

Date of Report: 10/01/2014

**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 # 1  
    ☒ 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: Happy Camp Complex      B. Fire Number: CA-KNF-005956  
C. State: CA      D. County: Siskiyou  
E. Region: 5      F. Forest: Klamath  
G. District: Happy Camp/Oak Knoll/Scott River      H. Fire Incident Job Code: 0505-P5JB1F14  
I. Date Fire Started: 08/12/2014      J. Date Fire Contained: Exp'd:10/31/2014  
K. Suppression Cost: \$88 million  
L. Fire Suppression Damages Repaired with Suppression Funds  
    1. Fireline waterbarred (miles): As of 9/22/14  
        Total Suppression Repair Completed on Dozer Line: 53 Miles  
        Suppression Repair Needed on Dozer Line: 22 miles  
        Total Suppression Repair Completed on Hand Line: 40 miles  
        Suppression Repair Needed on Handline: 22 miles  
    2. Fireline seeded (miles): 0  
    3. Other (identify): All roads, staging areas, water drafting sites, etc. disturbed by suppression activities will be repaired to a condition that is as close to pre-fire condition

as reasonably possible. Repairs include grading, back-blading berms, pulling vegetation over disturbed areas, re-shaping spur roads, etc.

**M. Watershed Numbers:**

Soil Burn Severity Acres by Watershed								
HUC	HUC Name	Very Low Burn Severity (Acres)	Low Burn Severity (Acres)	Moderate Burn Severity (Acres)	High Burn Severity (Acres)	Total Watershed Burned (Acres)	Total Watershed Area (Acres)	Percent Watershed Burned
180102061101	Grider Creek	2381	16523	8135	341	27380	27562	99%
180102061103	Bittenbender Creek-Klamath River	1868	12419	6020	349	20656	35385	58%
180102080502	Shackleford Creek	5	6	0	0	10	27117	0%
180102080601	Canyon Creek	5	22	0	0	27	15822	0%
180102080603	Kelsey Creek	1279	3441	1005	22	5747	11376	51%
180102080604	Tompkins Creek-Scott River	1030	11185	2864	99	15178	17621	86%
180102080606	Scott Bar-Scott River	317	6518	2629	113	9577	25670	37%
180102090203	China Creek-Klamath River	621	7514	966	47	9149	25368	36%
180102090301	Upper Elk Creek	947	4180	1189	80	6396	20506	31%
180102090302	East Fork Elk Creek	345	7822	1990	153	10311	10328	100%
180102090303	Lower Elk Creek	2117	8815	1004	56	11992	29995	40%
180102090601	Oak Flat Creek-Klamath River	35	71	0	0	106	20928	1%
180102100301	North Fork Wooley Creek	669	3211	575	16	4472	14076	32%
180102100302	Upper Wooley Creek	853	5187	1803	163	8004	25861	31%

**N. Total Acres Burned:**☒ **NFS Acres**    ☐ **Other Federal**☐ **State**☒ **Private**

Soil Burn Severity Acres by Land Status ( as we have data for on 8/28/14)					
Land Owner	Very Low Severity (Acres)	Low Severity (Acres)	Moderate Severity (Acres)	High Severity (Acres)	Total Burned (Acres)
Klamath NF	12,256	85,444	27,740	1410	126,851
Private	216	1470	442	29	2156
Total	12472	86,914	28,182	1439	129,007

**O. Vegetation Types:** The botanical communities affected by the Happy Camp Complex vary by topography, elevational gradient and soil type. The burn area ranges in elevation from approximately 1500 to 7000 feet with 55 different soil types occurring within the fire perimeter. Lower elevation communities are dominated by mixed evergreen forests composed of canyon live oak, California black oak, madrone and chinquapin in the understory, with scattered ponderosa pine, Douglas fir, and incense cedar in the overstory. Higher elevation communities are characterized as mixed conifer forests dominated by white and/or red fir. Clear-cuts and regenerating plantations are scattered throughout the burn area on both privately owned and Federal land and are primarily composed of ponderosa pine and Douglas-fir as well as early seral shrub fields (multiple species of *Arctostaphylos* and *Ceanothus*). The Lake Mountain Foxtail Pine Special Interest Area (SIA) represents the northern-most extent of this species in North America, and includes 5 additional conifer species: western white pine, red fir, white fir, mountain hemlock, and Jeffrey pine. Such assemblages of high-elevation conifers are rare throughout California and are restricted to the Klamath-Siskiyou Mountains. Lake Mountain Lookout is located within the SIA, and is a popular destination for recreation visitors and botanists alike.

