



United States  
Department of  
Agriculture

Forest  
Service

Angeles National Forest  
Santa Clara/Mojave  
Rivers Ranger Districts

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**File Code:** 1950

**Date:** July 23, 2004

Greetings,

The Santa Clara/Mojave Rivers Ranger District of the Angeles National Forest is proposing the Wrightwood Project to address hazard fuels and forest health concerns around the Community of Wrightwood, California. This 2554 acre project is located in T3N, R8W Sections 1, 2, 3, 10, 11, 12, 13, 14 and T3N, R7W Sections 3-10, 14-22 in Los Angeles and San Bernardino Counties.

The Community of Wrightwood is currently at risk to wildfire. Severe drought, fire suppression, insects, and disease have resulted in overstocked stands, significant tree mortality, accumulated wildland fuels, and thick brush fields around the community. The Angeles and San Bernardino National Forests, in coordination with the Wrightwood Fire Safe Council and local resource agencies, have proposed a series of projects to protect the community. The Wrightwood Project has been designed to coordinate with these proposals and with actions occurring on private lands within the community. The project proposes to create fuel breaks, thin trees, and thin brush in order to provide long term wildland fire protection and restore forest health into the National Forest System Lands surrounding the community. For a more detailed description of the Proposed Action, Purpose and Need, and Decision to be Made, please refer to the accompanying summary and maps.

The actions proposed in this project will impact the community. Implementation of this project may result in traffic congestion, temporary road closures, noise, dust, smoke, and temporary forest closures in and around Wrightwood.

This project is consistent with Healthy Forests Restoration Act (HFRA) of 2003 (P.L. 108-148) which contains a variety of provisions to expedite hazardous-fuel reduction and forest-restoration projects on specific types of Federal land that are at risk of wildland fire or insect and disease epidemics. Projects documented under the HFRA that are inside the wildland-urban interface (WUI) and within 1 1/2 miles of the boundary of an at-risk community are not required to analyze any alternative to the proposed action. The Community of Wrightwood has been designated as a Community at Risk from wildfire as defined in the Federal Register, August 17, 2001 (Vol. 66, No. 160), the project is within the established WUI of the Angeles and San Bernardino National Forests, and is within 1 1/2 miles of the community. Therefore, alternatives to this proposal will not be considered. However, comments and concerns to this proposal will be used to refine this proposed action.

Please review the enclosed description and maps of the project. Due to size limitations of mailings, the enclosed maps are summaries of the proposed actions. Detailed maps are available for public review at the following locations:

<b>San Bernardino County Library Wrightwood Branch</b> 6014 Park Drive Wrightwood 92397	<b>The Kiosk at Mountain Hardware</b> 1390 Highway 2 Wrightwood, CA 92397	<b>Wrightwood Community Building</b> 1275 Hwy 2 Wrightwood CA 92397
<b>Santa Clara/Mojave Rivers Ranger District</b> 30800 Bouquet Canyon Rd. Saugus, CA 91350 Daily 8:00 am - 4:30 pm	<b>Big Pines Visitor Center</b> Angeles Crest Highway (Highway 2) Wrightwood, CA 92397 Daily 8:00 am - 4:30 pm	

In addition, these maps are posted at the following websites:

The Angeles National Forest: [www.fs.fed.us/r5/angeles/projects/](http://www.fs.fed.us/r5/angeles/projects/)  
Wrightwood Fire Safe Council: [www.wrightwoodcalif.com/firesafecouncil/](http://www.wrightwoodcalif.com/firesafecouncil/)

I encourage you to review these maps and the enclosed literature. If you have questions regarding this proposal, please contact myself at (661) 296-9710 or Chris French at (559) 359-5817. Send any comments regarding this proposal to: Cid Morgan, District Ranger Santa Clara/Mojave Rivers Ranger District, 30800 Bouquet Canyon Rd. Saugus, CA 91350. Comments must be received by August 24, 2004.

