USDA-FOREST SERVICE FS-2500-8 (7/00)

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
[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 or design analysis
[ ] Status of accomplishments to date

[x] 3. Final Report (Following completion of work)

PART II - BURNED-AREA DESCRIPTION

A. Fire Name: Gaviota

B. Fire Number: CASBC 004032

C. State: CA

D. County: Santa Barbara

E. Region: 5

F. Forest: Los Padres

G. District: Santa Barbara

H. Date Fire Started: 06-05-2004 I. Date Fire Controlled: Contained on 6/10, control expected 6/14

J. Suppression Cost: approximately 5 million dollars

K. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 19
2. Fireline seeded (miles): none
3. Other (identify):

L. Watershed Number: Santa Barbara coastal 18060013

M. Total Acres Burned: 7440
NFS Acres(1400) Other Federal ( ) State (250) Private (5790)

N. Vegetation Types: Chamise chaparral, coastal chaparral, mixed chaparral, annual grassland, live oak woodland, riparian

O. Dominant Soils: Stonyford-Ramona families association,30-65% slopes, Lodo-Livermore-Chualar families association, 30-60% slopes, Millerton-Millsholm Families-Rock Outcrop complex, 30-80%, Rincon-Modesto-Los Osos families association, 30-60% slopes,

P. Geologic Types: Matillija Sandstone, Cozy Dell Shales, Sacate Formation (marine, hard buff sandstone, minor clay shale and marine, gray micaceous clay shale, minor sandstone), Gaviota formation (shallow marine regressive, gray concretionary siltstone and claystone, and marine, light gray sandstone), Alegria Formation, Sespe Formation, Vaqueros Sandstone, Rincon Shale, Older alluvium, undivided, Monterey Formation (deep marine biogenic, cream-white-weathered platy siliceous to fissile shale, calcareous shale and thin dolomite beds, deep marine biogenic, white weathering, platy siliceous shale, upper part, Mohnian Stage, late Miocene), Alluvium.

Q. Miles of Stream Channels by Order or Class:
Order 1 = 18.25 miles, Order 2 = 3.75 miles, Order 3 = 1.9 miles

R. Transportation System

Trails: 4 miles Roads: 20 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 4181 (low) 2078 (moderate) 1033 (high) 245unburned

