

Date of Report: August 18, 2017

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 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: Minerva Fire B. Fire Number: CA-PNF-1043
C. State: California D. County: Plumas
E. Region: 05 F. Forest: Plumas and Lassen
G. District: Mount Hough (PNF) H. Fire Incident Job Code: P5G32E
I. Date Fire Started: July 29, 2017 J. Date Fire Contained: Aug 17, 2017
K. Suppression Cost: \$19,500,000 (as of Aug 12, 2017)
L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): As of Sept 16: Dozer line, 23 miles; Hand line, 6 miles
2. Fireline seeded (miles): 0
3. Other (identify): 0
M. Watershed Number: 180201220804 (Mill Creek-Spanish), 180201220802 (Rock Creek)
N. Total Acres Burned: 4,444
NFS Acres: 4,362 State (0) Private Acres: 82
O. Vegetation Types: Sierra mixed conifer consisting of White fir - Douglas fir forest alliance and Ponderosa pine forest alliance. Red fir is present above 6000 ft. The shrub layer is dominated by

ceanothus species such as deer brush, whitethorn, and tobacco brush. Several varieties of manzanita are also present.

P. Dominant Soils: Skalan-Deadwood-Kistirn; Kistirn-Aiken Deadwood; and Inville-Woodsey Family Complexes (loam, sandy loam, and sandy-clay loam textures)

Q. Geologic Types: Primarily the Shoofly Formation (shale and schist); isolated pockets of extrusive Warner Formation (basalt)

R. Miles of Stream Channels by Order or Class within fire perimeter:

Ephemeral: 31 Intermittent: 7 Perennial: 9 Total: 47

S. Transportation System

Roads (National Forest System): 30 miles Roads (NFS, County, Private): 0 miles

Trails (motorized): 1 miles Trails (non-motorized): 0 miles

PART III - WATERSHED CONDITION

(see attached spreadsheet)

A. Burn Severity (acres): 1646 (unburned/very low) 1569 (low) 858 (moderate) 371 (high)
37% (unburned/very low) 35% (low) 20% (moderate) 8% (high)

B. Water-Repellent Soil (acres): 800

C. Soil Erosion Hazard Rating (acres):
530 (low) 3,528 (moderate) 354 (high)) 0 (very high)

D. Erosion Potential: roughly 7X increase over unburned condition tons/acre

E. Sediment Potential, Mill Cr and Gansner Cr: 21.5, 7.0 (respectively, for 10-yr storm) tons/acre

PART IV - HYDROLOGIC DESIGN FACTORS

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

B. Design Chance of Success, (percent): 80

C. Equivalent Design Recurrence Interval, (years): 10

D. Design Storm Duration, (hours): 6

E. Design Storm Magnitude, (inches): 2.96

F. Design Flow, Mill Cr and Gansner Cr, (ft³/ s/ mile²): 102, 133 (respectively)

G. Estimated Reduction in Infiltration, (percent):

H. Adjusted Design Flow, Mill Cr and Gansner Cr, (ft³/ s/ mile²): 126, 170 (respectively)

PART V - SUMMARY OF ANALYSIS

Description of Post-Fire Watershed Condition.

The Minerva Fire burned a total of 4,444 acres, with the hottest fire occurring on steep, rocky side slopes and ridges. The majority of the burned area is located in the Mill Creek basin, with the entire West and Middle Branches of Mill Creek being within the fire perimeter. The confluence of these two branches of Mill Creek is located just one mile upstream of the community of East Quincy, CA. The fire also burned within one mile of the community of Quincy, CA with that town experiencing a short-term voluntary evacuation notice on August 4-5. Upper slopes of the Gansner Creek basin were burned, resulting in potential for increased runoff flows in this stream that flows under Bucks Creek Road near Plumas District Hospital, just west of downtown Quincy. The extreme upper end of the East Branch Rock Creek basin burned the most intensely of these basins, although fortunately this is the most remote of the basins and no communities are located in the immediate vicinity of that stream.

