

Date of Report:**BURNED-AREA REPORT****PART I - TYPE OF REQUEST****A. Type of Report**

- 1. Funding request for estimated emergency stabilization funds
- 2. No Treatment Recommendation

**B. Type of Action**

- 1. Initial Request (Best estimate of funds needed to complete eligible stabilization measures)
- 2. Interim Request # \_\_\_\_\_  
□ Updating the initial funding request based on more accurate site data or design analysis

**PART II - BURNED-AREA DESCRIPTION****A. Fire Name: Lone Fire****B. Fire Number: CA-MDF-000836****C. State: California****D. County: Modoc****E. Region: 05****F. Forest: MDF****G. District: Doublehead****H. Fire Incident Job Code: P5MQ81****I. Date Fire Started: September 5, 2019****J. Date Fire Contained: Sept 16, 2019****K. Suppression Cost:** Click here to enter text.**L. Fire Suppression Damages Repaired with Suppression Funds (estimates):** Click here to enter text.

- 1. Fireline repaired (miles): Click here to enter text.
- 2. Other (identify): Click here to enter text.

**M. Watershed Numbers:***Table 1: Acres Burned by Watershed*

HUC #12	Watershed Name	Total Acres	Acres Burned	% of Watershed Burned
180102040302	Mowitz Creek	29617	3699	12.5
180102040110	Boles Creek	18625	0.5	0.0
108102040304	Double Head Lake – Frontal Clear Lake	32736	2038	.06

**N. Total Acres Burned:5,737***Table 2: Total Acres Burned by Ownership*

OWNERSHIP	ACRES
NFS	5,737

OWNERSHIP	ACRES
OTHER FEDERAL (LIST AGENCY AND ACRES)	0
STATE	0
PRIVATE	0
TOTAL	5,737

O. Vegetation Types: Sagebrush steppe, western juniper woodlands, and grasslands dominated by both native and exotic species.

P. Dominant Soils: Click here to enter text.

Q. Geologic Types: Tertiary aged (Pliocene-Miocene) andesite and pyroclastic rock

R. Miles of Stream Channels by Order or Class:

Table 3: Miles of Stream Channels by Order or Class

STREAM TYPE	MILES OF STREAM
PERRENIAL	0
INTERMITTENT	7.06
EPHEMERAL	0
ARTIFICIAL	0.91
PATH	

S. Transportation System:

Trails: National Forest (miles): 0

Dozer Lines (miles): 24

Roads: National Forest (miles): 2

Other (miles):

### PART III - WATERSHED CONDITION

A. Burn Severity (acres):

B. Table 4: Burn Severity Acres by Ownership

Soil Burn Severity	NFS	Other Federal (List Agency)	State	Private	Total	% within the Fire Perimeter
Unburned	321					5.6
Low	3447					60.1
Moderate	595					10.4
High						0
Untyped	1374					23.9
Total	5737					

C. Water-Repellent Soil (acres): Click here to enter text.

C. Soil Erosion Hazard Rating: Click here to enter text.

D. Erosion Potential: Click here to enter text. Sediment Potential: Click here to enter text.

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

G. Estimated Hydrologic Response (brief description): Click here to enter text.

### PART V - SUMMARY OF ANALYSIS

Introduction/Background

Lightning ignited the Lone Fire on Thursday, September 5, 2019 and was initially reported at 1715 on the same day. By Friday morning, the fire had grown to 2,592 acres as it burned across dry landscapes on the Modoc Plateau dominated by invasive and exotic annual grasses and sparse western juniper (*Juniperus occidentalis*) woodlands. High temperatures, low humidity, and strong winds carried the fire an additional 2,000 acres on Friday; and by the end of the second day, the Lone Fire had consumed approximately 4,600 acres. Saturday and Sunday brought favorable weather conditions allowing the fire's intensity to decrease and suppression crews direct access along the fire's edge. By Monday morning, the Lone Fire had burned 5,737 acres and was over 50% contained. On Friday, September 13, 2019, the Lone Fire reached 95% contained and remained at 5,737 acres burned.