B. Water-Repellent Soil (acres): 70% of high = 723ac, 30% of moderate = 623 Total = 1346

C. Soil Erosion Hazard Rating (acres):
3172 (low) 940 (moderate) 3425 (high)

D. Erosion Potential: 365 tons/acre

E. Sediment Potential: 65,000 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 7 years

B. Design Chance of Success, (percent): 60

C. Equivalent Design Recurrence Interval, (years): 10

D. Design Storm Duration, (hours): 12

E. Design Storm Magnitude, (inches): 9.5

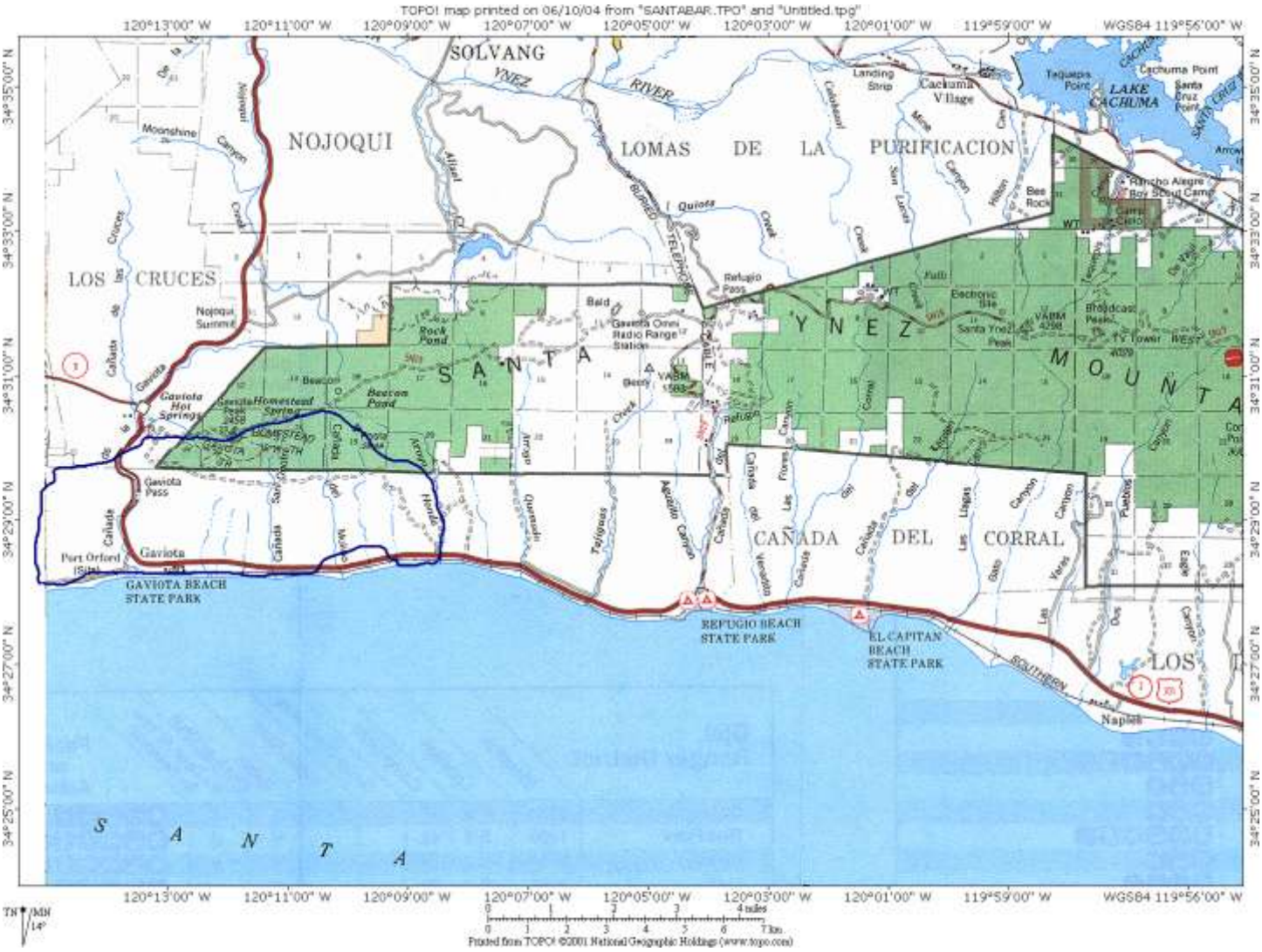
F. Design Flow, (cubic feet / second/ square mile): 140

G. Estimated Reduction in Infiltration, (percent): 42%

H. Adjusted Design Flow, (cfs per square mile): 96 cfs/square mile

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency: Loss of water control at creek crossings under Hwy 101 and the Union Pacific railway along the Gaviota Coast (see Map 1 and 2).



Map #1. Overview of Gaviota Burn Perimeter.

The most recent fire in this area burned in 1955, leaving 49 years for the fuel to become dense and very decadent. Mixed chaparral on the upper slopes burned with high severity and covered slopes greater than 60%. This steep, severely burned portion of the fire generally occurs on Forest Service land. Mid slopes burned in moderate severity, and lower slopes of grass and more gentle slopes burned with low severity. Forest Service burned areas will significantly contribute to increased water flows and sediment yields – possibly even debris flows- into relatively small culverts under Hwy 101 and the Union Pacific Railway. Most of these culverts appear to be undersized for 10 year rain events following fires, and are also partially blocked by debri or vegetation, and in one case, partially filled with rocks. In the event that these culverts are blocked with debris, which appears likely, water and debris will fill in behind the Hwy 101 embankment. Most of these embankments are 20 to 50 feet deep, and would store a great deal of material, but in this case water would saturate the roadbed. In at least one case, at Tunnel Drainage, there is very little storage space and debris is already in the culvert, so it appears that a debri flow or flooding could be a risk to the highway and to people driving north on Hwy 101.

Construction of a 50 foot wide by 6.5 mile long dozer line across the northern perimeter of the fire greatly increases the risk of a noxious weed infestation on USFS land, particularly from yellow star thistle, which is abundant in the valleys below the fire, and could easily have been tranported to this fireline by heavy equipment.