**P. Dominant Soils:** Dominant Soils: very gravelly to extremely gravelly loams of Clallam, Deadwood, Jayar, Woodseye, and Goldridge Families; Gilligan sandy loams; Chawanakee Loams. 50 additional map units comprise less than 5000 acres each.

**Q. Geologic Types:**

Meta-sedimentary, volcanic rock, peridotite/serpentine, amphibolite schist and granitic rock.

**R. Miles of Stream Channels by Order or Class:**

Flow Regime by Severity (Miles)					
Flow Regime by Land Status	Very Low Severity (Miles)	Low Severity (Miles)	Moderate Severity (Miles)	High Severity (Miles)	Total (Miles)
Klamath NF					
Intermittent	23.0	195.8	49.9	2.2	270.9
Perennial	31.2	187.8	26.8	0.4	246.2

**S. Transportation System**

Trails: 29      FS Roads: 436 miles      County Roads: 11      State: 1      Private Roads: 3

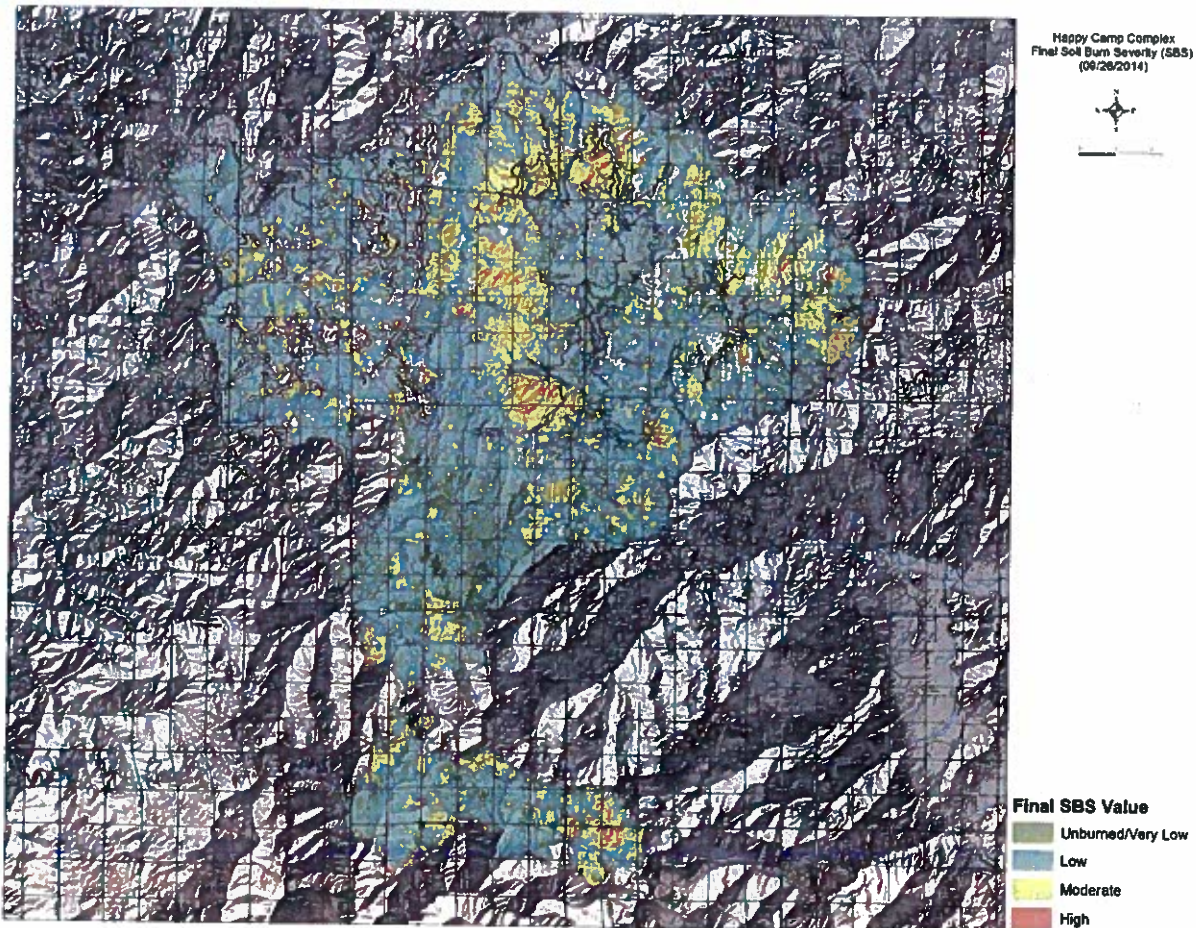
Miles of Roads by Severity					
	Very Low Severity (Miles)	Low Severity (Miles)	Moderate Severity (Miles)	High Severity (Miles)	Total Burned (Miles)
Klamath NF	91	265	63	17	436
County	7	4	0	0	11
Private	1	1	1	0	3
State	1	0	0	0	1

