

USDA-FOREST SERVICE

FS-2500-8

Date of Report: **August 30, 2010****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 DESCRIPTIONA. Fire Name: Monte FireB. Fire Number: CA-MVU-009309C. State: CAD. County: San Diego CountyE. Region: 5F. Forest: Cleveland National ForestG. District: Descanso Ranger DistrictH. Fire Incident Job Code: P5FSS4I. Date Fire Started: August 21, 2010J. Date Fire Contained: August 23, 2010K. Suppression Cost: Approximately \$1.7 million as of August 27, 2010.

L. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred (miles): ¼ mile of Dozerline
2. Fireline seeded (miles): None
3. Other (identify): None

M. Watershed Number: HUC 6 Watersheds: 180703040703 San Vicente Creek/San Diego River, 180703040505 El Capitan Reservoir/San Diego RiverN. Total Acres Burned: Total 953 NFS Acres (687) Other Federal – BLM (139) State (0) Private (127)O. Vegetation Types: Coast Live Oak woodland in the drainages, Chamise and Mixed Chaparral on the upper slopes, and Coastal Sage Scrub on the lower slopes.

P. Dominant Soils:

| Soil Series | Slope (%) | Rock Outcrop (%) | Surface Soil Texture | Rock Fragments (%) | Erosion Hazard Rating | K-Factor | Hydrologic Group | Acres |
|-----------------------------------|-----------|------------------|----------------------|--------------------|-----------------------|----------|------------------|-------|
| Cieneba-Fallbrook Complex, eroded | 30 to 65 | 25% | sandy loam | 15% | High | 0.2 | C | 334 |
| Acid Igneous Rock and Stone Land | 15 to 120 | 90% | loamy coarse sand | n/a | Low | n/a | D/A | 320 |
| Cieneba-Fallbrook Complex, eroded | 9 to 30 | 25% | sandy loam | 15% | High | 0.25 | C | 272 |
| Visalia Series | 5 to 9 | 25% | sandy loam | 30% | Moderate | 0.2 | B | 14 |
| Riverwash | 0 to 5 | 0% | sand | 40 to 80% | Low | 0.1 | D | 7 |
| Fallbrook Series | 9 to 30 | 25% | sandy loam | 45% | High | 0.25 | C | 5 |

Q. Geologic Types: The Monte Fire area is primarily underlain with granitic type rocks consisting of tonalites and quartz norites. The tonalites and quartz norites rock unit is located on the west side of the El Capitan Reservoir and consists of K-feldspar-bearing biotite-pyroxene tonalite and quartz norite with plagioclase feldspar.

R. Miles of Stream Channels by Order or Class: Intermittent Channels = 3 miles.

S. Transportation System

Trails: 0 miles

Roads: 4.2 miles

PART III - WATERSHED CONDITION

A. Burn Severity by total and FS (acres):

| Soil Burn Severity (Acres) | Acres | Percent |
|----------------------------|------------|---------|
| High | 0 | 0% |
| Moderate | 0 | 0% |
| Low | 819 | 86% |
| Unburned | 134 | 14% |
| Total | 953 | |

B. Hydrophobic Soils: 0 acres.

C. Soil Erosion Hazard Rating (acres):

| | |
|----------|-----|
| Low | 327 |
| Moderate | 14 |
| High | 612 |

D. Erosion Potential: 5.5 tons per acre

E. Sediment Potential:

Summary of Sediment Yield to HUC 6 Watersheds and other pourpoint watersheds

| Watershed | Area (Mile ²) | Pre Fire Sediment (yd ³ /mile ²) | Post Fire Sediment (yd ³ /mile ²) | Sediment Increase (x Pre Fire) |
|---------------------------------|---------------------------|---|--|--------------------------------|
| 1.El Capitan Reservoir/SD River | 186.82 | 1,950 | 1,950 | 1.0 |
| 2.Unnamed Watershed A | 0.92 | 1,950 | 1,950 | 1.0 |
| 3. San Diego River (@13S10) | 1.45 (below dam) | 1,950 | 1,950 | 1.0 |
| 4. Unnamed Watershed B | 1.05 | 1,950 | 1,950 | 1.0 |
| 5. San Vincente Ck/SD River | 3.43 (below dam) | 1,950 | 1,950 | 1.0 |

