

SAFE HARBOR AGREEMENT

1.0 INTRODUCTION

This Safe Harbor Agreement (Agreement), effective and binding on the date of last signature below, is between Dr. John Lambert (Landowner) and the U.S. Fish and Wildlife Service (Service) (hereinafter referred to as “the Parties”):

Landowner: Dr. John Lambert
P.O. Drawer 328
Sumrall, MS 39482
601-758-4970

Service: U.S. Fish and Wildlife Service
Jackson Field Office
6578 Dogwood View Parkway
Jackson, MS 39213
Contact: Will McDearman
601-321-1124

Agreement/Tracking Number: TE-075424-0

Agreement Duration: 20 years

This Agreement covers the following species:

Gopher tortoise (*Gopherus polyphemus*) – threatened
Red-cockaded woodpecker (*Picoides borealis*) – endangered

These species are considered the “covered species” as defined in the Service’s final Safe Harbor Policy.

This Agreement covers the following property:

The property, known as Martin Branch Woodland, consists of 754 acres, located about 2 miles southeast of Sumrall, MS, in Covington Co., in portions of sections 29, 30, 31, and 32, T6N, R15W (see map in Appendix A). This property is considered the “enrolled property” as defined in the Service’s final Safe Harbor Policy.

2.0 AUTHORITY AND PURPOSE

Sections 2, 7, and 10 of the Endangered Species Act (Act) of 1973, as amended, allow the Service to enter into this Agreement. Section 2 of the Act states that encouraging interested parties, through federal financial assistance and a system of incentives, to develop and maintain conservation programs is a key to safeguarding the nation's heritage in fish, wildlife, and plants. Section 7 of the Act requires the Service to review programs that it administers and to utilize such programs in furtherance of the purposes of the Act. By entering into this Agreement, the Service is utilizing its endangered species and related programs to further the conservation of the nation's fish and wildlife resources. Lastly, section 10(a)(1)(A) of the Act authorizes the Service's issuance of enhancement of survival permits. This Agreement is entered pursuant to the Service's Safe Harbor Agreement final policy (64 Federal Register 32717) and final regulations (64 Federal Register 32706), and implements the intent of the Parties to follow the procedural and substantive requirements of section 10(a)(1)(A) of the Act.

The purpose of this Agreement is for the Parties to collaborate in order to implement conservation measures for the red-cockaded woodpecker (RCW) and gopher tortoise, the covered species on Martin Branch Woodland owned by Dr. John Lambert (hereinafter referred to as Landowner). Foraging and nesting habitat for the RCW will be created and enhanced by producing older and larger pine trees, thinning dense stands of timber, and using prescribed fire to control hardwood encroachment. Gopher tortoise habitat will be similarly enhanced by prescribing fire and thinning timber to increase sunlight reaching the ground layer for nesting and egg incubation and to stimulate growth of herbaceous plants for forage. The Landowner will receive an enhancement of survival permit (Permit) that authorizes incidental take of any RCW and gopher tortoise that increased in number on the property due to habitat restoration and enhancement above the Landowner's baseline responsibilities, as defined in this Agreement.

3.0 BACKGROUND

3.1 Description of the Enrolled Property

The first portion of the property was purchased in 1922. At that time, the property was primarily in agricultural use. Since the initial acquisition, adjacent properties have been acquired and the acreage has been expanded accordingly.

The property is gently rolling and predominant soils include both sandy loams and loamy sands. Since the 1950s, the Landowner has implemented an aggressive tree-planting program. Currently, the property contains approximately 350 acres of old-field loblolly pine plantations

(aged 13-53 years), 315 acres of natural pine stands (loblolly, shortleaf and longleaf, aged 54-150 years), about 75 acres in streamside management zones (primarily hardwood), and 14 acres of old fields. The property is no longer used for agriculture. Of the natural pine, the property contains about 25-50 acres of stands with a substantial longleaf pine component. Prior to conversion of the site to agriculture (predating acquisition by the Landowner's family), longleaf pine was likely a dominant upland tree species on the property as the parcel sits well within the former range of the longleaf pine forest.

Current management includes production of high quality sawtimber from loblolly pine plantations over extended rotations, thinning for pulpwood, sawtimber, and poles in the natural stands, and selecting for natural regeneration of longleaf pine in natural stands. Some stands have moderate hardwood encroachment, so the Landowner has undertaken timber stand improvement and selective use of herbicides. The property is burned regularly to control hardwoods, to select for longleaf pine regeneration, and to promote the establishment of herbaceous vegetation. Growing season burns are conducted whenever possible. Fuel loads are still relatively high in some stands where prescribed fire requires considerable care.

