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

Date of Report: October 12, 2005

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[X] 1. Funding request for estimated WFSU-SULT funds
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

[X] 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: Thurman Fire

B. Fire Number: CA-BDF- 010109

C. State: California

D. County: San Bernardino

E. Region: 05

F. Forest: 12

G. District: 51

H. Date Fire Started: September 29, 2005

I. Date Fire Contained: October 5, 2005

J. Suppression Cost: Estimated $4,000,000

K. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 6 miles of hand line, 1 mile of dozer
2. Fireline seeded (miles): None
3. Other (identify): None

L. Watershed Number: 1807020305 (Middle Santa Ana River)

M. Total Acres Burned: 935
NFS Acres(935) Other Federal (N/A) State (N/A) Private (N/A)

N. Vegetation Types: Bigcone Douglas Fir, Buckwheat (White Sage), California Black Oak, Canyon Live Oak, Ceanothus Mixed Chaparral, Coulter Pine, Lower Montane Mixed Chaparral, Scrub Oak

O. Dominant Soils: i) FLG – Springdale family – Lithic Xerorthents association, dry, 50 to 75 percent slopes [substratum at 25 to 45 inches, slightly weathered fractured granite]; ii) DpG – Lithic Xerothents, warm-Rock outcrop complex, 50 to 100 percent slopes [depth to hard rock 10 to 20 inches]; iii) LrG – Lithic Xerorthents-

Rock outcrop complex, 50 to 100 percent slopes [depth to hard rock 10 to 20 inches]; iv) DeF – Tyee-Tollhouse families complex, 30 to 50 percent slopes [substratum at 11 to 15 inches, highly weathered granite]

P. Geologic Types: Mesozoic granitic rocks, Cenozoic-Precambrian Plutonic, Metavolcanic, and Mixed Rocks; Plio-Pleistocene nonmarine/pliocene marine, Cenozoic sedimentary rocks

Q. Miles of Stream Channels by Order or Class: Perennial = 3.44 miles
Intermittant = 2.92 miles

R. Transportation System

Trails: 0 miles Roads: 1.2 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 97 (10%) (low), 110 (12%) (moderate), 728 (78%) (high)

B. Water-Repellent Soil (acres): 935 (100%)

C. Soil Erosion Hazard Rating (acres):
___ (low) ___ (moderate) 935 (high)

D. Erosion Potential: 130 tons/acre

E. Sediment Potential: 53,520 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 3-5

B. Design Chance of Success, (percent): 80

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

D. Design Storm Duration, (hours): 6

E. Design Storm Magnitude, (inches): 3.5

F. Design Flow, (cubic feet / second/ square mile): Using Rowe et al. Method

equal or exceeded peak discharge	normal peak discharge (cfs/sq mi)
Q 2	27.3
Q 10	74.5
Q 25	119

G. Estimated Reduction in Infiltration, (percent): 78

H. Adjusted Design Flow, (cfs per square mile): Using Rowe et al. Method

equal or exceeded peak discharge	1 year post burn peak discharge	Percent of normal unburned value
Q 2	28.5	4.5%
Q 10	76.7	3.0%
Q 25	122.0	2.5%

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency: Based on field reviews and analysis, the BAER Team identified the following emergencies as a result of the Thurman Fire as per FSH 2509.13.

1. Threats to Human Life And Property:

1. Private Property – Potential injury and death to individuals, and property damage from flooding and debris flow to the communities of Mountian Home Creek and Lock Leven Christian Camp.

Only 128 acres of the 6129-acre Mountain Home Creek watershed burned. That is 2% of the total watershed and only 1% of the watershed burned at high and moderate burn severity. The BAER Team estimates that there could be a 1% increase in peak flow runoff for a 2, 10 and 25 year return interval storm event. The Loch Leven group camp and Mountain Home Village should not see significant changes to water quantity and should see minor changes to water quality from the Mountain Home Creek watershed due to the Thurman Fire.

2. State Highway 38 – Potential for damage to State Highway 38, travelers and associated infrastructure (culverts) as a result of rock fall, debris flows and increased flooding associated with the Thurman Fire.

