



United States Department of the Interior



BUREAU OF LAND MANAGEMENT

Mother Lode Field Office
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EA Number: CA-180-10-10

Proposed Action: Hunter Valley Mountain Fuel Break

Location:

MDM, T 4 S, R 17 E, Section 18
MDM, T 4 S, R 16 E, Sections 2, 11, 12, and 13
Mariposa County, CA (see the project area map attached)

1.0 Purpose of and Need for Action

1.1 Need for Action

The Bureau of Land Management's Mother Lode Field Office (BLM) manages thousands of acres of public lands on Hunter Valley Mountain. Chaparral and other fuels have increased, resulting in a corresponding increase in the probability of a catastrophic wildfire. There are numerous private residences, to the west, in the Hunter Valley area, including homes adjacent to BLM-administered parcels containing dense fuels. Local residents are concerned about wildfire. The area is considered to be at the wildland-urban interface (WUI) and Hunter Valley is considered to be a community "at risk." Some residents are anxious to see public land managers like BLM take action to reduce fuels on public lands. Fuel breaks are needed to help give firefighters places to help hold a wildfire. The location of the proposed fuel break on ridges and the existing road on Hunter Valley Mountain would serve as a strategic holding point in the event of human- or natural-caused wildfire originating on Lake McClure (formerly the Merced River canyon).

1.2 Conformance with Applicable Land Use Plans

The proposed action is consistent with the Sierra Resource Management Plan, approved in February 2008, and the Mother Lode Field Office Fire Management Plan, approved in March 2008. The Sierra Resource Management Plan's Record of Decision (page 15-16) gives BLM the goal of establishing a cost-efficient fire management program commensurate with threats to life, property, public safety, and environmental resources. BLM also has the goal of suppressing wildfire to protect life, property, and environmental resources. BLM's objectives for meeting these goals are use mechanical and other kinds of treatments to reduce the risk of wildfire in WUI communities, reduce the risk of catastrophic wildfire through fuels management. The Fire Management Plan gives BLM various non-fire fuels treatment objectives and strategies for specific lands under BLM's administration. Specific objectives and strategies for the fire management unit, in which the project area is located, are laid out in the plan.

2.0 Proposed Action and Alternatives

2.1 Proposed Action

The proposed action is to continue the construction and maintenance of a shaded fuel break on the main ridge of Hunter Valley Mountain and along an existing road on BLM-administered land on Hunter Valley Mountain. This action is being implemented in phases. This EA concerns the second

phase. When completed, the fuel break will be 3 miles long and 200 ft wide (generally 100 ft on either side of the ridge line or 100 ft from the centerline of the existing road, with allowances and deviations for topography).

In 2009, BLM hired a contractor to build the first phase of the fuel break. The first phase was analyzed and authorized under BLM environmental assessment CA-180-09-71 and the associated Finding of No Significant Impact and Decision Record documents. Under this EA, BLM hired a crew to cut brush with chainsaws. The cut brush was piled for later burning. The original EA considered disposal of the brush by chipping, but not by pile burning, as proposed under this EA.

Another change from the original plan occurred. The contract crew accidentally got off line. The crew cut vegetation outside of the 200 ft wide project area. It should be pointed out that the crew left the correct alignment for a relatively short length of fuel break, 0.2 miles out of the 2.7 miles of fuel break constructed during this phase of the project. However a portion of this brush clearing that left the planned alignment occurred in the habitat of the BLM sensitive species, big-scale balsamroot (*Balsamorhiza macrolepis macrolepis*). The planned alignment avoided the habitat of this rare plant species. The crew placed the cut brush into 5 x 5 ft piles within and, in some cases, outside of the planned alignment of the 200 ft wide fuel break. In some cases, the piles were placed directly on occurrences of a BLM special status species big-scale balsamroot.

The proposed action—the second phase of the project—is to burn the 5 x 5 ft piles in accordance with an approved burn plan. If however there are no opportunities to burn inside the prescriptions in this burn plan, the 5 x 5 ft piles would not be burned. They would either be hand fed into a chipper or they would be masticated using a masticator. Cut material would be spread throughout the project area. The use of a masticator is less likely than a chipper. Fencing, berms, cables, and large boulders may be used to prevent motorized vehicles from using the fuel break as a road.

In big-scale balsamroot habitat brush disposal would be handled differently. The piles would not be treated by bringing either a chipper or masticator into big-scale balsamroot habitat, to prevent degrading the habitat of this sensitive species. If they cannot be burned, piles in big-scale balsamroot habitat will be hand moved, or left in place.

