



Decision Memo

Cuddy Valley Forest Health/Fuels Reduction Project

USDA Forest Service
Mt. Pinos Ranger District, Los Padres National Forest
Kern County, California

Background

The Cuddy Valley Forest Health/Fuels Reduction Project consists of approximately 1,200 acres of natural stands that we identified as overstocked and therefore at risk of loss to insect and disease. In addition to treating these stands to reduce the risk of insect and disease infestation, some of the treatment areas were also identified as strategic for future wildfire and prescribed fire management. Treatment areas are strategically placed around the community of Pinon Pines Estates, CA, and are within the wildland urban interface, as well as in strategic locations that connect to past and future treatment areas on both public and adjacent private lands. Past fire suppression activities has led to an unstable condition in the mixed conifer and pinyon-juniper stands in the project area by allowing the widespread accumulation of fuels in the form of litter accumulations, coarse woody debris and understory growth of shrubs and conifer regeneration (Goforth and Minnich 2007).

Since 1998, there were 15 fire starts within the Cuddy Valley treatment areas. About 67 percent of fire starts were caused by human-related activities. Although fires can start throughout the entire year, the majority of fire starts occur in August and September. While all of these starts were fully suppressed at less than 10 acres, there have been a number of large fires over 1,000 acres within or adjacent to the project area (USGS 2017)¹. See table 1 for fires over 1,000 acres.

Table 1. Fires over 1,000 acres within or adjacent to the project area

Fire Name	Year	Acres
Gorman	2005	2,439
Ridge	2006	2,486
Post	2010	1,454
Grand	2013	4,527

On the Mount Pinos Ranger District, we have been working with local individuals and groups via efforts such as the Mt. Pinos Communities Wildfire Protection Plans to establish priorities,

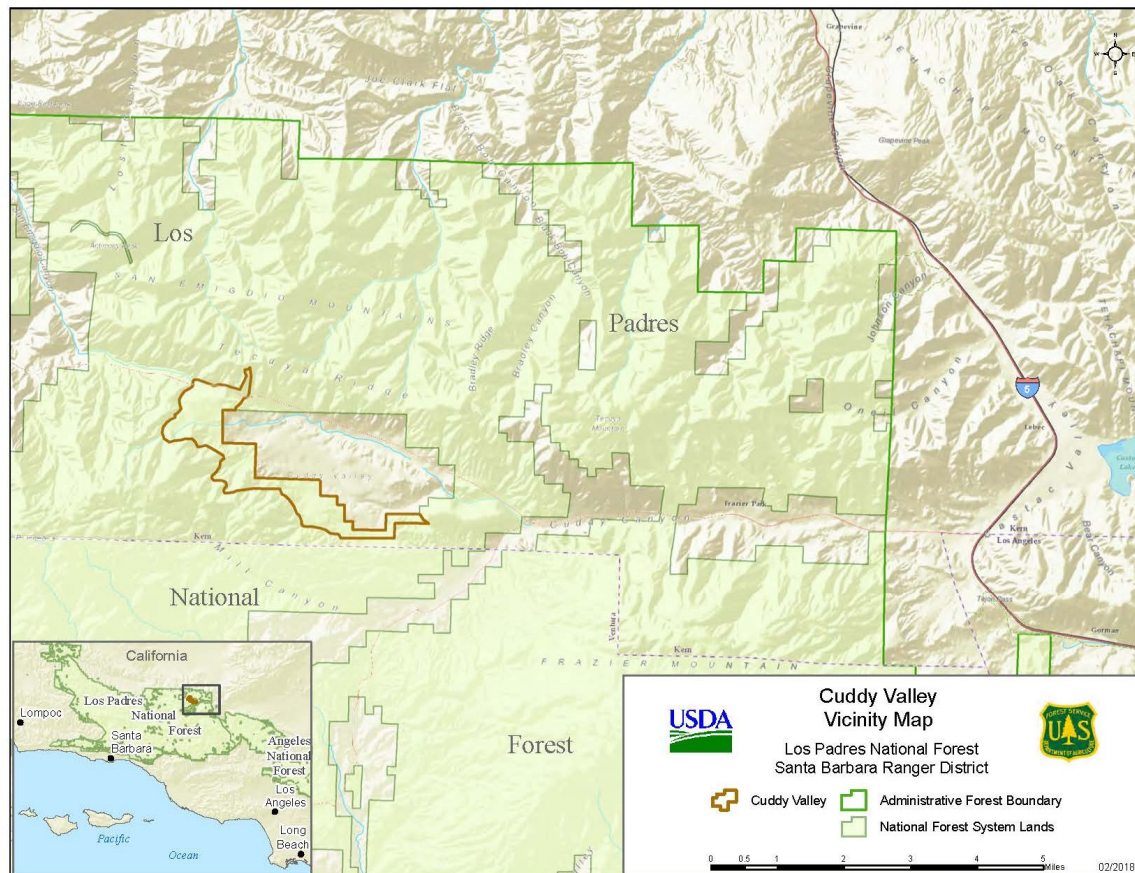
¹ USGS. 2017. National Monitoring in Burn Severity (MTBS) Burned Area Boundaries Dataset. References are available at: <http://www.fs.usda.gov/project/?project=52500> or are on file at the Mt. Pinos Ranger District in Frazier Park, California.

cooperate on activities, and increase public awareness of and participation in site-specific projects such as the Cuddy Valley Forest Health/Fuels Reduction Project.

Location

The Project is within the Mt. Pinos Place Management Area in Cuddy Valley and extends to the lower slopes of Mount Pinos (figure 1). The Project is immediately adjacent to the community of Pinon Pine Estates and 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.

Figure 1. Cuddy Valley Forest Health/Fuels Reduction Project Vicinity Map



Purpose and Need

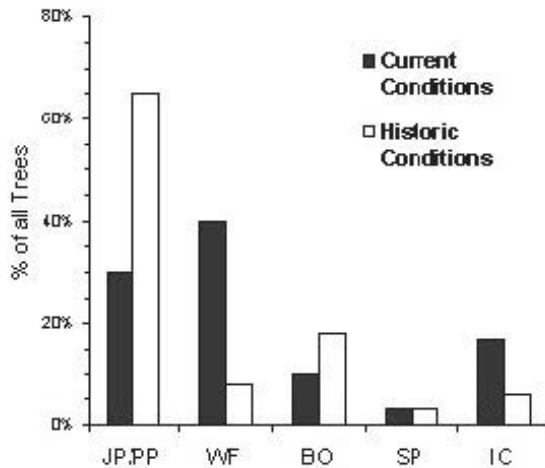
Purpose and need for action is generated by identifying the departure of the existing condition from the desired condition.