A population of gopher tortoise current resides on the property, while habitat for the RCW is potentially suitable, but unoccupied. (Refer to Section 3.3 of the Agreement for more information about the baselines for the covered species). The northern border of Covington County is the northern edge of the range of the gopher tortoise. Large tortoise populations can be found on Camp Shelby and the Black Creek/Biloxi Ranger District of the DeSoto National Forest 25 miles to the southeast and on the Chickasawhay Ranger District of the DeSoto National Forest some 30 miles to the east of the property. Small populations of RCWs occur on the Chickasawhay Ranger District and the Black Creek/Biloxi Ranger District. A large population of RCWs also occurs some 40 miles north of the property on the Bienville National Forest. No other RCWs are known to occur closer to the Landowner's property.

3.2 Description of Covered Species

3.2.1 *Gopher Tortoise*

The gopher tortoise is a long-lived animal, typically reaching 40-60 years of age (Landers 1980), with naturally low annual reproduction. As a native burrowing species of the fire-maintained longleaf pine ecosystem, typical gopher tortoise habitat historically consisted of frequently burned longleaf pine or longleaf pine/scrub oak on moderately well drained to xeric soils. Tortoises are active during the growing season, when they leave their burrows daily to forage on grasses, legumes, and forbs. Breeding is in spring and reproducing females lay one clutch of eggs annually in soil usually beneath the apron at the mouth of their burrow (Landers 1980).

In 1987 the Service listed the gopher tortoise as a threatened species in the western part of its

range, from the Tombigbee and Mobile Rivers in Alabama west to southeastern Louisiana on the Gulf Coastal Plain (U.S. Fish and Wildlife Service 1987). The gopher tortoise east of Tombigbee and Mobile Rivers in Alabama is not federally listed. Most of the remaining habitat in the listed range is privately owned.

The decline of the gopher tortoise has been linked to the decline of the longleaf pine ecosystem (U.S. Fish and Wildlife Service 1990). About 80% of the original habitat for gopher tortoises within its listed range has been lost due to urbanization and agriculture (U.S. Fish and Wildlife Service 1990). In the remaining forests, management practices including the conversion of longleaf pine forests to dense pine pulpwood stands have reduced available habitat by eliminating open-canopied forests with lush herbaceous vegetation required for burrowing, nesting, and feeding (Lohoefener and Lohmeier 1984). Other threats and causes for decline include habitat fragmentation, predation by fire ants, poaching, and human-caused mortality as a result of roads and heavy equipment (U.S. Fish and Wildlife Service 1990).

From surveys on over 84,000 acres of public and privately owned land (e.g. Lohoefener and Lohmeier 1984; Jones et al. 1995; Mann 1995; Wester 1995; Estes and Mann 1996), the Service estimates 19,000 or more tortoises remain widely though diffusely distributed throughout longleaf, loblolly, and slash pine forests within the listed range. The vast majority of these gopher tortoises occur at low densities with inadequate reproduction (e.g. Jones et al. 1995; Mann 1995; Wester 1995; Estes and Mann 1996). From survey data, the Service estimates only about 1 percent of these tortoises occur at sufficiently high densities to form potentially viable populations (Cox et al. 1987) with 50 or more breeding animals in each population. By the end of a single generation within the next 40-60 years, substantial catastrophic declines are anticipated unless habitat becomes actively managed using prescribed fire and other measures to prevent dense forests and the natural succession of vegetation to unsuitable habitat types.

The Service's recovery plan for the gopher tortoise establishes short-term and long-term objectives involving public and private lands. The short-term objective is to prevent the gopher tortoise from becoming endangered by establishing and maintaining 9,120 - 21,280 tortoises with 3 - 7 burrows per acre in well-managed habitat on the federally-owned and managed DeSoto National Forest, including Camp Shelby. Once the short-term objective is established, the long-term delisting goal is an additional 23,094 tortoises on private (non-federal) lands, at 1.2 burrows per acre, in managed habitat. The recovery of the gopher tortoise will require significant commitments from private landowners to voluntarily restore and maintain habitat with prescribed fire.

3.2.2 *Red-cockaded woodpecker (RCW)*

The RCW is a territorial, non-migratory cooperative breeding species that excavates its roost and nest cavities in living pine trees. Cavity trees must be sufficiently large to allow for excavation

and of an age, usually 75 or more years old, where heartwood decaying fungus (*Phellinus pini*) has weakened wood and sap is no longer actively transported in cavity wood.

RCWs live in social units called groups with one to nine birds, each inhabiting a separate cavity. The aggregate area of cavity trees occupied by a group is called a cluster, which typically covers from 5 to 10 acres. Most foraging activity occurs within 0.5 miles of the cluster (Hooper et al. 1982). RCWs feed on a variety of invertebrate animals, almost exclusively from the bark of pine trunks and limbs. RCWs prefer to forage on pines greater than 10" dbh and 30 years of age (U.S. Fish and Wildlife Service 1985), although in some habitat types they will use smaller pine trees as foraging substrate.