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

*Table 5: Critical Value Matrix*

Probability of Damage or Loss	Magnitude of Consequences		
	Major	Moderate	Minor
	RISK		
Very Likely	Very High	Very High	Low
Likely	Very High	High	Low
Possible	High	Intermediate	Low
Unlikely	Intermediate	Low	Very Low

Critical Value	Value At Risk	Probability of Damage or Loss	Magnitude of Consequences	Risk	Treatment	Notes
1. Natural Resource	Threat of invasive weeds to veg recovery	Very Likely	Major	Very High	Invasive Weed Early Detection/Rapid Response (EDRR)	Where suppression activities created an opening/disturbance
2. Cultural	Looting of recorded Arc sites that are now exposed	Very High	Major	Very High	No Treatment	Natural recovery
3. Natural Resource	Soil Productivity	Unlikely	Minor	Very Low	No Treatment	Natural Recovery
4. Natural Resource	Loss of Cattle and Wildlife Forage	Very Likely	Major	High	No Treatment	Natural recovery
5. Natural Resource	Sage Grouse Nesting Habitat	Very Likely	Major	Very High	No Treatment	Natural Recovery, not T&E
6. Property	Forest Roads	Unlikely	Minor	Very Low	No Treatment	No road issues identified

#### 1. Human Life and Safety (HLS):

- a. None

#### 2. Property (P):None

- 3. **Natural Resources (NR):**There is an emergency related to native vegetation recovery and diversity due to the likely introduction and spread of invasive and exotic weeds on at least 2,446 acres of landscapes disturbed by fire suppression activities on FS lands (Table 3). As related to botany, these approximately 2,446 acres are thus classified as Priority Treatment Areas, as they are determined to be at very high to high risk of noxious weed invasions, which would, in turn, deter the recovery and diversity of native vegetation communities post fire. Native vegetation was identified as a Critical Value by the BAER team, as there is the potential for weed incursion in the majority of the burned area. The Lone Fire provided conditions conducive to the establishment and rapid spread of weeds known to be within and adjacent to the fire areas. Furthermore, suppression activities have likely vectored weed seeds into or spread them further through the burned area. Mechanized equipment was

not cleaned prior to line implementation. The utilization of a weed washing unit for cleaning equipment and vehicles prior to entering fire areas would have significantly reduced the potential of weeds arriving in disturbance associated with fire or suppression activities. Weed propagules in and adjacent to the fire may have been spread through fire line construction in addition to potentially arriving from elsewhere on contaminated equipment. Field reconnaissance noted evidence of dozer and other equipment passing through known occurrences of noxious weeds. (Note: Cleaning equipment and vehicles prior to entering a fire area is not often a priority due to the need for rapid attack by fire crews to suppress dangerous wildfire in order to protect the health and safety of those fire crews and everyone else that may be affected and/or threatened by the fire.) A high probability for the introduction and spread of invasive and exotic plants exists in Priority Treatment Areas where soil disturbance occurred related to suppression-related activities including dozer lines, hand lines, staging areas, and safety zones. Roads also serve as corridors for transporting weeds to recently burned areas. These areas have the highest need for and would greatly benefit from restoration efforts that promote native vegetation reestablishment, which would not likely occur post-fire without intervention due to competition from weeds. The results of the botany BAER assessment of the Lone Fire conclude that vegetation communities in the burn area are at risk of an irreversible loss of healthy native vegetation and native plant species diversity and a reduction in the rate of native vegetation recovery. This BAER emergency can be mitigated by detecting and treating new occurrences of noxious weeds and controlling known noxious weed occurrences to limit the spread of weed species that may be exacerbated by fire and/or fire suppression activities. During the first year after the fires, the 2,446 acres disturbed by fire suppression activities will likely lag in the recovery of their native plant communities with reductions in both native plant cover and diversity. However, the early detection and rapid response (EDRR) of noxious weeds can mitigate these fire effects if this weed removal method is implemented aggressively within the first year post-fire.

