

Blue Cut Fire BAER Specialist Report OHV Roads/ Trails & OHV Incursions Report Final

Resource Specialty: Off Highway Vehicle Impacts & OHV Trails and Roads

Fire Name: Blue Cut

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I. Potential Values at Risk (identified prior to the on-the-ground survey)

A. Resource Condition Assessment

(a) Resource Setting

There is current heavy OHV use in the Baldy Mesa and Summit/ Cleghorn OHV Areas. Within the Blue Cut Fire area there multiple use recreation impacts, including OHV incursions on off-system roads and trails which are likely to increase following the fire due to removal of vegetation.

Front Country Ranger District is highly visited due to the close proximity to Los Angeles and Inland Empire regions of Southern California. These populations are mostly day visitors looking for year round OHV riding opportunities close to home. Baldy Mesa and the Summit/ Cleghorn areas provide an easy and well developed trail system.

OHV trails and impacts traverses high desert terrain ranging across flood plains to arid, hot, steep ridgelines, rocky hillsides that susceptible to flash flooding and debris flows that historically have impacted Crowder Canyon, Swarouth Canyon, Lone Pine Canyon, Baldy Mesa and the Cajon Wash from high intensity thunderstorm activity during monsoon season and heavier winter events. Vegetation types include: Mixed Chaparral, Chamise chaparral, Big Cone Douglas-Fir Forest, Singleleaf Pinyon Woodland, Joshua Tree Woodland, Canyon Live Oak Woodland, Desert Transition Scrub Oak, Alluvial Scrub, Cottonwood Willow Sycamore Riparian Woodland. Storms of concern include high intensity thunderstorms and longer duration winter storms. "Pineapple express" a warm winter storm event have caused severe flooding in this area in the past. Winter storms can also include several inches of snow accumulation at higher elevations.

Post-fire OHV Impacts on Critical Natural and Cultural Values at Risk

Threats to soil productivity, recovery of native vegetation, endangered species and cultural resources were identified by OHV specialists and a soil scientist. Expansion of OHV impacts is very likely to impact recovery of native vegetation

and long term soil productivity. These impacts are associated with increased risk for establishment of noxious weeds in the burned area and chronic (long term) soil disturbance and sedimentation associated with increased post fire OHV trespass off system roads and trails. Increased chronic sedimentation is likely to impact occupied Arroyo Toad habitat (listed species), Desert Tortoise habitat in Baldy Mesa, Southwestern Willow Flycatcher in Cajon Wash and Sheep Creek, Least Bell's Vireo in Cajon Wash, along with water quality downstream. Expansion of OHV impacts is very likely to occur on National Forest Lands adjacent to State Highway 138, Swarthout Cyn Rd, FSR 3N22, 3N29, 3N31 and 3N49 relevant to the Pacific Crest National Recreation Trail (PCT). Additionally, removal of vegetation has increased potential for illegal OHV incursion along 2N49, 2N88 (Lost Lake Day Use), 3N21 (Baldy Mesa Staging Area), 3N22 (Summit Staging Area), 3N24, 3N31, 3N31y, 3N49, 3N53, 3W24, 3W25, 3W26. Before the fire, vegetation played a major role in limiting OHV activity to system roads and trails. It is very likely that, following removal of vegetation by the fire, expansion of OHV use will expand beyond system roads and trails.

Impacts from off-highway vehicle use include mortality of tortoises on the surface and below ground, collapsing old desert tortoise burrows, damage or destruction of annual and perennial plant and soil crusts, soil erosion and compaction, and proliferation of weeds. Grazing and other disturbances have resulted in loss of native vegetation and type conversion of native vegetation. Another threat that has come to the forefront is the increased frequency of wildfire due to the invasion of habitats by non-native plant species. Changes in plant communities caused by non-native plants and recurrent fire can negatively affect the desert tortoise by altering habitat structure and species available as food plants.

There are two primary threats to the desert tortoise and its habitat directly tied to the Blue Cut Fire. First, there is increased potential of OHV use within the burn area. Even after the faster recovering species like chamise, scrub oak and buckwheat get re-established, the open nature of the vegetation and the slow recovery of the woody species such as manzanita and Ceanothus species (that would serve as a barrier to illegal OHV activity) allows for an increase in illegal off-road vehicle travel. The second threat is increased potential for type conversion of native vegetation.

(b) Findings of the On-The-Ground Survey

OHV System Roads and Trails

After 5 days on the ground survey emergency conditions exist for specific sections of the Baldy Mesa OHV Area within or below burned areas where post fire erosion, flooding and/or debris flows are likely to occur especially on FSR 3N24, 3N21, 3N55 and the Baldy Mesa OHV Staging area. These emergency conditions are based on anticipated post wildfire impacts on roads, trails and forest visitors.

