

Date of Report:

**BURNED-AREA REPORT**  
(Reference FSH 2509.13)**PART I - TYPE OF REQUEST**

## A. Type of Report

- ☐ 1. Funding request for estimated WFSU-SULT funds  
☒ 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 or design analysis  
    ☐ Status of accomplishments to date  
☒ 3. Final Report (Following completion of work)

**PART II - BURNED-AREA DESCRIPTION**A. Fire Name: WoodlotB. Fire Number: CA-STF-001528C. State: CAD. County: MariposaE. Region: 05F. Forest: StanislausG. District: GrovelandH. Date Fire Started: July 8, 2003I. Date Fire Contained: July 11, 2003J. Suppression Cost: 1.4 million

## K. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred (miles): 1.7 miles of handline only  
2. Fireline seeded (miles): 0  
3. Other (identify):

L. Watershed Number: 1804000802M. Total Acres Burned: 481

NFS Acres(366)    Other Federal (115)    State ( )    Private ( )

N. Vegetation Types: Oak Woodland and ChaparralO. Dominant Soils: Lithic Xerumbrepts, Dystric Lithic Xerumbrepts, Typic Xerumbrepts, Rock outcropP. Geologic Types: Gneiss, Migmatite, Granodiorite

Q. Miles of Stream Channels by Order or Class: perennial=0.07, intermittant=2.40, ephemeral=12.13

R. Transportation System

Trails: 0 miles      Roads: 1.22 miles

### **PART III - WATERSHED CONDITION**

A. Burn Severity (acres): 348 (low & unburned) 66 (moderate) 67 (high)

B. Water-Repellent Soil (acres): 12

C. Soil Erosion Hazard Rating (acres):  
338 (low) 61 (moderate) 82 (high)

D. Erosion Potential: 5 tons/acre

E. Sediment Potential: 1600 cubic yards / square mile

### **PART IV - HYDROLOGIC DESIGN FACTORS**

A. Estimated Vegetative Recovery Period, (years): 5

B. Design Chance of Success, (percent): 20

C. Equivalent Design Recurrence Interval, (years): 5

D. Design Storm Duration, (hours): 6

E. Design Storm Magnitude, (inches): 2.3

F. Design Flow, (cubic feet / second/ square mile): 67

G. Estimated Reduction in Infiltration, (percent): 15

H. Adjusted Design Flow, (cfs per square mile): 198

### **PART V - SUMMARY OF ANALYSIS**

A. Describe Watershed Emergency:

The Woodlot Fire burned 481 acres on the north side of the Merced River above the town of El Portal. The fire occurred on steep canyon slopes commonly 70 percent or greater. The steepness of the upper burned watershed adds to the post-burn risk factors. Appendix A gives an aerial overview of the Woodlot Fire. Burn severity, hydrologic response, and erosion response are as follows:

**Burn Severity:** Twenty seven percent of the burned area is mapped as having a moderate and high burn severity (13 percent high, 14 percent moderate). Most of the moderate burn severity occurs in an oak-grass-shrub vegetation type where oak leaf fall will contribute substantially to post fire ground cover. Forty two percent of the Woodlot Fire is low burn severity. Thirty one percent of the area

within the fire perimeter is sparsely vegetated, extremely steep, rock outcrop lands with thin soils (mapped as very lightly or unburned).

**Hydrologic Response:** The fire is divided into 6 subwatersheds, all of which are intermittent drainages. Post-fire watershed response (storm stream flow) is shown in table 1.

Table 1 lists the post-fire predicted runoff responses, the estimated pre- and post-fire  $Q_5$  flow events (5 year return period storm). Those watersheds having a large percentage of high runoff response are expected to experience the greatest increase in post-fire flows.

