Red-cockaded Woodpecker

South Florida

Survey Protocol

(Adapted from Service 2003)

Nesting and Foraging Habitat

Surveys are used to determine whether the nesting and/or foraging habitat of a red-cockaded woodpecker group will be adversely impacted by a proposed project. This is an important part of the conservation and management of this endangered species, and therefore the Fish and Wildlife Service has developed standard survey and analysis procedures for such determinations. These determinations must be undertaken prior to the initiation of any project within the southeastern United States that calls for removal of pine trees 60 years or older; typically such trees will be at least 25.4 cm (10 in) dbh (diameter at breast height) or larger. In south Florida slash pines as small as 15.2 cm (6 in) dbh can be this old. The procedure is also used following new land acquisition by state and federal agencies in the southeast or any other circumstance in which the presence or absence of red-cockaded woodpeckers is to be assessed.

The first step in the survey procedure is to determine if suitable nesting or foraging habitat exists within the area to be impacted by the project. If no suitable nesting or foraging habitat is present within the project impact area, further assessment is unnecessary and no effect to the red-cockaded woodpecker is anticipated. If no suitable nesting habitat is present within the project impact area, but suitable foraging habitat is present and will be impacted, potential use of this foraging habitat by groups outside the project boundaries must be determined. This is accomplished by identifying any potential nesting habitat within 0.8 km (0.5 mi) of the suitable foraging habitat that would be impacted by the project. Any potential nesting habitat is then surveyed for cavity trees. This procedure is described in greater detail below. If no active clusters are found, then to the red-cockaded woodpecker is anticipated. If one or more active clusters are found, a foraging habitat analysis is conducted (see below) to determine whether sufficient amounts of foraging habitat will remain for each group post-project.

For nesting and foraging habitat surveys within project impact areas and within 0.8 km (0.5 mi) of the project site, potential habitat is assessed at the level of the stand. A stand is a term used to refer to a wooded area receiving past or current silvicultural treatment as a single management unit. Here we expand the term to include any subset of a tract of wooded land, divided by biological community type, management history, or any other reasonable approach. A small tract of land may be considered a single stand or part of a large stand.

Identification of Suitable Foraging Habitat

For the purpose of surveying, suitable foraging habitat consists of a pine or pine/hardwood stand of forest, woodland, or savannah in which 50 percent or more of the dominant trees are pines and the dominant pine trees are generally 60 years in age or older. These characteristics do not necessarily describe good quality foraging habitat; rather, this is a conservative description of potentially suitable habitat. Identification of pine and pine/hardwood stands can be made using cover maps that identify pine and pine/hardwood stands, aerial photographs interpreted by standard techniques, or a field survey conducted by an experienced forester or biologist. Age of stands can be determined by aging representative dominant pines in the stands using an increment-borer and counting annual growth rings. Stand data describing size classes may be substituted for age if the average size of 60 year-old pines is known for the local area and habitat type.

If no suitable foraging habitat is present within the project area (that is, no pines 60 years or older will be impacted), then further evaluation is unnecessary and red-cockaded woodpeckers can be presumed absent. If the project area contains any suitable foraging habitat that will be impacted by the project, that habitat, if it contains any 60 year old trees or older, and all other suitable nesting habitat within 0.8 km (0.5 mi) of the project site, regardless of ownership, must be surveyed for the presence of red-cockaded woodpeckers.

Identification of Suitable Nesting Habitat

For the purpose of surveying, suitable nesting habitat consists of pine, pine/hardwood, and hardwood/pine stands that contain pines 60 years in age or older and that are within 0.8 km (0.5 mi) of the suitable foraging habitat to be impacted at the project site (see above). Additionally, pines 60 years in age or older may be scattered or clumped within younger stands; these older trees within younger stands must also be examined for the presence of red-cockaded woodpecker cavities. These characteristics do not necessarily describe good quality nesting habitat; rather, this is a conservative description of potential nesting habitat.

Determination of suitable nesting habitat may be based on existing stand data, aerial photo interpretation, or field reconnaissance. Trees should either be aged or assumed suitable if greater than 15.2 cm (6 in) dbh. All stands meeting the above description, regardless of ownership, should be surveyed for cavity trees.