F. Debris Flow Potential: Debris flow potential has not been exacerbated as a result of the fire.

PART IV - HYDROLOGIC DESIGN FACTORS

- A. Estimated Vegetative Recovery Period, (years): 2-3
- B. Design Chance of Success, (percent): 95%
- C. Equivalent Design Recurrence Interval, (years): 2
- D. Design Storm Duration, (hours): 24
- E. Design Storm Magnitude, (inches): 1.8
- F. Design Flow, (cubic feet / second/ square mile): 2.1
- G. Estimated Reduction in Infiltration, (percent): 0%
- H. Adjusted Design Flow, (cfs per square mile): 2.16

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

The Monte Fire started on August 21, 2010 and is approximately 953 acres in size. The fire includes burned areas within two unnamed drainages which are tributaries to the San Diego River just west of the El Capitan Reservoir. The Monte Fire burned moderately steep to very steep watershed north of the San Diego River, east of Lakeside, CA. The watersheds are characterized by steep abundant rock outcrop formations. Soils are fairly well-structured, somewhat compact and have an associated bedrock and large boulder component that slows erosion. The climate is arid overall and precipitation in the fire area is moderate, averaging 16 inches per year at El Capitan Dam. Rainfall occurs mostly during the winter months with the exception of summer convective storms when the potential for intense and localized rainfall can occur. Vegetation consists of coastal sage scrub species found on the slopes and willow, cottonwood, bay laurel, grasses and other riparian species found along relatively narrow stream corridors. The fire burn severity was mostly low overall with a few areas of unburned severity. It is important to note that threats to life, property, and natural resources from flooding and debris flows existed prior to the Monte Fire. Because of the low soil burn severity, the BAER Assessment Team determined that the Monte fire has only slightly increased the post-fire watershed response, and has only slightly increased the threat to life and property.

Summary of Watershed Response

Hydrologic Response: The Monte Fire has been analyzed by watersheds or pourpoints at five different locations in or downstream of the fire area. Watersheds are various sizes and shapes and are dependent on the analysis of the desired outlet or pour point above a value at risk or area of concern. None of these watersheds are expected to have significant increases in post fire water or sediment yield. This is due to the fact that most of the Monte Fire had a low burn severity. There was no high or moderate burn severity. As a result, values at risk are not expected to be at an increased risk from post fire flooding or sedimentation. The water and sediment yield modeling assumes an average or design storm event. Larger rain events do have the potential to increase the risk of flooding and sedimentation, though these risks are present with or without the effects of the Monte Fire. See Hydrology report for water and sediment yield analysis.

Hydrologic design factors used to analyze the effects of the Monte Fire considered the vegetative recovery period estimated to be 2-3 years; treatment chance of success as 95%. Storm recurrence interval of 2 years and 24-hours using NOAA Isopluvial maps for 2-year 24-hour precipitation yielded a design storm magnitude of 1.8 inches of rainfall. Estimated reduction in infiltration was based on the percentage of hydrophobic soil in the burn area which was assessed at 0%. Pre-fire design flow was estimated at 2.1 cubic feet per second per square miles and post fire design flow was estimated at 2.16 cubic feet per second per square miles.

Erosion Response: Soils within the fire area range from shallow, lithic soils on slopes greater than 60% to deep alluvial soils on floodplains and alluvial terraces and fans. Soils in the higher elevations of the fire areas consist of rock outcrop and can possess significant amounts of coarse fragments. Soils are generally Orthents and Xerepts with prominent rock outcrop features throughout the fire area. Sandy loam textures dominant with tonalite, quartz norite, and granite parent materials present across the fire area. Extensive areas of prominent surface stones and boulders occur within the fire. These components comprise a large area of the Monte Fire and as a result the post-fire change and potential for accelerated erosion is reduced. Due to the soil characters, parent materials, and steep slopes present in the fire area, slightly elevated rates of soil erosion or background erosion rates will occur with average and above average precipitation events over the next 2 to 3 years. Fire-induced water-repellent soils were not found in the fire area. The lack of fire intensity due to the light (1 hour and 10 hour) fuels, the wide spacing between heavier fuels, and the composition of fuels (non-waxy, non-resinous grasses) contributed to the lack of introduction of fire-induced water repellent soils. Slightly elevated rates of soil erosion within this time frame considering the low soil burn severities present will not negatively affect human life and/or property. There is no emergency related to soil productivity.