The BAER Team observed that two 10'X10' box culverts were in the need of some remedial maintenance such as cleaning debris from the trash racks and cutting vegetation growing in the inlet basin and in the stream channel approach to the culvert. Scott Swift of the Cal Trans Angelus Oaks facility was notified by phone. He inspected the box culverts along HWY 38 and said Cal Trans crews would remove the debris from the trash racks and cut the encroaching vegetation from the channel approaches. If necessary, he would have a backhoe clean out sediment from the inlet basins. He told the BAER Team that Cal Trans would be monitoring these sites through the winter and especially after intense storms.

3. Forest Road 1N12 – Potential hazard for rock fall, debris flows, and failed/damaged infrastructure along Forest Road 1N12 present a safety hazard for Forest visitors.

Rockfall and dry ravel potential is extremely high along the 1N12 Road through the burned area. Many steep headwater slopes exist directly above the road in the fire area. Small rockslides and dry ravel were observed to already be occurring above the road and onto the road surface on the south facing slopes. Risk to Forest users from rock fall, debris flow and high runoff is significant. The BAER Team recommended a seasonal closure on the 1N12 road to protect life and safety of Forest users.

2. Threats to Water Quality:

1. Mill Creek Watershed – Potential for short term increases in sedimentation and associated effects on water quality due to the burn exist in the Mill Creek Watershed which contributes to municipal and domestic water supplies downstream of the burn area. Other uses include recreation, fish habitat, proposed critical habitat for Federally Endangered Willow Flycatcher and historic habitat for Mountian Yellow-Legged Frog.

BAER hillslope treatments are not effective or proven on slopes steeper than 60 %. Because 95% of the burned area is on slopes exceeding 60%, most of the burned area is too steep and or rocky to meet the site selection criteria for hillslope treatments and is therefore untreatable. Unfornately, these are steep slopes that are prone to slope failure. Due to high burn severity, steep slopes, and primarily rocky soil types it is predicted that there will be an increase in sediment delivery to the stream channels. Analysis indicates that since only 3.1% of the Mill Creek Watershed was burned in the Thurman Fire, the increase in peak discharge in Mill Creek will be less than 5% in the first 3 years post-fire. This limited increase in peak discharge should not result in significant scour to the Mill Creek channel. However increases in suspended sediment loads could impact water treatment facilities. All potentially effected facility operators including Southern California Edison and the City of Redlands have been notified and their comments were solicited.

2. Green Canyon Subwatershed – Potential for increaeed sedimentation and associated effects in the Green Canyon Subwatershed, tributary to Mill Creek, which has suitable habitat for the Federally Endangered Mountain Yellow-Legged Frog.

The BAER Assessment Team has determined that a watershed emergency does exist in Green Canyon. Green Canyon and the main stem of Mill Creek, a mile downstream from the confluence with Green Canyon, are expected to see increased sedimentation that could potentially affect in-stream uses such water quality and cold-water fish habitat. The “first flush” from the early storms will wash ash and fine sediment, which could cause impairment of water quality along with fish, amphibian, and macroinvertebrate kills in Mill Creek just downstream from the burned area. Stream temperatures in perennial reaches of Green Canyon will be affected by the burning of shade producing riparian vegetation, having an adverse effect on the aquatic species habitat. There are no proposed treatments due to the limitations to conduct BAER treatments within the burn perimeter.

3. Mountain Home Creek Subwatershed - Potential for increased sedimentation and associated effects such as scouring in the Mountain Home Creek Subwatershed, tributary to Mill Creek, which has suitable and historic habitat for the Federally Endangered Mountain Yellow-Legged Frog, Willow Flycatcher, and is occupied by trout.

Mountain Home Creek burned 1% high and moderate burn severity on the upper south and east facing slopes of Mountain Home peak area. Due to this small portion of the total watershed that burned, the BAER Team does not expect a loss of water control or impairment of water quality in Mountain Home Creek from the fire effects on the watershed.

