

Date of Report: 08/10/2015

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

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

B. Type of Action

- ☒ 1. Initial Request (Best estimate of funds needed to complete eligible stabilization measures)
- ☐ 2. Interim Report # ____.
 - ☐ Updating the initial funding request based on more accurate site data or design analysis
 - ☐ Status of accomplishments to date
- ☐ 3. Final Report (Following completion of work)

PART II - BURNED-AREA DESCRIPTION

- A. Fire Name: Pines
- B. Fire Number: CA-ANF-003128
- C. State: CA
- D. County: Los Angeles
- E. Region: 05
- F. Forest: Angeles National Forest
- G. District: 53
- H. Fire Incident Job Code: P5JY23
- I. Date Fire Started: 07/17/2015
- J. Date Fire Contained: 07/30/2015
- K. Suppression Cost: \$ 2 M
- L. Fire Suppression Damages Repaired with Suppression Funds
 - 1. Fireline waterbarred (miles): 3 dozerline, 5 handline
 - 2. Fireline seeded (miles): 0
 - 3. Other (identify): 0
- M. Watershed Number:
- N. Total Acres Burned: 200
 - [200] NFS Acres [0] Other Federal [0] State [0] Private

- O. Vegetation Types:** Mixed Conifer Forest, Cottonwood/willow Riparian Woodland, Desert Transition Chaparral, Pinyon Pine Woodland
- P. Dominant Soils:** Soil Family: 640 Balder family – Xerorthents complex – 5% to 60% slopes. These soils are 4 to 60 inches deep over highly weathered granitic and metamorphic rock. They have a brown gravelly sandy loam surface layer and a pale brown very gravelly sandy loam substratum. Effective rooting depth is 14 to 30 inches in depth. Available water capacity is very low. The Hydrologic Group is C (slow infiltration rates with moderate runoff potential in undisturbed conditons). Soil Erosion Factor K = .28 which is a moderate K value and thus moderately susceptible to detachment and producing moderate runoff in undisturbed conditons.
- Q. Geologic Types:** Weathered complex of granitic and metamorphic rock. This unit occurs on broad ridge tops and adjacent mountainsides with slopes ranging from 5% to 60%.
- R. Miles of Stream Channels by Order or Class:** perennial 0, intermittent 0, ephemeral 0.5
- S. Transportation System (FS lands)**
- Trails: 0 miles Roads: 1.5 miles

PART III - WATERSHED CONDITION

- A. Burn Severity (acres):** (low) 110 (moderate) 40 (high) 50
- B. Water-Repellent Soil (acres):** 75
- C. Soil Erosion Hazard Rating (acres):** (low) 100 (moderate) 40 (high) 60
- D. Erosion Potential:** tons/acre South side of Pines Fire = 50 acres @ 2.3 tons/acre
North side of Pines Fire = 150 acres @ 0.34 tons/acre
- E. Sediment Potential: cubic yards / square mile**
South side of Pines Fire = 50 acres @ 1,550 cubic yards/square mile (mod/high soil burn severity)
North side of Pines Fire = 150 acres @ 229 cubic yards / square mile (low soil burn severity)

PART IV - HYDROLOGIC DESIGN FACTORS

- A. Estimated Vegetative Recovery Period, (years):** 5-10
- B. Design Chance of Success, (percent):** 70%
- C. Equivalent Design Recurrence Interval, (years):** 10 year
- D. Design Storm Duration, (hours):** 1 hour
- E. Design Storm Magnitude, (inches):** 1.11 inches Based on 10-year precip frequency estimate from the NOAA Atlas 14

http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca

F. Design Flow, (cfs per square mile): 30 cfs/square mile

G. Estimated Reduction in Infiltration, (percent):

South side of Pines Fire = 60%

North side of Pines Fire = 10%

H. Adjusted Design Flow, (cfs per square mile):

South side of Pines Fire = (mod/high soil burn severity) = 71 cfs/square mile

North side of Pines Fire = (low soil burn severity) = 49 cfs/square mile

PART V - SUMMARY OF ANALYSIS

Background

The Pines Fire took off quickly, burning upslope and in alignment with winds which spread the fire rapidly upslope in moderate to high density conifer forest lands. The initial run of the fire, upslope towards Table Mountain resulted in a moderate to high soil burn severity effecting in particular, a small drainage area (50 acres) that is directly above three values of risk: Big Pines Barracks – Angeles National Forest; Kare Camp (organizational camp) access road and associated culvert; and Highway 2 (Caltrans) relief culvert.

