

Date of Report:10/23/2019

BURNED-AREA REPORT

(Reference FSH 2509.13)

PART I - TYPE OF REQUEST**A. Type of Report**

- ☒ 1. Funding request for estimated WFSU-SULT 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: Saddleridge Fire | B. Fire Number: CA-LDF-001582 |
| C. State: California | D. County: Los Angeles |
| E. Region: 5 | F. Forest: Angeles |
| G. District: Los Angeles Gateway | H. Fire Incident Job Code: PNMU9C20 (1502) |
| I. Date Fire Started: 10/10/2019 | J. Date Fire Contained: Estimated 10/25/2019 |
| K. Suppression Cost: \$ 3,200,000 (10/23/2019) | |
| L. Fire Suppression Damages Repaired with Suppression Funds in miles | |
| Completed Dozer Line | 20.2; 12.3 on NFS Lands |
| Completed Hand Line | 13.4;3 on NFS Lands |
| Completed Line | 13.4 |

Sombrero, Wilson Canyon, Santa Clara, and Los Pinetos Communication Site Roads were all used as completed line and have been maintained.

M. Watershed Numbers:

		Total Watershed	High	Moderate	Low	Unburned/ Very Low	Total
South Fork Santa Clara River	180701020401	28,786	0	221	513	372	1,106
Bull Creek	180701050208	13,877	1	1,127	2,317	1,458	4,902
Lower Pacoima Wash	180701050208	16,565	0	43	200	92	335
Grand Total			1	1,391	3,030	1,922	6,343

N. Total Acres Burned: 8,879 acres

NFS Acres (795) Other Federal () State (2,785) Private (5,299)

O. Vegetation Types: Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral, Coast/Canyon Live Oak Woodland, Scrub Oak Woodland, Cottonwood/Sycamore Riparian Woodland, Riparian Willow Scrub.

P. Dominant Soils:

The dominant soils within the fire area are derived primarily from highly metamorphosed sedimentary rock (gneiss) on the source slopes and fan terraces. The steeper source slopes are dominated by shallow soils that weather to sandy loam material. The fan remnants tend to have a variable soil texture dependent on the depositional environment.

Map Unit Name	acres	percent
Balcom silty clay loam, 30 to 50 percent slopes	1359	15
Lopez shaly clay loam, 30 to 50 percent slopes	883	10
Millsholm loam, 30 to 50 percent slopes	845	10
Badland	783	9
Gazos-Balcom complex, 30 to 50 percent slopes	650	7
Vista coarse sandy loam, 30 to 50 percent slopes	554	6

Q. Geologic Types:

Geology: Bedrock within the eastern portion of the Saddle Ridge Fire burned area mainly consists of three rock types: Cretaceous Gneissic Rocks, Mesozoic Quartz Diorite and Quaternary Sedimentary rocks of the Towsley Formation, Saugus Formation and Holocene Surficial Sediments (Dibblee, 1991).

Geomorphology: The Saddleridge Fire occurred on the west end of the San Gabriel Mountain Range and the east end of the Santa Suzanna Mountain Range. The physiography of the burned area is dominated generally by dissected ridge lines and drainages including an east-west main ridge-line and drainages flowing south or north of this main ridge-line.

The San Gabriel Mountains are some of the most tectonically active and rapidly uplifting mountains in the United States. The forces lifting the mountains are being countered by opposing forces tearing them down. Forces such as gravity, moving water, wind, earthquakes and human activities interact and combine to bring down small particles to whole hillsides at a time. The fluvial geomorphic processes which have shaped, and are currently shaping these ever-changing mountains include land-sliding of various types, rock-fall, dry ravel, sheet and rill erosion by water and wind, flooding and debris flows.