3. Threats to Long Term Soil Productivity: None

4. Threats of Noxious Weeds and Invasive Weed Invasion:

1. Increase of noxious weeds along State Highway 38, Forest Road 1N12 and areas within the Thurman fire perimeter.

Noxious weed infestations are likely to increase dramatically following the fire due to an increase in available areas for germination, and the likely introduction of noxious weeds from heavy equipment and personnel. The BAER Assessement Team proposes to conduct noxious weed detection surveys during the first year after the fire. Please refer to Appendix A - Noxious Weeds Detection Survey.

5. Threats to Wildlife Resources:

1. Southwest Willow Flycatcher - Proposed Critical Habitat for Southwest Willow Flycatcher is present within Mill Creek, and suitable in Mountain Home Creek.

Increased debris flow could remove riparian vegetation several years after the fire, although the overall impacts are expected to be short term and minimal.

2. Mountain Yellow-Legged Frog - Suitable Mountain Yellow-Legged Frog (MYLF) Habitat (not known to be occupied, no historic records) is present in Green Canyon. Suitable and historic MYLF habitat (unknown occupancy) is present in Mountain Home Creek.

Potential for increased sediment could fill breeding pools and increased flows could cause streambed alteration during postfire storm events. Green Canyon and the main stem of Mill Creek, a mile downstream from the confluence with Green Canyon, are expected to see increased sedimentation that could potentially affect in-stream uses such as cold-water fish habitat. The "first flush" from the early storms will wash ash and fine sediment, which could cause fish, amphibian, and macroinvertebrate kills in Mill Creek just downstream from the burned area. Stream temperatures in perennial reaches of Green Canyon will be affected by the burning of shade producing riparian vegetation, having an adverse effect on the mountain yellow legged frog (if present) and cold-water fish habitat.

3. San Bernardino Kangaroo Rat (SBKR) – Potential for short-term loss of habitat in Mill Creek Wash which is Designated Critical and is occupied habitat.

Based on BAER Assessment Team analysis there is very low potential that any impacts to San Beranardino Kangaroo Rat and habitat from increased sedimentation and siltation as a result of the Thurman Fire.

4. Santa Anna Sucker: Resides in Mill Creek approximately 10 miles downstream from the confluence with Green Canyon. There is potential that additional sedimentation from Thurman Fire will negatively impact the sucker and spawning areas.

Based on BAER Assessment Team analysis there is very low potential that any impacts to the Santa Ana Sucker and it's spawning areas from increased sedimentation and siltation as a result of the Thurman Fire.

6. Threats to Botanical Resources: None

7. Threats to Archaeological Resources:

1. Mentone Sandstone Quarry - CA-SBR-5506H. This historic-period site is located at the mouth of Green Canyon near Mill Creek Canyon and was recorded in 1985.

This site is associated with the Mentone Sandstone Company from the 1890s and consists of two rock retaining walls, a small pathway, and associated wood and metal debris on a low terrace above Green Canyon. The 1985 record indicates there is a probable intact subsurface component.

The entire site area was burned over by the wildfire. The site is situated in the side of a canyon adjacent to Green Canyon with very steep slopes above to the east and west. There appears to be a high potential for fire-related effects of flooding and debris flow; however, because of the steepness of the slopes above the site, no reasonable treatment can be proposed to stabilize the hillside above the site.

2. Mountain Home Tract - This site is the remains of the Mountain Home Recreation Residence tract dating to the 1930s. The remains of the tract are located in Mountain Home Creek.
There were more than 12 cabins within this walk-in only tract. The tract was discontinued in the late 1970s and all but one cabin were removed in 1978; the last one being removed in 1980. The tract survived the floods of the late 1930s and late 1960s (according to a long-time Forest Service employee).

The site is not located within the burned area, but is located in Mountain Home Creek, downstream of a burned slope. Because of the steepness of the slopes above the site, no

reasonable treatment can be proposed to stabilize the hillside above the site. Also, the BAER Assessment Team estimates that there could be a 1% increase in peak flow runoff for a 2, 10, and 25 year return interval storm. Therefore the site should not see significant changes to water quantity and minor changes to water quality from the Mountain Home Creek Watershed due to the Thurman Fire.