**PART III - WATERSHED CONDITION**

The Happy Camp Complex Fire burned 131,000 acres west of Yreka, CA between the Scott River and Klamath River. The fire burned 604 acres on land administered by the Six Rivers National Forest; the remaining acres are within the Klamath National Forest.

The following fires make up the Happy Camp Complex: Kemper (185 acres); Delta (150 acres); Jackson (29 acres); Sutcliffe (27 acres); Thompson (17 acres); Tims (13 acres); Ranch (6 acres); Huckleberry (5 acres); Bear (4 acres); China (3 acres); Mill (2 acres); the 5,225 acre Falkstein Fire, the 13,110 acre Man Fire, the Frying Pan fire.

**A. Burn Severity (acres):** (very low) 12,472 (10%)      (low) 86,814 (67%)  
    (moderate) 28,182 (22%)      (high) 1,439 (1%)



- B. Water-Repellent Soil (acres):** 20,000 (approx 2/3 of mod SBS + high SBS). Note – natural water repellency occurs in portions of unburned and low SBS; fire-exacerbated in mod-high.
- C. Soil Erosion Hazard Rating (acres):** 4,155 (low) 73,403 (moderate) 46,826 (high) 4,622 (very high)

**D. Erosion Potential:**

ERMIT	2 Yr Event	5 Yr Event	10 Yr Event
Tons/Acre	36	67	88
Tons	4,308,752	8,955,460	12,228,087

- E. Sediment Potential:** (Cubic yards per square mile): 15,000 - 32,000

**PART IV - HYDROLOGIC DESIGN FACTORS**

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

- B. Design Chance of Success, (percent): 90
- C. Equivalent Design Recurrence Interval, (years): 5
- D. Design Storm Duration, (hours): 5
- E. Design Storm Magnitude, (inches): 1.95
- F. Design Flow: 112 cubic feet per second per square mile
- G. Estimated Reduction in Infiltration:: 15%
- H. Adjusted Design Flow : 209 cfs per square mile

### **PART V - SUMMARY OF ANALYSIS**

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

The following is a brief summary of the values within and along the fire area as well as the threats to those values.

#### **Values at Risk:**

The risk matrix below, Exhibit 2 of Interim Directive No.: 2520-2010-1, was used to evaluate the Risk Level for each value identified during Assessment:

