

**NORTH CAROLINA STATE-WIDE
RED-COCKADED WOODPECKER
SAFE HARBOR AGREEMENT**

MARCH 2006



**NORTH CAROLINA STATE-WIDE RED-COCKADED WOODPECKER
SAFE HARBOR AGREEMENT**

Table of Contents

1.0	<u>Introduction</u>	4
2.0	<u>Authority and Purpose</u>	5
2.1	Authority _____	5
2.2	Purpose _____	5
3.0	<u>Goals and Objectives</u>	5
4.0	<u>Net Conservation Benefits</u>	6
5.0	<u>Background</u>	7
5.1	Description of Covered Species _____	7
5.2	Description of Existing Conditions _____	7
6.0	<u>Safe Harbor Management Agreements and Certificates of Inclusion</u>	9
6.1	Enrollment Procedures _____	9
6.2	Content of SHMAs _____	10
7.0	<u>Agreement Implementation</u>	11
7.1	Conservation Strategy/Measures _____	11
7.2	Baseline Considerations _____	14
7.2.1	Baseline Conditions _____	14
7.2.2	Determining Baseline Conditions _____	14
7.2.3	Maintaining Baseline Groups _____	16
7.2.4	Baseline Adjustment _____	18
7.2.4.1	Loss of Baseline Groups _____	18
7.2.4.2	Shifting Baseline _____	18
7.2.4.3	Elevated Baseline _____	18
7.3	Incidental Take _____	18
7.4	Emergency Salvage Harvest Situation _____	20
8.0	<u>Monitoring and Reporting</u>	21
8.1	NCWRC's Monitoring and Reporting Responsibilities _____	21
8.2	Enrolled Property owner's Monitoring and Reporting Responsibilities _____	21
9.0	<u>Responsibilities</u>	22
9.1	The Service _____	22
9.2	NCWRC _____	22
9.3	Shared Responsibilities of the Parties _____	23
9.4	Enrolled Property owners _____	23
10.0	<u>Assurances to Enrolled Property owners</u>	24
11.0	<u>Agreement Management</u>	24

11.1	Modifications and Amendments	24
11.1.1	Modification and Amendment of the Agreement	24
11.1.2	Modification and Amendment of the Permit	25
11.1.3	Modification and Amendment of the SHMAs and Certificates of Inclusion	25
11.2	Termination of the Agreement	25
11.3	Termination of the SHMAs	26
11.3.1	Enrolled Property owner	26
11.3.2	NCWRC and the Service	26
12.0	Permit Suspension or Revocation	27
13.0	Renewal of Agreement	27
14.0	Renewal of SHMAs	27
15.0	Succession and Transfer	27
16.0	Cessation of Issuance of SHMA(s)	28
17.0	Neighboring Property owners	28
18.0	Dispute Resolution	28
19.0	Availability of Funds	28
20.0	Remedies	29
21.0	No Third Party Beneficiaries	29
22.0	Other Federally Listed Species	29
23.0	Conservation Banking	29
24.0	Additional Conservation Measures	30
25.0	National Historic Preservation Act-Section 106	30
26.0	Access to Enrolled Property owners' Property	32
27.0	Subordination of SHMAs	32
28.0	Notice and Reports	32
29.0	Authorizing Signatures	33
30.0	Glossary	34
31.0	Literature Cited	36
	Appendix 1	38
	Appendix 2	63
	Appendix 3	65
	Appendix 4	73
	Appendix 5	76

SAFE HARBOR AGREEMENT

1.0 Introduction

This North Carolina Statewide Red-Cockaded Woodpecker Safe Harbor Agreement (Agreement), effective and binding on the date of the last signature below, is between the North Carolina Wildlife Resources Commission (NCWRC) and the U.S. Fish and Wildlife Service (Service) hereinafter referred to collectively as “the Parties”:

Permittee: Executive Director
North Carolina Wildlife Resources Commission
1701 Mail Service Center
Raleigh, North Carolina 27699-1722
Phone: (919) 733-3391
Fax: (919) 733-7083

Service: Field Supervisor
Ecological Services
U.S. Fish and Wildlife Service
Post Office Box 33726
Raleigh, North Carolina 27636-3726
phone: (919) 856-4520
fax: (919) 856-4556

Agreement/Tracking Number: TO BE IDENTIFIED BY SERVICE’S RO

Agreement Duration: The duration of this Agreement is 99 years. This time period is believed sufficient to allow a determination that the net conservation benefit(s) specified in the Agreement will be met. The enhancement of survival permit (Permit) that the Service Administrator will issue the Permittee will have the same 99-year duration.

This Agreement covers the following property: All non-federal lands within the State of North Carolina that are east of NC Highway 29 and Interstate 85 excluding those portions of Moore, Harnett, Cumberland, Hoke, Scotland, and Richmond counties treated within the Sandhills Safe Harbor Program (USFWS Permit #TE798839-1). However, the property of each non-federal property owner (also known as a “Cooperator”) enrolled under this Agreement is considered “enrolled property” as defined in the Service’s Safe Harbor Policy.

This Agreement covers the following species: Red-cockaded woodpecker (*Picoides borealis*) (RCW). The RCW, a Federally-listed endangered species, is the only species for which incidental take authority is sought under this Agreement and the associated Permit. For purposes of this Agreement, the RCW is considered the “covered species” as defined in the Service’s Safe Harbor Policy.

2.0 Authority and Purpose

This Agreement was developed to address both the conservation needs of RCWs in the State of North Carolina and the concerns of North Carolina's non-federal property owners. It is the result of the cooperative efforts of the Parties.

2.1 Authority

Sections 2, 7 and 10 of the Endangered Species Act (ESA) of 1973, as amended, allow the Service to enter into this Agreement. Section 2 of the ESA 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 ESA requires the Service to review programs that it administers and to utilize such programs in furtherance of the purposes of the ESA. 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) of the ESA authorizes the Service's issuance of enhancement of survival permits for listed species.

2.2 Purpose

The purpose of this "programmatic" Agreement between the Service and NCWRC and the associated Permit is to facilitate collaboration between the Parties and non-federal property owners in the implementation of conservation measures for RCWs. Through this Agreement the Parties seek to conserve and maintain the existing number of occupied RCW clusters on non-federal lands within the State of North Carolina that are east of NC highway 29 and Interstate 85 excluding those portions of Moore, Harnett, Cumberland, Hoke, Scotland, and Richmond counties treated within the Sandhills Safe Harbor Program (USFWS Permit #TE798839-1) and to encourage the development of new RCW clusters on enrolled properties. Through this Agreement, NCWRC and non-federal property owners will be authorized to enter into Safe Harbor Management Agreements (SHMA) in which the property owners would agree to beneficially manage for RCW habitat on their properties by implementing specific RCW conservation management measures. In exchange for entering into SHMAs, property owners will receive a Certificate of Inclusion (Certificate) that would authorize the incidental take of any RCW group and/or RCW habitat that is above the property owner's baseline responsibilities.

3.0 Goals and Objectives

This Agreement has the following goals:

1. to provide a net conservation benefit to RCWs in the State of North Carolina ; and
2. to provide Safe Harbor Assurances to non-federal property owners in the State of North Carolina.

This Agreement has the following objectives:

1. to encourage non-federal property owners to undertake voluntary conservation measures that will benefit RCWs;
2. to maintain or increase the number of RCW groups on non-federal land in North Carolina;
3. to provide an increase in the amount of RCW habitat on non-federal land;
4. to provide an increase in the number of property owners intentionally managing for suitable RCW habitat;
5. to provide an increase in public support for RCW conservation and endangered species management by demonstrating government agency sensitivity, cooperativeness, and flexibility in response to past and current criticism of environmental regulations and private property rights that have focused on ESA-related habitat management restrictions; and
6. to reduce the property owner's risk and uncertainty from RCWs on his/her land.

4.0 Net Conservation Benefits

Some net conservation benefits to RCWs that are expected to result from this Agreement include:

1. currently occupied nesting and foraging habitat will be maintained at current levels to assist in meeting recovery goals and in maintaining population stability;
2. existing RCW populations will be increased through the installation of artificial nesting and roosting cavities;
3. new groups and populations of RCWs will be created and group distribution will be improved through population expansion (naturally or via recruitment clusters) and translocation efforts;
4. RCW populations will be augmented through translocation of surplus sub-adults to acceptable recipient sites;
5. suitable RCW habitat will be enhanced, restored, and/or created on enrolled properties;
6. pine forest fragmentation will be decreased and habitat connectivity will be increased from habitat enhancement, restoration, and/or creation efforts;
7. information will be collected on RCW population productivity and demographics in North Carolina ; and
8. property owners' fear of having RCWs on their forest lands will be reduced through the implementation of outreach efforts, thereby minimizing the number of property owners who will intentionally manage against suitable RCW habitat.

It is likely that most SHMAs resulting from this Agreement will provide more than one of the net conservation benefits listed above. Since each SHMA must identify the net conservation benefit(s) that will be achieved through the implementation of its conservation measures, this list of conservation benefits will be incorporated into each SHMA. The net conservation benefits that would be applicable to a particular SHMA will be specifically identified in that SHMA.

5.0 Background

5.1 Description of Covered Species

The RCW is a territorial, nonmigratory cooperative breeding bird species that evolved in a mature pine, fire-maintained ecosystem. RCWs live in social units called groups which generally consist of a breeding pair, the current year's offspring, and one or more helpers (normally adult male offspring of the breeding pair from previous years). Groups maintain year-round territories near their roost and nest trees. The RCW is unique among the North American woodpeckers in that it is the only woodpecker that excavates its roost and nest cavities in living pine trees. Each group member has its own cavity, although there may be multiple cavities in a single pine tree. The aggregate of cavity trees is called a cluster. RCWs forage almost exclusively on pine trees and they generally prefer pines greater than 10 inches diameter at breast height (DBH). Foraging habitat is generally contiguous with the cluster. The number of acres required to supply adequate foraging habitat depends on the quantity and quality of the pine stems available.

The RCW is endemic to the pine forests of the Southeastern United States and was once widely distributed across 16 States. The absence of natural fires that once perpetuated open pine habitat has led to midstory encroachment and continues to be a major threat to RCW populations range-wide (Van Balen and Doerr 1978, Hovis and Labisky 1985, Conner and Rudolph 1989 and 1991, Costa and Escano 1989, Loeb et al. 1992, Baker 1995, Escano 1995, Masters et al. 1995). The species, however, is still widely distributed (presently occurs in 11 southeastern States), but remaining populations are highly fragmented and isolated. Presently, the largest known populations occur on federally owned lands such as military installations and National Forests.

A thorough description of RCWs and their life history can be found in the Recovery Plan for the Red-cockaded Woodpecker, Second Revision (USFWS 2003; hereafter referred to as the "RCW Recovery Plan"). The RCW is federally listed as an endangered species. No critical habitat has been designated for the species.

5.2 Description of Existing Conditions

The RCW has declined throughout the Southeast during the last several decades (James 1995, Costa 1995), and this decline has been most apparent on non-federal lands (Baker 1995, Carter et. al. 1995, Cely and Ferral 1995). The primary reasons for decline include loss of habitat and fire suppression in remaining habitat.

The longleaf pine forests used by RCWs once covered an estimated 92 million acres across the southeast but only about three percent of that acreage remains (Frost 1993). Frost (1993) further states that "Of 352 longleaf pine remnants examined in North Carolina, only 91 stands (26%) were being maintained by fire, while the rest (74%) were fire-suppressed and in transition to other forests types." In the absence of fire, fire-intolerant hardwoods will encroach upon pine savannahs and flatwoods creating a dense midstory and canopy, shading out grasses and forbs,

and consequently, creating unsuitable habitat conditions for RCWs. Within North Carolina, the majority of RCW groups and the largest remaining populations are found on Fort Bragg, Sandhills Gamelands, Camp Lejeune, Croatan National Forest, and Holly Shelter Gamelands. Extensive research, monitoring, and management are currently directed toward RCW groups and RCW habitat on those State and Federal lands. Carter and others (1983) reported that approximately 63% of all known RCW clusters, active and inactive, occurred on public lands. Those clusters that occur on private property are typically in isolated islands of habitat and many of them are likely no longer active. For example, James (1995) reported that of 25 clusters on non-federal lands that were active in the early 1980s, only six were still active in 1990.

The North Carolina Natural Heritage Program (NCNHP) maintains a database of reported active and inactive RCW clusters in North Carolina. That database relies on voluntary disclosure by property owners of RCW clusters; therefore, some occurrences on non-federal lands likely remain unknown. In January 2005, NCNHP data indicated that 46 RCW clusters having a last observed active date of 1995 or more recent occurred on non-federal lands in North Carolina; whereas if you include those with a last observed active date of 1990 or more recent, the number of clusters rises to 183. Those clusters that have since become inactive may still have potential to be restored. An additional 269 known records of cavity trees and/or RCWs are in the NCNHP database as occurring on non-federal property. Some of these historical records may have restoration potential but many either no longer exist or are too geographically isolated to provide a conservation benefit.

North Carolina currently has 19.3 million acres of forested lands statewide (NCDENR 2000). The majority of those lands (76%) are owned by non-industrial private forest owners with another 12.5% managed by industrial forest owners and approximately 5% of forests managed by state and local governments (USDA 2002). Approximately 6.2 million acres are pine-dominant forests and two thirds of those acres are managed using natural regeneration techniques or are managed for other forest uses. Although RCWs are known from a variety of pine forest types in North Carolina, the open longleaf pine forests of the sandhills and coastal plain regions of North Carolina are currently the strongholds for the species in North Carolina.

Geographically and demographically isolated RCW groups in fragmented habitats that are not managed for the species' benefit have a low probability of persistence. The probability of persistence is affected not only by habitat deterioration and demographic uncertainty, but also by proximity and connectedness to other populations to facilitate dispersal between populations. Very small populations of at least 10 groups may persist over the short term (i.e., 20 years) if their individual foraging habitats are aggregated by shared boundaries (Crowder et al. 1998). However, a population of five or fewer groups would likely be extirpated without intensive habitat management and immigration in the same number of years. The need for an accurate, concise population census is important to the survival of these isolated groups. Without the knowledge of their existence and the specific habitat management that they require, these populations are likely to decline, and may eventually cease to exist (Costa and Walker 1995).

Small, isolated, and genetically important RCW groups do exist on non-federally owned lands in North Carolina; however, exact numbers are not currently known. It is anticipated that, through the involvement of non-federal property owners in this Agreement, a better understanding of the

current status of RCW populations on non-federal land will be achieved. Property owners and managers have expressed interest in, and support for, a mechanism that will provide long-term conservation benefits while removing some ESA related restrictions.

6.0 Safe Harbor Management Agreements and Certificates of Inclusion

Upon the entering into this Agreement and the issuance of the associated Permit, NCWRC is authorized to begin implementation of this programmatic Agreement by enrolling non-federal property owners through SHMAs and Certificates.

6.1 Enrollment Procedures

As a prerequisite to enrolling property under this Agreement, each non-federal property owner must show that the enrollment of their property would result in a net conservation benefit for RCWs. For instance, NCWRC shall not enter into a SHMA with a property owner who is applying for safe harbor on property located solely in a saltwater marsh environment. On the other hand, NCWRC shall consider a property owner who is applying for safe harbor on property that currently is, or that has the potential to be, an upland pine environment.

In order to enroll a suitable property under the terms of this Agreement, NCWRC and the non-federal property owner must enter into a SHMA (Appendix 1), wherein the property owner would agree to, among other things, beneficially manage for RCW habitat on their property by implementing specified conservation strategies and measures that satisfy the provisions and intent of this Agreement (See Section 7.1). Upon entering into a SHMA, the non-federal property owner will be issued a Certificate (Appendix 2) under NCWRC's Permit. The Certificate will provide regulatory assurances to the property owner based on the baseline condition(s) of the property owner's property (See Appendices 2 and 5). The expiration date(s) of the signed SHMA(s) and the associated Certificate(s) will be no later than the expiration date of NCWRC's Permit. Non-federal property owners will have the option to sign up for shorter periods of time as long as a net conservation benefit could be established for the duration of their respective SHMA(s).

