USDA-FOREST SERVICE FS-2500-8 (6/06)

Date of Report: 09/21/2018

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[X] 1. Funding request for estimated emergency stabilization funds
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

[X] 1. Initial Request (Best estimate of funds needed to complete eligible stabilization 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: Boot Fire
B. Fire Number: NV-HTF-030600
C. State: CA
D. County: Mono
E. Region: 04
F. Forest: Humboldt-Toiyabe
G. District: Bridgeport
H. Fire Incident Job Code: P4L4KH18
I. Date Fire Started: 9/4/2018
J. Date Fire Contained: 9/14/2018
K. Suppression Cost: $7,158,000
L. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred (miles): 0.5
2. Fireline seeded (miles): 0
3. Other (identify): 5.5 miles dozer line repaired by pulling in berms, constructing waterbars and covering disturbed soil with displaced vegetation . Repair of one helispot by covering disturbed soil with displaced vegetation.

M. Watershed Number: 160503020202 (Rock Creek-West Walker River)
160503020107 (Lower Little Walker River)

N. Total Acres Burned: 6,974

NFS Acres (**6,598**) Other Federal (**0**) State (176) Private (200)

O. Vegetation Types: Sagebrush scrub, Sierran mixed conifer, aspen and montane hardwood riparian.

P. Dominant Soils: Major soil series are Toiyabe-Corbett rock outcrop complex, Heenlake-Loope-Dogbed association, Murain association, and Burchflat-Loope association. Soils in the fire area are generally stony to gravelly sandy loams. Soils on the steep slopes on the west side of HWY 395 through the Walker River canyon are very bouldery with 15% rock outcrop.

Q. Geologic Types: Colluvium derived from granodiorite and andesite.

2500

S. Transportation System:

Trails: 0 miles Roads: 5.5 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres):

3,005 (low) 3,311 (moderate) 56 (high)

B. Water-Repellent Soil (acres): 56

C. Soil Erosion Hazard Rating (acres):

2,737 (low) 2,330 (moderate) 1,907 (high)

D. Erosion Potential: 2.19 tons/acre

E. Sediment Potential: 904 cubic yards/ square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years):	3-10
B. Design Chance of Success, (percent):	80
C. Equivalent Design Recurrence Interval, (years):	5
D. Design Storm Duration, (hours):	1.0
E. Design Storm Magnitude, (inches):	0.74
F. Design Flow, (cubic feet / second/ square mile):	28.06
G. Estimated Reduction in Infiltration, (percent):	48
H. Adjusted Design Flow, (cfs per square mile):	54

PART V - SUMMARY OF ANALYSIS

Background: The Boot Fire started Sept 4, 2018 in the Walker River Canyon south of Walker, CA. The canyon is narrow with steep, forested slopes on the west side and moderate, brushed slopes on the east side. HWY 395, a major highway in California and Nevada, runs through the canyon immediately adjacent to the river. There are several FS campgrounds and day use areas in the canyon, though the only one within the fire perimeter is Chris Flat Campground.

A. Describe Critical Values/Resources and Threats: Critical values on NF lands inlcude Chris Flat Campground, native plant diversity, sage grouse habitat, cultural resources and Forest roads. In addition, there is a threat to HWY 395 from accelerated runoff and debris flow from hill slopes and stream channels on NF lands west of the highway.

Resource	Probability Damage or Loss	Magnitude of Consequences	Risk
Forest roads	Likely	Moderate	High
Noxious weed introduction	Likely	Moderate	High
Loss native plant diversity	Likely	Moderate	High
Damage, theft archaeological resources	Very likely	Major	Very high

1. Road and campground infrastructure. High risk to forest roads 32031F (Burcham Creek Spur) and 32067 (Lobdell Lake) from runoff from burned hill slopes and small drainages. (*Treatment **T01-04***). There is an intermediate risk to Chris Flat Campground from increased runoff through Grouse Creek. There is a high risk to HWY 395 from increased runoff and debris flow. This is not a Forest resrouce.

2. Natural Resources:

    a. High risk to native plant recovery diversity due to the likely introduction of non-native invasive weeds on at least 55 acres within the burned area on dozer and handlines, equipment staging areas, drop points and near roads. The Boot Fire provied conditions conducive to the establishment and rapid spread of weeds. Suppression activities have likely vectored weed seeds into the area: mechanized equipment was not cleaned prior to line construction. (*Treatment **T05***)

    b. High risk to sage grouse habitat. The Boot Fire burned on over 6,900 acres of Bi-state Sage-grouse habitat within the Desert Creek/Fales Population Management Unit (PMU), and several leks are known from just outside the fire boundary. Bi-state Sage-grouse is proposed for federal listing under the Endangered Species Act. The majority of the sagebrush habitat within the fire area was completely consumed by fire. (*No BAER treatment included*)

3. Cultural Resouces: High risk to loss of arrowheads from newly exposed areas. Archaeological site density on the southern two miles of Burcham Flat Road ishigh, with site locations nearly on top of each other. It is likely that the public will begin hunting arrowheads on top of the newly exposed sites. (*Treatment **T06***)

B. Emergency Treatment Objectives:

Protect or minimize damage to Forest roads and campground.

