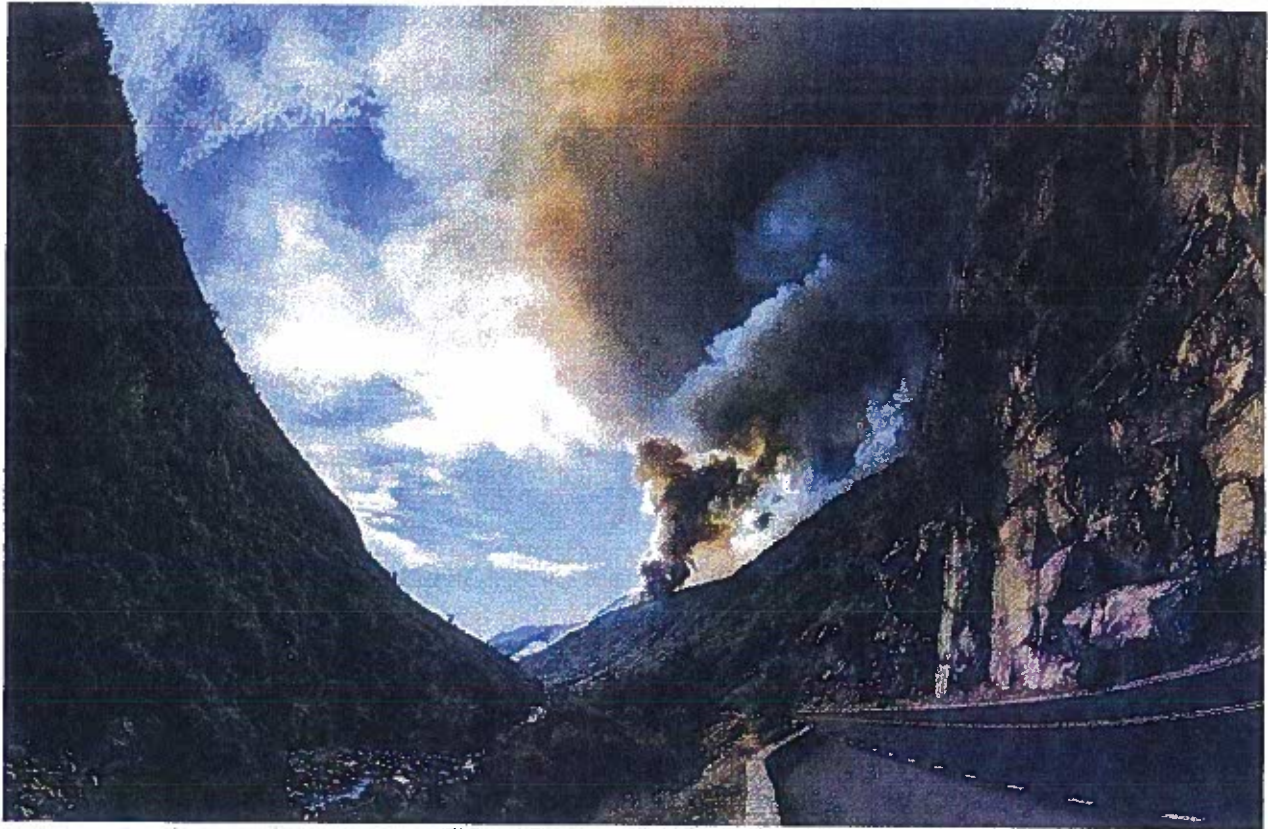


BURNED-AREA REPORT
(Reference FSH 2509.13)



(El Portal Fire, looking down Merced River)

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** **Interim report #1 Items are in Bold and in Red Font**
 - ☒ 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: El Portal Fire B. Fire Number: CA-YNP-0083
- C. State: CA D. County: Mariposa County
- E. Region: 5 F. Forest: Stanislaus National Forest
- G. District: Groveland District H. Fire Incident Job Code: PPH9MF
- I. Date Fire Started: Saturday July 26th, 2014 J. Date Fire Contained: August 6, 2014
- K. Suppression Cost: Approximately \$10 million as of August 8, 2014
- L. Fire Suppression Damages Repaired with Suppression Funds
- Fireline waterbarred: 12.3 miles of Forest Service Dozerline
 - Fireline seeded (miles): None
 - Other (identify): None
- M. Watershed Number: HUC 6 Watersheds: 180400080306 Crane Creek-Merced River; 180400080305 Indian Creek-Merced River; 180400080307 Moss Creek-Merced River
- N. Total Acres Burned: Total 4,729 NFS Acres (3,575) Other Federal – YNP (1133) State (0) Private (20)

O. Vegetation Types: Interior Live Oak woodland in the drainages, Chamise and Mixed Chaparral on the upper slopes, and Mixed Conifer on the upper slopes.

P. Dominant Soils:

Table 1: The following soil map units comprise approximately 90% of the burned area in the El Portal Fire.

| Soil Map Unit | Soil Name | Acres | Soil Texture | Rock Content | Vegetation Type | Hydrologic Soil Group |
|---------------|-------------------------------------------------|--------|--------------|--------------|-----------------|-----------------------|
| 170 | Lithic Xerumbrepts - Fiddletown, 35-70% Slope | 1330.1 | Loamy sand | 40 | Chaparral & Oak | B |
| 174 | Lithic Xerumbrepts - Rock outcrop, 35-70% Slope | 746.6 | Loamy sand | 40 | Chaparral & Oak | D |
| 298 | Tuolumne, 30-65% Slope | 688.0 | Sandy loam | 15 | Forest | B |
| 128 | Holland - Fiddletown, 10-35% Slope | 642.5 | Loam | 15 | Forest | B |
| 290 | Humic Dystroxerepts | 373.1 | Loamy sand | 30 | Chaparral & Oak | B |
| 296 | Ultic Palexeralfs | 333.1 | Loam | 15 | Forest | B |
| 328 | Clarks lodge, 15-45% Slope | 320.4 | Sandy loam | 15 | Forest | B |