A property owner wishing to enroll their property in a SHMA with NCWRC should follow the recommended steps below:

1. The NCWRC and an interested property owner should meet and discuss the terms and conditions of this Agreement;
2. The property owner should develop a SHMA (Appendix 1) with NCWRC designed to beneficially manage their property for RCWs by implementing measures that are sufficient to meet the provisions and intent of this Agreement;
3. Both NCWRC and the property owner must sign the SHMA for it to be valid;
4. Once NCWRC and a property owner sign the SHMA, the property owner will be issued a Certificate (Appendix 2), which contains the property owner's authorization to take above-baseline RCWs and habitat, and provides other regulatory assurances.

In cases where an enrolling landowner is involved or becomes involved in the Service's Partners for Fish and Wildlife (PFW) Program, a draft Wildlife Cooperative Extension Agreement (WCEA) will be developed with that landowner, and the SHMA will be used to supplement the "Project Plan," which typically serves as "Exhibit A" of WCEAs developed by the PFW Program. Incorporating the SHMA as part of "Exhibit A" will help ensure that landowners enrolling through the PFW Program are handled in a manner that is consistent with the manner used to enroll other landowners. Using the SHMA will also allow the PFW Program to utilize its existing contractual mechanisms to simultaneously provide landowners with financial and technical assistance.

Property owned by the United States government (i.e., federally-owned property) will not be eligible for enrollment under this Agreement, because enrollment of federally-owned property is prohibited by the Service's Safe Harbor Policy. Examples of federally-owned property in North Carolina that are ineligible for enrollment in this Agreement include all National Wildlife Refuges administered by the Service, all National Forests administered by the U.S. Forest Service, all U.S. military installations administered by the Department of Defense, and all properties administered by the National Park Service. However, properties receiving federal grants and other assistance are eligible for enrollment under this Agreement if the property is owned by a non-federal entity or individual.

6.2 Content of SHMAs

Each SHMA shall, among other things:

- a. Specify the species and/or habitats covered, including foraging habitat conditions (stands, basal area, etc), and identify the enrolled property (such as total acreage being enrolled, existing habitats, property boundaries, appropriate maps depicting foraging partitions for each baseline cluster and property boundaries) covered by the SHMA;
- b. Fully describe the agreed-upon baseline conditions that will be maintained for the covered species on the enrolled property;
- c. Identify how the baseline was determined, when and how the baseline surveys were conducted, and whether the baseline was established based on already-known information or other factors;
- d. Identify management actions in accordance with Section 7.1 of this Agreement that would be undertaken to accomplish the expected net conservation benefit to the covered species, where and when the benefits would be achieved, and the agreed upon time frames these management actions will remain in effect to achieve the anticipated net conservation benefits;
- e. Describe any incidental take associated with the management actions during the term of the SHMA;
- f. Incorporate a notification requirement that provides NCWRC and/or the Service the opportunity to translocate individuals of the covered species before the occurrence of any habitat altering activity that could result in authorized incidental take;

- g. Identify a schedule for monitoring the baseline conditions of the enrolled property, implementation of terms and conditions of the SHMA, and any incidental take as authorized in the Certificate, and the parties responsible for such monitoring activities;
- h. Incorporate a requirement for the enrolled property owner or their agent to obtain any necessary state or federal permits if purposeful take, such as capturing, banding, reintroducing, etc., is planned; and
- i. Incorporate a procedure for notifying and transferring the Certificate to any successor in interest, where appropriate.

7.0 Agreement Implementation

7.1 Conservation Strategy/Measures

In order to accomplish the goals and objectives of this Agreement, the Parties agree that all SHMAs must incorporate one or more of the following conservation strategies or measures in order to provide important benefits to RCW populations. NCWRC will ensure that the following actions, when included in a SHMA, will provide a net conservation benefit to RCWs on the enrolled property either immediately or in the near future.

1. **Prescribed Fire** – NCWRC can enroll a property owner under a SHMA if the property owner agrees to maintain or increase the use of prescribed fire under any of the following circumstances once the property is enrolled:
 - a) by conducting prescribed fires on a regular or recurring basis within the occupied RCW habitat areas of the property and continuing to maintain or enhance the areas through the use of such fires. These actions will provide an immediate net conservation benefit to RCWs.
 - b) by conducting prescribed fires on a regular or recurring basis within those areas of the property that are potentially suitable nesting or foraging habitat in order to restore or enhance the areas as RCW habitat. This action will provide an immediate net conservation benefit to RCWs.
 - c) by conducting prescribed fires on a regular or recurring basis in areas of the property that are unsuitable RCW habitat for a period of time sufficient for the areas either to become occupied by RCWs or to become potentially suitable nesting or foraging habitat for RCWs. The net conservation benefit from this action will not be achieved until the areas where the prescribed fires were conducted either become occupied by RCWs or become potentially suitable nesting or foraging habitat. Under this action, a property owner might be required to implement other conservation measures, such as a forest management strategy, to achieve a net conservation benefit for RCWs.
2. **Forest Management** - NCWRC can enroll a property owner under a SHMA if that property owner agrees to maintain or implement a forest management strategy or plan on the enrolled property that would provide the required foraging and/or nesting habitat for RCWs as described in the RCW Recovery Plan. In general, this would entail the use of timber harvest rotations of greater than thirty (30) years for foraging habitat and greater than sixty (60) years

for nesting habitat, the use of uneven-aged silvicultural treatments, and/or the integration of other management activities (e.g., burning or hardwood control), which are necessary to maintain the open, mature pine forests that are preferred by RCWs. An eligible forest management strategy or plan would include a property owner agreeing to include one or more of the following in a SHMA:

- a) implementation or maintenance of a forest management strategy or plan that maintains or enhances occupied RCW habitat. This action would provide an immediate net conservation benefit to RCWs.
 - b) implementation or maintenance of a forest management strategy or plan that maintains or enhances existing habitat that is potentially suitable nesting or foraging habitat. This action would provide an immediate net conservation benefit to RCWs.
 - c) implementation or maintenance of a forest management strategy or plan that restores habitat to a condition that will, in the future, provide potentially suitable nesting or foraging habitat. The net conservation benefit of this action would not be achieved until the areas where the forest management strategy or plan was implemented or maintained became either occupied by RCWs or potentially suitable nesting or foraging habitat for RCWs.
3. Hardwood Midstory Control – NCWRC can enroll a property owner under a SHMA if that property owner agrees to control hardwood midstory encroachment in pine forest stands on the enrolled property through one of the following methods:
- a) mechanical or chemical methods or prescribed fire to control hardwoods in occupied habitat. Any of those actions would provide an immediate net conservation benefit for RCWs.
 - b) mechanical or chemical methods or prescribed fire to control hardwoods in potentially suitable nesting or foraging habitat. Any of those actions would provide an immediate net conservation benefit to RCWs.
 - c) mechanical or chemical methods on a regular or recurring basis to control hardwoods in habitat that is currently unsuitable for RCWs. However, under either of these actions, the property owner would be required to agree to control hardwoods for a period sufficient for the habitat either to become occupied by RCWs or to become potentially suitable nesting or foraging habitat. The net conservation benefit of either of these actions would not be achieved until the areas where hardwood control was conducted either became occupied by RCWs or became potentially suitable nesting or foraging habitat.
 - d) lawn mowing methods to maintain herbaceous understory in pine forest stands on the enrolled property. Lawn mowing methods would include using tractors with bush hogs to cut hardwood saplings up to 1-inch. Lawn mowing in occupied and potentially suitable nesting or foraging habitat would provide an immediate net conservation benefit to RCWs. In unsuitable habitat, the property owner would be required to agree to mow for a period sufficient for the habitat either to become occupied by RCWs or to become potentially suitable nesting or foraging habitat. The net conservation benefit would not be achieved through this action until the areas where mowing was conducted either became occupied by RCWs or became potentially suitable nesting or foraging habitat.

Under this action, the property owner also might be required to implement other conservation measures, such as a forest management strategy, to achieve a net conservation benefit to RCWs.

4. RCW Cavity Installation and Maintenance - NCWRC can enroll a property owner under a SHMA if that property owner agrees to install artificial cavities and/or maintain natural or artificial cavities on the enrolled property. The property owner would agree to maintain suitable cavities by installing restrictor plates (Carter 1990) and/or artificial cavities, which should include cavity inserts (Allen 1991) and drilled cavities (Copeyon 1989) on the enrolled property. A property owner should only use restrictor plates on natural cavities if there is a known problem with enlargement by pileated woodpeckers (*Dryocopus pileatus*), red-bellied woodpeckers (*Melanerpes carolinus*), or red-headed woodpeckers (*Melanerpes erythrocephalus*) or if there is a good possibility, based on past experience, that cavities might be damaged. Restrictor plates should also be used on all cavity inserts and previously installed drilled cavities. The property owner would agree, under the appropriate circumstances, to do one of more of the following:
 - a) install restrictor plates and artificial cavities in occupied clusters that are cavity-deficient (i.e., each RCW present does not have its own complete cavity in which to roost). This action would provide an immediate net conservation benefit to RCWs.
 - b) install restrictor plates and artificial cavities on the enrolled property so that each cluster would have a minimum of four (4) suitable cavities. This action would provide an immediate net conservation benefit to RCWs.
 - c) install and maintain artificial cavities at appropriate sites in potentially suitable, unoccupied nesting habitat with at least four (4) suitable cavities installed per site. This would provide an immediate net conservation benefit to RCWs.

5. RCW Population Management - NCWRC can enroll a property owner under a SHMA if that property owner agrees to implement one of the following population management activities on the enrolled property. Translocations are an important population management tool for small or disjunct populations and should be used only in conjunction with aggressive management of nesting and foraging habitat. The use of translocation for any purpose requires a permit from NCWRC and the Service, and must be conducted according to the guidelines in the RCW Recovery Plan, 2nd Revision (USFWS 2003). RCWs eligible for translocation, as defined in the RCW Recovery Plan, 2nd Revision (USFWS 2003), are herein referred to as “surplus.” Population management activities will occur through one of the following methods:
 - a) translocate pairs of surplus sub-adults into unoccupied, suitable nesting habitat on the enrolled property upon receiving prior approval for any such translocation from NCWRC and the Service. This activity would provide a net conservation benefit to RCWs upon the translocation of the surplus sub-adults to the unoccupied, suitable nesting habitat.
 - b) translocate surplus sub-adult(s) into habitat on the enrolled property that is occupied by a single (male or female) bird upon receiving prior approval for any such translocation from NCWRC and the Service. This activity would provide

a net conservation benefit to RCWs upon the translocation of the surplus sub-adult(s) to the enrolled property.

- c) allow NCWRC and/or the Service to remove surplus sub-adult(s) from the enrolled property to augment other populations if such removal of sub-adult(s) would not affect the property owner's baseline responsibilities. This activity would provide a net conservation benefit to RCWs upon the removal of the surplus sub-adult(s) by NCWRC and/or the Service.

6. Future Conservation Measures – There may be a time in the future when the Service identifies a conservation measure(s), based on future RCW research, that is critical to the conservation of the RCW. In such event, NCWRC and the Service would allow enrolled property owners, with concurrence from both NCWRC and the Service, to choose such conservation measure(s) as their voluntary RCW management action(s). The selection of any such measure(s) would provide an immediate net conservation benefit to RCWs.

7.2 Baseline Considerations

7.2.1 Baseline Conditions

The Safe Harbor Policy defines “baseline conditions” as “population estimates and distribution and/or habitat characteristics and determined area of the enrolled property that sustain seasonal or permanent use by the covered species at the time the Safe Harbor Agreement is executed.” Under this Agreement, the participating property owner is responsible for determining his/her RCW baseline by evaluating the size of the stand, the stand age, the density of pines, the density of large pines, the fire history (hardwood midstory), the season in which the survey is performed, and the proximity to cavity trees from territorial boundaries. NCWRC will express baseline responsibilities in terms of the number of active clusters and the amount and quality of foraging habitat. Using the proper surveys, described below, the property owner may differentiate the number of active clusters into potential breeding groups and solitary bird (typically male) groups.

7.2.2 Determining Baseline Conditions

The first step in determining the baseline conditions is to determine if suitable RCW habitat exists on the property owner's property or if a known RCW group exists within one-half-mile of the property (property owner knowledge and NCNHP database can be used to determine the distance to known sites). Suitable foraging habitat consists of pine or pine-hardwood (50 percent or more pine) stands thirty (30) years of age or older (USFWS 2003). If this type of habitat is not present, and there are no RCW groups within one-half-mile of the property, further assessment of the property is not necessary, and the property owner's baseline will be zero.

If a RCW group exists within one-half-mile of the property owner's property and the property owner has the responsibility of maintaining a portion of the foraging habitat for the RCW cluster, as required by the RCW Recovery Plan, 2nd Revision (USFWS 2003), the portion of the foraging habitat that the property owner is required to maintain will be incorporated into the property owner's baseline.

If suitable nesting habitat is present on a property, the property owner will be required to determine whether RCW groups exist on the property by conducting surveys for cavity trees in stands that contain suitable nesting habitat. The RCW Recovery Plan, 2nd Revision (USFWS 2003), identifies the following as the types of forested stands that must be surveyed for RCW cavity trees:

1. Pine and pine-hardwood stands over sixty (60) years of age;
2. Pine and pine-hardwood stands under sixty (60) years of age containing scattered or clumped pine trees over sixty (60) years of age;
3. Hardwood-pine over sixty (60) years of age adjacent to pine and pine-hardwood stands over thirty (30) years of age; and
4. Pine stands containing sawtimber, including stands thought to be generally less than sixty (60) years of age but containing scattered or clumped trees over sixty (60) years of age.

Accurate surveys are essential for determining baseline conditions. To limit undetected cavity trees and misjudged activity status, personnel experienced in the management and/or monitoring of the covered species must be used to conduct baseline surveys. Baseline numbers are subject to approval by NCWRC.

Potential nesting habitat (pines greater than or equal to sixty (60) years old) must be surveyed by running line transects through stands and visually inspecting all medium-sized and large pines for evidence of cavity excavation by RCWs. Transects must be spaced so that all trees are inspected. Necessary spacing will vary with habitat structure and season from a maximum of one hundred (100) yards between transects in very open pine stands to fifty (50) yards or less in areas with dense midstory. Transects should be run north-south because many cavity entrances are oriented in a westerly direction (USFWS 2003).

When cavity trees are found on an enrolled property, their locations must be recorded in the field using a Global Positioning System unit, an aerial photograph, and/or a field map. Activity status, cavity stage (start, advanced start, or complete cavity), and any entrance enlargement also must be assessed and recorded when the cavity trees are located. More intense surveying also must be conducted within 1500 feet of each cavity tree to locate all cavity trees in the area. Later, cavity trees are to be assigned into clusters based on observations of RCWs as described below (USFWS 2003).

A property owner who wishes to differentiate the number of active clusters in their baseline into the number of potential breeding groups and the number of solitary male groups will be required to complete group checks as described in the RCW Recovery Plan, 2nd Revision (USFWS 2003). To perform group checks, trained personnel experienced in the management and/or monitoring of the covered species and approved by NCWRC, must track or “follow” each group for a half an hour to an hour, immediately after the birds exit their cavities in the morning, to determine group size. Group size is determined by observation of bird behavior and groups are classified as: a) two or more birds or b) a solitary bird.

Groups of 2 or more birds that remain together and peacefully interact during the breeding season are assumed to represent potential breeding groups. NCWRC and/or the Service will ensure that a property owner accurately classifies RCW groups. Groups roosting extra-territorially in clusters occupied by one or more residents, captured clusters, and territorial conflicts can confuse an observer and result in erroneous group classification. Where there is doubt as to whether group membership exists, NCWRC will require the “follow” (described above) to be repeated and/or the “follow” time to be increased until all doubt as to the group membership is removed. Two observers may be required if two clusters are located very close together or if cavity trees within a cluster are spread over a large area.

Group checks will be considered valid only if they are implemented during the breeding season because groups of two or more birds at other times of the year may or may not represent potential breeding groups. The method for group checks is labor intensive (one group per observer per day at best), and complete population censuses are possible only in small populations or with multiple observers. A property owner who is unwilling or unable to perform group checks will assume, for his/her baseline responsibility, that each active cluster is occupied by a potential breeding group.

