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

Date of Report: 9/7/2010

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

I. Type of Report

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

I. 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: Bullards

B. Fire Number: CA-TNF-1579

C. State: CA

D. County: Yuba

E. Region: Pacific Southwest Region (R5)

F. Forest: Tahoe (TNF) and Plumas (PNF)

G. District: Yuba River (TNF) and Feather River (PNF)

H. Date Fire Started: 8/24/2010

I. Date Fire Contained: 8/31/2010

J. Suppression Cost: $5,360,000

K. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 10.8
2. Fireline seeded (miles): 0.0
3. Other (identify):

L. Watershed Number: 1802012502 (Lower North Yuba River),
1802012503 (Middle Yuba River),

M. Total Acres Burned: 1307
NFS Acres (528) Other Federal – BLM (12) State (0) Private (767)
TNF: Total Acres (479) NFS Acres (211) Private (256) Other Federal - BLM (12)
PNF: Total Acres (828) NFS Acres (317) Private (511)

N. Vegetation Types: Mixed Conifer , Mixed Hardwoods, Mixed Brush series

O. Dominant Soils: 55% Sites, 15% Mariposa, 15% Rock outcrop, 10% Jocal, and 5% Deadwood, Hurlbut.

P. Geologic Types: Mesozoic volcanics and Metavolcanic rocks

Q. Miles of Stream Channels by Order or Class: Perennial: 2.0 miles; Intermittent: 1.3 miles

I. Transportation System

Trails: 0 miles Roads: 8.6 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): Low/Unburned: 961 (73.5%) Moderate: 276 (21.1%) High: 70 (5.4%)

B. Water-Repellent Soil (acres):

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

D. Erosion Potential: ____ tons/acre

E. Sediment Potential: ____ cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

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

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

D. Design Storm Duration, (hours): ___

E. Design Storm Magnitude, (inches):

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

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

I. Adjusted Design Flow, (cfs per square mile): ___

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency: **State whether or not Values At Risk were identified and the degree or level of threats to them.**

Provide justification why NO TREATMENT was chosen.

A. Describe Critical Values/Resources and Threats:

1. **Threats to Human Life/Property** – The Bullards Fire is comprised of 1307 acres; NFS land - 528 acres (40%), BLM land – 12 acres (1%), and privately owned land - 767 acres (59%). There are no known

year-round residents within the Bullards Fire burn perimeter. There is, however, human activity in and around the burned area including: travel routes through the burned area, recreational users, private industrial timber land and other private landowners, AT&T telephone lines, Pacific Gas & Electric (PG&E) powerlines, and Yuba County Water Agency's New Bullards Bar Dam/Reservoir and associated structures. The threat to human life comes from the potential unstable slopes above the waterways, travel routes, recreation trails, telephone lines, powerlines, and water facilities caused by the fire and the potential for rock slides and other falling debris. The BAER team did not find any emergency situations in need of treatment.

2. **Threats to Non Forest Service Facilities** – The Bullards Fire included several non Forest Service Facilities that were identified as potentially at-risk. There is a PG&E power transmission line which runs through the eastern portion of the burned area. Portions of the utlity line right-of-way was used for fire suppression activities and is currently being rehabed under suppression repair. There is no BAER treatments prescribed for the right-of-way or for the telephone and power poles. The New Bullards Bar Dam is within the burn area. This dam, on the North Yuba River, forms the New Bullards Bar Reservoir, which has a capacity of 996,103 acre-feet. The dam is operated by the Yuba County Water Agency for irrigation, drinking water and hydroelectric power production. The dam is a variable radius concrete arch design and has a height of 645 feet. It is in the top 40 dams in the world for height and in the top 50 for reservoir size. The New Bullards Bar Dam does not appear to have been impacted by the fire and is not in need of BAER treatments. The Yuba County Water Agency operates a water treatment facility at the mouth of Cottage Creek. There is a small impoundment that holds water that could be used in an emergency. Steve Craig, Plant Operator, was contacted and he explained that the plant takes water out of Bullards Bar Reservoir and not out of Cottage Creek, except in extreme emergencies. The plant itself is located on Yuba County Water Agency land. The soil burn severity in the watershed above the treatment plant burned at 2% high, and 9% moderate. A good portion of the land in the upper watershed immediately uphill of the water treatment plant is private land. In an intense precipitation event, there is potential for rapid runoff and high sediment loading in the small Cottage Creek reservoir. The water treatment plant does not have high soil burn severity on the slopes directly above the facility.

