

Date of Report: May 8, 2013

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 # 2
☒ 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:** Williams Fire**B. Fire Number:** CA-ANF-004803**C. State:** CA**D. County:** Los Angeles**E. Region:** 05**F. Forest:** Angeles National Forest**G. District:** 52**H. Fire Incident Job Code:** P5G7L0**I. Date Fire Started:** September 2, 2012**J. Date Fire Contained:** September 13, 2012**K. Suppression Cost:** \$8 million**L. Fire Suppression Damages Repaired with Suppression Funds**

1. Fireline waterbarred (miles): 15.6 miles of hand line, 5 miles of dozer line
2. Fireline seeded (miles): None
3. Other (identify): None

M. Watershed Number: 10th Field HUC# 1807010602 (Upper San Gabriel River), 12th Field HUC# 180701060203 (Iron Fork San Gabriel River)**N. Total Acres Burned:** 4,190

NFS Acres (4137) Other Federal (N/A) State (0) Private (53)

O. Vegetation Types: Coastal Sage Scrub, Chamise Chaparral, Mixed Chaparral, Big cone Douglas Fir Forest, Coast Live Oak/Sycamore Riparian Forest

P. Dominant Soils: The soils within the Williams fire perimeter are largely dominated by shallow soils to a lithic contact situated on very steep slopes on south facing slopes. Soils on north facing to be deeper and more productive. The primary soil series are Exchequer, Sur, Winthrop, and Trigo.

Q. Geologic Types: The Williams fire is located in the Transverse Province. The San Gabriel Mountains consist of Precambrian to Cretaceous age gneisses and granitics, which produce toppling rockfall failures. The basement rocks are unconformably overlain by early Pleistocene Saugus Formation consisting of loosely consolidated sands, gravels, and conglomerates. This formation is highly erodible. Orographic uplift produces may produce torrential rains. Flooding, hyper-flooding, debris flows, debris torrents may occur.

R. Miles of Stream Channels by Order or Class: : Perennial = 0 miles, Intermittant = 10 miles, Ephemeral=unknown miles

S. Transportation System

Trails: 0 miles Roads: 9 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 185 (4.4%) (Unburned), 611 (14.6%) (low), 3,118 (74.4%) (moderate), 276 (6.6%) (high)

B. Water-Repellent Soil (acres): 4190

C. Soil Erosion Hazard Rating (acres):
 (low) (moderate) 261 (high) 3929 (very high)

D. Erosion Potential after fire: 27.4 tons/acre Erosion potential before fire: .6 tons/acre- Rowe, Countryman, Storey

E. Sediment Potential: 48,467 cubic yards / square mile/ 1st year 625,598 per Rowe, Countryman, Storey

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years):	3-5
B. Design Chance of Success, (percent):	90
C. Equivalent Design Recurrence Interval, (years):	10
D. Design Storm Duration, (hours):	24
E. Design Storm Magnitude, (inches):	6
F. Design Flow, (cubic feet / second/ square mile):	196
G. Estimated Reduction in Infiltration, (percent):	81
H. Adjusted Design Flow, (cfs per square mile):	396*

(*Using Rowe et al method, see hydrology specialist report for peak flow data)

PART V - SUMMARY OF ANALYSIS

Background

The Williams Fire began on Sunday, September 2, 2012, on land administered by the San Gabriel River Ranger District, Angeles National Forest. Driven by steep terrain and low relative humidity, the fire spread quickly, burning into both Los Angeles County and later Los Angeles City jurisdictions.

At its height, nearly 1,700 firefighters and support personnel were assigned to the fire, with a very steep ramp up and demobilization of resources. On Monday, September 3, the Angeles National Forest announced the cause of the Williams Fire was vehicle-related, with the investigation on-going.

Most (80-90%) of the watershed of Graveyard and Williams Canyons burned. There is now a high risk of post fire erosion, flash flooding and debris flows to both public and private land values, including infrastructure, businesses and roads, both within and downstream of these drainages. On September 12th the BAER team met with NRCS personnel to look at potential post fire impacts to private and state lands (Camp 19, Follows Camp, River Community, and Camp Williams) and to discuss potential treatments to mitigate these impacts. Also on that day the BAER team met with L.A. County Public Works employees to review potential impacts and treatments to the East Fork and Shoemaker Roads. On September 14th the BAER team hosted a stakeholder meeting to discuss the results of the BAER assessment and recommended treatments with all interested landowners and agencies in the burn area vicinity (L.A. County Fire, L.A. County Public Works, River Community, Camp Williams, City of Industry, NRCS, CA Dept. of Fish and Game, and U.S. Fish and Wildlife Service).