Existing Condition

The present condition of vegetation on the Forest has been influenced by a century of fire management (mostly fire suppression), as well as by other land use practices such as logging (estimated from the 1930's to present) and grazing (USDA Forest Service, 2005). As a result, many conifer forests now have tree densities that are much higher than they ever were

historically. Additionally, species composition has changed from more shade intolerant species such as Jeffrey and ponderosa pines to more shade tolerant species such as white fir and incense cedar compared to historic abundances (USDA Forest Service, 2005). Figure 1 shows the high representation of shade intolerant Jeffrey and ponderosa pines in the past versus the present, and the high percentage of the shade-tolerant white fir in present-day forests.

Figure 2 – Historic and current percentages of tree species in mixed conifer forests



Stand overcrowding both has accelerated and aggravated drought caused mortality, making conifer forests susceptible to widespread insect and disease outbreaks that, in combination with excessive fuel loading, has set the stage for more large-scale, stand replacing wildland fires.

Stand exams taken in the project area coupled with walk-throughs by silviculturists and other Forest professionals and data from other sources² confirm that existing stand density and structure put the area at risk from insects and disease as well as from wildfire. Historically mixed conifer stands in southern California had approximately 93 trees per acre (Minnich et al 1995). Stand exams show that the project area average mixed conifer stand has 480 trees per acre. This is over five times the historic level. High stocking levels, overlapping crown canopies, and a dense understory contribute to resource competition, leaving trees in the project area susceptible to more insect attack. The existing understory, tight crowns, understory fuels ladders, existing fuel loads and continued periods of drought place the stands at risk from wildfire as well. The existing “at-risk” condition of the timbered stands in the project area is not in line with the goals and desired conditions derived from the 2005 Los Padres National Forest Land Management Plan (Forest Plan). Specifically - Forest Plan Goal 1.2: Restoration of Forest Health, Goal 1.1: Community Protection, with Forest Plan desired conditions for FH 2: Restoration of Forest Health and FH 4: Insect and Disease Management and finally National Strategic Plan Goal 1 – Reduce the risk from catastrophic wildland fire.

The project area has approximately 791 acres of mixed conifer and pinyon - juniper dominated stands. These stands are experiencing elevated levels of bark beetle activity and associated increasing tree mortality which has been exacerbated by the ongoing drought. The bark beetles

² Mt Pinos Community Wildfire Protection Plan, National Insect and Disease Forest Risk Assessment, Strategic Fuelbreak Assessment, 2014 Farm Bill etc.

involved are pinyon ips (*Ips confusus*) and California fivespined ips (*Ips paraconfusus*). The project area was identified in the National Insect and Disease Forest Risk Assessment of 2012 (NIDFRA) as being at risk from both of these beetles³. 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 area⁴ due to current forest conditions. This mortality combined with stand structure and drought is increasing the risk of a stand replacing wildfire.

Within the project area there are approximately 409 acres of sagebrush-scrub. The extreme drought in recent years has increased the fire risk to Cuddy Valley. Some drought related mortality in the sagebrush is evident within the project area. 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.

Desired Conditions

The long-term goal of vegetation management is to perpetuate plant communities by maintaining or re-introducing fire regimes appropriate to each type while at the same time protecting human communities from destructive wildland fires (USDA Forest Service, 2005). In the long-term, the desired condition for the national forest land would be to: (1) create forests more resistant to the effects of drought, insect and disease outbreaks and stand killing crown fires; (2) encourage tree recruitment that contain a species mix more like pre-settlement composition, (*i.e.*, with a higher representation of shade-intolerant species such as Jeffrey pine that have declined during the period of fire suppression); (3) recreate stand densities more like those of the pre-suppression era; and (4) encourage a stand structure that emphasizes large-diameter trees.

Purpose of the Project

The purpose of the project is to mitigate the mortality caused by Ips bark beetles in the project area. This infestation has been ongoing for a number of years and slowly building. Since 2007, Ips mortality; exacerbated by drought, in Jeffrey and pinyon pines has been increasing. Small pockets of dead trees (5 to 20 trees), have been found throughout the project area. Based on the amount of fading trees detected in the project area and the continued drought conditions⁵, high levels of mortality are still possible.

Additionally, modelling of insect and disease risk for the proposed treatment units using the Forest Vegetation Simulator (FVS)⁶ shows a moderate to high risk of mortality from beetle infestation. According to Oliver (1995), Jeffrey and pinyon pine trees in stands where basal areas are over 120 square feet per acre are at imminent risk of bark beetle-associated mortality. The average existing basal area in our pine and mixed conifer stand is slightly over 120 square feet

³ At high risk from pinyon ips and California fivespined ips.

⁴ Used to describe the average amount of an area (usually an acre) occupied by tree stems. It is defined as the total cross-sectional area of all stems in a stand measured at breast height, and expressed as per unit of land area (typically square feet per acre).

⁵ The current U.S. Drought Monitor for California (11/21/17) indicates Moderate Drought conditions for the area.

⁶ Forest Vegetation Simulator: Western Sierra Nevada Variant

with many stands well in excess of that threshold. Treatments that reduce stocking or densities below this threshold significantly reduces risk and potentially high mortality if bark beetles invade treated stands. Prevention is not guaranteed but improves chances that bark beetles will bypass treated stands in search for more preferable conditions.

Need for Action

There is a need to reduce surface and ladder fuels, reduce fire intensities, and to make the stands more resilient to wildfire. Surface fuel loading levels, trees that are dead and dying due to insect and disease, and natural forest succession make stand replacing fire an ongoing risk to the landscape. Historically, periodic lower intensity fire would keep surface fuel levels down, and thin stands, reducing the risk of stand-replacing fire. The current fire regime has been influenced by historic fire suppression, effectively removing fire as a process on the landscape. The project area is close to private property, so the wildland-urban interface is a concern if a large fire were to occur in the area. Removing standing and down fuels reduces fuel loading and fuel continuity, and increases our ability to directly suppress fire in a safe and efficient manner.

There is a need to reduce the stocking levels and competing vegetation to more closely resemble historic levels to improve resilience of these stands to insect and drought-related mortality.

There is a need to strategically place forest health treatments that are cost effective and complement planned and completed treatments on adjacent private lands.

There is a need to maintain or improve resilient forest conditions which is the capacity of an area to return to prior conditions and function after disturbance (USDA Forest Service, 2011). Resilient forests are those that not only accommodate gradual changes related to climate, but tend to return toward a prior condition after disturbance, either naturally or with management assistance (Millar et al. 2007).