RCWs are endemic to open, mature and old-growth pine ecosystems in the southeastern United States. Currently, there are an estimated 12,500 red-cockaded woodpeckers living in roughly 5,000 family groups across twelve states (U.S. Fish and Wildlife Service 2003). This is less than 3 percent of estimated abundance at the time of European settlement. Red-cockaded woodpeckers were given protection with the passage of the Endangered Species Act in 1973. Despite this protection, all monitored populations (with one exception) declined in size throughout the 1970's and into the 1980's. In the 1990's, in response to intensive management based on a new understanding of population dynamics and new management tools, most populations were stabilized and many showed increases. Other populations remain in decline, and most have small population sizes. Our major challenge now is to bring about the widespread increases in population sizes necessary for recovery.

RCW recovery criteria have been formulated using eleven recovery units delineated according to ecoregions (U.S. Fish and Wildlife Service 2003). Populations required for recovery are distributed among recovery units to ensure the representation of broad geographic and genetic variation in the species. Populations have various designations (primary core, secondary core, & essential support population), each with a specific RCW population target (defined in terms of active RCW breeding groups). Viable populations within each recovery unit, to the extent allowed by habitat limitations, are essential to the recovery of the species as a whole.

RCW recovery and delisting will require at least two viable populations in Mississippi, with one in the lower Coastal Plain (Chickasawhay District of the DeSoto National Forest) and the other in the upper Coastal Plain (Bienville National Forest). Currently, 19 RCW groups reside on the Chickasawhay District with a U.S. Forest Service goal of establishing 502 groups. The Bienville National Forest population consists of 95 RCW groups, with a population goal of 500 groups. Elsewhere on federal lands in Mississippi there are six groups on Black Creek District of the DeSoto National Forest, 56 groups on the Homochitto National Forest, and 38 groups on the Noxubee National Wildlife Refuge.

Known active RCW groups on private (non-federal) lands in Mississippi are limited to two properties in the upper Coastal Plain. Three groups occur on Plum Creek Timber Company (formerly The Timber Company and Georgia Pacific) in Winston County where habitat has been voluntarily restored and enhanced to benefit the species under a Memorandum of Agreement with the Service. The second property is in Noxubee County where about five RCW groups persist in the vicinity of Noxubee National Wildlife Refuge.

3.3 Description of Baseline Conditions

Baseline conditions on the Lambert property consist of habitat occupied by the gopher tortoise and RCW. The gopher tortoise baseline is the home range area (acres) of habitat associated with active burrows. The gopher tortoise currently resides on the property, while habitat for the RCW is potentially suitable but unoccupied.

3.3.1 *Gopher Tortoise*

All upland habitat on the property was surveyed for gopher tortoise burrows via a 100% pedestrian survey (see The Wildlife Company 2001 report in Appendix B). Parallel survey transects were spaced 1-2 chains (1 chain = 66 feet) between surveyors who walked each transect, sighting the intervening ground for gopher tortoise burrows. Stands that were identified as higher quality gopher tortoise habitat were surveyed with a greater number of tighter-spaced transects than stands of less quality habitat. Transects were installed until the stand was spatially covered. In addition, all open roadsides, firebreaks, stand edges, openings or sandy outcrops, and any high quality gopher tortoise micro-habitats were surveyed more intensively. All gopher tortoise burrows were consistently classified as active, inactive, or abandoned.

The method used to determine the baseline for the gopher tortoise is the amount (acres) of occupied habitat surrounding each active burrow in a circular area. As explained below, the amount of occupied habitat is determined by summing (1) the acres of habitat associated with active burrows in gopher tortoise colonies and (2) the acres of habitat surrounding isolated (non-colony) active burrows. Using the Service's most recent definition of a gopher tortoise colony, a colony is an aggregation of three or more active burrows in which the distance between any two adjacent burrows is 600 feet or less. The colony area, or habitat, consists of the acreage within adjoining circles, each with a radius of 300 feet around each active burrow. The maximum colony area will not exceed 6.5 acres per active burrow.

The Landowner's property contains two colonies -- one with seven active burrows and the second with three active burrows. There are 42.8 acres of gopher tortoise colony habitat on the property. Habitat for the northeastern colony, with 7 active burrows and 34.9 acres, resides entirely on the Landowner's property. The northwestern colony, with 3 active burrows, includes

habitat located on the property of an adjacent landowner. The Landowner's portion of this colony is 7.9 acres, with the remaining 4.1 acres on adjacent property.

In addition, the baseline includes habitat surrounding isolated, active burrows that are not included in colonies, as defined by the Service's definition of colony noted above. For purposes of calculating the baseline conditions, occupied habitat is within a 241-foot radius circle (4.2 acres) around each isolated (non-colony), active burrow. This area is derived from studies elsewhere of gopher tortoise home ranges and the critical area per tortoise, computed as the average home range plus one standard deviation of the average (Ott et al. 2000). The Landowner's property contains 4 isolated, active burrows. Because of the proximity of two of these burrows, a portion of the 4.2-acre area around each burrow is shared by the other burrow. Thus, the total baseline habitat area for non-colony tortoises is 14.5 acres, due to the overlap, instead of the potential maximum of 16.8 acres (4 tortoises x 4.2 acres per tortoise) without overlap. Consequently, 14.5 acres of habitat surrounding these isolated, active burrows are included as occupied habitat for purposes of establishing baseline conditions. The total acreage of habitat occupied by gopher tortoises on the Landowner's property is, therefore, 57.3 acres (42.8 colony acres + 14.5 non-colony acres), in association with 14 active burrows. Therefore, the baseline for the gopher tortoise is 57.3 acres.