When the fire reached the top of the ridge at Table Mountain, the fire was no longer in alignment with the winds and was burning with a combination of numerous spot fires (dirty burn) and a backing fire, some of which were in heavy fuels. The 150 acres on the north side of Table Mountain resulted in a mosaic burn, largely with low soil burn severity to unburned islands.

Late into the second day of the fire, the weather greatly moderated, bringing in monsoonal moisture from the south east Pacific. This precipitation greatly reduced the spread of the fire, but also triggered two flash flood events. These events mobilized a few hundred cubic yards of sediment, negatively affecting the three values at risk as described above.

Based on these observed threats to critical values and the Pines Fire being less than 500 acres it was determined to apply the policy and direction found in 2523, which states:

1. Conduct assessments (sec. 2523.1) promptly on burned areas following wildfires larger than 500 acres to determine if a burned-area emergency (sec. 2523.05) exists. Assessments may also be conducted when potential threats to human life and safety, property, or critical natural or cultural resources exist as a result of a smaller wildfire.

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

This Report addresses effects resulting from the Pines Fire that burned on lands managed by the Angeles National Forest. The Angeles National Forest Service response actions were prepared in accordance with the Forest Service Manual (FSM) 2500 Watershed and Air Management Chapter 2523 Emergency Stabilization-Burned Area Emergency Response and FSM Interim Directive No.: 2500-2013-1.

The objective of this BAER assessment was to identify imminent post-wildfire threats to human life and safety, property and critical natural or cultural resources and take immediate actions to manage unacceptable risks. This assessment used methodology within Forest Service directives, which were used to guide the development of values important to the local agencies and the risk to those values. The team determined risk by assessing the probability for post-fire damage and the magnitude of consequences if damage occurred. The team assumed there will be risks with or without treatment and potential actions are to reduce risks to acceptable levels.

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 the 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

Threats to Life and Property-

The combined factors of moderately to severely burned, but steep slopes and large volumes of loose, stored sediment in channels directly above Forest Service property indicate a high risk to life and property, creating an emergency situation. Similarly, motor vehiclists and other travelers are also at a high risk from hazard trees, debris flows, rock fall, and flooding along Forest Service, Caltrans and County roads within and downstream of the burn.

FS Big Pines Barracks -

Two high intensity rainfall events occurred on July 19, 2015 (while the fire was burning) that resulted in two small-minor flash floods that led to fire induced sediment delivery of approximately 120 cubic yards surrounding the Big Pines barracks. One of these precipitation events (based on the local Big Pines RAWs station) was 1.0 inches/hour, which is the equivalent of a 10 year return interval. On July 30, 2015, another high intensity rainfall event (less intensity than on July 19, 2015) also resulted in overland flow runoff from the fire area above the Big Pines barracks.

Probability of damage or loss: Very Likely. Flooding and debris flows resulting from increased erosion have already damaged the Big Pines barracks by depositing 3-5 feet of sediment against the walls of the structure.

Magnitude of consequences: Major. Substantial property damage has already occurred and in the future flooding/erosion may even threaten life or further damage to the property.

Risk Level: Very High.

Highway 2 and FS Road 4N21 and 4N22-

During the recent storm events large amounts of rock and sediment were deposited on Highway 2 and led to the blockage of sections of 4N21, which leads to the Big Pine barracks, JPL property, a communication site and an organizational camp primarily for adults (Camp Kare). The sediment blocking 4N21 was moved to the side of the road during fire suppression operations, leaving large debris piles directly above the Big Pines barracks and Highway 2. The fire also created hazard trees along 4N21 and 4N22 (which provide access to: FS communication sites, Mountain High North Ski Area, a scenic lookout parking area, and the Jet Propulsion Laboratory observatories).