The remaining phases of fuel break project will be analyzed in separate NEPA documents. It is anticipated that BLM would use either a chipper or hand crews using chainsaws and other hand tools. The fuel break would be maintained using the same methods described above every 5 to 7 years.

2.2 Project Design Features

To initiate pile burning, the piles are often ignited by pouring flaming fuel from drip torches. Kerosene and gasoline are combined to make drip torch fuel. Both of these forms of petroleum are toxic to plants. Most of the drip torch fuel is burned before reaching the ground. However to avoid any degradation of balsamroot habitat from introducing these chemicals into the environment, drip torches would not be used for pile ignition in balsamroot habitat. Fusees (flares) that utilize a solid fuel would be substituted.

If the project is implemented outside of the burn window and a chipper or masticator is used, all piles within balsamroot habitat would be avoided by equipment. This habitat would be clearly marked with flagging tape by the BLM botanist. The BLM botanist would also mark with flagging tape other areas for avoidance. The BLM botanist and the BLM fuels specialist overseeing the project would work together to ensure that the project crew has a clear understanding of what the project entails and the locations of the rare plants to be avoided, so there is no misunderstanding.

To minimize the potential for introduction or spread of invasive weeds, equipment used for the proposed action would be cleaned prior to entering area and, where possible, would avoid operating within weed-infested areas, such as stands of yellow star thistle and bulbous bluegrass. Areas of bulbous bluegrass have been flagged and mapped for avoidance

2.3 No Action

Under the no action alternative, BLM would not implement the second phase of the fuel break project. This means that none of the piles would be treated. The fuel load would not be reduced and the fuel break would remain incomplete.

2.4 Alternatives Considered but Not Analyzed in Detail

For piles constructed in big scale balsamroot habitat, alternatives to burning the piles were considered but rejected and not analyzed in detail. Additional damage to balsamroot plants would result from burning the 5 x 5 ft piles, as proposed in this EA (see Impacts of the Proposed Action...below). However, burning is considered to be the best long-term treatment option. Long-term negative impacts to big-scale balsamroot were analyzed to be greater under other treatment options: 1). leaving the piles in place; 2). moving the piles by hand; and 3) chipping the piles.

- 1) Leaving the piles in place would undoubtedly damage if not kill the plants growing beneath. Just as important, appropriate habitat conditions for plant establishment would not return to pile locations for many years.
- 2) Moving the piled vegetation would have the potential to both speed the restoration of pile sites to functioning habitat and to save some individual balsamroot plants from perishing beneath the piles. However the amount of disturbance caused by crews disassembling the piles and then hand carrying hundreds of branches offsite is likely to cause mortality not only to some of the plants beneath piles, but also other sensitive plants in the vicinity. Without additional disturbance like raking, an unnatural accumulation of branch and leaf litter will remain in pile locations even after the branches are moved. This increased organic matter can also inhibit plant establishment.
- 3) Chipping the piles would involve bringing a rubber-tracked chipper close to the pile sites, feeding branches into the chipper and disposing of the resulting chips. Bringing equipment into big-scale balsamroot habitat has the potential to damage plants directly, and especially in moist soil conditions, degrading balsamroot habitat. Carrying branches to the chipper has the potential to cause trampling of plants. Local disposal of chips in big-scale balsamroot habitat has the potential to limit big-scale balsamroot establishment. Hauling of chips away from the habitat would necessitate a trailer or other vehicle to accompany the chipper, with even greater potential for disturbance of plants and habitat. And as noted above, without additional disturbance like raking, an unnatural accumulation of branch and leaf litter would remain in pile locations even after the branches are moved. This increased organic matter can also inhibit plant establishment.

3.0 Affected Environment

The project area is located on Hunter Valley Mountain in the central Sierra Nevada foothills. The terrain in this area is generally rugged, with low peaks (Williams Peak is 3205 ft above sea level). The Merced River (now Lake McClure) wraps around Hunter Valley Mountain to the north. The sparsely populated ranching community of Hunter Valley is located in Hunter Valley to the southeast. The proposed fuel break would be built on the ridge tops of Hunter Valley Mountain and along the Hunter Valley access road, which is near the ridge tops. This area is covered with a dense chamise chaparral at

the higher elevations. It grades to a buckbrush-toyon-chaparral at the lower elevations. There are rocky outcrops and patches of blue oak savannah in some areas along the ridge. Several separate colonies of one BLM sensitive plant species, big-scale balsamroot (*Balsamorhiza macrolepis macrolepis*), were found during surveys for this project. In addition, several colonies of another plant species tracked by the California Native Plant Society on its List 4 (plants of limited distribution, a watch list), stinkbells (*Fritillaria agrestis*), were found. Most of the drainages are seasonal. There are springs in the area.