Based on new scientific data of gopher tortoise movements and home range, the Service could subsequently revise the standards for calculating the baseline acreage of gopher tortoise habitat used in this Agreement. Should this occur, the Landowner has the option of changing the baseline habitat acreage used in this Agreement to reflect the new standard. The Service will assist the landowner in re-calculating the amount of occupied, baseline habitat.

Red-cockaded woodpecker

No active or inactive cavity trees for RCWs occur on the property. There are no known RCW groups on neighboring properties. Therefore, the RCW baseline is zero.

4.0 AGREEMENT IMPLEMENTATION

4.1 Conservation Measures

Maintaining the Baseline Conditions

Under this Agreement, baseline conditions for the gopher tortoise will be maintained by keeping areas of currently occupied gopher tortoise habitat in silvicultural use and avoiding forestry management or other practices that are likely to cause incidental take by harming or harassing tortoises. Timber production, harvests, and regeneration using either even-aged or uneven-aged methods are compatible with the gopher tortoise, except when such production establishes dense

or closed stands and uses intensive site preparation (mechanical or chemical) that eliminates or significantly reduces the ground cover of herbaceous plants. The silviculture for longleaf pine with frequent prescribed fire is highly compatible with the gopher tortoise.

To avoid causing tortoises to abandon or significantly alter their home range, the landowner will avoid planting or regenerating pine trees in dense stands with more than 400 surviving seedlings per acre. The Landowner will mark burrows prior to the operation of vehicular mechanical equipment used to thin and harvest timber for habitat restoration. In addition, the landowner will avoid running over, collapsing burrows and burying tortoises with heavy equipment during timber harvest and related activities.

Maintaining baseline conditions means the Landowner will refrain from land use activities that incidentally take gopher tortoises on 57.3 acres of occupied habitat, arranged to include the same number of baseline active burrows (14) when Agreement was executed.

The Landowner's baseline responsibility may be reduced below 57.3 acres and/or 14 active burrows if (1) the Service subsequently revises standards for calculating baseline conditions and the effect of that revision is to reduce the baseline calculation in this Agreement, or (2) the Landowner abides by the terms of this Agreement and the number of active burrows on the property at the end of the Agreement is less than 14. In the latter case, the amount of habitat on which land use activities that incidentally take gopher tortoises will be avoided will be determined by applying the methodology for determining occupied habitat described in Section 3.3.1 of this Agreement or, if applicable and with the concurrence of the Landowner, by revised standards used by the Service to determine occupied habitat. To assist in determining the amount of occupied habitat at the end of the Agreement, the Service will re-survey gopher tortoises on the property.

The Landowner has no baseline responsibility or obligations for the RCW since none inhabit or use the property (e.g., the baseline is zero).

4.1.2 *Providing a Net Conservation Benefit*

The Landowner agrees to undertake management activities that will enhance habitat for gopher tortoises and RCWs. Both species have a strong preference for open, fire-maintained southern pine forests, particularly longleaf pine. The Landowner's forest and habitat management plan will maintain, enhance and restore such habitat for both species. Without the active management by the Landowner, as described below, such habitat would not naturally exist or expand on the property.

Gopher Tortoise

The Landowner's forest and habitat management plan will voluntarily restore, enhance, and increase habitat for the gopher tortoise in all pine uplands with soils suitable for the tortoise, on about 480 acres. Three basic habitat conditions or measures will be attained by this plan.

- Maintain basal areas at or below 70 ft²/acre.

At this stocking, a stand will be open with sufficient penetrating sunlight to stimulate growth of the herbaceous plant layer, incubate gopher tortoise eggs, and provide basking.

Commercial timber harvests will be used to reduce basal areas and attain this objective.

Also, encroaching hardwoods that are not commercially harvested but need to be removed to attain the basal area criterion will either be felled or injected with herbicide.

- Prescribe frequent fire.

Frequent prescribed fire will reduce and control hardwood and shrub encroachment in the understory that, otherwise, would increase the density of woody stems and overstory cover.

Fire will be prescribed at two to three year intervals, or a sufficient frequency to attain and maintain an open understory with a well developed herbaceous plant layer. The Service will provide the Landowner with technical assistance in developing fire prescriptions, especially in those areas where burning may be difficult because of heavy fuel loads.

- Restore longleaf pine.

