Wildlife Management Indicator Species (MIS) Report

Tecuya Ridge Shaded Fuelbreak and Cuddy Valley Forest Health/Fuels Reduction Projects

Mt. Pinos Ranger District
Los Padres National Forest

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Introduction

The purpose of this report is to evaluate and disclose the effect of the Tecuya Ridge Shaded Fuelbreak and Cuddy Valley Forest Health/Fuels Reduction Projects on the Management Indicator Species (MIS) identified in the Forest Land and Resource Management Plan (Forest Plan), Part 1, page 45 (USDA 2005a). These projects are in close proximity to one another and include similar habitat types and proposed treatments. Detailed descriptions of the project are found in the respective project categorical exclusions.

MIS are animal or plant species identified in the Los Padres NF LRMP (USDA 2005a, Part 1, page 45), which was developed under the 1982 National Forest System Land and Resource Management Planning Rule (USDA 1982) and supported under the current 2012 National Forest System Land and Resource Management Planning Rule (USDA 2012). Guidance regarding MIS set forth in the Los Padres NF LRMP directs Forest Service resource managers to (1) at project scale, analyze the effects of proposed projects on the habitats of each MIS affected by such projects, and (2) at the national forest scale, monitor populations and/or habitat trends of forest MIS, as identified by the LRMP.

Analysis of Project-Level Effects on MIS

Project-level effects on MIS are analyzed and disclosed as part of environmental analysis under the National Environmental Policy Act (NEPA). This involves examining the impacts of the proposed project alternatives on MIS habitat by discussing how direct, indirect, and cumulative effects will change the quantity and/or quality of habitat in the analysis area. Project-level impacts to habitat are then related to broader scale population and/or habitat trends.

Selection of Project Level MIS

Management Indicator Species (MIS) for the Forest are identified in the Forest Plan (USDA 2005a). The MIS analyzed for the Project were selected from this list of MIS identified in the LRMP, as indicated below in Table 1. In addition, Table 1 identifies the status of the MIS, reason each MIS was identified in the LRMP and discloses whether or not the MIS is potentially affected by the Tecuya Ridge Shaded Fuelbreak and Cuddy Valley Forest Health/Fuels Reduction Projects. Table 1. Wildlife Management Indicator Species, Los Padres National Forest, and Selection of MIS for Project-Level Analysis for Tecuya Ridge Shaded Fuelbreak and Cuddy Valley Forest Health/Fuels Reduction Projects.

Management Indicator Species	Species Status	Forest Plan Habitat Indicator	Category for Project Analysis[1]
Mountain Lion	MIS	Fragmentation	3
Mule Deer	MIS	Healthy diverse habitats	3
Arroyo Toad	Federally-listed endangered, MIS	Aquatic habitat	1
Song Sparrow	MIS	Riparian habitat	1
California Spotted Owl	Regional Forester Sensitive Species, MIS	Montane conifer forests	3

[1] Category 1: MIS whose habitat is not in or adjacent to the project area and would not be affected by the project.
Category 2: MIS whose habitat is in or adjacent to project area, but would not be either directly or indirectly affected by the project.
Category 3: MIS whose habitat would be either directly or indirectly affected by the project.

Species Requiring no Further Analysis

Arroyo toad and Song sparrow will not be analyzed as these species have no habitat in or adjacent to the project area, thus not affected directly or indirectly by the project and will not be discussed further in this document. Mule deer, and mountain lion, have habitat that is in or adjacent to the project area and will be addressed below. Project affects upon the California spotted owl are analyzed and disclosed in the biological evaluations prepared for the Tecuya Ridge Shaded Fuelbreak and Cuddy Valley Forest Health/Fuels Reduction Projects.

Habitat within the Project Area

The Tecuya Ridge Shaded Fuelbreak Project consists of approximately 1,626 acres of natural timbered stands and brush fields that were identified by the Mt. Pinos Community Wildfire Protection Plan as priority treatment areas. The project area contains approximately 1,541 acres of mixed conifer and pinyon-dominated stands. There are approximately 85 acres of sagebrush-scrub.