Just 28% of the fire area burned at moderate or high severity. Watershed response in these areas is expected to be significant, with increased runoff and potential for debris flows expected over the next one to three runoff seasons due to reduced ground cover, duff storage, and infiltration capacity. Most areas of high and moderate severity occur in relatively small patches that are buffered by low severity or unburned areas downhill, reducing the potential watershed response at points lower in the burned basins. The highest concentration of high and moderate soil burn severity is located at the ridgetop that divides the upper Gansner Creek and East Branch Rock Creek basins. Substantial areas of moderate and high soil burn severity also exist on the upper eastern flanks of the West and Middle Branches of Mill Creek, although, unlike the divide along Gansner and East Branch Rock, moderate intensity burn represents the majority of these concentrated burned areas within Mill Creek basin.

The remaining three-quarters of the fire area burned mostly as a mosaic pattern of low intensity fire with just over one-third of the fire area appearing to be unburned or very low fire intensity. Burned Area Reflectance Classification (BARC) satellite imagery was used to initially estimate burn intensity, with the BARC estimations verified and adjusted as a result of a visual aerial survey by the BAER team's soil scientist, hydrologist, and team leader.

Soil burn severity was further investigated on the ground within a sample set of moderate and high burn severity areas. Ninety percent of the moderate and high soil burn severity sites visited demonstrated fairly strong hydrophobicity at a depth of one-half to three-quarter inch below the soil surface. Approximately 800 acres of the Minerva Fire are expected to exhibit water repellent soils. The pronounced hydrophobicity observed near the surface of these areas indicate that a significant threat of increased runoff exists with the fire's relatively isolated areas of moderate and high soil burn severity. However, the majority of riparian vegetation associated with intermittent and perennial streams did not completely burn and is expected to provide an effective buffer for some of the anticipated upland soil erosion. Also, much of the moderate burn severity areas hold good potential for needle cast ground cover from burned trees, which will help to protect against soil erosion during the coming winter and spring.

Stream basins in the Minerva Fire area are very steep with little in the way of floodplains, meadows, and other low gradient areas to attenuate flood events and debris flows. However, the Mill Creek basin does hold a half-mile reach of lower gradient stream as the stream leaves the mountains, prior to reaching structures in East Quincy. Gansner Creek also has an alluvial fan feature just upstream of Bucks Lake Road.

Plumas National Forest lands support five threatened or endangered plant species, but none of these species are known to occur within or downstream of the fire area. Streams in the Minerva Fire are recognized as being suitable habitat for the endangered Sierra Nevada Yellow Legged Frog (SNYLF). The nearest detections of SNYLF from past surveys are located as close as 1.5 miles from the fire area, along South Fork Rock Creek and its tributaries. However, these detection locations are upstream of the confluence of this stream with its burned tributary (East Branch Rock Creek) and would be unaffected by watershed response from the Minerva Fire area. Prior to the Minerva Fire, East Branch Rock Creek had not been surveyed for SNYLF. On August 16-17, the Minerva Fire BAER performed a survey of reaches and tributaries of East Branch Rock Creek that would be most affected by runoff from moderate or high burn severity. No detections of SNYLF were observed during these surveys.

