

P. Dominant Soils: Hennecke, Josephine, Maymen, misc others

Q. Geologic Types: Ophiolite, Franciscan

R. Miles of Stream Channels by Order or Class: 1=45.8; 2=21.9; 3=9.3; 4=8.9; 5=2.9; 6=5.2
(order 6 overestimated ~30% due to anastomosing; Total~92.1

S. Transportation System

Trails: 3.89 miles **Roads:** 4.35 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 3137 (**low**) 3692 (**moderate**) 948 (**high**)

B. Water-Repellent Soil (acres): 4640

C. Soil Erosion Hazard Rating (acres): 3137 (**low**) 3465 (**moderate**) 1175 (**high**)

D. Erosion Potential: 7 tons/acre

E. Sediment Potential: 750 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

B. Design Chance of Success, (percent): 95%

C. Equivalent Design Recurrence Interval, (years): 2 yr

D. Design Storm Duration, (hours): 6 hr

E. Design Storm Magnitude, (inches): 2.3

F. Design Flow, (cubic feet / second/ square mile): 41-51

G. Estimated Reduction in Infiltration, (percent): 1%-15%

H. Adjusted Design Flow, (cfs per square mile): 44-59

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats (narrative):

The whiskey fire burned about 6% of the Thomes Creek HUC5 watershed in its lower reaches. Five HUC7 watersheds were partially burned (5% to 57%). Thomes Creek within and downstream of the fire provides habitat for federally listed threatened steelhead (critical habitat w/in and downstream of burn) and Chinook salmon (critical habitat downstream from burn) listed as threatened under the ESA, and FS sensitive hardhead. Property and infrastructure values within the burn area include one privately owned structure, and Forest Service roads and a foot/horseback trail. One historic archaeological site is located within a moderate/high severity burn area. The community of Paskenta takes its water from Thomes Creek via a subsurface collection gallery, about 5 miles downstream from the burn area.

About 20% of the fire burned only minor portions of three of the affected HUC7s. Consequently, the reduction in infiltration for the design event ranges from 1% to 4% in those, and there is clearly no post-fire flood threat.

The remaining 80% of the fire burned about 55% of each of the other two HUC7s. Severity and infiltration reduction figures are:

HUC7	Severity as Pct of HUC7		Infiltration Reduction
	Moderate	High	
Bowers (0502)	19%	10%	14%
Slate (0503)	30%	6%	15%

This level of infiltration reduction does not pose a threat to the identified critical values. None of the values are located within these two HUC7s. Increased storm flows and sediment production will be strongly attenuated by Thomes Creek where the fish habitat and Paskenta water system intake are located, downstream of the outlets of these HUC7s. Based upon these factors, large flood source areas requiring land or channel treatments are not present.

However, certain other post-burn conditions pose threats to some of the identified values. The specifics are described below.

Threats to roads:

No roads are threatened.

Threats to trails:

Part (3.89 miles) of the Thomes Gorge foot/horse trail is located within the burn. The fire consumed vegetation and rendered an OHV entry barrier structure ineffective. It also consumed the peeler-cores of several reinforced waterbars.

Loss of effectiveness of the barrier structure will allow easy access to the trail by OHVs (mainly motorcycles and some ATVs). OHV traffic would compromise trail drainage by causing rutting, and breaching the waterbars. This would result in facility damage and additional erosion. Also, the fire consumed confining vegetation along the trail, which would allow more cross country travel adjacent to the trail corridor. This would cause additional erosion also.

The loss of the peeler core-reinforced waterbars will allow storm runoff to run past the breached waterbars, and result in trail damage and additional erosion. The consumption of the peeler cores has also created human and horse safety threat, because it exposed the rebar that anchored them.

The erosion would not likely be enough to be an immediate threat to the threatened or sensitive fish or critical habitat in Thomes Creek. However, the damage to the system trail and the additional user-created trails would become a chronic source of sediment that would be difficult to correct without supplemental trail maintenance funds.

Heritage Resource Sites:

The historic site is not threatened.

Potential New Noxious Weed Infestations:

It is unknown if suppression equipment was washed before being deployed to this fire. Noxious weed detection survey is therefore needed to detect any possible introduction of invasive plants by suppression actions, and to determine need for treatment beyond incidental removal. The survey would be needed at the beginning of 2009 growing season, prior to 1 year anniversary of fire.