A. Describe Critical Values/Resources and Threats:

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 severely burned watersheds directly above private property, large volumes of loose, stored sediment in channels and on the steep slopes, and the location of property in the floodplain directly below those watersheds indicate a high risk to life and property creating an emergency situation. There is also a risk to the health and safety of people visiting the East Fork of the San Gabriel River between Camp Williams and Camp 19 from flash flooding/debris flows during large storm events. Motor vehicles, hikers, mountain bikers, and equestrians are also at risk from rock fall and washouts while traveling along the East Fork and Shoemaker Roads in the burn area.

Camp 19: This detention camp is run by L.A. County Fire and is mostly on State land, with the exception of a bridge and road spanning the East Fork of the San Gabriel River, which are on Forest Service land. The bridge is currently maintained by the County under a Forest Service special use permit issued in 1948. The bridge is directly downstream of Graveyard and Williams Canyons, two watersheds that almost entirely burned and are expected to greatly enhance the sediment and water flows in the East Fork after rain events. Clearance under the bridge is currently quite low (less than 5 feet) and it is likely that significant rain events will make the bridge

impassible and may potentially damage its infrastructure. New information has shown that the escape route for the camp (Upper Monroe Road, 2N16) is not passable to crew carriers. In the event that the bridge is impassable and water levels are high enough to flood the camp, it is necessary to propose a road treatment that will allow the Upper Monroe road to become an escape route. This treatment is described below under the Roads Treatment heading.

Risk Assessment – Bridge and infrastructure

Probability of Damage or Loss: Likely. This determination is due to the proximity of the bridge to the mouth of Graveyard Canyon, which has a 200% modeled increase in water flow during a 2 year return storm interval. This determination is also attributed to the low clearance of the bridge.

Magnitude of Consequence: Moderate. This determination is due to the existence of an alternate escape route and higher grounds in the camp.

Risk Level: High.

Follows Camp: This land is owned by the City of Industry and is currently vacant after flooding from the Williams Fire of 2002 damaged much of the camp infrastructure. However, a bridge does span the East Fork of the San Gabriel River. The bridge is directly downstream of Williams Canyon, a watershed that almost entirely burned and is expected to greatly enhance the sediment and water flows in the East Fork after rain events. Clearance under the bridge is currently around 7 to 10 feet, meaning that it is possible significant rain events may make the bridge impassible and could potentially damage its infrastructure.

Risk Assessment – Bridge

Probability of Damage or Loss: Possible. This determination is due to the 7 to 10 foot clearance of the bridge and the fill slope between it and the mouth of Williams Canyon.

Magnitude of Consequence: Moderate. This determination is due to the lack of property and life the bridge currently connects to.

Risk Level: Intermediate.

East Fork Road: Approximately 3 miles of the East Fork Road are directly downslope of the Williams Fire. The slopes above the road are extremely steep (over 65%) and the fire has increased rock fall and sloughing, which were already problematic before the burn.

Risk Assessment –Road and infrastructure

Probability of Damage or Loss: Likely. This determination is due to increased rock fall and erosion rates already occurring post fire on the very steep slopes above the road.

Magnitude of Consequence: Major. This determination is due to the potential for rocks and sediment on the road to cause a vehicle accident.

Risk Level: Very High.

Shoemaker Road: Approximately 6 miles of the Shoemaker Road are directly downslope of the Williams Fire. The slopes above the road are extremely steep (over 65%) and the fire has increased rock fall and sloughing, which were already problematic before the burn. Half of Shoemaker Road is closed to public vehicular traffic, but it is a popular hiking trail, particularly in the cooler winter months.

Risk Assessment –Road and infrastructure

Probability of Damage or Loss: Likely. This determination is due to increased rock fall and erosion rates already occurring post fire on the very steep slopes above the road.

Magnitude of Consequence: Moderate. This determination is due to the lower usage of this road by vehicles than East Fork Road and the unlikelihood of hikers being out during rain events.

Risk Level: High.

Recreationists in East Fork San Gabriel River: On the day the fire started approximately 10,000 recreationists were evacuated from the San Gabriel River watershed area. The East Fork River itself is a high use area, with the majority of people recreating in the water or close by.