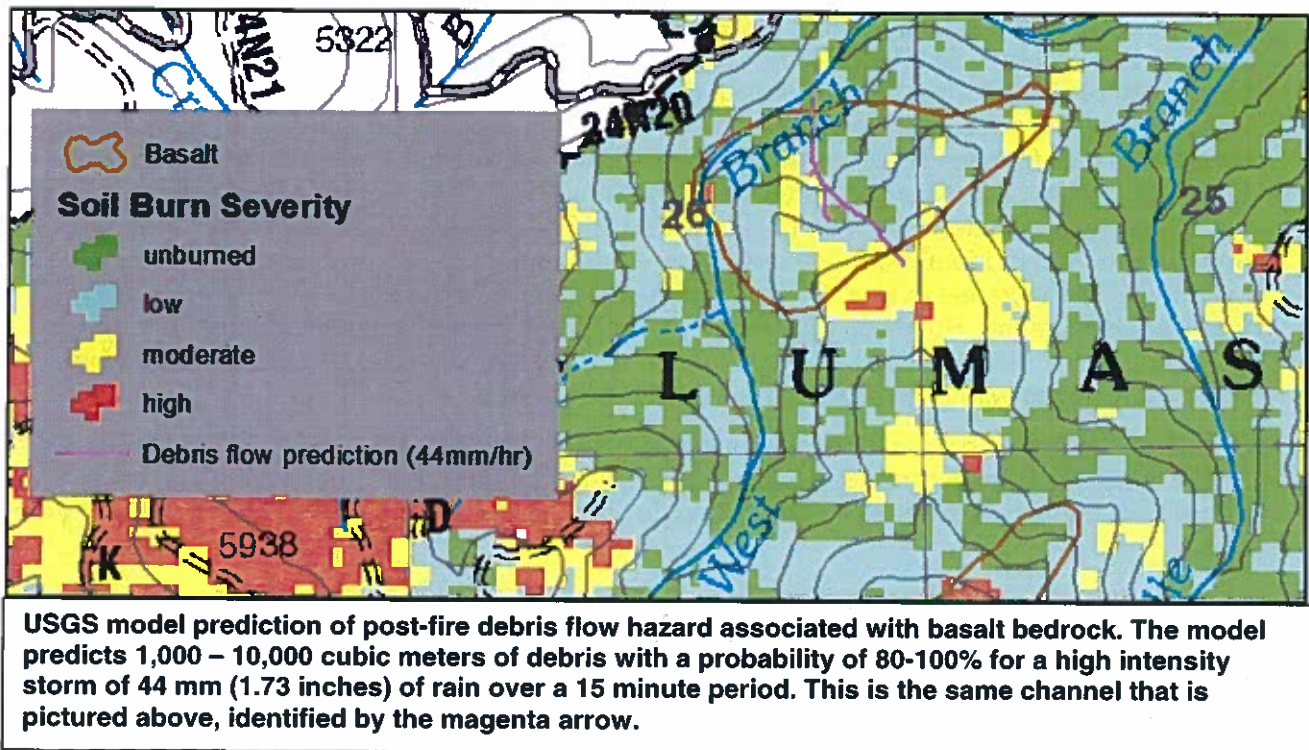
Debris flows with large quantities of boulders, cobble, sediment, and large wood material most often occur during exceptionally high precipitation and streamflow events. Rain on snow events are commonplace in the burned watersheds of the Minerva Fire. The north face of Claremont ridge, which is >6,900 feet elevation, often holds snow through late spring. Some extremely steep slopes in the upper watershed areas have little established vegetation and can act as the starting zone for narrow avalanche tracks. In time, these tracks are eventually dominated by alder thickets where soil, slope, and moisture conditions are conducive to supporting vegetation.

Some historic mass wasting (debris flow) is evident within the fire perimeter, primarily in the headwaters of Mill Creek beneath East Claremont peak. During the 2016-2017 winter, a sizeable debris flow (approximately 1,000 feet long) occurred along the eastern flank of the West Branch of Mill Creek (see photo below) – likely in response to the 9 inches of rain that fell during a 6 day period in early February. It appears that this erosional event is associated with one of the three relatively small (~100 acre) basalt formations present within the fire. This debris flow entered the stream approximately one mile upstream of its confluence with Middle Branch Mill Creek at a point approximately 2 miles upstream of homes in East Quincy.



Pre-fire debris flow from the winter of 2016-2017 (blue arrow) in West Branch Mill Creek basin. USGS debris flow modeled high-risk channel is identified with the magenta arrow. The magenta channel is displayed in the map below.