Each property owner shall identify how the baseline was determined, when and how the baseline surveys were conducted, as well as whether the baseline was established based on already-known information or other factors.

The Parties to this Agreement and the property owner must concur with the baseline determination for a property. In instances where NCWRC, the Service, or their respective agents have not taken part directly in the baseline determination, concurrence with the determination is mandatory.

7.2.3 Maintaining Baseline Groups

The baseline responsibilities/constraints of the property owner are to provide all the overstory necessary to maintain the cavity trees and the foraging area for all RCW groups discovered by the baseline survey of the property owner’s property. If no groups are discovered during the baseline surveys, and there are no known groups on neighboring lands, there are no baseline responsibilities and constraints. Baseline responsibilities may include providing foraging areas for known groups on neighboring lands as described in Section 7.2.2 above.

Specifically the property owner’s baseline responsibilities, as derived from the RCW Recovery Plan, 2nd Revision (USFWS 2003), are to:

1. Mark and protect active and inactive cavities and cavity start trees, within active baseline clusters, from harvesting and damage. NCWRC can provide assistance in locating and marking all cavity and start trees at its discretion. NCWRC and the Service must review on a case-by-case basis the removal of any active or inactive cavity tree. In the event that the location of any active cavity tree(s) changes over time such that one or more cavity tree(s) becomes established within a construction area, the property owner may be allowed to remove those cavity trees. For each active cavity tree removed in the construction area, a

- minimum of two (2) artificial cavities (drilled or inserts) must be installed elsewhere on the lot (at least 200 feet from the building site) four (4) months prior to initiation of construction.
2. Manage each cluster as a timber stand comprising at least ten (10) contiguous acres, if currently present on the enrolled property owner's property, with the purpose of retaining potential cavity trees. If ten (10) contiguous acres are not currently present on the enrolled property owner's property, the property owner would retain all of the potential cavity trees within the cluster.
 3. Maintain cluster boundaries of at least two hundred (200) feet from a cavity tree.
 4. Retain all potential cavity trees (pines greater than 60 years in age) within clusters, unless pine basal area is above 50 ft²/ac and all trees are above 60 years in age.
 5. Protect cavity trees from fire during prescribed burning. Precautions should be taken to minimize the risk of igniting cavity trees. Property owners are required to rake litter at least ten (10) to twenty (20) feet away from the base of cavity trees, depending on the fuel load. Other precautions include, but are not limited to, wetting cavity trees or limiting burning to high moisture conditions. Any active cavities damaged by prescribed fire will be immediately replaced within the cluster boundaries by installing a replacement artificial cavity (insert or drilled).
 6. Provide at least 3000 ft² of basal area in pine trees (including the trees in the cluster) \geq 10 inches DBH for foraging habitat on a minimum of seventy-five (75) acres, if the trees are currently present on the enrolled property owner's property. If 3000 ft² of basal area of pine trees \geq 10 inches DBH is not available for foraging habitat, the property owner will maintain the existing pines inside the foraging area and provide the 3000 ft² of basal area of pine trees greater than 10 inches DBH as soon as possible. Foraging habitat for each RCW group will preferably be within 0.25 mile of the cluster, but no more than 0.5 mile from the cluster and must be contiguous to the cluster stand with no gaps between stands exceeding two hundred (200) feet.
 7. Conduct timber harvesting within the active baseline clusters only between August 1st and March 31st, or as otherwise approved by NCWRC and the Service. If there is a need to harvest timber within an active cluster outside this window of time, the enrolled property owner should notify NCWRC thirty (30) days in advance of the desired starting harvest date. NCWRC will determine the stage of nesting activity within the cluster and advise the enrolled property owner of appropriate precautions. Timber harvesting would not be permitted during nest initiation, when the female is in the process of laying eggs, when the nesting cavity contains viable eggs or young, or before the fledglings are capable of sustained flight. Possible exceptions to these prohibitions could be when emergency harvest, due to insect infestations, natural disasters, or other disasters, as described in Section 7.4, below, is necessary.
 8. Refrain from constructing any new roads and/or utility right of ways within active baseline clusters.
 9. Provide reasonable protection for RCW groups from human activities that may incidentally cause injury or death in active baseline clusters.
 10. Take reasonable precautions when conducting silvicultural or other activities within active baseline clusters to avoid injury to cavity and cavity start trees. Reasonable precautions would include, but are not limited to, directional felling away from cavity trees, logging during dry conditions to minimize soil compaction, removing logs carefully to avoid scraping or otherwise damaging residual trees, and avoiding fire line plowing around cavity trees.

11. If the baseline survey establishes that three or fewer complete cavities are present in a particular cluster, the Cooperator agrees to install artificial RCW cavities in suitable trees such that a minimum of four complete cavities are present in each baseline cluster. NCWRC may decide, at its sole discretion, to install the necessary artificial cavities or to fund, fully or partially, the installation of artificial cavities in baseline clusters lacking four complete cavities.

7.2.4 Baseline Adjustment

7.2.4.1 Loss of Baseline Groups

In spite of management and protection efforts, there may be circumstances, through no fault of the property owner, where groups that gave rise to the property owner's baseline responsibilities cease to exist on the enrolled property. If RCW baseline groups cease to exist on the enrolled property, the enrolled property owner **will not** be held accountable for the loss of the RCW baseline groups provided each of the following have occurred:

1. The RCW groups have remained absent from the enrolled property for a minimum of five (5) years;
2. The RCW cluster remains inactive for a minimum of five (5) years; and
3. The loss of the RCW baseline group occurred through no fault of the property owner and in spite of total compliance with the SHMA.

A property owner's RCW baseline can be reduced for each RCW group that meets all three (3) of the criteria listed above. However, the property owner must request a baseline reduction from NCWRC. The property owner must allow NCWRC and/or the Service access to the enrolled property to conduct an investigation, if NCWRC and/or the Service so choose. If NCWRC and/or the Service determine the group eligible for removal from the baseline, NCWRC will modify the SHMA and Certificate to reflect the change in baseline responsibilities. The enrolled property will not obtain a reduction in baseline, however, if a RCW group moves to a new cluster on the same enrolled property. The enrolled property can get a reduction if a cluster moves onto neighboring property as long as the above criteria are followed. A property owner may be required, however, to provide foraging habitat if the owner on the neighboring property is unable to do so.

7.2.4.2 Shifting Baseline

RCW baseline responsibilities will be associated with specific active clusters in existence at the time the property owner enters into the SHMA. Participating property owners may, with NCWRC's consent, shift their baseline responsibilities to a new active cluster that has formed on their property subsequent to the signing of the SHMA. When a new active cluster is formed on an enrolled property, it may replace any other cluster harboring a group of similar or lesser demographic status (i.e., potential breeding pair can replace solitary bird or same sex groups)

that was within the property owner's original RCW baseline responsibility, provided each of the following conditions is met:

1. The enrolled property owner is in total compliance with his/her SHMA.
2. The enrolled property owner has maintained his/her baseline as specified in the SHMA.
3. The enrolled property owner has replaced:
 - a) A baseline potential breeding group with another potential breeding group, or
 - b) A baseline solitary bird group is replaced with either a potential breeding group or a solitary bird group.
4. The enrolled property owner has replaced a baseline group with an above-baseline group that has been in existence for at least six (6) months, including a breeding season (April to July), prior to the replacement. This condition will apply to both potential breeding groups and solitary bird groups.
5. The enrolled property owner has replaced baseline clusters with above-baseline clusters and will provide suitable nesting and foraging habitat as defined in the Standard for Managed Stability set forth in Appendix 5 of the RCW Recovery Plan, 2nd Revision.
6. The enrolled property owner has replaced solitary bird groups prior to replacing potential breeding groups when possible.
7. The enrolled property owner agrees to maintain the entire foraging and nesting habitat needed for the new group.

In situations where RCW clusters are owned by more than one property owner (i.e. residential subdivisions) and only in those situations, enrolled property owners may establish a specific number of complete and incomplete cavity trees as part of their baseline responsibilities. In these particular situations, enrolled property owners can shift their baseline cavity tree responsibilities from baseline cavity trees to above-baseline (i.e., replacement) cavity trees if each of the following conditions, as applicable to the given situation, is met:

1. Each RCW complete or incomplete cavity tree that is part of the baseline responsibilities (i.e., an "original baseline cavity tree") must be replaced with an above-baseline cavity tree (i.e., a "replacement cavity tree") that is either a complete natural or artificial cavity and is suitable for RCW roosting and/or nesting.
2. Each replacement cavity tree that becomes a baseline cavity tree must have been available for at least 6 months prior to the date that the original baseline cavity tree is replaced.
3. Each original baseline cavity tree being replaced must be screened for a period of 3 months prior to any activity by the property owner that may harm or remove the original baseline cavity tree.

NCWRC must concur in writing prior to a property owner's shifting his/her RCW baseline requirements from one group to another. Where possible, flexibility will be used by NCWRC with concurrence from the Service. Upon NCWRC's concurrence to transfer RCW baseline responsibilities, sufficient documentation (i.e., maps reflecting change) of the shift in baseline will be placed in the enrolled property's file at the NCWRC headquarters in Raleigh, North Carolina.

7.2.4.3 Elevated Baseline

If the enrolled property owner voluntarily agrees to increase the baseline responsibilities for the enrolled property, NCWRC will modify his/her SHMA and associated Certificate to reflect the increased baseline. The enrolled property owner will be required to meet all terms and conditions in his/her SHMA for any additional baseline group. Increasing a baseline is not a requirement of any SHMA.

7.3 Incidental Take

The authorization for a participating property owner to incidentally take RCWs under this program is contingent upon the property owner's having maintained their baseline responsibilities for RCW groups and habitat that were present at the time the SHMA was signed. The only take that will be authorized under this Agreement and associated SHMAs is take of above-baseline RCWs. Activities that may result in incidental take include, but are not limited to:

- (1) Any activities occurring within a cluster during the RCW breeding season;
- (2) any timber harvesting within a cluster;
- (3) any timber harvesting within foraging habitat that reduces basal area of pine trees greater than 10 inches DBH below 3000 ft²;
- (4) application of forest chemicals within a cluster;
- (5) new road construction within or near a cluster;
- (6) any new building construction within or near a cluster.

It is important to note that such taking may or may not ever occur on an enrolled property and it is unlikely that RCWs would utilize the habitat involved if not for the voluntary management practices of the participating property owner. One of the expectations underlying this Agreement is that, while property owners will be permitted to carry out activities that could result in the take of above-baseline group(s) on their land, property owners, nonetheless, may choose not to engage in such activities or not to do so for many years.

An enrolled property owner will be allowed to develop, harvest trees upon, or make any other lawful use of his/her property, even if such use results in the incidental take of above-baseline RCWs or RCW habitat, provided that each of the following qualifications and conditions are met:

1. The enrolled property owner is in total compliance with their SHMA;
2. The enrolled property owner has maintained his/her RCW baseline as specified in the SHMA;
3. The enrolled property owner will only engage in take that is incidental to otherwise lawful activities;
4. The enrolled property owner conducts a supplemental survey immediately (no more than one hundred-eighty (180) days but no less than thirty (30) days) prior to any activity that may result in the incidental taking of above-baseline RCWs or RCW habitat and provides NCWRC with the results of the survey no later than thirty (30) days prior to the

commencement of any such activity. Only the specific area that will be treated requires this supplemental RCW survey. However, no surveys will be required within one (1) year of the baseline survey, unless recruitment clusters have been established in the area that will be affected by the activity then activity status of those clusters must be determined prior to implementation of the activity.

5. The enrolled property owner will engage in the proposed activities that could result in the incidental take of RCWs only during their non-reproductive season (August 1st through March 31st of following year) unless otherwise authorized by NCWRC; and
6. The enrolled property owner will not undertake any activity that could result in incidental take of RCWs until the property owner has provided NCWRC with at least sixty (60) days written notice of the property owner's intention to conduct such activity in order to allow NCWRC, the Service and/or their respective agents the opportunity to translocate the affected RCW group(s) to a suitable recipient site.

The preceding qualifications and conditions will be included in each SHMA.

Notwithstanding the minimum 60-day notice requirement in number 6 above, the property owner should provide as much notification to NCWRC as possible. Upon receipt of the property owner's notice, NCWRC will contact the Service's Ecological Services Field Office in Raleigh, North Carolina. NCWRC, the Service and/or their agents shall give a coordinated and concerted effort to respond to that notice. However, should NCWRC, the Service and/or their agents fail to respond to the property owner within the 60-day time frame, the property owner may proceed with the proposed activity.

7.4 Emergency Salvage Harvest Situations

Emergency situations, such as natural disasters or insect infestations, may require that emergency (salvage) harvesting begin with less than sixty (60) days notice as set forth in Section 7.3. For above-baseline groups, the enrolled property owner will notify NCWRC or its approved agent (such as private consultant, County Forester, etc.) in writing at least 14 days prior to conducting an emergency harvest. NCWRC, the Service, and/or their respective agents shall have this 14-day time period to translocate above-baseline impacted birds. The property owner shall not initiate such harvest until 14 days after NCWRC has received notice.

For emergency situations involving baseline groups/clusters, the property owner will notify NCWRC and/or the Service before emergency (salvage) harvesting begins. NCWRC and the Service will evaluate each case on an individual basis, and both must concur on the appropriate management actions.

8.0 Monitoring and Reporting

8.1 NCWRC's Monitoring and Reporting Responsibilities

NCWRC will annually monitor for SHMA implementation and compliance. Specifically, NCWRC will contact each enrolled property owner annually to evaluate whether the property owner is implementing and maintaining the conservation measures specified in the property

owner's SHMA. NCWRC will also identify any modifications of the conservation measures that may be necessary, and discuss other pertinent issues with the property owner regarding RCW management and/or the SHMA. Additionally, NCWRC will visit at least fifty percent (50%) of all enrolled properties annually to verify that conservation measures have been implemented and that the property owner is otherwise in compliance with its SHMA (the fifty percent (50%) will include all enrolled properties where incidental take was proposed or occurred). NCWRC shall maintain accurate records for each property enrolled under this Agreement and shall make these records available to the Service upon the Service's written request.

NCWRC will submit an annual written report to the Service, no later than March 31st for the preceding calendar year ending December 31st, detailing the activities conducted under this Agreement and the associated Permit. The annual report shall include accurate information and records of the following:

- 1 Any increase in the number of RCW groups on each enrolled property owner's property.
2. The number of acres of property enrolled under this Agreement.
3. The number of property owners enrolled under this Agreement.
4. A summary of all incidental take that has or will occur on enrolled property owner's properties.
5. A list of each property owner that is in noncompliance with their SHMA.
6. A list of all SHMAs that have been terminated.
7. Any other information, as agreed to by the Parties, that is required or appropriate for the monitoring of this Agreement.

8.2 Enrolled Property owners' Monitoring and Reporting Responsibilities

Each property owner shall submit a monitoring report to NCWRC on an annual basis for the term of his/her SHMA (Appendix 3). NCWRC shall provide a template for the monitoring report to each property owner as part of his/her SHMA. The property owner will be required to submit a completed template to NCWRC annually by January 31st.

9.0 Responsibilities

9.1 The Service

In addition to the responsibilities that may be set forth elsewhere in this Agreement, the Service agrees to provide technical assistance and funding, if available, to NCWRC and/or enrolled property owners to assist with implementation of the Agreement and/or the SHMAs.

The Service will comply with the National Environmental Policy Act (NEPA) and its Raleigh Ecological Services Office shall be responsible for submitting the appropriate NEPA documents to the Service's Regional Office. The Service will also evaluate the monitoring results and reports submitted to it by NCWRC and coordinate closely with NCWRC after Permit issuance to ensure compliance with the terms and conditions of this Agreement and the associated Permit.

9.2 NCWRC

In addition to the responsibilities that may be set forth elsewhere in this Agreement, NCWRC will be responsible for execution and implementation of this Agreement. NCWRC reserves the option to contract for management and other activities covered under this Agreement with other qualified parties with prior approval from the Service.

NCWRC, the Service and/or their respective agents will obtain the enrolled property owner's permission prior to entering their enrolled property for the purposes of ascertaining accuracy of the baseline conditions, compliance with the SHMA, and for censusing, banding and translocating RCWs. Access provisions are also governed by Part 26 of this SHA.