Q. Geologic Types: The geology of the fire area includes igneous intrusive and metamorphic rocks. These rocks include the Granite of El Capitan, Bass Lake Tonalite, Pilot Ridge Quartzite, and Pilot Ridge Quartzite and Schist

R. Miles of Stream Channels by Order or Class:

Perennial 6.9 miles Intermittent 5.2 miles Ephemeral 76.7 miles

S. Transportation System

Trails: 0 miles
Roads: 14 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres) by ownership_Table 2:

| Soil Burn Severity | PRIVATE | STANISLAUS NF | YOSEMITE NP | Total |
|--------------------|---------|---------------|-------------|-------|
| High | 0.5 | 579 | 78 | 657 |
| Moderate | 14 | 1767 | 618 | 2399 |
| Low | 5 | 835 | 331 | 1171 |
| Unburned | 0.5 | 396 | 106 | 502 |
| Grand Total | 20 | 3577 | 1133 | 4729 |

PART III - WATERSHED CONDITION

B. Hydrophobic Soils: 1,500 acres.

Hydrophobic soil conditions were common within moderate and high burn severity areas and rare in low burn severity areas. Hydrophobic strength was often moderate in the top 2 inches, and rarely stronger. Hydrophobic conditions (strong enough to affect infiltration and runoff) are expected to exist in approximately 30% of the fire area, or ~1,500 acres.

C. Soil Erosion Hazard Rating:

In order to assess the potential risk of sheet and rill erosion on a given soil, an erosion hazard rating (EHR) system was used to assess soils on the El Portal fire (R-5 FSH 2505.22). The EHR system predicts erosion hazard based on soil texture, depth, infiltration, amount of rock fragments, surface cover (vegetative and surface rocks), slope gradient, and climate. Risk ratings vary from low to very high. These ratings can change in the post-fire setting as a result of changes in amounts of vegetation cover, infiltration, and soil stability after the fire.

Table 3: Change in Erosion Hazard Rating as a result of the fire.

| Erosion Hazard Rating | Pre Fire | | Post Fire | |
|-----------------------|----------|-----------|-----------|-----------|
| | Acres | Percent % | Acres | Percent % |
| Low | 2147.5 | 45% | 292.6 | 6% |
| Moderate | 2535.1 | 54% | 737.5 | 16% |
| High | 44.7 | 1% | 1835.9 | 39% |
| Very High | 0.0 | 0% | 1861.3 | 39% |

D. Erosion Potential: Erosion and Sediment Potential is assumed to be similar in burned landscapes dominated by steep slopes and is discussed below in Section E.

E. Sediment Potential:

The Erosion Risk Management Tool or ERMIT (Robichaud et.al., 2006; Robichaud, 2007), was used to model both pre and post fire sedimentation. In areas with moderate and high burn severity, erosion potential was generally increased above natural conditions. Sedimentation was modeled with 2, 5, and 10 year runoff events.

Table 4: Sediment Potential

| Watershed Name | Area Burned (Acres) | Pre Fire | Two Year Event | | 5 Year Event | | 10 Year Event | |
|---------------------------|---------------------|------------|----------------|-------------|--------------|-------------|---------------|--------------|
| | | Tons/Acre | Tons/Ac | X Increase | Tons/Ac | X Increase | Tons/Ac | X Increase |
| Crane Creek @ Hwy 140 | 4260 | 0.6 | 8.6 | 13.5 | 27.8 | 43.6 | 47.1 | 73.9 |
| Little Crane Creek Bridge | 3003 | 0.7 | 8.3 | 12.6 | 25.8 | 39.4 | 45.8 | 70.0 |
| Crane Trib @ Foresta Rd | 128 | 0.1 | 8.5 | 74.8 | 31.9 | 281.4 | 49.3 | 434.0 |
| Water Tank Drainage | 33 | 0.4 | 8.8 | 23.5 | 32.4 | 86.9 | 54.8 | 146.9 |
| Buckeye Rd Drainage | 16 | 0.3 | 7.8 | 22.8 | 30.0 | 88.0 | 50.2 | 147.0 |
| Whole Fire | 4729 | 0.6 | 8.7 | 18.9 | 28.0 | 61.9 | 47.3 | 102.0 |

F. Debris Flow Potential: Debris flow potential has been exacerbated as a result of the fire.

PART IV - HYDROLOGIC DESIGN FACTORS

- A. Estimated Vegetative Recovery Period, (years): **5 – 7**
- B. Design Chance of Success, (percent): **80**
- C. Equivalent Design Recurrence Interval, (years): **2**
- D. Design Storm Duration, (hours): **6**
- E. Design Storm Magnitude, (inches): **1.74**
- F. Design Flow, (cubic feet / second/ square mile): **16**
- G. Estimated Reduction in Infiltration, (percent): **25**
- H. Adjusted Design Flow, (cfs per square mile): **45**