Control expected invasion of noxious weeds within and adjacent to the area where soils and vegetation were disturbed as a result of suppression activities.

Improve recovery of native plant habitat within bi-state sage-grouse PMU (rehab objective, not included as BAER treatment).

Protect cultural resources.

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

Land: **70**% Channel: **N/A**% Roads/Trails: **70**% Protection/Safety: **90**%

D. Probability of Treatment Success:

Years after Treatment	1	3	5
Land	70	70	
Channel			
Roads/Trails	70	80	80
Protection/Safety	70	70	

E. Cost of No-Action (Including Loss): The cost to maintain forest roads varies from $25,000 to $100,000 per mile depending on the maintenance and service level. Without drainage improvement work on roads within the fire, at least one mile of road could be damaged. Loss of archaeological resources cannot be recovered. Conversion of native plant habitat to noxious weeds and cheat grass unable to valuated.

F. Cost of Selected Alternative (Including Loss): Not calculated.

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Sally Champion/ Casey Shannon

Email: schampion@fs.fed.us Phone: 775-884-8116 FAX:

H. Treatment Narrative:

Roads and Trail Treatments:

Implement road treatments on Burcham Creek Spur and Lobdell Lake/Jackass Flat Rd.

Burcham Creek Spur to protect the roads from increased runoff.

- **T01** - Water bar (2) - $2,000
- **T02** - Armored low water crossing (2) - $5,000
- **T03** - Rolling dip (1) -$1,500
- **T04** - Detention basin (1) - $3,000

Estimated cost for all treatments - $11,500

In addition, the Forest Service will coordinate with the NWS and CalTrans on our findings for protection of HWY 395 and driving public.

Land Treatments:

T05 - Early Detection Rapid Response

Suitable Sites: Assess areas that have a high potential for weed/invasive species establishment.

Priority acres for EDRR:

1. Dozer Lines and Hand Lines @ 35 acres.
2. Drop Points, and vehicle and equipment off-road driving areas @ 10 acres.
3. Near roads and adjacent equipment Staging Areas within the fire perimeter @ 10 acres.

EDRR Design Specifications:

1. Conduct surveys in FY2019 using EDRR assessment/monitoring of noxious weed/non-native invasive plant species infestations within the burned area. Surveying to determine the post-fire presence or spread of invasive species will be prioritized by critical areas and disturbed areas.
2. Inventory/ assessment: Photograph and map new weed infestations within burned area using GPS technology and upload into the Bridgeport Ranger District GIS Noxious Weeds/ FACTS database.
3. Mechanical treatments, primarily through hand pulling, will be used on appropriate noxious and non-native invasive species located within the fire on public lands. Prior to mechanical treatments, clear observed occurrences for cultural resources.
4. Chemical treatments using pickups, UTVs, and backpack spray units will be used on any noxious weeds located within the fire on public lands.

Cost Estimate:

EDRR would be conducted by the Bridgeport Ranger District weed crew with oversight from the range management/ noxious weeds program manager.

Item	Unit	Unit Cost	# of Units	Cost
GS-5 Technician	day	$150	10	$1,500
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GS-9 Crew Leader –planning & implementation	day	$300	3	$900
GS-11 Botanist - coordination & reporting	day	$400	4	$1,600
Mileage	mile	$0.50	400	$200
Total Cost for FY2019				$5,700

Channel Treatments: N/A

Protection/Safety Treatments:

T06 – Place archaeological protection signs along Burcham Flat road reminding the pulic that is illegal to collect from archaeological sites on National Forest lands. Monitor sites through August 2019. Use OHV patgols and archaeological site stewards to monitor the southern three miles of Burcham Flat Road as well as one site on Forest Road 067. Patrolling would require a GS 7 LEO for 10 days.

Estimated cost for all treatments - $2060.

I. Monitoring Narrative:

Monitoring will be completed by visual inspections and photographs.

Part VI – Emergency Stabilization Treatments and Source of Funds

			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										
T05 - EDRR	ea	5,700	1	$5,700	$0		$0		$0	$5,700
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$5,700	$0		$0		$0	$5,700
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										
T01 - waterbar	ea	1,000	2	$2,000	$0		$0		$0	$2,000
T02 - armored xing	ea	2,500	2	$5,000	$0		$0		$0	$5,000
T03 - rolling dip	ea	1,500	1	$1,500						$1,500
T04 - detention basin	ea	3,000	1	$3,000	$0		$0		$0	$3,000
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$11,500	$0		$0		$0	$11,500
D. Protection/Safety										
				$0	$0		$0		$0	$0
T06 - arch site	day	206	10	$2,060	$0		$0		$0	$2,060
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Structures				$2,060	$0		$0		$0	$2,060
E. BAER Evaluation										
	rpt	8,500	1	---			$0		$0	$0
Insert new items above this line!				---	$0		$0		$0	$0
Subtotal Evaluation				---	$0		$0		$0	$0
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				$19,260	$0		**$0**		**$0**	**$19,260**
Previously approved										

PART VII - APPROVALS

1. *\/s/William A. Dunkelberger* — *Sept 28, 2018*

   Forest Supervisor (signature) — Date

2. /s/ Mary Farnsworth (for) — October 3, 2018

   Regional Forester (signature) — Date