The project is located on the Mount Pinos Ranger District. The project runs along Tecuya Mountain, which overlooks the communities of Lebec, Frazier Park, Lake of the Woods, Pine Mountain Club and Pinon Pine Estates. The western boundary is along the private property line near San Emidgio Canyon, and the eastern boundary is at the Forest boundary just above the community of Lebec near the major transmission lines. The legal description for the project is T9N, R19W, Sections 18, 28, 29, 30, 31, 32, 33 SBM; T9N, R20W, Sections 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29 SBM; T9N, R21W, Sections 13, 14, 15, 23, 24 SBM; Kern County, California.

The Cuddy Valley Forest Health/Fuels Reduction Project area has approximately 791 acres of mixed conifer and pinyon-dominated stands. There are also approximately 409 acres of sagebrush-scrub.

This project is located on the Mount Pinos Ranger District. The project is located within Cuddy Valley and extends to the lower slopes of Mount Pinos. The project is immediately adjacent to the community of Pinon Pine Estates and is located to the west of the community of Lake of the Woods. The legal description for the project is T9N, 20W, Sec. 30, 31, 32, T9N, R21W, Sec. 23, 24, 25, 26, 35, 36 SBM; Kern County, California.

Mixed conifer and pinyon-dominated stands in both project areas are experiencing elevated levels of bark beetle activity, pinyon ips (*Ips confusus*) and California fivespined ips (*Ips paraconfusus*), and associated increasing tree mortality that has been exacerbated by the ongoing drought. The extreme drought in recent years has increased the risk to the project area. The Cuddy Valley Forest Health/Fuels Reduction Project area, in particular, was identified in the National Insect and Disease Forest Risk Assessment of 2012 (NIDFRA) as being at risk from both of these beetles. According to the risk rating models used by NIDFRA, the areas proposed for treatment in this project are categorized as high risk for pests that could destroy over 25 percent of basal area due to current forest conditions. This mortality combined with stand structure and drought is increasing the risk of a stand replacing wildfire.

Some drought-related mortality in the sagebrush-scrub areas is evident throughout the project areas. This drought mortality adds dead fuels to the landscape. The sagebrush-scrub vegetation type has a natural historic fire return interval of 35 to 100 years. However, due to extensive public use, infrastructure, and commuter pass-through, the project area burns more frequently than this. The results of these frequent fires are an inability to support the ecological health of sagebrush scrub, and an increase of risk to fast-moving wildland fires.

Management Direction

The Forest Plan expresses a desire to maintain or improve habitat conditions to sustain healthy populations of MIS. MIS monitoring will be addressed at the Forest Plan level, and is not required or appropriate for this project since there are no concerns for MIS species, due to the lack of adverse effects anticipated by the project (See respective projects' BA and BE, 2018, and discussion below).

MIS Environmental Baseline and Effects of the Proposed Projects

The rationale for MIS species selection is presented in Appendix B of the LMP FEIS. This section discusses known information about MIS occurrence within or near the project area, population trends over time, the amount of potentially available and affected suitable habitat, and a discussion on the effects of implementing the project (proposed action) as compared with not implementing this project (no action alternative).

The 1,626-acre Tecuya Ridge Shaded Fuelbreak Project boundary and the 1,200-acre Cuddy Valley Forest Health/Fuels Reduction Project boundary will be used as the geographic bounds direct and indirect effects because this area would encompass all of the effects occurring during implementation. The temporal boundary for analyzing the direct and indirect effects is 2 years from the decision date - the amount of time required for implementation to occur and the period during which changes to habitat that are expected to be maintained into perpetuity would be completed.

The cumulative effects (CE) analysis spatial boundary for all species under consideration is the Mount Pinos Ranger District. The selected area shares common vegetation types and conditions, wildlife habitats, drainage patterns, climate, soil types, and disturbance regimes as well as potential future impacts – and some of the two species under consideration are wide-ranging species. The cumulative effects timeframe will be 10 years from the decision date, when the first entry for all similar treatment proposals are expected to be completed. The actions considered for cumulative effects are the same as those considered in the projects biological evaluations.