Thank you for your interest and participation.

Sincerely,

/s/ *Cid Morgan*

CID H. MORGAN  
District Ranger

# **Wrightwood Project Proposed Action**

## **Santa Clara/Mojave Rivers Ranger District Angeles National Forest**

The Santa Clara/Mojave River Ranger District of the Angeles National Forest is proposing the Wrightwood Project to respond to hazard fuels and forest health concerns around the Community of Wrightwood, California. This 2,554-acre project is located in T3N, R8W Sections 1-3, and 10-14, and T3N, R7W Sections 3-10, and 14-22 in Los Angeles and San Bernardino Counties.

The Community of Wrightwood has been designated as a “Community at Risk” from wildfire as defined in the Federal Register, August 17, 2001 (Vol. 66, No. 160). It occurs within the wildland-urban interface (WUI) of the Angeles and San Bernardino National Forests which are currently experiencing extended drought, significant tree mortality, and increased accumulation of wildland fire fuels. The Wrightwood Project proposes to reduce wildland fire risk and improve forest health by removing dead and dying trees, thinning overstocked stands, reducing chaparral/shrubs, and creating fuel breaks. It would complement actions being developed in the Wrightwood Community Wildfire Protection Plan, and the Los Angeles County, San Bernardino County, and California Department of Forestry projects. Proposed activities would occur within the next 5 years.

The Wrightwood Project was designed with the following goals:

- **To Protect People.** To propose activities that will decrease the risk to life due to wildfire for the residents and visitors of the Wrightwood community.
- **To Protect Property.** To propose activities that will decrease the risk due to wildfire to homes and property within Wrightwood.
- **To Decrease Fireline Intensity.** To propose activities that will decrease potential fireline intensity so that we can employ reasonable suppression activities and ensure firefighter safety.
- **To Reduce Risk of Resource Damage.** To propose fuel reduction activities that will reduce fire intensity and subsequently reduce watershed, visual and wildlife habitat damage associated with wildfire. To propose activities that will reduce the likelihood of fire spreading outside of the project area.
- **Improve Forest Health.** To propose activities that will improve forest health by reducing the risk of bark beetle mortality, disease presence, and risk of stand-replacing wildfire through reduced stocking levels.

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## **PURPOSE AND NEED OF THE PROJECT**

The project area does not meet desired conditions as defined by the Angeles National Forest Plan. Currently, the project area contains dead and dying conifers due to drought, bark beetle activity and disease. Existing fuel breaks are incomplete or have not been maintained. A collaborative wildfire risk reduction strategy has not been implemented. Most forested stands in the project area are susceptible to moderate- to high-intensity fire, insects, and disease. Forest and woodland understory plant communities are deficient and chaparral/shrub fields are decadent.

These conditions conflict with the overall desired condition for the project area as defined by the Forest Plan including:

- Reduce fuel hazards by means of fuel breaks and age-class management of chaparral (Forest Plan 4-32).
- Modify fuel conditions to reduce fire behavior to a level commensurate with resource management objectives, and protect values on and adjacent to the forest. Fire intensity would average flame lengths of four feet or less and fire suppression would be effective, rapid, and safe (Forest Plan 4-32).
- Coordinate fuels management activities with those on adjacent private land and other agencies (Forest Plan 4-32).
- Keep pest-related damage at acceptable levels emphasizing prevention through silvicultural procedures such as thinning and control of species composition to reduce tree stress (Forest Plan 4-11). The forest would generally be healthy, vigorous, and diverse.
- Manage timber stands to provide a recreation forest (Forest Plan 4-52). The forest would have an all-aged or irregular-sized structure, with old growth trees being retained as long as possible, controlled stocking levels, mixed species composition, healthy, vigorous trees, and a near natural appearance.
- Reduce the potential for loss of forested areas to uncontrolled fires (Forest Plan 4-52). Silvicultural treatments that emphasize the fire resistance of the stand would be emphasized.

