

DOCUMENT HEADER

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Received from: Bill Brown

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by R.GRIFFITH

Author: Bill Brown

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Message attached

Subject: BICHOTA

Summary:

Comments:

To R.GRIFFITH:R05A

From: Bill Brown

Acting for: Land Mgt. Plannin

Postmark: Jun 20,97 1:52 PM

Status: Certified Previously read

Subject: FINAL BAER REPORT FOR BICHOTA

Comments:

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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 FFFS-FW22 funds
[X] 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
- [X] 3. Final report - following completion of work

PART II - BURNED-AREA DESCRIPTION

- A. Fire Name: Bichota B. Fire Number: ANF 2875
- C. State: California D. County: Los Angeles
- E. Region: Pacific Southwest (05) F. Forest: Angeles (01)
- G. District: Mt. Baldy (52)
- H. Date Fire Started: June 29, 1996 I. Date Fire Controlled: July 15, 1996
- J. Suppression Cost: \$2,191,383
- K. Fire Suppression Damages Repaired with FFFS-PF12 Funds:
1. Fireline waterbarred (miles) 5
2. Fireline seeded (miles) 5 (catlines)
3. Other (identify) _____
- L. Watershed Number: 1807010602 (Watershed Unit #121)
- M. NFS Acres Burned: 1200 Total Acres Burned: 1200
- Ownership type:
- () State () BLM () PVT () _____
- N. Vegetation Types: Northern Mixed Chaparral; Montane Mixed Chaparral;
Canyon Live Oak; Chamise Chaparral; Bigcone Doug Fir
- O. Dominant Soils: Caperton-Trigo, granitic substratum-Lodo families
complex; Stukel-Sur-Winthrop families complex
- P. Geologic Types: Mesozoic Granite Rocks, Pleistocene Nonmarine Deposits
- Q. Miles of Stream Channels by Order or Class:
- I-0 II-0.5 III-2.5 IV-4
- R. Transportation System:
- Trails: _____ (miles) Roads: 5.7 (miles)

PART III - WATERSHED CONDITION

- A. Fire Intensity (Acres): 120 (low) 840 (moderate) 240 (high)
- B. Water Repellant Soil (Acres): 750
- C. Soil Erosion Hazard Rating (Acres):
0 (low) 240 (moderate) 960 (high)
- D. Erosion Potential: 270 tons/acre
- E. Sediment Potential: 117,850 cu. yds/sq. mile

PART IV - HYDROLOGIC DESIGN FACTORS

- A. Estimated Vegetative Recovery Period: 7 years.
- B. Design Chance of Success: 90 percent.
- C. Equivalent Design Recurrence Interval: 10 years.
- D. Design Storm Duration: 96 hours.
- E. Design Storm Magnitude: 18.5 inches.
- F. Design Flow: 1349 cfs.
- G. Estimated Reduction in Infiltration: 28.5 percent.
- H. Adjusted Design Flow: 2698 cfs.

PART V - SUMMARY OF ANALYSIS

A. Describe Emergency:

1. Threat to Human Life: The drainages in Bichota Canyon are steep and can produce heavy runoff. There are 28 residences under Special Use Permit, located less than 1/4 mile south of the burned area. Also associated with these residences is an access road (2N14 - not on the Forest Transportation System) with associated water crossing structures.
2. Threat to Property: There are at minimum four cabins and related out-buildings which are at risk from large floating logs causing log jams. There is one Forest System road located within the burned area; the Pigeon Ridge Road 2N15. Fire suppression vehicles and equipment used this road as the main access to suppress this fire. The road surface was used at a much higher rate than normal. Some road grading was done during the suppression activities.
3. Loss of Control of Water: Slopes within the burned area are very steep and water will run off rapidly. Two tributaries to the stream within the burn are expected to experience a major loss of control of water. The upper channel within the burn area is likely to experience cross drainage channel blockage, and concentrate hillside runoff into a single point. Slope wash will now concentrate at the mouth of the burned watershed. Failure of channel drainage in the tract will cause rerouting of water to cabins and adjacent improvements and increased water surface elevations of flood flows. Control of this water will be achieved at the San Gabriel Reservoir which is located 8 miles downstream. The County of Los Angeles Department of Public Works is currently in the process of developing a sediment management plan. An aspect of this plan looks at the floating debris which are

considered to be hazards to their outlet works.