Probability of damage or loss: Likely. Large amounts of rock and sediment have already been deposited on Highway 2 and blocked sections of 4N21. The debris piles are poised to become mobilized, therefore, exacerbating debris flows during future precipitation events. Multiple, burned hazard trees also exist along FS roadways.

Magnitude of consequences: Major. Rocks or debris flows in the roadbed can easily cause human injury or mortality if unavoidable or unrecognized or threaten human safety if the road is blocked in an emergency medical situation. The hazard trees occur in areas heavily utilized by the public and FS personnel.

Risk Level: High.

Threats to Soil Quality/Ecosystem Stability-

During field surveys, soil conditions were described, post-fire resource damage conditions were noted, and threats to soil productivity were determined. The magnitude and longevity of fire-related soil effects may be generally inferred from the soil burn severity rating. A low rating indicates short-term soil effects; these areas are generally not considered significant sediment source areas, and do not constitute a potential fire-caused emergency. A high rating indicates rather severe and long-term effects, both moderate and intermediate.

The overall soil burn severity in the Pines Fire is 55% Low, 20% moderate, and 25% high. Soils with low burn severity still have good surface structure, contain intact fine roots and organic matter, and should recover in the short-term once revegetation begins and the soil surface regains cover. The moderate to high classes have evidence of severe soil heating in isolated patches; these areas have a significant loss of organic soil cover, and surficial char with partial destruction of structure, porosity, and roots.

The post-fire erosion risk was assessed using two sources. 1) Rowe, Countryman and Storey (1949). Rowe, Countryman and Storey produced a classic study based on real data collected from many burned and unburned watersheds in Southern California. The Forest Service uses this model to estimate probable erosion rates from southern California watersheds as influenced by fire. 2) **Disturbed WEPP** is an interface to the Water Erosion Prediction Project soil erosion model (WEPP) to allow users to easily describe numerous disturbed forest and rangeland erosion conditions. The interface presents the results as a summary and extended WEPP outputs, and also presents the probability of a given level of erosion occurring the year following a disturbance. **Disturbed WEPP** is linked to the Rock:Clime climate generator with a database of climate statistics for more than 2600 weather stations. WEPP is described in the following

research publication: Elliot, William J.; Hall, David E. 2010. Disturbed WEPP Model 2.0. Ver. 2014.04.14. Moscow, ID: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. Online at <<http://forest.moscowfs.lwsu.edu/fswcpp>>.

Impacts to soil quality are primarily through two mechanisms: 1) increased erosion moving the exposed soil and nutrient rich ash off-site; and 2) increasing spread of noxious weeds and invasive plant species. Increased accelerated soil erosion, overland flow, and sedimentation are expected at decreasing rates for the next five years after the fire, until vegetation has sufficiently recovered to restore the surface soil-hydrologic function.

Soils in the burned area are derived primarily from granitic and metamorphic parent materials and have inherently moderate-to-moderately high surface erosion characteristics. In the moderate soil burn severity (SBS) areas, the fire completely consumed the vegetative ground cover that dissipates rainfall energy. Even with average precipitation, erosion rates will be accelerated in combination with higher surface runoff efficiencies. A 2- or 5-year rainstorm event occurring during the first two years following the fire will increase the potential for movement of ash and surface topsoil, reducing the soil quality of these sites. The potential soil loss due to high-intensity (> 0.3 inches in 30 minutes) thunderstorm runoff jeopardizes the natural long-term native vegetation recovery.

Decreases to soil quality over the long term are also likely from the potential increase in rate of spread of noxious weeds and invasive species. There is potential to increase the distribution of these species and other invasive plants, particularly in areas of moderate SBS that are at greater susceptibility for the introduction of seeds by fire suppression operations and unmanaged recreation.

Risk Assessment – Soil Productivity

Probability of Damage or Loss: Likely. This determination is due to the change in soil-watershed response causing sheet and rill erosion of topsoil. A large, intense rain event has already occurred within a week after the fire, which caused significant loss of soil from excessive erosion.