3. **Threats to Roads** – There is approximately 8.6 miles of roads within perimeter of the Bullards Fire. The main road running through the Bullards Fire area is Yuba County Road 8 (Marysville Road), asphalt, two-laned road. The Klensendorf Ridge road (0008-010) is the main access on the Tahoe NF side of the fire. This road is a dirt road, not-maintained. The main access to the Plumas NF side of the fire is Yuba County Road 129 (Oregon Hill Road) along with Yuba County Road 169. Both roads are classified as "improved roads". There were no BAER treatments proposed along any of the Forest Service roads within or adjacent to the Bullards Fire perimeter.

4. **Threats to Water Quality** – There will be a short-term threat to water quality to Bullards Bar Reservoir and in the main stem of the North Yuba River below New Bullards Bar dam. Ash and debris is expected to be mobilized off the steeper slopes and side drainages during the first significant precipitation event. These areas will have an increased potential for storm water runoff and erosion, especially downslope/downstream from areas of high burn severity. The main short-term threat to water quality will be from ash and fine, suspended sediment. There is a potential for an increase in the pH of the post-fire runoff water due to the increase of ash deposition.

5. **Threats to Long Term Soil Productivity** – The risk of excessive soil erosion attributed to the Bullards Fire does not pose a threat to long-term soil productivity.

6. **Threats of Noxious and Invasive Weeds** – Wildfire suppression actions can introduce weeds into new areas and/or spread weeds from existing sites. It is unknown whether fire suppression and/or rehabilitation vehicles/equipment were weed-free prior to arrival at the Bullards Fire incident. However, vehicles such as trucks, cars, dozers, and fire engines are known to move weed seed from place-to-place. Fire fighters are also known to move weed seed from place-to-place on their clothing and in the mud of their boots. In addition, suppression actions may have spread weeds from existing sites. Weed infestations were known to occur in the Bullards Fire area prior to the wildfire on both forests. The area identified as Staging Area North was manually treated to remove yellow star thistle and Scotchbroom in

2010 prior to the fire but may have still had weed seed in the soil. The area identified as Staging Area South was located on private property that is known to have yellow star thistle and Scotchbroom infestations. In addition, the initial command center, the Yuba River Ranger District office, is known to have infestations of yellow star thistle. Fire suppression vehicles were observed parking in areas known to be infested with yellow star thistle. Yuba County Sheriff and California Highway patrol vehicles were also observed parking along roadsides known to be infested with weeds at road block areas. The starting point of the northernmost dozer line along Oregon Hill Road on the Plumas National Forest was known to have infestations of Scotchbroom and skeleton weed (section 14). The section of Marysville Road within the fire perimeter on the Plumas NF is known to have infestations of skeleton weed. A small infestation of Scotchbroom is known from along the western perimeter of the fire (section 26) on the Plumas NF. The Bullards Fire incident attracted multiple media vehicles that drove into the burned area. It is unknown whether those vehicles were weed-free. Even though weed infestations were known within the area that was burned by the Bullards Fire, they were still considered patchy, isolated areas of weed infestation. If weeds become established within the areas that were burned because additional weed species were introduced during fire suppression, the ecosystem will be degraded. Many weeds are adapted to soil disturbance and therefore stimulated by heat, charrate (burned vegetation), and ash; and the removal of competition from established vegetation. The removal of established vegetation, either by a catastrophic event such as a fire or deliberate means such as a dozer creating a fuel break, can create the optimum situation for weed establishment. With early detection, the cost to eradicate weeds is greatly reduced.