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	Potential Threat	Probability of Damage or Loss	Magnitude of Consequences	Risk	Treatment	Comments
Life/Safety	Visitors to Grider Creek Campground	Debris Flow	Likely	Moderate	High	Signing	
Life/Safety	Tompkins Creek Lodge	Debris Flow	Possible	Moderate	Intermediate	Notify NRCS	
Life/Safety	Residence at bottom of Grider Creek Drainage, Walker Creek Drainage, George Allen Gulch, Tompkins Creek Lodge	Debris Flow	Likely	Moderate	High	Notify NRCS	
Life/Safety	FS Trails	Falling snags, raveling tread	Possible	Moderate	Intermediate	Install hazard warning signs at trailheads	
Life/Safety	Pacific Crest Trail and Kelsey National Recreation Trail	Holes in tread from burned out stumps/roots	Possible	Moderate	Intermediate	Fill holes with rocks	
Property	Happy Camp and Scott Bar Water Intake	Sediment & Ash	Possible	Major	High	Notify NRCS/Siskiyou	They are aware of possible sedimentation and typically close of intake prior to storm
Private Property	Residence 19322 Scott River Road	Debris flow/Flooding	Possible	Major	High	Notify NRCS/Siskiyou	Caretaker cabin drainage south of Tompkins Creek
Property	Loss of FS roads	Debris flow/Flooding	Likely/Very likely	Moderate/Major	High	Install critical dips, flared end sections, culvert risers, restore road drainage	
Property	FS System Trails	Debris flow, erosion, raveling	Likely	Moderate	High	On sections of the trails with steep grades, install water bars or clean existing water bars to divert surface water, curb trail erosion	Includes high priority trails: Pacific Crest National Scenic Trail and Kelsey National Recreation Trail
Municipal Property	County Road	Diversion Potential	Possible	Mod/Maj	High/Intermediate	Notify NRCS/Siskiyou	Private Residence Tompkins Creek
Natural Resource	Coho Critical Habitat	Debris flows/sediment	Possible/Likely	Moderate	High/Intermediate	Road and trail treatments	

Critical Value	Value At Risk	Potential Threat	Probability of Damage or Loss	Magnitude of Consequences	Risk	Treatment	Comments
Natural Resources	Burned Bridge on tributary to East Fork Elk Creek (15N02)	Contaminated Debris, Sediment	V. Likely	Major	V. High	Remove & Dispose Debris, sign & block road	T&E Habitat, Domestic Water Supply
Natural Resource	Water Quality/Critical Coho Habitat	Burned debris from 2 PCT bridges in Grider Creek	Likely	Moderate	High	Remove Debris from creek and stockpile for later removal.	Grider Creek is an Eligible Wild and Scenic River.
Natural Resource	Coho Critical Habitat	Debris flows/sediment	Possible/Likely	Moderate	High/Intermediate	Install water bars or clean existing water bars to divert surface water from trails.	PCT, Kelsey NRT, and Wooley Creek Trail.
Natural Resource	Native or Naturalized Plant Communities	Non-native Invasive Plant Species	Likely Very likely Likely	Major Moderate Moderate	Very High Very High High	Detection survey/concurrent pulling	Analysis split into three areas: Spotted Knapweed present in contingency line construction. See report for details.
Cultural	Arch Site	Looting	Pos/Likely	Maj/Mod	High/Intermediate	Conceal/signage	Obstruct with down logs/ rocks

#### Values at Risk Narrative:

#### Threat to Life and Private Property from Debris Flow and Flooding:

- The potential for loss or injury to human life exists for the private residences at the mouth of Grider Creek, Walker Creek and Tompkins Creek. The probability of loss is likely for Grider and Walker Creek and possible for Tompkins Creek based on the debris flow modeling. The magnitude of consequences is moderate due to the potential of damage to structures and infrastructure on the property. Therefore, the risk to human life and safety is high for Grider and Walker Creek and intermediate for Tompkins Creek. Treatments Recommended – Notify and coordinate with NRCS on private land treatments.
- The potential for loss or injury to human life exists at Grider Creek Campground. The probability of loss is likely based on the debris flow modeling. The magnitude of consequences is moderate due to the potential for injury. The risk to human life and safety is high. Treatments Recommended: communicating the risk of debris flows via signage in campground (campground is closed in the winter – but has no gate).
- There is a potential loss or damage to roads in Grider, Walker and O'Neil Creek drainages. The probability of damage or loss is likely due to the high model results and history of debris flows. The magnitude of consequence is moderate property damage leading to a high risk. Treatments Recommended – See engineering report for details on needed road treatments.
- There is potential for loss or damage to non-forest service property due to debris flows at Walker and O'Neil Creek crossings on Highway 96. The probability of damage or loss is likely due to the high probability of debris flow estimated by the model. The magnitude of consequences from human life and safety is moderate resulting in a High risk. Treatment Recommendations – Notify and coordinate with Caltrans and public on communicating risk



of debris flow at these crossings.