R. Miles of Stream Channels by Order or Class:

Stream Type	Total Fire	NFS Ownership
Ephemeral	26.9 miles	3.7 miles
Intermittent	6.6 miles	0 miles
Perennial	0 miles	0 miles
Artificial	5.2 miles	.8 miles

S. Transportation System (NFS Lands)

Trails: 0 miles Roads: 2.27 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres):

Soil Burn Severity	acres	percent
Unburned	2541.1	28.6
Low	4490.4	50.6
Moderate	1847.7	20.8
High	0.7	0.0

B. Water-Repellent Soil (acres): 2000

C. Soil Erosion Hazard Rating (acres): Ermit modeling is used as a surrogate for Erosion Hazard Rating
 (low) (moderate) (high)

D. Erosion Potential: 3.78 tons/acre for a 2 year event for the fire perimeter

Erosion potential by watershed pourpoint

Pourpoint Name	Erosion Rates, Tons/acre		
	2 year unburned	5 year burned	10 year unburned
Schoolhouse Canyon	3.9	10.5	17.0
Hog Canyon	3.9	10.3	16.3
Sombrero Canyon	2.6	6.9	11.1
Stetson Ranch Park	5.0	14.1	23.4
Grapevine Canyon	4.5	11.0	16.9
Elsmere Canyon West Tributary	5.7	11.7	15.7
Elsmere Canyon Headwaters	3.0	7.8	12.3

E. ~~Sediment Potential:~~ cubic yards / square mile Erosion rates are used as a surrogate for Sediment Potential.

Watershed Condition:

Within the burned area of the Saddleridge Fire, some drainages / slopes show evidence of past mass wasting as shallow debris slide and rock fall activity that will be increased during future storms, while other watersheds have little evidence of recent past slope instability, but as conditions have changed due to the fire, erosion and new mass wasting might be initiated.

In watersheds that experienced moderate to high soil burn severity, as a result of the removal of vegetation by the fire, soils are exposed and have become weakened, and rocks on slopes have lost their supporting vegetation. Due to these post-fire new conditions, roads and trails are at risk from rolling rocks, plugged culverts, debris slides and in some cases, debris flows. Risks to human life, infrastructure, facilities, roads, water bodies and natural resources is increased in some areas in and downstream of the Saddleridge Fire.

Debris Flow Potential:

We selected a design storm of a peak 15-minute rainfall intensity of 24 millimeters per hour (mm/h) rate to evaluate debris flow potential and volumes since this magnitude of storm seems likely to occur in any given year.

Based on USGS debris flow modeling it appears that under conditions of a peak 15-minute rainfall intensity storm of 24 millimeters per hour (0.94 inch/hr.), the probability of debris flows occurring is low to moderate (0-20% in some channels and 20-40% in other channels and 40-60% in a few segments of some channels). The west portion of the burn area presents low probabilities (0-20%) of initiating debris flows. Under these same conditions, predicted volumes of these debris flows are expected to range from less than 1K cubic meters to 1K-10K cubic meters in some other channels. From the debris flow combined hazard map it appears that the majority of creeks in the burn area are predicted to produce debris flows of a low to moderate combine hazard.

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years):	<u>5-10</u>
B. Design Chance of Success, (percent):	<u>n/a</u>
C. Equivalent Design Recurrence Interval, (years):	<u>2</u>
D. Design Storm Duration, (minutes):	<u>30</u>
E. Design Storm Magnitude, (inches):	<u>.52</u>
F. Design Flow, (cubic feet / second/ square mile):	<u>42.4</u>
G. Estimated Reduction in Infiltration, (percent):	<u>25</u>
H. Adjusted Design Flow, (cfs per square mile):	<u>75.8</u>

Summary of Watershed Response:

The Saddleridge Fire started on October 10, 2019 and burned a total of 8,879 acres, 795 of which was on NFS Lands. Overall soil burn severity for NFS Lands is 0% high, 21% moderate, 51% low, and 29% very low to unburned. The greatest modeled increase in post-fire runoff for both a 2-year and 10-year storm was at pour point 4 (Stetson Ranch Park), which had an increase of 2.33 and 1.91 times, respectively. This was the only pour point that had more than doubling of flows (for the two-year event). All other increases were less than double.

There were seven small subwatersheds within the fire perimeter which drain from National Forest system lands. Risk to values within and below the fire was low due to increased watershed response as a result of the fire. Risk for water quality and riparian recovery was low, as debris basins would filter sediment at five of the seven watersheds, minimizing sediment movement downstream and a large area of unburned vegetation would filter below the two remaining watersheds. Channel erosion in these watersheds has low risk of affecting riparian recovery. Field review indicated areas in all pour point watersheds where vegetation remained along the riparian corridor, so no drainages were completely denuded. In addition, due to a lack of

high soil burn severity, increases in peak discharge were modest, reducing risk of adverse effects of channel erosion.