7. **Threats to Wildlife Resources** – The Bullards Fire did not adversely affect the California Red-legged Frog population and/or Critical Habitat based on the following: The fire did not adversely affect "Primary Constituent Elements" of Critical Habitat (CH), no retardant was dropped into Critical Habitat or waterways, the fire did not burn into known occupied habitat, suppression activities did not occur in known occupied habitat, only 21.3 acres of a creeping light underburn occured in CH, only a small portion of the fire perimeter handline entered CH. Approximately 0.25 miles of the fire perimeter handline went into and out of CH, the handline is on a dry ridgetop on the south side of Burnt Bridge Creek. The ridgetop has a low potential for use as overland movement habitat. If any frogs did use the ridgetop for overland movement it would only occur during the wet season.
   The above information is based on input from Tahoe and Plumas fire fighters and Resource Advisory Team members on the ground and was reviewed and approved by the Plumas NF Forest Biologist; Feather River District Biologist, Aquatic Biologist and District Ranger; and the Tahoe NF-North Yuba District Biologist. The USFWS representative, Kim Squires, was contacted on August 31st by the Plumas Forest Biologist. Emergency consultation is not being conducted based on a "No Adverse Effect" determination. No BAER treatments were required.

8. **Threats to Botanical Resources** – There are no known Threatened and Endangered botanical resources within or influenced by the Bullards Fire.

9. **Threats to Cultural Resources** –There are no proposed BAER treatments for any of the known cultural resources within the fire perimeters of the Bullards Fire. There are no ground distubing activities proposed by the BAER Team for the burned area.

B. Emergency Treatment Objectives:

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

Land ___ % Channel ___ % Roads ___ % Other ___ %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land			
Channel			
Roads			
Other			

E. Cost of No-Action (Including Loss):

F. Cost of Selected Alternative (Including Loss):

I. Skills Represented on Burned-Area Survey Team:

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

Team Leaders: Tim Biddinger / Rick Weaver

Email:tbiddinger@fs.fed.us/rweaver@fs.fed.us Phone:Biddinger: 530-478-6249 Weaver: 530-478-6241
FAX: 530-478-6109

I. **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:

Channel Treatments:

Roads and Trail Treatments:

Structures:

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.)

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										
Weed Surveys				$0	$0		$0		$0	$0
Salaries	days	172.71	48	$8,290	$0		$0		$0	$8,290
Vehicle	miles	0.5	2300	$1,150	$0		$0		$0	$1,150
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$9,440	$0		$0		$0	$9,440
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										
				$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 Road & Trails				$0	$0		$0		$0	$0
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										
Salaries	days	600	12	$7,200	$0		$0		$0	$7,200
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Evaluation				$7,200	$0		$0		$0	$7,200
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				**$16,640**	**$0**		**$0**		**$0**	**$16,640**