There is a need to maintain fuelbreaks along watershed boundaries to minimize fire size and the number of communities threatened by both fire and flood.

Proposed Action

Reduction in stand density, competing vegetation, and fuels are proposed on an estimated 1,200 acres of National Forest System lands within the Mt. Pinos Place Management Area. The project area has been identified within the Mt. Pinos Communities Wildfire Protection Plan and within the Los Padres National Forest Strategic Fuelbreak Assessment as strategic for future wildfire and prescribed fire management. Table 2 displays treatment acres by various stand types:

Table 2. Treatment by stand type

Stand Type	Treatment	Acres
Mixed Conifer	Hand Cut/Hand Pile	182
	Mechanical Treatment	532
Pinyon Juniper	Hand Cut/Hand Pile	8
	Mechanical Treatment	69
Sagebrush-scrub	Hand Cut/Hand Pile	34
	Mechanical Treatment	375

A combination of mechanical treatment/thinning, mastication of brush and smaller trees, and hand treatments including, hand thinning, brush cutting, pruning, handpiling of material and follow-on burning of piles would be used to reduce the stocking in selected stands and to change the structure of live and dead material in treated stands.

Timbered stands would be thinned to a range of 60 to 100 basal area per acre, with a target of 80 basal area per acre. The reduction to this level would promote forest health, and to create an effective shaded fuel break to assist in fire suppression. Trees would be removed throughout all diameter classes and would include the removal of commercial trees. Residual trees will be selected for vigor however, larger Jeffrey pine would be retained as per Forest Plan direction unless they are a hazard tree or infected with dwarf mistletoe. All black oak will be left unless they are deemed a hazard tree. Early seral species⁷ will be biased for when selecting residual trees. Timbered stands with slopes generally greater than 35 percent will be hand thinned. Activity fuels will be either lopped or scattered or hand piled depending on conditions such as slopes. Hand piles would be burned when conditions allow.

Areas of sagebrush-scrub would be treated by a combination of mastication and hand treatments such as brush cutting, pruning and piling of material. Slopes generally greater than 35 percent would be hand treated and any piles created would be burned. Treatments of sagebrush-scrub areas would be focused within 300 feet of the Forest Service property lines and 100 feet from the edge of the timber line. Within these areas, up to 85 to 95 percent of the sagebrush-scrub would be treated.

The most cost efficient and effective treatment within each stand would be chosen based on timing, equipment availability, and post treatment results, but would generally be implemented as follows:

- Stands less than 35 percent slope, with viable amounts of accessible commercial-sized material, would be mechanically harvested using feller bunchers and rubber-tired or track-mounted log skidders to remove whole trees to landings.

⁷ Jeffrey and pinyon pine.

- Stands less than 35 percent slope, and that do not have a viable amount of commercial-sized timber, or are not accessible, would be treated by mastication.
- Stands less than 35 percent slope that consist primarily of an over-abundance of smaller trees and shrubs would be masticated.
- Existing and operations-generated slash, small trees, and shrubs would be tractor piled or masticated with a track-mounted masticator. Mastication or tractor piling would occur shortly after thinning is completed. Post-harvest machine piling and burning of piles would occur as necessary to reduce surface fuels to less than 10 tons per acre. Mastication may be substituted for tractor piling where surface fuels can be more effectively treated by this method and where maintaining or increasing soil cover is a higher priority.
- Timbered stands and sage scrub fields with slopes generally greater than 35 percent slope would be either lopped or scattered or hand piled depending on conditions such as slope. Hand piles would be burned.
- Sagebrush-scrub areas less than 35 percent slope would be treated using a masticator. Areas where slopes generally exceed 35 percent slope would be hand treated, piled, and burned.
- The removal of hazard trees (live and dead) of all sizes would occur along utility lines, roads, trails and landings to provide for safety of woods workers and public throughout project implementation, except where restrictions for removal apply.
- Stands retreatments may need to occur every 3 to 7 years depending on the amount of re-growth that occurs. The higher frequency of retreatment is anticipated to occur within the sagebrush-scrub areas.

Design Features

Project design features are elements of the project that are applied in treatment areas. These features are developed based on Forest Plan direction and site specific evaluations in order to reduce or avoid negative impacts of the proposed action. Project design features associated with this project are in Appendix A.

Decision

It is my decision to proceed with the Cuddy Valley Forest Health/Fuels Reduction Project as described in the Proposed Action and associated design features. My decision will improve forest health near communities in Cuddy Valley by reducing overstocking, surface and ladder fuels, reduce fire intensities, and make stands more resilient to disturbance (i.e. bark beetle, drought, and wildfire).

I recognize and acknowledge there are concerns from the public about impacts to wildlife and the commercial sale of timber and other wood products. In arriving at my decision I carefully assessed the potential impacts to wildlife from the project, and disclosed the effects on pages 8-12 of this Decision Memo. To reduce or avoid impacts to wildlife, such as the California condor, I have included project design features that will be applied during implementation. As a result, I

am confident that improving the health and resiliency of forest vegetation within the project area will not imperil species of concern.

My decision also provides the opportunity to utilize commercial means to efficiently and cost effectively meet project objectives where it can be applied. The sale of timber and other wood by-product is not part of the purpose and need for the project, and would not change the treatment outcome. Rather, it's another tool available for utilization within a portion of the project to help move that area toward forest health desired conditions. Though the value of the timber may be considerably less than the cost of the treatments, any cost offset would be beneficial to the public by reducing the overall cost of the project.

This action is categorically excluded from documentation in an environmental impact statement (EIS) or an environmental assessment (EA). The applicable category of actions is identified in agency procedures as 36 CFR 220.6(e)(6)-“Timber stand and/or wildlife habitat improvement activities that do not include the use of herbicides or do not require more than 1 mile of low standard road construction.”

As stated in 36 CFR 220.6(b), *the mere presence of one or more of the resource conditions does not preclude use of a categorical exclusion (CE). It is the existence of a cause-effect relationship between a proposed action and the potential effect on these resource conditions and if such a relationship exists, the degree of the potential effect of a proposed action on these resource conditions that determine whether extraordinary circumstances exist.* This category is applicable because the evidence presented in the project record and briefly described in each resource condition below, demonstrates that the actions in this decision and the degree of the effects on the resource conditions result in no extraordinary circumstances, therefore it does not warrant further analysis and documentation in an EA or EIS.

Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species

Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, and Forest Service sensitive species were reviewed.

