

Date of Report:

BURNED-AREA REPORT
(Reference FSH 2509.13)**PART I - TYPE OF REQUEST**

A. Type of Report

- ☒ 1. Funding request for estimated emergency stabilization funds
☐ 2. Accomplishment Report
☐ 3. No Treatment Recommendation

B. Type of Action

- ☒ 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: Moore Point B. Fire Number: 2013 WAOWF-000366
C. State: Washington D. County: Chelan
E. Region: 06 F. Forest: Okanogan-Wenatchee
G. District: Chelan Ranger District H. Fire Incident Job Code: P6EK2Q
I. Date Fire Started: 07/28/2013 J. Date Fire Contained: 10/22/2013
K. Suppression Cost: \$185,000
L. Fire Suppression Damages Repaired with Suppression Funds
 1. Fireline waterbarred (miles): 0
 2. Fireline seeded (miles): 0
 3. Other (identify): 0
M. Watershed Number: 1702000902 Upper Lake Chelan
N. Total Acres Burned: 1538
 NFS Acres(1349.4) Other Federal () State () Private (188.6)
O. Vegetation Types: Ponderosa pine/bluebunch wheatgrass
 Ponderosa pine/Douglas fir/pinegrass
 Aspen/ snowberry/pinegrass
 Douglas maple/bluebunch wheatgrass
 Common crupina

- P. Dominant Soils: Icicle-Chumstick Rockoutcrop Association 45-90% slopes
Zeb stony sandy loam, 3-30% slopes
- Q. Geologic Types: Colluvium and residuum from granite, gneiss, and schist mixed with volcanic ash and loess.
- R. Miles of Stream Channels by Order or Class: Within burn: .2 miles Meadow Creek (perennial)
- S. Transportation System
- Trails: 2.7 miles Roads: 0 miles

PART III - WATERSHED CONDITION

- A. Burn Severity (acres): 899.4 (low) 328.8 (moderate) 10.4 (high)
- B. Water-Repellent Soil (acres): 0
- C. Soil Erosion Hazard Rating (acres):
 (low) (moderate) 1538 (high – due to soil type)
- D. Erosion Potential: .31 tons/acre
- E. Sediment Potential: NA cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

PART V - SUMMARY OF ANALYSIS

Describe Critical Values/Resources and Threats:

This BAER report addresses effects resulting from the Moore Point Fire that burned on lands managed by the U.S. Forest Service (USFS) and private land (managed by the Washington Dept. of Natural Resources). This report identifies response actions in accordance with the Forest Service Manual (FSM) 2500 Watershed and Air Management Chapter 2523 Emergency Stabilization-Burned Area Emergency Response and the FSM Interim Directive No.: 2500-2013-1.

The objective of emergency stabilization is to identify imminent post-wildfire threats to human life and safety, property and critical natural or cultural resources and take immediate actions to manage unacceptable risks. This assessment used methodology within Forest Service directives, Exhibit 01 and 02 to guide the development of values important to the local agencies and the risk to those values.

The Moore Point Fire started from a lightning storm on July 28, 2013. A Type 3 IMT managed the fire, in conjunction with the Washington DNR with a suppression strategy of point protection of private property. Active suppression did not occur within the Wilderness, except where needed for private property protection. The fire was not declared contained until October 22, 2013 as the fire continued to burn in the Wilderness. The fire eventually burned approximately 1,538 acres. The cost of suppression response is estimated at \$185,000.

The Moore Point Fire burned primarily within the Lake Chelan Sawtooth Wilderness area, was a small fire (1,538 acres) and burned with an overall low severity. Consequently, a formal BAER team was not convened, nor was a full BAER assessment completed. The critical values and risks were determined using the probability for post-fire damage and the magnitude of consequences if damage occurred (Exhibit 02).

Threats to Human Life – low to intermediate

There are two values at risk that could potentially pose a risk to human life within the Moore Point Fire perimeter; private homes and the Lakeshore Trail. There is a low to intermediate threat to human life for these values as 80% of the burned severities were low to moderate. Specifically, there is 1 private home that is seasonally occupied on the Meadow Creek alluvial fan on the southeast corner of the fire and an additional 2 homes along the southern portion of the fire between Moore Point campground and Meadow Creek. Burn severities in the Meadow Creek drainage in were 100% low severity or unburned and threats to human life are not estimated to be beyond what is typical for an alluvial fan along Lake Chelan. Burn severities along the southern portion of the fire, near the remaining private dwellings were moderate, low, or unburned (approximately 50% of the western most property burned at moderate severity). Threat to human life in these areas is estimated to be possible with moderate magnitude (intermediate threat). Approximately 4 miles of the Lakeshore Trail were impacted by the fire. Hazards exist to trail users from falling snags along approximately 3 miles of this trail, there is an intermediate threat to human life as it is unlikely that a snag will fall on trail users, but the magnitude of consequences would be major.