NCWRC will increase the public's awareness of this Agreement through a combination of public meetings, workshops, press releases, and direct consultations with property owners.

NCWRC shall be responsible for meeting all of its obligations under this Agreement relating to SHMAs for enrolled property owners (e.g., providing annual report templates and monitoring of the enrolled properties). NCWRC will provide the Service with monitoring reports as required by this Agreement and the associated Permit.

9.3 Shared Responsibilities of the Parties

The Parties will meet on an as-needed basis, at least annually (by December 31st), to review the information contained in the monitoring reports and/or to discuss any matters related to this Agreement or the Permit. Those meetings will provide an opportunity for resolutions of disputes regarding the implementation and compliance with the Agreement and the Permit, and to discuss amendments or modifications to the Agreement or Permit. The Parties will mutually agree on the date, time, and location of these meetings as well as on a list of potential attendees and potential discussion topics other than those topics previously mentioned in this section.

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

The Service and NCWRC, at their own discretion and with an enrolled property owner's permission, can provide technical, financial, and other assistance to an enrolled property owner in order to facilitate implementation of the conservation measures covered by a SHMA.

9.4 Enrolled Property owners

An enrolled property owner will be responsible for any costs associated with baseline surveys and agreed upon management practices, and is responsible for complying with all terms set forth by the SHMA. The enrolled property owner will also meet on an as-needed basis with NCWRC and/or the Service to discuss any matters related to his/her SHMA and Certificate. The

Party/Parties and the enrolled property owner will mutually agree upon the date, time and location of the meetings. Additionally, the enrolled property owner must grant NCWRC and/or the Service or their respective agents' permission to enter the enrolled property for the purposes of ascertaining accuracy of the baseline conditions, compliance with the SHMA, and for censusing, banding and translocating RCWs.

10.0 Assurances to Enrolled Property owners

Through this Agreement and the associated Permit, the Service provides NCWRC with certain regulatory assurances that, through Certificates, are conveyed to enrolled property owners. Those assurances, which apply to NCWRC and any enrolled property owner, are set forth in Appendix 5 to this Agreement and shall be incorporated verbatim into each SHMA and Certificate issued by NCWRC.

11.0 Agreement Management

11.1 Modifications and Amendments

11.1.1 Modification and Amendment of the Agreement

Either Party to this Agreement may propose modifications and amendments to the Agreement by providing notice to the other Party. Such notice shall include a statement of the reason for the proposed modification/amendment and an analysis of its anticipated effect(s) on the environment, the covered species, and on operations under this Agreement. Proposed minor modifications and amendments to this Agreement must be provided to the other Party in writing. The non-proposing Party shall have sixty (60) days in which to evaluate and approve or disapprove the proposed minor modification/amendment. A proposed minor modification/amendment shall be deemed approved and effective sixty (60) days after receipt of written notice of the same unless the non-proposing Party provides in writing its disapproval of the proposed modification or unless the Service gives written notice that the proposed modification must be processed as a formal amendment because the Service has determined that such modification/amendment would result in outcomes that are significantly different from those analyzed for this Agreement, including, but not limited to, modifications and/or proposed amendments that would either result in a different level or type of take than analyzed in this Agreement or that would result in a change to the cumulative conservation benefits to the covered species such that the Service's standard for safe harbor agreements is not met.

Minor modifications to this Agreement shall include, but are not limited to the following: (a) corrections of typographic, grammatical, and similar editing errors that do not change the intended meaning; (b) correction or updating of any maps or exhibits; (c) correction or updating of information to reflect previously approved amendments to the Permit or modifications to the Agreement; (d) minor changes to survey, monitoring, or reporting protocols; and, (e) conservation measures modified through adaptive management, if applicable.

Formal modifications/amendments may necessitate further review and analysis, including public notification in the *Federal Register*, public comment period, and other administrative compliance

actions as required by the ESA, and any other applicable laws, regulations, policies and directives.

11.1.2 Modification and Amendment of the Permit

NCWRC can seek amendment of the associated Permit in the manner specified in 50 C.F.R. § 13.23. The Service reserves the right to amend the Permit and any Certificates issued by NCWRC to enrolled property owners for just cause at any time during the term of the Permit or Certificate, upon written finding of necessity, provided that any such amendment of the Permit or Certificate shall be consistent with the requirements of 50 C.F.R. § 17.22(c)(5) or 50 C.F.R. § 17.32(c)(5), should the latter section become applicable.

11.1.3 Modification and Amendment of SHMA(s) and Certificates of Inclusion

NCWRC and an enrolled property owner can seek amendment of the SHMA and associated Certificate by submitting a written request in the manner specified in 50 C.F.R. § 13.23, provided, however, that NCWRC can only effect such modifications and amendments that are minor. If, however, in accordance with the criteria in Section 11.1.1, NCWRC determines that the proposed modification/amendment constitutes a formal amendment, NCWRC shall immediately forward the requested amendment to the Service for review and processing and notify the enrolled property owner of such action.

The Service reserves the right to amend a SHMA and associated Certificate issued by NCWRC to an enrolled property owner for just cause at any time during the term of the Certificate, upon written finding of necessity, provided that any such amendment shall be consistent with the requirements of 50 C.F.R. § 17.22(c)(5) or 50 C.F.R. § 17.32(c)(5), should the latter section become applicable.

Minor modifications to a SHMA and associated Certificate shall include, but are not limited to the following: (a) corrections of typographic, grammatical, and similar editing errors that do not change the intended meaning; (b) correction or updating of any maps or exhibits; (c) correction or updating of information to reflect previously approved amendments or modifications to this Agreement and associated Permit, if applicable, and to the SHMA and associated Certificate; (d) minor changes to survey, monitoring, or reporting protocols; and, (e) conservation measures modified through adaptive management, if applicable.

11.2 Termination of the Agreement

NCWRC may terminate this Agreement by providing the Service with at least a sixty (60) day advance written notice of such termination. NCWRC acknowledges that terminating the Agreement will result in a corresponding termination of its Permit and the loss of the regulatory assurances and RCW incidental take authority provided to NCWRC and its enrolled property

owners through Certificates. NCWRC agrees to relinquish the Permit to the Service as soon as possible after terminating the Agreement.

The Service will not terminate this Agreement for any reason except for cause in accordance with the provisions of 50 C.F.R. §13.28(a)(1) through (4), 50 C.F.R. §17.22(c)(7) and 50 C.F.R. §17.22(c)(2)(iii) or in accordance with the laws and regulations in force at that time.

11.3 Termination of SHMAs

11.3.1 Enrolled Property owner

An enrolled property owner or its enrolled successor in interest must give NCWRC sixty (60) day written notice, by certified letter, of its intent to terminate a SHMA and give NCWRC and/or the Service an opportunity to relocate individuals of the covered species within thirty (30) days of such written notice. As provided for in Part 12 of the Service's Safe Harbor Policy (64 FR 32717), an enrolled property owner may terminate a SHMA prior to the expiration date of the SHMA for circumstances beyond the property owner's control. Provided that the baseline conditions have been maintained, the property owner, subject to the previously mentioned notice requirement and opportunity to relocate individuals of the covered species, may return the enrolled property to baseline conditions, even if the expected net conservation benefits have not been realized. If the property owner is unable to continue implementation of the management activities, plans and stipulations of the SHMA, whether due to catastrophic destruction of the species population numbers or habitat or due to unforeseen hardship, the property owner must relinquish its Certificate of Inclusion to NCWRC. Species management on the property owner's property would return to its status prior to the signing of the SHMA (i.e., original baseline). Such termination would not affect the property owner's authorization under the Certificate of Inclusion to take any species individual or occupied habitat that is not part of the property owner's baseline at the time of termination of the SHMA. The property owner also may terminate the SHMA at any time for any other reason, but termination for reasons other than for circumstances beyond the property owner's control, shall extinguish the property owner's authority to take species or occupied habitat under the Certificate of Inclusion.

If a property owner has not returned its property to baseline conditions at the time of termination of its SHMA, and the number of RCW groups has increased, the additional groups will be protected by the take prohibitions of Section 9 of the ESA because the property owner's take authorization (via the Certificate of Inclusion) will have become invalid upon termination of the SHMA. If the property owner terminates a SHMA for any other reason, the Certificate of Inclusion shall immediately cease to be in effect.

11.3.2 NCWRC and the Service

NCWRC has the right to cancel any SHMA where the property owner is found to be in non-compliance with the terms and conditions of their SHMA. If a property owner is found to be in non-compliance with their SHMA, NCWRC will issue a written letter of non-compliance to the property owner. The property owner shall have sixty (60) days from receipt of the letter to rectify the non-compliance issue(s). If the issue(s) is not resolved to the satisfaction of NCWRC

by the end of the 60-day period, NCWRC shall terminate the property owner's SHMA and associated Certificate, which contain the property owner's assurances.

Should an enrolled property owner fail to comply with the terms of their SHMA, and NCWRC is unwilling and/or unable to terminate the property owner's SHMA, the Service reserves the right to utilize the provisions of the previous paragraph of this section at its discretion or to review and/or terminate the property owner's SHMA.

12.0 Permit Suspension or Revocation

The Service will not terminate the Permit associated with this Agreement except for cause in accordance with the provisions of 50 C.F.R. §13.28(a)(1) through (4), 50 C.F.R. §17.22(c)(7) and 50 C.F.R. §17.22(c)(2)(iii) or in accordance with laws and regulations in force at the time of such suspension or revocation.

13.0 Renewal of Agreement

This Agreement can be renewed with or without modification upon the approval of both Parties.

14.0 Renewal of SHMAs

With the exception of SHMAs of short duration, NCWRC shall be authorized to renew any SHMA and Certificate with or without modification with the written approval of NCWRC and the enrolled participating property owner, provided that this Agreement and its associated Permit are still in effect and the duration of any SHMA and Certificate renewal do not exceed the duration of this Agreement and that the Service does not object to such renewal. For SHMAs of short duration, NCWRC may be required to reevaluate the SHMA upon the property owner's notice of intent to renew or at the time of expiration to determine whether the SHMA will continue to provide a net conservation benefit. In such instances, additional conservation measures or conservation measures that are more extensive than those in the original SHMA may be required.

15.0 Succession and Transfer

Enrolled property owners who enter into SHMAs with NCWRC shall have the right to transfer their rights and obligations under the SHMA to non-federal entities provided the property owner agrees to the following, which shall be part of all SHMAs. A property owner will be required to notify NCWRC by written certified letter at least thirty (30) days in advance of any such transfer or as soon as practicable, but prior to such transfer, if ownership of all or a portion of the enrolled property is to be transferred to another owner. If the enrolled property owner transfers full or partial ownership of the enrolled property, NCWRC and the Service will regard the new property owner as having the same rights and obligations as the enrolled property owner under the SHMA and the associated Certificate, if the new property owner agrees in writing to become a party to the original SHMA. Upon agreeing to become a party to the original SHMA, actions taken by the new property owner that result in the incidental take of above-baseline RCW group(s) would be authorized if the new property owner maintains the terms and conditions of

the original SHMA and the associated Certificate. If the new property owner does not become a party to the SHMA, the new property owner would neither incur responsibilities under the Agreement nor receive any safe harbor assurances relative to this Agreement. If a new property owner agrees to become a party to the original SHMA and associated Certificate, the new property owner's baseline will remain the same as that of its predecessor property owner.

It will be the sole responsibility of the enrolled property owner to inform their successor(s) in interest or potential buyers that the property is enrolled under this Agreement. However, after any notification of change in ownership of the enrolled property, NCWRC, at its discretion, will attempt to contact the new or prospective property owner to explain the original SHMA, this Agreement, and determine whether the new property owner will become a party to the original SHMA, enter a new SHMA, or cease enrollment under this Agreement.

16.0 Cessation of Entering into SHMA(s)

The idea and expectation of this program is to maintain or increase the number of RCW groups in NCWRC. However, it is conceivable that existing groups will simply redistribute in a new configuration. This could occur if the habitat restoration undertaken as part of the SHMA(s) were to induce birds located in existing viable clusters to abandon those clusters and relocate to safe harbor managed habitat. If, despite efforts to ensure that the effect of this program is a net increase of RCW groups, NCWRC determines that the program is redistributing existing birds without any net benefit to RCW conservation, NCWRC, upon written notice to the Service, will cease entering into any new SHMA(s).

NCWRC will enter into SHMAs with eligible property owners in accordance with this Agreement and the associated Permit. NCWRC also shall not be under an affirmative obligation to enroll a property owner during any period of time when NCWRC does not have the financial or personnel resources to do so. NCWRC agrees to notify the Service of any suspension of enrolling property owners under this Agreement. NCWRC reserves the right to enroll property owners at a later date once sufficient financial or personnel resources are available. NCWRC shall notify the Service upon determining that there exist sufficient financial or personnel resources to resume enrolling property owners under this Agreement.

17.0 Neighboring Property owners

The Parties recognize that the successful implementation of management actions on enrolled properties may impact neighboring property owners. The Parties also recognize that some property owners may be reluctant to initiate management actions that may have land, water, and/or natural resource use implications to neighboring property owners. Therefore, if an enrolled property owner's voluntary conservation actions result in listed species occupying adjacent properties that are not enrolled in an SHMA, NCWRC and the Service will address implications to neighboring property owners on a case-by-case basis and use the maximum flexibility allowed under the Service's Safe Harbor Policy to address that issue. In general, NCWRC and the Service will make every reasonable effort to include the neighboring property owner as a signatory party to the SHMA or to a separate SHMA and associated Certificate, using the procedure set forth in Section 6.0 of this Agreement. Other potential actions available to

NCWRC and the Service include, but are not limited to, granting incidental take authority to owners of neighboring lands where occupation is a result of the SHMA. At a minimum, a neighboring property owner wishing to receive assurances must 1) allow a baseline to be established on his/her property, 2) agree to provide access to NCWRC and/or the Service or their respective agents to enter the property for monitoring purposes or other conservation/management reasons, and 3) agree to notify NCWRC and/or the Service in writing at least 60 days prior to taking a property back to baseline, so that the Parties may translocate the affected RCW group(s) to a suitable recipient site.

18.0 Dispute Resolution

The Parties agree to work together in good faith to resolve any disputes that might arise from this Agreement and/or any SHMA(s) entered into in accordance with this Agreement. The Parties also agree to engage in dispute resolution procedures if funding is available. See section 19.0 of this Agreement.

19.0 Availability of Funds

Implementation of this Agreement is subject to the requirements of the Anti-Deficiency Act and the availability of appropriated funds. Nothing in this Agreement will be construed by the Parties to require the obligation, appropriation, or expenditure of any funds from the U.S. Treasury. The Parties acknowledge that the Service will not be required under this Agreement to expend any Federal agency appropriated funds unless and until an authorized official of that agency affirmatively acts to commit to such expenditures as evidenced in writing.

20.0 Remedies

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

21.0 No Third-Party Beneficiaries

Neither this Agreement nor the associated SHMA(s) that will be entered into in accordance with this Agreement create any new right or interest in any member of the public as a third-party beneficiary. Neither this Agreement nor the associated SHMA(s) that will be entered into in accordance with this Agreement shall authorize anyone not a party to this Agreement and the associated SHMA(s) to maintain a suit for personal injuries or damages pursuant to the provisions of this Agreement and/or the associated SHMA(s). The duties, obligations, and responsibilities of the Parties to this Agreement with respect to third parties shall remain as imposed under existing law.

22.0 Other Federally Listed Species

Although NCWRC and the Service regard it as unlikely, the possibility exists that other listed, proposed, candidate species, or species of concern may occur in the future on properties enrolled

under this Agreement as a direct result of the management actions specified herein. Should such occur, and NCWRC and/or the enrolled property owner so requests, the Parties may agree to amend the Agreement and any associated SHMA(s) to cover the additional species and to establish appropriate baseline conditions for other such species. Should the Parties decide to seek to amend the Agreement and/or any associated SHMA(s), the Service will follow the applicable legal requirements, including, but not limited to, the ESA, the National Environmental Policy Act, the Administrative Procedures Act, and the Service's Safe Harbor Policy and implementing regulations set forth in the Code of Federal Regulations.