PART V - SUMMARY OF ANALYSIS

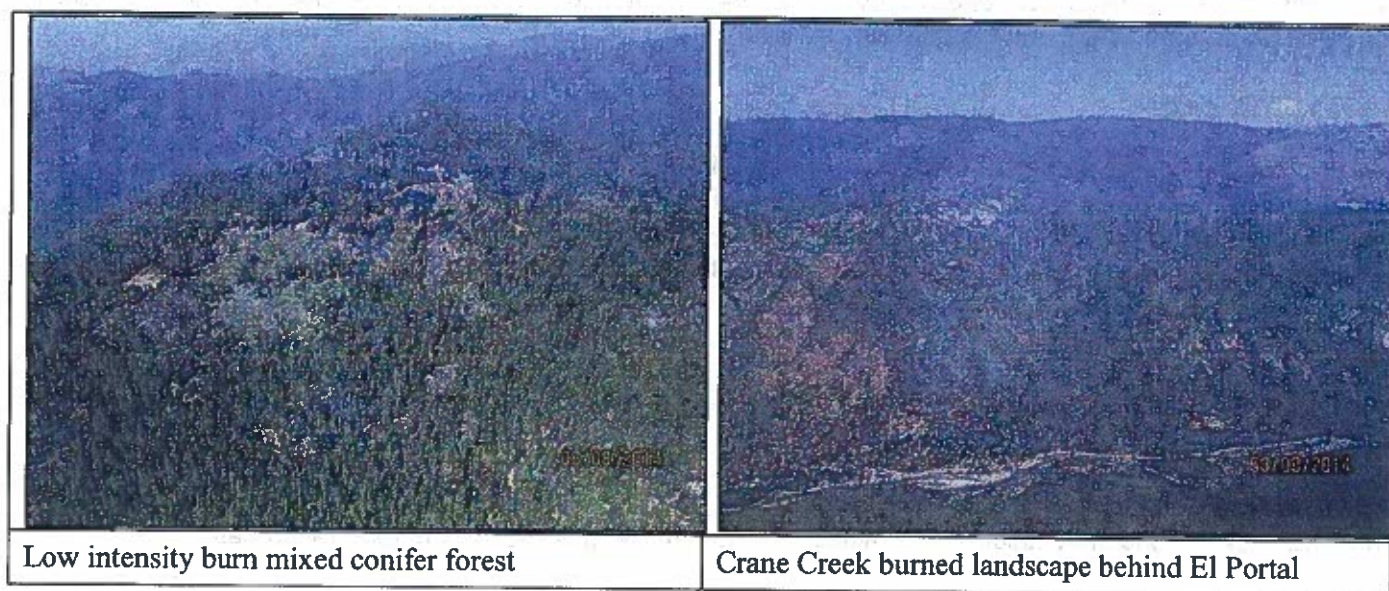
A. Describe Critical Values/Resources and Threats:

The EI Portal Fire started July 26, 2014 at approximately 2:30 pm above the town of EI Portal along Hwy 140, along the Merced River. The fire quickly spread from a burning EI Portal home to adjacent hillside on the Stanislaus National Forest. It quickly spread up Crane Creek growing to a size of 4,729 acres.

- This fire is located primarily in Little Crane Creek watershed, much of which is very steep, rugged terrain making access difficult. Rock outcrop formations are common on steep terrain above EI Portal. Soils are fairly well-structured to loose granitic, and have associated bedrock and large boulder component. The climate is semiarid overall and precipitation in the fire area is moderate, averaging 38 inches per year at EI Portal. Rainfall occurs mostly during the winter months with the exception of summer convective storms when the potential for intense and localized rainfall can occur. Vegetation consists of Chamise, Manzanita, and Scrub Oak on south-facing slopes to Black Oak and Manzanita with mixed conifer at higher elevations.

The fire burn severity was mostly low to moderate overall with some large patches of high severity (14% high, 51% moderate, 25% low). Appendix A shows a map of *Soil Burn Severity*.

Forested areas in the upper watershed burned in the Arch Rock Fire in 1990 and re-burned with mixed severity in the EI Portal Fire. Areas that were lower elevations that were a mix of chaparral and Interior Live Oak burned hotter with complete mortality that burned hot leaving a bleak ashen landscape (see pics below). It is important to note that threats to life, property, and natural resources from flooding and debris flows exist.



Watershed Response

Hydrologic Response: The EI Portal Fire has been analyzed by watersheds or pour points at five different locations in or downstream of the fire area. Watersheds are various sizes and shapes and are dependent on the analysis of the desired outlet or pour point above a value at risk or area of concern. All of these watersheds are expected to have significant increases in post fire water or sediment yield. This is due to the fact that most of the EI Portal Fire had moderate burn severity. As a result, values at risk are expected to be at an increased risk from post fire flooding or sedimentation.

Modeling estimates of post-fire peak flow increases ranged from 60% (Crane Creek at Highway 140) to 230% at the house in the drainage near the water tank. The water and sediment yield modeling assumes an average or design storm event. Larger rain events do have the potential to increase the risk of flooding and sedimentation. Table 5 models a 2 year average event.

Table 5: Modeled pre- and post-fire peak flows for pour-point watersheds

| Watershed | Watershed Acres | % of Watershed Burned | Pre-Fire Peak-flow (cfs) | Post-Fire Peakflow (cfs) | Peakflow Increase (percent) | Peakflow Increase (times) |
|-----------------------------------------|-----------------|-----------------------|--------------------------|--------------------------|-----------------------------|---------------------------|
| Water Tank Drainage | 33 | 100 | 2 | 6 | 230 | 3.3 |
| Buckeye Road Drainage | 18 | 91 | 1 | 3 | 181 | 2.8 |
| Crane Creek at Hwy 140 | 11296 | 38 | 265 | 423 | 60 | 1.6 |
| Little Crane Creek at Foresta Rd Bridge | 3245 | 93 | 85 | 216 | 155 | 2.5 |
| Crane Ck Tributary at Foresta Road | 128 | 100 | 5 | 17 | 275 | 3.8 |

Erosion Response: Due to low soil cover and steep slopes, the initial erosion and sedimentation hazard is high or very high on 78% of the fire area (Table 3). However, in this fire-adapted ecosystem some post-fire erosion is expected, and hillslope treatments are largely impractical or ineffective where average slopes are >50%.

Sediment levels are *most pronounced for the 5 and 10-year storm events* as shown in Table 4, raising concerns for Foresta Road, and structures in EI Portal.

Geologic Response:

The fire resulted in high and moderate burn severity on some of the steepest slopes in the fire area above old EI Portal. Some of slopes and drainages are prone to debris flows and rock fall. Appendix B shows hazard areas that are identified with the aid of USGS Debris Flow Modeling. Areas shown as having moderate or high potential for debris flows with houses or infrastructure below are of concern. Two houses in the community of EI Portal could be threatened by debris flows set off by a significant storm.

The Foresta Road (2S84) is located within a watershed with steep slopes and several channel crossings. The channel crossings have the potential to pass debris flows and there are several sections along the road with high and moderate rock fall hazard.