Erosion Response:

The Saddleridge Fire appeared to be a relatively beneficial burn to watershed resources with a mosaic of low and moderate soil burn severities. There was no High Soil Burn Severity found during surveys.

In 2008, the Sayer Fire burned within the perimeter of the Saddleridge Fire. The 2008 fire was a relatively hot fire that burned all of the accumulated fuels and live vegetation. There was minimal fuel accumulations in the following 11 years and the resulting live vegetation was a mix of grasses and young shrub resprout, which when burned, delivered minimal heat penetration in the soil. Also, the Saddleridge Fire was driven by very high Santa Ana winds. These down canyon winds blow the heat away from the soil minimizing heat residence time.

The modeled erosion rates are likely over estimated due to the removal of available soil during the Sayer Fire. Minimal dry ravel was evident because accumulated soil behind vegetation was likely not substantial in the last 11 years. There will be an increase in erosion until vegetation recovery stabilizes the slopes, however, the rates listed are not considered a threat to soil productivity.

Hydrophobicity (water repellancy): There was minimal water repellancy throughout the fire which will aid in favorable infiltration. The paucity of water repellancy is also likely due to reduced accumulation of water repellent compounds since the Sayer Fire; natural breakdown of compounds exceeding accumulations from the reduced vegetation resulting from the Sayer Fire.

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

Values at Risk:

The table below is Exhibit 02 from FSM 2523.1. This matrix was used to evaluate the risk level for each value identified during this BAER assessment. See FSM 2523.1 for additional information.

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

The table below is a summary of the values (some of which were not identified as 'critical' per Exhibit 01 from FSM 2523.1) within and along the Saddleridge fire area, as well as, the threats to those values, the probability of damage or loss, magnitude of consequences and the resulting level of risk. Red shaded cells are those values that rated out as "very high" or "high" risk. Yellow shaded cells rated out "intermediate" risk and white cells rated out "low" or "very low".

Saddleridge BAER - Forest Service Values At Risk Tracking Table

High / Very High Risk								
Intermediate Risk								
Low / Very Low Risk								
Category	Life Property Resources	Value at Risk	Threat to Value at Risk	Probability of Damage or Loss	Magnitude of Consequence	Risk	Treatment	Notes
Recreation	Resources	Hydrologic function, spread of invasive weeds, soil productivity, vegetative recovery	Human traffic by foot, motorized/ non-motorized travel/OHV	Very Likely	Moderate	Very High	Forest Closure/Road Closure by installing gate at junction of NFSRs 3N64 & 3N17/rock and pipe rail barrier	Current closure order in place (Order NO. 05-01-19-04) the closure expires May 1, 2020. Forest may consider reducing size of the current closure order.
Recreation	Life and Safety	Human Life and Safety in the burn scar	Hazard trees, debris flow, stump holes, rock fall, flash flood	Likely	Major	Very High	Forest Closure. Road Closure by installing gate at NFSRs 3N64 & 3N17/rock and pipe rail barrier. Advisories and signage of post-fire threats to life, safety and property. Interagency Coordination.	Current closure order in place (Order NO. 05-01-19-04) the closure expires May 1, 2020. Road is used by public as a recreation trail. Forest BAER team met with the CalFire Watershed Emergency Response Team multiple times during the assessment.
Other Forest Roads	Property	NFSR 3N56 - Wilson Canyon Road	Loss of water control, soils erosion, loss of road tread	Possible	Minor	Low	None	Road is near ridgeline on edge of fire with low soil burn severity above the road.
Wildlife	Resources	California Gnatcatcher	T & E Habitat	Likely	Moderate	High	Forest Closure/Road Closure by installing gate at	Approximately 7.8 acres of designated critical habitat