Risk Assessment – Life

Probability of Damage or Loss: Likely. This determination is due to the change in watershed response causing a potential for greatly enhanced sediment and water flows in the East Fork River from the confluence of Williams Canyon down to the San Gabriel Reservoir.

Magnitude of Consequence: Major. This determination is due to the heavy recreational use in the East Fork River.

Risk Level: Very High.

Camp Williams Campground: The campground at Camp Williams is directly adjacent to the East Fork River and is built on top of fill sediment from outside sources. Approximately 14 campsites occur within 7-10 feet of the dry season water line. The campground is directly downstream of Williams Canyon, which almost entirely burned and is expected to experience 188% increase in water flow during a 2 year storm return interval.

Risk Assessment – Life and Campground

Probability of Damage or Loss: Likely. This determination is due to the change in watershed response causing a potential for greatly enhanced sediment and water flows in the East Fork River from the confluence of Williams Canyon downstream.

Magnitude of Consequence: Major. This determination is due to the proximity of the campground and recreationists to the East Fork River water edge.

Risk Level: Very High.

San Gabriel Reservoir and Dam: Water, runoff and debris from the Williams Fire from the East Fork San Gabriel River drains into the San Gabriel Reservoir. It is expected that during the first runoff producing rainfall events the Reservoir will experience increased water and sediment from the burn area, especially from Graveyard Canyon. The BAER Team also expects an increase in debris such as logs, limbs, needles and leaves transported from the fire area to the reservoir. The BAER soil report goes into greater detail on the amount of pre versus post fire sediment deposition, but the average increase in sediment for all the burned watersheds is expected to be around 18 times greater post fire for the first year. Monitoring and research indicate the rate of erosion and stream sedimentation dramatically decreases in year two due to the rapid native vegetation recovery and the fact that the majority of available sediments were transported in year one. It is important to note however, that the Williams Fire burned only 3% of the total watershed draining into the San Gabriel Reservoir and that even this substantial increase in sediment post fire will likely be dwarfed by the impact of the watershed at large. At the stakeholders meeting on September 14th L.A. County Public Works staff recommend that the BAER team mention in the final report that multiple recent fires in the San Gabriel

Watershed have created cumulative impacts, in the form of increased sediment, for the San Gabriel Reservoir. These fires include the Station (2009), Williams (2002), and Morris (2009), which have increased sediment loads in all three reservoirs (Cogswell, San Gabriel, Morris) in the greater San Gabriel watershed. Public Works has a concern that this latest Williams fire may not individually have an impact on the San Gabriel Reservoir, but that cumulatively, these recent fires have created sediment loads which raise concerns for the continued operation and maintenance of the reservoirs. This BAER team assessment did not analyze the impacts of all recent fires on the San Gabriel Watershed and its reservoirs, but we encouraged Public Works to do so.

Risk Assessment – Property and Water Quality

Probability of Damage or Loss: Unlikely. This determination is due to the small size of the burn area in relation to the size of the total watersheds draining into the San Gabriel Reservoir. In addition, these increased sediment loads are only expected to occur during the first storm events.

Magnitude of Consequence: Moderate. This determination is due to the unlikelihood of this fire to have more than a short term impact to the reservoir and its water quality. In relation to the cumulative impacts of several fires on the reservoir the magnitude of consequence may be raised to a major level after proper analysis. This would also raise the risk level to an intermediate level.

Risk Level: Low.

Threats to Water Quality

Hazmat: There is two hazardous material sites affected by the Williams wildfire on ANF lands; a complete list of other sites not deemed to be emergencies related to the fire can be found in the Hazardous Materials Specialist report. The first site constituting an emergency is an abandoned tank, containing an unknown substance, painted with paint thought to contain lead, which sits in an unnamed drainage along Shoemaker Road. The tank appears to have been mobilized during the fire and there is a potential for heavy rains or snow accumulation to cause the unstable tank and waste to migrate even further down slope, thereby potentially causing a water quality problem. The second hazmat site is an abandoned tank farm, containing four tanks (most likely covered in lead paint, which are experiencing increased flaking due to the fire), wood treated in creosote, and multiple paint cans. Prior to the fire a wooden retaining wall was containing runoff from the site, however this structure has been burned. The tanks sit on a relatively flat site, but runoff from the site during heavy rain storms will now be more likely to make its way into a nearby drainage.