Watershed	Total Acres	High (acres)	Moderate (acres)	Low, Unburned, & Rock (acres)	Pre burn $Q_5$ (cfs)	Post Fire $Q$ (cfs)	CFS Increase (post-pre)	% increase $Q$
1	264	25	7	232	65	164	99	153
2	160	2	15	144	43	61	18	42
3	129	20	14	94	36	158	122	338
4	95	15	13	35	28	131	103	367
5	38	1	15	22	13	53	40	302
6	80	0	3	77	24	24	0	0

**Erosion Response:** Geowepp was used to model soil loss from hillslopes and sediment yield to channels. Details are reported for drainages 4 and 5 because this is where the values at risk are highest. Residences on Chapel Lane (drainage 4) and Larkspur Lane (drainage 5) are built on old debris fans and are subject to periodic flooding and deposition.

Of the 6 drainages, drainage 4 has the highest overall risk of increased peak flows, debris flows, and sediment contributed from rill and gully erosion. Drainage 5 does have potential for flooding and deposition of fine sediments, however risk of debris flows is considered low in this drainage.

- In drainage 4, Geowepp eroded hillslopes at the rate of 5 tons per acre (watershed average), and delivered 120 tons of sediment to the lower segment of the stream channel where the debris basin is present (first winter erosion only). This estimate does not include sediment yield from potential debris flows.
- In drainage 5, Geowepp eroded hillslopes at the rate of 3.4 tons per acre and delivered 60 tons of fine sediment to the channel (does not calculate sediment from debris flow).

DeGraff (1990) recognized debris slide potential following the 1990 Arch Rock fire and constructed a gabion debris basin where the drainage flows into the residential area at Chapel Lane. A debris flow filled the designed catchment basin following the March storm events in 1991 (DeGraff, 1991). Also, following the March storms, flooding and deposition of fines occurred in drainage 5 at Larkspur Lane, where a small stream diversion was constructed to pass storm flows around and between residences. Water and fines did backup behind one residence.

**Values at Risk:** Values at risk were determined by the Woodlot BAER Team. The BAER Team members were drawn from both agencies, the Park Service and the Forest Service. Although the

burn severity of the fire was not extreme there are several locations where the following emergencies were determined. The majority of values at risk are on Yosemite Park lands.

- Lower Foresta Road and Drainages 1,2, and 3: Values at risk in drainages 1, 2, and 3 are related to storm flows plugging culverts and washing across the frontage road referred to as the lower Foresta road, possibly endangering human life. Three steep gradient drainages lead from the fire area directly downslope toward the frontage road. Rock fall is also a threat to human life and safety in this area of Foresta road. No structures are exposed to a flood hazard in these drainages. The geologist did not identify a debris flow hazard in these drainages.
- Residential Property and Drainages 4 and 5: Values at risk in drainages 4 and 5 are primarily related to potential flooding of residential structures. The Bellarina residence (drainage 4) and the McCullum residence (drainage 5) are of particular concern because of their locations relative to drainage ways. Refer to Erosion Response above for details.
- There are no values at risk in drainage 6. A total of 3 acres were burned in this drainage.
- Soil Productivity and Water Quality: There should be no significant deterioration of water quality or impairment of beneficial uses of water in the Merced River as a result of conditions caused by the Woodlot Fire. There should be no significant deterioration of soil productivity. The ecosystem in the burned area is fire-adapted, and the vegetation will recover and probable benefit. Accelerated erosion will occur the first year, however the native vegetation is expected to provide adequate ground cover the second year following the fire (Janicki and Potter, 2003). The burn severity of the fire was not extreme and is well with the natural range relative to post-fire erosion response. A relatively small portion of the fire (13 percent) was mapped in the high severity burn class. This figure is significantly lower compared to most wildfires.
- Upper Foresta road and bridge on Forest Service lands: Upper Foresta Road is a county road. The bridge was burned over and under. There is concern for the safe use of the bridge.
- There are a number of cultural resource sites located on Stanislaus N.F. lands. They are not considered at risk (per discussion with the Groveland District archeologist assigned to the Woodlot Fire).
- On Yosemite N.P lands eight known archeological sites were evaluated for suppression impacts and two were further evaluated for BAER. These are CA-MRP-0250/H and CA-MRP-1038/H, both prehistoric sites with historic components. House pits are among the important features of CA-MRP-0250/H. The concern is that loss of cover and hand lines crossing the area may expose the house pits to erosion. This area is located in a mosaic of light and moderate severity burn. Leaf fall from shrubs and oaks are expected to stabilize the site from erosion. A concentration of human bones is present at CA-MRP-1038/H where a hand line crosses the site. The BAER soil scientist recommended options for stabilizing this site (see Yosemite BAER report).
- Tree hazards along the roadway (Lower Foresta Road) are likely to fail and cause injury or property damage and therefore constitute an emergency. Tree hazards along the telephone line carrying all Emergency Communication Center traffic are likely to fail and disrupt emergency communications and therefore constitute an emergency. Tree failures along PG&E's transmission and distribution lines are likely to cause property damage and may cause an additional wildland fire and therefore constitute an emergency.
- Plant Species Composition and Noxious Weeds: There is a significant risk of invasion of noxious weeds due to several large infestations of yellow star thistle within the burned area in