Private Property:

The one private structure located within the burned area is not threatened by any post-fire flood source areas. It is located on a ridge about 20 feet above and 190 feet horizontally from the nearest stream, which drains a +/-1500 acre catchment that was only ~15%-20% burned.

B. Emergency Treatment Objectives (narrative):

Land Treatments:

Prevent ecosystem disruption and high costs of tardy eradication through early detection and eradication of any new infestations of noxious/invasive plants possibly introduced by suppression actions.

Channel Treatments:

No treatment needs were identified.

Roads and Trail Treatments:

Restore effectiveness of OHV entry barrier to prevent trail damage and erosion. Restore effectiveness of peeler-core-reinforced waterbars to ensure proper dispersal of trail runoff to prevent damage to the facility and erosion downslope.

Protection/Safety Treatments:

No treatment needs were identified.

C. Probability of Completing Treatment Prior to Damaging Storm or Event:

Land NA% Channel NA% Roads/Trails 95% Protection/Safety NA%

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	NA	NA	NA
Channel	NA	NA	NA
Roads/Trails	95%	97%	99%
Protection/Safety	NA	NA	NA

E. Cost of No-Action (Including Loss): \$21,848

F. Cost of Selected Alternative (Including Loss): \$15,793

G. Skills Represented on Burned-Area Survey Team:

☒ Hydrology ☒ Soils ☐ Geology ☐ Range
☐ Forestry ☒ Wildlife ☐ Fire Mgmt. ☒ Engineering
☐ Contracting ☐ Ecology ☒ Botany ☒ Archaeology
☒ Fisheries ☐ Research ☐ Landscape Arch ☒ GIS

Team Leader: Mike Van Dame

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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:

Conduct spring survey of suppression-disturbed areas to detect if any new infestations of invasive plants were introduced by suppression actions; determine need for treatment beyond incidental removal. Submit interim 2500-8 request, if treatment is needed, prior to 1 year anniversary of fire. Noxious Weed Detection Survey Plan is attached.

Channel Treatments:

None proposed.

Roads and Trail Treatments:

Repair damage and extend the side 'wings' of OHV entry barrier to close gap left by burned vegetation. Replace burned peeler-core-reinforced waterbars to ensure proper functioning and ensure dispersal of trail runoff. Abate safety hazard from exposed, old rebar anchors by removing or bending flat with the ground surface.

Protection/Safety Treatments:

None proposed, other than incidental to the proposed trail treatment.

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.)

None identified.

Part VI – Emergency Stabilization Treatments and Source of Funds**Interim #**

Part IV - Emergency Stabilization Treatments and Closure of Lands											
			NFS Lands				Other Lands			All	
		Unit	# of		Other		# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	BAER \$	\$		units	\$	Units	\$	\$
A. Land Treatments											
Nox weed detection	job	6700	1	\$6,700	\$0			\$0		\$0	\$6,700
				\$0	\$0			\$0		\$0	\$0
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Land Treatments				\$6,700	\$0			\$0		\$0	\$6,700
B. Channel Treatments											
				\$0	\$0			\$0		\$0	\$0
				\$0	\$0			\$0		\$0	\$0
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Channel Treat.				\$0	\$0			\$0		\$0	\$0
C. Road and Trails											
Trail work	job	1	3500	\$3,500	\$0			\$0		\$0	\$3,500
				\$0	\$0			\$0		\$0	\$0
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Road & Trails				\$3,500	\$0			\$0		\$0	\$3,500
D. Protection/Safety											
				\$0	\$0			\$0		\$0	\$0
				\$0	\$0			\$0		\$0	\$0
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Structures				\$0	\$0			\$0		\$0	\$0
E. BAER Evaluation											
initial eval				---	\$4,800			\$0		\$0	\$4,800
Insert new items above this line!				---	\$0			\$0		\$0	\$0
Subtotal Evaluation				---	\$4,800			\$0		\$0	\$4,800
F. Monitoring											
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Monitoring				\$0	\$0			\$0		\$0	\$0
G. Totals				\$10,200	\$4,800			\$0		\$0	\$15,000
Previously approved											
Total for this request				\$10,200							

PART VII - APPROVALS

1. /s/ Thomas A. Contreras 6/26/2008
Forest Supervisor (signature) Date

2. _____
Regional Forester (signature) Date