Magnitude of Consequence: Moderate. This determination is due to the expected change in soil-hydrologic watershed response causing erosion of topsoil in a fire-adapted ecosystem.

Risk Level: Intermediate.

Threats to Vegetative Recovery-

An emergency exists with respect to vegetative recovery as a result of the threat of post-fire weed introduction and spread. The unknowing introduction and dispersal of invasive weeds into areas disturbed by fire suppression and rehabilitation has the potential to establish large and persistent weed populations. In addition, it is highly likely that existent weed infestations along roadsides will increase in the burn area due to their accelerated growth and reproduction and a release from competition with natives. These weed populations could affect the structure and habitat function of native plant communities within the burn area. It is expected that most native vegetation would recover if weed invasions are minimized.

Approximately 3 miles of dozer line and 5 miles of handline were also constructed outside and within the burn perimeter. In addition to causing an increase in weed invasion, the disturbances caused by dozer/hand lines are expected to create accelerated erosion and soil compaction that may also inhibit the recovery of native plant populations.

Risk Assessment – Vegetation Recovery

Probability of Damage or Loss: Very Likely. This determination is due to the change in watershed response causing sheet and rill erosion of topsoil, mainly in areas disturbed by suppression activities.

Magnitude of Consequence: Major. This determination is due to the high potential for vegetation type conversion to non-native annual grasslands in portions of the fire area that have experienced frequent fire suppression disturbance such as dozer lines, handlines and roadsides.

Risk Level: Very High.

B. Emergency Treatment Objectives (narrative):

Provide for Public Safety and Limit Damage to Property–Forest Service residences and roads within and downstream of the burn area are at greater risk from flash flooding and sedimentation after the fire. The treatment objective is to ensure communication of the potential risks with Forest Service employees, Jet Propulsion Laboratory, Mountain High Ski Area, managers of the organizational camp (Kare Camp), Public Works and Caltrans.

Noxious Weeds - Reduce the potential for impaired vegetative recovery and introduction/spread of noxious weeds and long-term loss of soil-hydrologic function and processes.

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

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

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land			
Woodstraw	70%	60%	N/A
Deflector berm	90%	80%	70%

Weed detection	90%	N/A	N/A
Channel	N/A	N/A	N/A
Roads/Trails	90%	75%	70%
Protection/Safety	90%	80%	75%

E. Cost of No-Action (Including Loss): XXX

F. Cost of Selected Alternative (Including Loss): XXX

G. Skills Represented on Burned-Area Survey Team:

☒ Hydrology ☒ Soils ☐ Geology ☐ Range
☐ Forestry ☒ Wildlife ☐ Fire Mgmt. ☒ Engineering
☐ Contracting ☐ Ecology ☒ Botany ☒ Archaeology
☒ Fisheries ☐ Research ☐ Landscape Arch ☒ GIS

Team Leader: Katie VinZant

Email: kvinzant@fs.fed.us Phone: 626-574-5268

FAX:

H. Treatment Narrative:

(Describe the emergency treatments, where and how they will be applied, and what they are intended to do. This information helps to determine qualifying treatments for the appropriate funding authorities. For seeding treatments, include species, application rates and species selection rationale.)

Land Treatments:

Hazard Tree Removal along Forest Road 4N21 and 4N22

This treatment will ensure threats to the life and safety of Forest Service personnel and the public from hazard trees in the direct vicinity of Forest Service Road 4N21 and 4N22 (which provide access to communication sites, Mountain High North Ski Area and the Jet Propulsion Laboratory observatory) have been properly mitigated. The objective of this treatment is to fell hazardous trees which have the potential to land within the 4N21 and 4N22 road prism.

Hazard Tree Removal Cost

Item	Unit	Unit Cost	# of Units	Cost
3 Person Falling Module	Day	\$700	5	\$3,500
Supplies	Each	\$300	1	\$300
Vehicle mileage	Miles	\$.55	500	\$275
Vehicle FOR	Month	\$350	0.25	\$100
Total Cost				\$4,175

Big Pines Barracks Deflection Berm and Woodstraw Application

Two treatments are proposed to mitigate further sediment and flooding impacts to the Big Pines barracks.