Geologic Response: The Monte Fire is within the Peninsular Range of northwest-southeast trending mountains, an uplifting granitic batholith characterized by right lateral fault movement as well as by extensive fragmentation from internal faults. The Monte Fire area is primarily underlain with granitic type rocks consisting of tonalites and quartz norites which are igneous, plutonic rock of felsic (silicate minerals rich) composition. The geomorphic processes which have shaped and are currently shaping this area include land-sliding of various types, rock-fall, sheet and rill erosion by water, flooding, debris flows, and excavations and material disposal by humans. Much of the material deposited in the alluvial fans below El Cajon Mountain was likely generated from debris flows and debris slides. At present, that whole area is experiencing down cutting along the channels, but no recent evidence of debris slides and/or debris flows can be observed.

Values at Risk

The risk matrix below, Exhibit 2 of Interim Directive No.: **2520-2010-1**, was used to evaluate the Risk Level for each value identified during Assessment:

| 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 |

Life: The steep rocky nature of the burned environment creates potential hazards to administrative travelers of Forest Road 13S10. It is important to note that travelers are normally at risk from falling rock and potentially hazardous road conditions during winter rain and summer thunderstorm events. While the potential for debris flows and flooding within and adjacent to the Monte Fire has not been changed as a result of fire, the burn has slightly increased the rock fall hazards by removing vegetation, which once held rocks and boulders in place, as such, Forest users may be unaware of the fire effects.

Risk Assessment – Threats to travelers along Forest Road 13S10

Probability of Damage or Loss: Unlikely. This determination is due to the infrequency of travel along Forest Road 13S10, an administrative road that provides the only driving access to private land above the burn.

Magnitude of Consequence: Major. This determination was made based on the potential outcome of travelers in vehicles being hit by a falling rock, or driving into a rock on the road at night causing an accident and injury, or accident/injury caused by trying to navigate around rocks that have fallen on the road which is on 30-65% slopes or greater. In the past, travelers have been observed navigating extremely dangerous situations to access their private property.

Risk Level: Intermediate – treatment considered for threats to human life or safety.

Property: Based on the minimal watershed response, the BAER Assessment team determined that residences and private property within and below the fire area were not at increased risk as a result of the Monte Fire. Forest Roads within the fire area will be repaired as a result of suppression activity which is critical to protect road bed and associated infrastructure. Because of the expected minimal increase in watershed response, the assessment team does not feel that significant damage would occur to Forest Road 13S10 as a result of the fire.

Risk Assessment - Private Property

Probability of Damage or Loss: Unlikely. This determination is due to the minimal change in watershed response.

Magnitude of Consequence: Minor. This determination was made based on the minimal change in watershed response.

Risk Level: Very Low.

Risk Assessment – Forest Road 13S10

Probability of Damage or Loss: Possible. This determination is based on the expectation that some increased rockfall will occur and could plug drainage structures.

Magnitude of Consequence: Minor. This determination was made based on the minor amount of damage that would occur if structures were temporarily plugged.

Risk Level: Low.

Water Quality and Quantity: The most noticeable effects of post fire effects on water quality would be increased sediment and ash from the burned area into drainages and waterbodies in and downstream of the fire area. During storm events this will increase turbidity and contribute to pool filling. Due to the low burn severity, water quality and quantity is not expected to be significantly affected as a result of the Monte Fire (see Hydrology Specialist Report, BAER Assessment Project File). El Capitan Reservoir is a municipal water source for the City of San Diego. Only 10 acres of watershed above the reservoir was burned, these 10 acres burned at a low burn severity. The Monte Fire is not expected to significantly impact water quality or quantity within the El Capitan Reservoir.

Risk Assessment – Water Quality

Probability of Damage or Loss: Unlikely. This determination is due to the minimal change in watershed response.

Magnitude of Consequence: Minor. This determination is due to the minimal change in watershed response.

Risk Level: Very Low.

Threats to Soil Productivity: There is no emergency to soil productivity due to fire-adapted ecosystem and lack of productive timber stands.

Risk Assessment – Soil Productivity

Probability of Damage or Loss: Unlikely. This determination is due to the minimal change in watershed response.

Magnitude of Consequence: Minor. This determination is due to the minimal change in watershed response.