Therefore, there is a need to implement collaborative fuel reduction actions, reduce standing dead and live trees, modify species composition, regenerate chaparral/shrub fields, and create fuel breaks to meet the project objectives and the desired future condition defined by the Angeles National Forest Plan.

## **PROPOSED ACTION**

### **Proposed Action Summary**

The Forest is proposing three general actions to meet the purpose and need of the project (please refer to attached map – *Wrightwood Proposed Action Summary*):

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*Fuel Breaks (641 acres):* Fuel breaks would be constructed and maintained around the community of Wrightwood to reduce fuel hazards as part of a coordinated set of fuels management activities. Activities in fuel breaks would include:

- Removing all dead, diseased, and dying trees.
- Thinning and removing live trees.
- Reducing shrub cover.
- Pruning trees.

*Thin Forests (1,842 acres):* Forested areas would be thinned to reduce bark beetle risk, to reduce disease spread, and to modify wildland fuel conditions. In these areas activities would include:

- Removing dead, diseased, and dying trees, leaving residual snags and downed woody material for wildlife and long-term soil productivity.
- Thinning and removing live trees.
- Reducing shrubs in forest understories where needed.

*Thin Chaparral Shrubs (712 acres):* Chaparral shrub fields would be treated to modify fire behavior by reducing fireline intensity. Activities in shrub fields would include:

- Mechanically masticating (chopping and shredding) shrubs.

Removal Methods

To achieve these actions, cut trees and shrubs would be removed using one of three methods: helicopter, cable, or ground-based systems. Each method is chosen based upon topography, soil conditions, access, and type of material to be removed (please refer to attached map – *Wrightwood Proposed Action Removal Methods*).

- Helicopter - trees would be removed by a helicopter and transported to landing sites.
- Cable - trees would be removed by suspending them from a cable system similar to a ski-lift.
- Ground - trees would be removed using equipment such as a rubber-tired skidders or dozers. Shrubs would be chopped, shredded and chipped on site using mechanical equipment.

Each of these removal methods may require the construction of temporary roads and landings. The project proposes to construct approximately six miles of temporary roads and up to 67 landings.

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**Detailed Proposed Action**

Maps

Detailed project maps for this section are too large for mailings. However, these maps are available for public review at the following locations:

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*Wrightwood Fire Safe Council:* [www.wrightwoodcalif.com/firesafecouncil/](http://www.wrightwoodcalif.com/firesafecouncil/)

Actions

General actions are further refined based upon individual stand conditions. Seven treatment types are proposed to accomplish project objectives (Table 1).

Measures such as tree species, size, density, age, number of dead trees, and topographic location dictate the specific treatments needed for each forest stand. Based on this need, treatments are combined into a prescription for the stand. These prescriptions are detailed in Table 2.

**Table 1 - Proposed Treatments**

TREATMENT	ACRES
Commercial Thin	1,470
Hand Pile	267
Lop and Scatter	1,720
Masticate	903
Pre-Commercial Thin	2,091
Prune	581
Jack Pot Burn	1,385

**Table 2 - Treatment Prescriptions**

PRESCRIPTION	ACRES	PRESCRIPTION	ACRES
CT/PCT/HP/PRUNE	19	MAS/PRUNE	99
CT/PCT/LS/HP	36	PCT/HP/PRUNE	80
CT/PCT/LS/JB	1122	PCT/LS/HP	21
CT/PCT/LS/MAS	156	PCT/LS/HP/PRUNE	10
CT/PCT/MAS/PRUNE	136	PCT/LS/JB	262
HP/PRUNE	101	PCT/LS/MAS	112
MAS	263	PCT/MAS/PRUNE	137
TOTAL		2554 acres	
<b>CT – Commercial Thin</b> <b>PCT- Pre-Commercial Thin</b> <b>HP – Hand Pile</b> <b>PRUNE – Prune Branches</b>		<b>LS- Lop and Scatter</b> <b>MAS – Masticate</b> <b>JB - Jackpot Burn</b>	

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**Each prescription is defined as:**

CT/PCT/HP/PRUNE: This occurs with the proposed fuel break. Commercially thin (CT) trees between 9" dbh and 18" dbh and precommercially thin (PCT) trees less than 9" dbh to an average 20-foot crown spacing. Remove from site all boles, limbs and tops greater than 6 inches in diameter. Hand pile and burn (HP) remaining slash residue down to about 2 tons per acre. Prune trees up to 10 feet or no more than ½ the height of the tree.

