
Date: October 10, 1992

Reply To: 2500

Subject: BARKER Fire B.A.E.R. Interim Funding Request

To: FOREST SUPERVISOR

This is a brief note to relate to you the current status of the Barker Fire Emergency Rehabilitation (BAER). We have completed 196 channel structures on three tributaries to Garden Gulch. We plan to grass seed the intensely burned areas with a helicopter/fixed wing contractor next Monday or Tuesday (October 19-20). By the end of next week we will have met the planned goals and objectives.

However, it has become apparent that the initial funding request for the Barker Fire BAER project was inadequate to effectively treat the burned area. Additional reconnaissance completed by Recovery Specialist Annetta Mankins, District Geologist Geoff Bell, and Technical Advisors of the burned area has revealed the presence of over 200 burned out log and debris jams that acted as efficient check dams. Left untreated, Hundreds of cubic yards of sediment will be mobilized from these sites and delivered via tributaries to Alder Gulch and Carr Creek which are tributaries to Hayfork Creek.

In addition to these burned out natural check dams, more conventional check dams are needed to safeguard the water quality of the above mentioned watercourses. In all we are requesting funding to complete 260 additional check dams, seed 25 acres with riparian vegetation, and aerial seed an additional 140 intensely burned acres.

The total request is \$31,000 more to complete the project. Completion of the above will adequately safeguard the water quality for domestic users and the anadromous fish run in Hayfork Creek.

Please feel free to contact Annetta Mankins, Roger Jaegel, or John Kruse regarding this request if you have any questions or comments. Thank you.

/s/ KARYN WOOD
District Ranger

BURNED AREA REPORT
(Reference FSH 2509.13, Report FS-2500-8)
R5 DG 7/90 rev.

PART I - TYPE OF REQUEST

1. Type of Report

- ☒ A. Funding (Request for estimated EFFF-FW22 funds)
☐ B. Accomplishment Report

2. Type of Action

- ☐ A. Initial (estimated funding is first requested)
☒ B. Interim
- a. ☒ Updating the initial funding request.
b. ☐ Supplying information for accomplishments to date
on emergency work underway.
- ☐ C. Final
- a. ☐ Best estimate for funds needed to complete eligible
b. rehabilitation measure.
☐ Following completion of funded work.

PART II - FIRE LOCATION

- a. Fire Name (from Form FS-5100-29): **BARKER**
b. Forest Supervisor's Fire No. (from Form FS-5100-29): **SHU-4739**
c. State: **CALIFORNIA**
d. County: **TRINITY**
e. Region: **5**
f. Forest: **SHASTA-TRINITY**
g. Ranger District: **HAYFORK**
h. Date Fire Started: **8/20/92**
i. Date Fire Controlled: **8/28/92**
j. Estimated Suppression Costs: **\$ 2.4 MILLION**
k. Fire Suppression Damages Repaired with EFFF-PF12 Funds:
(On National Forest System Lands)
1. **4.2** miles (firelines waterbarred)
2. **0** acres (firelines seeded)
3. **15.3** acres (fireline mulched)
- l. Fire Intensity: **34** % (low) **32** % (medium) **34** % (high)

PART III - NATIONAL FOREST SYSTEM PROBLEM INVENTORY

- a. Watershed No.: **18-01-02-12-01**

5. THIS ACRES DANCED. 1979 TOTAL ACRES DANCED. 3050

Ownership type: (list acres if known)

() State; (**125**) BLM; (**3550**) PVT; () Other _____

- c. Water Repellant Soil: 30 % of NFS acres burned
- d. Vegetation Types: BRUSH, BRUSH/MINOR CONIFER, MIXED CONIFER, MINOR GRASS
- e. Geologic Types: META-ANDESITES, SHALES, CONGLOMERATES, META-SEDIMENTARY AND ULTRAMAFICS.
- f. Soil Erosion Hazard Rating:

USFS 56 % (low) 21 % (medium) 23 % (high)

PVT 43 % (low) 22 % (medium) 35 % (high)

- g. Erosion Potential: USFS - 1245 cu. yds/sq. miles
- h. Miles of Stream Channels by Regional Order or Classes:

USFS - Class I (2.9), Class II (0.2), Class III (0.6), Class IV (4.0). PVT - Class I (0.6), Class II (4.2), Class III (4.3), Class IV (12.7).