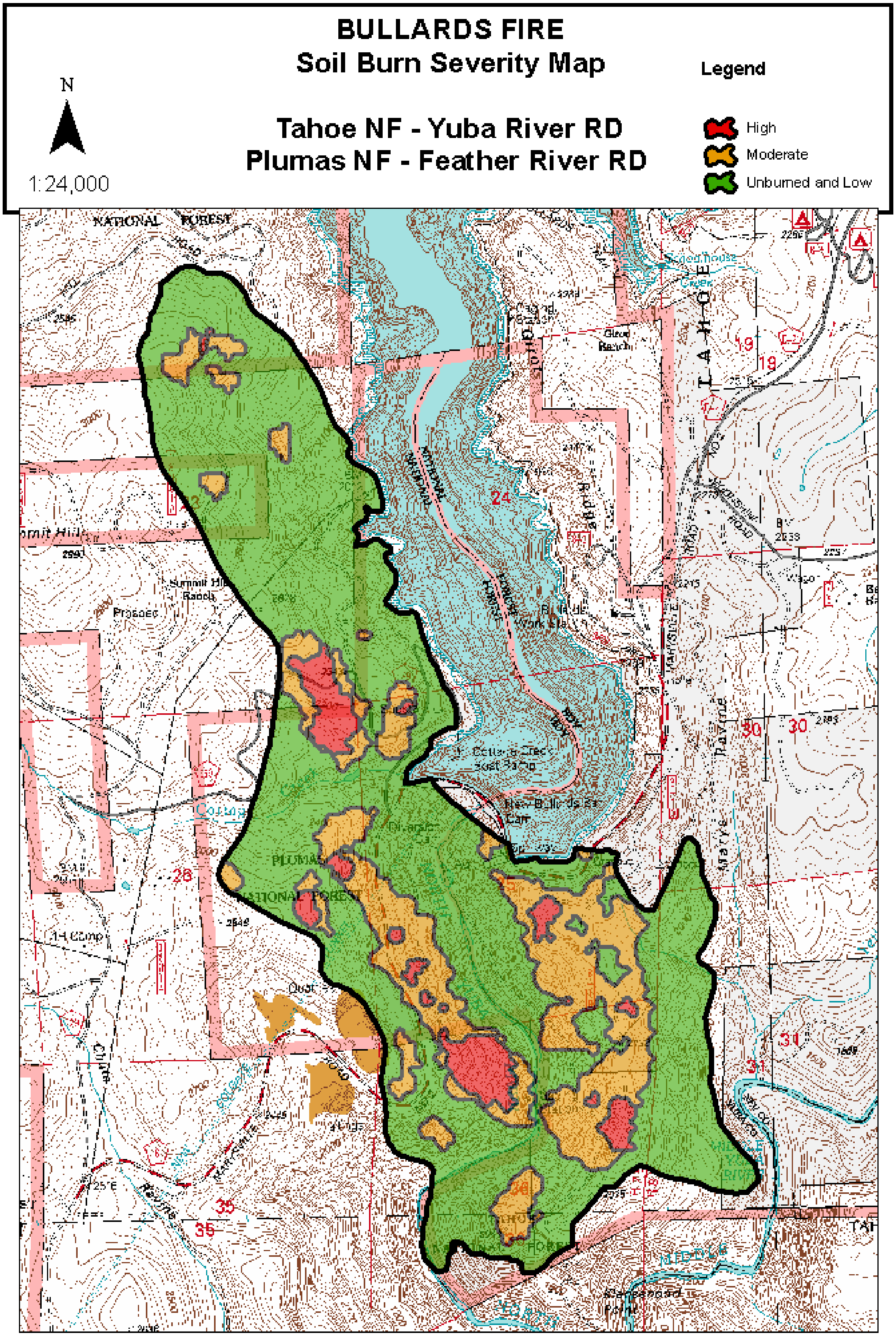
PART V!! - APPROVALS

Tahoe National Forest
Forest Supervisor (signature) /s/ *Tom Quinn*_____ Date_3/17/11_____

Plumas National Forest
Forest Supervisor (signature) _/s/ Alice Carlton_____ Date_3/17/11_____

Regional Forester (signature) _*/s/ Daniel J. Jirón (for)*_____ Date_3/18/11_____

APPENDIX A


BULLARDS FIRE
Soil Burn Severity Map
Tahoe NF - Yuba River RD
Plumas NF - Feather River RD
N
1:24,000
Legend
High
Moderate
Unburned and Low

APPENDIX B
BULLARDS FIRE

Noxious and Invasive Non-native Species (Weeds) Report

Fire Name: Bullards Month/Year: August 2010
Author Names: Kathy Van Zuuk (TNF), Lawrence Janeway (PNF), and Linnea Hanson (PNF)
Author Titles: Plant ecologist, botanist, ecosystem manager
Author Duty Station: Tahoe National Forest, Yuba River Ranger District and Plumas National Forest, Feather River Ranger District

I. Resource Condition Assessment

A. Initial Concerns

Wildfire suppression actions can introduce weeds into new areas and/or spread weeds from existing sites. It is unknown whether fire suppression and/or rehabilitation vehicles/equipment were weed-free prior to arrival at the Bullards Fire incident. However, vehicles such as trucks, cars, dozers, and fire engines are known to move weed seed from place-to-place. Fire fighters are also known to move weed seed from place-to-place on their clothing and in the mud of their boots. In addition, suppression actions may have spread weeds from existing sites. Weed infestations were known to occur in the Bullards Fire area prior to the wildfire on both forests. The area identified as Staging Area North was manually treated to remove yellow star thistle and Scotchbroom in 2010 prior to the fire but may have still had weed seed in the soil. The area identified as Staging Area South was located on private property that is known to have yellow star thistle and Scotchbroom infestations. In addition, the initial command center, the Yuba River Ranger District office, is known to have infestations of yellow star thistle. Fire suppression vehicles were observed parking in areas known to be infested with yellow star thistle. Yuba County Sheriff and California Highway patrol vehicles were also observed parking along roadsides known to be infested with weeds at road block areas. The starting point of the northernmost dozer line along Oregon Hill Road on the Plumas National Forest was known to have infestations of Scotchbroom and skeleton weed (section 14). The section of Marysville Road within the fire perimeter on the Plumas NF is known to have infestations of skeleton weed. A small infestation of Scotchbroom is known from along the western perimeter of the fire (section 26) on the Plumas NF. The Bullards Fire incident attracted multiple media vehicles that drove into the burned area. It is unknown whether those vehicles were weed-free. Even though weed infestations were known within the area that was burned by the Bullards Fire, they were still considered patchy, isolated areas of weed infestation. If weeds become established within the areas that were burned because additional weed species were introduced during fire suppression, the ecosystem will be degraded. Many weeds are adapted to soil disturbance and therefore stimulated by heat, charrate (burned vegetation), and ash; and the removal of competition from established vegetation. The removal of established vegetation, either by a catastrophic event such as a fire or deliberate means such as a dozer creating a fuel break, can create the optimum situation for weed establishment. With early detection, the cost to eradicate weeds is greatly reduced.