Threats to roads and trails and forest visitors, identified by an OHV, roads and soils scientists include:

- Excessive erosion of the trail/ road tread caused by interception and diversion of runoff from steep burned hill-slopes
- Scouring or deposition where road intersect with several larger drainages, numerous moderate drainages
- Illegal OHV use on the Pacific Crest Trail
- Illegal OHV use off of Forest System Roads
- Increased potential for falling rocks and debris

B. Critical Values

Roads

Values at Risk associated with Green Sicker/ OHV Roads in the Blue Cut Fire Burned Area and the PCT along forest service roads are:

- Threat to **life and safety** of forest visitors using the OHV Roads System and BAER Implementation Team Members working on proposed treatments. Road/trail washout, headcuts, debris flows and falling rocks
- Threat to **property** from damage or loss of segments of the trail system. Trail miles within the affected trail system are:
 - 3N21 Baldy Mesa 2.5 miles
 - 3N22 Elliot Ranch 1.5 miles.
 - 3N24 Desert Front 12.0 miles
 - 2N47 Cleghorn Ridge 7.2 of 15.2 miles
 - 3N47x Cleghorn Ridge 9 miles
 - Pacific Crest National Recreation Trail (PCT) With JT's of FSR's 3N22, 3N29, 3N31y, 3N31ya, 3N44, 3N47, 3N49, 3N89, & Swarthout Canyon Rd.
 - *NOTE: Only road segments impacted by post fire scouring and/or depositional processes will be treated.*

Trails

Values at Risk associated with the trails in the Blue Cut Fire Burned Area are:

- Threat to **life and safety** of forest visitors using the OHV trail system in the Baldy Mesa OHV Area and BAER Implementation Team Members working on proposed treatments. Trail washout, headcuts, debris flows and falling rocks.
- Threat to **property** from damage or loss of segments of the trail system. Trail miles within the affected trail system are:
 - 3W24 5.9 miles
 - 3W25 Phelan Loop 2.6 miles
 - 3W26 Manzanita Wash Loop 3.5 miles
 - *NOTE: Only trail segments impacted by post fire scouring and/or depositional processes will be treated.*

OHV Staging Areas

Values at Risk associated with the OHV Staging Areas in the Blue Cut Fire Burned Area are:

- Threat to **life and safety** of forest visitors using the OHV Staging Areas and BAER Implementation Team Members working on proposed treatments. Road washout, headcuts, debris flows and falling rocks

- Threat to **property** from damage or loss of segments of the trail system. Trail miles within the affected trail system are:
 - Baldy Mesa Staging Area
 - Summit Staging Area

Developed Recreation

Values at Risk associated with the trails in the Blue Cut Fire Burned Area are:

- Threat to **life and safety** of forest visitors using the Lost Lake, Applewhite Campground, Applewhite Picnic Area and BAER Implementation Team Members working on proposed treatments. Road/trail washout, headcuts, debris flows and falling rocks
- Threat to **property** from damage or loss of segments of the trail system. Trail miles within the affected trail system are:
 - Lost Lake & FSR 2N88
 - Applewhite Campground
 - Applewhite Picnic Area

(c) BAER Risk 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 |

The probability that expansion of OHV impacts could impact recovery of native vegetation, long term soil productivity, T&E species and cultural resources is **very likely** in selected areas along FSR 3N22, 3N24, 3N29, 3N31, 3N31y, 3N49, 2N88 (Lost Lake Day Use), 3N21 (Baldy Mesa Staging Area), 3N22 (Summit Staging Area). Based on the degree and extent of post fire OHV trespass, impacts on soil productivity, water quality and Arroyo Toad habitat and Desert Tortoise habitat in Baldy Mesa are **Very likely**. The magnitude of consequences is **moderate**. Therefore, the BAER risk is **very high**. BAER treatments are recommended.

The probability that increased illegal OHV use on the Pacific Crest Trail could occur is **very likely** in selected areas where roads and the PCT have crossings, areas outside the OHV Staging areas, and along several FS roads within the burned areas. The magnitude of consequences is **moderate**. Therefore, the BAER risk is **very high**. BAER treatments proposed for recovery of native vegetation and long term soil productivity serve to reduce this risk.

C. Treatments

Fences & Unauthorized Route Decommissioning

The objective of these treatments is to reduce expansion of OHV impacts and associated impacts on critical BAER values at risk. These impacts include increased risk for establishment of noxious weeds in the burned area and chronic (long-term) soil disturbance and sedimentation. Increased chronic sedimentation is likely to impact occupied Arroyo Toad habitat (listed species) and water quality downstream. Additionally, post fire OHV disturbance is the primary concern for impacts on cultural resources within the burned area.