Values at Risk Protocol

The BAER team looked at critical BAER values, i.e., human life, property and natural resources:

- **Human life and safety** on or in close proximity to burned NFS lands.
- Buildings, water systems, utility systems, road and trail prisms, dams, wells or other significant **investments** on or in close proximity to the burned NFS lands.
- **Water** used for municipal, domestic, hydropower, or agricultural supply or waters with special state or federal designations on or in close proximity to the burned NFS lands.
- **Soil productivity and hydrologic function** on burned NFS lands.
- Critical habitat or suitable occupied habitat for **federally listed threatened or endangered terrestrial, aquatic animal or plant species** on or in close proximity to the burned NFS lands.

- Native or naturalized communities on NFS lands where *invasive species* are absent or present in only minor amounts.
- **Cultural** resources on NFS lands which are listed on or potentially eligible for the National Register of Historic Places.

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. Treatments are generally recommended where the risks are high or very high.

| 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 |

Appendix F summarizes the level of risk and possible treatments for sites that were field reviewed. The *likely party responsible for treatment* is also given. See narrative description below for why areas were rated as high risk.

A. Threats to Critical Values

Life and Safety:

1. Two houses in old EI Portal were identified as being at risk because they are located directly within ephemeral stream drainages. One house is in the drainage near the water tank and the other house is in the drainage above Buckeye Road. Both houses experienced flooding, mud and debris flows during a storm in March 1991 after the Arch Rock Fire burned the watershed in August 1990 (DeGraff 1991). Mud and debris were deposited against the houses in depths up to 1 foot but no serious damage to either house was reported. Based on field investigations and modeling of expected post-fire peak flows, there is a high risk to human life and property for the two houses in the drainages in EI Portal, and, therefore, an emergency exists.

Several other houses in old EI Portal at the base of a burned hillslope were identified as being at risk of nuisance sedimentation that could result from erosion on the hillslope.

2. Yosemite National Park expressed concern over the possibility of the Highway 140 bridge at Crane Creek being impacted by increased post-fire floods. Modeling and field evaluation indicated that the Highway 140 bridge at Crane Creek may be at low risk of impacts (from a 2 year storm event) due to the modest increase in estimated post-fire flows and the adequate hydraulic capacity of the bridge. However, Cal Trans has responsibility for this bridge and will therefore determine if an emergency exists related to post-fire runoff.

3. Life and safety of Forest visitors and personnel entering certain areas of the burn are likely and pose a moderate to major risk, due to hazard trees and rock fall along roads. Rock fall and debris flow hazards are indeed elevated on the Foresta Road.

Property:

1. Roads: There is a likelihood that post burn conditions will increase runoff and the movement of sediment into drainage features, such as culvert inlets, overside drains, roadway dips and run outs, this occurrence causes drainage function to fail and uncontrolled water to divert, resulting in a moderate risk of damage to the invested road improvements, loss of road function and the denial of access.

Road 1S12 located at the northern edge of the fire traverse for about two miles through a moderate to high severity burned watershed. Routine maintenance of drainage features along this road segment have been deferred creating a likely risk of some road drainage function failing due to the increased flow of water and sediment moving into culvert inlets, ditch lines, roadway dips and run-outs.

2. Cultural Resource: Some 30 (16 NPS, 14 USFS) were identified for focused BAER assessments.

Archeologists observed potential destabilization to two sites from stump holes that had burned out and large trees that had been killed by the fire and might fall, disturbing features. Three archeological sites in and around the Old EI Portal community were identified as potentially vulnerable (low debris flow hazard). In addition, many archaeological sites, both historic and prehistoric, throughout the fire perimeter are now more vulnerable to unauthorized collection (less likely with proposal for closure and law enforcement patrol). Three historic roads (structures) were assessed. No historic features were identified as vulnerable.

One potential Traditional Cultural Property, near Eagle Peak was within the fire perimeter. Consultation with tribal partners will identify any impacts and needed treatments. Two sites have been identified as having values at risk from hazard trees and the potential of deflation from stump holes.

Natural Resources:

1. Soil Resource: Soil loss will likely be above background levels for 3 years or more. Erosion rates as modeled by the 2 year event are unlikely to result in loss of soil productivity.

2. Water Quality and Water Use: EI Portal water for local domestic and fire use is supplied by wells. The community of Mariposa relies on a water intake on the Merced River approximately 10 miles downstream from the fire. Post-fire sediment is expected to largely disperse or deposit within six to ten miles from the fire.

The most noticeable effects of post fire effects on water quality would be increased sediment and ash from the burned area into drainages and water bodies in and downstream of the fire area. During storm events this will increase turbidity and contribute to some pool filling.

Due to the moderate burn severity overall, water quality and quantity are expected to be moderately affected as a result of the EI Portal Fire (see Hydrology Specialist Report, BAER Assessment Project File). Merced River is a municipal water source for downriver water users and turbidity will be increased for short periods. Lake McClure is 60-70 miles away and size of burn in relation to whole source area for reservoir is small.

3. Botany: There are no known federally listed threatened and endangered plant species in the burn area. See botany report for discussion of sensitive plants.

4. Invasive Weeds - Ecosystem Health and Integrity: There is an emergency for ecosystem health and integrity due to the likely introduction and expansion of noxious weeds within and adjacent to the fire area. Heavy equipment was not cleaned prior to coming to the National Forests during suppression activities until seven days into the suppression effort. Additionally, dozers operated within or through areas known to contain yellow star-thistle and tocalote. Ecosystem integrity is at a high risk of being diminished as a result of new weed introductions and weed spread through rapid colonization and competition with native species.

5. Aquatics and Wildlife: Three federally listed species (Sierra Nevada yellow-legged frog, valley elderberry longhorn beetle, Pacific fisher), seven R5 sensitive species (bald eagle, willow flycatcher, northern goshawk, California spotted owl, American marten, great gray owl, western pond turtle), and a high public interest species (resident trout) were considered during this analysis. Values at risk were considered low and minor for all species and no treatments are proposed beyond those already considered under hydrology, soils, roads, and noxious weeds treatment proposals.