1. Construct a deflection berm upslope of the Big Pines barracks and in the path of the overland flow being generated from the Pines Fire. The berm would direct future flood waters and debris flows away from the barracks by deflecting these flows onto the stable unburned hillslopes that do not represent any threats to values at risk. The berm would be designed to withstand a 20 year – one hour duration rainstorm event. The berm is located on the east side the Big Pines barracks and runs north along the perimeter of the burned area (see map in Appendix A). The estimated size of the berm is 200 feet long X 6-8 feet wide (at the base) & 2-3 feet wide (at the top) and 4-5 feet high.
2. Aerially apply Woodstraw at a 60-70% cover rate over approximately 40 acres in the western portion of the burned area, south of 4N21 (Table Mountain Road East) which contributes to the debris flows impacting the Big Pines barracks and Highway 2. The Woodstraw would be applied upslope of the deflection berm, with the intention of slowing overland water and sediment flow by increasing post-fire effective ground cover, increasing hillslope roughness (reducing hydrologic slope length), assisting in rainfall infiltration and acting as micro catchment areas. Not only would the Woodstraw application serve as protection for the Big Pines barracks and Highway 2, but also for the preservation of soil productivity.

Deflection Berm and Woodstraw Application Cost

Item	Unit	Unit Cost	# of Units	Cost
1 heavy equipment operator	Day	\$560	2	\$1,120
Excavator rental	Day	\$600	2	\$1,200
Woodstraw material and application	Acre	\$3700	40	\$148,000
Supplies	Each	\$2000	1	\$2,000
Arch, Botany, Wildlife clearance surveys	Day	\$900	2	\$1,800
Contracting administration and inspection	Day	\$380	7	\$2,660
Vehicle mileage	Miles	\$.55	700	\$385
Total Cost				\$157,165

Noxious Weed Detection and Rapid Response

Weed detection surveys and rapid response eradication treatments are to determine whether ground disturbing activities related to the Pines Incident and the fire itself have resulted in new or the expansion of existing noxious weed infestations. With 3 miles of dozerline, 3 miles of handline, 0.5 miles of riparian corridor and 1.5 miles of road in the Pines fire it is expected that new and expanding weed infestations will proliferate in and along these vectors if left unchecked, eventually leading to vegetation type conversion. Surveys and rapid response

eradication treatments will begin in 2016 during the flowering periods of weed species. Because of differences in flowering times for all potential species, two visits may be required during the growing season. If timing is such that all the target species are detectable/treatable in one visit, the actual costs would be lower than displayed below. Completion of surveys in riparian areas, dozer lines, roads, staging areas, safety zones and known invasive plant populations would be the first priority. The second survey priorities would be along handlines. Surveys of the general habitats in the burned area would be the lowest priority.

Weed Detection and Rapid Response Cost

Item	Unit	Unit Cost	# of Units	Cost
1 GS-11 botanist	Days	\$365	1	\$365
2 GS-7 weed technicians	Days	\$500	5	\$2,500
Supplies	Each	\$400	1	\$400
Vehicle gas mileage	Miles	\$0.58	1000	\$580
Vehicle FOR	Month	0.25	350	\$100
Total Cost				\$3,945

Channel Treatments: none

Roads and Trail Treatments:

Removal of Sediment Piles from FS Roads 3N70 and 4N21

The purpose of this treatment is to clean out the debris located on Forest Service Road 3N70 (Big Pines barracks) and 4N21 (Table Mountain Rd. East). During the rain events that occurred right after the fire, approximately 150 cubic yards of sediment and debris were deposited along both roads, preventing vehicular passage. As an emergency firefighting effort, heavy equipment was brought in to open the roads and allow emergency vehicle passage during suppression operations associated with the fire. This also left large deposits of debris along the sides of the roads. The purpose of this treatment is to utilize heavy equipment to remove the organic debris and sediment deposits from the road sides to prevent them from becoming mobilized and exacerbating debris flows during future precipitation events.