Surveys for other federally listed species will not be required of SHMA participants in order to enroll under this original Agreement. However, they will be informed that according to Section 9 of the Act, they will be subject to restrictions against take of any Federally-listed animal not covered by their respective Certificates. Federally-listed plants are considered legal property of the property owner and, therefore, according to the Safe Harbor Policy, are not subject to "take" restrictions. If other Federally-listed species are known to exist on the enrolling property, then NCWRC and the Service will consult with and assist the property owner in tailoring his/her management actions to avoid take of the species and to minimize any disturbance to the species.

23.0 Conservation Banking (NOTE: OPTIONAL SECTION)

Neither this Agreement nor an associated SHMA shall limit an enrolled property owner's ability to develop a conservation bank on their enrolled property. Property owners interested in pursuing this option must follow the Service's policy for the establishment, use, and operation of conservation banks.

24.0 Additional Conservation Measures

Nothing in this Agreement shall be construed to limit or constrain either Party or an enrolled property owner from implementing management actions not provided in this Agreement as long as such actions maintain the original baseline conditions of the SHMA and do not affect the beneficial actions set forth in this Agreement and/or any associated SHMA.

25.0 National Historic Preservation Act - Section 106

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470 *et seq.*) requires Federal agencies to take into account the effects of their undertakings on properties eligible for inclusion in the National Register of Historic Places (NRHP). An undertaking is defined as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; those requiring a Federal permit, license or approval; and those subject to state or local regulation administered pursuant to a delegation or approval by a Federal agency. The Service's proposed issuance of an enhancement of survival permit to the NCWRC to support implementation of this Agreement is a Federal undertaking subject to section 106 of the NHPA

As part of NHPA compliance, the Service will define the Area of Potential Effect (APE) associated with the proposed undertaking (i.e., issuance of the enhancement of survival permit to the Permittee). The APE is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties.

The Service has determined that the RCW clusters that exist on a landowner's property at the time the landowner signs a SHMA are the areas of potential effect for this Agreement. This definition of the APE was based on the fact that, before enrolling in a SHMA, landowners can conduct any type of ground-disturbing activity outside of existing RCW clusters that they wish as long as sufficient RCW foraging habitat is maintained to support those clusters and the landowner adheres to any other applicable laws and regulations. Conversely, activities within existing RCW clusters are significantly restricted due to the protections afforded RCWs by the ESA. Therefore, the existing RCW clusters are the only areas in which adverse effects to historic properties, such as archaeological sites, could increase as a result of implementation of this Agreement and the associated SHMAs.

Each Permittee will utilize the following processes to determine an enrolling landowner's responsibilities relative to NHPA:

- 1) No Baseline RCW Clusters - Enrolling landowners with no active RCW clusters on their property at the time of enrollment in a SHMA will have no responsibility relative to NHPA, because there is no APE (i.e., no baseline RCW clusters). Therefore, no consultation between the Permittee and the Service will be required.
- 2) Enrolling landowners who agree in the SHMA to avoid ground-disturbing activities within existing (i.e., baseline) RCW clusters will have no responsibility relative to NHPA, because there will be no likely effects on historic properties even if they were present within the APE. Therefore, no consultation between the Permittee and the Service will be required until and unless ground disturbing activities are planned in the APE. The following activities shall not be considered ground-disturbing activities in the APE:
 - A) Forest site preparation, such as discing and planting of seedlings that involves scarification or other soil disturbance if such soil disturbance is limited to the area within 8 inches of the soil surface (i.e., the area of the historic plowzone).
 - B) Removal of trees by manual felling, mowing, use of herbicides, manual uprooting with hand tools, and prescribed burning when hand constructed fire breaks or existing fire breaks or other features, such as ditches, levees, roads, water, and habitats, contain the fire and there is no excavation or plowing of new fire breaks using heavy equipment.
 - C) Timber harvest when logs are cabled from the RCW cluster and not skidded with heavy equipment typically used in commercial forest harvesting operations.

- D) Maintenance of existing roads, such as grading, cleaning ditches, repairing, brushing, or replacing culverts, guards, and gates, within an RCW cluster if the maintenance occurs within the existing road profile (i.e., in the same location and maintaining the same width).
- E) Other activities which are non-ground disturbing, such as predator control, installation of nesting cavities or cavity restrictors, or any other activity in which soil disturbance is limited to the area within 8 inches of the soil surface (i.e., the area of the historic plowzone).

The following activities shall be considered GROUND-DISTURBING:

- A) Soil disturbance, plowing, or excavation that extends more than 8 inches below the current soil surface, such as root raking, wind rowing, and bedding.
- B) Skidding of logs, removal of hardwoods, or creation of fire breaks using heavy equipment.
- C) Construction of new roads, widening of existing roads, or road maintenance activities that involve the installation of new features outside of the road's existing profile.

Any baseline cluster present at the time of enrollment that will be effected by ground disturbing activities will be reviewed through consultation with the State Historic Preservation Office, Office of Archives and History (NCSHPO) in 36 CFR 800.3(c)(3).

The Staff Archeologist of the Ecological Services Division, USFWS, will initiate the consultation with the NCSHPO and provide assistance to the enrolling landowner and NCWRC as needed for compliance with section 106 of the National Historic Preservation Act (See Appendix 4). It is anticipated that, in general, the potential effect to significant historic structural or archeological cultural resources will be minimal due to the conservation orientation of this agreement.

26.0 Access to Enrolled Property owners' Property

It is important for NCWRC and/or the Service to make occasional field visits to make certain the SHMA is being properly implemented, to identify any unanticipated benefits or deficiencies, and to assist enrolled property owners in developing corrective actions when necessary.

The property owner shall allow the Parties or other properly permitted persons designated by the Parties to enter the enrolled property for the general purposes specified in Title 50 Code of Federal Regulations § 13.21(e)(2) as well as for law enforcement purposes. Law enforcement personnel and non-law enforcement properly permitted and qualified persons designated by the Parties shall be allowed to enter upon the enrolled property at reasonable hours and times.

27.0 Subordination of SHMAs

Each SHMA entered into under this Agreement shall be subordinate to this Agreement. This Agreement is incorporated by reference into each SHMA entered into under this Agreement.

28.0 Notices and Reports

Any notices and reports, including monitoring and annual reports, required by this Agreement shall be delivered in the prescribed manner to the persons listed below, as appropriate:

North Carolina Wildlife Resources Commission
C/O RCW Safe Harbor Biologist
1701 Mail Service Center
Raleigh, North Carolina 27699-1722

Pete Benjamin or Field Office Supervisor
U.S. Fish and Wildlife Service
Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726

29.0 Authorizing Signatures

IN WITNESS WHEREOF, THE PARTIES HERETO have, as of the last signature below, executed this Safe Harbor Agreement to be in effect as of the date that the Service issues the associated Enhancement of Survival Permit.

Richard B. Hamilton

12/12/06

Executive Director
North Carolina Wildlife Resources Commission

Date

Cynthia Johnson

10/2/06

Deputy Regional Director, Southeast Region
U.S. Fish & Wildlife Service

Date

30.0 Glossary

Active cavity- A completed cavity or start exhibiting fresh pine resin associated with cavity maintenance, cavity construction, or resin well excavation by a RCW.

Active cavity tree- Any tree containing one or more active cavities.

Active cluster- A cluster containing one or more active cavity trees.

APE- Area of potential effect

Artificial cavity- Cavities that are manually placed in selective trees (these can be drilled or inserts).

Baseline- The number of birds and/or foraging habitat that is present on non-federal land at the time of signing the SHMA.

Cavity tree- Any tree that has a hole excavated in it by a RCW. This can also be an artificial cavity.

Certificate of Inclusion- This will be the legal method of including non-federal property owners under NCWRC's Safe Harbor Permit.

Cluster- The aggregation of cavity trees previously and currently used and defended by a group of woodpeckers, or this same aggregation of cavity trees and a 200 foot wide buffer of continuous forest. Here, the second definition is used. For management purposes, the minimum area encompassing the cluster is 10 acres.

Covered species- The species for which Safe Harbor assurances are provided, in this case the red-cockaded woodpecker (*Picoides borealis*).

DBH- Diameter at breast height/ the height at which trees are typically measured (4.5 feet).

Enhancement of survival permit- A permit issued under the authority of section 10(a)(1)(A) of the ESA.

Enrolled property- The property described in Exhibit A of the enrolled property owner's SHMA, and afforded Safe Harbor assurances under the NCWRC Statewide RCW Safe Harbor Agreement.

ESA- Endangered Species Act

Growing season- Growing season is generally from March through October.

Inactive cluster- A cluster that contains no active cavity trees.

NHPA- National Historic Preservation Act

Non-growing season- Non-growing season is generally from November through February.

NRHP- National Register of Historic Places

Property Owner - Also known as the Cooperator for purposes of this Agreement, it is defined in 50 CFR 17.3

RCW- Red-cockaded Woodpecker

Recruitment cluster- A cluster of artificial cavities (usually 4) in suitable nesting habitat, located close to existing groups.

Restrictors- Metal plates used to prevent or repair enlargement of cavity entrances.

Service- U.S. Fish and Wildlife Service

SHA- Safe Harbor Agreement

SHMA-Safe Harbor Management Agreement

SHPO- State Historic Preservation Officer

USFWS- U.S. Fish and Wildlife Service

31.0 Literature Cited

- Allen, D.H. 1991. Constructing artificial red-cockaded woodpecker cavities. USDA Forest Service General Technical Report SE-73.
- Baker, W.W. 1995. The distribution and status of the red-cockaded woodpecker (*Picoides borealis*) in Georgia, 1992. Pp. 465-469 *In*: Kulhavey, D.L., R.G. Hooper, and R. Costa, (eds.) *Red-cockaded woodpecker: recovery, ecology and management*. Center for Appl. Studies in Forestry, College of Forestry, Steven F. Austin State University, Nacogdoches, TX.
- Carter, J.H., III, R.T. Stamps, and P.D. Doerr. 1983. Status of the red-cockaded woodpecker in the North Carolina Sandhills. Pages 24-29, *In* D.A. Wood, editor. *Red-cockaded woodpecker symposium II proceedings*. Florida Game and Fresh Water Fish Commission, Tallahassee, Florida.
- Carter, J.H., III, J.R. Walters, and P.D. Doerr. 1995. Red-cockaded woodpeckers in the North Carolina Sandhills: a 12-year population study. Pages 248-258, *In* David L. Kulhavey, Robert G. Hooper, and Ralph Costa, eds., *Red-cockaded Woodpecker: Recovery, Ecology, and Management*. Stephen F. Austin State University, Nacogdoches, TX.
- Cely, J.E. and D.P. Ferral. 1995. Status and distribution of the red-cockaded woodpecker in South Carolina. Pages 470-476, *In* David L. Kulhavey, Robert G. Hooper, and Ralph Costa, eds., *Red-cockaded Woodpecker: Recovery, Ecology, and Management*. Stephen F. Austin State University, Nacogdoches, TX.
- Conner, R. N., and D. C. Rudolph. 1989. Red-cockaded woodpecker colony status and trends on the Angelina, Davy Crockett, and Sabine National Forests. USDA Forest Service Research Paper SO-250.
- Conner, R. N., and D. C. Rudolph. 1991. Forest habitat loss, fragmentation, and red-cockaded woodpeckers. *Wilson Bulletin* 103(3):446-457.
- Copeyon, C.K. 1990. A technique for constructing cavities for the red-cockaded woodpecker. *Wildlife Society Bulletin* 18:303-311.
- Costa, R. 1995. Red-cockaded woodpecker recovery and private lands: a conservation strategy responsive to the issues. Pp. 67-74 *In*: Kulhavey, D.L., R.G. Hooper, and R. Costa, (eds.) *Red-cockaded woodpecker: recovery, ecology and management*. Center for Appl. Studies in Forestry, College of Forestry, Stephen F. Austin State Univ., Nacogdoches, TX.
- Costa, R. and J.L. Walker. 1995. Red-cockaded woodpecker. pp. 86-89 *In* Laroe, E.T., G.S. Fans, E.E. Puckett, and others, (eds.) *Our living resources: a report to the nation on the distribution, abundance, and health of U.S. plants, animals, and ecosystems*. U.S. Natl. Biol. Serv., Washington, D.C.
- Costa, R. and R. Escano. 1989. *Red-cockaded woodpecker: status and management in the*

Southern Region in 1986. U.S. Forest Service Tech. Pub. R8-TPI2. 71 pp.

Crowder, L.B., J.A. Priddy, and J.R. Walters. 1998. Demographic isolation of red-cockaded woodpecker groups: a model analysis. Project final report. Duke. Univ., Nicholas School of the Environment, Beaufort, NC. 17pp.

Escano, R.E.F. 1995. Red-cockaded woodpecker extinction or recovery: summary of status and management on our national forests. Pp. 28-35 *In: Kulhavey, D.L., R.G. Hooper, and R. Costa, (eds.) Red-cockaded woodpecker: recovery, ecology and management.* Center for Appl. Studies, College of Forestry, Stephen F. Austin Univ., Nacogdoches, TX.

Frost, C.C. 1993. Four centuries of changing landscape patterns in the longleaf pine ecosystem. Pages 17-44, *In S.M. Hermann, ed., The Longleaf Pine Ecosystem: Ecology, Restoration, and Management.* Tall Timbers Research, Inc., Tallahassee, FL.

Hovis, J.A. and R.F. Labisky. 1985. Vegetative associations of red-cockaded woodpecker colonies in Florida. *Wildlife Society Bulletin* 13:307-314.

James, F. C. 1995. The status of the red-cockaded woodpecker in 1990 and the prospect for recovery. Pp. 439-451 *In: Kulhavey, D.L., R.G. Hooper, and R. Costa, (eds.) Red-cockaded woodpecker: recovery, ecology and management.* Center for Appl. Studies, College of Forestry, Stephen F. Austin Univ., Nacogdoches, TX.

Loeb, S. C., W. D. Pepper, and A. T. Doyle. 1992. Habitat characteristics of active and abandoned red-cockaded woodpecker colonies. *Southern Journal of Applied Forestry* 16:120-125.

Masters, R. E., J. E. Skeen, and J. Whitehead. 1995. Preliminary fire history of McCurtain County Wilderness Area and implications for red-cockaded woodpecker management. Pp290-302 *In: Kulhavey, D.L., R.G. Hooper, and R. Costa, (eds.) Red-cockaded woodpecker: recovery, ecology and management.* Center for Appl. Studies, College of Forestry, Stephen F. Austin Univ., Nacogdoches, TX.

North Carolina Department of Environment and Natural Resources. 2000. State of the Environment Report. State of North Carolina, Raleigh, NC.

USDA Forest Service. 2002. Forest Inventory and Analysis, North Carolina Summary. Southern Research Station website. Information available at <http://www.srs.fs.fed.us/cc/fia.htm>.

U.S. Fish and Wildlife Service. 2003. Recovery plan for the red-cockaded woodpecker (*Picoides borealis*): second revision. U.S. Fish and Wildlife Service, Atlanta, GA. 296 pp.

Van Balen, J. B. and Doerr. 1978. The relationship of understory vegetation to red-cockaded woodpecker activity. Proceedings of the Annual conference of the Southeastern Association of Fish and Wildlife Agencies 32:82-92.

APPENDIX 1

Safe Harbor Management Agreement For North Carolina's Statewide Red-cockaded Woodpecker Safe Harbor Program

I. Introduction

This Safe Harbor Management Agreement (SHMA), effective and binding on the date of last signature below, is between the North Carolina Wildlife Resources Commission (NCWRC) and the participating property owner, (Cooperator's Name) _____ (Cooperator)(hereinafter referred to as the Parties).

SHMA/Tracking Number:

_____ [NCWRC shall provide a tracking number for each SHMA it enters into.]

SHMA Duration:

The duration of this SHMA is for ____years. This time period is believed sufficient to allow a determination that the net conservation benefit(s) specified in the SHMA will be met.

This SHMA covers the following property: The property covered by this SHMA is described in Section V.B of this document and delineated in Exhibit A to this SHMA. The property also shall be referred to as the "enrolled property" in accordance with the U.S. Fish and Wildlife Service's (Service) Safe Harbor Policy.