							junction of NFSRs 3N64 & 3N17/rock and pipe rail barrier	
Wildlife	Resources	Channels	Sedimentation	Unlikely	Minor	Very Low	No Treatment	
Botany/ Weeds	Resources	Native and Naturalized Communities	Suppression activities such as dozer and drop points that act as a vector for invasive weeds	Very Likely	Moderate	Very High	Early Detection and Rapid Response	Priority areas include sites not already dominated by common invasives.
Botany/ Weeds	Resources	Native Plant Recovery & Soil Productivity in Riparian Areas	Transport of invasive weeds through burn area by concentrated surface flow	Very Likely	Moderate	Very High	Early Detection and Rapid Response	
Botany/ Weeds	Resources	Native Plant Recovery & Soil Productivity	Invasive weeds and OHV incursion	Very Likely	Moderate	Very High	Invasive plant detection/Early Detection & Rapid Response	
Heritage	Resources	Historic Properties	Sheet erosion	Unlikely	Minor	Very Low	Notify staff of approved BAER Projects	No recorded sites were found
Soils	Resources	Soil Productivity	Erosion on low productivity soil	Likely	Moderate	High	No effective treatment due to slopes and rock cover	
Watershed	Resources	Water Quality & Riparian Recovery	Channel erosion	Possible	Minor	Low	No Treatment	

B. Emergency Treatment Objectives:

The primary objective of this Burned Area Emergency Response Report is to recommend prompt actions deemed reasonable and necessary to effectively protect, reduce or minimize significant threats to human life and property and prevent unacceptable degradation to natural and cultural resources. The application of these BAER treatments are expected to minimize on-site and downstream damages to the identified values at risk previously mentioned. The emergency treatments being recommended by the Saddleridge Fire BAER Team are specifically designed to achieve the following results:

Land Treatments:

Proposed Land Treatments

The objective of the land treatments are to:

- Retard the spread of invasive weeds as a result of suppression repair activities, mainly dozer lines.
- Retard the introduction and spread of invasive weeds into threatened California Gnatcatcher habitat and natural vegetative communities with minimal weeds.

Channel Treatments:

There are no proposed channel treatments.

Roads and Trail Treatments:

There are no proposed road or trail treatments.

Protection and Safety:

The objective of the protection and safety treatments are to:

- Caution forest visitors recreating and administrative users about the potential hazards that exist within the burned area.
- Improve public safety by keeping Forest users out of the burn area.

Monitoring:

There are no proposed Monitoring .

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

Land 70% Channel N/A Roads/Trails N/A Protection and Safety 85%

D. Probability of Treatment Success

Years after Treatment			
	1	3	5
Land	70	75	80
Channel	N/A	N/A	N/A
Roads/Trails	N/A	90	90
Protection/Safety	85	90	95

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

F. Cost of Selected Alternative (Including Loss): \$ 80,856

*All treatments were evaluated for cost benefit in order to justify the treatment. Proposed treatments are justified see cost/ benefit spreadsheet in project record.

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: Kelsha Anderson

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Tracy Weddle	Hydrology
Jonathan Schwartz	Geology
Leslie Welch	Wildlife
Eric Nicita	Soils
JoAnna Huckabee	Archeology
Joshua Travers	Recreation
Katie VinZant	Botany
Dannon Dirgo	Hydrology (Trainee)
Dave Young	Liaison
Diane Cross	Assistant BAER Team Leader

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:

Threats to Vegetation Recovery

Increase in Noxious Weed Populations: 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 dozerlines 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 12.3 miles of dozer line were also constructed outside the burn perimeter. In addition to causing an increase in weed invasion, the disturbances caused by dozer lines are expected to create accelerated erosion and soil compaction that may also inhibit the recovery of native plant populations.

Probability of Damage or Loss: Very Likely. This determination is due to the change in watershed response causing sheet and rill erosion of topsoil. There is also a potential for unauthorized off-highway vehicle use within

the burn area and dozer lines that will be highly detrimental to vegetation recovery and encourage noxious weed invasion.

Magnitude of Consequence: Major. This determination is due to the high potential for vegetation type conversion to non-native annual grasslands across the burn area, most especially along dozer lines and riparian areas.

Risk Level: Very High. The BAER team recommends early detection and rapid response weed surveys to locate and treat high priority infestations.

Emergency Treatment Objectives:

- Noxious Weeds - Reduce the potential for impaired vegetative recovery and introduction/spread of noxious weeds by conducting detection surveys/rapid response and preventing unauthorized OHV.