The United State Geological Service (USGS) provides preliminary assessment of post-fire debris flow hazard using empirical models to estimate the likelihood and volume of debris flows for selected basins in response to a design storm. The models are based upon historical debris-flow occurrence and magnitude data, rainfall storm conditions, terrain and soils information, and field-validated estimates of soil burn severity. Debris-flow likelihood and volume are estimated for each basin outlet as well as along the upstream drainage networks. For this Minerva Fire BAER assessment, the USGS model identified several stream reaches that are potentially at risk of debris flow following an intense rainstorm. Most, if not all, identified stream reaches are immediately downslope of high soil burn severity areas. Refer to figures below for one example of the USGS assessment. This particular prediction is based on 44 mm (1.73 inches) of rain over a 15 minute period. The model predicts 1,000 – 10,000 cubic meters of debris with a probability of 80-100% along a line roughly parallel to the debris flow scar that occurred over this past winter.



For the Minerva Fire, stream crossings along roads below areas of moderate and high burn severity are particularly at increased risk from rolling rock, plugged culverts, and debris flows. Measures to address debris flow and rock fall hazards from burned areas include: notifying the public of these hazards through warning signs and road closures; clearing and improvement of culvert inlets and inside road ditches; maintenance and up-grade of drainage structures; and the construction of rolling dips in critical locations along National Forest Service System roads and trails. Extra vigilance is recommended for those living or working near Mill Creek or Gansner Creek during storm events over the next 2-3 years. Debris flow occurrences could impact homes, residential streets, and California Highway 70 in the vicinity of these streams due to large quantities of sediment, rock, and wood that could deposit in these streams, particularly at road / stream crossing structures and for homes located near the stream floodplains.

A. Describe Critical Values/Resources and Threats:

Human Life / Safety:

- There is a potential for roadside hazard trees and rock fall along the roads within and along the fire perimeter. The threat is to life and safety of road users, obstruction of roadway drainage courses, and denial of access until roads can be cleared.
- There is a small risk to human life should a large debris torrent cause massive flooding at homes located near the floodplains of Mill Creek and Gansner Creek. However, stream deposition of material derived from such debris flows would initially occur at flatter channel locations upstream of Quincy and East Quincy, so flood waters would increase at a gradual rate that would provide time for homeowners to recognize and respond to the threat

Property:

- National Forest System (NFS) road infrastructure represents a significant government investment and asset. There are 30 miles of NFS roads within and along the Minerva Fire perimeter, all of which are either Level II or Level III. The value of the road system varies depending on road designs, maintenance and service levels, with the estimated value of the existing road system being \$50,000 to \$250,000 per mile. Until vegetation is reestablished, during high precipitation events the lack of ground cover combined with hydrophobicity of the soils in the areas of moderate and high soil burn severity is expected to result in increased and more flashy runoff; down slope movement of fine ash and sediment; plugging of culvert inlets due to woody debris from burned areas; and possible debris flow. For the Minerva Fire, 9.7 miles of NFS roads are located within and below areas of moderate and high burn severity. In the areas of light and moderate burn severity, some brush remains with ground cover partially consumed. The increase in runoff in these locations will be far lower but transport of woody debris could increase. Roadway ditches, overside drains, natural drainage culverts and cross drains are at risk of losing their drainage function and diverting water onto the roadway when becoming clogged with debris during post burn storm events.
- As described above, homes and residential roads/streets near Mill Creek and Gansner Creek could experience damage from large amounts of sediment and debris deposition that could block the channel, causing the creek to flow through portions of the communities of East Quincy and Quincy.
- Telecommunication facilities at Claremont Peak are not threatened by increased watershed response from the burned area since these structures are located at the very top of the burned basins.