Marijuana Grow Site: Aerial reconnaissance revealed three areas utilized for the illegal cultivation of marijuana within the burn area; a complete list can be found in the Hazardous Materials Specialist report. The grow sites are thought to include garden/grow areas, makeshift camps, garbage pits, fertilizers, pesticides, and irrigation systems. One site above Graveyard Canyon also contains several large open pits containing unknown materials. There is a potential for heavy rains or snow accumulation to cause the waste to migrate down slope, thereby causing a water quality problem.

Risk Assessment –Hazmat

Probability of Damage or Loss: Possible. This determination is due to the change in watershed response causing sheet and rill erosion of topsoil.

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

Risk Level: Intermediate.

Threats to Threatened, Endangered and Sensitive Wildlife Species

Santa Ana sucker, Santa Ana speckled dace, arroyo chub: An emergency does exist for these federally listed species as a result of post-fire effects of the Williams Fire on aquatic habitats. The emergency condition results from the potential for severe flooding, sediment transport and debris flows to alter river form, function and clog spawning gravels.

Risk Assessment – T&E Wildlife Species

Probability of Damage or Loss: Very Likely. This determination is due to the change in watershed response causing sheet and rill erosion of topsoil.

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

Risk Level: Very High.

Threats to Ecosystem Stability/Soil Productivity

Accelerated slope instability: Nearly 81 percent of the area within the fire perimeter burned with either high or moderate soil burn severity (as mapped with BARC confirmed in the field). Post-fire field surveys indicate that over 80 percent of vegetation cover was consumed in high and moderate burn severity areas. IN the moderate areas there was generally incomplete consumption of duff and litter providing for limited effective soil cover. There is high potential of increased mass-wasting and surface erosion. Localized erosion rates could be more than fifteen times background erosion with average rainfall events. All soils have varying degrees of surface water-repellency (hydrophobicity) regardless of burn severity. The hydrophobicity is naturally occurring and is exacerbated with fire. Hydrophobicity strongly impairs the ability of soil to infiltrate water thereby increasing runoff potential and erosive energy. Wind erosion from major Santa Ana wind events, could possibly be a greater threat to soil productivity than water erosion.

The pre-fire vegetation facilitated assisted in keeping the soil in place on the steep hillslopes This material was held on slopes by shrubs and grasses. Slopes greater than 60 percent dominate the fire area with steeper slopes in drainages. When the vegetative overstory burned off, the soil material became unstable on slopes greater than 60 percent. As a result, dry-ravel is occurring throughout the fire forming colluvial fans, accumulating in drainages, and piling on roads. Dry-ravel is “pre-charging” stream channels providing a large source of sediment easily mobilized during the first few runoff producing storm events.

There is an ample seed bank in the surface horizon of the soils and live roots are abundant. Rapid vegetative growth is expected after the first soil wetting rains. Native shrubs are likely to begin sprouting within a few weeks.

We expect a high amount of accelerated erosion during the first winter, however with native vegetation recovery the 2nd years erosion will be considerably less.

Risk Assessment – Soil Productivity

Probability of Damage or Loss: Very Likely. This determination is due to the change in watershed response causing sheet and rill erosion of topsoil.

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

Risk Level: Low.

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. Most of the Williams Fire occurred in existing and proposed Wilderness and did not have many previously documented weed infestations, except for some scattered populations along the road perimeters. 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. Five miles of dozerline were also constructed outside of the burn perimeter. In addition to causing an increase in weed invasion, the disturbances caused by dozerlines are expected to create accelerated erosion and soil compaction that may also inhibit the recovery of native plant populations. Noxious weed detection surveys have been completed in all high priority survey areas (along riparian areas, dozerlines, staging areas, and roads). Surveys have detected several new and spreading high priority infestations of Spanish broom, tamarisk and pampas grass in riparian and dozerline areas.

Risk Assessment – Vegetation Recovery

Probability of Damage or Loss: Likely. This determination is due to the change in watershed response causing sheet and rill erosion of topsoil.

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

Risk Level: Very High.