FS Road Debris Removal Costs

Item	Unit	Unit Cost	# of Units	Cost
1 heavy equipment operator	Day	\$560	3	\$1,680
1 swamper	Day	\$200	3	\$600
Dump truck rental (rubber tire)	Day	\$600	3	\$1,800
Excavator rental (rubber tire)	Day	\$600	3	\$1,800
Mobilization	Unit	\$5000	1	\$5,000
Debris disposal	C.Y.	\$80	70	\$5,600
Contracting admin and inspection	Day	\$380	5	\$1,900
Total Cost				\$18,380

Protection/Safety Treatments:

Interagency Coordination

Interagency coordination with Caltrans, Camp Kare, LA County, Mountain High Ski Area and JPL started during the fire and continued throughout the BAER Assessment and is a critical component to the BAER process. Continuing this coordination by providing the BAER Assessment Report and specialist reports will be necessary.

Interagency Team Cost

Item	Unit	Unit Cost	# of Units	Cost
Resource Officer	Days	\$400	2	\$800
BAER Coordinator	Days	\$400	1	\$400
Total Cost				\$1,200

Hazard Signage

To ensure safety for Forest visitors during the recovery period, signage warning of potential hazards (tree fall, debris flows, rock fall and flooding) will be placed along roadside entrances to and within the fire.

Hazard Sign Cost

Item	Unit	Unit Cost	# of Units	Cost
Hazard Signs	Days	\$300	3	\$900
2 GS-7 Forestry Techs	Days	\$500	1	\$500
Total Cost				\$1,400

Appendix A: Maps – BAER Values at Risk for Pines Fire

The following two maps depict two spatial views of the critical values at risk associated with the Pines Fire.