Natural Resources:

- Many non-native plants are found in California wildlands, but some are much more invasive and noxious than others. Invasive weeds are very effective at occupying disturbed soil and displacing native plants and habitat. If any weeds were introduced, they would likely take advantage of the disturbance associated with the fire and displace native vegetation, degrade habitat function and lower ecosystem stability. According to past USFS project surveys, no invasive noxious weed species are known to occur within the Minerva Fire perimeter, although much of the fire area has not been surveyed and other portions have not had recent surveys. During fire suppression activities, 9 drop points, 3 safety zones, 6 miles of hand lines and approximately 23 miles of dozer lines were constructed or reestablished during fire suppression activities. In addition, there are approximately 62 miles of roads within or utilized to access the fire which could also serve to disperse weed seeds. Movement of fire suppression and rehab equipment can disperse and spread noxious weeds to and from areas within the fire and among home units. Roadsides and dozer lines would be most impacted by this threat. Forest Service policy requires washing of all equipment mobilizing onto wildfires to prevent the introduction of noxious weeds into the burned area during suppression activities. Dozers and excavators were inspected and deemed adequately clean. A washing station was made available for all fire suppression vehicles, however was not always utilized due to the urgent need to mobilize resources to the fireline.

Additionally, crews working on the fire were brought in from other areas known to have other potential non-native invasive weed problems. During the BAER team field surveys, fire camp, access roads, and drop points were observed. Three LIST-C noxious weed species were observed. Yellow starthistle (*Centaurea solstitialis*) was detected at the incident command post. Saint John's wort (*Hypericum perforatum*) and bull thistle (*Cirsium vulgare*) were detected along access routes and drop points. Other existing weed populations could have been present, but complete surveys could not be conducted within the fire area.

Cultural Resources:

- For this BAER assessment, an office review of existing records of USFS archaeological sites within and downstream of the burned area indicated that none of these sites were likely at risk due to increased watershed response. One site, located downslope of a burned hillside within a small, seasonally wet meadow feature was investigated in the field. The soil structure and vegetation within this meadow was intact and minimally impacted by the fire (the meadow appeared to be unburned) so it is highly unlikely that the site would be damage by rilling and sedimentation that may occur on the burned hillside.

Emergency Determination

The risk matrix below, Exhibit 2 of current national Forest Service Manual 2523 (Directive No. 2520-2017-1), was used to evaluate the Risk Level for each critical value identified during the BAER assessment. Resultant risk determinations of high and very high constitute an emergency to critical values due to the burned area.

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

Human Life / Safety Risk Assessment:

- Hazard Trees and rock fall along NFS roads

The probability of hazard trees falling along NFS roads and impacting Forest visitors, contractors, or employees is possible. The potential consequence if trees were to strike travelers in these areas is major. The risk of this threat is high.

- Flooding in residential communities downstream of the burned area

The probability of substantial increased flooding at residences, businesses, and streets downstream of the burned area, relative to the natural degree of flooding that has occurred during past high precipitation events prior to the fire, is very unlikely due to the small areal proportion of high and moderate burn severity within the Mill Creek and Gansner Creek basins (See Hydrology Specialist Report for Minerva BAER assessment). For the 4,100 acre Mill Creek watershed above East Quincy, only 16% burned at high (4%) or moderate (12%) soil burn severity. For the Gansner Creek watershed above Bucks Lake Road, only 14% burned at high (7%) or moderate (7%) soil burn severity. For a 10-year storm event, stream flow in Mill Creek and Gansner Creek

is modeled to increase approximately 24% and 28% (respectively) due to the effects of burned areas in these basins. Only a very minor portion of Boyle Ravine above downtown Quincy burned at moderate or high severity (1.4% of the Boyle watershed area) so elevated flows or sediment delivery are not expected in that watershed.

The probability of increased debris flow potential that would cause flooding in these areas, beyond the probability of similar debris flows blocking these streams prior to the fire, is possible (see summary of USGS model results above). However, the likelihood that this flooding would threaten human life is very low since debris material would likely accumulate at several locations within the lower gradient channels above East Quincy and Bucks Lake Road (rather than all debris material depositing within the communities). Gradual rise of flood waters would provide a substantial warning period for people to remove themselves from harm's way. Flood waters from debris flow deposits near Quincy and East Quincy would spread out across floodplains and not reach sufficient depth to carry away vehicles. The potential consequence if people on foot or in vehicles were caught up in deep, fast moving flood waters is major. The risk of this threat is intermediate.