The basic silviculture of longleaf pine production, with open stands and frequent fire, is highly compatible and beneficial to the gopher tortoise. The Landowner will restore longleaf pine in natural pine stands by facilitating natural regeneration as a part of on-going timber management in areas with longleaf seedtrees in the overstory, or by planting longleaf when natural regeneration is not feasible. When young loblolly pine plantations become commercially mature, the Landowner intends to clearcut and artificially regenerate these stands as longleaf pine.

The timing and establishment of beneficial management will vary depending on management priority and timber and habitat conditions in each stand. The first management priority focuses on the two gopher tortoise colonies where tortoises likely breed and potentially produce offspring into the local population. A gopher tortoise management area (GTMA) will be designated for each colony, encompassing baseline habitat (57.3 acres) as well as areas of unoccupied gopher tortoise habitat (Appendix A). The Landowner's objective is to establish enhanced habitat during the first six years of this Agreement in each GTMA by thinning timber to reduce basal area and prescribing frequent fire to control shrub and hardwood encroachment. Undesirable

timber market conditions may temporarily delay the objective since timber must be thinned and sold during restoration.

GTMA1 encompasses 119 acres with 9 active and 5 inactive burrows. GTMA1 is dominated by stands with mature natural pine, relatively few hardwoods and small portions of younger loblolly pine plantations. Stocking and stand density (basal area) currently exceeds 70 ft²/acre in portions of this area. With the exception of stand 3, basal areas in natural stands with mature pines (stands 6, 8, 21, and 22) will be reduced within six years by commercial thinning to an average of 70 ft²/acre and maintained at or below that density for the remainder of the Agreement. The young loblolly pine plantation in stand 3 will be periodically thinned with a longer management goal of maintaining 70 ft²/acre of basal area once it reaches commercially mature pole and sawlog tree size-classes. The Landowner also will restore longleaf pine by facilitating natural regeneration in natural pine stands. Upon restoration and enhancement, GTMA1 will provide contiguous suitable habitat connecting gopher tortoises in the southern portion of the area to those associated with the colony in the northern portions.

GTMA2 contains 3 active and 2 inactive burrows within stand 19, consisting of 7.9 acres of baseline habitat. This stand is a relatively dense, 16 year-old loblolly pine plantation with high basal areas. Herbaceous ground cover is very low to absent. Tortoises occur within a local area along the edge of the stand where basal area will be reduced by thinning within 6 years to 70 ft²/acre or less. The long-term management goal for GTMA2 during this Agreement is to produce and maintain open stand conditions at or below 70 ft²/acre.

Habitat occupied by non-colony (isolated) tortoises as well as all remaining unoccupied habitat outside GTMAs on suitable upland soils for gopher tortoises will be enhanced by similar management during the Agreement. These stands consist of either loblolly pine plantations or more mature natural pine that includes longleaf pine. These stands will not all be enhanced within the first six years of this Agreement. As loblolly pine plantations mature, timber will be thinned and fire will be prescribed with increasing frequency. When regenerated, the Landowner's objectives include converting loblolly plantations to longleaf pine. Elsewhere, natural pine stands will be thinned, burned, and managed to increase the stocking of longleaf pine. Any of these stands or portions of such stands will be considered as restored and enhanced habitat for the gopher tortoise when the basal area is maintained at an average of 70 ft²/acre or less, with sufficiently frequent (2-3 year intervals) fire to stimulate growth of herbaceous plants and to control encroachment by shrubs and hardwoods.

Red-cockaded Woodpecker

The Landowner will maintain and restore suitable nesting and foraging habitat for at least one group of RCWs on the property. Currently, no RCWs inhabit the property. Restored and enhanced RCW habitat will comply with the Service's habitat definitions and standards

described in the revised RCW recovery plan (U.S. Fish and Wildlife Service 2003). Thus, management will maintain or enhance habitat with trees for cavities and foraging.

- Cluster management

A cluster area with suitable cavity trees will be designated in a 10-acre area of natural pine. Currently suitable cavity trees in this area consist mostly of shortleaf pine, greater than 70 years of age. All potential cavity trees greater than 60 years of age and/or 16" dbh will be retained during thinning, except when such harvest is required to control stocking and basal area. Thinning will be conducted as necessary to maintain basal areas between 50 ft²/acre and 70 ft²/acre. Hardwoods in the canopy and mid-story will be removed by commercial timber harvest, felling, or injection with herbicide. Prior to any timber harvest in the cluster area, the Landowner will determine whether any trees contain active RCW cavities. If the cluster becomes inhabited by RCWs, timber will not be harvested within the cluster during the nesting season.