Terrestrial Wildlife

A biological assessment and biological evaluation were completed for wildlife (Malengo, 2018). An official species list for this project (Consultation Code 08ESMF00-2018-SLI-1969) was generated on April 26, 2018 from the U.S. Fish and Wildlife Service website. One federally listed endangered species, California condor, is within range of the project area and possibly contains occupied habitat. No critical habitat for the California condor has been identified for the Cuddy Valley Forest Health/Fuels Reduction Project (Project Record, Wildlife BA. Table 1).

From the Regional Forester's list of Sensitive Species for Region 5 (USDA 2014), nine wildlife species (Project Record, Wildlife BE, Table 1) have been identified on the Forest. They are: California spotted owl, Northern goshawk, pallid bat, Townsend's big-eared bat, Fringe-myotis bat, Tehachapi pocket mouse, Mt. Pinos lodgepole chipmunk, Yellow-blotched ensatina salamander, and Monarch butterfly. The Tehachapi pocket mouse has a determination of *no*

impact because this species has not been documented within the project area; the project area is near and above its known elevational range; and it is dependent upon shrub-steppe communities and a scarce resident in ponderosa and Jeffrey pine habitats. The Monarch butterfly has a determination of *no impact* because the project area contains low suitability of breeding habitat. Both of these species will not be discussed further.

No extraordinary circumstances exist with respect to the California condor. It was determined that the project *will not affect* the California condor based on the following rationale:

- Condor activity in the project area includes flying over it fairly often and roosting nearby occasionally, but nesting, roosting and foraging habitat are marginal.
- The project area is within the Bitter Creek/El Cajon flyway(s) and the Fish and Wildlife Service is relatively unconcerned about thinning projects in this area because the potential for effect on condors would be relatively minor.
- Noise and smoke associated with thinning, burning, and mastication are unlikely to alter normal flight or roosting patterns of condors within or adjacent to the action area. Condors are also mobile, high-flying, and able to move away from any incidental smoke that may occur.
- In the unlikely event condors do use the project area for nesting or roosting prior to implementation or ongoing maintenance of the fuelbreak, disturbance to these individuals would be avoided or minimized by prohibiting or restricting management activities and human uses within 1.5 miles of active California condor nest sites and within 0.5 miles of active roosts (Forest Plan Standard 28). In addition, activities would cease if California condors were observed in the project area during implementation or maintenance and U.S. Fish and Wildlife Service would be notified.
- Under the proposed action, an effort would be made to retain large snags (Forest Plan Standard 14, 15, 17). However, safety at the discretion of the operator, may limit retention of snags. Although there are currently no known condor roosting sites within the action area, snag removal could reduce roosting structures. However, larger Jeffrey pine would be retained per Forest Plan direction unless they pose a hazard or are infected with dwarf mistletoe and all black oak would be left unless they pose a hazard.
- The project would benefit California condors by treating fuels to help prevent large, high intensity stand replacement wildland fire that could eliminate roosting habitat over a larger area. The proposed action might improve condor foraging habitat by creating a more open area that facilitates finding and catching prey by birds like condors that are dependent upon sight for locating food.
- Forest Plan Standards, as stated in the project design features numbers 11-14, 16-19, 22-24 are designed to mitigate effects of the California condor.

No extraordinary circumstances exist with respect to sensitive species listed above and it was determined that the project *may affect individuals but is not likely to result in a loss of species viability in the planning area, nor cause a trend toward federal listing for the species*, for California spotted owl, Northern goshawk, pallid bat, Townsend's big-eared bat, Fringe-myotis

bat, Mt. Pinos lodgepole chipmunk, Yellow-blotched ensatina salamander based on the following rationale:

California Spotted owl (CSO)

- Although PACs haven't been formally designated, the Los Padres National Forest performed a California spotted owl habitat analysis within and adjacent to the project area boundary (WL BE, Figure 1) using a combination of California Wildlife Habitat Relationships (Zeiner et al. 1990) and Loe and Beyers (2004). Using this mapped suitable habitat, nest stands and the best available habitat in a contiguous and compact arrangements over 300-acres (0.39-mile radius) are outside of the project area boundary.
- Based upon habitat information for the spotted owl in southern California synthesized by Loe and Beyers (2004), the Los Padres National Forest has defined the following California Wildlife Habitat Relationships (Zeiner et al. 1990) suitable habitat types for reproduction, foraging, and cover on the Mount Pinos Ranger District in and within the vicinity of the project area: Sierran mixed conifer 4M, 4D, 5M, and 5D, montane hardwood conifer 5M and 5D, Eastside pine 5M and 5D and Jeffrey pine type 5D⁸. The Los Padres National Forest existing vegetation layer was used to calculate a rough estimate of suitable habitat available for California spotted owl in the project area. There is a limited amount of suitable California spotted owl habitat (95.47 acres) within the project area (WL BE, Table 4, Figure 2). Currently, there are no known spotted owl nests or spotted owl territories identified in the Statewide California Department of Fish and Game database in the project area; the closest documented nest is more than 2 miles to the north. There are also no recorded sightings of spotted owl presence within the project area; it is unknown if this is due to the lack of suitable habitat or the lack of focused surveys.
- Suitable habitat is present in the project area, but high-quality spotted owl habitat is limited to less than 5 percent of that occurring within the vicinity. However, structural elements preferred by this species (high canopy closure, densely-stocked stands, large-diameter snags and logs, and diseased trees) would be impacted by reducing stand density to a range of basal area of 60 to 100 square feet per acre, reducing overhead canopy and midstory, and downgrading habitat quality or removing habitat.
- Although limited reproductive habitat is present in the proposed project area, noise and smoke generating activities that occur within or adjacent to suitable spotted owl habitat have the potential to disturb spotted owls, especially nesting individuals, should they be present. Breeding season surveys for nesting activity are recommended prior to implementation to determine if spotted owls are nesting within the project area.
- In the event a spotted owl nest is found, a limited operating period prohibiting activities within approximately 0.25 miles of the nest site, or activity center where nest site is unknown, would be maintained during the February 1 through August 15 breeding

⁸ 4 = small tree (11 to 24-inch diameter at breast height and 12-foot to 24-foot crown diameter); 5 = medium/large trees (greater than 24-inch diameter at breast height and greater than 24-foot crown diameter; M = moderate cover (40-59% canopy closure); D = dense cover (60-100% canopy closure)

season, and this limited operating period would be applied annually thereafter, as necessary, unless surveys confirm that the owls are not nesting.