Risk Level: Very Low.

Threats to Cultural Resources: Archival research and GIS analysis indicates that one cultural resource site occurs on Forest Service lands within the Monte Fire perimeter. During post-fire assessment field work conducted by the CNF heritage program staff, two attempts was made to locate and assess the site. However, no cultural resources were observed or identified at the mapped location of the site, and the site was not located. The spatial location of the site may be incorrectly plotted in the GIS database. The site record was previously identified as missing from the heritage program archive, and a copy has been requested from the South Coastal Information Center (SCIC), but it was not available at the time the Monte BAER fieldwork was conducted. If the site is present within the Monte Fire perimeter, post fire conditions in the vicinity do not place heritage resources at risk due to erosion, storm runoff, debris flows, or looting.

Risk Assessment – Cultural Resources

Probability of Damage or Loss: Unlikely. This determination is due to the minimal change in watershed response.

Magnitude of Consequence: Minor. This determination is due to the minimal change in watershed response.

Risk Level: Very Low.

Threats to Wildlife: The wildlife concerns for the Monte Fire are: Loss of vegetative cover, foraging habitat, and critical habitat for a federally-listed threatened species – California Gnatcatcher; Invasion of non-native noxious weeds into California Gnatcatcher habitat.

An emergency exists for the California gnatcatcher and its designated critical habitat as result of the Monte Fire. Coastal sage scrub habitat in the fire area has been seriously compromised and degraded by too-frequent fire. Other parts of the San Diego River, particularly the area around Cedar Creek Falls, have also experienced partial type conversion due to too-frequent fire.

Risk Assessment – Wildlife

Probability of Damage or Loss: Very Likely. The only sizeable population of California Gnatcatcher on National Forest System lands is located on the Cleveland National Forest in the San Diego River watershed. This area also has good connectivity to adjacent gnatcatcher populations near Lakeside. Approximately 15,000 acres of designated critical habitat are present on Cleveland National Forest lands, but of those acres only about 2,000 is actually suitable habitat. The lower slopes of the Monte Fire represent at least 10% of this suitable habitat. All of the other designated critical habitat in the San Diego River has been affected by the Cedar (2003) and Witch (2007) fire and is in a degraded condition.

Magnitude of Consequence: Moderate. Due to the frequent fires in the Monte Fire area over the last 15 years, the coastal sage scrub habitat is at the “tipping point”; without rehabilitation this habitat is very likely to be lost due to type conversion.

Risk Level: Very High.

Threats to Botany: The potential values at risk for sensitive plants are the stability and viability of sensitive plant populations. There are two sensitive plants known to occur within the Monte Fire area – Dean’s Astragalus and Lakeside Ceanothus. Neither of these species are expected to experience an emergency as a result of the Monte Fire.

Risk Assessment – Botany

Probability of Damage or Loss: Unlikely. Both of these species are resilient to fire and will repopulate the area by reseeding or resprouting. None of the known occurrences of sensitive plant species were affected by fire suppression activity.

Magnitude of Consequence: Minor. Both of these species are resilient to fire and will repopulate the area by reseeding or resprouting. None of the known occurrences of sensitive plant species were affected by fire suppression activity.

Risk Level: Very Low.

Native Vegetation Recovery: Areas of coastal sage scrub on the lower slopes have been damaged by too-frequent fire. Frequent fires may result in changes in plant associations and vegetation structure, especially in coastal sage scrub types (Zedler 1983). The invasion of exotic vegetation, especially grasses and annual forbs as a result of fires reduces or displaces native plant species, thus impacting native vegetative recovery. Due to the excessive fire frequency within the Monte Fire area (which burned in the 1995 El Monte Fire, 2003 Cedar Fire, and 2007 Witch Fire), there is a concern about the recovery of native vegetation.

Risk Assessment – Native Vegetation Recovery

Probability of Damage or Loss: Likely. Type conversion of native vegetation to nonnative grasses has already been occurring as a result of the too-frequent fire regime. The Monte Fire has continued this cycle and has significantly impacted native vegetation.

Magnitude of Consequence: Moderate. The Monte Fire, coupled with noxious weeds has caused damage to critical natural resources. This effect is considerable and potentially long term.

Risk Level: High.