### **Cultural Resources**

An unevaluated historic habitation site consisting of rock foundation features, historic debris, and road features. One new feature, an associated can dump, was discovered during the site assessment on 09/21/2014. The threat to the site is an elevated risk of looting and vandalism as a result of increased visibility due to vegetation burn off. The site is easily accessible by an OHV road that extends a short distance from Hwy 96 into the site. Features of the site are now more visible from both the Hwy 96 and the OHV road through the site.

A historic cabin and footbridge site extends from the banks of Klamath River to the southwest along an unnamed drainage. State HWY 96 extends through a portion of the site along the northeast edge of site. The site consist of seven stone retaining walls with associated earthen foundation pads, three road beds, including the old county road through the site, a standing stone structure, three drainage crossings with associated stone retaining walls/spillways, a wooden footbridge, a refuse dump, foot trails, and a cat cemetery with stone incised grave markers. This site has high potential for eligibility for listing on the National Register of Historic Places because it retains a high degree of integrity and has qualities that contain information about the past that can be understood through further investigation. Threats to this site include:

An elevated risk of looting and vandalism due to increased visibility from vegetation burn off.

1. The site has increased visibility from State Hwy 96 and is easily accessible.
2. Increased potential damage to the wooden footbridge from inundation or debris flow throw the drainage that the footbridge is located within.
3. An increased risk of damage to three stone features that have burnt out trees/brush fallen on top/across them. The dead and down vegetation could further damage features as they decay and shift positions
4. An increased risk of damage to wooden footbridge from a nearby snag collapsing on the feature.

### **Forest Service Roads:**

Imminent hazards to the roads system vary from minor sloughing and culvert blockage to partial or total loss of road template. The probability of damage or loss is likely to very likely and the magnitude of consequences is moderate to major. The risks to human life and safety, Forest Service infrastructure, and Coho critical habitat is high to very high.

A discussion of the major proposed roads to be treated under BAER is attached in Appendix A.

### **Native Habitat Prone to Invasion:**

It is likely that invasive species were spread into un-infested areas and/or dormant seed banks were reactivated in this Happy Camp Complex Fire area as a result of the use of potentially contaminated equipment and the disturbance of known noxious weed sites. The consequences are moderate because spread and introduction of noxious weeds in the Happy Camp Complex area would cause damage to critical natural resource values, which would result in long term adverse effects. The resulting risk is high and treatments recommended include initial detection surveys and concurrent treatment of any small noxious weed populations located during surveys.

Key concerns:

- invasion of noxious weeds into presently un-infested Forest areas, especially the Marble Mountain Wilderness Area and the Lake Mountain Foxtail Pine Special Interest Area;
- potential introduction of new invasive species and/or spread of existing species by a variety of vectors, including equipment, sling loads, and material sources of straw and gravel into burned habitat now vulnerable;
- the effects of dozer line construction through weed infestations on private lands that may spread to Klamath National Forest lands within and adjacent to the fire footprint;
- preserving natural conditions and ecological processes by maintaining watersheds in a weed free or minimally infested condition.

**Sedimentation of Federally listed Coho Salmon Critical Habitat:**

Coho salmon critical habitat exists along 30 miles of stream in the fire area. This includes the Klamath River, the Scott River, Elk Creek, Grider Creek, Walker Creek, Tompkins Creek, And Kelsey Creek.

**B. Emergency Treatment Objectives (narrative):** The primary objective of this Burned Area Emergency Response Report is to recommend prompt actions deemed reasonable and necessary to effectively protect, reduce or minimize significant threats to human life and property and prevent unacceptable degradation of natural resources. The application of these BAER treatments would minimize on-site damages to the identified values at risk. The emergency treatments being recommended by the Happy Camp Complex BAER Team are specifically designed to achieve the following results.

