DOCUMENT HEADER

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Author: BAER Team Typist: Leigh Sevy

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Subject: Warner Fire Rehab Report (10-17-95)

Summary:

Comments:

To r.griffith:r05a CC t.white

From: STAFF,FS
Postmark: Feb 21,97 8:20 AM
Status: Certified Previously read Urgent
Subject: Final BEAR Report- Warner, Cleveland NF

USDA-FOREST SERVICE Date of Report: 02-18-97

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 EFFS-FW22 funds
[X] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

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

[X] 3. Final report - following completion of work

PART II - BURNED-AREA DESCRIPTION

A. Fire Name: **Warner** B. Fire Number: **CNF1678**

C. State: **CA** D. County: **San Diego**
E. Region: **05** F. Forest: **Cleveland**
G. District: **Palomar**

H. Date Fire Started: **10/13/95** I. Date Fire Controlled: **10/16/95**
J. Suppression Cost: **$ 1,600,000**

K. Fire Suppression Damages Repaired with EFFS-PF12 Funds:
1. Fireline waterbarred (miles) **1.0 (dozer) & 2.5 (Handline)**
2. Fireline seeded (miles) **0**
3. Other (identify) **Repair drainage systems and recontour roadbeds as needed.**

L. Watershed Number: **1807030203 and 1807030301**

M. NFS Acres Burned: **1320** Total Acres Burned: **2195**
Ownership type:
( )State (**194**)BLM (**681**)PVT ( )_____

N. Vegetation Types: **Red Shank Mixed Chaparral, Coastlive Oak Woodland.**
O. Dominant Soils: **Tollhouse, Ramona, Soboba, and Las Posas**
P. Geologic Types: **granodiorite, granitic alluvium, basic igneous**

Q. Miles of Stream Channels by Order or Class:
Order 1: **8.4** Order 2: **0.6** Order 3: _____ Order 4: _____

R. Transportation System:
Trails: **0** (miles) Roads: **4.5** (miles)

PART III - WATERSHED CONDITION

A. Fire Intensity (Acres): 25 (low) 330 (moderate) 965 (high)

B. Water Repellant Soil (Acres): 1295

C. Soil Erosion Hazard Rating (Acres):
30 (low) 300 (moderate) 990 (high)

D. Erosion Potential: 98 tons/acre
E. Sediment Potential: 50,000 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: 20 years.
D. Design Storm Duration: 6 hours.
E. Design Storm Magnitude: 0.6 inches.
F. Design Flow: 110 cfsm.
G. Estimated Reduction in Infiltration: 75 percent.
H. Adjusted Design Flow: 250 cfsm.

PART V - SUMMARY OF ANALYSIS

A. Describe Emergency:
The fire burned 2,195 acres of which 1,320 acres were on Forest, 194 acres BLM and 681 acres private. 917 acres (83% on Forest) of the steep headwater portio of Temecula Creek; 430 acres (75% on Forest) of Dark Canyon; and 338 acres (55% on Forest) of Bear Canyon. Both Dark and Bear Canyons flow into Canada Aguanga which is part of the San Luis Rey Watershed.

The Warner fire intensity was high (73% of the burned area) with small areas th burned at a moderate intensity (25%). The fuelbreak (2% of the area) burned at low intensity. The area is steep with erosive soils and large boulders. It is expected that on the average the top inch or two of surface soil material may erode from the burn area, the majority of which may impact homes located below the burn area. Fuel accumulations were quite high and left a 1 to 2 inch ash layer above the soil surface. The soil surface in these high intensity and moderate intensity areas are hydrophobic, causing concern for the upcoming rain season which usually starts in mid-October. If significant rainfall occurs, substantial movemement in the form of debris flows of ash, soil and rock is likely to occur. **(Light rainfall and snow produced little soil movement. Excelent recovery of native vegetation has reduced the risk of impacting downstream homes at this point.)**

Half Way Truck Trail is an existing road, however it is not essential for priva land access, and has been used recently for administrative purposes only. Presently, a number of culvert crossings on the Half Way Truck Trail are clogge with pre-existing sediment and rock. Due to the total removal of vegetation above these crossings, most are likely to wash out and become part of the debri flow that will head into Temecula Creek. All water off the watershed above the Truck Trail flows onto the road, down the road and into Temecula Creek. Pullin existing culverts, outsloping the road and waterbarring with rolling dips to drain water at several points would reduce the amount of water flowing into Temecula Creek. **(Further evaluation of this road by the Forest Road engineer indicated that outsloping would not be effective so this project was droped. Trash racks were installed above the culverts rather than pulling them and thes proved t be effective with the level of rainfall we actually experienced.)**