B. Emergency Treatment Objectives

As noted above, threats to life and natural resources from increased rockfall potential, establishment of noxious weeds, and critical habitat degradation exist as a result of the Monte Fire. For these reasons the primary treatment objectives are to minimize loss of life and risk to human safety and minimize continued degradation of native vegetation.

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

Land 85 % Channel -- % Roads/Trails 80 % Protection/Safety 90 %

C. Probability of Treatment Success

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

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

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

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Marc Stamer

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Core Team Members:

- Jonathan Schwartz – Geologist
- Jason Jimenez – Soil Scientist
- Chris Stewart – Hydrologist
- Terry Kaplan-Henry – Hydrologist
- Pete Gomben – GIS
- Kirsten Winter – Wildlife/Botany
- Mark Marquette – Roads Engineer
- Steve Harvey – Heritage
- Susan Roder – Heritage

H. Treatment Narrative

The proposed treatments on National Forest System lands can help to reduce the impacts of the fire, but treatments will not completely mitigate the effects of the fire.

The treatments listed below are those that are considered to be the most effective on National Forest System lands given the local setting including topography and access.

Land Treatments

Invasive Plants: An emergency situation has been determined for the recovery of native vegetation due to threats from invasive noxious weed infestation. The unknowing introduction of invasive noxious weeds into areas disturbed by fire and fire suppression has the potential to establish persistent noxious weed populations due to their accelerated growth and reproduction and a release from competition with natives. These persistent populations could affect the structure and habitat function of plant communities within the burn area. Forest Service direction is to minimize the establishment of non-native invasive species to prevent unacceptable degradation of the burned area. Consequently, delayed assessment of roads, dozer lines, and drop points is necessary to detect the spread and introduction of noxious weeds in the first year after fire. Assessing the establishment of noxious weeds and treating small outlying populations before they expand, will prevent the noxious weeds from becoming serious threats to the recovery of native plants. See week risk assessment for additional details.

Invasive Plants Treatment

| Item | Unit | Unit Cost | # of Units | Cost |
|------------------------|-------|-----------|------------|----------------|
| GS-12 Botanist | Day | \$484 | 5 | \$2,420 |
| GS-11 Range Specialist | Day | \$359 | 5 | \$1,795 |
| Mileage | Miles | \$0.55 | 200 | \$110 |
| Total Request | | | | \$4,325 |

California Gnatcatcher Critical Habitat Rehabilitation: The BAER Assessment Team recommends seeding approximately 75 acres on the lower slopes of El Cajon Mountain with a coastal sage scrub seed mix, comprised of locally collected seed, to restore designated critical habitat for California Gnatcatcher. This represents about 10% of the designated critical habitat that was burned in the fire. These 75 acres are selected because they are the best planting sites- in the past these areas had the most robust stands of coastal sage scrub. These 75 acres are also considered to be the most vulnerable to invasion by non-native plant species and are the areas where coastal sage scrub habitat is most likely to be lost due to type conversion. California Gnatcatchers typically have territory sizes of 2-5 acres so restoration of this habitat has the potential to support 15-20 pairs of birds.

Seeding this fall will re-establish native vegetation on the lower slopes of the burn area and will help to stabilize soils. Coastal sage scrub will start to regenerate, and treating the area immediately after the fire will improve the success of the revegetation effort as it will be initiated before non-native grasses and other weeds become prevalent in the treatment area. This will reduce the risk that invasive and noxious plants will spread in the burned area. Due to the frequent fires in the Monte Fire area over the last 15 years, the coastal sage scrub habitat is at the "tipping point"; without restoration this habitat is very likely to be lost due to type conversion. Per the Burned Area Emergency Treatments Catalog, mulching with wood straw or wood chips may accompany seeding to improve effectiveness (USDA Forest Service 2006).

California Gnatcatcher populations and habitat have been much reduced throughout Southern California due to recent fires and resulting type-conversion. Although there are 169,000 acres of designated critical habitat for California Gnatcatcher in southern California (USDI Fish and Wildlife Service 2007), the habitat maps typically include many areas that do not contain key habitat elements for the species, and many areas that are mapped as critical habitat are not suitable due to type conversion to grassland. In coastal areas, much of the California Gnatcatcher habitat has been lost due to development. The California Gnatcatcher is essentially a coastal species, and most National Forest Systems lands are at too great an elevation or do not have suitable habitat for this species. Areas on the lower slopes of the San Gabriel and San Bernardino Mountains, where this

species formerly occurred, no longer have suitable habitat as it has been lost to type conversion. The only sizeable population of California Gnatcatcher on National Forest System lands is located on the Cleveland National Forest in the San Diego River watershed. This area also has good connectivity to adjacent gnatcatcher populations near Lakeside.