- i. Miles of Forest Service Trails: 0
- j. Miles of Forest Service Roads by Maintenance Levels:

0 miles (Level I) 0 miles (Level II)

0 miles (Levels III, IV, V)

PART IV - CALCULATED RISK AND CLIMATIC EVALUATION

- a. Estimated Vegetative Recovery Period: 5 years
- b. Chance of Success Desired by Management: 90 percent.
- c. Equivalent Design Recurrence Period: 30 years.
- d. Related Design Storm Duration: 6 hours.
- e. Related Design Storm Magnitude: 2.37 inches.
- f. Related Design Flow 127 cfs.
- g. Estimated Reduction in Infiltration: 25 percent.
- h. Adjusted Related Design Flow: 159 cfs.

PART V - SUMMARY OF SURVEY AND ANALYSIS

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

☒ Hydrology ☒ Soils ☒ Geology ☐ Range
☒ Timber ☒ Wildlife ☐ Fire Mgmt. ☒ Engineering
☐ Contracting ☒ Fisheries ☐ Research ☒ Other-Archaeology

- b. Describe Emergency:

The potential exists for the loss or degradation of up to 16 domestic water users and some minor residential trout fisheries habitat. The threat to anadromous fisheries is considered low. Soil loss could be high on some of the steeper slopes owing to the relatively high burn intensities and shall nature of the soils. Productivity of forest lands could be reduced by up to 235 acres due to general soil loss and long term soil productivity characteristics.

c. Emergency Rehabilitation Objective:

Stabilize soil on steep slopes and prevent downcutting in stream channels thereby, providing maintenance of water quality to beneficial domestic water users.

d. Probability of Completing Treatment Prior to First Major Damage Producing Storm: **Predicted to be good since there is no significant rain producing storm in the forecast and most of the important work will be completed within the first seven days of the operation. Winter storm pattern is still eight weeks away in this area.**

Land 100 % Channel 100 % Roads n/a % Other %

e. Net Environmental Quality Benefit Index:

☒ Significant ☐ Not Significant

f. Net Social Well Being Benefit Index:

☒ Significant ☐ Not Significant

g. Benefit/Cost Ratio: 4.63

h. Net Benefits: \$ 114,250

i. Cost Effectiveness Index: ☒ I. ☐ II. ☐ III. ☐ IV.

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

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

| | | | | | | | | | | NFS Lands | Other Lands |
|---|-------|------|-------|----------|-------|--------|----------|-------|----------|-----------|-------------|
| All Lands | | | | | | | | | | | |
| Line | Items | Cost | Units | FW22 | Units | Unit | No. of | FFFS- | Other \$ | No. of | Total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | | | |
| | | \$ | | ident. | | ident. | identify | | \$ | \$ | |
| A. LAND seeding | | | | | | | | | | | |
| a. High Erosion | | | | | | | | | | | |
| Potential | Acres | 30 | 800 | 24,000 | | | | | | | |
| b. Riparian seeding | Acres | 190 | 25 | 4,750 | | | | | | | |
| c. | | | | | | | | | | | |
| B. CHANNELS | | | | | | | | | | | |
| a. Stabilizing | | | | | | | | | | | |
| Checkdams in | | | | | | | | | | | |
| streamchannels | Each | 70 | 460 | 32,200 | | | | | | | |
| d. | | | | | | | | | | | |
| C. BAER Evaluation / Administrative Support | | | | | | | | | | | |
| a. Salary | | | | 1,500 | | | | | | | |
| b. | | | | | | | | | | | |
| c. | | | | | | | | | | | |
| D. TOTAL | | | | \$62,450 | | \$ | \$ | \$ | | | |

PART VII - APPROVALS

S/ _____ Date
Forest Supervisor (Signature)

S/ _____ Date
Regional Forester (Signature)

/III - TREATMENT NARRATIVE (see Part VI)

Low tech - single log sediment check dams/channel stabilizing structures will be constructed to impede channel widening and downcutting. The structures will be deployed in selected intermittent and ephemeral drainages that were severely impacted by the fire (moderate to high intensity burned areas). Since access is poor over much of the area the structures will be constructed of materials on site.

The aerial seeding treatment will consist of application of 80000 lbs for 800 acres (100 lbs/acre) of cereal rye, if available, or another cereal grain species if unavailable. This species has been shown to have good germination rates and produce effective ground cover in less than one year. It is also acceptable from a reforestation standpoint as it does not persist in the applied area beyond 5 years.