**4. Cultural and Heritage Resources:** 10 heritage sites were identified and evaluated after the Lone Fire. None were determined to need emergency BAER treatments.

**B. Emergency Treatment Objectives:** The objective of EDRR surveys and treatments is to reduce the potential for the expansion of noxious weeds by detecting plants at the early stage of invasion in order to promptly eradicate new weed infestations and prevent the spread of noxious weeds beyond known pre-fire occurrence boundaries. Such efforts would, in turn, assist in the successful recovery of native vegetation by eliminating competition from noxious weeds. The burned area, now lacking desired vegetation that could normally compete with invasive and exotic species, is vulnerable to the establishment and expansion of weeds via seed and propagule sources outside and adjacent to the burned area, especially in locations where native soil seed banks and soil productivity are compromised. In the areas with low soil burn severity, it will take at least one growing season (i.e., through the summer of 2020) until native vegetation can reestablish and compete with invasive species. In moderate soil burn severity areas, vegetation recovery is expected to take longer and will vary based on the condition and composition of the pre-fire vegetation community and the location within the fire perimeter. Compared to native plant species, invasive and exotic plants are likely to establish at a much faster rate in these moderate soil burn severity areas, further impacting native vegetation recovery and diversity.

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

Land Click here to enter text.

Channel No channel treatments proposed

Roads/Trails Click here to enter text.

Protection/Safety Click here to enter text.

**D. Probability of Treatment Success**

EDRR: Weed surveys would be conducted before noxious weeds have the opportunity to fully establish and reproduce/spread. This criterion differs from emergency watershed treatments that must be in place before the first storms, which does not apply well to weed management.

**E. Cost of No-Action (Including Loss):** The cost of non-treatment is indeterminable and mostly non-monetary values. The real cost of non-treatment can only be measured in the irretrievable loss of cultural

resources and the unimpeded proliferation of noxious and invasive weeds. The loss of cultural resources in an intangible value that cannot be determined. The cost to eradicate a weed infestation would be in the \$100,000's of dollars range, far more than the \$10,150 EDRR cost.

**F. Cost of Selected Alternative (Including Loss):** Click here to enter text. **Skills Represented on Burned-Area Survey Team:**

- |   |                                     |   |  |   |
|---|-------------------------------------|---|--|---|
| <input type="checkbox"/> Soils            | <input type="checkbox"/> Hydrology  | <input checked="" type="checkbox"/> Engineering | <input checked="" type="checkbox"/> GIS      | <input checked="" type="checkbox"/> Archaeology |
| <input checked="" type="checkbox"/> Weeds | <input type="checkbox"/> Recreation | <input type="checkbox"/> Fisheries              | <input checked="" type="checkbox"/> Wildlife |   |
| <input type="checkbox"/> Other:           |                                     |   |  |   |

**Team Leader:**

Email:Cathy Carlock/Pete Johnston      Phone(s)530 279-8331/530 667-8655

**Forest BAER Coordinator:** Cathy Carlock

Email:cathy.carlock@usda.gov      Phone(s):530 279-8331

**Team Members:**Table 6: BAER Team Members by Skill

Skill	Team Member Name
<i>Team Lead(s)</i>	Cathy Carlock/Pete Johnston
<i>Soils</i>	
<i>Hydrology</i>	N/A
<i>Engineering</i>	Chris Bielecki
<i>GIS</i>	Celia Yamagiwa
<i>Archaeology</i>	Dayne Crosby
<i>Weeds</i>	Heidi Guenther
<i>Recreation</i>	N/A
<i>Wildlife/Fisheries</i>	Pete Johnston