Land Treatments:

Noxious Weed Early Detection and Rapid Response

Weed detection surveys and rapid response eradication treatments are to determine whether ground disturbing activities related to the Saddlebag Incident and the fire itself have resulted in new or the expansion of existing noxious weed infestations. With 12.3 miles of dozerline, 3 miles of handline, 1 drop points/helispots, and 4 miles of priority riparian corridors in the fire it is expected that new and expanding weed infestations will proliferate in and along these vectors if left unchecked, potentially leading to vegetation type conversion. Surveys and rapid response eradication treatments will begin in 2020 during the flowering periods of weed species. Because of differences in flowering times for all potential species, two visits will 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, staging areas, safety zones, and known invasive plant populations would be the first priority. The second survey priorities would be along handlines and drop points. Surveys of the general habitats in the burned area would be the lowest priority. Detailed weed detection survey guidelines are attached in Appendix A (EDRRP).

Increase in Noxious Weed Populations: 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 dozerlines 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 11 miles of dozer line were constructed outside the burn perimeter. In addition to causing an increase in weed invasion, the disturbances caused by dozer lines are expected to create accelerated erosion and soil compaction that may also inhibit the recovery of native plant populations.

Probability of Damage or Loss: Very Likely. This determination is due to the change in watershed response causing sheet and rill erosion of topsoil. There is also a potential for unauthorized off-highway vehicle use within the burn area and dozer lines that will be highly detrimental to vegetation recovery and encourage noxious weed invasion.

Magnitude of Consequence: Major. This determination is due to the high potential for vegetation type conversion to non-native annual grasslands across the burn area, most especially along dozer lines and riparian areas.

Risk Level: Very High. The BAER team recommends early detection and rapid response weed surveys to locate and treat high priority infestations.

Emergency Treatment Objectives:

- Noxious Weeds - Reduce the potential for impaired vegetative recovery and introduction/spread of noxious weeds by conducting detection surveys/rapid response and preventing unauthorized OHV.

Noxious Weed Early Detection and Rapid Response

Weed detection surveys and rapid response eradication treatments are to determine whether ground disturbing activities related to the Saddleridge Incident and the fire itself have resulted in new or the expansion of existing noxious weed infestations. With 20.2 miles of dozerline, 2 miles of handline, 1 drop points/helispots, and 26.9 miles of ephemeral and 6.6 miles of intermittent streams in the fire, it is expected that new and expanding weed infestations will proliferate in and along these vectors if left unchecked, potentially leading to vegetation type conversion. Surveys and rapid response eradication treatments will begin in 2020 during the flowering periods of weed species. Because of differences in flowering times for all potential species, two visits will 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, staging areas, safety zones, and known invasive plant populations would be the first priority. The second survey priorities would be along handlines and drop points. Surveys of the general habitats in the burned area would be the lowest priority. Detailed weed detection survey guidelines are attached in Appendix A (EDRRP).

Invasive Weed Detection and Control Treatment related to suppression:

Background

Forest Service policy mandates the Forest to minimize the establishment of non-native invasive species to prevent short and long-term degradation of burned areas. The combination of denuded soil and disturbance creates conditions highly favorable to invasion by weeds. Invasive weeds hinder the recovery of habitat, especially in arid and riparian ecosystems, by aggressive colonization. Non-native invasive weeds degrade the value of native plant communities for wildlife habitat and watershed function. Once established, non-native species can persist and spread, permanently altering habitat function and ecosystem stability.

Invasive species known to occur within the burn area and along access routes adjacent to the burn area include salt cedar (*Tamarix ramosissima*), tocalote (*Centaurea melitensis*), yellow star thistle (*Centaurea solstitialis*), Russian thistle (*Salsola tragus*), and Spanish broom (*Spartium junceum*). Invasive weed detection surveys are proposed for the first growing season following the Saddleridge Fire to determine the fire's impact within the burned area on the spread of existing weed populations, and the introduction of new weed populations resulting from the fire and from activities associated with fire suppression. Monitoring for at least one year post-fire is necessary due to the highly variable timing and amounts typical of precipitation in Southern California, which lead to the episodic establishment of invasive species.