B. Emergency Treatment Objectives

As noted above, threats to life, property, and natural resources from increased rockfall potential, debris flows, flooding, establishment of invasive weeds, and compromising heritage sites exist as a result of the EI Portal Fire. For these reasons the primary treatment objectives are to minimize loss of life and risk to human safety, property, and minimize continued degradation of heritage sites.

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

Land 90 % Channel na % Roads/Trails 90 % Protection/Safety 80 %

D. Probability of Treatment Success

| | 1 | 3 | 5 |
|-------------------|-----|-----|-----|
| Land | 90% | 60% | 40% |
| Channel | n/a | n/a | n/a |
| Roads | 90% | 90% | 90% |
| Protection/Safety | 80% | 70% | 60% |

E. Cost of No-Action (Including Loss): See Appendix G: Summary of cost-risk analysis.

F. Cost of Selected Alternative (Including Loss): See Appendix G: Summary of cost-risk analysis.

G. Skills Represented on Burned-Area Survey Team:

| | | | | |
|-----------------------------------------------|----------------------------------------------|---------------------------------------------|-------------------------------------------------|---------------------------------------------------|
| <input checked="" type="checkbox"/> Hydrology | <input checked="" type="checkbox"/> Soils | <input checked="" type="checkbox"/> Geology | <input type="checkbox"/> Range | <input type="checkbox"/> Public Information |
| <input checked="" type="checkbox"/> Forestry | <input checked="" type="checkbox"/> Wildlife | <input type="checkbox"/> Fire Mgmt. | <input checked="" type="checkbox"/> Engineering | <input type="checkbox"/> Inter-agency coordinator |
| <input type="checkbox"/> Contracting | <input type="checkbox"/> Ecology | <input checked="" type="checkbox"/> Botany | <input checked="" type="checkbox"/> Archaeology | <input type="checkbox"/> NRCS |
| <input checked="" type="checkbox"/> Fisheries | <input type="checkbox"/> Research | <input type="checkbox"/> Landscape Arch | <input checked="" type="checkbox"/> GIS | |

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 Melinda Benton – Wildlife
 Rusty LeBlanc – Roads Engineer
 Jun Kinoshita – NPS Heritage
 Amber Mitchum – Heritage
 Tom Fuller – Heritage
 Brain Mattos – NPS Forestry
 Nelson Siefkin – NPS BAER Coordinator

H. Treatment Narrative

Based on the significant watershed response, the BAER Assessment team determined that residences below the fire area were at increased risk as a result of the EI Portal Fire and treatments are recommended although not finalized. Forest roads within the fire area are subject to washouts and will be storm-proofed to protect

road bed and associated infrastructure. A fire area closure on FS lands is considered to protect various resources including human life. Any closure treatment will be in cooperation with YNP, Forest Service and Mariposa County.

Appendix C is the treatment map showing the type and location of proposed treatments. The proposed treatments on National Forest System lands can help to reduce the impacts of the fire, but treatments will not completely mitigate the effects of the fire

Treatments to Mitigate the Emergency

Protection and Safety Treatments The following potential treatments are proposed by the EI Portal BAER team to mitigate risk to critical values within YNP lands. The estimate of cost for the following treatment items 1 through 5 below is **\$58,000** (may be low depending on geotechnical design work):

1. Temporary Closure of Foresta Road inside fire area (County Road 121 / 2S84 on map)

- This should be a seasonal closure. Close the two existing gates (recommendation to Mariposa County road department) and install 2 signs on FS lands advising of temporary closure and warning of rock fall and debris flow hazards when road is opened. **Re-evaluate need for closure after winter season.**
- Treatment objective is to limit exposure of people to the hazards along the Foresta Road.
- Treatment cost is \$2,000 for sign install by FS.

2. Warn and notify residents of hazard in two houses in EI Portal. YNP takes lead in writing a letter of warning to inform home owners of potential flooding and debris flow hazard. The following structural treatments are recommended as possible site protection measures, all of which would be implemented on YNP land. Forest Service BAER typically would not fund treatment on private or other Federal lands.

House in drainage near water tank on Foresta Road

- The existing gabion dam debris basin adjacent to the upper water tank should be initially cleaned out and then subsequently monitored and cleaned out after storms as needed.
- Sand bags or other type of barrier should be used to raise the height of the existing retaining wall/levee to better protect the house from flooding and debris. The structure would be designed in consultation with a geotechnical engineer.

House in drainage on Buckeye Road:

- A debris basin and/or deflection barrier may be possible to install at the mouth of the drainage behind the house on Buckeye Road. The structure should be designed to slow the momentum of debris or mud flow before it reaches the house, have the capacity to provide some storage of fine sediment/larger debris, and redirect flows around the house. The structure could consist of a gabion dam, k-rails, or some other type of temporary or permanent structure. The structure should be designed in consultation with a geotechnical engineer.
- The burned hillslopes in the drainage adjacent to the house should be mulched with weed free straw or wood straw (preferred in windy conditions) to provide soil ground cover in order to reduce sheet and rill erosion.

3. An Early Alert Warning System consisting of a warning from the National Weather Service (NWS) of pending storms, the National Park Service (NPS) and the residents in the two houses. National Weather Service takes the lead on the early alert system. The standard stream gages instrumentation and feedback loop is expensive (approximately \$24,000 for installation and \$10,000 for maintenance of the equipment). **Suggest a meeting of YPS, Forest Service, NWS and NRCS to see where this goes?**

- *Road drainage improvement on lower Foresta Road in Old El Portal*

Where Foresta Road crosses the drainage flowing down to the house on Buckeye Road, there is potential for flows to divert onto Foresta Road and continue all the way to the lower water tank. The paved section of Foresta Road from the upper water tank access road down to the lower water tank should have sections of the outside berm removed to allow runoff to disperse onto the hillslope in the event of stream diversion. Rock dissipators and straw bales should be installed where runoff leaves the road at berm breaches to dissipate runoff on the hillslope. In addition, a rock armored dip should be installed where the drainage crosses the road to reduce the potential for stream diversion (Buckeye drainage).