Approximately 15,000 acres of designated critical habitat are present on Cleveland National Forest lands, but of those acres only about 2,000 are actually suitable habitat. The lower slopes of the Monte Fire represent at least 10% of this suitable habitat. All of the other designated critical habitat in the San Diego River has been affected by the Cedar and Witch fires so is currently in either a degraded condition or is in the process of recovering from the recent fires.

Post-fire restoration of coastal sage scrub for California Gnatcatcher was completed by the Cleveland National Forest after the 1993 Eagle Fire, and after the 2007 Witch Fire. The areas targeted for those restoration efforts were north of the Monte Fire along the San Diego River. The Eagle Fire burned in May and high shrub mortality was expected to result from this spring burn. Seeding was completed in fall 1993 and monitored in spring 1994. High seedling densities of seeded species was detected on treatment plots, and very low natural recruitment was observed on untreated plots (White, T.C. et al 1995). Due to delays in obtaining funding and applying treatments, no results are available at this time from the Witch Fire restoration effort that was implemented in 2009. In addition the long lag time between the Witch Fire and the restoration work will make re-establishment of coastal sage more difficult due to the increased competition from weeds. Starr Ranch Audubon Sanctuary, which is adjacent to the Cleveland National Forest in Orange County, has completed coastal sage scrub restoration on their property with excellent results (Audubon California 2006).

Coastal Sage Scrub Rehabilitation

| Item | Unit | Unit Cost | # of Units | Cost |
|------------------------------------|------|-----------|------------|----------|
| Seed Cost - ARCA, SAAP, ERFA, LOSC | Each | \$40,500 | 1 | \$40,500 |
| Site prep | Acre | \$130 | 75 | \$9,750 |
| Application Cost | Acre | \$130 | 75 | \$9,750 |
| Contract - Develop/Oversee | Days | \$500.00 | 6 | \$3,000 |
| Total Request | | | | \$63,000 |

Channel Treatments

None recommended.

Road and Trail Treatments

Road: This treatment consists of patrolling Forest Road 13S10 and clearing rock and debris fall during and after each rainfall event to reduce the potential for injury to the public and Forest personnel traveling along the road. Patrols would check the road conditions when safe for travel, and if needed deploy a backhoe to assist in the removal of rock and debris.

Road Treatment

| Item | Unit | Unit Cost | # of Units | Cost |
|--------------------------|------|-----------|------------|---------|
| Patrol | Day | \$250 | 5 | \$1,250 |
| Heavy Equipment/Overhead | Day | \$1,500 | 5 | \$7,500 |
| Total Request | | | | \$8,750 |

Protection/Safety Treatments

Interagency Coordination/Implementation Lead: Interagency coordination with San Diego City, San Diego County, and Bureau of Land Management is recommended to reduce facilitate discussions to help reduce unauthorized off-highway vehicle (OHV) traffic from entering burn area from non-Forest lands. Funding is requested for agency coordination, Implementation team lead, and for the Forest BAER Coordinator to ensure continued coordination with cooperating agencies, prompt implementation, and tracking of BAER treatments, and installation of burn area warning signs. The facilitation may include: phone calls, meetings, and field trips

to the affected areas.

Interagency Coordination/Implementation Lead Costs

| Item | Unit | Unit Cost | # of Units | Cost |
|-------------------------|------|-----------|------------|---------|
| Interagency Coordinator | Day | \$484 | 3 | \$1,452 |
| Forest BAER Coordinator | Day | \$300 | 4 | \$1,200 |
| Sign Installation | Day | \$500 | 1 | \$500 |
| Total Request | | | | \$3,152 |

I. Monitoring Narrative

This monitoring is specifically designed to answer the question; Did BAER treatments provide the needed protection and rehabilitation of the burned area? The effectiveness monitoring efforts identified for the Monte Incident include the following:

California Gnatcatcher Critical Habitat Rehabilitation:

Monitoring effectiveness of seeding will be conducted by measuring percent cover of native seedlings established along transects in treated areas and on control transects in untreated areas during the Spring of 2011. A monitoring plan is in development.