Management Concerns

Fire fighting vehicles and equipment are common vectors that spread non-native invasive weeds. Although Forest Service policy requires washing of all equipment mobilizing onto wildfires to prevent the introduction of weeds into the burned area during suppression activities, it was not conducted during initial attack on this incident.

Crews and equipment working on the fire were brought in from other areas known to have non-native invasive weed problems. In addition, invasive weeds are known to exist along roadsides and on private property near the fire area and within the area of the Incident Command Post. In part because vehicles and equipment were not washed prior to entering fire area, and because vehicles and equipment originated in areas with serious weed infestations, there is a high likelihood that suppression activities on the Saddleridge Fire have vectored weed seed from one or more locations both local and regional. Invasive weed seeds may have been introduced to roadsides, staging areas, drop points, and hand lines within the fire area.

Much of the burned area itself does not have known invasive weed infestations, although several high priority invasives are known nearby and along routes to the burn. If new infestations are established, the magnitude of the consequences could be significant and long-term as weed invasions interfere with habitat recovery and ecosystem health. In particular, weeds hinder the recovery of burned habitat, especially in arid and riparian ecosystems, by aggressive colonization and reduction of water quality and quantity.

Survey Objectives

The objective of post-fire weed surveys is to determine if the fire, associated ground disturbing activities and

BAER treatments have promoted the establishment and spread of weeds and what eradication efforts are necessary. Early detection dramatically increases the likelihood of successful treatment.

Survey Locations

In and along dozerlines, handlines, drop points, helispots, safety zones, and perennial, intermittent, and priority ephemeral riparian areas.

Proposed Treatment Areas

Dozerlines	12.3 miles
Handlines	3 miles
Drop Points/Helispots	1 site
Priority Riparian Areas	4 miles

Survey Design and Methodology

Surveys will begin in 2020 during the flowering periods of weed species. Because of differences in flowering times for all potential species, two visits will be required during the growing season. Completion of surveys along/in dozerlines, staging areas, safety zones will be the priority. All locations of weed species will be mapped, using the Angeles NF, "Invasive Weeds" list (Appendix A).

Surveying will include documentation, mapping and hand pulling/herbiciding small, localized weed occurrences at the time of inspection (funding to treat larger infestations will be requested in a supplemental BAER report). New weed occurrences will be pulled to root depth, placed in sealed 3mm plastic bags, and properly disposed or sprayed with appropriate and approved herbicides.

Reporting

Weed survey parameters include survey areas, species, locations, population size, and invasive potential.

Documentation of weed infestations will include:

- Record GPS coordinates for both negative and positive inspection results
- Map perimeters of infestations
- Establish photo points
- Incorporate data into local GIS spatial database
- Enter data into National Resource Information System (NRIS) database
- Enter data into FACTS database
- Monitor and evaluate success of treatment in subsequent years

Funding for weed detection to determine whether the Saddleridge Fire and/or ground disturbing activities related to the fire have resulted in the establishment or expansion of invasive weeds are requested for the first year following the fire. Estimated costs are based on the assumption that two visits would be necessary because of the differences in flowering times. Suppression costs include EDRR treatments for dozer lines, hand lines, and drop points/safety zones/heli spots, while BAER costs include treatment in priority riparian areas.

Weed Detection and Rapid Response Cost for Suppression Related Areas

Item	Unit	Unit Cost	# of Units	Cost
1 GS-11 botanist	Days	\$ 500	2	\$ 1,000
5 person contract weed crew	Days	\$1,250	9	\$ 11,250
Supplies (mainly herbicide)	Each	\$ 600	1	\$ 600
Vehicle gas mileage	Miles	\$ 0.55	700	\$ 450
Vehicle Lease	Month	\$ 600	0.5	\$ 440
Total Cost				\$ 13,740

Weed Detection and Rapid Response Cost for BAER Related Areas

Item		Unit	Unit Cost	# of Units	Cost
1 GS-11 botanist		Days	\$ 500		\$ 1,000
5 GS-7 weed technicians		Days	\$1,250	4	\$ 5,000
Supplies (mainly herbicide)		Each	\$ 600	1	\$ 600
Vehicle gas mileage		Miles	\$ 0.55	220	\$ 220
Vehicle Lease		Month	\$ 600	.25	\$ 150
				Total Cost	\$ 6,970

Combined Weed Detection and related EDRR cost is **\$20,170**

Protection and Safety:

Typical recreation activities in this type of setting on the Los Angeles Gateway District include Off Highway Vehicle (OHV) touring on roads, hiking, backpacking, canyoneering, geocaching horseback riding, hunting, mountain biking, walking for exercise, and trail/road running.