both National Forest and National Park lands. These infestations are heaviest on Park lands but widely distributed on approximately 40 acres of National Forest lands. Also noted in the botany report is a concern for four state-listed rare species found on the El Portal administrative site and adjacent USFS lands that may be threatened by yellow star thistle and other invasive, non-native plants. Invasive weeds such as Tocolote and Bachelor buttons are present. Firelines and roads are, of course, paths for dispersal. A total of 1.2 miles of road are within the fire and approximately 3.5 miles of handline are constructed in or adjacent to the fire. As a result of circumstances and the reproductive capacity of the weed species involved, there is a strong expectation of noxious weed invasion threatening native plant community composition.

## B. Emergency Treatment Objectives:

- 1) Prevent loss of life and risk to human safety.
- 2) Reduce threat to property on roads.
- 3) Reduce risk of degradation of significant natural resources.

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

Land N/A % Channel 90 % Roads 90 % Other N/A %

## D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	N/A	N/A	N/A
Channel*	90	95	100
Roads*	90	95	100
Noxious Weeds	90	**	**

\* refers to treatments implemented on Park Service lands

\*\* depends on post-BAER funding from other sources

## E. Cost of No-Action (Including Loss): \$330,000

## F. Cost of Selected Alternative (Including Loss): \$180,000

## G. Skills Represented on Burned-Area Survey Team:

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

☐ Fisheries      ☐ Research      ☐ Landscape Arch      ☒ GIS

Team Leader: Alex Janicki

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Team Members:

Hydrology: Rick Weaver (TNF)  
Soils: Alex Janicki (STF)  
Geology: Richard Wisehart (STF)

Archeology: Jun Kinoshita (YNP)  
                  Kristen Shive (YNP)

Forester: Brian Mattos (YNP)

Botany: Marty Acree (YNP)  
              Jennie Haas (STF)

Biologist: Sue Beatty

GIS: Jim Schmidt (STF)  
          Mark Grupe (YNP)

Engineer: Mike Bradshaw (STF)

GIS/Assit. Team leader: Sharon Grant

**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.)

**Land Treatments:**

No land treatments are prescribed on Forest Service or Park Service lands at this time. Land treatments were thought to be out of prescription (typically applied on more gentle ground, not steep 70 percent slopes). However, more evaluation is recommended in drainage 5 to determine if a land treatment such as heli-mulching or straw wattles would be appropriate to coordinate with channel and structure treatments described below. A supplemental report will be done if a land treatment is proposed.

**Drainage 5 was further evaluated to determine if land treatments were prudent and practical. No treatments were recommended after field review. Heli-mulching and straw wattles were not considered practical on 70% slopes.**

**Channel Treatments:** Channel treatments are prescribed on Park Service lands in drainages 4, 5, and 6. Drainages 1,2,3 are discussed in the Road Treatment section (see Lower Foresta Road) . Channel treatments consist of the following:

- **Restoring function to existing drainage facilities and drainage features**  
This treatment includes a broad range of activities designed to open and restore function. It includes: Clean culverts, culvert catch-basins, ditch lines, and clear vegetation blocking drainage ways. Remove floatable and transportable debris, gravel bars, and the like from catch basins and immediate upstream channel to make the existing drainage facilities and features as effective and efficient as possible to handle the anticipated post burn flows. Restore design capacity.
- **Clean gabion debris basin structures**
- **Sandbagging**
- **Emergency storm patrol**