- *Hillslope mulching*

The burned hillslope at origin of fire above houses in old El Portal (hairpin turn of Foresta Road) should be mulched with weed free straw or wood straw (preferred in windy conditions) to provide soil ground cover in order to reduce sheet and rill erosion.

Land Treatments

Botany and Cultural resources are determined to be at high risk and have proposed treatments.

The soil, aquatic and wildlife resources are determined to be at low or intermediate risk and no treatment is prescribed (natural recovery).

Natural Recovery: Vegetation in the chaparral and oak woodland will respond quickly and restore substantial cover in the first year. Grass and forbs are expected to provide significant cover in oak woodland in the first year. The oaks and chamise will respond to fire by re-sprouting from the base. The Mariposa Manzanita is non-sprouting, but fire stimulates Mariposa Manzanita seeds stored in the soil to germinate. In the ponderosa pine forest at the top of the watershed, bear clover was a significant component in the understory, and will begin regrowth almost immediately.

Forest Road Treatments : See Table 6 for treatment prescription and costs. Treatments are restoring drainage function and storm patrol; 2 gates to replace those in poor condition; and appropriate signing for hazards or closure. Treatment map in Appendix C shows location of gates and signing. Note 2 new gates are proposed on YNP lands. No new gates are proposed on Forest Service lands.

Interim #1

The prescribed treatments for roads are designed to help preserve infrastructure while protecting the integrity of the National Forest system roads. Road treatments are designed to minimize damage caused by hazard trees, increased runoff and sediment transport across steep slopes, blowouts/roadway failures and erosion from drainage channels. Road treatments include: clean out culverts, ditches, lead outs, and re-grade roadway removing berms, and out-sloping where possible to handle increased flood flows and sediment transport caused by burn area. Installation of the prescribed road treatment will help to mitigate potential risk and further road damage. Roads treatments were evaluated by a BAER Roads Engineer for increased post fire runoff.

Additionally initial 2500-8 costs did not cover hazard tree removal, contract preparation, or contract administration cost. Total cost for the 2 miles of roads treatment to include hazard tree removal, contract services, contract preparation and administration is \$15,500. That is an additional cost of \$7,500.

Roads Treatment

| Item | unit cost | unit | total units | Total item cost |
|----------------------------------------------------|-----------|----------|-------------|-----------------|
| Roads Engineer - Contract Prep/Contract Admin | \$300 | /day | 15 | \$4,500 |
| Sawyer | \$300 | /day | 2 | \$600 |
| Swamper | \$250 | /day | 2 | \$500 |
| Contract Cost (Government Estimate: \$9500-\$8500) | \$9,500 | /unit | 1 | \$9,500 |
| Vehicle mileage | \$0.50 | /mileage | 800 | \$400 |
| Total Cost of Treatment | | | | \$15,500 |
| Remaining Balance: | | | | (-\$7,500) |

*Roads Contract was reviewed to ensure least cost effective techniques were utilized.

Botany Invasive Weeds Treatment: Treatment consists of weed detection and hand eradication on 12.3 miles of Forest Service dozer line @ \$800 per mile, and on 6.7 miles of handline @ \$150 per mile. Request rounded is \$11,000.

- Conduct two detection surveys along dozer lines, some hand line segments and dozed roadsides in 2015: once in early May to detect tocalote (which is identifiable one month before yellow star-thistle) and other early season noxious weeds, and again in mid-June to detect yellow star-thistle and later season noxious weeds. Hand pull or dig all noxious weeds found. Bag and properly dispose of seed heads. Map and document survey findings.

Interim #1

Land treatments for invasives were evaluated on the EI Portal Fire. The Implementation Team conducted a further refinement of invasives treatments. Based on expected production rates of the field crews and geographic locations of the various dozerlines and handlines it is expected that 2 GS-05s can conduct EDRR (Early Detection Rapid Response) Surveys and Treatment at a production rate of 3 miles per day for dozerlines and 3.4 miles per day for handlines. The Implementation Team recommended that the re-allocation of surplus funds in line item invasives dozerline treatment be utilized to cover the increased cost identified in invasives handline. No additional funds are being requested for this treatment at this time.

| Invasives (Dozerline only) | | | | |
|-----------------------------------------------|-----------|----------|-------------|-----------------|
| Item | unit cost | unit | total units | Total item cost |
| GS-09 Botanist (1) | \$350 | /day | 4 | \$1,400 |
| GS-05 Seasonals (2) - Dozerlines (12.3 miles) | \$450 | /day | 8 | \$3,600 |
| Vehicle mileage | \$0.50 | /mileage | 800 | \$400 |
| Data Entry Time for 2 GS-05s | \$450 | /day | 5 | \$2,250 |
| Total Cost of Treatment | | | | \$7,650 |
| Remaining Balance: | | | | \$2,190 |

*Dozerline EDRR rate is estimated @ 3 miles per day for two visits. Remaining balance from Dozerline to be used for increased cost for Invasives Handlines.

| Invasives (Handlines) | | | | |
|---------------------------------------------|-----------|----------|-------------|-----------------|
| Item | unit cost | unit | total units | Total item cost |
| GS-09 Botanist (1) | \$350 | /day | 1 | \$350 |
| GS-05 Seasonals (2) - Handlines (6.7 miles) | \$450 | /day | 4 | \$1,800 |
| Vehicle mileage | \$0.50 | /mileage | 350 | \$175 |
| Data Entry Time for 2 GS-05s | \$450 | /day | 2 | \$900 |

Total Cost of Treatment**\$3,225****Remaining Balance:****(-\$2,220)**

*Handline EDRR rate is estimated @ 3.4 miles per day for two visits.

Treatment also consists of treating approximately 25 acres of Drew Meadow used for the ICP (included in request above).

- Conduct two detection surveys in ICP area of Drew Meadow in 2015: once in early May to detect tocalote (which is identifiable one month before yellow star-thistle) and other early season noxious weeds, and again in mid-June to detect yellow star-thistle and later season noxious weeds. Hand pull or dig all noxious weeds found. Bag and properly dispose of seed heads. Map and document survey findings.