B. Emergency Treatment Objectives:

To protect life and property associated with Forest Road 1N12, the BAER Asssessment Team does recommend the seasonal closure of the section of road 1N12 which runs through the burned area. Warning signs will be posted to inform the public of the road closure and potential of falling rocks and debris. The closure will be patrolled using District personnel. The BAER Team also recommends maintaining communication with community and adjacent land owners regarding the inherent watershed response.

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

Land __ % Channel __ % Roads **100** % Other __ %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	N/A	N/A	N/A
Channel	N/A	N/A	N/A
Roads	95%	N/A	N/A
Other	N/A	N/A	N/A

E. Cost of No-Action (Including Loss): $2,132,000

F. Cost of Selected Alternative (Including Loss): $232,000

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Tim Biddinger, (Marc Stamer - Trainee)

Email: mstamer@fs.fed.us Phone: (909)382-2828 FAX: (909)866-2867

Core Team
Tim Biddinger (Team Leader)
Marc Stamer (Team Leader Trainee)
Rick Weaver (Hydrologist)
Rob Taylor (Hydrologist Trainee)
Kathie Meyer (Wildlife Biologist)

Extended Team
Bob Ota (Assistant Forest Engineer)
Frank Bacerra (Engineering Equipment Operator)

Melody Lardner (Botanist)
Uyen Doan (Archaeologist)
Bill Sapp (Archaeologist Trainee)
Chris Chandler (GIS Specialist)

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: N/A

Channel Treatments: N/A

Roads and Trail Treatments:

1. Installation of two gates to close the section of Forest Road 1N12 that runs through the burn area to protect life and property associated with Forest Road 1N12.
2. Installation of approximately ¼ mile, 3 strand wire fence to minimize Forest users accessing the closure around gates.
3. Installation of "Road Closed – Locked Gate Ahead" signs to forewarn public of closed road conditions.
4. Installation of "Road Closed" signs at gates to inform public of closure.
5. Installation of "Rock Fall" signs at gates and within the closure area to inform public of hazard.

Structures: N/A

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.)

Noxious weed infestations are very likely to increase dramatically following a fire due to an increase in available areas for germination, and the likely introduction of noxious weeds from heavy equipment and personnel, who may arrive from many areas across the western U.S. Areas of highest concern are along dozer lines, along the Forest system roads and the highway, and in the riparian areas, since these are the most likely areas where noxious weed seeds may be introduced and then distributed. The riparian area of Mountain Home Creek is a sensitive area as it is habitat for an endangered wildlife species (mountain yellow-legged frog) and sensitive wildlife and plant species that are at high risk of detrimental effects from noxious weed introductions. A detailed plan is attached (Appendix A). The total cost of monitoring for noxious weeds will be $4,197 for the first year after the fire. We request authority to spend $4,197 the first year, and if a noxious weed infestation is found, we will submit and interim report requesting funding to eradicate this population. The weed detection survey plan is attached.

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

			NFS Lands				Other Lands			All
		Unit	# of	WFSU	Other	# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	SULT $	$	units	$	Units	$	$
A. Land 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 Land Treatments				$0	$0		$0		$0	$0
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										
Gate	2	8,000	2	$16,000	$0		$0		$0	$16,000
Road Closed - Locked Gate Ahead Signs	6	67	6	$402	$0		$0		$0	$402
Road Closed Signs	6	64	6	$384	$0		$0		$0	$384
Rock Fall Signs	12	60	12	$720	$0		$0		$0	$720
Three Strand Wire Fence	Mile	6000	0.25	$1,500			$0		$0	$1,500
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$19,006	$0		$0		$0	$19,006
D. Structures										
				$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										
Team Members	1	500	45	$22,500	$0		$0		$0	$22,500
Hotel / Per diem	Day	150	14	$2,100			$0		$0	$2,100
Transportation	1	500	1	$500			$0		$0	$500
Supplies	1	500	1	$500			$0		$0	$500
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Evaluation				$25,600	$0		$0		$0	$25,600
F. Monitoring										
Noxious Weed Detection Survey	1	4200	1	$4,200	$0		$0		$0	$4,200
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring				$4,200	$0		$0		$0	$4,200
G. Totals				**$48,806**	**$0**		**$0**		**$0**	**$48,806**