#### Watershed No. 4: (near Chapel Lane)

This watershed contains the Chapel Lane debris basin. This drainage has experienced debris flows in the past and a gabion debris basin was constructed in 1990 to protect residences built on a debris fan. The culvert at Chapel Lane (immediately below the debris basin) is plugged. The channel below the culvert is constrained behind the Bellerina residence. It passes two or three buildings before emerging behind the steam locomotive where it enters a small culvert under the locomotive. Downstream values are subject to flooding under present conditions. Recommended treatments:

- **Clean existing debris basin** to restore full design capacity. Increase debris basin capacity if feasible.
- **Restore function to existing drainage facilities and drainage features**, giving particular attention to the culvert under Chapel Lane, the drainage way behind the Bellarina residence, and the culvert under the locomotive.
- **Monitoring/emergency storm patrol** accessible portions of watershed, especially in the vicinity of improvements.
- **Sand bagging** to keep runoff in natural drainage course and/or to divert runoff away from residence.

**YNP maintenance cleaned out the Chapel Lane debris basin and culvert. The natural drainage course was cleaned. No sandbag treatment was noted. Runoff apparently stayed in the natural drainage and no flooding occurred to residence.**

#### Watershed No. 5 (near Larkspur Lane):

The McCullum residence is constructed on a debris flow fan at the base of this channel. There is no debris basin at this location. This watershed has experienced debris flows in the past. However, the potential for debris flow has been reported to be low (DeGraff, 1991) and only minimally increased by the Woodlot Fire, according to the BAER team geologist. Fine sediments, ash and flooding are believed to be the most likely risk from watershed 5, given the current condition of the upper watershed. A relatively small amount of deposition at the head of the debris flow fan could divert flow into the easterly drainage way emanating from this watershed and adversely affect the McCullum residence. Further evaluation is recommended to determine if a treatment is possibly in the upper watershed. Recommended treatments:

- **Restore function to existing drainage facilities and drainage features** by redefining drainage patterns and the ditch that carries water from watershed 5 to the westerly side of McCullum residence. Define ditch to the break in slope above the greenhouse location. Generally a channel approximately 5 feet wide by 2 feet deep, depending on channel slope would accommodate the post-burn flows reported by the hydrologist. Some additional assessment is needed to properly size this channel to the expected flow, while accommodating site conditions.
- **Monitoring/Emergency storm patrol** as needed to assure effectiveness of treatments.

**YNP maintenance increased the capacity of the ditch that carries water from watershed 5 to the westerly the side of McCullum residence. The undersized culvert at Larkspur Lane was replaced with a larger culvert, a metal end-section, and a concrete headwall at the outlet. This treatment routes storm water away from the community center and post office.**

#### Watershed No. 6: (Water tank drainage)

This watershed is largely unaffected by the Woodlot Fire burned area. Only a small portion of the upper watershed burned. However, a debris basin was constructed after the Arch Rock Fire of 1990 and this watershed has experienced debris flow in the past (DeGraff, 1991). In view of the previous concern and experience in this watershed, fully cleaning the debris basin appears a prudent measure. Recommended treatments:

- **Clean existing debris basin** to restore full design capacity. Increase debris basin capacity if feasible.
- **Monitoring emergency storm patrol** to assure effectiveness of treatment

**YNP maintenance cleaned out the debris basin next to the water tank.**

#### Roads and Trail Treatments:

##### Lower Foresta Road (Drainages 1,2,3)

Drainages 1,2, and 3 cross this road at the base of the fire between Barium Mine Road and the RR Water Tanks in El Portal. The Park Service already monitors and patrols this road segment for rockfall, does cleanup, and occasionally closes gates to isolate the road segment. Recommended treatments:

- **Monitoring/emergency storm patrol.** Monitor conditions and initiate corrective action during and after storm events, for risks such as flash flooding, rock fall, debris flow clean up, plugged culverts, and close gates, when warranted. Treatment costs varies with storm event, but can be expected to run approximately \$2,000 per day, depending on the storm event, labor and equipment used, and amount of clean up needed
- Install a **BAER warning sign** (see Road Engineering report for details), on each end of this section of road.
- **Restore function to existing drainage facilities and drainage features**, where necessary.
- Continue the **Administrative closure** by closing the gates on lower Foresta Road when conditions warrant.



