

U.S. Fish and Wildlife Service information for the Red-cockaded woodpecker and associated pine tree survey and data collection for the different zones within the City of Boiling Spring Lakes

The City of Boiling Spring Lakes (City) has several ecologically important natural communities and species. The most notable is the red-cockaded woodpecker (*Picoides borealis*; RCW), a species that primarily inhabits longleaf pine forests, which comprise much of the landscape within the City limits. They are the only North American woodpecker to excavate their cavities and nests in living pine trees. Longleaf pine ecosystems are unique to the southeastern United States, and are ecologically, historically and culturally significant. These birds are listed as endangered under the Endangered Species Act (ESA), implemented by the United States Fish and Wildlife Service (USFWS). You can learn more about the RCW here: https://www.fws.gov/raleigh/species/es_red-cockaded_woodpecker.html

RCWs are small birds, about 7 inches long. Identifiable by its white cheek patch and black and white barred back, the males have a few red feathers, or "cockade." These red feathers usually remain hidden underneath black feathers between the black crown and white cheek patch unless the male is disturbed or excited. This is often perplexing to folks when trying to identify these birds, because they actually have very little red coloring on them, even though it is part of their name.

RCW's roost and nest in groups of *cavity trees* called *clusters*, within *foraging partitions*. *Cavity trees* are the pine trees with holes that the birds live in. A *cluster* consists of active cavity trees plus a 200 foot buffer around these trees, which include the nest tree for each cluster. The *foraging partition* expands beyond the cluster center for about a 1/2 mile or encompassing at least 75 acres of foraging habitat; the foraging partition is the area that the RCW's do most of their searching for food and defending their territory. There are multiple clusters and associated foraging partitions identified within the City limits, and on adjacent properties outside of the City limits. Clusters are the most sensitive areas of the RCW groups. It is very important for these areas to retain appropriate pine-forested habitat.

The City and the USFWS have a process to reduce impacts to the RCW while still allowing development with minor coordination in most cases. The City has a "Tree Protection Ordinance" which regulates the removal of trees and preserves the forested environment (Boiling Spring Lakes, North Carolina Municipal Code § 8-5.1 – Tree ordinance). If the lot contains suitable habitat for the RCW, then coordination between the lot owner or chosen representative (e.g., real estate agent, consultant, etc.) and the USFWS must also occur in most cases before the City will authorize any large living pine tree removal on the property.

Depending on where the lot falls in relation to recent RCW activity and appropriate available habitat, it will be designated in one of the following categories: RED, BLUE, or GREEN. Most of the properties within the RED and BLUE categories will require tree surveys and a building footprint layout to be reviewed by USFWS or the City before development can potentially occur. When beginning this project planning process, please check the color coded parcel list and map found on the City's website.

In areas where tree surveys are requested, the existing pine basal area (square footage of pine trees; BA) needs to be collected from the identified parcel. Tree data collection includes measuring the large pine trees eight inches in diameter at breast height (4.5 feet above ground; DBH) and larger on the property, and recording this information on provided size class tally sheets. Measuring at this height is the standard and maintains consistency with tree surveys throughout the City. The large pines also need to be mapped to show their location relative to lot boundaries. No information needs to be collected about non-pine species for USFWS, but it may be needed by the City. If a large pine tree is found to be dead on the property, it should still be measured and mapped for reference, but will not be used in the BA calculations. The City's website has examples of the DBH data collection tally sheet and tree survey mapping layout plans.

Once the project layout areas are known, these features should be overlaid onto the initial map to show which trees need to be removed for the proposed project. These features should include but are not limited to: the house clearing footprint, the driveway, the septic area, a garage or others as needed. This will provide the reviewer with a before and after BA to compare to the recommended BA for retention for that particular area and size of parcel.

If a lot falls within a RED category, then it is within the most sensitive part of the RCW's habitat, which is the cluster area. Activities that require pine tree removal in these areas must be closely coordinated with USFWS prior to any pine tree removal. If it is determined that the activity will not result in unauthorized "take"¹ of the RCW under the ESA, then the property owner and the USFWS will work together and agree on a tree removal plan. If the activity is found to result in "take," then a more complex process will need to occur, which involves applying for an Incidental Take Permit (ITP) and developing a Habitat Conservation Plan (HCP); both of which are time consuming and potentially costly.

If a lot falls within a BLUE category, then it is within the designated ½-mile foraging partition, but not the actual cluster. Within this area, it is very important that adequate foraging habitat is available for each RCW family group that uses it. Usually a minimum of 75 acres of forested area is required in each partition for the RCW to have adequate foraging habitat, but more is preferred. Activities proposed in this area also need to be coordinated with the USFWS or the City (depending on the request), but they most likely will not need to go through the more complex authorization process.

If a lot falls within a GREEN category, then it is outside of any known cluster or foraging partition, but may contain suitable or potentially suitable habitat. Parcels falling in these areas should contact the City and follow the "Tree Protection Ordinance." Complete clearing of any lot within the City is not supported by the USFWS if large pine trees are to be removed. We always encourage pine trees to be retained, especially the older trees as they can be 75-150 years old and are irreplaceable in our lifetime. We also highly encourage the trimming of branches in lieu of complete tree removal where possible.

These RED, BLUE and GREEN categories get updated when new species data and locations become available through annual surveys, so please check back regularly when planning a project. Any authorization letter provided by the USFWS will be valid from one year of its issuance date. The City has a "tree removal request" form on their website which has a link to the color codes for each property within the City limits, in addition to an updated map that shows cluster and foraging partition boundaries. The USFWS appreciates the City's leadership and your cooperation in conservation. Please let us know if we can clarify anything or if there are any questions. Thank you!

Emily Wells
Office: 919-856-4520 x 25
Fax: 919-856-4556
Email: Emily_Wells@FWS.GOV

¹ The ESA makes it unlawful for a person to take a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."