PART VII - APPROVALS

1. /s/Max Copenhagen — October 12, 2005
   Deputy Forest Supervisor (signature) — Date

2. /s/ Thomas Tidwell — 10/20/2005
   Regional Forester (signature) — Date

Appendix A

Noxious weeds detection survey: Noxious weed infestations are very likely to increase dramatically following a fire due to an increase in available areas for germination, and the likely introduction of noxious weeds from heavy equipment and personnel, who may arrive from many areas across the western U.S. Areas of highest concern are along dozer lines, along the Forest system roads and the highway, and in the riparian areas, since these are the most likely areas where noxious weed seeds may be introduced and then distributed. The riparian area of Mountain Home Creek is a sensitive area as it is habitat for an endangered wildlife species (mountain yellow-legged frog) and sensitive wildlife and plant species that are at high risk of detrimental effects from noxious weed introductions. A detailed plan is attached. The total cost of monitoring for noxious weeds will be $4,197 for the first year after the fire. We request authority to spend $4,197 the first year, and if a noxious weed infestation is found, we will submit and interim report requesting funding to eradicate this population. The weed detection survey plan is attached.

NOXIOUS WEED DETECTION SURVEY PLAN

a) Background:

Reducing the introduction and spread of non-native invasive species has been identified as a Forest Service Strategic Goal for 2003-2008. Spanish broom, Canada thistle, mustard, tree of heaven, arundo, tamarisk, cheat grass, and ripgut grass are known from within the fire area or immediately adjacent to the fire area. The riparian areas would be especially sensitive as there are known occurrences of sensitive species in Mountain Home Creek which is also historic and suitable habitat for the endangered mountain yellow-legged frog. Several of these weeds, including Spanish broom, tamarisk, arundo and tree of heaven are known to invade riparian areas. Plant vectors also occur (Highway 38, Forest system roads, wind, etc.) and seed could have been transported throughout the burned area on suppression equipment prior to the knowledge about weed infestations. Fire is known to enhance the establishment of all of the weeds present.

Table 1. Invasive non-native plants and noxious weeds that pose the greatest threats to Southern California Forest Ecosystems present or having the potential to occur within the Thurman Fire

Scientific Name	Common Name	CalEPPC pest listing*	CDFA pest rating**	Known to Occur
List A – 1 & 2: Most Invasive				
Arundo donax	Giant reed, arundo	A-1		X
Bromus tectorum	Cheat grass	A-1		X
Tamarix spp.	Tamarisk, salt cedar	A-1		X
Ailanthus altissima	Tree of Heaven	A-2		X
List B: Lesser Invasive				
Brassica nigra	Black mustard	B		X
Cirsium spp.	(Canada or Bull) Thistle	B	B	X
Spartium junceum	Spanish broom	B		X
Annual Grasses That Pose Significant Threats				
Avena barbata	Slender wild oat			X
Avena fatua	Wild oat			X
Bromus diandrus	Ripgut brome			X

** California Exotic Pest Plan Council (CEPPC) List Categories*

List A: Most Invasive Wildland Pest Plants; documented as aggressive invaders that displace natives and disrupt natural habitats. Includes two sub-lists; List A-1: Widespread pests that are invasive in more than 3 Jepson regions, and List A-2: Regional pests invasive in 3 or fewer Jepson regions.
List B: Wildland Pest Plants of Lesser Invasiveness; invasive pest plants that spread less rapidly and cause a lesser degree of habitat disruption; may be widespread or regional.
Red Alert**:** Pest plants with potential to spread explosively; infestation currently small or localized. If found, alert Cal EPPC, County Agricultural Commissioner or California Department of Food and Agriculture.
Need More Information: Plants for which current information does not adequately describe nature of threat to wildlands, distribution or invasiveness. Further information is requested from knowledgeable observers.
Annual Grasses**:** A preliminary list of annual grasses, abundant and widespread in California, that pose significant threats to wildlands. Information is requested to support further definition of this category in next list edition.
Considered but Not Listed: Plants that, after review of status, do not appear to pose a significant threat to wildlands