**BAER warning signs were placed warning of hazards along lower Foresta Road. Administrative closure was in effect for extreme storm events. YNP maintenance cleaned culverts, inlets, outlets and trash racks before storm events.**

There are no trails within the area of the Woodlot Fire.

### Upper Foresta Road

This county road is signed closed November to May each year. The County Director of Public Works indicates that they attempt to keep the gates locked year round and view the road as an emergency access/exit for communities at either end. The potential exists for post-burn runoff to jump the existing dip at Watershed 4 and run down the inside of the native surface road, potentially eroding the road surface and/or diverting runoff. Recommended treatments:

- Install a **BAER warning sign** similar to the one in Photo A-4 (Engineering Road Report), on each end of this segment of road.
- **Restore function to existing drainage facilities and drainage features**, where necessary. Giving particular attention to watersheds 4 and 5 to prevent post-burn flows from running down the road.

**BAER warning sign installed at entry point. Its not clear how much work the county did to improve drainage on the road. However, no major erosion problems were noted during a February review of watershed conditions.**

### Structures:

#### Upper Foresta Road Bridge in Watershed 3

Upper Foresta Road is a county road. There is a bridge at the lower crossing of the channel in watershed 3. The bridge is constructed of structural steel with a concrete deck, and timber guard rails. It was burned over and under. The age of the bridge is unknown, but estimated at 60 years. It was weight restricted in the pre-burn condition. The guard rails burned on both ends during the fire giving some indication of temperature exposure. The duration is unknown at this time. There is concern that the structural steel piers and/or girders may have been weakened by the heat exposure. At least one of the piers is discolored from exposure to flame and/or heat. The county has signed the bridge closed. The county Director of Public Works reports that they have not yet done a structural assessment on the bridge. Recommended treatments:

- **Administratively close** the bridge to traffic pending structural assessment.
- Assess the bridge for structural steel damage caused by heat exposure.

**The county has inspected the bridge and replaced the wooden guard rails. The bridge is open to local traffic. The road is not open to through traffic.**

### **Noxious Weed Monitoring and Eradication (Forest Service lands)**

#### Inventory, Mapping and Hand Pulling

During mid-spring in 2004, monitor the burned area for, and map all currently unmapped, unknown noxious weeds and invasive non-native pest plants of concern (Appendix B) in the burned area (High, Moderate and Low burn intensities) on NFS lands. This amounts to about 220 acres.

- When small infestations (fewer than 500 plants and/or less than 1/2 acre) are encountered, the botanist will hand pull the infestations. This can be accomplished by one trained botanist (GS-9) in one to two weeks (one week if there are few weeds for hand pulling, two if there are many sites for hand pulling). A total of two weeks is requested for early season monitoring, mapping and hand pulling because of the uncertainty of the amount of hand pulling that will be encountered.
- Mapping would be efficiently and accurately accomplished by using GPS to record the locations and GIS to display the locations on a topo map. Location maps showing larger infestations (larger than 1/2 acre and/or more than 500 plants) would be provided to the implementation crew for weed treatment. The GIS map would be available for future program monitoring and treatment, if funding becomes available.

**FS noxious weed treatment will be administered by YNP botany crew.**

#### Mechanical treatment:

There are 5 currently known large yellow star-thistle infestation areas in the burned area, ranging in area from nearly three acres to almost 13 acres. The total acreage of the known infestations is 41.6 acres. Tocalote is mixed in with the yellow star-thistle in most of these sites. Bachelor buttons are in or near one or two of these sites. All large infestations in the burned area would be treated mechanically by weed-whacking or hand pulling with priority of treatment given to yellow star-thistle and tocalote. Any other State noxious weeds would be prioritized based on their State rating ("A" and "B" ratings being the highest, even over yellow star-thistle), and whether or not cutting or hand pulling are effective methods of treatment.