Threats to Cultural Resources

None

B. Emergency Treatment Objectives:

- **Provide for Public Safety**– Ensure communication of potential post fire values at risk has occurred. Reduce threat to life and safety by installing and maintaining educational/safety signing in hazardous areas and roads until watershed stabilization has occurred and/or the threats/hazards have been removed. Cleanup or stabilize hazardous material sites to prevent water and soil contamination.
- **Limit Damage to Property**- Private residences/businesses, bridges, and roads within and downstream of the burn area are at greater risk from flash flooding and sedimentation after the fire. Clearing channel obstructions and increasing the road cross-drainage capacity will help mitigate the effects of accelerated storm flows and sedimentation to property. The treatment objectives are to increase the awareness of the property owners, Natural Resource Conservation Service (NRCS), Los Angeles County Flood, Public Works, and Fire, and other agencies of the potentially hazardous conditions resulting from the Williams fire.
- **Noxious Weeds** - Reduce the potential for impaired vegetative recovery and introduction/spread of noxious weeds.
- **Santa Ana Sucker**- Assessment of impacts on fisheries habitat as a result of sediment deposition, debris or flood flows resulting from the fire. Assess habitat impairments and correct sedimentation of pools, debris jams and clean spawning gravels if needed.
- **Road and Trail Treatments** – All roads within the burn area are non-Forest Service. The treatment objective is to disseminate potential impact information to L.A. County Public Works. Forest Service personnel met with Public Work's personnel to discuss these impacts and potential mitigation methods to improve road

preservation and public safety. On the Upper Monroe road (2N16) the objective is to make the road passable for crew buggies in order to allow the road to be utilized as an escape ramp from Camp 19.

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

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

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	90%	N/A	N/A
Channel	90%	N/A	N/A
Roads/Trails	90%	N/A	N/A
Protection/Safety	90%	N/A	N/A

E. Cost of No-Action (Including Loss): \$5,150,000

F. Cost of Selected Alternative (Including Loss): \$2,923,00

G. Skills Represented on Burned-Area Survey Team:

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

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Core Team

Todd Ellsworth (Soil Scientist)
 Joe Gonzales (Hazmat)
 Katie VinZant (Botanist)
 Cliff Johnson (Lands)
 Dave Collins (GIS)
 Eric Martindale (Engineering)

Casey Shannon (Hydrologist)
 Joanna Huckabee (Archaeologist)
 Steve Anderson (Wildlife Biologist)
 Ann Berkley (Wildlife trainee)

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.)

Implementation Team

To provide for logistics and tracking of treatment implementation.

Estimated Cost:

Implementation Team Leader (\$400/day x 5 days)	\$ 2000
Vehicle mileage(300 miles @0.55/mile)	\$ 165
TOTAL	\$ 2165

Land Treatments:***Noxious Weed Detection Surveys***

Weed detection surveys to determine whether ground disturbing activities related to the Williams Incident and the fire itself have resulted in the expansion of noxious weeds is requested for the first year. Most of the Williams Fire occurred in existing and proposed Wilderness and did not have many previously documented weed infestations, except for some scattered populations along the road perimeters. It is therefore imperative to keep new infestations from establishing in the backcountry and control infestations on the road perimeters from expanding. Surveys will begin in 2012 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 in one visit, the actual costs would be lower than displayed below. Completion of surveys in riparian areas, dozerlines, roads, staging areas, safety zones, and known invasive and sensitive 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.

Noxious weed detection surveys completed during April and May of 2013 have identified approximately thirty infestations of newly established weed populations within the Williams Fire. These infestations are of weed species, such as salt cedar, Spanish broom and pampas grass, considered to be of high priority for early eradication due to their rapid proliferation. In addition, many of these infestations are being found in riparian areas, which provide imperative habitat for many species of wildlife. Funding for this treatment will be utilized for weed eradication of newly established, high priority invasive plant species populations.

Estimated Cost:

1 GS-11 botanists (\$400/day x 2 days)	\$ 800
2 GS-5 weed technicians (\$150/day x 12 days)	\$ 3600
Supplies	\$ 250
Vehicle mileage (600 miles @0.55/mile)	\$ 330
TOTAL	\$ 4980

Eradication Estimated Cost:

1 GS-11 botanists (\$400/day x 1 day)	\$ 400
2 GS-5 weed technicians (\$150/day x 25 days)	\$ 7500
Supplies (herbicide and PPE)	\$ 1000
Vehicle mileage (1000 miles @0.55/mile)	\$ 550
TOTAL	\$ 9450

Road Treatments: None***2N16 – UPPER MONROE TRUCK TRAIL***

The major work proposed is to ensure that this road remains passable. Currently, the road is in passable condition with the exception of one area. At this area approximately 3 miles north of its intersection with Glendora Mountain Road, a section of fill has slid out along the edge of the road and has eroded into the roadway. The drivable roadway at this section is very narrow and presents a safety hazard, especially with larger vehicles. With winter rains, it will continue to erode further back into the roadway. It is recommended that this area be backfilled with approximately 150 cubic yards of material and an over-side drain with 20 feet of flume installed to properly remove runoff from the roadway.