**H. Treatment Narrative:Land Treatments:** Weed detection surveys across the 2,446 acres disturbed by fire suppression activities would be conducted in the spring (or as soon as the weed species are identifiable) of the first year post-fire to detect and control early-season noxious weeds. These surveys would also occur in the summer to detect and control late season noxious weeds. Large weed infestations that cannot be immediately removed during their detection will be mapped with a Global Positioning Systems (GPS) unit, photographed, and flagged. If possible, new or isolated infestations would be manually removed during detection surveys. For most noxious weed species that are likely to occur in or near the Lone Fire, hand pulling would consist of digging up individual plants, pulling them up by the roots, and, if flowers or seed heads/fruits are present, bagging entire plants for proper disposal. In general, manual treatments are optimal for biennial noxious weeds, which include Scotch thistle and Mediterranean sage. Weed detection surveys and manual treatments would be conducted by a two-person crew with the goal of timing the visits appropriately so that, if possible, only one site visit is needed for optimal weed control. However, some noxious weed infestations may require control measures to be conducted more than once in the first year post-fire, depending on phenology, infestation size, and treatment strategy. Emergency EDRR surveys and manual treatments would be conducted for one year only post-fire with BAER funds per BAER policy. Surveys and treatments in subsequent years may be accomplished through a combination of FS program funding and/or coordination with outside partners. In addition to manual treatments, the ERDD treatments of dyer's woad (and potentially other noxious weed species) within and/or near the Lone Fire perimeter would involve herbicide treatments as authorized by the MDF's noxious weed environmental impact statement (EIS). Under the jurisdiction of this EIS, the MDF would contract the BLM to treat noxious weeds within the fire perimeter and other areas affected by suppression activities. As with the manual weed treatments, surveys and treatments of the chemically treated weed occurrence in subsequent years may be accomplished through a combination of FS program funding and/or coordination with outside partners.

**Channel Treatments:** Click here to enter text. **Roads and Trail Treatments:** No values at risk

**Protection/Safety Treatments:** Click here to enter text. **I. Monitoring Narrative:**

Click here to enter text.

**PART VI – EMERGENCY STABILIZATION TREATMENTS AND SOURCE OF FUNDS**

Line Items	Units	NFS Lands			Other	Other Lands			All
		Unit	# of Units	BAER \$		# of units	Fed \$	# of Units	
<b>A. Land Treatments</b>									
EDRR				\$10,150	\$0		\$0		\$0
				\$0	\$0		\$0		\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0
<i>Subtotal Land Treatments</i>				\$10,150	\$0		\$0		\$10,150
<b>B. Channel Treatments</b>									
				\$0	\$0		\$0		\$0
				\$0	\$0		\$0		\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0
<i>Subtotal Channel Treatments</i>				\$0	\$0		\$0		\$0
<b>C. Road and Trails</b>									
				\$0	\$0		\$0		\$0
				\$0	\$0		\$0		\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0
<i>Subtotal Road and Trails</i>				\$0	\$0		\$0		\$0
<b>D. Protection/Safety</b>									
				\$0	\$0		\$0		\$0
				\$0	\$0		\$0		\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0
<i>Subtotal Protection/Safety</i>				\$0	\$0		\$0		\$0
<b>E. BAER Evaluation</b>									
Initial Assessment	Report			\$4,875	\$0		\$0		\$0
				\$0	\$0		\$0		\$0
<i>Insert new items above this line!</i>				---	\$0		\$0		\$0
<i>Subtotal Evaluation</i>				\$4,875	\$0		\$0		\$0
<b>F. Monitoring</b>									
				\$0	\$0		\$0		\$0
				\$0	\$0		\$0		\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0
<i>Subtotal Monitoring</i>				\$0	\$0		\$0		\$0
<b>G. Totals</b>									
Previously approved									
Total for this request				\$15,025	\$0		\$0		\$10,150

**PART VII - APPROVALS**

1. Bea Nickle  
Forest Supervisor

9/19/19

Date