No dwellings or outbuildings were identified that would be in danger of flooding.

Photo #1. Looking down San Onofre Creek from USFS land on top of Gaviota Ridge. Hwy101 is at the terminal end of the drainage, against the coast.

Photo #2. Exit of San Onofre culvert which runs under Hwy101 and Union Pacific Railway for 345 feet.

Photo #3. Debri blocking entrance to Posta Creek culvert.

Photo #4. Tunnel Creek culvert.

Map #2. 3d view of fire. USFS land is deliniated with a dark red polygon at the top of the ridge. Culverts of concern are located at the highway (double dark red line) along the immediate coast.

B. Emergency Treatment Objectives:

The emergency treatment objectives are to prevent road and rail damage from flood water/debris backing up culverts beneath Hwy 101 and the Union Pacific Railway, and to prevent water and sediment from overflowing Hwy 101 near Gaviota Pass and endangering motorists. These treatments will be determined in detail and accomplished by Caltrans and Union Pacific Railway. There are no treatments on USFS land that would be effective in ameliorating these emergencies.

Another emergency treatment objectives is to determine if noxious weeds have been introduced onto the firelines along Gaviota Ridge and to determine if a more intensive eradication program should be undertaken.

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

Land __ % Channel **60** % Roads __ % Other __ %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land			
Channel	50	60	80
Roads			
Other			

E. Cost of No-Action (Including Loss): Possibly millions of dollars in major road repair, lost opportunity on the railway of hundreds of thousands per day, loss of life from motor accidents on Hwy 101.

F. Cost of Selected Alternative (Including Loss): **Not available at this time; to be determined by Caltrans and Union Pacific – may include the cost of construction of trash racks, and clearing culverts throughout the winter, but will greatly reduce the possibility of road and railway damage.**

Cost of noxious weed monitoring on USFS = $4500.

G. Skills Represented on Burned-Area Survey Team:

[x] Hydrology [**x**] Soils [x] Geology [x] Range [ ]
[ ] Forestry [x] Wildlife [x] Fire Mgmt. [x] Engineering [ ]
[ ] Contracting [ ] Ecology [x] Botany [x] Archaeology [ ]
[x] Fisheries [ ] Research [ ] Landscape Arch [x] GIS

Team Leader: Kevin Cooper

Email: kccooper@fs.fed.us Phone:(805) 925-9538 x216 FAX: (805) 961-5781

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: None

Channel Treatments:

Possibly enlarge culverts, install risers at the catchment basins to settle out sediment, then clean these basins after storms, and install trash racks, or sediment basins. All of this work will be determined by and accomplished Caltrans or Union Pacific. There are no feasible treatments on USFS lands because of the steepness, and because USFS lands are at the very top of the drainage, whereas the risks are at the very bottom; any treatment done on FS lands would not protect structures below since there is too much burned area between the forest boundary and the areas at risk. The burned area of mid and lower slopes that would produce large amounts of runnoff and debris due to it's large area, are privately owned. Seeding is not recommended for any of the burned areas because research regarding seeding has shown that it is not effective in retarding soil movement in the Central Coast ecosystem (Robichaud, et.al. 2000). See the seeding criteria for the Los Padres National Forest (attached). Structural treatments on FS lands would be ineffective because most slopes are 60% or greater, making the probability of success in holding soil and water back very unlikely.

Accomplishments: No work was done on FS land for this treatment, and no BAER funding was used; all of this work was accomplished by Caltrans by improving Highway 101 culverts. Some of the culvert work was not completed before the heavy rains, and flooding of the highway resulted in several closures near Gaviota Tunnel, and the Gaviota rest area was closed due to mud and debris. All of the culvert upgrading for the burn area has been completed and the vegetation has re-grown to about 70% cover on average, so the likelyhood of future flooding due to this burn has been greatly reduced.