Mountain Lion

Environmental Baseline

Historically, mountain lion occurred throughout most of North America and from coast to coast in the United States. The species' current distribution is much reduced. In the United States today, mountain lions occur west of the Rocky Mountains and in small, scattered populations to the east. (USDA Forest Service 2005b, Reading Room) Global Status of mule deer is G5 (Secure) while California state status is currently not ranked/under review (NatureServe Explorer 2017b).

More than half of California is prime mountain lion habitat. Generally speaking, mountain lions can be found wherever deer are present, since deer are mountain lion's primary prey. Foothills and mountains (sea level to about 10,000 feet) are most suitable mountain lion habitat, while valleys and deserts are considered unsuitable. (https://www.wildlife.ca.gov/Conservation/Mammals/Mountain-Lion/FAQ) Fire plays an important role in determining the suitability of habitat for mountain lions. Fires, which reduce canopy closure, increase vigor and accessibility, and improve palatability of shrub species preferred by deer, will benefit mountain lion populations. In California chaparral, mountain lions were attracted to the edges of recent burns where deer tended to congregate. Fire exclusion can reduce habitat suitability for deer and consequently mountain lions. (USDA Forest Service 2005b, Reading Room)

Currently, any statewide estimate of the mountain lion population is just a guess. Mountain lion studies

over the last 30 years have estimated population densities for different habitat types around the state. These density estimates varied from zero to 10 lions per 100 square miles, and were simply expanded to the total amount of each habitat type available. In 1996 California Department of Fish and Wildlife used this method, relying on density estimates from previous studies, to derive as estimate of between 4,000 and 6,000 mountain lions statewide. In 2014, California Department of Fish and Wildlife began carrying out a statewide mountain lion study using more rigorous field and data analysis methods to determine status and trend of mountain lion numbers across California. California Department of Fish and Wildlife anticipates developing a baseline population estimate within a few years, from which on-going monitoring can estimate localized trends if continued.
(https://www.wildlife.ca.gov/Conservation/Mammals/Mountain-Lion/FAQ)

Mountain lions occur in all of the mountain ranges within the four national forests in southern California, but are considered imperiled in some of southern California's highly fragmented wildlands (Stephenson and Calcarone 1999). Much of the Los Padres National Forest is characterized as undeveloped and unfragmented wilderness habitat which lends to supporting healthy populations. This is as much that is known about mountain lions with respect to the analysis area.

Effects

No Action Alternatives

Proposed Actions
Under the proposed actions, habitat for deer populations that mountain lions depend upon would generally improve and increase as the result of conifer thinning, mastication, and jackpot burning (specific to Tecuya Ridge Shaded Fuelbreak Project)(see below). No roads would be constructed for either project. Therefore, although noise and human presence associated with the actions would result in disturbance to or avoidance of the project areas by mountain lions or their ungulate prey, the proposed actions would not result in fragmentation of these areas.

Cumulative Effects of the Actions

At this time, the 2,826 treatment acres of proposed actions is not expected to have a negative impact on fragmentation. Therefore, it they will not lead to a cumulative impact on fragmentation, even though it is unknown if road-building is or will be associated with the additional 3,822 acres of similar current and planned projects across the cumulative effects area boundary.

Effects at the Forest Level

Despite a lack of information about mountain lion populations on the Los Padres National Forest, the combined size of the proposed actions (2,386 treatment acres) is too small relative to the size of the Los Padres National Forest (2 million acres) to lead to a noticeable change in populations on the Los Padres National Forest.

Mule Deer

Environmental Baseline

Mule deer occupies most of western North America from the Pacific Coast eastward to the 100th meridian. It occurs as far north as the southern Yukon Territory, Canada, and as far south as San Luis Potosi, Mexico, and through the Baja Peninsula. In California, mule deer are absent only from the Central Valley and Mojave Desert. (USDA Forest Service 2005b, Reading Room) Global Status of

mule deer is G5 (Secure) while California state status is currently not ranked/under review (NatureServe Explorer 2017a).

In California, the California Department of Fish and Wildlife has divided the state into separate zones for analysis. The project area is located in the D-13 Zone and the majority of the Los Padres National Forest is in the A-South Zone (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=122314&inline). Deer populations are comprised of California mule deer in the south and black-tailed deer, a subspecies of mule deer in the northern portion of the forest.