Threats to Property - low

Private property was burned by the fire. The private parcels are along the lake, on the south portion of the burned area. Approximately 188 acres (14% of the fire) of private land was burned within the fire perimeter. Overall burn severities were low to moderate in this area and threats to property are estimated to be of unlikely probability and moderate consequence.

Threats to Water Quality – intermediate

Water quality is expected to be slightly affected in Meadow Creek and the small, unnamed streams as sediment and ash output, and minor, inconsequential changes to chemical quality may occur during spring snowmelt and runoff. Effects to on-site and downstream water quality and aquatic resources are expected to low and the probability of damage is possible.

Threats to Long-term Soil Productivity and Ecosystem Integrity – very high

Field reviews within the burned area indicate that there is a very high threat to long-term soil productivity and ecosystem integrity. The threat is related to the expected exponential increase of populations of the Washington State Class A noxious weed common crupina (*Crupina vulgaris*). The only known infestation in the state is along the north shore of Lake Chelan, on a combination of USFS (Lake Chelan Sawtooth Wilderness) and private land. Approximately half of the known 600 acre infestation burned in the 2013 Moore Point Fire. The threat to soil productivity and ecosystem integrity is due to the consumption of the competing native vegetation by the fire, and the aggressive life history of common crupina.

Because Lake Chelan is the only infestation in Washington state it is a priority infestation for the State and County Weed boards and the Washington State Department of Agriculture (WSDA). Washington state law requires that Class A weeds be eradicated. The Crupina Task Force, which includes several partners (the U.S. Forest Service, the Chelan County Noxious Weed Board, the Okanogan County Weed Board, the Washington State Weed Board, WSDA, the National Park Service, and private landowners) has been working to contain, reduce and eradicate this crupina infestation. The Task Force has received National Fish and Wildlife Foundation, Washington State Weed Board, and Rural County Title II grants. Control efforts to date have prevented crupina from spreading outside the known infestation, have eradicated some populations, and have reduced the density and size of the remaining populations.

All progress to date could be lost if fire-stimulated crupina reproduces this spring. Common crupina is a winter annual which germinates in the late fall or early winter, survives under the snow through the winter, and then takes advantage of snow melt to rapidly grow and produce seed by the end of May. This aggressive strategy allows crupina to out-compete native plants for critical spring moisture. Each plant produces approximately 25 seeds allowing the infestations to rapidly increase in density and become monocultures. After producing seed, the slender crupina plants wither and die – providing almost no soil coverage through summer and fall compared to a healthy native plant community. Sites dominated by crupina (a slender annual plant) are likely to have increased risk of erosion compared to slopes covered with native, perennial plants.

All of the burned area, and much of Eastern Washington is potential crupina habitat. Without post-fire treatment crupina would be very likely spread to infest the entire burned area within the next 3 years. Once crupina establishes a monoculture, native plants are unable to re-colonize the site (the damage is irreversible). There is also a risk of serious economic impacts to agriculture if crupina were to escape the current infestation boundaries and move into the arid farm and ranch lands down lake. Idaho has over 70,000 acres infested with crupina, and there are large infestations in Oregon and California. A Region 6 Sensitive plant Sierra cliff brake (*Pellaea brachyptera*) is directly threatened by the crupina infestation. Increases in crupina populations would reduce valuable winter range for mule deer, and would deteriorate or eliminate native plant communities and habitat for associated wildlife. This winter range is unique because it is included in a Wilderness Area – mule deer can migrate between seasonal habitats without crossing roads. The character of this mule deer habitat is a benefit to predators of mule deer, particularly the Federally listed gray wolf and grizzly bear.

There is a real opportunity to eradicate crupina within the burned area if crupina plants are treated before they produce seed. Lessons learned from the 2001 burn of the crupina infestation (Rex Creek Fire) include that the first year after a fire is the most critical and effective time to treat crupina populations – because preventing the first flush of crupina plants from producing more seed will prevent exponential increases in populations, and because crupina is one of the first plants up in the spring it is easy to see and treat on fire-darkened soil.

In 2014 U.S. Forest Service regional invasive funds are designated to treat crupina on private lands within the burned area, through Wyden agreements. BAER funds would be used to treat adjacent Forest Service lands to ensure the success of both landowners.

In summary, the replacement of native plants with the annual weed common crupina will result in accelerated soil erosion and associated loss of long-term soil productivity, and loss of ecosystem integrity through the replacement of native plant communities with monocultures of crupina, and the associated losses in wildlife

forage. The probability of irreversible damage within 1 to 3 years is very likely and the magnitude of consequences is major resulting in a “very high” risk rating.

Threats to Cultural and Heritage Resources - none

Reviews within and downstream of the burn confirmed that there are no significant threats to heritage resources.

B. Emergency Treatment Objectives: For the Moore Point Fire, the major values at risk is the threat of further spread of common crupina within the fire perimeter. The treatment objectives are to: (1) Re-establish native plant communities in a timely fashion in order to reduce or eliminate a threat to long-term soil productivity, (2) protect sensitive plant populations, (3) allow recovery of important mule deer winter range, and (4) protect the integrity of the ecosystem.