- Reducing tree density and removing hazardous fuels would improve forest health and reduce risk from wildfire, thus protecting adjacent high-quality spotted owl habitat against high-intensity stand-replacing fire in the long run. While fire promotes heterogeneous forest landscapes shown to be favored by owls, high severity fire may create large canopy gaps that can fragment the closed-canopy habitat preferred by spotted owls (Eyes et al. 2017). Forest Plan Standards listed in the Proposed Action Design Features for wildlife are designed to maintain or enhancing habitat conditions.

Northern Goshawk

- The northern goshawk is extremely rare and apparently irregular as a breeding species in southern California. Nesting has been confirmed only 13 times, twice at Mt. Abel, Kern County (1989 and 1990), five times at Mt. Pinos, Kern/Ventura counties (1904, 1960, 1989, 1990, and 2009), once in Ventura County (1919), once in the San Bernardino Mountains, San Bernardino County (2004), three times in the Cuyamaca Mountains, San Diego County (1937–1938), and once at Big Pine Mountain, Santa Barbara County (2009).
- Suitable habitat is present in the project area and individual goshawks could be impacted if they are present in the area during project implementation. However, the project will generally benefit northern goshawk by treating fuels to help prevent large, high intensity stand replacement wildland fire.
- Goshawk foraging habitat in the project area would likely benefit from implementing the proposed action by creating a more open understory that facilitates finding and catching prey.
- As stated in design feature # 25, active goshawk nest stands (30 acres) would be avoided during project implementation. The limited operating period for goshawk within post-fledgling family area (PFA) is March 1- Sept 30. Treatments would only occur during the non-breeding season of 1 October through 28 February if goshawks are found and determined to be nesting within the project area.
- Forest structure within the project area would change and is expected to be maintained over time. While the potential exists for individual goshawks to be affected, implementing the proposed treatments would not affect goshawk population persistence on the Los Padres National Forest.

Pallid Bat, Townsend's Big-eared Bat, and Fringed-tailed Bat

- Pallid bat and Townsend's Big-eared Bat has not been documented in the project area and much of the project area is near or above the 6,000 foot common elevational limit of this species. Fringed myotis was found at elevations above 4,600 feet, primarily in montane conifer forests, but also in pinyon-juniper woodland forests. Localities where the fringed myotis was found include Pine Springs (north of Cuddy Valley) on the Los Padres National Forest.

- Suitable habitat for fringed myotis is present in the pinyon pine forest of the project area and based on nearby observations, fringed myotis could be present in the project area. Pallid bat and Townsend's big-eared bat are less likely to be present or impacted because the project area is near and above the known upper elevational limit of these two species.
- The most important roosts are maternity colonies and hibernacula; these three bat species use caves, mines, and buildings as maternity colonies, solitary day and night roosts, and hibernacula. They also use bridges and rock crevices as solitary day and night roosts, and they may hibernate in crevices. They also roost underneath bark and inside hollows of tree snags. There are no documented caves or mines in the project area and rocky outcrops would be avoided by mechanical treatments. Therefore, the project would be unlikely to directly impact maternity colonies or hibernacula.
- Individuals that might be roosting under bark or in tree snags could be disturbed by smoke, noise, or human presence during operations, or injured or killed during pinyon pine and snag removal. In addition, modification of the forest structure has the potential to displace bats, including from important roosts, because changes in vegetation composition or structure can alter the abundance and diversity of their insect prey base (Kenaith 2004). In addition, mortality to individuals from smoke, noise, human presence, and tree and snag removal may occur.
- Project activities would manage fuel loads to avoid catastrophic stand replacement fires and could prevent loss of tree roosts adjacent to the project area which would benefit bat species. It would also create a mosaic of age classes and densities in vegetation types, improving the amount of forest edge that may improve foraging conditions.
- For the fringed myotis, Pinyon pine is common across the District, and large amounts of habitat would remain across the landscape. The cumulative impact of this project, when considered with similar projects, may lead to an overall beneficial effect by creating a mosaic of age classes and forest edge when considered at the landscape level.

Pinos lodgepole chipmunk

- Very limited suitable habitat is present in the project area at the lowest end of the species elevational range.
- Nests located under rocks or within rocky crevasses would be avoided by mechanical treatments and would be unlikely to be impacted by the project.
- Individuals might be disturbed from regular feeding or mating opportunities by noise, smoke, or human presence associated with thinning, burning, and mastication during implementation or fuelbreak maintenance. Individuals are readily mobile and may be displaced by elimination of trees and snags and vegetation containing food sources, rather than injured or killed.

Yellow-blotched ensatina

- Suitable habitat for this species is present within the project area, but the species has not been documented.

- Thinning mixed conifer stands to a range of 60 to 100 square feet basal area per acre has the potential to change yellow-blotched *Ensatina* microhabitat in the project area by reducing canopy cover that could increase temperatures and decrease moisture.
- Removal of downed logs and woody debris would remove habitat elements that could lead to injury or mortality of individuals if the species is present.

Botany

A botany report was completed for botanical species (Tufts, 2018).

Listed or proposed species and critical habitat:

There are no federally listed species or habitat within the project area, there is no effect to any federally listed threatened, endangered, proposed or candidate species nor proposed or final designated critical habitat. Surveys conducted throughout the project area in 2017 further confirmed the absence of any federally listed species from within the project area.

Sensitive Species

The Regional Forester has identified 96 botanical species from the Los Padres National Forest which are listed as Region 5 Regional Forester Sensitive Species. Systematic surveys to determine the presence or absence of these species within the project area were conducted during the summer of 2017. These surveys revealed three Regional Forester Sensitive Species (Botany Report, Table 3):

- *Allium howellii* var. *clokeyi* Clokey's Onion. There is one occurrence of this species within the project boundary which occupies approximately two acres
- *Layia heterotricha* Paleyellow Tidytops. There is one occurrence of this species within the project boundary which occupies approximately a hundredth of an acre.
- *Monardella linoides* ssp. *Oblonga* Flaxleaf Monardella. Many occurrences of this species are within the project boundary, occupying nearly a quarter acre.

No extraordinary circumstances exist with respect to sensitive species listed above and it was determined that the project *may affect individuals but is not likely to result in a loss of species viability in the planning area* based on the following rationale:

- Pile burning would have no direct effect to these species as this action has been excluded from their occurrences.
- Fuels reduction activities would produce soil disturbances, especially where heavy equipment is utilized, and the increased activity associated with implementation would increase the risk for introduction and spread of non-native invasive species which could result with indirect impacts to populations of these species through competition or modification of ecosystem processes.
- As many occurrences exist within the project area and the potential for direct impacts is limited, habitat suitability is maintained or improved through project implementation, the risk of mortality from moderate to high intensity wildfires is reduced, and potential

adverse indirect impacts from non-native invasive species introduction and spread have been mitigated with project design features.