The objectives of the treatments are to:

1. Protect human life and safety by signing hazards, closing roads, protecting escape routes, and reducing impacts from flooding and debris flows by treating Forest Service Roads and coordinating with NRCS.
2. Protect Forest Service investment in road infrastructure by improving road surface drainage and eliminating diversion potential by the construction of rolling dips, improving culvert inlet capacity by cleaning and installing end sections, and storm-patrol.
3. Protect habitat of federally listed Coho Salmon by treating Forest Service Roads
4. Protect ecological value of biological diversity by detecting and treating as necessary, sites where introduction of noxious weeds may have occurred in previously uninvaded sites.

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

**Land 90% Roads/Trails 90% Protection/Safety 90%**

**D. Probability of Treatment Success**

	Years after Treatment		
	1	3	5
<b>Land</b>	80	90	90
<b>Roads/Trails</b>	80	90	90
<b>Protection/Safety</b>	90	90	90

**E. Cost of No-Action (Including Loss):** \$10,500,000 damage to roads system plus potential harm to human safety and life. In reality the cost of non-treatment cannot be estimated in a dollar amount. The real cost of non-treatment can only be measured in the loss of timber production, degradation of aquatic habitat, irreplaceable cultural resources and the decrease in water quality.

**F. Cost of Selected Alternative (Including Loss):** \$3,000,000

**G. Skills Represented on Burned-Area Survey Team:**

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

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 Dave Young, Soils  
 Nikos Hunner, Soils  
 Stephanie McMorris, Range  
 John Grunbaum, Fisheries  
 Laura Shaffer, Recreation  
 Togan Capozza, Recreation

**H. Treatment Narrative:**

**Land Treatments:**

**Cultural Resources Treatments**

Block OHV/non NF system road at State Hwy. 96 to dissuade access into the site. Lop and scatter brush to conceal features that are visible from HWY 96 and the OHV road through the site. Use weed-free pine straw to conceal newly exposed can dump along OHV road.

Discourage access into the site and decrease the visibility of the site to decrease the potential for looting and vandalism. The objective is to discourage access into the site and decrease the visibility of the site to decrease the potential for looting and vandalism.

**Treatment Description:** Local boulders, which are readily available, will be placed by an excavator at the point where the OHV road intersects with State Hwy 96. A five person crew will be utilized to lop and scatter brush through the site to conceal the stone features from the highway and the OHV road through the site. The crew will also be used to scatter pine straw over the newly identified can dump feature. An archaeologist will be on site to monitor the work.

**Cultural Treatment Cost:**

<b>PERSONAL SERVICES (Grade @ Cost/Hours X # Hours X 1 day = Cost/Item), EQUIPMENT, and MISC.</b>	<b>COST/ITEM</b>
5 person crew/module (2 GS-5; 2 GS-4 @ \$62.00 x 32 hours; 1 GS-07 @ \$31.00 x 8 hours) =	\$2,232.00
*Archaeologist (GS-9) @ \$25.00 x 8 hours =	\$200.00
Mileage: 120 miles/day (two vehicles, 60 miles each) x 1 day x \$0.72/miles =	\$86.40
Excavator to place boulders =	\$1000.00
2 pine bales (1 bale covers 10'x10' area) to conceal can scatter feature) @ \$30 ea	60.00
<b>Total</b>	<b>\$3,578.40</b>

**Cabin Site:** Remove dead and down trees and brush from stone features throughout the site and remove snag near the wooden footbridge to prevent further damage to these features. Place straw waddles around wooden bridge footings that are located within the drainage to prevent damage from increased inundation/debris flows within the drainage Use weed-free pine straw to conceal exposed can dump. Lop and scatter brush to conceal features that are visible from HWY 96.

The treatment objective is to prevent wooden and stone features from being further damaged by dead and down trees collapsing on or moving and shifting on the features causing portions of the feature to be displaced. Straw waddles will help protect the wooden bridge from being damaged by inundation and debris flow. Pines bales will help conceal the can feature that is now more visible from HWY 96 due to vegetation burn off. This treatment, along with loping and scattering brush through high visibility portions of the site will help to conceal the site to prevent looting and vandalism.