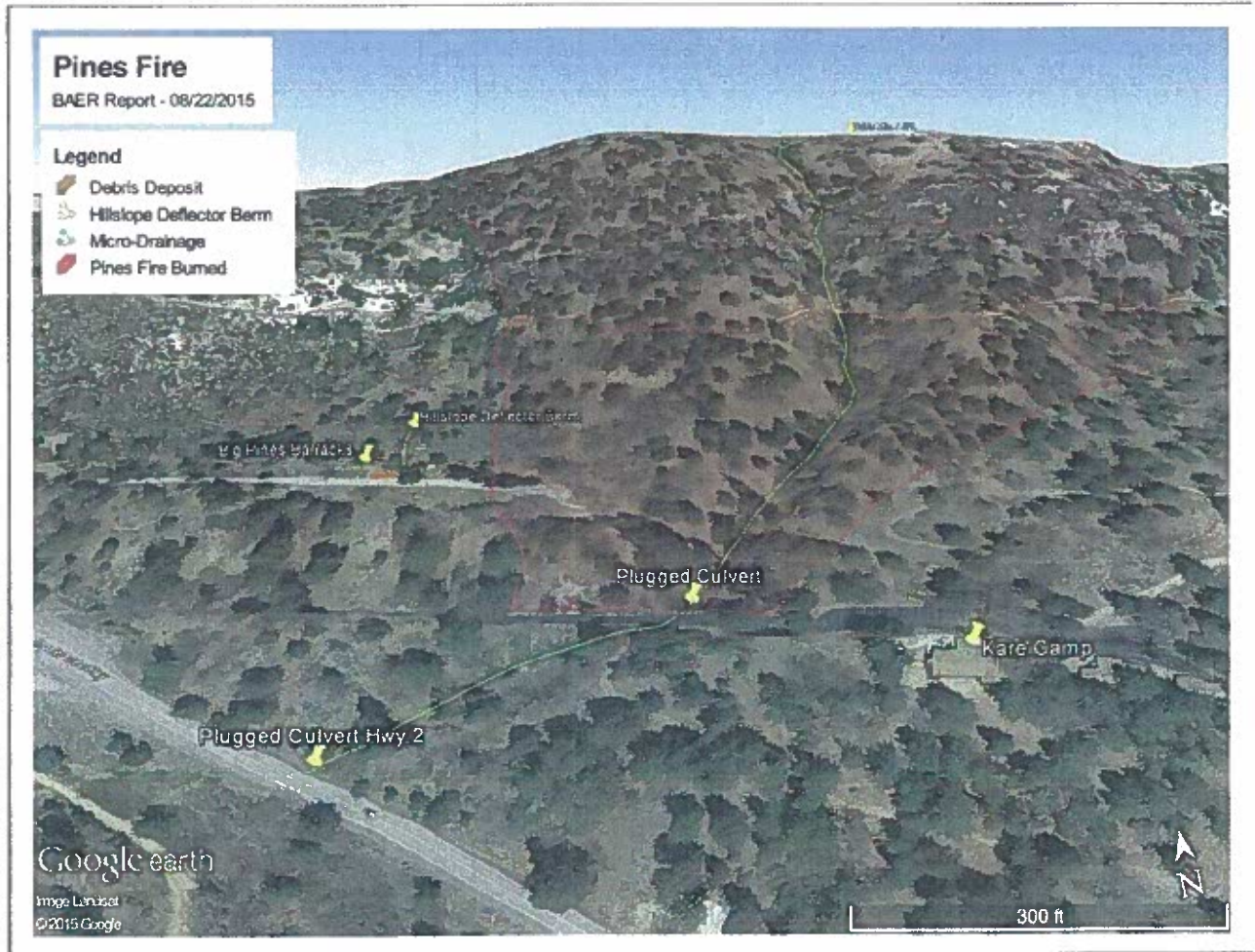


Figure 1- Pines Fire Critical Values at Risk – Oblique View: Spatial Location

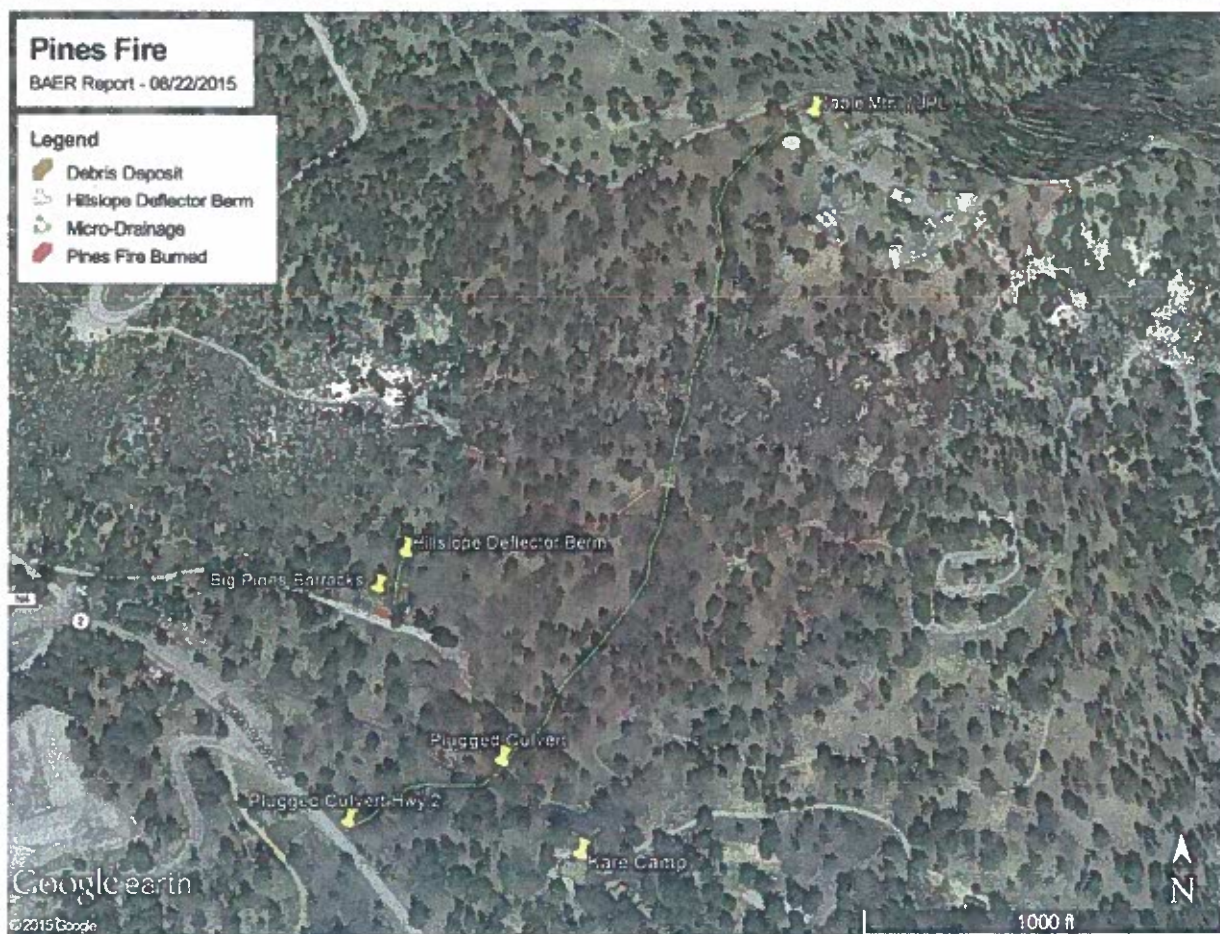


Figure 2 - - Pines Fire Critical Values at Risk – Plane View: Spatial Location

Part VI -- Emergency Stabilization Treatments and Source of Funds						Interim #					
Line Items	Units	Cost	Units	BAER \$	\$	units	\$	Units	\$	\$	Apprvd
A. Land Treatments											
Noxious Weed Detection Survey	ea	3945	1	\$3,945	\$0		\$0		\$0	\$3,945	3945
Hazard Tree Removal	ea	4175		\$4,175	\$0		\$0		\$0	\$4,175	1000
Barracks berm and Weeds	ea	157165		\$157,165	\$0		\$0		\$0	\$157,165	4500
Insert new items above this line!				\$0	\$0		\$0		\$0	\$0	
Subtotal Land Treatments				\$165,285	\$0		\$0		\$0	\$3,945	
B. Channel Treatments											
				\$0	\$0		\$0		\$0	\$0	
				\$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		\$0		\$0	\$0	
C. Road and Trails											
Debris removal	ea	18,380		\$18,380	\$0		\$0		\$0	\$18,380	
Storm patrol				\$0	\$0		\$0		\$0	\$0	\$1000
				\$0	\$0		\$0		\$0	\$0	