There are two nearby trails. The Wilson Saddle Trailhead and the Los Pinetos Trail from Wilson Saddle heading North to Placerita Canyon State Park and Nature Center and the Wilson Canyon Road heading south of Wilson Saddle into Sylmar, CA. This area is moderately popular for recreation. However, over the past decade, the area continues to grow in popularity and use, including unauthorized trails continuing to expand in the area.

With continued growth in recreational interest in the Los Pinetos Area and the proximity to Sylmar (the northernmost neighborhood of Los Angeles, CA), it was expected to find significant dispersed recreational use within the lower canyons of the Los Pinetos area of the Los Angeles Gateway District.

Dispersed Recreation and Trails

- No designated or NFS Trails exist within the burn area.
- In the lower, western canyons and burned area, minimal sign of dispersed recreation activities was found and appeared to be directly tied to roads and unauthorized trails. Minimal canyoneering occurs in the lower canyons above Sylmar and risk to human life and safety is Very High.

Bilingual Road Hazard Warning Signs and Gates

This treatment will design and install bilingual burned area warning signs to caution forest visitors recreating and administrative users about the potential hazards that exist within the burned area. It is consistent with the language provided in the BAER Treatments Catalog. The warning signs will identify the types of hazards to watch for on roads in the burned area. This treatment will place hazard warning signs to inform users of the dangers associated with entering/recreating within a burned area. The purchase and installation of signs at each of the identified locations will be consistent with Forest Engineering Standards at these locations. A Forest Service employee will inspect the signs for visibility, damage, or loss and replace as needed

Cost for Signs and Installation

Item		Unit	Unit Cost	# of Units	Cost
Large road hazard signs (bilingual)		Each	\$ 500	5	\$ 2,500
4 x 4 x 10 Treated Lumber		Each	\$ 15	10	\$ 150
GS-7 Recreation Technician		Each	\$ 336	3	\$ 1,006
GS-5 Recreation Technician		Each	\$ 246	3	\$ 738
GS-5 Recreation Technician		Each	\$ 246	3	\$ 738
				Total Cost	\$ 4,650

Costs for Gates and Installation

Item	Unit	Unit Cost	# of Units	Cost
Steel gate (additional request)	Each	5,000	1	\$ 5,000
Steel gate	Each	6,000	1	\$ 6,000
Concrete	Yard	\$100/yd	4	\$ 400
Contractor & Equipment	Day	\$3,000	3	\$ 9,000
GS-13 COR to write contract	Each	\$ 585	2	\$ 1,170
GS-9 Recreation Technician	Each	\$ 419	2	\$ 838
GS-7 Recreation Technician	Each	\$ 336	2	\$ 671
Total Cost				\$ 18,079
Total Cost (revised)				\$ 23,079

Barriers for Unauthorized Off-Highway Vehicle (OHV) Use and Protection Monitoring

The ANF is the most urban Forest in the nation with one of the highest use levels. The challenge for the ANF is managing the high number of users who gain unauthorized access to the Forest by driving/riding/entering through or around a locked gate or closure sign, or using suppression features to access areas of the Forest that were inaccessible pre-fire. Suppression repair is attempting to address access issues, but experience indicates repair efforts are often ineffective to this end or may need further maintenance and repair. If left unmanaged, post-fire OHV access presents a high risk of significant damage to natural resources including soil productivity, vegetation recovery, damage to the federal endangered species California Gnatcatcher habitat, and safety of visitors to the forest in an area of heightened danger due to the Saddleridge Fire.