Treatment Monitoring Costs

| Item | Unit | Unit Cost | # Units | Total Cost |
|--|------|-----------|---------|------------|
| Monitoring of Vegetation Establishment and Cover | Days | \$500 | 6 | \$3000 |

Recommendations

The following are recommendations that may aid in post-fire recovery, but are not prudent and are not funded as BAER treatments:

- Recommend re-survey to re-establish boundary landline between NFS land and other ownerships.
- Recommend install additional interpretive signs and patrols to educate the public and ensure that disturbance of Golden Eagle nest site is avoided or minimized.
- Recommend BLM and San Diego County Parks close and rehabilitate unauthorized OHV routes. It is also recommended that dispersed shooting areas be evaluated for lead contamination and hazardous levels of lead be cleaned up. It is also recommended that non-historic and trash materials be removed.
- Recommend Heritage contacts BLM and San Diego County Parks regarding historical sites

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

Part VI – Emergency Stabilization Treatments and Source of Funds

| NFS Lands | | | | |
|---------------------------------------|-------|-----------|------------|-----------------|
| Line Items | Units | Unit Cost | # of Units | BAER Funds |
| A. Lands Treatments | | | | |
| Weed Detection Surveys | Each | \$4,325 | 1 | \$4,325 |
| Coastal Sage Scrub Rehab | Acres | \$840 | 75 | \$63,000 |
| <i>Subtotal Land Treatments</i> | | | | \$67,235 |
| B. Channel Treatments | | | | |
| <i>Subtotal Channel Treatments</i> | | | | \$0 |
| C. Roads and Trails | | | | |
| Storm Patrol | Each | \$1,750 | 5 | \$8,750 |
| <i>Subtotal Roads and Trails</i> | | | | \$8,750 |
| D. Protection and Safety | | | | |
| Interagency Coordination | Days | \$442 | 6 | \$2,652 |
| Sign Installation | Each | \$500 | 1 | \$500 |
| <i>Subtotal Protection and Safety</i> | | | | \$3,152 |
| E. BAER Assessment | | | | |
| Assessment Team | Each | \$16,000 | 1 | \$16,000 |
| <i>Subtotal Assessment</i> | | | | \$16,000 |
| F. Monitoring | | | | |
| Treatment Effectiveness | Each | \$500 | 6 | \$3,000 |
| <i>Subtotal Monitoring</i> | | | | \$3,000 |
| G. Totals | | | | |
| Previously Approved | | | | n/a |
| Totals for this Request | | | | \$82,227 |

PART VII - APPROVALS

1. /s/ Willam Metz 08/31/2010
Forest Supervisor (signature) Date
2. _____
Regional Forester (signature) Date

All other documents are in the Project Record Binder as well as on the Monte Fire BAER external hard drive.

Value at Risk Tool Calculations are attached.

This analysis use an assumed market value of \$375,000 based on estimated costs to repair coastal sage scrub habitat at \$5,000/acre.

| | | | |
|--|------------------------------------|--|-----------------------|
| Fire Name | Monte Fire | | |
| Location | Cleveland National Forest | | |
| Date | Aug. 26, 2010 | | |
| EACH MAP ZONE REPRESENTS A SYSTEM OF LINKED TREATMENTS AND ASSOCIATED VALUES AT RISK | | | |
| MAP ZONE C - VALUES AT RISK (VAR) | | | |
| Map link # | Life and Safety | Description | |
| | | | |
| PLEASE NOTE: IF PUBLIC SAFETY IS A FACTOR, B/C RATIO SHOULD NOT BE RELEVANT AND SHOULD STRICTLY BE AN ACCOUNTING EXERCISE | | | |
| Map link # | Non-Market: Cultural Values | Description | |
| | | | |
| | | | |
| | | | |
| Map link # | Non-Market: Ecological | Description | |
| | CAGN Critical Habitat Habitat | Increased nox weeds, degraded critical habitat | |
| | | | |
| | | | |
| Map link # | Market Values: Direct | Description | Total |
| | Native Plant Restoration | Approximate estimate to restore 75 acres of coastal sage scrub - \$5000/acre | \$ 375,000 |
| | | | \$ - |
| | | | \$ - |
| Map link # | Market Values: Loss-of-Use | Description | |
| | | | \$ - |
| | | | \$ - |
| | | | \$ - |
| Probability of experiencing the loss with no treatment (enter as decimal) | | | 0.90 |
| Source of loss probability with no treatment: | | | Expert Opinion |
| Market Resource Value | | | \$ 375,000 |