**Treatment Description:** A five person crew will be utilized to remove dead and down trees threatening features, place straw waddles around wooden bridge footings, lop and scatter brush through the site to conceal the stone features, and scatter pine straw over the can dump for concealment. It is estimated that, due to the sensitive nature of this work, two days will be needed to treat the site. An archaeologist will be on site to monitor the work.

## Treatment Cost – Unit Cost

<b>PERSONAL SERVICES (Grade @ Cost/Hours X # Hours X 1 day = Cost/Item), EQUIPMENT, and MISC.</b>	<b><u>COST/ITEM</u></b>
5 person crew/module (2 GS-5; 2 GS-4 @ \$62.00 x 64 hours; 1 GS-07 @ \$31.00 x 16 hours) =	\$4464.00
*Archaeologist (GS-9) @ \$25.00 x 16 hours =	\$400.00
Mileage: 120 miles/day (two vehicles, 60 miles each per day) x 2 day x \$0.72/miles =	\$172.80
Three (3) 8" x 25' straw waddles for footbridge protection @ \$30 each	\$90.00
4 pine bales (1 bale covers 10'x10' area) to conceal can scatter feature @ \$30 each	\$120.00
<b>Total</b>	<b>\$5,246.80</b>

**Noxious Weed/Invasive Plant Detection Surveys and Treatment**

Treatments to mitigate the noxious weed emergency include initial detection surveys and concurrent treatment of any noxious weed populations located during surveys, except as mentioned above in the areas of contingency dozer line construction, where only knapweeds will be treated. Detection surveys will be conducted along completed fire lines (dozer lines), drop points, staging areas, trail systems, campgrounds, and existing roads where invasion by noxious weeds is most probable. Surveys will focus on lands adjacent to wilderness, where weeds are currently limited or non-existent, and move downslope from there, starting in 2015 during appropriate seasonal times for detection of target noxious weed/invasive plant species. Since the extent of wilderness is so vast within the fire perimeter, and there are many miles of trails that could be surveyed for introduction of weeds, the cost requested from BAER for this work is minimal, and program dollars will be used to refresh training of wilderness rangers to conduct detection surveys in the course of their regular forays into the burned areas.

All newly discovered noxious weed populations on Forest Service land will be mapped and entered into the National Resource Inventory System (NRIS) according to National protocol. Treatment will be recorded as directed by the same National protocols. Noxious weed treatment on Forest Service land will consist of hand pulling to root depth and if seed is present, plants will be bagged and properly disposed.

A-Rated species on roads and selected dozer lines on private property bordering KNF lands will be surveyed for, and treated with herbicides by a Siskiyou County Department of Agriculture Resource Protection Crew. This work clearly benefits resources on Klamath National Forest lands by preventing the spread of A-rated pests from private to Federal lands, and is addressed in FSM 2523.53, Non-Federal Lands. County herbicide treatment will be tracked and documented according to current state of California guidelines.

A map of potential treatment areas within the assessment area is available on request.

## Treatment Cost Estimate

Analysis Area	Risk	Agency	Labor	Supplies	Mileage	Project Adm.	Total
Wilderness	Very High	Forest Service	\$7,000.00		\$375.00	\$500.00	\$7,875.00
Non-wilderness	High	Forest Service	\$8,765.00	\$300.00	\$1,000.00	\$1,090.00	\$11,155.00
Contingency	Very High	Forest Service	\$2,415.00		\$500.00		\$2,915.00
County Ag			\$1,959.00	\$500.00	Contributed by County	\$982.00	\$3,441.00
<b>Totals</b>			<b>\$20,139</b>	<b>\$800</b>	<b>\$1,875</b>	<b>\$2,572</b>	<b>\$25,386.00</b>

**Roads Treatments:** (See Attached BAER Survey Specialist Report)

- A. Treatment(s) will vary from replacement of traffic/warning signs to constructing strategically placed rolling dips. In some locations, minor to intermediate road reconstruction is recommended. There is no anticipated need for relocation of roads or major reconstruction efforts. Specific treatment details for each road are noted in Appendix 1.
- B. To stabilize the transportation system roads and prevent further damage resulting from:
  1. Erosion and other effects of storm water runoff as a result of fire damage on adjacent lands.
  2. Traffic on the roads.
- C. Public Safety Hazards as a result of facilities or structures damaged or destroyed.
- D. Treatment Cost. See Appendix 1
- E. All roads with a Risk Assessment of Intermediate, High, or Very High are considered to have a significant hazard risk from falling trees. It is expected that this risk will remain for several years or until the trees are specifically removed through a Hazard Trees Timber Sale or other program.