Roads and Trail Treatments: None

Structures: None

H. **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.)

A fuelbreak approximately 6.5 miles long and 50 feet wide on average was constructed along Gaviota Ridge o the north boundary of the fire. Local, federal, and state bulldozers worked this ridge for seven days from initial attack through suppression rehab efforts. An equipment washing station was not established, and yellow star thistle is common in Santa Barbara county where much of the heavy equipment came from. Yellow star thistle is not known to occur along Gaviota Ridge at this time so it is likely that it has been introduced along the fireline within the Los Padres National Forest. The best chance of controlling this infestation is to detect and treat it early. We are requesting funds to send two observers out to this fuelbreak once a month, starting in the early spring and continuing through mid June, one year after the fire. They will drive along five miles of the fuelbreak, which will remain open for vehicular administrative access, and walk 1.5 miles of line inacessible by vehicle, identifying and mapping any infestations they detect. If possible, they will remove these plants using hand tools. If the infestation is too large for them to control, a plan will be devised to deal with it, and an interim report requesting funds will be sent to the regional office.

Survey Dates: March 15-16, April 14-15, May 16-17, June 13-14 2005.

Two surveyors, GS 5, for 8 days survey time = approximately $3200.
Report time for surveyor for 2 days = approximately $400
Vehicle mileage = approximately $400

Coordination time for a GS 11	= approximately	$500
Total		$4500

Information gathered through this survey will be used to help reduce the possibility that yellow star thistle will become established along Gaviota Ridge, and will be recorded in the district noxious weed atlas and annual summary report, which is used to coordinate the annual program of work.

Gaviota Fire Vegetation Data 2005

Species Code	Road to ridge, Outside of Fire Plot 1	Road to ridge, Outside of Fire Plot 2	Road to ridge, Outside of Fire Plot 3	Road to ridge, Outside of Fire Plot 4	Road to ridge, Outside of Fire Plot 5	Total	Percent
Bare ground	8	0	1	0	2	11	0.044
Slash	1	0	3	8	0	12	0.048
Rock	1	0	0	0	0	1	0.004
Hypochaeris glabra	5	1	0	0	0	6	0.024
Vulpia muyros	8	3	3	1	4	19	0.076
Erodium cicutarium	1	2	0	0	0	3	0.012
Bromus mardritentis	2	0	0	0	0	2	0.008
Bromus hordeaceus	0	4	0	0	0	4	0.016
Bromus diandrus	6	2	6	4	13	31	0.124
Centaurea melitensis	3	4	0	0	0	7	0.028
Carduus pychocephalus	2	21	12	10	16	61	0.0244
Brassia nigra	0	0	0	0	1	1	0.004
Madia sativa	5	3	5	12	5	30	0.12
Adenostoma fasciculatum	2	0	0	0	0	2	0.008
Dichelostemma capitatum	3	0	0	0	0	3	0.012
Papaver californicum	1	0	0	0	0	1	0.004
Calystegia macrostegia cyclostegia	1	1	0	0	0	2	0.008
Zigaldenus fremontii	0	0	0	0	0	0	0
Piptatherium millaceum	1	0	0	0	0	1	0.004
Avena barbata	0	2	2	0	0	4	0.016
Toxicodendron diversilobum	0	1	0	0	0	1	0.004
Fescue sp.	0	6	0	0	0	6	0.024
Marah fabaceus	0	0	15	1	5	21	0.084
Claytonia parviflora	0	0	3	8	4	15	0.06
Philistoma auritum	0	0	0	4	0	4	0.016
Lactuca serriola	0	0	0	2	0	2	0.008
Silene gallica	0	0	0	0	0	0	0
Chlorogalum pomeridianum	0	0	0	0	0	0	0
Dedromecon rigida	0	0	0	0	0	0	0
Phacelia grandiflora	0	0	0	0	0	0	0
Ceanothus cuneatus	0	0	0	0	0	0	0
Lepechinia calycina	0	0	0	0	0	0	0
Dicentra ochroleuca	0	0	0	0	0	0	0
Lotus wrangelianus	0	0	0	0	0	0	0
Calandrinia ciliata	0	0	0	0	0	0	0
Plagiobothrys sp.	0	0	0	0	0	0	0
Prunus ilicifolia	0	0	0	0	0	0	0
Lotus scoparius	0	0	0	0	0	0	0
Calochortus weedii var. vestus	0	0	0	0	0	0	0
Salvia mellifera	0	0	0	0	0	0	0
Cryptantha sp.	0	0	0	0	0	0	0
Solanum sp.	0	0	0	0	0	0	0