Cavity Tree Survey

Once suitable nesting habitat is identified (above), it must be surveyed for cavity trees of red-cockaded woodpeckers by personnel experienced in management and monitoring of the species. Potential nesting habitat is surveyed by running line transects through stands and visually inspecting all medium-sized and large pines for evidence of cavity excavation by red-cockaded woodpeckers. Transects must be spaced so that all trees are

inspected. Necessary spacing will vary with habitat structure and season from a maximum of 91 m (300 ft) between transects in very open pine stands to 46 m (150 ft) or less in areas with dense midstory. Transects are run north-south, because many cavity entrances are oriented in a westerly direction, and can be set using a hand compass. While surveying for cavities look and listen for red-cockaded woodpeckers. If any are observed record their location and behavior.

When cavity trees are found, their location is recorded in the field using a Global Positioning System (GPS) unit, aerial photograph, or field map. Activity status, cavity stage (start, advanced start, or complete cavity), and any entrance enlargement are assessed and recorded at this time. A cavity can only be considered abandoned if inactive for five consecutive years. Again, it is extremely important to have all surveys and cavity tree assessments performed by experienced personnel. If cavity trees are found, more intense surveying within 457 m (1,500 ft) of each cavity tree is conducted to locate all cavity trees in the area. Cavity trees are later assigned into clusters based on observations of red-cockaded woodpeckers as described in Service (2003, section 3A).

Foraging Area Survey

When a known red-cockaded woodpecker cluster is located on site or within off site, but within 0.8 km (0.5 mi) of the project site a forage area survey is needed to determine if birds are foraging on site. If the off-site buffer can not be surveyed then the nearest known active cluster should be determined. If an active cluster occurs within 5 km (3.1 mi) of the site then a forage survey should be conducted.

Surveys for foraging area boundaries require both breeding season surveys (April 15 through June 15) and non-nesting season (fall) surveys (October 15 through December 15). Surveys should be conducted during the morning hours, from 1 hour prior to sunrise to four hours past sunrise. Surveys outside of these time frames can be inconclusive. Only calm, clear days should be surveyed as red-cockaded woodpecker activity is limited on windy and rainy days. The foraging area surveys require 14 days of survey over the season. Two methods of identifying foraging area boundaries are provided depending on the circumstances.

If there are active red-cockaded woodpecker cavities on the property the territory is considered a 0.8-km (0.5 mi) radius area surrounding the cluster. This can be modified if a foraging area survey is conducted to determine the area boundaries. A foraging area survey commences with observations of the red-cockaded woodpeckers when they leave their roosts. The surveyor documents the number of birds and tracks the birds as they forage through the adjacent habitats. Data should be collected at half hour intervals, recorded on maps, or documented with GPS coordinates for later mapping. If the red-cockaded woodpecker moves to a new location while being observed, the flight direction and the location where the red-cockaded woodpecker lands should be noted. Behavior and vocalizations should be noted, especially behavior that would indicate courtship or nesting.

If there are no active red-cockaded woodpecker cavities on the property a meandering pedestrian transect should be conducted through all suitable habitat. The observer should stop every 3 to 5 minutes, look, and listen for red-cockaded woodpecker activity. Since these birds are territorial and will defend their territory from intrusion by other individuals, the use of red-cockaded woodpecker vocal recordings can facilitate observation. Therefore, at each of the stops, play 30 seconds of continuous red-cockaded woodpecker vocal calls. Tapes of red-cockaded woodpecker vocalizations are available from Audubon and Peterson field guide series.

Report

A final survey report should include the following, as applicable:

A. Field data sheets that include:

1. dates and starting and ending times of all surveys conducted;

2. weather conditions during all surveys, including temperature, wind speed and direction, visibility, and precipitation; and

3. the total number of red-cockaded woodpeckers observed and number of red-cockaded woodpecker clusters.

Red-cockaded woodpecker activity and cavity tree information should be submitted in a survey report to the South Florida Ecological Services Office, 1339 20th Str., Vero Beach, FL 32960.