Flood plains, wetlands, or municipal watersheds

Wetlands

Review of the National Wetlands Inventory and GIS dataset and field review indicates that no wetlands, hydric soils, or hydric plants are present within the project area.

Floodplains

No extraordinary circumstances with respect to floodplains would be created by the project. All stream channels associated with the Cuddy Valley Project are headwater ephemeral or intermittent channels with limited floodplain development. No 100 year Federal Emergency Management Agency floodplains, regional floodplains, or California Department of Water Resources (DWR) Awareness Floodplains occur with the project boundary.

Municipal watersheds

Municipal watersheds are defined in FSM 2542.05 as “A watershed that serves a public water system as defined in the Safe Drinking Water Act of 1974, as amended (42 U.S.C. §§ 300f, et seq.); or as defined in state safe drinking water statutes or regulations.” As per the Forest Plan, none of the watersheds in the project area are considered municipal.

Further, review of the California Environmental Health Tracking Program's Drinking Water Systems Geographic Reporting Tool (<http://www.cehtp.org/water/>) shows that there are no public drinking water sources within the project area or immediately downstream. Therefore, there are anticipated to be no effects to public drinking water sources within or immediately downstream of the project.

Congressionally designated areas such as wilderness, wilderness study areas, or national recreation areas

The project will have no effect on congressionally designated wilderness, or wilderness study areas because there are none within the project area. No extraordinary circumstances exist for this resource condition.

Inventoried roadless areas or potential wilderness areas

The project will have no effect to these areas because there are none within the project area. No extraordinary circumstances exist for this resource condition.

Research natural areas

The project will have no effect to these areas because there are none within the project area. No extraordinary circumstances exist for this resource condition.

American Indians and Alaska Native religious or cultural sites

We are required to consult with appropriate consulting parties for agency undertakings that have the potential to affect cultural resources with the State Historic Preservation Office, Indian tribes including Tribal Historic Preservation Officers. Prior to issuing a decision, the Los Padres

National Forest will meet all requirements for compliance with Section 106 of the National Historic Preservation Act and the standards and guidelines outlined in the Forest Plan.

Scoping Letters and Site Notification Letters were sent to representatives for American Indian Tribes who may have religious or cultural sites that overlap with this projects. No issues were raised.

Archaeological sites, or historic properties or areas

Within the Area of Potential Effect (APE), there are four known prehistoric cultural resource sites. All four sites are unevaluated for the National Register of Historic Places.

To mitigate the potential of ground disturbance, all cultural resource sites would be flagged per California standards with a 30 meter buffer and avoided. Mechanical thinning and log and tree skidding would not be permitted within site boundaries. Trees near the boundary of cultural resources would be felled away from sites, so sensitive features and artifacts are not damaged by falling trees or the activity required in removing them. Cultural resources that occur within planned low-intensity broadcast burn units would be similarly flagged, and avoided and buffered with a hand control line as necessary to prevent fire from spreading onto cultural sites and inadvertently causing heat damage to artifacts or complete destruction of any wooden features or artifacts associated with the sites. Cultural resources that occur within pile and burn units would be flagged and avoided. No pile burning would occur within site boundaries.

If these design features measures are followed, then it is recommended that the project be allowed to proceed as a *No Adverse Effect* activity. However, if the scope of work changes or any additional cultural resources are encountered during implementation of this project, then work should stop in the area and the forest archaeologist be contacted. Work in that area can only resume if, design features measures can be determined or re-evaluated if necessary.

Public Involvement

This action has been listed as a proposal on the Los Padres National Forest Schedule of Proposed Actions since March 2018 and updated periodically during the analysis. In addition to providing a description of the proposed action on the Los Padres National Forest webpage, a letter seeking public comments was sent via regular mail or email to interested individuals, Tribes and organizations.

The Forest received over 600 letters during the public scoping comment period. Thirteen unique letters were submitted. The remaining comments were form letters requesting not to conduct any logging or vegetation clearing. Comments were submitted by mail, email or phone and to the forest's website. These comments were evaluated for significance and considered as part of the analysis. These comments and their disposition are included in the project record.

Findings Required by Other Laws and Regulations

National Forest Management Act

The National Forest Management Act (NFMA) requires the development of long-range land and resource management plans. The Los Padres National Forest Land Management Plan was approved in 2005 as required by this act. The Forest Plan provides guidance for all natural

resource management activities. This decision is consistent with NFMA and the Forestwide goals, objectives, and standards in the Forest Plan.

Endangered Species Act

The Forest Service has met the requirements of Section 7 of the Endangered Species Act by preparing the appropriate documents. There are no listed threatened, endangered, proposed, or candidate botanical species within the vicinity of project activities, therefore no consultation with the U.S. Fish and Wildlife Service is necessary. For terrestrial wildlife, it was determined that the project *will not affect* the California condor. No consultation is necessary.

National Historic Preservation Act

This project complies with the Forest Plan standards and guidelines for cultural resources. Forest Service Policy (FSM 2361.3) requires that projects with the potential to affect cultural resources, including lands which will leave Federal agency control through sale or exchange, be surveyed for cultural resources in order to comply with 36 CFR §800 – Protection of Historic Properties, Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended; the Archaeological Resources Protection Act (ARPA) of 1979, the National Environmental Policy Act (NEPA), the Native American Graves Protection and Repatriation Act, and the American Indian Religious Freedom Act of 1978.

Clean Water Act (Public Law 92–500)

The Forest Plan directs water quality to be maintained and improved through the use of state certified and Environmental Protection Agency (EPA) approved Best Management Practices (BMPs). Project design features, and Forest Plan standards and guidelines, were incorporated into the development of this project to ensure compliance with Section 208 of the Clean Water Act, and the guidelines established by the Central Valley Regional Water Quality Control Board.

Clean Air Act (Public Law 101-549)

Proposed activities complies with the Federal Clean Air Act. Design feature number 10, states that all prescribed fire activities will occur with approvals from the San Joaquin Valley Air pollution and under conditions established in an approved prescribed fire burn plan. Smoke would not be allowed to affect highway visibility on public highways. In addition, prior to burning, the Forest Service prescribed fire manager would ensure that a required burn plan, vicinity map, and project map are mailed with a completed copy of a CB-3 to California Air Resources Board (CARB) so that CARB is familiar with the burn area for 48/72 hour forecasts.