Gaviota Fire BAER Noxious Weed Monitoring 2004-2005

December 13, 2004 (Valerie Hubbartt, GS-09 Wildlife Biologist, no time charged to BAER funds) 3.96 miles surveyed

While conducting an inventory of the Gaviota cattle allotment improvements, I also noted any noxious weeds in the area of the June 2004 Gaviota wildfire. I drove in through the CA State Park near Gaviota Hot Springs and up to the ridge road (5N19.4). The road was in fairly good condition. Just up from a Forest Service property boundary, I noticed the start of brushing work or mastication work that occurred in association with the Gaviota Fire. Italian thistle (*Carduus pycnocephalus*) was seen along the road. I continued up to the road to the ridge. At the junction of the road and the Gaviota peak trail, I noticed that I was within the fire area. I drove further on the ridge road to the northeast. Along the road there had been both dozer and mastication work. Along this road there were many tocalote (*Centaurea melitensis*) seedlings. I continued along the road to the northeast edge of the fire. There was a dozer line that had destroyed the cattle allotment fence in Section 19 NENW. I found tocalote seedlings and Italian thistle near a stock pond in Section 19 NENW. I noticed a dozer line on the ridge to the south of the pond. I did not walk the dozer line. I drove back on the ridge road to the southwest and walked down a trail in Section 24 (see Map 1). This trail led to a spring, fence and cattle trough. All these improvements were damaged in the fire. Along the trail and near the spring, I found tocalote seedlings.

December 15, 2005 (Valerie Hubbartt, GS-09 Wildlife Biologist, no time charged to BAER funds) 4.2 miles surveyed

I returned to the Gaviota fire area to further check the Gaviota cattle allotment improvements and to also look for noxious weeds within the fire area. I drove in through the Gaviota Hot Springs road to the junction of the road and trail to Gaviota Peak. I walked to Gaviota Peak and to the south. I noticed a stock pond to the east that was not on the allotment improvement map. Around the pond I noticed milk thistle (*Silybum marianum*) and Italian thistle. I walked to the east on an old road to San Onofre Creek. I saw scattered Italian thistle and milk thistle along this road. Walking back west towards the Gaviota Peak trail I looked at two stock ponds and saw a several milk and Italian thistle (See Map 2).

April 12, 2005
Third visit to Gaviota Fire (Valerie Hubbartt, GS-09 Wildlife Biologist, time charged to BAER funds) 3.85 miles surveyed

I drove the road from Gaviota Hot Springs towards Gaviota Peak (see Map 3). Italian thistle was scattered along road from state park up to Forest Service property. I encountered veldt grass (*Ehrharta calycina*) on forest property. The infestations extended up the road about 0.09 km (0.06 mile). The Fuel break mastication work began about 0.17 km (0.1 mile) up the road. I started a vegetation toe point transect on both sides of the road. There were a total of five plots or two transects on both side of the road each about 25 meters long (one toe point every meter for a total of 250 total points). This section of the road had mastication work in 2004 and was not in the fire. The transects revealed that the majority species found were as follows: 24 % Italian thistle (*Carduus pycnocephalus*), 13% brome (*Bromus spp*.), 12% coast tarweed (*Madia sativa*), 8% wild cucumber (*Marah fabaceus*), 7% rattail fescue (*Vulpia myuros*), 6% miner's lettuce (*Claytonia parviflora*), 4% bare ground, 4% slash and 2 % tocalote (*Centaurea melitensis*).

I drove along the ridge road, which was within the fire area. There was dozer and mastication work in this area. At total of five plots ¼ mile apart were done with two transects on both side of the road and two transects within the fire area. Along the road the majority of the species found were as follows: 27 % rattail fescue (*Vulpia myuros*), 14% bare ground, 12% brome (*Bromus spp*.), 9% slender wild oat (*Avena barbata*), 6% windmill pink (*Silene gallica*), 2% Italian thistle (*Carduus pycnocephalus*) and 2 % redstem filaree (*Erodium cicutatium*). Within the fire area the majority of the points were as follows: 47% bare ground, 18% coastal morning-glory (*Calystegia macrostegia cylostegia*), 5% pitcher sage (*Lepechinia calycina*), 5% cream flowered eardrops (*Dicentra ochroleuca*), 4% large flowered phacelia (*Phacelia grandiflora*) and 3% % tocalote (*Centaurea melitensis*). The majority of the flora within the burn area were fire followers. There was slightly more tocalote probably due to the high percent of bare ground.