Property Risk Assessment:

- **Forest Service System roads**

The probability of increased streamflow, debris, and sediment causing loss of drainage function on NFS roads and causing significant erosion of the road infrastructure is likely. The magnitude of property damage is moderate to substantial. The risk of this threat is high to very high.

- **Flooding in residential communities downstream of the burned area**

The probability of debris flow deposition (sediment, rock, and large wood pieces) that would cause flooding of structures within these communities is possible, particularly at locations where Mill Creek and Gansner Creek cross under area roads and at natural deposition locations in these channels (relatively flatter and wider channel segments). The potential consequence of these impacts is moderate, since damage is expected to be localized and repairable. The risk of this threat is intermediate. Extra vigilance is recommended for those owning property near Mill Creek or Gansner Creek during storm events over the next 2-3 years.

Natural Resources Risk Assessment:

- **Native or naturalized plant communities**

There is a very likely probability of spread and introduction of invasive noxious weeds into areas disturbed by fire. Damage to these plant communities would be considerable and long-term. The risk of this threat is very high.

Cultural and Heritage Resources Risk Assessment:

- **Cultural resource site**

For the one known cultural resource site determined to possibly be at risk within or downstream of the burned area, there is an unlikely probability that increased runoff, erosion, flooding, or debris flow produced by the fire would damage the site. If it were to occur, damage to the site would be minor since it is well-vegetated and apparently unburned. The risk of this threat is very low.

B. Emergency Treatment Objectives

Per the national BAER Forest Service Manual risk matrix shown above, emergency situations are determined for a risk (combined probability and magnitude of consequence) of high or very high. Treatment strategies are prescribed to address these emergency situations. Treatment strategies for intermediate risks may be prescribed depending upon local circumstances.

Treatment strategies are described below. Treatments to protect investments in NFS road infrastructure are installing new or maintaining existing road drainage facilities to control runoff and debris and prevent substantial erosion damage to the road prisms. Treatment objectives also include protecting human life and safety by providing strategically-placed warning signs at NFS roads for hazard tree and rock fall threats. Native and naturalized plant communities are to be protected by inspecting disturbed areas for newly established noxious and invasive weed occurrences and treating these infestations by hand or, where permissible, chemically. Since resources are available to implement treatments this fall, the probability of completing treatments prior to the first major damage-producing storm is predicted to be 100%, with a small caveat for road treatments due to the usual uncertainties of finding available implementation staff and contractors.

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

Land n/a % Channel n/a % Roads/Trails 90 % Other n/a %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land (plant communities)	80	90	90
Channel	n/a		
Roads	80	90	90
Trails	n/a		
Other	n/a		

E. Cost of No-Action (Including Loss): \$1,000,000

F. Cost of Selected Alternative (Including Loss): \$94,450

G. Skills Represented on Burned-Area Survey Team:

<input checked="" type="checkbox"/> Hydrology	<input checked="" type="checkbox"/> Soils	<input type="checkbox"/> Geology	<input 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 type="checkbox"/> Archaeology
<input type="checkbox"/> Fisheries	<input type="checkbox"/> Recreation	<input type="checkbox"/> Landscape Arch	<input type="checkbox"/> GIS

Team Leader

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Core BAER Team Members

Craig Kusener, Road Engineer, Plumas NF
 Lynee Crawford, Botanist, Plumas NF
 Kelby Gardiner, Soil Specialist, Plumas NF
 Kurt Sable, Hydrologist, Plumas NF

BAER Team Trainees

Danny Hopkins, Road Engineer, Plumas NF
 Alicia Goodman, Range Spec (Botany), Plumas NF
 David Hamilton, Wildlife Tech, Plumas NF

H. Treatment Narrative:

Human Health Protection/Safety Treatments:

- To alert visitors and USFS personnel of hazard tree dangers along roads, install warning signs at strategic locations where the NFS road system enters the burned area and at the termini of heavily frequented NFS roads within the burned area
- Inform Plumas County of the moderate increase in potential for flooding due to debris flows in Mill Creek and Gansner Creek, which could impact property in East Quincy and the area west of downtown Quincy. Where applicable, refer these property owners to USDA-NRCS for possible emergency protection programs.