Interim #1

Land treatments for invasives were evaluated on the EI Portal Fire. The Implementation Team identified that Drew Meadow is private. Therefore invasives treatments are the responsibility of the private land owner. The Implementation Team recommended that the surplus in line item invasives dozerline/drew meadow treatment be utilized to cover the increased cost identified in invasives handline. No additional funds are being requested for this treatment at this time.

Stabilize Cultural Site

There are 29 cultural resource sites within the burned area. Of the 14 cultural resources assessed, two are within areas where increased runoff, erosion, flooding, and hazard trees pose a significant threat. The treatment recommendation is for removal of hazard trees that have the potential to fall and crush features and stabilize two features from deflated burnt stump holes. This treatment is needed to mitigate the potential loss of scientific values. The Implementation Team conducted a further refinement of stabilization of cultural sites. Further investigation from the Implementation Team concluded that two sites were identified for treatment rather than one. Additionally initial 2500-8 costs did not cover labor for the hand repair work or a saw team for the removal of hazard trees. Total cost for the stabilization of 2 cultural sites to include labor is \$2,400. That is an additional cost of \$1,400.

Cultural Site Stabilization (2 Sites)

| Item | unit cost | unit | total units | Total item cost |
|---------------------------------------|-----------|----------|-------------|-------------------|
| GS-09 Archeologist and Soil Scientist | \$300 | /day | 4 | \$1,200 |
| Sawyer | \$300 | /day | 1 | \$300 |
| Swamper/Ach Tech (2 GS-05s) | \$200 | /day | 4 | \$800 |
| Vehicle mileage | \$0.50 | /mileage | 200 | \$100 |
| Total Cost of Treatment | | | | \$2,400 |
| Remaining Balance: | | | | (-\$1,400) |

Interagency Coordination/Implementation Lead: Interagency coordination with YNP, CalTrans, PG&E, Mariposa County Public Works, and NRCS is recommended to facilitate discussions to help coordinate and insure treatments are integrated, appropriate, and conducted in a timely manner to get treatments on the ground, including. When to re-open roads such as the Foresta Road could take some field time for proper assessment, so there is a monitoring component. The facilitation may include: phone calls, meetings, and field trips to the affected areas. Funding is requested for 12 days of GS11 @ \$350 per day or \$4,200.

Table 6: Treatment Summary with Costs

| EI Portal BAER Treatments | | | | | |
|----------------------------------------------------------|--------------|-------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Value at Risk | VAR Rating | Treatment | Units | Treatment Prescription | Cost Estimate |
| Yosemite NPS | | | | | |
| Protection & Safety Pvt houses on NPS - EI Portal | very high | debris basins and point protection | 2 ea | \$12,000 for clean out of NPS debris basin with storm patrol (6 ea cleanouts after storms using NPS equipment). \$38,000 for deflection barrier construction via. per design by engineering geotech specialist for houses at Buckeye and water tank drainages. | \$50,000 |
| Protection & Safety Pvt houses on NPS - EI Portal | high | hillslope mulching and road drainage | 8 ea | Handmulch slopes @ origin of fire (using YNPS EI Portal firecrew) @2tons/ac and breach road berm at regular intervals with rocked outlets and strawbale dispirators. | \$8,000 |
| Botany NPS | high | Invasive weed detection & treatment | 7.2 Miles | Weed detection on dozer lines in the spring to see if invasive weeds have been brought into the site by unwashed dozers used for supression @ \$1,200/mile | \$5,760 |
| | | | | Yosemite NPS Costs | \$63,760 |
| Stanislaus NF | | | | | |
| Protection & Safety Community of EI Portal | very high | NOAA early warning announcement | 2 ea | NOAA warning announcement on pending storm potential for debris flows with possible evacuations for homes at risk and installation by USGS of 2 ppt gages systems in the Crane Creek watershed via. permit from the FS. | \$250 |
| Protection & Safety County Foresta Road (on FS lands) | very high | Temporary road closure for public safety | 2 ea | Swing gates closed (2ea) at each end of forest service boundary and install burned area warning signs. | \$2,000 |
| Protection & Safety Forest Closure on FS lands | high | closure order with signs at gate locations | 6ea | At appropriate gate locations 4 large signs with plastic sawhorses, and forest closure order. 2 replacement gates @2000 per gate | \$6,000 |
| Forest Roads | high | culvert and ditch cleanouts and reestablish rolling-dips | 2 miles | Culvert and ditch cleanout with rolling-dips to allow water to pass roads without eroding road and road prism. Hazard tree adbatement for operators along with storm patrol to protect roads during winter months | \$8,000 |
| Cultural FS | high | Fill stump holes and fell snags and fill stump hole on edge of structure platform feature | 1 ea | Removal of hazard trees to prevent damage archaeological site AND Hand repair by heritage personal to damage using local materials.Hand repair by heritage personal to damage using local materials. | \$1,000 |
| Wildlife | low | none | N/A | none | \$0 |
| Aquatics | low | natural recovery | N/A | none | \$0 |
| Soils | intermediate | natural recovery | 1 ea | Natural recovery since treatment ground per watershed is too steep to make a difference in sediment reduction | \$0 |
| Botany FS | high | invasive weed detection & Treatment | 19 Miles | Weed detection and rapid response on 12.3 miles of FS dozer lines and 6.7 miles of handline. Drew Meadow site used as ICP is included | \$10,845 |
| Implementation Team Leader or Coordinator | other | to lead the effort in implementing all proposed treatments | 1 | Insures that cooperative agreements are in place for all work and all FS treatments are completed and appropriate. | \$4,200 |
| | | | | Stanislaus NF - Costs | \$32,295 |
| | | | | Cost so far..... | \$96,055 |

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.)

This report is an initial funding request based on a rapid assessment. If additional treatment needs are identified through more site specific on the ground investigation in cooperation with interested agencies, and noxious weed detection surveys, interim requests for additional funding will be filed. These funding requests will identify the purpose for each treatment, and specific treatment specifications, locations, and number of each treatment.