This SHMA covers the following species: Red-cockaded woodpecker (*Picoides borealis*) (RCW). The RCW, a Federally-listed endangered species, is the only species for which incidental take authority is sought under this SHMA and the associated Certificate of Inclusion (Certificate). For purposes of this SHMA, the RCW is considered the "covered species" as defined in the Service's Safe Harbor Policy.

II. Authority and Purpose

Sections 2, 7 and 10 of the Endangered Species Act (ESA) of 1973, as amended, together with the North Carolina Statewide Red-Cockaded Woodpecker Safe Harbor Agreement (SHA) entered into between the Service and NCWRC and the associated Enhancement of Survival Permit (Permit) issued to NCWRC by the Service, are the authority that allow NCWRC and the Cooperator to enter into this SHMA.

The purpose of this SHMA is for the Parties to collaborate in order to implement conservation measures for the RCW on the enrolled property that will provide a net conservation benefit to the RCW in the State of North Carolina. Under this SHMA, the Cooperator agrees to undertake the activities and procedures described herein on the enrolled property for the benefit of the RCW.

In association with this SHMA, the Cooperator will receive a Certificate of Inclusion (Certificate), which will allow the Cooperator to carry out lawful activities on the enrolled property that may result in the incidental take¹ of RCW(s) or RCW habitat that is above the Cooperator's baseline responsibilities, subject to all of the following:

1. The Cooperator agrees to comply with all terms and conditions contained in the SHMA;
2. The Cooperator agrees to maintain the baseline responsibilities/constraints specified in the SHMA;
3. The Cooperator will only engage in take that is incidental to otherwise lawful activities;
4. The Cooperator agrees to provide for habitat enhancement activities specified in the SHMA;
5. The Cooperator agrees to conduct a supplemental survey, as specified in the SHMA, prior to conducting any activity which may result in the incidental taking of above baseline RCWs or RCW habitat;
6. The Cooperator agrees to limit engagement in proposed activities that could result in the incidental take of RCWs only during the non-reproductive season (August 1st through March 31 of the following year unless otherwise authorized by NCWRC;
7. The Cooperator shall, via a certified letter, notify NCWRC at least 60-days prior to commencing any activities that may result in the incidental taking of RCWs; and
8. The Cooperator will provide NCWRC the opportunity to translocate affected non-baseline RCWs.

III. Net Conservation Benefits

The Cooperator's voluntary conservation measures and management activities will provide one or more of the following net conservation benefits to RCWs on the enrolled property either immediately or in the near future:

1. currently occupied nesting and foraging habitat will be maintained at current levels to assist in meeting recovery goals and in maintaining population stability;
2. existing RCW populations will be increased through the installation of artificial nesting and roosting cavities;
3. new groups and populations of RCWs will be created through population expansion (naturally or via recruitment clusters) and translocation efforts;
4. RCW populations will be augmented through translocation of surplus sub-adults to acceptable recipient sites;
5. suitable RCW habitat will be enhanced, restored, and/or created on enrolled properties;
6. pine forest fragmentation will be decreased and habitat connectivity will be increased from habitat enhancement, restoration, and/or creation efforts;

¹ An incidental take is the "take" of any federally listed wildlife species that is incidental to, but not the purpose of, otherwise lawful activities (see definition of "take") [ESA section 10(a)(1)(B)]. For example, deliberately shooting or wounding a listed species would not be considered an incidental take. Conversely, the destruction of endangered species habitat for development generally would be construed as incidental and would be authorized by an Incidental Take Permit.

7. information will be collected on RCW population productivity and demographics in North Carolina; and
8. property owners' fear of having RCWs on their forest lands will be reduced through the implementation of outreach efforts, thereby minimizing the number of property owners who will intentionally manage against suitable RCW habitat.

The above specific net conservation benefit(s) will be provided to the RCW by the conservation measures and management activities of the Cooperator, as set forth below in Section IV A.

IV. SHMA Implementation

A. Conservation Strategy/Measures

The Cooperator agrees to enhance habitat for RCWs by allowing or providing for one or more of the following management activities:

1. Prescribed burning.
2. Implement forest management practices that enhance habitat for existing baseline groups or provide habitat for additional groups of RCWs (thinning, longer rotations, regeneration that favors pine species).
3. Providing hardwood midstory control.
4. Install artificial cavities in baseline and/or recruitment clusters.
5. Population management.
6. Future conservation measures as may be identified

See Section V for specific management activities that the Cooperator agrees to undertake².

B. Baseline Considerations

The baseline conditions that will be maintained on the enrolled property are described below in Section V.

1. RCW Surveys

Unless all Parties have previously agreed upon the Cooperator's baseline, a baseline survey will be conducted prior to signing the SHMA to inventory all existing RCW groups to establish baseline responsibilities. The survey will only include RCWs, unless the Cooperator specifically requests other species to be surveyed. The Cooperator will be responsible for any costs associated with surveys (baseline or supplemental) unless NCWRC, at its sole discretion, agrees to conduct or fund, fully or partially, the baseline survey. The results of the surveys shall be the property of the Cooperator and shall be used only at the Cooperator's discretion. However, no

²The Cooperator will be required to describe the nature, extent, timing, and other pertinent details of the conservation measures that he/she will voluntarily undertake to provide a net conservation benefit, including a schedule for implementation of the conservation measures. The Cooperator will also describe how the conservation measures will benefit the RCW.

SHMA will be signed until the baseline survey is reviewed and approved by NCWRC. Supplemental surveys as specified in Section C that are required prior to activities that may result in incidental take must be submitted to NCWRC at least sixty (60) days prior to commencing such activities.

The first step in determining the baseline conditions is to determine if suitable RCW habitat exists on the property owner's property or if a known RCW group exists within one-half-mile of the property (property owner knowledge and the North Carolina Natural Heritage Program database used to determine the distance to known sites). Suitable foraging habitat consists of pine or pine-hardwood (50 percent or more pine) stands 30 years of age or older (USFWS 2003). If this type of habitat is not present, and there are no RCW groups within one-half-mile of the property, further assessment is not necessary, and the property owner's baseline will be zero.

If a RCW group exists within one-half-mile of the property owner's property and the property owner has the responsibility of maintaining a portion of the foraging habitat for the RCW cluster, as required by the RCW Recovery Plan, 2nd Revision (USFWS 2003), that portion of the foraging habitat will be incorporated into the property owner's baseline.

RCWs select and require old-growth pines for cavity excavation. If suitable nesting habitat is present, the property owner will determine if RCW groups exist on their property. The property owner will conduct surveys for cavity trees in stands that contain suitable nesting habitat. The RCW Recovery Plan, 2nd Revision (USFWS 2003), identifies the forested stands that must be surveyed for RCW cavity trees, they include:

1. Pine and pine-hardwood stands over sixty (60) years of age.
2. Pine and pine-hardwood stands under sixty (60) years of age containing scattered or clumped pine trees over sixty (60) years of age.
3. Hardwood-pine over sixty (60) years of age adjacent to pine and pine-hardwood stands over thirty (30) years of age.
4. Pine stands containing saw-timber, including stands thought to be generally less than sixty (60) years of age, but containing scattered or clumped trees over sixty (60) years of age.

Accurate surveys are essential for determining baseline conditions. To limit undetected cavity trees and misjudged activity status, personnel experienced in the management and/or monitoring of the covered species should be used to conduct baseline surveys. Baseline numbers are subject to approval by NCWRC.

Potential nesting habitat (pines greater than or equal to sixty (60) years old) is surveyed by running line transects through stands and visually inspecting all medium-sized and large pines for evidence of cavity excavation by RCWs. Transects must be spaced so that all trees are inspected. Necessary spacing will vary with habitat structure and season from a maximum of 100 yards between transects in very open pine stands to 50 yards or less in areas with dense midstory. Transects should be run north-south, because many cavity entrances are oriented in a westerly direction (USFWS 2003).

When cavity trees are found, their location must be recorded in the field using a Global Positioning System unit, aerial photograph, and/or field map. Activity status, cavity stage (start, advanced start, or complete cavity), and any entrance enlargement also must be assessed and recorded at this time. If cavity trees are found, more intense surveying also must be conducted within 1,500 feet of each cavity tree is conducted to locate all cavity trees in the area. Later, cavity trees are assigned into clusters based on observations of RCWs as described below (USFWS 2003).

A property owner who wishes to differentiate the number of active clusters in their baseline into the number of potential breeding groups and the number of solitary male groups will be required to complete group checks as described in the RCW Recovery Plan, 2nd Revision (USFWS 2003). To perform group checks, trained personnel experienced in the management and/or monitoring of the covered species approved by NCWRC, must track or “follow” each group for a half an hour to an hour, immediately after the birds exit their cavities in the morning, to determine group size. Group size is determined by observation of bird behavior and groups are classified as:

- a) two or more birds, or
- b) a solitary bird.

Groups of 2 or more birds that remain together and peacefully interact during the breeding season are assumed to represent potential breeding groups. NCWRC and the Service will ensure that property owners accurately classify RCW groups. Groups roosting extra-territorially in clusters occupied by one or more residents, captured clusters, and territorial conflicts can confuse the observer and result in erroneous group classification. If any doubt as to group membership exists, NCWRC will require the “follow” (described above) to be repeated and/or the “follow” time to be increased until all doubt as to the group membership is removed. Two observers may be necessary if two clusters are located very close together or if cavity trees within a cluster are spread over a large area.

Group checks are valid only if implemented during the breeding season. Groups of two or more birds at other times of the year may or may not represent potential breeding groups. The method is labor intensive (one group per observer per day at best) and complete population censuses are possible only in small populations or with multiple observers. Property owners unwilling or unable to perform group checks will assume each active cluster is occupied by a potential breeding group for their baseline responsibility. The Cooperator shall identify how the baseline was determined, when and how the baseline surveys were conducted, or if the baseline was established based on already-known information or other factors.

2. Baseline Responsibilities and Constraints

A Cooperator with baseline responsibilities greater than zero (0) is required to provide all the overstory necessary to maintain RCW cavity trees and the foraging area for all RCW groups that were discovered on the enrolled property through the baseline survey of the Cooperator’s property. The Cooperator’s baseline responsibilities also may include providing foraging habitat for known groups of RCW on neighboring lands as described in the section addressing responsibility for foraging habitat for clusters on neighboring lands. A Cooperator whose

baseline has been determined to be zero (0) is not subject to the baseline responsibilities and constraints that follow.

Where applicable, a Cooperator's baseline responsibilities and constraints, as derived from the RCW Recovery Plan, 2nd Revision (USFWS 2003), are to:

1. Mark and protect active and inactive cavities and cavity start trees, within active baseline clusters, from harvesting and damage. NCWRC can provide assistance in locating and marking all cavity and start trees at its discretion. NCWRC and the Service must review on a case-by-case basis the removal of any active or inactive cavity tree. In the event that the location of any active cavity tree(s) changes over time such that one or more cavity tree(s) becomes established within a construction area, the property owner may be allowed to remove those cavity trees. For each active cavity tree removed in the construction area, a minimum of two (2) artificial cavities (drilled or inserts) must be installed elsewhere on the lot (at least 200 feet from the building site) four (4) months prior to initiation of construction.
2. Manage each cluster as a timber stand comprising at least ten (10) contiguous acres, if currently present on the enrolled property, with the purpose of retaining potential cavity trees (pines greater than 60 years old). If ten (10) contiguous acres are not currently present on the enrolled property, the Cooperator will retain all of the potential cavity trees within the cluster.
3. Maintain cluster boundaries of at least two hundred (200) feet from a cavity tree, where possible.
4. Retain all potential cavity trees (pines greater than 60 years in age) within clusters, unless pine basal area is above 50 ft²/acre and all trees are above 60 years in age.
5. Protect cavity trees from fire during prescribed burning. Precautions should be taken to minimize the risk of igniting cavity trees. Cooperators are required to rake litter at least ten (10) to twenty (20) feet away from the base of cavity trees, depending on the fuel load. Other precautions include but are not limited to wetting cavity trees or limiting burning to high moisture conditions. Any active cavities damaged by prescribed fire will be immediately replaced within the cluster boundaries by installing an artificial replacement cavity (insert or drilled).
6. Provide at least 3000 ft² of basal area in pine trees (including the trees in the cluster) \geq 10 inches DBH for foraging habitat on a minimum of 75 acres, if the trees are currently present on the enrolled property. If 3000 ft² of basal area of pine trees \geq 10 inches DBH are not available for foraging habitat, the property owner will maintain the existing pines inside the foraging area and provide the 3000 ft² of basal area of pine trees greater than ten (10) inches DBH as soon as possible. Foraging habitat for each RCW group will preferably be within 0.25 mile of the cluster, but no more than 0.5 mile from the cluster and must be contiguous to the cluster stand with no gaps between stands exceeding two hundred (200) feet.
7. Conduct timber harvesting within the active baseline clusters only between August 1st and March 31st, or as otherwise approved by NCWRC. If there is a need to harvest timber within an active cluster outside this window of time, the Cooperator should notify NCWRC thirty (30) days in advance of the desired starting harvest date. NCWRC will determine the stage of nesting activity within the cluster and advise the Cooperator of appropriate precautions. Timber harvesting is not permitted during nest initiation, when the female is in the process of laying eggs, when the nesting cavity contains viable eggs or young, or before the fledglings

are capable of sustained flight. Possible exceptions to these prohibitions could be when emergency harvest is necessary due to insect infestations, natural disasters, or other disasters.

8. Refrain from constructing any new roads and/or utility rights of way within active baseline clusters.
9. Provide reasonable protection for RCW groups from human activities that may incidentally cause injury or death in active baseline clusters.
10. Take reasonable precautions when conducting silvicultural or other activities within active baseline clusters to avoid injury to cavity and cavity start trees. Reasonable precautions would include, but are not limited to, directional felling away from cavity trees, logging during dry conditions to minimize soil compaction, removing logs carefully to avoid scraping or otherwise damaging residual trees, and avoiding fire line plowing around cavity trees.
11. If the baseline survey establishes that three or fewer complete cavities are present in a particular cluster, the Cooperator agrees to install artificial RCW cavities in suitable trees such that a minimum of four complete cavities are present in each baseline cluster. The Administrator may decide, at its sole discretion, to install the necessary artificial cavities or to fund, fully or partially, the installation of artificial cavities in baseline clusters lacking four complete cavities.

NCWRC will not require the Cooperator to abide by stricter habitat requirements for baseline groups of RCWs should the Service revise the guidelines for managing RCWs on private lands. Should the habitat requirements be reduced, this SHMA will be modified to reflect the new guidelines.

3. Baseline Responsibility for Foraging Habitat for Clusters on Neighboring Lands

Where a RCW group exists within one-half-mile of the enrolled property and the Cooperator has the responsibility for maintaining a portion of the foraging habitat for that RCW cluster, as required by the RCW Recovery Plan, 2nd Revision, that portion of the foraging habitat will be incorporated into the Cooperator's baseline. The map, which is Exhibit B to this SHMA, shall identify known non-enrolled property RCW groups for which the Cooperator agrees to provide habitat as part of the Cooperator's baseline responsibilities. Exhibit B sets forth the Cooperator's responsibilities with respect to providing foraging habitat for such non-enrolled property groups.

4. Habitat Requirements for Baseline RCW Groups

The Cooperator agrees to undertake activities to maintain and enhance the nesting and foraging habitat of all active baseline groups indicated on the map labeled Exhibit A.