Item	Unit	Unit Cost	# of Units	Cost
Purchase and install Road Warning Signs for Hazard Trees and Rock Fall	Sign (incl labor)	\$400	6	\$2,400

Property Protection Treatments:

NFS Roads Treatments: Road treatments would be performed on 9.7 miles of three NFS roads (24N26, 24N21, and 24N26D) within and immediately downstream of moderate and high burn severity areas. Treatments include installation of water control features (rolling dips) to protect the road surface and prevent wash-out of the road prism by adequately dispersing the increased runoff from burned areas. Most of these dips would be armored with small riprap. Stream crossing treatments include flared culvert metal end sections to funnel debris through existing culverts inlets. Where topography and road grade is appropriate, existing undersized culverts at ephemeral stream crossings would be replaced with rock ford crossings. Relief dips at stream crossings are a highly cost-effective measure to protect the road from washing out if the stream crossing culvert plugs. Road repair was performed post-fire on roads within the burn. Roads were graded, but drainage function was not fully restored and drain inlets/outlets were not all sufficiently cleaned. BAER treatments would restore drainage function that was not addressed by the suppression repair team. See the BAER Engineer's specialist report for specific road treatments.

Road Treatment	Unit	# of Units	Unit Cost	Cost
Restore Road Drainage Function	mile	9.4	\$100	\$ 9,400.00
Relief Dip at Culvert Crossings	each	15	\$2,000	\$ 30,000.00
Reconstruct Existing Rolling Dip (armor where necessary)	each	15	\$1,160	\$ 17,400.00
Construct New Rolling Dip (armor where necessary)	each	6	\$2,000	\$ 12,000.00
Low Water Crossing (ford) (dispose of one replaced CMP)	each	2	\$2,750	\$ 5,500.00
Metal End Section 48"	each	1	\$3,300	\$ 3,300.00
Metal End Section 54"	each	1	\$4,300	\$ 4,300.00
Metal End Section 56"	each	1	\$4,500	\$ 4,500.00
		TOTAL		\$ 86,400.00

Natural Resource / Land Treatments: Detect new infestations of noxious and invasive weeds while small enough to effectively eradicate and prevent the long-term establishment of new infestations. Hand treat infestations that are found. Chemical treatment is permissible at certain administrative sites.

Item	Unit	Unit Cost	# of Units	Cost
GS-11 Botanist	day	\$400	5	\$2,000
GS-7 Bio Technician	day	\$200	10	\$2,000
GS-5 Bio Technician	day	\$140	10	\$1,400
Mileage	mile	\$0.50	500	\$250
Total Cost for FY2018				\$5,650

Part VI – Emergency Stabilization Treatments and Source of Funds

NFS Lands				
Line Items	Unit	Average Unit Cost	# of Units	BAER Funds
A. Lands Treatments				
Weed detection survey and treatment	one season (2018)	\$5,650	1	\$5,650
<i>Subtotal Land Treatments</i>				\$5,650
B. Channel Treatments NONE				
<i>Subtotal Channel Treatments</i>				\$0
C. Roads and Trails				
Road drainage maintenance and treatments	Mile	\$3,880	10	\$38,800
Stream crossing treatments	Crossing	\$2,380	20	\$47,600
<i>Subtotal Roads and Trails</i>				\$86,400
D. Protection and Safety				
Hazard warning signs	Each	\$400	6	\$2,400
<i>Subtotal Protection and Safety</i>				\$2,400
E. BAER Assessment				
Assessment Team	Each	\$16,000	1	\$16,000
<i>Subtotal Assessment</i>				\$16,000
F. Monitoring				
	Total			
<i>Subtotal Monitoring</i>				
G. Totals				
Previously Approved				n/a
Totals for this Request				\$94,450

PART VII - APPROVALS

/s/ Daniel Lovato _____
Forest Supervisor (signature)


Regional Forester (signature)

August 21, 2017 _____
Date

9/1/17
Date