- Foraging habitat management

Foraging habitat consists of pine stands 30 years or older with at least 3,000 ft² of pine basal area in trees ≥ 10" dbh, within 0.5 miles of the cluster. The location of foraging habitat will periodically shift among different stands within 0.5 miles of the cluster in response to the Landowner's timber and other management prescriptions. The average basal area of foraging pines ≥ 10" dbh will be greater than 40 ft²/acre and less than 70 ft²/acre. The minimum area in which foraging habitat will be provided is 75 acres, at an average of 40 ft²/acre (total pine BA of 3,010 ft²). When foraging habitat is limited to 75 – 100 acres (average of 40 and 30 ft²/acre respectively), the Landowner will provide such habitat within 0.25 miles of the cluster. Total stand basal area, including pines less than 10" and hardwoods of any size-class, will not exceed 80 ft²/acre. At the time of this Agreement, potentially suitable foraging habitat is available on about 200 acres within 0.5 miles of the cluster, with a stocking in excess of the minimum 3,000 ft² of pine ≥ 10" dbh.

Hardwoods will be removed so that little to no stems above 7 ft. remain. Where RCW foraging habitat in association with the cluster is provided together with gopher tortoise habitat in GTMA1, the total stand basal area will not exceed 70 ft²/acre

In both cluster and foraging areas, timber will be periodically harvested to maintain stocking as previously described for foraging habitat. Also, fire will be prescribed at 2-3 year intervals or an effective frequency to restore and maintain the herbaceous plant layer and the production of fine fuels necessary to carry prescribed fire.

Management in stands outside the 0.5-mile radius of the cluster site also will produce suitable foraging habitat as well as suitable cavity trees during different periods of the Agreement. For example, as young pine plantations mature the stands will become foraging habitat. Portions of some natural pine stands currently are suitable foraging habitat, and other areas in natural stands will become suitable after thinning and prescribed fire. Also, potentially suitable cavity trees currently exist in some portions of natural stands, and in other areas the Landowner's management objectives will enable younger trees to mature to size and age classes as potential cavity trees.

The above management activities for gopher tortoises and RCWs will be carried out for a minimum of 20 years or at such time that, as a result of circumstances out of the Landowner's control, he needs to terminate this Agreement. Conservation benefits from the activities undertaken by the Landowner are expected throughout the duration of the Agreement. Tortoises should immediately benefit from pine thinning, prescribed fire, hardwood control, and longleaf pine restoration in GTMAs. These activities, and the maintenance of sufficient foraging and nesting habitat for RCWs, will increase the suitability of the property for the RCW over the entire duration of the Agreement, thereby increasing the probability that RCWs may occupy the site.

Because the nearest known RCW groups to the Landowner's property occur about 40 miles to the west on the DeSoto National Forest (Chickasawhay District), there is a very low probability that the suitable habitat provided on the Landowner's property actually will become colonized and inhabited by RCWs. Nevertheless, a conservation benefit is still expected. RCWs are virtually absent on forested private lands in Mississippi adjoining or nearby to federal lands (Bienville National Forest, DeSoto National Forest, and Noxubee National Wildlife Refuge) with RCW populations. This is because habitat on private lands is mostly unsuitable for RCWs. Populations may increase, however, as more private landowners manage timber production and habitat in a manner suitable for RCWs. This Agreement, the first for the RCW in Mississippi, can facilitate additional, voluntary management to benefit RCWs by providing an example or template that other private landowners in Mississippi may adopt.

The Service has determined that the Landowner's conservation measures, as described in this Agreement, will provide the net conservation benefits listed above for the RCWs and gopher tortoises.

4.2 Incidental Take

Under this Agreement, the Landowner is authorized to use the enrolled property in any manner that does not reduce the baseline. The Landowner may continue current land-use practices, initiate new practices, or make any other lawful use of the property even if such use results in take of the gopher tortoise and RCW, as long as the baseline for these species is maintained. No

loss of individuals, populations, or habitat for the gopher tortoise as defined by baseline conditions is permitted under this Agreement. To return the enrolled property to baseline conditions, the Landowner must demonstrate that the agreed-upon baseline conditions were maintained and that the activities identified in the Agreement to provide a net conservation benefit were accomplished. Before returning to the baseline, the Permittee will give the Service a 60-day prior notice to capture and relocate any individuals of the covered species from the area to be impacted.

Implementation of this Agreement is expected to increase the habitat and/or population of the gopher tortoise or RCW above the baseline. The Landowner may incidentally take these species in excess of the baseline before the permit expires. If the Landowner chooses not to incidentally take these species and terminates the permit or allows the permit to expire, then the Landowner acknowledges that take of the species above the baseline will become prohibited under the Act.

Gopher tortoise

During the Agreement the Landowner plans to maintain the property in forest use under the present timber and wildlife management program. While gopher tortoise burrows will be marked prior to timber harvests designed to restore and maintain enhanced habitat conditions, it is possible, though unlikely, that timber harvesting equipment could unintentionally collapse a burrow used or occupied by a tortoise. Data indicates adult tortoises frequently excavate themselves from collapsed burrows. Tortoises may, however, be killed or injured upon burrow collapse, harmed during entombment before excavating themselves, and harmed or harassed by the destruction of shelter provided by the collapsed burrow. As a result, the permit will authorize such take incidental to restoration and management.