CT/PCT/LS/HP: Commercially thin trees between 9" dbh and 18" dbh and precommercially thin trees less than 9" dbh to an uneven-aged distribution resulting in approximately 45 to 73 trees per acre. Remove from site all boles, limbs and tops greater than 6 inches in diameter. Lop and scatter (LS) remaining slash residue to within 24 inches of the ground. Hand pile and burn slash residue down to about 5 tons per acre or less.

CT/PCT/LS/JB: Commercially thin trees between 9" dbh and 18" dbh and precommercially thin trees less than 9" dbh to an uneven-aged distribution resulting in approximately 45 to 73 trees per acre. Remove from site all boles, limbs and tops greater than 6 inches in diameter. Lop and scatter remaining slash residue to within 24 inches of the ground. Jackpot burn (JP) slash residue down to about 5 tons per acre or less.

CT/PCT/LS/MAS: Commercially thin trees between 9" dbh and 18" dbh and precommercially thin trees less than 9" dbh to an uneven-aged distribution resulting in approximately 45 to 73 trees per acre. Remove from site all boles, limbs and tops greater than 6 inches in diameter. Lop and scatter remaining slash residue to within 24 inches of the ground. Masticate (MAS) brush.

CT/PCT/MAS/PRUNE: This occurs with the proposed fuel break. Commercially thin trees between 9" dbh and 18" dbh and precommercially thin trees less than 9" dbh to an average 20-foot crown spacing. Remove from site all boles, limbs and tops greater than 6 inches in diameter. Masticate brush. Prune trees up to 10 feet or no more than ½ the height of the tree.

HP/PRUNE: This occurs with the proposed fuel break. Hand pile and burn all brush. Prune trees up to 10 feet or no more than ½ the height of the tree.

MAS: Masticate (chop and shred) brush down to approximately 15 percent ground cover.

MAS/PRUNE: This occurs with the proposed fuel break. Masticate brush down to approximately 15 percent ground cover. Prune trees up to 10 feet or no more than ½ the height of the tree.

PCT/HP/PRUNE: This occurs with the proposed fuel break. Precommercially thin trees less than 9" dbh to an average 20-foot crown spacing. Remove from site all

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boles, limbs and tops greater than 6 inches in diameter. Hand pile and burn remaining slash residue down to about 2 tons per acre. Prune trees up to 10 feet or no more than ½ the height of the tree.

PCT/LS/HP: Precommercially thin trees less than 9" dbh to an uneven-aged distribution resulting in approximately 45 to 73 trees per acre. Remove from site all boles, limbs and tops greater than 6 inches in diameter. Lop and scatter remaining slash residue to within 24 inches of the ground. Hand pile and burn slash residue down to about 5 tons per acre or less.

PCT/LS/HP/PRUNE: Precommercially thin trees less than 9" dbh to an uneven-aged distribution resulting in approximately 45 to 73 trees per acre. Remove from site all boles, limbs and tops greater than 6 inches in diameter. Lop and scatter remaining slash residue to within 24 inches of the ground. Hand pile and burn remaining slash residue down to about 2 tons per acre. Prune trees up to 10 feet or no more than ½ the height of the tree.