Estimated Cost:

Backfill 150 CY of material @ \$110 per CY =	\$16,500
Install overside drain and 20 ft. of flume =	\$3,000
Contractor's Mobilization @ approximately 15% =	\$3,000
FS Contract Preparation and Administration @ 15% =	\$3,000
GS 11 Heritage Specialist Review @\$400/day x 2 days =	\$ 800
GS 11 Biology/Botany Review @ \$400/day x 2 days =	\$ 800
TOTAL	\$27,100

Protection/Safety Treatments:*Interagency Coordination*

Interagency coordination started during the fire and continued throughout the BAER Assessment. Continuing this coordination by providing the BAER Assessment Report, specialist reports and attending meetings is anticipated. In addition, letters detailing potential physical responses and impacts from the fire that may influence safety in the East Fork San Gabriel River area will need to be composed and sent to all public and private stakeholders at risk from increased sediment and flooding.

This treatment also includes staff time to update the special use permit with L.A. County Fire to maintain the bridge at Camp 19. In the past Camp 19 has done stream alterations in the East Fork San Gabriel River in occupied Critical Habitat for the Santa Ana sucker without consulting with the Forest Service, Fish and Wildlife Service, and State entities. The BAER team assessment has shown that the bridge at Camp 19 is likely to be impacted by post fire storm events and is at a high risk level for potential damage. It is therefore, very likely that maintenance to the bridge and the stream below it will need to occur to protect the infrastructure. This treatment would allow the Forest to work with L.A. County Fire to update their special use permit by adding mitigation measures that would protect the sucker and its habitat.

Estimated Cost:

Implementation Leader(400/day x 3 days)	\$1200
Forest BAER Coordinator (\$400/day x 2 days)	\$ 800
1 GS 11 Resource Officer (\$400/day x 2 days)	\$ 800
1 GS 11 Lands Specialist (\$400/day x 2 days)	\$ 800
1 GS 11 Hydrologist (\$400/day x 2 days)	\$ 800
1 GS 11 Fisheries Biologist (\$400/day x 4 days)	\$1600
TOTAL	\$6000

Riparian Tank Stabilization

The treatment for the abandoned tank in the unnamed riparian area will be to haul the tank with heavy equipment up to Shoemaker road, which is a short distance away (less than 500 feet). The tank will be stored in a turnout along the roadside, where there is little potential for it to impact water quality.

Estimated Cost:

GS 11 Hazmat Specialist (\$385/day x 1)	\$ 385
GS 11 Resource Officer (\$400/day x 1)	\$ 400
Heavy Equipment and Operator	\$1000
Vehicles (150 miles @0.55/mile)	\$ 83
TOTAL	\$1940

Tank Farm Containment

The retaining wall holding runoff from the tank farm, creosote treated wood, and paint can area will be rebuilt in an effort to keep hazmat materials from migrating downslope.

Estimated Cost:

GS 11 Hazmat Specialist (\$385/day x 2)	\$ 770
GS 11 Resource Officer (\$400/day x 1)	\$ 400
Retaining wall materials	\$1000
Labor to install (\$800/day)	\$1600
Vehicles (200 miles @0.55/mile)	\$ 110
TOTAL	\$3880

Marijuana Plantation Assessment

Three areas utilized for the illegal cultivation of marijuana were discovered within the burn area. The grow sites are thought to include garden/grow areas, makeshift camps, garbage pits, fertilizers, pesticides, and irrigation systems. One site above Graveyard Canyon also contains several large open pits containing unknown materials. It was not possible during the BAER assessment period to conduct a thorough site visit of these sites in order to fully determine if an emergency to water quality and public safety exists as the sites are difficult to access. The purpose of this treatment is to conduct a more thorough assessment and to then submit an interim BAER report if further treatment is deemed necessary and under the scope of BAER.