| TREATMENT DESCRIPTION | | |
|--|--|----------------|
| Map link # | Proposed treatment | Total |
| | Weed Detection Surveys | \$ 4,325 |
| | Native Seeding - 75 acres of Critical CAGN Habitat | \$ 63,000 |
| | Interagency Coord | \$ 3,152 |
| Probability of experiencing loss if treatment occurs (enter as decimal) | | 0.40 |
| Source of loss probability with treatment: <input type="text"/> | | Expert Opinion |
| Total Treatment Cost | | \$ 70,477 |
| VAR CALCULATION RESULTS | | |
| REDUCTION IN PROBABILITY OF LOSS | | 0.50 |
| EXPECTED BENEFIT OF TREATMENT | | \$ 187,500 |
| Expected Benefit/Cost ratio of treatment for market resources only (economically justified if > 1.0) | | 2.7 |
| IMPLIED MINIMUM VALUE OF PROTECTING NON-MARKET RESOURCE VALUES | | Justified |
| 1 | | |
| Comments | Direct market value was determined by estimating restoration costs of coastal sage scrub habitat utilizing potted plants and seeding. The cost was estimated at \$5000/acre. 75 acres - \$375,000. | |

The analysis below does not include an estimated market value of \$375,000 for coastal sage habitat repair, and shows an implied minimum value of repairing habitat at \$140,954.

| | | | |
|--|------------------------------------|--|-----------------------|
| Fire Name | Monte Fire | | |
| Location | Cleveland National Forest | | |
| Date | Aug. 26, 2010 | | |
| EACH MAP ZONE REPRESENTS A SYSTEM OF LINKED TREATMENTS AND ASSOCIATED VALUES AT RISK | | | |
| MAP ZONE C - VALUES AT RISK (VAR) | | | |
| Map link # | Life and Safety | Description | |
| | | | |
| PLEASE NOTE: IF PUBLIC SAFETY IS A FACTOR, B/C RATIO SHOULD NOT BE RELEVANT AND SHOULD STRICTLY BE AN ACCOUNTING EXERCISE | | | |
| Map link # | Non-Market: Cultural Values | Description | |
| | | | |
| | | | |
| | | | |
| Map link # | Non-Market: Ecological | Description | |
| | CAGN Critical Habitat Habitat | Increased nox weeds, degraded critical habitat | |
| | | | |
| | | | |
| Map link # | Market Values: Direct | Description | Total |
| | | | |
| | | | \$ - |
| | | | \$ - |
| Map link # | Market Values: Loss-of-Use | Description | |
| | | | \$ - |
| | | | \$ - |
| | | | \$ - |
| Probability of experiencing the loss with no treatment (enter as decimal) | | | 0.90 |
| Source of loss probability with no treatment: | | | Expert Opinion |
| Market Resource Value | | | \$ - |

| TREATMENT DESCRIPTION | | |
|--|---|------------|
| Map link # | Proposed treatment | Total |
| | Weed Detection Surveys | \$ 4,325 |
| | Native Seeding - 75 acres of Critical CAGN Habitat | \$ 63,000 |
| | Interagency Coord | \$ 3,152 |
| Probability of experiencing loss if treatment occurs (enter as decimal) | | 0.40 |
| Source of loss probability with treatment: <input type="text"/> Expert Opinion | | |
| Total Treatment Cost | | \$ 70,477 |
| VAR CALCULATION RESULTS | | |
| REDUCTION IN PROBABILITY OF LOSS | | 0.50 |
| EXPECTED BENEFIT OF TREATMENT | | \$ - |
| Expected Benefit/Cost ratio of treatment for market resources only (economically justified if > 1.0) | | |
| IMPLIED MINIMUM VALUE OF PROTECTING NON-MARKET RESOURCE VALUES | | \$ 140,954 |
| 1 | | |
| Comments | Implied minimum value for rehabilitating Federally Threatened California Gnatcatcher habitat is \$140,954. This analysis is based on no market values for coastal sage scrub habitat. | |