I drove further to the east and walked a dozer line on the east edge of the fire. A total of three plots were looked at. The majority of the toe points were as follows: 26% bare ground, 19% rock, 9% brome (*Bromus spp*.), 7% rattail fescue (*Vulpia myuros*), 5% large flowered phacelia (*Phacelia grandiflora*), 4% red maids (*Calandrinia ciliata*), 4% miner's lettuce (*Claytonia parviflora*), 4% coastal morning-glory (*Calystegia macrostegia cylostegia*), 3% slash, and 3% deerweed (*Lotus scoparius*). There was high diversity in the vegetation along the dozer line and there were many fire followers. A small patch of the Forest Service sensitive species, the late flowering mariposa lily (*Calachortus weedi var. vestus*), was found in a rocky knoll along the dozer line.

I then drove to where the ridge road intersected the trail to Gaviota peak and looked at one vegetation plot ¼ mile up the trail. The majority of the toe points were as follows: 30% coastal morning-glory (*Calystegia macrostegia cylostegia*), 14% redstem filaree (*Erodium cicutatium*), 14% bare ground, 6% brome (*Bromus spp*.), 4% tocalote (*Centaurea melitensis*), 4% common buck brush (*Ceanothus cuneatus*) seedlings, and 4% black sage (*Salvia mellifera*) seedlings.

Looking at all the vegetation plots combined revealed the following: 22% bare ground, 11% rattail fescue (*Vulpia myuros*), 10% brome (*Bromus spp*.), 7% coastal morning-glory (*Calystegia macrostegia cylostegia*), 4% tocalote (*Centaurea melitensis*), 3% coast tarweed (*Madia sativa*) and 3% rock. See Table 1 for all the vegetation data.

April 18, 2005 (Valerie Hubbartt, GS-09 Wildlife Biologist, time charged to BAER funds) 2.68 miles surveyed

Drove in through Gaviota Hot Springs to the ridge road. Parked at the junction of the Gaviota peak trail and the road. Walked the trail to the peak and then down the west side. Along the trail near a rock outcrop a veldt grass infestation was found. It extended along the trail for 0.31 km (0.19 miles) down slope of the rocky outcrop to a grassy knoll. On this knoll a heavy infestation of Italian thistle was found. As I walked further down the trail Italian thistle was scattered all along the trail. Near the trail and two stock ponds, I found some milk thistle. Near the pond there was not much in the way of noxious weeds (See Map 4).

May 23, 2005 (Valerie Hubbartt, GS-09 Wildlife Biologist, time charged to BAER management code) 5.56 miles surveyed

Drove in from Gaviota Hot Springs up the road to Gaviota Peak and the ridge. Noticed on California State Park property milk thistle, tocolote, fennel (*Foeniculum vulgare*) and Italian thistle. On the border of state and forest property there was a patch of veldt grass. I drove up the ridge and along the ridge road to the dozer line to re-check the *Calacortus sp.* that I thought might be the late flowering Mariposa lily. It had not flowered yet, but was very branchy like the late flowering mariposa lily (*Calachortus weedii var vestus*). On the dozer line I found downy chess brome (*Bromus tectorum*) and nit grass (*Gastridium phleoides*). Tocalote plants were found all along the road and on the dozer line nearest the road. Both Italian thistle and tocolote were found on the ridge road. One milk thistle was found on the ridge road east of the junction of the road to the pond and one further on down the road. They were removed. Only the road towards the northeast, which was outside the fire area but within an area of recent mastication work, there was scattered Italian thistle and tocolote. Near the pond on the far south end of the road I found tocolote, Italian thistle, four milk thistles (*Silybum marianum*) that were removed,

and prickly sow thistle (*Sonchus asper)*. I walked past the pond to the next ridge and ended the survey (see Map 5).

June 22, 2005 (Kenneth Krueger, Recreation Tech. GS-05, 10 hours charged to BAER management code) 1.64 miles surveyed

Kenneth Krueger drove in from Gaviota Hot springs and surveyed for noxious weeds along the ridge road north east of the fire area. He noticed Italian thistle and tocolote near the pond in Section 19 NENW. On the ridge road he drove to the northeast. Along this road he removed 1 bull thistle and five milk thistle (all outside the fire area). He noticed along the roads scattered Italian thistle, tocolote and prickly sow thistle. He ended the survey in Section 17 SWNW (see Map 6).