The chaparral provides habitat for a variety of wildlife. Deer and other herbivores make use of chaparral. Some small herbivores use chaparral species in fall and winter when grasses are not in abundance. Rabbits and hares eat twigs, evergreen leaves and bark from chaparral. Chaparral provides seeds, fruits, insects, protection from predators and climate, as well as singing, roosting, and nesting sites for many birds.

Recreational use of the project area is light but increasing. The existing road within the project area is used by off-highway vehicle riders. In some areas, right off the road, target shooting is popular. There is some camping in the area, right off the road, within the project area.

BLM manages this area in accordance with class III visual resource management (VRM) standards. BLM's objective for class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat basic elements found in the predominant natural features of the characteristic landscape.

4.0 Environmental Effects

The following critical elements have been considered in this environmental assessment, and unless specifically mentioned later in this EA, have been determined to be unaffected by the proposal: areas of critical environmental concern, prime/unique farmlands, floodplains, wetlands and riparian zones, wild and scenic rivers, wilderness, and environmental justice.

4.1 Impacts of the Proposed Action and Alternatives

The proposed action would not impact atmospheric, water, or soil resources. The project area is not located on a major stream, though there are small seasonal streams in the area. The area that would be treated is relatively small in size. Pile burning is expected to cause little soil disturbance. The chipper or masticator would be positioned to prevent damage to special status plants and other sensitive environmental resources. Cut brush and other fuels would be dispersed throughout the project area. This layer of mulch would help reduce erosion. Vehicle barriers such as cables, berms, and large boulders may be placed at strategic locations to prevent dirt bikes and other off-highway vehicles from driving within the treated area and causing erosion problems. Cutting and mastication of fuels, as proposed, would create some dust, but not enough to affect air quality in more than a negligible way.

The BLM botanist conducted a botanical study for the first phase of the project, analyzed under CA-180-09-71. Several separate colonies of one BLM sensitive plant species big-scale balsamroot (*Balsamorhiza macrolepis macrolepis*) and another rare plant stinkbells (*Fritillaria agrestis*) were found.

Occurrences of both species were flagged for avoidance and an avoidance provision was included in the Decision Record under EA-180-09-71. Avoidance was a well justified provision. Equipment operation, travel through the area by a hand crew, brush piling and the like, can all damage both plant species directly. Equipment travel and accumulation of organic matter can also negatively impact the habitat for both species. Stinkbells most often grow in the open, without shade. Therefore, shrub

cutting for the fuel break is less likely to be needed in stinkbells habitat. However, the open habitat where this species grows makes logical travel corridors in a landscape dominated by chaparral. For this reason, this species also could have been damaged by the proposed action (i.e., equipment running over plants when traveling between work sites). Big-scale balsamroot is sometimes found in association with shrubs or trees and the species may benefit from that proximity. If shrub cutting in big-scale balsamroot habitat had been included in the plan for this project, it might have negatively altered habitat for this species.

Despite the strong avoidance provision under EA CA-180-09-71, hand clearing and piling of brush did occur in big-scale balsamroot habitat during implementation of the first phase in 2009. The contract crew misunderstood instructions and deviated from the proposed route of the fuel break, working within some balsamroot habitat. Flagging of the two rare plant populations had occurred within the proposed route, but not much beyond. When the contract crew got off-line, brush clearing and piling extended into an occurrence of big-scale balsamroot which had not been flagged because it was outside the planned route of the fuel break, as analyzed under EA CA-180-09-71. Some damage to big-scale balsamroot plants occurred during the cutting and piling operation. The contract crew built 5 x 5 ft brush piles within big-scale balsamroot habitat. In several cases, a big-scale balsamroot plant could be seen beneath a pile (near the pile edge).

Burning the piles is likely to cause mortality to plants directly beneath piles that are subjected to prolonged intense heat. However, the habitat would not be degraded. In fact the habitat is likely to be rendered more favorable to balsamroot establishment with the post-burn reduction of competition and the post-burn availability of nutrients. Other species within the same genus have been found to respond positively to fire. And little if any damage to plants away from piles is likely to occur.

If the project is implemented outside of the burn window and either a chipper or masticator is used, all piles within balsamroot habitat would be avoided. They would not be treated. Piles might be moved by hand, or they might be left in place. This would avoid negative equipment impacts to balsamroot. This habitat would be clearly marked with flagging tape by the BLM botanist. The BLM botanist would also mark with flagging tape other areas with rare plant populations for avoidance.