Interim #1

EI Portal BAER Treatment Effectiveness Monitoring Plan is proposed (detailed plan enclosed) to determine if objectives are being met or whether re-treatment/maintenance is needed. Monitoring of the land treatments, road and trail treatments, and protection/safety treatments would occur. First Year Total Effectiveness Monitoring Cost is \$15,265. Invasives, storm patrol for roads, and extended emergency coordination cost were identified in the initial 2500-8. Additional cost needed to address treatment effectiveness monitoring for the heritage and closure and warning sign treatments within the EI Portal Fire perimeter is \$2,090.

Part VI – Emergency Stabilization Treatments and Source of Funds

| | | | NFS Lands | | | | Other Lands | | | All |
|------------------------------------------|---------|--------------|---------------|----------|-------------|---------------|----------------|---------------|---------------|-------------|
| Line Items | Units | Unit Cost | # of Units | BAER \$ | Other \$ | # of units | Fed \$ | # of Units | Non Fed \$ | Total \$ |
| A. Land Treatments | | | | | | | | | | |
| Invasive weeds, dozer & Drew mdw | mi | 800 | 12.3 | \$9,840 | \$0 | 7.2 | \$5,760 | | \$0 | \$15,600 |
| Stabilize cultural site | ea | 1200 | 2 | \$2,400 | \$0 | | \$0 | | \$0 | \$2,400 |
| Invasive, handline | mi | 150 | 6.7 | \$1,005 | \$0 | | \$0 | | \$0 | \$1,005 |
| Insert new items above this line! | | | | \$0 | \$0 | | \$0 | | \$0 | \$0 |
| Subtotal Land Treatments | | | | \$13,245 | \$0 | | \$5,760 | | \$0 | \$19,005 |
| B. Channel Treatments | | | | | | | | | | |
| Debrisbasin cleanout YNP | ea | 2000 | | \$0 | \$0 | 6 | \$12,000 | | \$0 | \$12,000 |
| | | | | \$0 | \$0 | | \$0 | | \$0 | \$0 |
| | | | | \$0 | \$0 | | \$0 | | \$0 | \$0 |
| Insert new items above this line! | | | | \$0 | \$0 | | \$0 | | \$0 | \$0 |
| Subtotal Channel Treat. | | | | \$0 | \$0 | | \$12,000 | | \$0 | \$12,000 |
| C. Road and Trails | | | | | | | | | | |
| Closure/infor signs | ea | 857.14 | 7 | \$6,000 | \$0 | | \$0 | | \$0 | \$6,000 |
| Storm patrol | mi | 750 | 2 | \$1,500 | \$0 | | \$0 | | \$0 | \$1,500 |
| Restore drainage & remove tree hazards | mi | 7750 | 2 | \$15,500 | | | \$0 | | \$0 | \$15,500 |
| Replacement gates FS | ea | 2000 | 2 | \$4,000 | | | | | | |
| YNP gates | ea | 2000 | | | | 2 | \$4,000 | | | \$4,000 |
| Insert new items above this line! | | | | \$0 | \$0 | | \$0 | | \$0 | \$0 |
| Subtotal Road & Trails | | | | \$27,000 | \$0 | | \$4,000 | | \$0 | \$27,000 |
| D. Protection/Safety | | | | | | | | | | |
| House protection per geotech | project | 38000 | | \$0 | \$0 | 1 | \$38,000 | | \$0 | \$38,000 |
| Hillslope mulching & road treatments YNP | project | 8000 | | \$0 | \$0 | 1 | \$8,000 | | \$0 | \$8,000 |
| | | | | \$0 | \$0 | | \$0 | | \$0 | \$0 |
| Insert new items above this line! | | | | \$0 | \$0 | | \$0 | | \$0 | \$0 |
| Subtotal Structures | | | | \$0 | \$0 | | \$46,000 | | \$0 | \$46,000 |
| E. BAER Evaluation | | | | | | | | | | |
| Salary and travel | project | 38,245 | 1 | \$38,245 | | | \$0 | | \$0 | \$0 |
| Coordination Lead | days | 350 | 12 | \$4,200 | | | | | | \$4,200 |
| Insert new items above this line! | | | | --- | \$0 | | \$0 | | \$0 | \$0 |
| Subtotal Evaluation | | | | \$4,200 | \$0 | | \$0 | | \$0 | \$4,200 |
| F. Monitoring | | | | | | | | | | |
| Treatment Effectiveness | unit | 2090 | 1 | \$2,090 | \$0 | | \$0 | | \$0 | \$2,090 |
| Insert new items above this line! | | | | \$0 | \$0 | | \$0 | | \$0 | \$0 |
| Subtotal Monitoring | | | | \$2,090 | \$0 | | \$0 | | \$0 | \$2,090 |
| G. Totals | | | | | | | | | | |
| Previously approved | | | | \$35,545 | | | | | | |
| Total for this request | | | | \$10,990 | | | | | | |

Total approved in Initial Request \$ 35,545

Total requested in Interim # 1 \$10,990

Approved in Interim #1

Increase for cultural sites \$1400

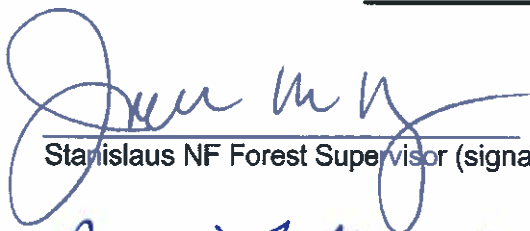
Increase for roads \$7500

Not Approved

Increase in Monitoring \$2090

PART VII - APPROVALS

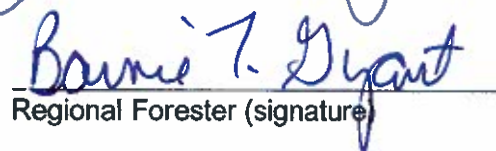
1.



Stanislaus NF Forest Supervisor (signature)

11/4/14
Date

3.



Regional Forester (signature)

11/24/14
Date