Miles of Road by Maintenance Level	
Level 1	81 mile
Level 2	201 miles
Level 3	71 miles
Level 4	0.6 miles





Photo showing debris from burned and collapsed bridge on the 15N02 road over EF Elk Creek.

### **Trail Treatments**

Trail work addressing areas with potential for trail collapse due to burned out roots and logs beneath the tread and erosion control measures will be implemented by a force account trail crew and a Student Conservation Association Trail Crew. The implementation of the work will take place as soon as practical. The Pacific Crest Trail and Kelsey NRT would be prioritized over other trails for completion in the fall. The cost of this trail work is **\$34,640**.

Removing the burned trail bridge debris from Grider Creek would be accomplished with a California Conservation Corps Crew. The implementation of this project would occur as soon as practical before winter. The cost is **\$27,642**.

### **Protection/Safety Treatments**

:

Purchasing and installing hazard warning signs at trailheads that enter the burned area and at Grider Creek Campground could be implemented almost immediately. This would help warn users of the possible dangers they may encounter along the trails or in the campground during the closed season. This treatment is practical and technically feasible. Hazard warning signs (17 signs): **\$1,347**



## I. Monitoring Narrative: None requested at this time

## Part VI –Emergency Stabilization Treatments and Source of Funds

Line Items	Units	Unit Cost	NFS Lands		Other \$	Other Lands				All Total \$
			# of Units	BAER \$		# of units	Fed \$	# of Units	Non Fed \$	
<b>A. Land Treatments</b>										
Weeds Detection Survey	Each	\$25,386	1	\$25,386	\$0		\$0		\$0	\$25,386
Protect Cultural Sites	Each	\$8,825.00	1	\$8,825			\$0	\$0.00	0	\$8,825
<i>Insert new items above this line!</i>										
<b>Subtotal Land Treatments</b>				<b>\$34,211</b>	<b>\$0</b>		<b>\$0</b>		<b>\$0</b>	<b>\$34,211</b>
<b>B. Road and Trails</b>										
Initial Road Request	Each	\$ 500,000	1	\$500,000	\$0		\$0		\$0	\$500,000
Trail Treatments	Each	\$ 62,282	1	\$62,282			\$0		\$0	\$62,282
Interim #1 Road Request	Each	\$ 1,532,800	1	\$1,532,800						\$1,532,800
<i>Insert new items above this line!</i>										
<b>Subtotal Road &amp; Trails</b>				<b>\$2,095,082</b>	<b>\$0</b>		<b>\$0</b>		<b>\$0</b>	<b>\$2,095,082</b>
<b>C. Protection/Safety</b>										
Hazard Warning Signs	Each	\$ 1,347	1	\$1,347						\$1,347
	Each	\$ -		\$0	\$0					\$0
<b>Subtotal Protection/Safety</b>				<b>\$1,347</b>	<b>\$0</b>		<b>\$0</b>		<b>\$0</b>	<b>\$1,347</b>
<b>E. BAER Evaluation</b>										
	Each	80000	1	\$80,000	\$0		\$0		\$0	\$80,000
<i>Insert new items above this line!</i>										
<b>Subtotal Evaluation</b>				<b>---</b>	<b>\$0</b>		<b>\$0</b>		<b>\$0</b>	<b>---</b>
<b>G. Totals</b>				<b>\$2,130,640</b>						<b>\$2,130,640</b>
Previously approved				<b>\$500,000</b>						
Total for this request				<b>\$1,630,640</b>						<b>\$2,130,640</b>

PART VII - APPROVALS

1. Patti A. Grant  
Forest Supervisor (Klamath NF) (signature)

10.1.14  
Patti  
Date

2. Barnie T. Bryant  
R5 Regional Forester (signature)

10/7/14  
Date