PCT/LS/JP: Precommercially thin trees less than 9" dbh to an uneven-aged distribution resulting in approximately 45 to 73 trees per acre. Remove from site all boles, limbs and tops greater than 6 inches in diameter. Lop and scatter remaining slash residue to within 24 inches of the ground. Jackpot burn slash residue down to about 5 tons per acre or less.

PCT/LS/MAS: Precommercially thin trees less than 9" dbh to an uneven-aged distribution resulting in approximately 45 to 73 trees per acre. Remove from site all boles, limbs and tops down to 5 tons per acre or less. Lop and scatter remaining slash residue to within 24 inches of the ground. Masticate brush to approximately 15 percent ground cover.

PCT/MAS/PRUNE: This occurs with the proposed fuel break. Precommercially thin trees less than 9" dbh to an average 20-foot crown spacing. Remove from site all boles, limbs and tops greater than 6 inches in diameter. Masticate slash and masticate brush to approximately 15 percent ground cover. Prune trees up to 10 feet or no more than ½ the height of the tree.

**In addition, the following design criteria would be applied project wide:**

**Fuel Breaks**

- Cut tree boles, limbs, and tops less than 6" diameter would be removed if possible.
- Shrub cover would be reduced to 15 percent or less.
- During thinning, species would be retained in the following descending order of preference: bigcone Douglas-fir, sugar pine, Jeffery pine, ponderosa pine, Coulter pine, black oak, single-leaf pinyon pine, incense cedar, white fir, and canyon live oak.

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- Fuel breaks would be constructed up to 300 feet in width.
- Treatments by ground-based equipment would not occur on slopes over 60 percent.

#### Thinning Forests

- Residual concentrations of slash (limb wood, tops, broken pieces and shrubs) would be treated by jackpot burn, hand pile and burn, chipping, or masticating. These actions or other actions such as firewood gathering to clean up the fuel would take place after completion of the thin and removal operations.
- A prescribed burn plan would be developed and approved prior to initiating any burning operation. A burn plan generally includes unit description, specific prescribed burn objectives, public notification procedures, coordination with other resource specialists, hazard analysis, contingency plans, firing procedures, risk assessment, mitigation measures, estimated fire behavior, acceptable weather variables, and prescribed burn organization.
- Prescribed burning (jackpot burning and hand pile and burning) would be accomplished by applying low-intensity fire using aerial or hand-firing methods. Burning would generally be done in the fall, winter and early spring and may take up to five years to complete.
- Areas (landings) would be designated for concentrating material removed from the site. Landings would serve as collection points for removal and could be used for processing operations such as chipping. These sites may vary in size from one-quarter acre to five acres.
- As much of the cut material would be whole-tree yarded to landings as is operationally feasible.
- Material removed from the site to landings would be disposed of through a variety of methods including utilization for wood products, firewood cutting, chipping, piling and burning, or incinerating.
- Landings would be rehabilitated after use as needed to reduce negative impacts to other resource values.
- Landing piles would be dirt free to facilitate burning or chipping.
- Where mastication occurs, chipped debris would not exceed two inches over 75% of treated area.
- Trees would be removed by aerial based logging systems such as a cable system or helicopter, or by a ground system.
- Sporax (tetrasodium borate decahydrate) would be applied to all cut conifer stumps of live trees and trees greater than 8" in diameter that have died within the last year to prevent infection by annosus root disease.
- Mortality from prescribed burning would not exceed 10 percent in residual conifer stands.

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- Hand piles would range up to 12 feet in diameter and 8 feet high and would be located away from residual trees to prevent crown and bole scorch.
- Fire control handlines would be constructed as needed to facilitate jackpot burning. Handlines would vary from 6 to 20 feet depending on vegetation and topography.
- Within 50 feet of all forest roads, residues resulting from treatments would be completely disposed of.
- Complete disposal of residues resulting from treatments would occur up to 400 feet from main travel routes and recreation areas.
- During thinning, species would be retained in the following descending order of preference: bigcone Douglas-fir, sugar pine, Jeffery pine, ponderosa pine, Coulter pine, black oak, single-leaf pinyon pine, incense cedar, white fir, and canyon live oak.