Hunter Valley Mountain is less weed-infested than many areas in the Sierra foothills. However in some of the limited blue oak savannah habitat that occurs in the project area, bulbous bluegrass was found. This is of particular concern for several reasons: 1). this weed is still relatively sparsely distributed across the landscape and it may have the potential to increase dramatically; and 2). the habitat where this weed occurs on Hunter Valley Mountain is similar to the habitat of the two rare plant species discussed above, so it may prove to be a competitor for these species in the future. To avoid the dissemination of this species (the species reproduces vegetatively, rather than by seed), the areas with bulbous bluegrass were marked and mapped for avoidance by equipment. Avoidance of these areas would prevent a potential negative impact of this project—the dissemination of this weed species. As stated under project design features, all equipment used to implement the proposed action would be cleaned prior to entering area and, where possible, would avoid operating within areas of bulbous bluegrass and other weed-infested areas.

Future phases of the project will be analyzed in a separate NEPA document. A return to original project specifications is anticipated. Under the original specifications no equipment work will occur in rare plant habitat and no fuel break construction of any kind will occur in big-scale balsamroot habitat. No piles would be generated in big-scale balsamroot habitat and no burning would occur there.

The BLM wildlife biologist analyzed the impacts of the project on wildlife, especially on special status wildlife. Her analysis was designed to help BLM meet its obligations under the Endangered Species

Act. The biologist recommended that the project would have negligible short-term impacts on wildlife due to temporary noise and dust when fuels either burned or are cut and masticated. There would be no impacts on threatened and endangered wildlife or other BLM special status wildlife (refer to the study attached).

The BLM archaeologist conducted a cultural resource study of the project area. The study included background records search, field inventory, and Native American consultation. The study was designed to help BLM meet its obligations under Section 106 of the Historic Preservation Act. No significant cultural resources would be affected by the proposed action. This includes places of Native American religious and cultural significance (refer to the study attached).

The proposed action could have negligible short-term impacts on recreational use. Walkers, joggers, bicyclists, and motorists might be inconvenienced temporarily during project implementation due to smoke caused by burning or the noise and dust caused by cutting and masticating fuels. Recreationists would continue to use the project area after the project is implemented.

The project area is not known for its visual resources. The proposed project would have a negligible impact on visual resources. Some vegetation would be removed. The fuel break would not be visible, except by the air. It would not, for example, mar the scenic beauty of a river canyon. The proposed action is in line with BLM's VRM class III management objective which is to partially retain the existing character of the landscape.

4.2 Impacts of the No Action Alternative

There would be no impacts to environmental resources, such as water, soils, and wildlife. There could be impacts to firefighting efforts. If a wildfire occurred, firefighters would not have this strategic fuel break to stop the advance of the fire and attack the fire. The result could be a larger wildfire that impacts environmental resources well beyond the project area. There may also be impacts to private property. As mentioned in 2.4, for piles constructed in big scale balsamroot habitat, leaving the piles in place would undoubtedly damage if not kill the plants growing beneath. Just as important, appropriate habitat conditions for plant establishment would not return to pile locations for many years.

4.3 Cumulative Impacts

Negative cumulative impacts are not anticipated considering that the special status plant colonies would either be avoided or be treated in a way that likely enhances in their habitat in the long term. The proposed action would not impact significant biological and cultural resources. The proposed action would not have negative long-term impacts on soil, water, or atmospheric resources. The proposed action would have negligible short-term impacts recreation. Again, there would be no negative cumulative impacts. The proposed action is expected to have beneficial cumulative impact on wildfire suppression in the area as long as BLM maintains the fuel break.

5.0 Agencies and Persons Consulted

No outside agencies were consulted.

5.1 Authors

James Barnes, BLM NEPA coordinator/Archaeologist

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5.2 BLM Interdisciplinary Team/Reviewers:

NEPA coordinator/Archaeologist	Date
Fuels specialist	Date
Recreation	Date
Botany	Date
Wildlife/fisheries	Date

5.3 Availability of Document and Comment Procedures

This EA will be posted on Mother Lode Field Office's website <http://www.blm.gov/ca/motherlode> under NEPA and will be available for a 15-day public review period. The EA is also available by mail upon request during this 15-day public review period. Comments should be sent to James Barnes at Bureau of Land Management, Mother Lode Field Office, 5152 Hillside Circle, El Dorado Hills, CA 95762 or emailed to jjbarnes@blm.gov.