Concern has been raised about the homes that are below the fire on Temecula cre and some homes along Highway 79 below the Bear and Dark canyon watersheds. Clearing of some existing debris from these drainages and the removal of culver along Half Way Truck Trail, to minimize damage, are recommended. Rolling dips would replace the culverts on the Half Way Truck Trail until slopes have stabilized and the road is required again. Forty five mobile homes are at risk below the Temecula Creek burned portion. Three structres and several improvements are also at risk at the Templeton Oaks Ranch along Temecula Creek. Two homes along a sub-basin of the Bear Canyon are at risk from debris flows as the small sub-basins above them were completely burned over. This areas may be potential site for sandbagging during significant storm events. The option of building a below grade debris basin on the Forest just upstream of the Forest boundary on Temecula Creek was looked at by the BAER team. The team agreed tha there was not enough area within the channel to capture the expected debris to erode out of the watershed above, the gradient is too steep (7 to 10 percent), and there is a strong possibility the structure would fail. The cost would be over $1,000,000. The team does not recommend building a debris basin on Nation Forest.

The BAER team considered a seeding alternative. The team concluded that the bu of the burn area was too steep for seeding to be secessful. Vegetation specialists feel that studies and research show that most sites recover seccessfully under natural conditions with native vegetation, and in some cases grass seeding may set back vegetation recovery. A vegetation specialist report for the Warner Fire is available.

Existing channels above culverts along Highway 79 are also loaded up with debri and soil materials. These drainages above the culverts also require some chann clearing, due to the removal of vegetation above Highway 79 along the Bear and Dark canyon watersheds. Additional ash, soil, and rock can be expected to beco part of debris flows through the drainages in these canyons.

B. Emergency Treatment Objectives:

1. Notify public of rockfall, debris flow, and flooding hazards.*

2. Protect downstream life and property.

3. Protect Forest Road Investments.

4. Reduce impacts on water quality and soil productivity loss.

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

Land _____ % Channel **95** % Roads **100** % Other _____ %

D. Probability of Treatment Success

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

Signing

E. Cost of No-Action (Including Loss): $ 1,185,000

F. Cost of Selected Alternative (Including Loss): $ _____

G. Skills Represented on Burned-Area Survey Team:

[X] Hydrology	[X] Soils	[ ] Geology	[X] Range
[ ] Timber	[X] Wildlife	[ ] Fire Mgmt.	[ ] Engineering
[ ] Contracting	[X] Ecology	[ ] Research	[ ] Archaeology
[ ] _____	[X] Botany	[ ] Road Eng.	[ ] _____

Team Leader: Tom White
Phone: (619)674-2935 DG Address: R05F02A

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 qualifyi treatments for the appropriate funding authorities. For seeding treatments, include species, application rates and species selection rationale.

To protect the investment of a Forest Service Road (Half Way Truck Road) used t access the area for projects and fire management it is proposed to remove and/o clear culverts. Additional drainage (rolling dips and outsloping) may be required on sections of road where it is decided to leave culverts in place. Other drainage will be necessary to handle the added runoff. Clear derbris and berm blocking natural drainages that cross the road.

Warn residents who may be affected by debris flows or floods during and followi precipitation events this precipitation season. The NRCS has contacted residen who may be effected by a flood and/or debris flow event and provided them with information on what to do if an event occurs or is about to occur.

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

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

			NFS Lands			Other Lands			A
Line Items	Units	Unit Cost $	Number of Units	EFFS-FW22 $	Other $ ident.	Number of Units	Fed $ BIA ident.	Non-Fed $ Pvt/LG# ident.	To
A. LAND TREATMENTS									
B. CHANNEL TREATMENTS									
C. ROADS AND TRAILS									
Place trash racks above culverts and improve Rolling Dips	Miles	$1.3M	2.0	$ 2,624					$10
D. STRUCTURES									
E. BAER EVALUATION/ ADMINISTRATIVE SUPPORT									
Salary survey team			1,320	$ 3,948					$ 5
Regional BAER evaluation			1	$					$ 5
F. TOTALS				$ 6,572					$20

PART VII - APPROVALS

1. /s/ Anne S. Fege — 2/21/97
Forest Supervisor (Signature) — Date

2. /s/ —
Regional Forester (Signature) — Date