#### Thin Chaparral Shrubs

- Masticating chaparral shrub stands may be spread out over several years so that in any one year the chaparral treated would not exceed 20 percent of the chaparral cover in the area.
- All vegetation treatments would be spread out over several years so that no more than 20 percent of the vegetation in the watershed would be treated in any given year.
- Treatments by ground-based equipment would not occur on slopes over 60 percent.

#### Visual Quality Prescriptions

- Unit Design and Layout
  - Straight lines and geometric shapes would be minimized to blend units (including fuel breaks) to create free-form vegetative shapes that mimic natural patterns.
  - Burned slash would be scattered on control lines to reduce the color contrast of the exposed soil.
  - A landscape architect would be consulted before layout and marking begins.
  - No boundary paint would be used parallel to system roads or trails. Trees would be marked on the backside from trails.
- Immediate Foreground (300 feet) of Sensitivity Level 1 Road and Trail Corridors, Developed Recreation Sites, and Dwellings on Private Land
  - Burn areas: Slash would be removed within 150 feet from sensitive areas. Slash would be piled and burned at 150 to 200 feet. (C-6.7)

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- After burning is complete, burn sites that are visible from the road, trail, developed site, or private dwelling would be covered with natural duff or wood chips (mulch) to minimize visibility of the burned area.
- Areas without burning: Slash would be removed within 150 feet from sensitive areas. In the 150- to 200-foot zone, slash would be lopped and scattered to 18" or less in depth. (C-6.7)
- Masticated brush slash would not exceed 6" in depth.
- Stumps would be cut within 4" of the uphill side of the stump using B6.412 (provision B6.412 allows to determine stump height AT8-contract CA standard height is 12").
- Tree prune heights would not exceed 6 feet or half the tree height, whichever is shorter.
- Shrub islands of various shapes and size would be left in a random distribution to provide a natural appearance, while meeting fuel reduction objectives around private dwellings.
- Sensitivity Level 1 Corridors and backdrop of the community of Wrightwood - The following mitigation measures would apply to areas in the immediate foreground (300 feet) in order to meet the retention visual quality objective.
  - Shrub islands of various shapes and sizes would be left in a random distribution to provide a natural appearance, while meeting fuel reduction objectives.
  - Roads leading to landings would not be located perpendicular to sensitivity level 1 corridors to eliminate direct views into log landings from the highway when possible.
  - No skid roads would be located parallel to system roads within 100 feet where practical.
- Trails
  - Signs would be posted advising trail users when project activities are going to take place.
  - Trails would be temporarily closed when project activities are taking place within the trail corridor, for the safety of recreationists.
  - Project activities would not be performed on weekends in the trail corridor.
  - Any damage to the trail from implementation of project activities would be rehabilitated.
- Temporary Road Construction
  - New temporary road construction would be designed to meet the prescribed VQO. The location of the roads should fit the landscape by minimizing the amount of cut and fill slopes, using topography to screen new roads from sensitive areas. A landscape architect would be consulted for planning the design of alignments and reseeding of cut and fill slopes.

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- Amount and size of cut and fill slopes from along road beds would be reduced and graded to conform to adjacent terrain. This can be accomplished by the use of slope rounding and warping slopes. Disturbed sites would be prepared to provide a seedbed for reestablishment of desirable vegetation.
- Vegetative clearing limits would be minimized above and below the road prism to help screen the road.
- Soils
  - Fuel breaks would be terminated a minimum of 50 feet from Lone Pine Canyon road to minimize erosion from illegal O.H.V. activities (C6.602 view 200').