Treatment Needed
The veldt grass found along the road to from the Gaviota Hot Spring to the ridge road needs removed or it is likely to further invade the open areas where the mastication work was done and move up the ridge. Unfortunately there is also veldt grass on the Gaviota Peak trail on the West side of the peak. This patch is larger and will require significant effort. Milk and bull thistle could be controlled within the fire area. Treatments will be occurring in conjunction with planned maintenance of the fuel break. Both tocalote and Italian thistle were found scattered all along the roads within the fire area. These species are common throughout the surrounding area. The fire suppression activities did not introduce these species to the area. Treatment for these species is not necessary.

No further BAER funds will be requested for ongoing noxious weed work.

BAER Assessment Team Members

Leaders: Kevin Cooper-LPNF (wildlife, fisheries, and botany skills)
Ben Parker CDF
Hydrologist: Vic Andresen ANF(geology skills, soils skills)
Steve Hendrickson - Caltrans
Fisheries: Christina Dueber from NOAA Fisheries
Maurice Cardenaz from California Dept. of Fish and Game
Wildlife: Maeton Freel, Los Padres National Forest Biologist
Kelda Wilson - Caltrans
Cathy Stettler - Caltrans
Ron Glick – California State Parks
Range: Vicki Collins, Santa Barbara District Resource Officer
Archeology: Steve Galbraith –LPNF
Linda Sandelin – CDF
GIS – CDF GIS team
Engineering Patrick Stimson – Caltrans
John Duffy – Caltans
Lance Gorman – Caltrans

Other contacts:
Larry Faucet – Santa Barbara County Flood
Tom Fayran – Santa Barbara County Flood
Jerry Zarnecky – Natural Resource Conservation Service
Union Pacific Railway

Because this fire was only 20% on Forest land, a second team leader from CDF was contacted to help coordinate state and private land assessment and implementation efforts that go beyond the immediate effort

that USFS is involved with. As the USFS leader, Kevin Cooper assessed the entire fire for possible risks to life, property, and natural resources, to the best of the team's ability given the paucity of information about private lands. Leaders Kevin Cooper and Ben Parker (CDF) conducted a helicopter flight to help identify areas at risk, and to map burn severity. Locals were contacted on field trips and asked about flooding that has occurred in the past, and all of the culverts under Hwy 101 were examined. We also talked with representatives from all of the above agencies and shared information we gathered about risks and our calculations on flow and sediment increases. These agencies have also gathered their experts to assess what can be done to protect life, property, and natural resources, particularly along Hwy 101. On Thursday, June 10, a meeting was held at the Gaviota Fire camp with representatives from Caltrans and CA State Parks to discuss risks that the BAER team had identified up to that point. Ben Parker will continue to coordinate ongoing assessments and implementation efforts that may yet be identified by private and state organizations.

Citations:

Robichaud, Peter R.; Beyers, Jan L.; Neary, Daniel G. 2000. Evaluating the effectiveness of postfire rehabilitation treatments. Gen. Tech. Rep. RMRS-GTR-63. Fort Collins: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 85 p.

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

Line Items	Units	Unit Cost	# of Units	WFSU SULT $	Other $	# of units	Fed $	# of Units	Non Fed $	Total $
A. Land Treatments										
				$0			$0		$0	$0
				$0			$0			
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Land Treatments				$0			$0		$0	$0
B. Channel Treatments										
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Channel Treat.				$0			$0		$0	$0
C. Road and Trails										
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Road & Trails				$0			$0		$0	$0
D. Structures										
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Structures				$0			$0		$0	$0
E. BAER Evaluation										
				$5,400			$0		$0	$5,400
				$0			$0		$0	$0
G. Monitoring Cost				$4,500			$0		$0	$4,500
H. Totals				**$9,900**			**$0**		**$0**	**$5,400**

PART VII - APPROVALS

1. /s/ Bruce Emmens (for): 9-26-05
   Forest Supervisor (signature) Date

2. _____ _____
   Regional Forester (signature) Date