Invasive Species - Executive Order 13112

The proposed actions, including prudent design features to mitigate risks associated with the introduction and spread of non-native invasive species, are consistent with Forest Plan goals and objectives, and standards and guidelines, by addressing non-native invasive species inventoried in the area. A determination has been reached through analysis of the potential for introduction and/or spread of non-native invasive species for consideration by the deciding official and is consistent with Executive Orders 13112 and 13751, the National Forest Management Act, and the Federal Noxious Weeds Act.



Migratory Bird Treaty Act – Executive Order 13186

Because forest lands provide a substantial portion of breeding habitat, land management activities within the Los Padres National Forest could have an impact on local populations.

A 2016 Programmatic Migratory Birds Report for Fuels Treatment Projects on the Los Padres National Forest list high priority migratory species which may be impacted by fuels treatment projects. In this Report, it is acknowledged that there are some risks to avian species from these types of projects, however the use of avoidance measures can alleviate and minimize these risks. These avoidance measures are displayed in the Report and the Cuddy Valley Forest Health/Fuels Reduction Project would adhere to these measures, therefore this project is consistent with this Executive Order.

Administrative Review (Appeal) Opportunities


This decision is not subject to administrative review or appeal (36 CFR §218.23(a)). Section 431 of the Consolidated Appropriations Act of 2014 (Pub. L. No. 113-76, 128 Stat. 5 (2014)) directs that the 1993 and 2012 legislation establishing the 36 CFR Part 215 (post-decisional appeals) and 36 CFR Part 218 (pre-decisional administrative review and objection) processes "shall not apply to any project or activity implementing a land and resource management plan...that is categorically excluded...under the National Environmental Policy Act [NEPA]."

Implementation Date

This decision may be implemented immediately upon the issuance of this decision memo.

Contact

For additional information concerning this decision, contact: Greg Thompson, Forester, Los Padres National Forest, 34580 Lockwood Valley Road, Frazier Park, CA 93225, 661-245-3731.



Kevin B. Elliott
Forest Supervisor
Los Padres National Forest

13 Nov 2018
Date



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Appendix A – Design Features

Fuels

1. Maintain the existing system of roadside fuelbreaks and fuelbreaks along watershed boundaries to minimize fire size and the number of communities threatened by both fires and floods. When feasible construct new fuelbreaks on land outside of wilderness or other special designations.
2. Consider an opportunistic approach to fuels management. Take advantage of wildland fire occurrence and wherever possible connect wildland fires to forest health and wildlife habitat improvement projects, as well as fuelbreaks to maintain multiple lines of community defense and to minimize future wildland fire patch size.
3. Thinning to reduce canopy cover is generally recommended to minimize crown fire hazard (J. H. Scott and Reinhardt 2001). The reduction in crown fire potential provides for the increased success of fire suppression. This reduces the risk to firefighters and the public in a suppression action. The decrease in crown fire potential also allows fire managers to use more tools in suppression efforts.
4. The reduction in the potential for crown fire reduces the likelihood of reduced forest health. The risk of losing forest structure and continuity is high in large severe burning fires that produce crown fire. Forest diversity is also lost in large landscape fires that burn at high intensity.
5. Lowering flame lengths decreases the likelihood that there would be crown fire initiation. Lowering flame lengths increases the ability to actively suppress fires effectively during a severe fire season. Using hand crews is the most effective way to attack wildfires; hand crews are generally not effective with flame lengths over 4 feet in height. The activities proposed reduce the flame lengths in treatment units, so hand crews can be utilized.
6. To reduce the threat of spotting distance from firebrands (spotting potential), fuels would need to be reduced both near and at some distance from the WUI. Implementation of vegetation treatments would result in decreasing the behavior of a wildland fire and would increase the likelihood that fire suppression efforts would be successful in containing fires at a small size.
7. Create fuelbreaks wide enough to allow fire operations to effectively mitigate the high to extreme fire behavior characteristics in those areas that have medium to high fuel load shrub species.
8. Dead and down material left after treatment should be less than 10 tons per acre in the forested treatment areas where available.
9. Brush species would be reduced by up to 85 to 95 percent and may include feathering of treatment for visual concerns. Feather the edges of the fuelbreak by selectively removing random brush species along the edge to create a mixed vegetative area or zone to soften harsh edges.
10. All prescribed fire activities will occur with approvals from the San Joaquin Valley Air pollution and under conditions established in an approved Prescribed Fire Burn Plan.

Botany and Wildlife

11. LMP- S11: When occupied or suitable habitat for a threatened, endangered, proposed, candidate or sensitive (TEPCS) species is present on an ongoing or proposed project site, consider species guidance documents (see 2005 Los Padres National Forest Land Management Plan (LMP), Part 3, Appendix H) to develop project-specific or activity-specific design criteria. This guidance is intended to provide a range of possible conservation measures that may be selectively applied during site-specific planning to avoid, minimize or mitigate negative long-term effects on threatened, endangered, proposed, candidate or sensitive species and habitat. Involve appropriate resource specialists in the identification of relevant design criteria. Include review of species guidance documents in fire suppression or other emergency actions when and to the extent practicable.
12. LMP- S12: When implementing new projects in areas that provide for threatened, endangered, proposed, and candidate species, use design criteria and conservation practices (see LMP, Appendix H) so that discretionary uses and facilities promote the conservation and recovery of these species and their habitats. Accept short-term impacts where long-term effects would provide a net benefit for the species and its habitat where needed to achieve multiple-use objectives.
13. LMP-S24: Mitigate impacts of on-going uses and management activities on threatened, endangered, proposed, and candidate species.
14. LMP-S32: When surveys for species presence/absence are done for threatened, endangered, and proposed species, use established survey protocols, where such protocols exist.

Botany

15. Sensitive plant surveys/monitoring would occur prior to project activities.

Wildlife

16. LMP- S14: Where available and within the capability of the site retain a minimum of six downed logs per acre (minimum 12 inches diameter and 120 total linear feet) and 10 to 15 hard snags per five acres (minimum 16 inches diameter at breast height and 40 feet tall, or next largest available). Exception allowed in Wildland/Urban Interface Defense Zones, fuelbreaks, and where they pose a safety hazard.
17. LMP - S15: Within riparian conservation areas retain snags and downed logs unless they are identified as a threat to life, property, or sustainability of the riparian conservation area.
18. LMP - S17: In areas outside of Wildland/Urban Interface Defense Zones and fuelbreaks, retain soft snags and acorn storage trees unless they are a safety hazard, fire threat, or impediment operability.
19. LMP - S18: Protect known active and inactive raptor nest areas. Extent of protection will be based on proposed management activities, human activities existing at the onset of nesting initiation, species, topography, vegetative cover, and other factors. When

appropriate, a no-disturbance buffer around active nest sites will be required from nest-site selection to fledging.

