes adjacent to the main channel. The L.A. County Forestry, Fire and Public Works Departments will all assist in providing for sediment routing, sand bagging and clean out of the existing debris basin. There still remains a question regarding the funding for construction of six additional barriers for \$21,000.00 as indicated in Part VI of the report. These are urgently needed for diverting sediment away from existing structures.

We believe this plan and the proposed treatments offer the best opportunity to reduce the potential risk of flooding and erosion impacts to the estimated three million dollar downstream values.

/s/ Michael J. Rogers

MICHAEL J. ROGERS
Forest Supervisor

Enclosure

BURNED-AREA REPORT
(Reference FSH 2509.13, Report FS-2500-8)PART I - TYPE OF REQUEST

A. Type of Report

- ☒ 1. Funding request for estimated EFFF-FW22 funds
☐ 2. Accomplishment Report

B. Type of Action

- ☒ 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: Glenallen B. Fire Number: P50112
C. State: Calif. D. County: Los Angeles
E. Region: 5 F. Forest: Angeles
G. District: Arroyo Seco
H. Date Fire Started: Aug. 20, 1993 I. Date Fire Controlled: Aug. 21, 1993
J. Suppression Cost: \$ 75,000.
K. Fire Suppression Damages Repaired with EFFF-PF12 Funds:
 1. Fireline waterbarred (miles) 0
 2. Fireline seeded (miles) 0
 3. Other (identify) Hand lines only
L. Watershed Number: 180 701 0505
M. NFS Acres Burned: 59 Total Acres Burned: 60
 Ownership type:
 (0) State (0) BLM (1) PVT
N. Vegetation Types: Mixed chaparral
O. Dominant Soils: Shallow coarse textured highly erodible soils of Chilao Family and associated granitic rock o
P. Geologic Types: San Gabriel complex, mostly granitic rock types
Q. Miles of Stream Channels by Order or Class:
 0 0 0 0
R. Transportation System:
 Trails: 0.2 (miles) Roads: 0 (miles)

PART III - WATERSHED CONDITION

- A. Fire Intensity (Acres): _____ (low) 5 (moderate) 55 (high)
- B. Water Repellant Soil (Acres): 20
- C. Soil Erosion Hazard Rating (Acres):
_____ (low) 5 (moderate) 55 (high)
- D. Erosion Potential: 52.8 tons/acre
- E. Sediment Potential: 94,200. cu. yds/sq. mile

PART IV - HYDROLOGIC DESIGN FACTORS

- A. Estimated Vegetative Recovery Period: 4 years.
- B. Design Chance of Success: 90 percent.
- C. Equivalent Design Recurrence Interval: 10 years.
- D. Design Storm Duration: 24 hours.
- E. Design Storm Magnitude: 4.5 inches.
- F. Design Flow: 210 cfs.
- G. Estimated Reduction in Infiltration: 40 percent.
- H. Adjusted Design Flow: 240 cfs.

PART V - SUMMARY OF ANALYSIS

- A. Describe Emergency: Wildfire destroyed vegetative cover on 90 percent hillside slope with highly erodible soils. Located at the base of slope (FS boundary) are very expensive homes and structures. There is a 100 percent probability that normal winter rainfall events will produce major sediment and mud flows that will impact these urban properties and utilities
- B. Emergency Treatment Objectives: 1. Stabilize the soil surface, reduce soil movement and overland flow by helicopter hydroseeding with special slurry seed mix. 2. Clean out channel to facilitate sediment movement and prevent debris plugs. 3. Provide barriers to divert sediment from downstream structures and removal to proper storage sites. 4. Clean out existing small debris basin to reestablish its original storage capacity.
- C. Probability of Completing Treatment Prior to First Major Damage Producing Storm:
Land 90 % Channel 95 % Roads -- % Other 90 %
- D. Probability of Treatment Success

	<----Years after treatment----->		
	1	3	5
Land	80	90	95
Channel	90	90	100
Roads	--	--	--
Other (Barriers)	90	100	100

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

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[x District Res. [ ] [ ] [ ]
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Team Leader: Tom Ryan or Mike McCorison

Phone: 818 574 1613 DG Address: 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.

1. Aerial seeding by helicopter with special hydroseeding slurry mix consisting of seed, tackifier, soil stabilizer and wood fiber mulch mixed with water. Conventional aerial seeding techniques would not be as effective to prevent surface erosion and dry ravelling on these soils.
2. Channel treatments will consist of removing brush and debris in existing critical drainage to allow sediment movement and prevent debris plugs. Will be accomplished with small mechanical equipment and hand cutting.
3. Construct heavy duty barriers. This is the most critical phase and are needed to intercept and divert expected high sediment flows and route it to proper pick up and storage sites. Barriers are to be placed at a critical points along paved roads and anchored in place. Heavy equipment should be available and on standby at sites as they are needed.
4. Species to be seeded on slopes include Zorro fescue at 10 pounds per acre and deerweed at 2 pounds per acre. Seeding effectiveness will depend largely on the intensity of the first storms, germination success and the resprouting of native species in the area.

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.

Line Items	Units	Unit Cost \$	NFS Lands			Other Lands			All
			Number of Units	EFFS-FW22 \$	\$	Number of Units	Fed \$ FW22 ident.	Non-Fed \$ LA Cnty ident.	Total \$
A. LAND TREATMENTS									
Aerial Hydroseeding	Acres		40						
B. CHANNEL TREATMENTS									
Channel clearing				2000					
Wall # 1				8500					
Debris basin clean out								18000.	
C. ROADS AND TRAILS									
Public St & Private Prop								35000	LAC Fire
Public St & Private Prop								10000	LAC Fors
Public St & Improvements								70000	LAC DWP
D. STRUCTURES									
Walls 2-6 barriers								21000.	(unkn)
E. BAER EVALUATION/ ADMINISTRATIVE SUPPORT									
BAER Team				2500.					
F. TOTALS									
				13000				154000.	

PART VII - APPROVALS

- /s/ Michael J. Rogers

Forest Supervisor (Signature)

October 1, 1993

Date
- /s/ Andrew A. Leven

Regional Forester (Signature)

October 5, 1993

Date