Unauthorized access is a threat to the burned watershed due to an old road segment continuing off NFSR 3N64 that pre-fire served as a foot-trail and "pre-attack" (planned) fireline; this was returned to an open-road condition by suppression efforts, allowing access by OHV-frequented lands below the Forest onto the Forest. Because of the unauthorized OHV pressure in this vicinity of the Forest, we request pipe-rail fence barrier and rock barriers, which will be more difficult to remove and require less patrol and maintenance, in a difficult to access area. Less costly options such as wire fencing or post & cable barriers were considered and costed for comparison, but it is important that the treatment be significantly resistant to breach. We propose a hardened barrier and infrequent patrol to monitor the barrier integrity; monitoring treatment integrity is part of the treatment, it is not effectiveness monitoring as a separate monitoring item. The following treatments are proposed:

OHV Barrier Installation and Cost (NFSR 3N64)

Item	Unit	Unit Cost	# of Units	Cost
Pipe rail barriers	Foot	\$40	600	\$24,000
Rock Barrier	Each	\$10,000	1	\$10,000
GS 13 COR to write contract	Each	\$585	2	\$1,170
GS-5 OHV - FPO	Day	\$225	4	\$900
Mileage	Miles	\$0.55	540	\$297
Total Cost				\$36,367

Combined cost for Protection and Safety is **\$ 59,096 (\$64,096)**

Forest Closure: Currently the Forest has issued a closure area surrounding the Saddleridge Fire (Order NO. 05-01-19-04) and expires May 1, 2020. It is recommended that this closure stays in place and the risk associated the burn scar are reevaluated prior to lifting the closure. A reduction in size is currently being re-evaluated.

Interagency Coordination: Continued distribution of public information is considered essential for public safety in conveying the risk within the burn. Communication with Special Use Permit holders of the Los Pinetos Communication Site and representatives from non-NFS Lands will be ongoing.

Treatment	Units	Unit Cost	# of Units	Total Cost
Interagency Coordination	Days	\$525	2	\$1,050

Project Coordination: It became necessary to bring in an Implementation Lead from off-Forest. Implementation Project Lead is to coordinate with resource and engineering staff and ensure completion of planned projects.

Treatment	Units	Unit Cost	# of Units	Total Cost
Implementation Project Lead	Days	\$525	10	\$5,250
Hotel	Days	\$181	2	\$362
Per Diem	Days	\$66	3	\$198
Mileage	Miles	0.55	1,100	\$605
Total Cost				\$6,415

Part VI – Emergency Rehabilitation Treatments and Source of Funds by Land Ownership

Line Items	Units	Unit Cost	NFS Lands			Other Lands				All
			# of	WFSU	Spent	# of	Fed	# of	on F	Total
			Units	SULT \$	\$	units	\$	Units	\$	\$
A. Land Treatments										
Weeds related to Suppression				\$13,740	\$0		\$0		\$0	\$13,740
Weed EDRR				\$6,970	\$0		\$0		\$0	\$6,970
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Land Treatments</i>				\$20,710	\$0		\$0		\$0	\$20,710
B. Channel Treatments - none										
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Channel Treat.</i>				\$0	\$0		\$0		\$0	\$0
C. Road and Trails - none										
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Road & Trails</i>				\$0	\$0		\$0		\$0	\$0
D. Protection and Safety										
Gate (additional)				\$5,000	\$0		\$0		\$0	\$5,000
Road Hazard Warning Sign/ Gate				\$22,729						\$22,729
Pipe gate and boulders				\$36,367	\$0		\$0		\$0	\$36,367
Interagency Coordination				\$1,050	\$0		\$0		\$0	\$1,050
Implementation Team Lead				\$6,415	\$0		\$0		\$0	\$6,415
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Structures</i>				\$71,561	\$0		\$0		\$0	\$71,561
E. BAER Evaluation										
<i>Insert new items above this line!</i>				\$0	\$41,400		\$0		\$0	\$41,400
<i>Subtotal Evaluation</i>				\$0	\$41,400		\$0		\$0	\$41,400
F. Monitoring - none										
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Monitoring</i>				\$0	\$0		\$0		\$0	\$0
G. Totals (Initial Request)				\$80,856	\$41,400		\$0		\$0	\$80,856
G. Totals (Interim1 Request)				\$92,271	\$41,400		\$0		\$0	\$92,271

PART VII - APPROVALS

1. _____
Forest Supervisor (signature)

Date