Deer population estimates in zone D-13 for 2013 – 2017 are as follows: 2013, 8,059; 2014, 4,822; 2015, 4,152; 2016, 5,288; and 2017, 4,652 (https://www.wildlife.ca.gov/Conservation/Mammals/Deer/Population#32712445-population-by-hunt-zone). This differs from overall deer population trend across the state - increasing overall between 2013 and 2016, while declining again in 2017 (https://www.wildlife.ca.gov/Conservation/Mammals/Deer/Population). Despite this, the Department considers the deer population in Zone D-13 stable to slightly declining, yet considerably below levels seen in the late 1960's and 1970's. As with most deer herds in California and other western states, the long-term population trend has been on a steady decline since the 1960's and 1970's. These long-term declines have been due to land management practices that have precluded fire, resulting in changes toward more mature and less diverse habitats, and reduced quality and quantity of deer habitats. Short-term fluctuations in deer populations are usually attributed to weather events that affect forage production; southern California has been experiencing an overall drought condition since 2012. (California Department of Fish and Wildlife 2017).

California mule deer in Zone D-13 are considered resident deer. That is, their movement is up and down the slopes, they do not make long seasonal migrations. The deer in this area generally move to higher elevations in late spring and will remain there until the first heavy fall storms force them down below the snow line. (California Department of Fish and Wildlife 2017)

The vegetation is highly varied throughout Zone D-13 ranging from oak-woodland, mixed and montane chaparral, hardwood, hardwood-conifer, pinyon-juniper and conifer to subalpine/alpine habitats. Generally speaking, deer populations in this area respond favorably to vegetation disturbances that enhance brush species (wildfire and timber harvesting). Riparian areas, recently burned areas or clear cuts that have re-sprouted with brush, and areas where oaks are producing acorns typically attract higher densities of deer than are observed in more densely forested areas or in older, more decadent brushlands. (California Department of Fish and Wildlife 2017)

The four southern California national forests support most of the deer in the southern part of the state. Mule deer on the Los Padres National Forest reach their highest densities in oak woodlands, riparian areas, and along the margins of meadows and grasslands. Deer herds on the Los Padres National Forest have not fully recovered since drought in the late 1980s due to a variety of factors including predation by mountain lions, coyotes, illegal poaching, and disease. (USDA Forest Service 2005b, Reading Room)

The Forest Plan desired future condition is to maintain or improve habitat to sustain healthy deer populations by retaining oak canopy cover in oak/grasslands and managing chaparral areas near water sources to create irregular shapes to maximize cover and forage opportunities. Fire and fuel management are the main tools intended to implement these objectives. Mixed conifer stands within the project area are currently overstocked with tight crowns, and understory fuels ladders that place the project area is at risk to insects, disease, and wildfire.

Effects

No Action Alternatives

Under the no action alternative, the habitat within the project areas would not be as healthy and diverse as under the proposed action. Mixed conifer and pinyon-dominated stands would continue to experience elevated levels of bark beetle activity that kills conifers and increases the risk of a stand replacing wildfire. Sagebrush scrub stands would remain at an increased of risk to fast-moving wildland fires.

Proposed Actions

The proposed actions, will generally benefit mule deer by leading to more healthy and diverse habitat within these areas and improving foraging conditions. Reducing tree density would improve forest health. Fuels would be treated to help prevent large, high-intensity catastrophic stand-replacing fires. A more open understory and improved palatability of shrub would be created through thinning and jackpot burning.

Cumulative Effects of the Actions

At this time, the 2,826 treatment acres of proposed actions, even in conjunction with the additional 3,822 acres of similar current and planned projects across the cumulative effects area boundary, is not expected to contribute much positively or negatively to healthy and diverse habitat relative to the roughly 250,000-acre Mount Pinos Ranger District.

Effects at the Forest Level

The combined size of the proposed actions (2,386 treatment acres) is too small relative to the size of the Los Padres National Forest (2 million acres) to lead to a noticeable change in mule deer habitat or populations on the Los Padres National Forest.

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