The BAER assessment team has proposed an OHV Resource Protection treatment to promote natural vegetative recovery by installing barriers, gates, fencing, and vegetation barriers to try to limit the amount of illegal cross-country vehicle use that is expected due to the lack of vegetation. The OHV Resource Protection treatment will help reduce the risk to desert tortoise from vehicles driving off road and will help speed the rate of habitat recovery by reducing the risk of spreading and establishing non-native plants. As mentioned above, there are sites within the Blue Cut Fire where smooth wire fencing has not been effective due to theft. However, the BAER team was able to identify some sites where use is lower or where wire can be combined with pipe and cable fence to achieve the desired objectives.

Smooth wire fence is proposed in areas where pipe and cable fence is deemed not necessary in order to reinforce the Forest Closure order in order to provide for public safety and protection of Forest Service investments. Smooth wire fences are the preferred method where they can be effective because they are less expensive in terms of materials and installation cost and it is faster to install.

Two miles of pipe and cable fence would be installed at strategic locations along Forest Road 3N24 to protect cultural resource sites from effects of off route driving. After fencing is in place, cultural sites would be seeded and planted to stabilize soils and to disguise sites from looting and vandalism. Container plants specifically grown for this location are available for planting immediately. Planted sites would be watered and maintained for 10 months to ensure vegetation success.

The SCMF crew that would be funded to construct fence will also plant, seed and install Fire Area Recovery signs. A Participating Agreement is currently in place to accommodate this work.

SCMF and USFS will contribute the following:

- SCMF will provide 2 miles of pipe fencing materials to install strategically located barriers along Forest roads 3N24.
- 1,286 tall pots of 3 shrub species and 105 tall bullet pots that are available now and were grown from locally collected seed within the Blue Cut Fire.
- 1,391 vexar cages for native plant herbivory prevention.
- 50 pounds of local native seed.

Watering tank and hose for watering crew over 10 months

Even though this site is within the boundary of the Forest Closure order, enforcement will be extremely difficult and, without this treatment, these resources are at a very high risk during the planned closure period.

The sites identified in this treatment are on the edges of the Forest Closure area or at some internal sites that will have access via open County roads. These sites include 3N22, 2N88

(Lost Lake Day Use), 3N21 (Baldy Mesa Staging Area), and 3N22 (Summit Staging Area) where vegetation burned and the areas are at very high risk of OHV incursions that threatened public safety and would slow natural recovery.

**NOTE: Locations along NFSR 3N22, 3N31, 3N31y, 2N88 (Lost Lake Day Use), 3N22 (Summit Staging Area)*

In order to reinforce the Forest Closure Treatment, the Blue Cut BAER team is proposing decommissioning of unauthorized routes at two locations (3N24 across the forest boundary and 3N22 at Summit Staging Area) where numerous unauthorized routes connect the closure area with private land and public roads. With the types of recreational use and vegetation types present in the Blue Cut Fire Area, the SBNF has had success at decommissioning to protect resources after a fire when using “chunking” with excavators. Chunking, when combined with fencing/barriers, signs, and (most importantly) increasing patrol presence has been very effective. **Any one of these methods without the others, has less success and requires more follow up treatments.**

Chunking is described as using the bucket of an excavator or articulating blade on small trail dozer to de-compact unauthorized roads/trails by digging into the compacted area and creating divots (see below). These divots act as mini-catch basins (increasing infiltration), require minimal maintenance, and provide microsites for seed catchment and germination. In addition, container plants planted within the divots have high survival rates.

**NOTE: Locations along NFSR, 3N24, 3N22 (Summit Staging Area)*

Monitor closure effectiveness This treatment includes a patrol person dedicated to the closure area, working weekends, holidays, and school vacation periods when use is highest, to enforce the closure maintain the structures, and augment closure structures as needed. The patrol would also help enhance presence during storms. This is an effective way to complete effectiveness monitoring of the closure and related treatments.

II. Discussion/Summary/Recommendations

- Threats to soil productivity, recovery of native vegetation, impacts to T&E species and cultural resources were identified by OHV specialists, soil scientist, wildlife, botany and heritage resources specialists. Expansion of OHV impacts is very likely to impact recovery of native vegetation, long term soil productivity, and cultural resources and T&E species.
- These impacts are associated with increased risk for establishment of noxious weeds in the burned area and chronic (long term) soil disturbance and sedimentation associated with increased post fire OHV trespass off system roads and trails
- Increased chronic sedimentation and other OHV impacts are likely to impact occupied Arroyo Toad habitat (listed species), Desert Tortoise habitat in Baldy Mesa, Southwestern Willow Flycatcher in Cajon Wash and Sheep Creek, Least Bell’s Vicro in Cajon Wash, along with water quality downstream.
- Recommend immediate treatment and repair as soon as practical along OHV Staging areas, several FS Roads.
- Decommissioning of user created trails in the Baldy Mesa FSR 3N24 area, to reduce impact

- Fencing of affected areas OHV Staging area junctions of FSR and the PCT
- Patrols to monitor affected areas and educate forest visitors of fire recovery efforts.
- Repair any unexpected heavy winter damage to ensure the protection and safety of forest visitors.