#### Watershed and Hydrology Prescriptions

- Follow Forest Plan Best Management Practices would be followed.
- Perennial and intermittent stream channels would be buffered with a 100-foot Stream Management Zone (SMZ). Fuel reduction treatments may occur in the SMZs with equipment exclusion by either hand removal of material or full suspension of logs greater than 10 dbh.
- Within SMZs, activities would not result in more than a 30percent reduction in the existing ground cover vegetation.
- Layout foresters would be instructed by Angeles NF hydrology staff to create “no-treatment zones” along portions of the intermittent SMZs with over-steepened banks and in isolated steep areas greater than 45 percent in the ground-based treatment zones.
- Angeles NF hydrology staff would be consulted on erosion control measures and placement of skid trails, landings, cable corridors, and temporary roads.
- Where possible, temporary roads would be constructed with an out-sloping design.
- Temporary road stream crossings and alignments within riparian zones would be designed so that the minimum possible area is affected.
- Temporary roads and landings would be restored to a more natural hydrologic flow at the conclusion of the project.

#### Wildlife Prescriptions

- Where the potential exists, standing dead snags would be maintained at an average of 1.5 snags per acre within oak woodland and conifer vegetation types with the following specifications: 1.2 snags per acre between 15 to 24 inches dbh and greater than 20 feet high; 0.3 snags per acre greater than 24 inches dbh and greater than 20 feet high.

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- Riparian habitat: Where the potential exists, standing dead snags would be maintained at an average of 5 per acre within the riparian vegetation type with the following specifications: 3 snags per acre between 15 to 24 inches dbh and greater than 20 feet high; 2 snags per acre greater than 24 inches dbh and greater than 20 feet high.
- Riparian habitat: Practices and all necessary management activities would be applied to riparian habitat areas to prevent detrimental changes to water quality, aquatic flora and fauna, and/or hydrophytic vegetation, and to avoid adverse riparian area changes in water temperature, chemistry, sedimentation, and channel blockages, and riparian-dependent resources. Activities would not result in more than 30 percent reduction in the potential ground cover vegetation at any given time. The 30 percent reduction may be adjusted downward if significant decline occurs in indicator wildlife populations.
- Where they are not a designated hazard, wildlife use trees such as acorn storage trees, denning trees, and trees with nest holes or nests would be retained.
- Standard avoidance periods would be used for TES species or modeled habitat that may occur in or near the project area (application dependent on consultation with local biologist).

Species	Restricted Period
California spotted owl	February 1 <sup>st</sup> through August 15 <sup>th</sup>
Southwestern willow flycatcher	May 1 <sup>st</sup> through August 31 <sup>st</sup>
Southern rubber boa	October 1 <sup>st</sup> through November 15 <sup>th</sup> and March 1 <sup>st</sup> through May 31 <sup>st</sup>
Mountain yellow-legged frog	Breeding: March 1 <sup>st</sup> through July 1 <sup>st</sup> . Present in water year-round

- Activities in areas of threatened, endangered, and sensitive species habitats would include oversight or coordination with wildlife staff.
- Guidelines for applying fuels and forest health treatments in California spotted owl habitat would be applied to project design and incorporated.

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**Treatment Definitions**

- CT - Commercial Thin. The cutting of trees that would produce a commercial sawtimber product.
- HP – Hand pile and burn slash residue. A type of prescribed fire where cut material (small trees and shrubs) is arranged in piles to be burned at a later time.
- JB - Jackpot Burn. A type of prescribed fire where emphasis is placed on burning concentrations of activity generated fuels.
- LS - Lop and Scatter. Lop – to chop branches, tops, and small trees after felling into lengths so that the slash will lie close to the ground. Scatter – to spread the lopped slash more or less evenly over the ground.
- MAS – Masticate. Crushing, chopping, grinding, or chewing up of small trees and shrubs. This material is generally small (less than 3 ft long) and distributed on site
- PCT – Precommercial Thin. The cutting of trees that are below a diameter for which they would produce a commercial sawtimber product.
- Prune - Cutting low branches from trees and shrubs to reduce ladder fuels.
- Whole Tree Yarding - Felling and transporting the whole tree with its crown attached.