The activities conducted by the Landowner that would return the property to baseline conditions for the gopher tortoise include forest management or the construction of barns, sheds, or other buildings associated with the Landowner's residence or management operations on the property. Forest and related management activities would involve the cessation of timber thinning, other harvests, and frequent prescribed fire that would increase the density and cover of hardwoods and pines. Also, stands could be clearcut and converted back to dense loblolly pine plantations

Red-cockaded woodpecker

No activities are foreseen or authorized to take RCWs as an incidental consequence of management to restore and maintain enhanced habitat during the Agreement.

The activities that would return the property to baseline conditions for the RCW are the same as those described for the gopher tortoise. These activities would increase tree density and remove older and larger trees used for foraging and cavities.

4.3 Monitoring Provisions

The Service will arrange with the Landowner to visit the property annually to monitor compliance with the agreed-upon habitat conservation, restoration and enhancement activities. The Landowner agrees to keep a record of habitat management activities conducted in accordance with this Agreement. The record will include the location and time of prescribed fire, timber harvests, tortoise burrows marked prior to timber harvest, basal areas, hardwood or brush control, and tree planting density of any artificially regenerated stand.

The Service will conduct biological monitoring to determine the response of the gopher tortoise and RCW population to beneficial management. Gopher tortoises will be surveyed at 5-year intervals to determine the number, distribution, activity status, and size-class of burrows. Burrows will be scoped with a video camera to estimate occupancy. At each annual meeting with the Landowner, the Service will survey the cluster area to determine whether RCWs have colonized the unit. If RCWs colonize the cluster, the Service will annually monitor group size, composition, and reproductive success.

4.4 Reporting Provisions

The Landowner will provide the Service a record or report of the conservation, enhancement, and restoration activities described in the previous section during the annual site visit and meeting.

4.5 Funding Provisions

The Landowner has agreed to carry out the activities described herein without additional outside funding. As requested by the Landowner, the Service will provide technical or other assistance in making application for cost-share or other funding from the Service, the National Resource Conservation Service, or other organizations. Nothing in this Agreement, however, is a requirement that the Service must obligate, appropriate, or expend federal funds. The ability of the Service to provide any future funding assistance, which is subject to the Anti-Deficiency Act, depends on the availability of such funds, the ranking of the Landowner's proposal relative to other competing requests, and other factors.

4.6 Emergency Situations

Emergency situations, such as hurricanes or insect infestations, may require management actions not specified in this Agreement. In these situations, the Parties acknowledge that it may be impossible to provide the 60 day notice required by the Agreement prior to initiation of activities that could result in take of the covered species. However, the Landowner will notify the Service within 10 days of discovering such a situation, and will make reasonable accommodations for the

Service to survey for and/or relocate affected individuals or populations of the covered species individuals prior to the action. The Parties acknowledge that survey and translocation may be precluded by certain urgent or emergency situations.

5.0 RESPONSIBILITIES OF THE PARTIES

5.1 Landowner Responsibilities

The Landowner agrees to implement the management actions and other provisions of this Agreement, to adhere to the Terms and Conditions of the Permit, and to provide sufficient funding and other resources necessary to implement the Agreement.

With reasonable advance notice, the Permittee shall allow Service personnel, or other properly permitted and qualified persons designated by the Service, to enter the enrolled property at reasonable hours and times for the general purposes specified in Title 50 Code of Federal Regulations § 13.21(e)(2).

The Landowner agrees to notify the Service in writing at least 60 days in advance of any activity likely to result in the incidental taking of a gopher tortoise and/or RCW. The Landowner also agrees to provide the Service with an opportunity to translocate affected individuals, to other suitable habitat, if it so chooses.

5.2 Service Responsibilities

As noted above, the Service will arrange with the Landowner to visit the property annually to ensure that the agreed-upon habitat conservation, restoration and enhancement activities contained in this Agreement are being accomplished. The Service will monitor the response of the gopher tortoise population to beneficial management. Such monitoring will include surveys to determine changes in the size and geographic distribution of the population. Monitoring for RCWs, also to be done by the Service, will include periodic surveys to detect whether RCWs have colonized suitable habitat.

In addition, the Service will provide the Landowner with technical assistance in developing prescriptions for fire, especially in those areas where burning may be difficult because of high fuel loads, and longleaf pine regeneration. Also, the Service will provide assistance in making applications for cost-share funding and, if awarded, implementing the management as funded.

5.3 Shared Responsibilities of the Parties

The Parties will ensure that the Agreement and the actions covered in the Agreement are consistent with applicable Federal, State, and Tribal laws and regulations.

The Parties will ensure that the terms of the Agreement will not be in conflict with any ongoing conservation or recovery programs for the covered species.

Nothing in this Agreement will be construed to limit or constrain any Party or any other entity from taking additional actions at its own expense to protect or conserve the covered species.

Nothing in this Agreement shall limit the ability of Federal and State conservation authorities to perform their lawful duties, and conduct investigations as authorized by statute and by court guidance and direction.

