The RCW survey report should include the following details:

(a) survey methodology including dates, qualifications of survey personnel, size of survey area, and transect density;

(b) pine stand characteristics including number of acres of suitable nesting and/or foraging habitat, tree species, basal area and number of pine stems 10 inches or greater per acre, percent cover of pine trees greater than 60 years of age, species of dominant vegetation within each canopy layer, understory conditions and species composition (several representative photographs should be included);

(c) number of active and inactive RCW cavity trees observed and the condition of the cavities (e.g., resin flow, shape of cavity, start-holes);

(d) presence or absence or RCWs; and

(e) topographic quadrangle maps which illustrate areas of adequate RCW nesting and/or foraging habitat, cluster sites, and cavity tree locations relative to proposed construction activities.

RCW FORAGING HABITAT ANALYSIS GUIDELINES

There are differing responsibilities of private landowners and public land managers for RCWs under the Endangered Species Act. RCW populations on public lands are required to be increasing, whereas many populations on private lands are managed for stability. Accordingly, there are two sets of guidelines for the management of RCW foraging habitat. The first, the recovery standard, is used for RCW populations on public lands or for private landowners that wish to increase the size of their population. The second, the standard for managed stability, is used on private lands for populations in which only stability is required. The standard for managed stability is not designed to increase population size nor is its wide-scale implementation within a population adequate to maintain that population's viability over the long-term. It does not provide future nesting habitat or suitable, i.e., good quality, foraging habitat over the long-term. Its wide-scale implementation will result in population fragmentation with subsequent problems related to demographic stochasticity and perhaps genetic variability. Private

landowners are strongly encouraged to manage at or toward the recovery standard, but should provide at least the standard for managed stability. The standard for managed stability is as follows:

1. Provide each group of red-cockaded woodpeckers a minimum of 689 m^2 (3000 ft^2) of pine basal area, including only pines > 25.4 cm (10 in) dbh.

2. Provide the above pine basal area on a minimum of 30.4 ha (75 ac).

3. Count only those pine stands in suitable habitat that, for this standard only, has each of the following characteristics:

    a. Stands that are at least 30 years old and older.

    b. An average pine basal area of pines > 25.4 cm (10 in) between 9.2 and 16.1 m^2/ha (40 and 70 ft^2/ac).

    c. An average pine basal area of pines < 25.4 cm (10 in) less than 4.6 m^2/ha (20 ft^2/ac).

    d. No hardwood midstory or if a hardwood midstory is present, it is sparse and less than 2.1 m (7 ft) in height.

    e. Total stand basal area, including overstory hardwoods, less than 23.0 m^2/ha (80 ft^2/ac).

    f. We recommend that all land counted as foraging habitat be within 0.4 km (0.25 mi) of the cluster, and that any stand counted as foraging habitat be within 61 m (200 ft) of another foraging stand or the cluster itself.

    g. Frequent prescribed burning of foraging habitat, especially during the growing season, is strongly recommended. Development and protection of herbaceous groundcovers facilitates prescribed burning and benefits red-cockaded woodpeckers.

Stands cannot be considered suitable as foraging habitat unless they have an "open" character. A pine stand that is 30 years in age and has an average tree diameter of 25.4 cm (10 in) or more does not necessarily qualify as suitable foraging habitat. If such a stand has not been prescribed burned (or otherwise treated to control hardwood midstory) and has not been thinned to a basal area of 16.1 m^2/ha (70 ft^2/ac) or less, it will not satisfy the "open" condition criterion. Dense stands of young pine and pine/hardwood are typical of unmanaged plantations and natural regeneration areas (particularly loblolly seedtree harvests) that have not been thinned or frequently burned. Such stands cannot be considered suitable foraging habitat simply because they have the required total and stand basal area and average stem diameter. Stand quality, as measured by an open structure, is a critical factor determining suitability and use of foraging habitat and must be considered when acceptable foraging habitat is identified.

Development, with concurrence from the Fish and Wildlife Service, can occur within the 0.8 km (0.5 mi) radius surrounding the cluster. However, the level of development cannot reduce the available foraging substrate below the required standard of managed stability. Although residential and commercial facilities and their associated infrastructures (roads, right-of-way, parking areas, recreational complexes, etc.) are permitted, all reasonable measures will be taken to minimize the impact of these developments on the foraging habitat available to the RCW. In other words, developments will strive to minimize clearing for rights-of-way, road widths, residential dwellings, and commercial and/or industrial complexes.