- Weed whacking with power weed and brush trimmers would be conducted over a two to three week period. A one to two week follow-up hand-pulling or weed-whacking treatment would be conducted three to four weeks after initial treatment. A five person crew (WG-5) headed by an additional work leader (WL-5) would conduct the work. Utilizing the Inter-Agency Agreement for Fire Management among several agencies including the National Park Service and the US Forest Service, a National Park Service weed crew and leader could implement the weed treatment in order to reduce costs as compared to hiring a Forest Service crew and paying per diem. If the NPS crew is not available, a private company would be sought out to provide a skilled crew at comparable rates to accomplish this work. It is not known if such a company could be found.

#### Noxious Weed Post-treatment Monitoring:

Monitoring is proposed to determine if the weed treatments are effective in reducing the amount of weed seed produced and thereby preventing spread. Follow-up identification work is expected to be necessary to catch plants which emerge later or are identifiable later in the season. Any new infestations would be hand pulled, GPSed and mapped in GIS.

Monitoring would be conducted post-treatment in 2004 and is expected to take one GS-9 Botanist about one week to complete.

### **Noxious Weed Monitoring and Eradication (Yosemite National Park lands)**

The infestation of star thistle is greatest at the base of the fire on Park Service lands. Yosemite BAER team members recommended an integrated approach using several management tools and multi-year treatment to control the spread of yellow star thistle and other invasive plants. Mechanical control by timed weed whacking and hand pulling, burning, and use of herbicides is recommended. The use of herbicides is recommended for areas where burning and weed whacking are infeasible. Yosemite plans to GPS/monitor new locations of invasive plants. Only first year costs are shown in the Treatment Costs spreadsheet, Part IV.

### **Cultural Resources (Yosemite National Park lands)**

All eight sites within the burn unit require documentations of impacts as a baseline for future reference. See BAER Assessment of Cultural Resources for the Woodlot Fire report for details of Treatments.

**Sandbags were placed at the Chapel Lane site to divert flow away from an important cultural site.**

### **Tree Hazard Mitigation (Yosemite National Park lands)**

Identify target areas; inspect trees along documented targets, directly mitigate documented tree hazards through pruning or takedown; rehabilitate work sites by placing trees debris as prescribed by archeologist; piling for subsequent burning, or removing from burn area for off-site disposal.

**Hazard tree mitigation was implemented on YNP lands, along lower Foresta road and along PG&E power transmission lines.**

#### **I. Monitoring Narrative:**

(Describe the monitoring needs, what treatments will be monitored, how they will be monitored, and when monitoring will occur. A detailed monitoring plan must be submitted as a separate document to the Regional BAER coordinator.)

#### **J. References:**

- DeGraff, Jerome V. 1990 Internal Forest Service Report, "Implementation of Burn Rehabilitation Measures in Merced Canyon to Counter Effects of the Arch Rock Wildfire," August 1990.
- DeGraff, Jerome V. 1991. Internal Forest Service Report, "Response of Arch Rock Burn Rehabilitation Measures in Merced Canyon to the March 1-4, 1991 Storm Event," March 1991.
- Janicki, A.J., Potter, D. 2003. Internal Forest Service Report, "Effects of Grass Seeding on Post-Fire Erosion in a Sierra Nevada Pine-hardwood Community," USDA Forest Service, Pacific Southwest Region. April 2003.