Each Party shall have all remedies otherwise available to enforce the terms of the Agreement and the Permit.

The Parties agree to work together in good faith to resolve any disputes. The Parties further agree to engage in alternative dispute resolution procedures provided the Service receives the required authorization and funding. Each Party agrees that it will not unreasonably withhold its agreement to any specific form of alternative dispute resolution.

6.0 LANDOWNER ASSURANCES

If additional conservation measures are necessary to respond to unforeseen circumstances, the Service may require additional measures of the Permittee only if such measures are limited to modifications within the Agreement's conservation strategy for the affected species, and only if those measures maintain the original terms of the Agreement to the maximum extent possible. Additional conservation measures will not involve the commitment of additional land, water, or financial compensation, or additional restrictions on the use of land, water, or other natural resources available for development or use under the original terms of the Agreement without the consent of the Permittee.

The Service will have the burden of demonstrating that unforeseen circumstances exist, using the best scientific and commercial data available. These findings must be clearly documented and based upon reliable technical information regarding the status and habitat requirements of the affected species. The Service will consider, but not be limited to, the following factors:

- Size of the current range of the affected species;
- Percentage of range adversely affected by the Agreement;
- Percentage of range conserved by the Agreement;
- Ecological significance of that portion of the range affected by the Permit;

- Level of knowledge about the affected species and the degree of specificity of the species' conservation program under the Agreement; and
- Whether failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the affected species in the wild.

These assurances allow the enrolled landowner to alter or modify the enrolled property, even if such alteration or modification results in the incidental take of the covered species to such an extent that the take returns the enrolled property to the originally agreed upon baseline conditions. These assurances may apply to the entire enrolled property as specified in the Agreement. These assurances are also contingent on the enrolled landowner's compliance with the obligations of the Agreement. Further, the assurances apply only to this particular Agreement, only if the Agreement is being properly implemented, and only with respect to species covered by the Agreement.

7.0 AGREEMENT MANAGEMENT

7.1 Agreement Termination

The landowner can terminate this Agreement at any time by providing the Service with 30 days written notice. However, the Landowner acknowledges that terminating the Agreement will result in a corresponding termination of the Permit and the Landowner's loss of the regulatory assurances provided by the Permit for the covered species. The Landowner may return the enrolled property to baseline conditions, even if the expected net conservation benefits have not been realized, but only if done prior to the termination date.

7.2 Agreement Renewal

The Agreement can be renewed with or without modification with the approval of all Parties.

7.3 Agreement Amendments

Amendments to this Agreement can be proposed by any Party to the Agreement and must be provided to the other Parties in writing. All Parties will have at least 60 days to evaluate proposed amendments, and all amendments must be approved in writing by each Party.

7.4 Transfer of Agreement Benefits

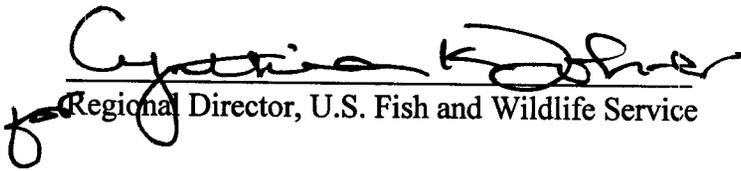
By signature of this Agreement, the Landowner agrees to notify the Service in writing and at least 30 days in advance if ownership of all or a portion of the enrolled property is to be transferred to another owner. If the Landowner transfers full or partial ownership of the enrolled property, the Service will regard the new landowner as having the same rights and obligations as the Landowner under this Agreement, if the new property owner agrees, in writing, to become a

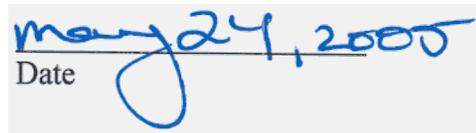
party to the original Agreement and any subsequent amendments to the Agreement. Actions taken by the new landowner that result in the take of species covered by the Agreement would be authorized if the new landowner maintains the terms and conditions of the original Agreement, as may be amended, and the Permit. If the new landowner does not become a Party to the Agreement, the new landowner would neither incur responsibilities under the Agreement nor receive any assurances relative to the Act's section 9 prohibitions that might result from the new landowner's actions.

After any notification of change in ownership of the enrolled property, the Service will contact the new or prospective landowner to explain the original Agreement and to determine whether the new landowner will become a Party the original Agreement or enter a new Agreement. When a new landowner becomes a Party to the original Agreement, the Service will honor the terms and conditions of the original Agreement and Permit.

8.0 SIGNATURES

By our signatures below, each Party agrees to abide by and uphold the provisions of this Agreement and any conditions of the Permit associated with this Agreement.


Regional Director, U.S. Fish and Wildlife Service


Date

Landowner

Date

9.0 REFERENCES AND LITERATURE CITED

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U.S. Fish and Wildlife Service. 2003. Revised recovery plan for the red-cockaded woodpecker (*Picoides borealis*). Atlanta, GA.

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