1. The Cooperator agrees to manage active baseline clusters as follows:
 - a. Retain all potential cavity trees (pines greater than 60 years in age) within clusters, unless pine basal area is above 50 ft²/acre and all trees are above 60 years in age. Small areas of natural regeneration may occur within a cluster provided cavity entrances are not obstructed;
 - b. maintain overstory hardwood basal area in a cluster below 10 ft² per acre. All hardwoods within fifty (50) feet of cavity trees will be removed;

- c. maintain a minimum average spacing of 25 feet between trees within the cluster, except where closer spacing already exists and thinning is not permitted; and
 - d. allow no hardwood midstory or, if a hardwood midstory is present, maintain it as sparse and less than seven (7) feet in height.³
2. The Cooperator agrees to maintain at least the minimum foraging habitat of 3000 ft² of basal area in pine trees that are at least thirty (30) years old with a DBH \geq 10 inches on a minimum of 75 acres (including the cluster stand) for each active baseline cluster as follows:
- a. maintain overstory stocking for foraging habitat between 40 ft² and 70 ft² of basal area in pine trees per acre. Stands managed on an uneven-aged basis may have patches of regeneration or residual stands of older trees higher than 70 ft² of basal area per acre;
 - b. maintain average pine basal area of pines < 10 inches DBH less than 20 ft² per acre;
 - c. limit total stand basal area, including overstory hardwoods, to less than 80 ft² per acre; and
 - d. allow no hardwood midstory or, if a hardwood midstory is present, maintain it as sparse and less than seven (7) feet in height (See footnote 3 above).

5. Baseline Adjustment

a. Loss of Baseline Groups

In spite of management and protection efforts, there may be circumstances, through no fault of the Cooperator, where groups that gave rise to the Cooperator's baseline responsibilities cease to exist on the enrolled property. If RCW baseline groups cease to exist on the enrolled property, the Cooperator will not be held accountable for the loss of the RCW baseline groups provided each of the following have occurred:

1. The RCW groups have remained absent from the enrolled property for a minimum of five (5) years;
2. The RCW cluster remains inactive for a minimum of five (5) years; and
3. The loss of the RCW baseline group occurred through no fault of the Cooperator and in spite of total compliance with this SHMA.

The Cooperator's RCW baseline can be reduced for each RCW group that meets all of the three (3) criteria listed above. However, the Cooperator must request a baseline reduction from NCWRC, in writing. The Cooperator also must allow NCWRC and/or the Service access to the enrolled property to conduct an investigation, if NCWRC and/or the Service so choose. If NCWRC and/or the Service determine that a group is eligible for removal from the Cooperator's baseline, NCWRC will modify this SHMA and the associated Certificate to reflect the change in baseline responsibilities.

³ The RCW Recovery Plan's guidance on hardwood midstory refers to the hardwood midstory as a whole, which allows some flexibility for individuals of that midstory that may exceed seven (7) feet in height. The term "sparse" is used to describe the midstory of desirable RCW foraging habitat. A more subjective habitat assessment (i.e., sparse) allows land managers flexibility to account for the variability found within most forested systems. Additionally, prescribed burning and other activities to reduce brush and midstory competition will be required no more than once every other year after midstory is under control.

The Cooperator is not eligible for a reduction in baseline if a RCW group moves to a new cluster on the same enrolled property. The Cooperator can seek a reduction if a cluster moves onto neighboring property provided that the criteria above are satisfied. A Cooperator may be required, however, to provide foraging habitat if the owner on the neighboring property is unable to do so.

b. Shifting Baseline

The Cooperator may, with NCWRC's consent, shift its baseline responsibilities to a new active cluster that has formed on the enrolled property subsequent to the signing of this SHMA. When a new active cluster is formed on the enrolled property, the new cluster may replace any other cluster harboring a group of similar or lesser demographic status (i.e., potential breeding pair can replace solitary bird or same sex groups) that was within the Cooperator's original RCW baseline responsibility provided each of the following conditions are met:

1. The Cooperator is in total compliance with this SHMA.
2. The Cooperator has maintained their baseline as specified in this SHMA.
3. The Cooperator has replaced:
 - a. A baseline potential breeding group with another potential breeding group; or
 - b. A baseline solitary bird group is replaced with either a potential breeding group or a solitary bird group.
4. The Cooperator has replaced a baseline group with an above-baseline group that has been in existence for at least six (6) months, including a breeding season (April to July), prior to the replacement. This condition will apply to both potential breeding groups and solitary bird groups.
5. The Cooperator has replaced baseline clusters with above-baseline clusters and will provide suitable nesting and foraging habitat as defined in the Standard for Managed Stability set forth in Appendix 5 of the RCW Recovery Plan, 2nd Revision (USFWS 2003).
6. The Cooperator has replaced solitary bird groups prior to replacing potential breeding groups when possible.
7. The Cooperator will maintain the entire foraging and nesting habitat needed for the new group.

NCWRC must concur in writing with a proposed baseline shift prior to the Cooperator's shifting his/her RCW baseline requirements from one group to another. NCWRC will exercise flexibility, where possible, upon the Service's concurrence, when considering requests for baseline shifts. Upon issuance of NCWRC's concurrence to transfer RCW baseline responsibilities, sufficient documentation (i.e., maps reflecting change) of the shift in baseline will be placed in the enrolled property's file at the NCWRC headquarters in Raleigh, North Carolina.

c. Elevated Baseline

If the Cooperator voluntarily agrees to increase the baseline responsibilities for the enrolled property, NCWRC will modify this SHMA and associated Certificate to reflect the increased

baseline. The Cooperator will be required to meet all terms and conditions in this SHMA for any additional baseline group. Increasing a baseline is not a requirement of this SHMA.

C. Incidental Take of Above-baseline Groups and/or Foraging and Nesting Habitat

Through the Certificate issued in association with this SHMA, the Cooperator shall be allowed to develop, harvest trees upon, or make any other lawful use of the enrolled property, even if such use results in the incidental take of above-baseline RCWs or RCW habitat, provided each of the following qualifications and conditions is met:

1. The Cooperator must be in total compliance with this SHMA.
2. The Cooperator must have maintained their RCW baseline as specified in this SHMA.
3. The Cooperator will only engage in take that is incidental to otherwise lawful activities.
4. The Cooperator will conduct a supplemental survey immediately (no more than one hundred-eighty (180) days but no less than thirty (30) days) prior to any activity, which may result in the incidental taking of above-baseline RCWs or RCW habitat, and provide NCWRC with the results of the survey thirty (30) days prior to the commencement of any such activity. Only the specific area that will be treated requires this supplemental RCW survey. However, no surveys will be required within one (1) year of the baseline survey, unless recruitment clusters have been established in the area that will be affected by this activity then activity status of those clusters must be determined prior to implementation of the activity.
5. The Cooperator will engage in the proposed activities that could result in the incidental take of RCWs only during the non-reproductive season (August 1st through March 31st of the following year) unless otherwise authorized by NCWRC.
6. The Cooperator shall not undertake any activity that could result in the take of RCWs until the Cooperator has provided NCWRC with at least sixty (60) days notice of its intention to conduct such activity in order to allow NCWRC, the Service and/or their respective agents the opportunity to translocate the affected RCW group(s) to a suitable recipient site.

Notwithstanding the 60-day notice requirement in number 6 above, the Cooperator should provide as much notification to NCWRC as possible. Upon receipt of the Cooperator's notice, NCWRC will contact the Service's Ecological Services Field Office at Raleigh, North Carolina. NCWRC, the Service and/or their agents shall give a coordinated and concerted effort to respond to that notice. However, should NCWRC, the Service and/or their agents fail to respond to the Cooperator within the 60-day time frame, the Cooperator may proceed with the proposed activity.

Prescribed burning and installation of artificial cavities shall be allowed during the RCW nesting season if necessary for the continued survival of the group. Such action shall not require notification to NCWRC.

Activities that may result in incidental take include, but are not limited to,

- (a) Any activities occurring within a cluster during the RCW breeding season;
- (b) any timber harvesting within a cluster;

- (c) any timber harvesting within foraging habitat that reduces basal area of pine trees greater than 10 inches DBH below 3000 ft²;
- (d) application of forest chemicals within a cluster;
- (e) new road construction within or near a cluster;
- (f) any new building construction within or near a cluster.

D. Monitoring and Reporting

NCWRC will annually provide the Cooperator with a template monitoring report to be completed by the Cooperator and returned to NCWRC by January 31st of each calendar year. Specifically, the Cooperator agrees that each monitoring report shall:

1. Identify the enrolled property and individuals/organization who conducted surveys, monitoring, and/or population management.
2. Describe implementation of the conservation measures by:
 - a. Identifying the management activities that the Cooperator agreed to perform during the annual reporting period.
 - b. Identifying the management activities that were implemented during the annual reporting period.
 - c. Discussing any problems with the implementation of management activities during the annual reporting period.
3. Describe any incidental take that occurred during the reporting period or is expected to occur in the next reporting period:
 - a. A description of the land-use activities that might result in incidental take of RCWs.
 - b. A discussion of the incidental take that occurred or is expected to occur for above-baseline RCWs and/or RCW habitat.
 - c. A description of the activities that returned or could be expected to return the enrolled property to baseline conditions.
 - d. A description of any dead, injured, or ill RCWs observed on the property.
4. Describe any new or above-baseline clusters discovered during the reporting period:
 - a. A description of the conservation measures associated with the new or above-baseline clusters.
 - b. A map with the location(s) of all new cluster(s).
 - c. A description of the cluster (i.e., total number of cavities, cavity stages, activity status, species, and DBH of each cavity tree).

Each annual report also must include:

1. A description of any non-compliance issues with the SHMA as well as all measures employed by the Cooperator to remediate such non-compliance issues.
2. An accurate map depicting the entire enrolled property noting any changes, additions, deletions, or other modifications made to any portions of the property affected by implementation of the SHMA, if applicable.

3. A summary of any modifications or amendments submitted and approved/denied during the reporting period, including a narrative summary of any changes made to the baseline responsibilities.

Each annual report must contain a certification from a responsible official who supervised or directed the preparation of the report. The certification shall read as follows: ***“Under penalty of law, I _____ certify that, to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of this report, the information submitted in this report is true, accurate, and complete.”***

E. Emergency Salvage Harvest Situations

Emergency situations, such as natural disasters or insect infestations, may require that emergency (salvage) harvesting begin with less than sixty (60) days notice as set forth in Section C. For above-baseline groups, the Cooperator will notify NCWRC or its approved agent (such as private consultant, County Forester, etc.) in writing at least 14 days prior to conducting an emergency harvest. NCWRC, the Service, and/or their respective agents shall have this 14- day time period to translocate above-baseline impacted birds. The Cooperator shall not initiate such harvest until 14 days after NCWRC has received notice.

For emergency situations involving baseline groups/clusters, the Cooperator will notify NCWRC and/or the Service before emergency (salvage) harvesting begins. NCWRC and the Service will evaluate each case on an individual basis, and both must concur on the appropriate management actions.

F. Neighboring Property Owners

NCWRC and the Service recognize that the successful implementation of management actions on enrolled properties may impact neighboring property owners. Non-participating private property owners are not covered under the Cooperator’s Certificate. If, however, the Cooperator’s voluntary conservation actions result in listed species occupying adjacent properties, NCWRC and the Service will use the maximum flexibility allowed under the ESA to address the neighboring properties under the Cooperator’s SHMA and associated Certificate. Implications to neighboring property owners with non-enrolled lands will be determined on a case-by-case basis. In general, NCWRC and the Service will make every reasonable effort to include the neighboring property owner as a signatory party to the Cooperator’s SHMA or to enter into a separate SHMA and Certificate with the neighboring property owner, using the procedures set forth in Section 6.1 of the North Carolina Statewide RCW SHA. Other potential actions include, but are not limited to, granting take authority to owners of neighboring lands where occupation is expected as a result of the Cooperator’s SHMA. At a minimum, a neighboring property owner wishing to receive assurances must 1) allow a baseline to be established on his/her property, 2) agree to provide access to NCWRC and/or the Service or their respective agents to enter the property for monitoring purposes or other conservation/management reasons, and 3) agree to notify NCWRC and/or the Service in writing at least 60 days prior to taking a property back to baseline, so that the Parties may translocate the

affected RCW group(s) to a suitable recipient site.

G. Succession and Transfer

By signature of this SHMA, the Cooperator agrees to notify NCWRC in writing at least thirty (30) days in advance of the Cooperator's transfer of all or a portion of the Cooperator's interest in the enrolled property. NCWRC and the Service will regard the new owner of the enrolled property as having the same rights and obligations as the Cooperator under this SHMA, if the new property owner agrees in writing to become a party to the original SHMA. Upon agreeing to become a party to the original SHMA, actions taken by the new property owner that result in the incidental take of above-baseline RCW group(s) would be authorized if the new property owner maintains the terms and conditions of the original SHMA and the associated Certificate. If the new property owner does not become a party to the SHMA, the new property owner would neither incur responsibilities under the Agreement nor receive any safe harbor assurances relative to this Agreement. If a new property owner agrees to become a party to the original SHMA and associated Certificate, the new property owner's baseline will remain the same as that of its predecessor property owner.

It is the sole responsibility of the Cooperator to inform their successor(s) in interest or potential buyer(s) of the property that it is enrolled under this SHMA. Upon transfer of the property to another, NCWRC will attempt to contact the new property owner to explain the original SHMA and the NCWRC Statewide RCW SHA, to seek to interest the new owner in becoming a party to this SHMA, and, if necessary, to add the new owner as a party to this SHMA or to enter into a new SHMA with the new owner.

H. Assurances to Cooperators

Through this SHMA and Certificate, NCWRC will provide the Cooperator with the regulatory assurances as set forth in Appendix 5 of the Agreement and issue the Cooperator a Certificate containing the regulatory assurances language contained in Appendix 2 of the Agreement.

I. Other Federally Listed Species

Although NCWRC and the Service regard it as unlikely, the possibility exists that other listed, proposed, or candidate species, or species of concern may occur in the future on the enrolled property as a direct result of the management actions specified in this SHMA. Should such occur, and the Cooperator so requests, NCWRC shall notify and consult with the Service regarding any proposed amendment(s) to the NCWRC Statewide RCW SHA and this SHMA.

The Cooperator is not required to conduct surveys for other Federally-listed species. However, cooperators will be informed that according to Section 9 of the Act, they will be subject to restrictions against "take" of any Federally-listed animal not covered by the Cooperator's Certificate. The term "take" as defined by the ESA, means to harass, harm, pursue, hunt, kill,

_____ YES, I agree _____ NO, I do not agree

to conduct prescribed fires on a regular or recurring basis within areas of the enrolled property that are currently unsuitable habitat, but, in this situation, I also agree to conduct the prescribed fires for a period sufficient for the habitat to either become occupied by RCWs or to become potentially suitable nesting or foraging habitat. The net conservation benefit will not be achieved until the areas where prescribed fires were conducted either become occupied by RCWs or become potentially suitable nesting or foraging habitat. This also means I may have to implement other conservation measures, such as a forest management strategy that could benefit RCWs, in order for a net conservation benefit to be achieved.

Forest Management

An eligible forest management strategy or plan would include any of the following circumstances:

_____ YES, I agree _____ NO, I do not agree

to implement or maintain a forest management strategy or plan that maintains or enhances occupied RCW habitat. This will provide an immediate net conservation benefit.

_____ YES, I agree _____ NO, I do not agree

to implement or maintain a forest management strategy or plan that maintains or enhances existing habitat that is potentially suitable nesting or foraging habitat. This will provide an immediate net conservation benefit.

_____ YES, I agree _____ NO, I do not agree

to implement or maintain a forest management strategy or plan that restores habitat to a condition that will, in the future, provide potentially suitable nesting or foraging habitat. The net conservation benefit will not be achieved until the areas where the forest management strategy or plan was implemented or maintained either become occupied by RCWs or become potentially suitable nesting or foraging habitat.

Hardwood Midstory Control

_____ YES, I agree _____ NO, I do not agree

to control hardwoods in occupied habitat through the use of mechanical or chemical methods or through the use of prescribed fire. This will provide an immediate net conservation benefit.

_____ YES, I agree _____ NO, I do not agree

to control hardwoods in potentially suitable nesting or foraging habitat through the use of mechanical or chemical methods or through prescribed fire. This will provide an immediate net conservation benefit.

_____ YES, I agree _____ NO, I do not agree

to control hardwoods on a regular or recurring basis within areas of the enrolled property that are currently unsuitable RCW habitat, but, in this situation, I also agree to control hardwoods for a

period sufficient for the habitat to either become occupied by RCWs or to become potentially suitable nesting or foraging habitat. The net conservation benefit will not be achieved until the areas where hardwood control is conducted either become occupied by RCWs or become potentially suitable nesting or foraging habitat. This also means that I may have to implement other conservation measures, such as a forest management strategy that could benefit RCWs, in order for a net conservation benefit to be achieved.