## Part VI – Emergency Rehabilitation Treatments and Source of Funds by Land Ownership

Line Items	Units	Cost	Units	SULT \$	\$	units	\$	Units	\$	\$
Cost of Treatments on STF						Costs of Treatments on YNP lands				
<b>A. Land Treatments</b>										
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Land Treatments</i>				\$0	\$0		\$0		\$0	\$0
<b>B. Channel Treatments</b>										
Restore Function				\$0	\$0	LS	#####	1	\$10,000	\$10,000
Clean Debris Basins				\$0	\$0	ea		2	\$2,400	\$4,800
Sandbagging				\$0	\$0	ea	#####	2	\$3,000	\$6,000
Contingencies/Adm						LS		1	\$12,280	\$12,280
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Channel Treat.</i>				\$0	\$0		#####		\$27,680	\$33,080
<b>C. Road and Trails</b>										
Storm Patrol				\$0	\$0	days	#####	20	\$2,000	\$40,000
Warning Signs				\$0	\$0	ea	#####	3	\$300	\$900
Closure of Existing Gates (existing protocol)				\$0	\$0		\$0		\$0	\$0
Tree Hazards						LS				\$15,000
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Road &amp; Trails</i>				\$0	\$0		#####		\$2,300	\$55,900
<b>D. Structures</b>										
Cultural Resources				\$0	\$0	LS	#####		\$0	\$10,425
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Structures</i>				\$0	\$0		#####		\$0	\$10,425
<b>E. BAER Evaluation</b>										
Salary & travel				\$21,445	\$0		\$0		\$0	YNP not inc.
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Evaluation</i>				\$21,445	\$0		\$0		\$0	\$0
<b>Noxious Weed Monitoring and Eradication</b>										
GPS Weeds	LS	2,610		\$2,610	\$0	LS	#####		\$0	\$1,800
Mech. Treatment	LS	17,500		\$17,500		LS				\$33,000
Weed Monitoring	LS	1,325		\$1,325						inc. in GPS
Burning				\$0	\$0	ac	#####	40	\$200	\$8,000
<i>Subtotal Monitoring</i>				\$21,435	\$0		#####		\$200	\$42,800
<b>G. Totals</b>				<b>\$42,880</b>	<b>\$0</b>		<b>#####</b>		<b>\$30,180</b>	<b>\$142,205</b>

## PART VII - APPROVALS

1. /s/ Tom Quinn  
Forest Supervisor (signature)

07/28/2003  
Date

2. /s/Kent P. Connaughton (for)  
Regional Forester (signature)

08/01/2003  
Date

# Accomplishment Report

a.janicki, 6/2004

## Narrative of Treatments and Costs

Land Treatments - None

Channel Treatments - None

Road Treatments - None

Structures - None

### BAER Evaluation Costs

Actual costs and planned costs were the same.

### Noxious Weed Monitoring and Eradication Costs

A noxious weed monitoring and eradication plan will be implemented this summer. Costs are expected to be equal to what was authorized. The District botanist/BAER team member is not confident that a single effort (\$3,400 authorized), will control the spread of noxious weeds from 40 acres of existing yellow star-thistle infestations (FS lands) and the potential spread of weeds onto 10 acres of fireline. More monitoring and weed pulling may be required in year two. An herbicide option (separate from BAER) may be forthcoming. YNP and Joanna Clines of the Sierra Forest is preparing a NEPA document that will recommend the use of herbicides to destroy noxious weeds in the Merced canyon area, including the Woodlot fire.

## Treatment Effectiveness Monitoring

Team leader, Alex Janicki visited the Woodlot Fire in February of 2004. The objective of the trip was to monitor mid-winter treatment effectiveness. The channel treatments prescribed on YNP lands were in place, were tested by January storms, and were found to be effective. Gabion debris basins had captured sediment and were half full. No evidence of flooding was noted around homes near drainages. The native surface upper Foresta road (county owned), appeared to be holding up well with no major erosion problems noted.

Considerable "green-up" occurred in the low and moderate classes of burn severity (87% of burn). Cover contributed by grasses was impressive. Seeding treatments probably would not have increased erosion control cover. High burn severity areas (mostly chamise and brush covered slopes) were recovering much more slowly. One transect showed 2% cover contributed mostly from sprouting species. Rill erosion was common on these slopes.

Archeology sites were protected by post-burn litter fall, excellent green-up, and sandbag treatments. Treatments were effective in mitigating the emergency. Continued maintenance of channel treatments will be important the second winter.

## YNP BAER Treatments

Contact Brian Mattos, Park Forester, for further information concerning BAER treatments implemented on YNP lands. [Brian\\_S\\_Mattos@nps.gov](mailto:Brian_S_Mattos@nps.gov). Telephone (209) 379-1113.