Estimated Cost:

1 GS 11 Hazmat Specialist (\$385/day x2 days)	\$ 770
1 GS 11 Resource Officer (\$400/day x 2 days)	\$ 800
Lab Tests	\$ 200
Vehicles (100 miles @0.55/mile)	\$ 55
TOTAL	\$1825

Hazard and Advisory Signs:

This treatment is preventative. Signs will be placed along the one mile stretch of Forest Service land adjacent to the East Fork San Gabriel River, between Follows Camp and Camp 19. The signs will encourage visitors to stay out of the riparian area during rain events and/or if high/murky water flows are occurring. The signs will also warn people of the possible dangers of rock fall, debris flows, and wash outs within the burn area. Signs will be durable in nature and placed in areas of high recreational use. Given the use patterns in the East Fork area it is expected that signs will have to be replaced on a regular basis due to vandalism and destruction, this is reflected in the below cost.

Estimated Cost:

1 GS-09 Rec Specialist (\$250/day x 1 day)	\$ 250
1 GS-07 Rec Specialist (\$220/day x 6 days)	\$1320
Archeology survey, GS-9, 1 day at \$250/day	\$ 250
Wooden Sign (500/each x 2)	\$1000
Casonite Signs (15/each x 50)	\$ 750
Miscellaneous Signage Materials	\$ 200
Vehicle Mileage (250 miles x .55/mile)	\$ 138
TOTAL	\$3908

Post Flood Event Fisheries Assessment:

It is unlikely that mitigation treatments prior to peak flows would be effective at preventing the conditions that could adversely modify fisheries habitat or the extent to which such habitat would be modified in the East Fork San Gabriel River. The most effective action would be assessment of Santa Ana sucker habitat conditions post peak flows for three years post fire along approximately 4 miles of the East Fork River from San Gabriel Reservoir to Shoemaker Canyon. This assessment would evaluate river conditions and effects of peak flows, sediment delivery and debris on critical habitat values for the Santa

Ana sucker and prescribe remedial treatment if necessary. Remedial treatment would include the correction of sedimentation in pools, removal of debris jams and cleaning of spawning gravels if needed. If these remedial treatments are found to be necessary and effective funding will be sought through an interim BAER report.

Estimated Cost:

1 GS-11 Wildlife Biologist (\$400/day x 5 days)	\$2000
Misc. supplies	\$ 200
Vehicle Mileage (250 miles x .55/mile)	\$ 138
TOTAL	\$2338

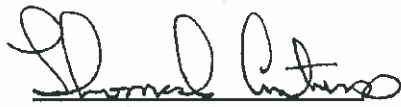
I. Monitoring Narrative: None

Part VI – Emergency Stabilization Treatments and Source of Funds Interim # 2

			NFS Lands				Other Lands			All
		Unit	# of		Other	# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	BAER \$	\$	units	\$	Units	\$	\$
A. Land Treatments										
Implementation Team	ea	2165	1	\$2,165	\$0					\$2,165
Noxious Weed detection	ea	4980	1	\$4,980	\$0		\$0		\$0	\$4,980
Noxious Weed Eradication	ea	9450	1	\$9450						\$9450
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Land Treatments				\$7,145	\$0		\$0		\$0	\$7,145
B. Channel Treatments										
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Channel Treat.				\$0	\$0		\$0		\$0	\$0
C. Road and Trails										
Upper Monroe Road	ea	27100		27100						27100
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Road & Trails				\$27100	\$0		\$0		\$0	\$27100
D. Protection/Safety										
Interagency Coord	ea	6000	1	\$6,000						\$6,000
Riparian Tank Stabilization	ea	1640	1	\$1,640						\$1,640
Tank Farm Containment		3880	1	\$3,880						\$3,880
Marijuana Assessment	ea	1825	1	\$1,825						\$1,825
Sucker protection	ea	2338	1	\$2,338						\$2,338
Hazard Signs	ea	3908	1	\$3,908	\$0		\$0		\$0	\$3,908
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Structures				\$19,591	\$0		\$0		\$0	\$19,591
E. BAER Evaluation										
Team Member Salaries	day	5428	7	\$29,463						\$29,463
Perdiem/Mileage	unit	7000	1	\$3,871						\$3,871
<i>Insert new items above this line!</i>				---	\$0		\$0		\$0	---
Subtotal Evaluation				\$33,334	\$0		\$0		\$0	\$33,334
F. Monitoring										
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0

Subtotal Monitoring				\$0	\$0		\$0		\$0	\$0
G. Totals				\$26,736	\$0		\$0		\$0	\$26,736
Previously approved										\$0
Total for this request				\$9,450						\$9,450

PART VII - APPROVALS

1. 
Forest Supervisor (signature)

6/26/2013
Date

2. 
Regional Forester (signature)

7/2/13
Date