**** California Dept. of Food and Agriculture Pest Ratings**

All weeds on California's 130 plus noxious weed list have a rating. The overall rating system is NOT based on how bad a weed is-all weeds are considered "bad"- but rather on overall distribution throughout the state. Ratings and formal definitions by the CDFA are:

A=rated weeds are normally limited in distribution throughout the state. Eradication, containment, rejection or other holding action at the state-county level. Quarantine interceptions to be rejected or threat at any point in the state.

B=rated weeds are more widespread. Eradication, containment, control or other holding action at the discretion of the commissioner. State endorsed holding action and eradication only when found in a nursery.

C=rated weeds are generally widespread throughout the state. Action to retard spread outside of nurseries at the discretion of the commissioner. Reject only when found in a cropseed for planting or at the discretion of the commissioner.

Q=rated species are treated as temporary "A" weeds. Denoting action outside nurseries at the state-county level pending determination of permanent rating.

D=rated weeds are organisms considered to be of little or no economic importance. No action. Anything not rated as "A", "B", "C", or ""Q' is given a "D" rating.

b) Management concerns: Are noxious weed invasions interfering with habitat recovery and ecosystem health within the burned area and associated dozer and hand lines? In particular are noxious weeds interfering with the recovery of habitat especially in the riparian areas?

c) Objectives: To determine if the fire and associated ground disturbing activities associated with dozer and hand line construction has promoted the establishment and spread of noxious weeds to the extent that eradication efforts are necessary.

d) Parameters: Noxious weed presence, density and persistence.

e) Locations: Historic and suitable habitat for federally listed wildlife and sensitive riparian habitat, and roads, dozer lines and hand lines.

f) Weed Detection Survey Design and Methodology: Surveys would begin in 2006 during the flowering periods for weeds known to occur within or near the burned areas that may be difficult to

detect otherwise. Because of differences in flowering times for all the potential species, two visits may be required during the growing season. Completion of surveys of riparian areas and areas adjacent to riparian areas would be the first priority, but it is important to survey dozer lines, hand lines and roads accessing the burned areas as well as species from these areas could easily move into riparian areas and are areas of man-made disturbances that have the higher threat new infestations. Surveys of the general habitats in the burned area would be the lowest priority. Any locations of weeds would be mapped. Surveys would be completed using the NRIS protocol available at the national web site: http://fsweb.ftcol.wo.fs.fed.us/frs/rangelands/index.shtml. Results would be entered into the NRIS database. Consultation with the USFWS for the potential effects of surveys within endangered wildlife habitat would be completed during the emergency consultation of the Thurman Fire Incident.

g) Reporting: A Weed Detection Survey Report would be submitted to Regional BAER coordinator and to the Front Country District Ranger. If weed introduction and spread has increased due to effects of the Thurman Incident, an Interim BAER report would be completed to request eradication funding. Reporting costs are included in figures below.

h) Costs: Weed Detection Surveys for 1 year = $3,822.

Weed detections surveys to determine whether ground-disturbing actions related to the Thurman Incident and the fire itself have resulted in the expansion of noxious weeds is requested for the first year. Estimated costs are based on the assumption that two visits would be necessary because of differences in flowering times for these species. If timing is such that all of the target species are detectible in one visit, the actual costs would be lower than displayed below.

FY 2006

GS-12 botanist ($375/day x 1 day)	=$ 375.00
GS-9 botanist ($230/day x 10 days)	=$ 2,300.00
GS-5 biological technician ($130/day x 10 days)	=$ 1,300.00
Vehicle mileage (600 miles @ 0.37/mile)	=$ 222.00
TOTAL for weed detection surveys for FY06	=$ 4,197.00

i) Personnel: Internal staff will be used for surveys.

j) Responsible staff: Melody Lardner, Forest Botanist

k) Follow-up actions: Design and implement follow-up treatments as needed. Plan for integrated weed management and NEPA analysis if necessary using non-BAER funding.