B. Findings

1. Summary of findings

Areas where fire suppression equipment was used and staged, as well as areas used to convey vehicles (roads) are considered the areas with the highest risk of weed introduction and establishment. As mentioned previously, both staging areas were known to be infested with weeds prior to the wildfire as well as areas around the Yuba River Ranger District Office, and the road corridors along Marysville and Oregon Hill roads. At least one dozer line passed through a known noxious weed site. Thus, there is a high risk that weeds were moved to new areas during fire suppression activities. There is

also a high risk that weed seeds introduced into new areas within the burn will become established due to reductions in soil cover and reduced competition for nutrients and water from native plants. Roads that provide access to the wildfire area also have known occurrences of weeds. Weed species known to occur in areas adjacent and/or within to the wildfire perimeter including: cheatgrass (*Bromus tectorum*); Scotchbroom (*Cytisus scoparius*); Klamath weed (*Hypericum perforatum)*; yellow starthistle *(Centaurea solstitialis)*; and skeleton weed *(Chondrilla juncea)*. In addition, since vehicles and equipment used at the Bullards Fire suppression efforts were mobilized from many parts of the country, it is possible that new species of weeds were introduced to the Bullards Fire area.

II. Emergency Determination

A potential emergency may be caused by the Bullards Fire incident in relation to the introduction and/or spread of noxious and non-native invasive plant species (weeds). Monitoring of the Pendola Wildfire (located north of Bullards Bar Reservoir) has shown that weeds did become established after that wildfire and that native plant communities have been degraded by those infestations.

III. Treatments to Mitigate the Emergency

A. Treatment Type: Conduct weed detection surveys in the 2011 growing season at staging areas, drop points, along roads, and along/within dozer lines.

B. Treatment Objective: To locate new weed occurrences and record the post-fire response of existing weed occurrences.

C. Treatment Description: GPS/mapping of weed occurrences located during detection surveys of travel routes, dozer lines, staging areas and drop points. Submit report to Regional BAER Coordinator and evaluate the need for further action.

D. Treatment Cost:

Fiscal Year 2011

Tahoe NF (lead Forest):
GS-11 Biologist: $420/day x 5 person days = $2,100.
GS-7 Biological Technician: $150/day X 8 person days=$1,200.

Mileage: 100 miles/trip X 8 trips @ $0.50/mile = $ 400.

Plumas NF:
GS-9 Botanist: $224/day x 5 person days = $1,120.
GS-6 Biological Technician: $136/day x 15 person days = $2,040.
GS-5 Biological Technician: $122/day x 15 person days = $1,830.

Mileage: 100 miles/trip X 15 trips @ $0.50/mile = $ 750.

Total for first year survey: $9,440.00

IV. Discussion/Summary/Recommendations

It is the intent of the Yuba River Ranger District and the Feather River Ranger District to manage National Forest System lands so that weed introduction and/or weed establishment is eliminated and known occurrences of weed infestation are controlled or eliminated. The Forest Service also manages National Forest system lands to reduce/eliminate spread of weeds onto adjacent privately owned lands. Therefore it is necessary to conduct detection surveys along an estimated 4 miles of dozer line, 3 miles of roads, 1.5 miles of hand line, at Drop Points, and within/adjacent to two staging areas, to evaluate the potential spread and/or

introduction of weeds. Much of the terrain is considered extreme with very steep slopes limiting the amount of terrain that can be surveyed daily. If the surveys detect new weed occurrences and/or spread of existing weed occurrences due to Bullards Fire suppression actions, control and/or elimination actions will be implemented.