**California spotted owl Territory Delineation**

California spotted owl territories are defined by the following characteristics:

* A 1,000-acre circular territory, which includes the 300-acre protected activity center, surrounding territorial owls, centered on a documented nest site or roost site if nest location is unknown or central point of repeated daytime detections when neither nest nor roost locations are known
  + Territory boundaries may be adjusted to be non-circular, as needed, up to 1 ½ mile from the most recent Activity Center (AC), to include the entire protected activity center and the most sustainable areas of high-quality habitat and exclude areas less likely to support suitable habitat.
* Contains diverse structural and seral conditions to facilitate nesting, roosting, and foraging.
* May overlap adjacent territories.
* Territories are established and retired together with protected activity centers.

**California spotted owl Territory Habitat Characteristics**

Highest quality nesting and roosting habitat for California spotted owl is defined by areas including all the following:

• Forests within CWHR classes 6, 5D, 5M;

• Trees in the dominant and co-dominant crown classes averaging 24 inches diameter at breast height or greater and including many large/tall trees (greater than 30 inches diameter at breast height and/or 150 feet tall) and some very large trees;

• High (greater than 60 percent) or moderately high (50 to 59 percent) canopy cover with areas greater than 70 percent, including hardwoods;

• Two or more tree canopy layers; and

• Contains some very large snags greater than 45 inches in diameter and snags and down woody material levels on the high end of the range described in terrestrial vegetation desired conditions for the forest type.

Best available nesting and roosting habitat may be important where highest quality nesting and roosting habitat is unavailable or scarce because the best available habitat may be providing conditions that support current spotted owl reproduction, in the absence of higher quality habitat. Elements a through c are the most critical components, particularly the very large remnant trees described in a.

a. If there are limited areas of CWHR classes 6, 5D, 5M, include best available areas of 4D or 4M with very large remnant trees (prioritize retention of 4D ahead of 4M);

b. Trees in the dominant and co-dominant crown classes averaging 24 inches diameter or greater and including some large trees;

c. High (greater than 60 percent) or moderately high (50 to 59 percent) canopy cover, including hardwoods, or moderate canopy cover (40 to 49 percent) in trees greater than 24 inches diameter at breast height where higher canopy cover is not available;

d. Two or more tree canopy layers; and

e. Contains some very large snags greater than 45 inches in diameter and medium to large snags and down woody materials levels on the moderate to high end of the range described in terrestrial vegetation desired conditions for the forest type.

Dispersal habitat: Dispersal habitat is essential to maintaining stable populations by filling territorial vacancies when resident California spotted owls die or leave their territories, and to providing adequate gene flow across the range of the species. There is little information available about CSO dispersal and dispersal habitat. Dispersal habitat is described for northern spotted owl as 50 percent of the forest matrix outside of activity centers in stands with an average of 11 inches dbh and 40 percent canopy closure (Thomas et al. 1990). This contrasts with dispersal for Mexican spotted owls, which may move across large areas of unforested habitat to access suitable habitat on different mountain ranges (Gutiérrez et al. 1995, Gutiérrez et al. 2017). At a minimum, dispersal habitat for CSO, must contain stands with adequate tree size and canopy closure to provide roosting opportunities, protection from avian predators, and at least minimal foraging opportunities.

(SNF FP Revision, page 58-59)

At least 400 acres (for dry vegetation type and site conditions) or at least 600 acres (for moist vegetation type and site conditions) of each California spotted owl territory consists of the highest quality nesting and roosting habitat (see definition above) in large enough patches to provide interior stand conditions, generally 1 to 2 tree heights from an edge. The remainder of the territory consists of a diversity of many different structure and canopy classes (aligned with desired conditions for terrestrial vegetation type).

This would provide resilience over time, allow for more dynamic movement as stand condition changes (nesting habitat outside of PAC available). Bigger circle where necessary, same target of 1,000 acres. General rules for managing owl PAC/Territories: closer is better (adjacency to PAC/AC of good habitat is more valuable than farther from the PAC, so if making choices about more aggressive treatments where possible put them out toward the edges of the territory, where possible maintain 50% or better cc within territory/home range/PAC, consider larger context of habitat retention/improvement/protection with larger landscape fire/fuels/forest resilience goals (there will be tradeoffs potentially in both directions habitat/resilience depending on where the PAC is located), productivity of PAC over time should be considered (lower productivity PACs are better places to compromise habitat quality for larger landscape goals than highly productive PACs).

* For areas where multiple territories comprise over 75 percent of a watershed (typically a HUC 8 unit and greater than 10,000 acres in size) at least 30 to 50 percent (depending on the vegetation type and site conditions) of the watershed consists of the highest quality nesting and roosting habitat and the remainder of the territory consists of a diversity of many different structure and canopy classes (aligned with desired conditions for terrestrial vegetation type).

Allow modification of habitat down to 50% CC on retained 1,000 acres where it falls within this territory; the extended territory area can be treated for resilience down to 40% CC, if it is part of a strategic fire plan (PODs etc.).

Goal should be to retain/create 700-1,000 acres (inclusive of the PAC) suitable habitat in size class 5 or better with moderate to dense canopy closure (M and D) for both foraging and future nesting habitat. At a minimum 700 acres at any given time should be made up of 400 acres of ≥ 50-60% cc, and 300 acres of ≥ 50% cc from the largest tree size class available. Ideally 300 acres of the PAC would be additive to this for 1,000 acres total, with most PACS in the 70% or greater cc class 4D and 5D or better. For the higher canopy habitat 3 or more canopy layers are desirable, 50% cc minimum of 2 canopy layers should be retained.