Insert new items above this line!				\$0	\$0		\$0		\$0	\$0	
Subtotal Road & Trails				\$18,380	\$0		\$0		\$0	\$18,380	
D. Protection/Safety											
Interagency Coordination	ea			\$1,200	\$0		\$0		\$0	\$1,200	1200
Hazard Signage	ea			\$1,400	\$0		\$0		\$0	\$1,400	1400
Insert new items above this line!				\$0	\$0		\$0		\$0	\$0	
Subtotal Structures				\$2,600	\$0		\$0		\$0	\$2,600	
E. BAER Evaluation											
BAER Assessment	hours	100	100	\$10,000			\$0		\$0	\$0	
Insert new items above this line!				—	\$0		\$0		\$0	\$0	
Subtotal Evaluation				\$10,000	\$0		\$0		\$0	\$0	
F. Monitoring											
				\$0	\$0		\$0		\$0	\$0	
Insert new items above this line!				\$0	\$0		\$0		\$0	\$0	
Subtotal Monitoring				\$0	\$0		\$0		\$0	\$0	
G. Totals											
				\$186,265	\$0		\$0		\$0	\$24,925	
Previously approved											
Total for this request				\$186,265							

Total Approved

\$13,045

PART VII - APPROVALS

1. [Signature]
Forest Supervisor (signature)

8/10/15
Date

for [Signature]
Regional Forester (signature)

9/2/2015
Date