20. LMP- S19: Protect all spotted owl territories identified in the Statewide California Department of Fish and Game database (numbered owl sites) and new sites that meet the state criteria by maintaining or enhancing habitat conditions over the long-term to the greatest extent practicable while protecting life and property. Use management guidelines in the species conservation strategy (or subsequent species guidance document; see Appendix H) to further evaluate protection needs for projects, uses and activities.
21. LMP- S20: Maintain a limited operating period (LOP) prohibiting activities within approximately .25 miles of a California spotted owl nest site, or activity center where nest site is unknown, during the breeding season (February 1 through August 15), unless surveys confirm that the owls are not nesting. Follow the USDA Forest Service (1993, 1994 or subsequent) protocol to determine whether owls are nesting. The LOP does not apply to existing road and trail use and maintenance, use of existing developed recreation sites, or existing special-uses, such as recreation residence tracts. When evaluating the need to implement a limited operating period, site- and project-specific factors need to be considered (use species management strategy or subsequent guidance; see Appendix H).
22. LMP- S28: Avoid or minimize disturbance to breeding and roosting California condors by prohibiting or restricting management activities and human uses within 1.5 miles of active California condor nest sites and within 0.5 miles of active roosts. Refer to California condor species account (or subsequent species guidance document; see Appendix H) for additional guidance.
23. Avoid rocky outcrops with mechanical treatments.
24. Trash associated with this project will be removed and properly disposed of. A Forest wildlife biologist or designee will brief all personnel involved in implementing the Project on the importance of not leaving hazardous materials exposed and daily removal of all garbage fragments to maintain condor health. Garbage removal will be stipulated in mechanical brush treatment contracts.
25. Active goshawk nest stands (30 acres) would be avoided during project implementation. The limited operating period for goshawk within post-fledgling family area (PFA) is March 1- Sept 30. Treatments would only occur during the non-breeding season of October 1 through February 28 if goshawks are found and determined to be nesting within the project area.

Silviculture

26. In all treatments, all live and dead trees posing a safety hazard to management activities or to the public will be removed within the treated areas.
27. In all units, as soon as possible, and no longer than 24 hours after tree cutting, all activity-created fir and pine tree stumps greater or equal to 16-inches in diameter would be treated with a borax compound (Sporax) to inhibit the spread of annosus root disease.
28. All black oak will be left unless they are deemed a hazard tree or if removal is needed for operations.

Recreation

29. Where there is a safety concern for recreationists, implement temporary closures in the project area. Ensure that sufficient public and internal notice is provided prior to those closures.
30. Throughout the duration of the project, communicate with the recreational staff to coordinate closures and/or consultation for privacy screening or potential OHV trespass during implementation.

Heritage

31. Post-implementation survey of areas with heavy brush cover will occur.
32. All know sites will be flagged with a 30 meter buffer and avoided prior to implementation, and the project manager will be notified of their location for protection measures.
33. No pile burning would occur within site boundaries.
34. Trees near the boundary of cultural resources would be felled away from sites, so sensitive features and artifacts are not damaged by falling trees or the activity required in removing them.
35. If unanticipated resources are discovered during project implementation, all work will stop in the vicinity until cleared by a professional cultural resources manager.

Soils and Watershed

36. Designate season of use to avoid or restrict road use during periods when use would likely damage the roadway surface or road drainage features. (National BMP Road-4. Road Operations and Maintenance)
37. Use suitable measures to avoid or minimize adverse effects to soil and watershed resources when proposed operations involve use of roads by traffic and during periods for which the road was not designed. (National BMP Road-4. Road Operations and Maintenance)
38. Refueling of equipment and storage of fuel and other hazardous materials will not occur within riparian conservation areas (perennial and seasonal streams, seeps, springs, and meadows). When landings are located within riparian conservation areas, refueling will occur outside riparian conservation areas in an approved refueling area. Storage of any quantity of fuel greater than 100 gallons will require a California Engineer Spill Plan (National BMP Road-10. Equipment Refueling and Servicing)
39. Landing locations should be located outside of riparian conservation areas where possible, unless infeasible due to topography. Landings within riparian conservation areas may occur where there is existing disturbance (instead of constructing a new one); such landings will require special protective measures as specified by an earth scientist or biologist. (National BMP Veg-2. Erosion Prevention and Control)
40. Do not permit use of mechanical equipment on slopes greater than 35 percent or on steeper slopes with short pitches (National BMP Veg-2. Erosion Prevention and Control).

41. Operate equipment when soil compaction, displacement, erosion, and sediment runoff would be minimized. (National BMP Veg-2. Erosion Prevention and Control)
42. Avoid ground equipment operations on unstable, wet, or easily compacted soils unless operation can be conducted without causing excessive rutting, soil puddling, or runoff of sediments directly into waterbodies.
43. Riparian conservation areas will be 100 meters (328 feet) on perennial streams, or 30 meters (98 feet) on intermittent streams, measured as the slope distance from either bank of the channel. Other special aquatic features, such as wetlands, seeps and springs, also have 100-meter riparian conservation areas (National BMP Veg-3. Aquatic Management Zones).
44. No self-propelled ground-skidding equipment is allowed within the riparian conservation areas (exceptions would require input by an earth scientist and/or biologist as described in standard S47 and Appendix E of the Forest Plan).
45. There will be no removal of riparian plant species.
46. Within riparian conservation areas, retain snags and downed logs to the extent possible. Exceptions would be made if snags and logs are identified as a threat to life, property, or sustainability of riparian conservation areas (S15, LMP Part 3, p. 6) (National BMP Veg-3. Aquatic Management Zones).
47. Firelines constructed for project implementation will be rehabilitated following project implementation (prescribed burn). Rehabilitation on the fireline includes: pulling back and spreading out berms, and spreading of bush and ground cover across the fireline. (Fire-2. Use of Prescribed Fire)
48. Water bars or leadout ditches may be constructed in firelines to minimize erosion. Water bars or leadout ditches will be installed according to the following recommended minimum intervals (Fire-2. Use of Prescribed Fire)

Table 3. Recommended minimum interval guidelines for the installation of waters bars.

Fireline Gradient (% slope)	Distance Between Water-Bars (feet) /(chains)	
0 to 5	no water-bars needed	no water-bars needed
6 to 15	200	3
16 to 30	100	1.5
31 to 49	75	1
> 50	50	0.5