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

Land __ % Channel __ % Roads/Trails __ % Protection/Safety __ %

D. Probability of Treatment Success : Treatments the first year after the fire will have the highest probability of success. The infestation will need to be monitored and re-treated as necessary in subsequent years.

	Years after Treatment		
	1	3	5
Land	95*	90	80
Channel			
Roads/Trails			
Protection/Safety			

E. Cost of No-Action (Including Loss): \$301,448. With No Action the entire burned area would likely become infested with crupina. Cost of treatment in this remote area is \$196 per acre (based on past expereince).

F. Cost of Selected Alternative (Including Loss): \$58,750

BAER Funding request

Six Washington Conservation crews (18 workers) for two eight-day tours (\$8K per crew per tour – includes food/per diem)	\$48000
Round trip ferry tickets for 20 people (\$40.50 x 20) for two tours	\$1620
Forest Service boat gas for daily transport to work sites	\$1000
Forest Service Salary for field coordination, herbicide use oversight/tracking, water staging (GS6 x16 days = 2352, GS5 x 16 days = 1840, GS9 x 10 days = 2970)	\$7160
Backpack sprayers	\$1000

TOTAL request

\$58,750

G. Skills Represented on Burned-Area Survey Team:

<input checked="" type="checkbox"/> Hydrology	<input type="checkbox"/> Soils	<input type="checkbox"/> Geology	<input type="checkbox"/> Range	<input type="checkbox"/>
<input type="checkbox"/> Forestry	<input type="checkbox"/> Wildlife	<input type="checkbox"/> Fire Mgmt.	<input type="checkbox"/> Engineering	<input type="checkbox"/>
<input type="checkbox"/> Contracting	<input type="checkbox"/> Ecology	<input checked="" type="checkbox"/> Botany	<input checked="" type="checkbox"/> Archaeology	<input type="checkbox"/>
<input type="checkbox"/> Fisheries	<input type="checkbox"/> Research	<input type="checkbox"/> Landscape Arch	<input type="checkbox"/> GIS	

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H. Treatment Narrative:

The proposed treatment is to control the expected fire-stimulated increase in common crupina (*Crupina vulgaris*) populations through timely (prior to seed set) herbicide treatments in April and May of 2014. No other treatments are proposed.

Land Treatments:

Backpack spray picloram or the aquatic formulation of glyphosate to control common crupina (*Crupina vulgaris*) on approximately 300 acres, targeting the perimeters of the infestation first, and working inward. Follow the guidelines provided in the Crupina Integrated Management FEIS. Conduct the herbicide application in the spring (April and May) of 2014. Survey the burned area for crupina infestation.

Channel Treatments: N/A

Roads and Trail Treatments: N/A

Protection/Safety Treatments: 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.)

Common crupina

For a period of three years after the fire (2014, 2015, 2016) monitor the areas where herbicide was sprayed to determine if the treatment was effective. Use presence and percent cover of crupina as an indicator of effectiveness. The Chelan District Botanist will conduct the monitoring, which will occur in the spring and fall of each of the three years.

Part VI – Emergency Stabilization Treatments and Source of Funds

Interim #

Line Items	Units	Unit Cost	NFS Lands		Other \$	Other Lands			All Total \$
			# of Units	BAER \$		# of units	Fed \$	# of Units Non Fed \$	
A. Land Treatments									
Spray common crupina	Acres	195	300	\$58,500	\$0		\$0	\$0	\$58,500
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0	\$0	\$0
<i>Subtotal Land Treatments</i>				\$58,500	\$0		\$0	\$0	\$58,500
B. Channel Treatments									
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0	\$0	\$0
<i>Subtotal Channel Treat.</i>				\$0	\$0		\$0	\$0	\$0
C. Road and Trails									
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0	\$0	\$0
<i>Subtotal Road & Trails</i>				\$0	\$0		\$0	\$0	\$0
D. Protection/Safety									
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
				\$0	\$0		\$0	\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0	\$0	\$0
<i>Subtotal Structures</i>				\$0	\$0		\$0	\$0	\$0
E. BAER Evaluation									
				---			\$0	\$0	\$0
<i>Insert new items above this line!</i>				---	\$0		\$0	\$0	\$0
<i>Subtotal Evaluation</i>				---	\$0		\$0	\$0	\$0
F. Monitoring									
				\$0	\$0		\$0	\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0	\$0	\$0
<i>Subtotal Monitoring</i>				\$0	\$0		\$0	\$0	\$0
G. Totals				\$58,500	\$0		\$0	\$0	\$58,500
Previously approved									
Total for this request				\$58,500					

PART VII - APPROVALS

1. _____
Forest Supervisor (signature)

Date _____

2. Regional Forester (signature)

Date _____