4. Threats to Water Quality: All watersheds in the burn area have a high potential for increased sedimentation and its adverse effects on water quality. Potential for short and long term sediment related damage exists as a result of the fire. Temperatures in the lower watershed will be affected by the removal of shade by the fire, directly affecting the fish in the stream. Other beneficial uses of water in this watershed include: local domestic water use, picniking, fishing, sightseeing, and wading.
5. Threats to Long-Term Productivity: Based on the field survey, the average soil loss over the burned area was calculated to be about 270 tons per acre per year. The fire was hot and fast, and in the middle to high intensity areas, the soil damage appeared to be moderate. There are hydrophobic soils naturally occuring.

B. Emergency Treatment Objectives:

The emergency treatment objectives are to maintain site productivity and control the potential erosion. In addition, provide reassurance to private landowners and recreationists that efforts are being made to stabilize steep slopes, and to minimize heavy woody debris from choking the channel, and causing debris inflow to the San Gabriel Dam.

In addition, emergency treatment objectives should provide recommendations which allow for the existing structures to continue to function while the watershed recovers.

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

Land _____ % Channel 100 % Roads _____ % Other _____ %

D. Probability of Treatment Success

	<----Years after treatment----->		
	1	3	5
Land			
Channel	80	100	100
Roads			
Other			

E. Cost of No-Action (Including Risk): \$ 786,008

F. Cost of Selected Alternative (Including Risk): \$ 367,849

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

<input checked="" type="checkbox"/> Hydrology	<input checked="" type="checkbox"/> Soils	<input type="checkbox"/> Geology	<input type="checkbox"/> Range
<input type="checkbox"/> Timber	<input checked="" type="checkbox"/> Wildlife	<input type="checkbox"/> Fire Mgmt.	<input checked="" type="checkbox"/> Engineering
<input type="checkbox"/> Contracting	<input type="checkbox"/> Ecology	<input type="checkbox"/> Research	<input checked="" type="checkbox"/> Archaeology
<input checked="" type="checkbox"/> NRCS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Team Leader: Karen Fortus

Phone: (818) 335-1251 ext. 249 DG Address: K.Fortus:R05F01D52A

H. Final Treatment Narrative:

Seeding Application: Five miles of catlines which ranged from 30' to 150' in width were seeded as part of fire suppression damage rehabilitation. Cost of this treatment was charged to the fire.

Channel Clearing: This treatment resulted in the removal of woody debris within two miles of channel that had the capability of being moved by high stream flows. All firmly anchored log jams/debris that had become an integral part of the stream channel were left in place. Debris was piled and burned.

In addition, shrubby vegetation in the riparian buffer zone, which is the area located approximately 20 feet from waters edge on each side of the stream, was removed along a 1000 feet of channel.

Please note in Part VI., costs shown with an * indicate that treatment work was combined. The work entailed channel clearing and buffer clearing which is very similar type manual labor.

BICHOTA

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 Total \$
			Number of Units	FFFS-FW22 \$	Other \$	Number of Units	Fed \$	Non-Fed \$	
					ident.		ident.	ident.	
A. LAND TREATMENTS									
B. CHANNEL TREATMENTS									
Channel clearing *	mi	5000	2	\$10000					10000
Riparian buffer *	ft	6	1000	6000					6000
C. ROADS AND TRAILS									
D. STRUCTURES									
E. BAER EVALUATION/ ADMINISTRATIVE SUPPORT									
BAER Team	days	1600	8						12800
F. TOTALS									
									28800

PART VII - APPROVALS

1. /s/ MICHAEL J. ROGERS
Forest Supervisor (Signature)

06/19/97
Date