___ YES, I agree _____ NO, I do not agree

to maintain herbaceous understory in pine forest stands on the enrolled property through the use of lawn mowing methods. Lawn mowing methods will include tractors with bush hogs cutting up to 1-inch hardwood saplings. Lawn mowing will provide an immediate net conservation benefit in occupied and potentially suitable nesting or foraging habitat. In unsuitable RCW habitat, the property owner will agree to mow for a period sufficient for the habitat either to become occupied by RCWs or to become potentially suitable nesting or foraging habitat. The net conservation benefit will not be achieved until the areas where mowing is conducted either become occupied by RCWs or become potentially suitable nesting or foraging habitat. This also means that I may have to implement other conservation measures, such as a forest management strategy that could benefit RCWs, in order for a net conservation benefit to be achieved.

RCW Cavity Installation and Maintenance

_____ YES, I agree _____ NO, I do not agree

to install artificial cavities on the enrolled property in occupied clusters that are cavity-deficient (i.e., each RCW present does not have its own complete cavity in which to roost). This will provide an immediate net conservation benefit.

_____ YES, I agree _____ NO, I do not agree

to install restrictor plates and artificial cavities on the enrolled property such that each cluster has a minimum of four (4) complete, quality cavities. This will provide an immediate net conservation benefit.

_____ YES, I agree _____ NO, I do not agree

to install and maintain artificial cavities at appropriate sites on the enrolled property in potentially suitable, unoccupied nesting habitat and that at least four (4) complete cavities are installed per site. This will provide an immediate net conservation benefit.

_____ YES, I agree _____ NO, I do not agree

to do cavity maintenance on natural and/or artificial cavities on the enrolled property. This will ensure that cavities do not go unused because of water or other deficiencies. This will provide an immediate net conservation benefit.

RCW Population Management

_____ YES, I agree _____ NO, I do not agree

to translocate pairs of unrelated surplus sub-adults into unoccupied, suitable habitat on the enrolled property provided that such translocations are approved by NCWRC and the Service

prior to their implementation. The net conservation benefit will be achieved upon the translocation of the surplus sub-adults to the recipient site(s).

_____ YES, I agree _____ NO, I do not agree
to translocate surplus sub-adults into habitat on the enrolled property that is occupied by a single (male or female) RCW provided that such translocations are approved by NCWRC and the Service prior to their implementation. The net conservation benefit will be achieved upon the translocation of the surplus sub-adult(s) to the recipient site(s).

_____ YES, I agree _____ NO, I do not agree
to allow NCWRC and/or the Service to remove surplus sub-adults from the enrolled property to augment other populations if such removal of sub-adults will not affect the property owner's baseline responsibilities. The net conservation benefit will be provided upon the removal of the surplus sub-adults by NCWRC and/or the Service.

E. Time Frames for Management Actions

The following are the time frames in which the Cooperator agrees to implement and maintain the management actions specified in the preceding Section D and the time that the management actions will remain in effect:

- 1. Activity: _____
Schedule: _____
- 2. Activity: _____
Schedule: _____
- 3. Activity: _____
Schedule: _____
- 4. Activity: _____
Schedule: _____
- 5. Activity: _____
Schedule: _____
- 6. Activity: _____
Schedule: _____

F. Other Conservation Measures

If necessary, the Cooperator agrees to perform the following additional conservation measures for the RCW on the enrolled property:

G. Incidental Take

The following incidental take of RCW(s) may be associated with the management actions that the Cooperator has agreed to undertake under this SHMA:

Notwithstanding the foregoing, the Cooperator agrees that the proposed activities that may result in incidental take of RCWs will be **conducted only during the non-reproductive season (August 1st through March 31st of the following year)**, unless otherwise authorized by NCWRC.

H. Returning to Baseline Conditions

The following activities would be expected to return the enrolled property to baseline conditions. The Cooperator will also describe the extent of incidental take that would likely result from those activities:

I. Monitoring Schedule for the Enrolled Property

The Cooperator agrees that the enrolled property will be monitored for the purposes set forth in Section IV(D) of this SHMA on the following basis:

Monthly: _____

Yearly: _____

Other: _____

The following person(s) will conduct the monitoring of the enrolled property: _____

The Cooperator agrees to provide the required annual report to NCWRC by January 31st each year that this SHMA is in effect.

J. Conservation Benefits

This SHMA will provide the following net conservation benefits: Check all that apply.

_____ Occupied nesting and foraging habitat are expected to be maintained at current levels, which will help maintain population stability.

_____ Existing RCW populations will increase through the installation and maintenance of artificial nesting and roosting cavities.

_____ New RCW groups and populations will be created naturally or via recruitment clusters and translocation efforts.

_____ RCW populations will be augmented through translocation of surplus sub-adults to acceptable sites.

_____ Suitable RCW habitat will be enhanced, restored, and/or created on the enrolled property.

_____ Pine forest fragmentation will decrease and habitat connectivity will increase as a result of habitat enhancement, restoration, and/or creation efforts.

_____ Information on RCW population productivity and demographics in North Carolina will be obtained.

_____ The Cooperator's fear of RCWs on their forest lands will be reduced through outreach efforts resulting from this SHMA, thus minimizing the number of property owners that would intentionally manage against suitable RCW habitat.

_____ Additional, list the benefit(s) _____

F. Obtaining Other Necessary State and Federal Permits for Purposeful Take

The Cooperator agrees that they and/or their agent must obtain any necessary state or federal permits to engage in purposeful take of RCW(s), such as capturing, banding, reintroducing, etc., if such is planned. The Cooperator agrees to provide a list of the names of the purposeful take

permit holder(s) and the corresponding permit number(s) prior to the Cooperator engaging in any such activities on the enrolled property.

VI. SHMA Management

A. Modification and Amendment of SHMA

Either NCWRC or the Cooperator may propose modifications and amendments to this SHMA by providing notice to the other. Such notice shall include a statement of the reason for the proposed modification/amendment, possible effects to the RCW, and its anticipated effect(s) on operations under this SHMA. Proposed minor modifications and amendments to this SHMA must be provided to the other party in writing. The non-proposing party shall have sixty (60) days in which to evaluate and approve or disapprove the proposed minor modification/amendment. A proposed minor modification/amendment shall be deemed approved and effective sixty (60) days after receipt of written notice of the same, unless the non-proposing party provides in writing its disapproval of the proposed modification. If NCWRC determines, in accordance with Section 11.1.3 of the NCWRC Statewide RCW SHA, that the proposed modification/amendment constitutes a formal amendment, NCWRC shall immediately forward the requested amendment to the Service for review and processing and notify the Cooperator of such action.

Minor modifications to this SHMA shall include, but are not limited to the following: (a) corrections of typographic, grammatical, and similar editing errors that do not change the intended meaning; (b) correction or updating of any maps or exhibits; (c) correction or updating of information to reflect previously approved amendments to the Permit or modifications to the SHMA; (d) minor changes to survey, monitoring, or reporting protocols; and (e) conservation measures modified through adaptive management, if applicable.

B. Modification and Amendment of the Certificate of Inclusion

The Cooperator can seek amendment of the associated Certificate by submitting a written request to NCWRC in the manner specified in 50 C.F.R. § 13.23, provided, however, that NCWRC can only effect such modifications and amendments that are minor. If, however, in accordance with Section 11.1.4 of the NCWRC Statewide RCW SHA, NCWRC determines that the proposed modification/amendment constitutes a formal amendment, NCWRC shall immediately forward the requested amendment to the Service for review and processing and notify the Cooperator of such action.

The same criteria for minor modifications set forth in the preceding section A are applicable to amendments of the associated Certificate.

The Service reserves the right to amend a Certificate issued by NCWRC to a Cooperator for just cause at any time during the term of the Certificate, upon written finding of necessity, provided that any such amendment shall be consistent with the requirements of 50 C.F.R. § 17.22(c)(5) or 50 C.F.R. § 17.32(c)(5), should the latter section become applicable.

C. Termination of SHMA

1. By the Cooperator

The Cooperator or its enrolled successor in interest must give NCWRC sixty (60) day written notice, by certified letter, of its intent to terminate a SHMA and must give NCWRC and/or the Service an opportunity to relocate individuals of the covered species within thirty (30) days of such written notice. As provided for in Part 12 of the Service's Safe Harbor Policy (64 FR 32717), a Cooperator may terminate a SHMA prior to the expiration date of the SHMA for circumstances beyond the Cooperator's control. Provided that the baseline conditions have been maintained, the Cooperator, subject to the previously mentioned notice requirement and opportunity to relocate individuals of the covered species, may return the enrolled property to baseline conditions, even if the expected net conservation benefits have not been realized. If the Cooperator is unable to continue implementation of the management activities, plans and stipulations of the SHMA, whether due to catastrophic destruction of the species population numbers or habitat or due to unforeseen hardship, the Cooperator must relinquish its Certificate of Inclusion to the NCWRC. Species management on the Cooperator's property would return to its status prior to the signing of the SHMA (i.e., original baseline). Such termination would not affect the Cooperator's authorization under the Certificate of Inclusion to take any species individual or occupied habitat that is not part of the Cooperator's baseline at the time of termination of the SHMA. The Cooperator also may terminate the SHMA at any time for any other reason, but termination for reasons other than for circumstances beyond the Cooperator's control, shall extinguish the Cooperator's authority to take species or occupied habitat under the Certificate of Inclusion. If a Cooperator has not returned its property to baseline conditions at the time of termination of its SHMA, and the number of RCW groups has increased, the additional groups will be protected by the take prohibitions of Section 9 of the ESA because the Cooperator's take authorization (via the Certificate of Inclusion) will have become invalid upon termination of the SHMA. If the Cooperator terminates a SHMA for any other reason, the Certificate of Inclusion shall immediately cease to be in effect.

2. By NCWRC and the Service

NCWRC has the right to terminate this SHMA where the Cooperator is found to be in non-compliance with the terms and conditions of this SHMA. If the Cooperator is found to be in non-compliance with this SHMA, NCWRC will issue a written letter of non-compliance to the Cooperator. The Cooperator shall have sixty (60) days from receipt of the letter to rectify the non-compliance issue(s). If the issue(s) is not resolved to the satisfaction of NCWRC by the end of the 60-day period, NCWRC shall terminate this SHMA and the associated Certificate, which contain the regulatory assurances.

Should the Cooperator fail to comply with the terms of this SHMA, and NCWRC is unwilling and/or unable to terminate this SHMA, the Service reserves the right to utilize the provisions of the previous paragraph of this section at its discretion or to review and/or terminate this SHMA.

3. By Termination of the NCWRC Statewide RCW SHA

Should the Service or NCWRC terminate the NCWRC Statewide RCW SHA, this SHMA shall also terminate concurrently with the effective date on which the NCWRC Statewide RCW SHA and associated Permit are terminated.

D. Suspension or Revocation of the Certificate

The Service reserves the right to terminate the Certificate associated with this SHMA for cause in accordance with the provisions of 50 C.F.R. §13.28(a)(1) through (4), 50 C.F.R. §17.22(c)(7) and 50 C.F.R. §17.22(c)(2)(iii) or in accordance with laws and regulations in force at the time of such suspension or revocation.

E. Renewal of SHMA

Unless this SHMA is determined by the Service and NCWRC to be one of short duration, NCWRC can renew this SHMA and the associated Certificate with or without modification. Such renewal will be effective upon the written approval of NCWRC and the Cooperator, provided the following conditions exist at the time of renewal: 1) the NCWRC Statewide RCW SHA and the associated Permit are still in effect; 2) the duration of the renewal does not exceed the duration of the NCWRC Statewide RCW SHA; and 3) the Service does not object to such renewal.

For SHMAs of short duration, NCWRC may be required to reevaluate the SHMA upon the Cooperator's notice of intent to renew or at the time of expiration to determine whether the SHMA will continue to provide a net conservation benefit to the RCW. In such instances, additional conservation measures or conservation measures that are more extensive than those in this SHMA may be necessary.

F. Access to Enrolled Property

It is also important for NCWRC and/or the Service to make occasional field visits to make certain the SHMA is being properly implemented, to identify any unanticipated benefits or deficiencies, to provide any agreed upon technical assistance, and to assist enrolled property owners in developing corrective actions when necessary.

The property owner shall allow the NCWRC and/or the Service or other properly permitted persons designated by NCWRC and/or the Service to enter the enrolled property for the general purposes specified in Title 50 Code of Federal Regulations § 13.21(e)(2) as well as for law enforcement purposes. Non-law enforcement personnel and non-law enforcement properly permitted and qualified persons designated by NCWRC and/or the Service shall be allowed to enter upon the enrolled property at reasonable hours and times with prior notification.

G. Financial Assistance

If funds become available for managing RCWs on non-federal lands, NCWRC shall seek to give the Cooperator priority access to those funds to help offset the costs of undertaking enhancement activities. Any financial assistance given to the Cooperator must be used for current or future activities and not applied to past activities. Activities including, but not limited to, baseline surveys, midstory control, pre-commercial thinning, prescribed burning, artificial cavity installation, cavity maintenance and demographic monitoring can be considered for financial assistance.

H. Additional Conservation Actions

Nothing in this SHMA shall be construed to limit or constrain the Cooperator from implementing management actions not provided in this SHMA so long as such actions maintain the original baseline conditions and do not affect the beneficial actions set forth in this SHMA.

I. Subordination of SHMA

This SHMA is subordinate to the NCWRC Statewide RCW SHA, which is incorporated, in its entirety, by reference into this SHMA.

J. Notices and Reports

Any notices and reports, including monitoring and annual reports, required by this SHMA shall be delivered in the prescribed manner to the persons listed below, as appropriate:

North Carolina Wildlife Resources Commission
C/O RCW Safe Harbor Biologist
1701 Mail Service Center
Raleigh, North Carolina 27699-1722

VII. Signatures and Information

Administrator:

North Carolina Wildlife Resources Commission
C/O RCW Safe Harbor Biologist
1701 Mail Service Center
Raleigh, North Carolina 27699-1722

Signature: _____ Date: _____

Cooperator:

Name: _____

Address: _____

Telephone Number: _____

Physical Address: _____

Cellular Phone Number: _____

E-Mail Address: _____

Signature: _____ Date: _____

Exhibit A: Map of enrolled property

Exhibit B: Map of RCW clusters within 0.5 miles of the enrolled property (if any exist)

APPENDIX 2

CERTIFICATE OF INCLUSION in North Carolinas Statewide Red-cockaded Woodpecker Safe Harbor Agreement and Enhancement of Survival Permit

This certifies that the property described as follows _____
_____(description of the portion of the property covered by the Safe Harbor permit) owned by (Cooperator's name) _____, is included within the scope of Permit No. _____, issued by the U.S. Fish and Wildlife Service (Service) on _____(date) to the North Carolina Wildlife Resources Commission (NCWRC), on _____(date) under the authority of Section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended, 16 U.S.C. 1539(a)(1)(A). Such Permit authorizes certain activities by participating property owners (Cooperators) as part of a Safe Harbor program to restore and enhance habitat for the red-cockaded woodpecker (*Picoides borealis*) (RCW). Pursuant to that Permit and this Certificate of Inclusion, the holder of this Certificate is authorized to engage in any otherwise lawful activity on the above described property that may result in the incidental taking of above-baseline RCWs, as appropriate, subject to the terms and conditions of such Permit and the terms and conditions of the Safe Harbor Agreement entered into pursuant thereto by NCWRC, and _____(Cooperator's name), on _____(date).

Additionally, this Certificate provides the property owners with the following regulatory assurances:

“If additional conservation measures are necessary to respond to unforeseen circumstances, the Service may require additional measures of the Permittee (and/or participating Cooperator(s)) only if such measures are limited to modifications within the SHMA's conservation strategy for the affected species, and only if those measures maintain the original terms of the SHMA (and Certificates issued therein) 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 SHMA (and Certificates issued therein) without the consent of the Permittee (and affected participating or affected Cooperator(s)).”

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

These authorizations and assurances expire on (Date Permit Expires)_____

 (Date) (Name of Permittee)

 (Date) (NCWRC Representative)

 (Date) (Cooperator/Participating property owner)

APPENDIX 3

Annual Monitoring Report Safe Harbor Management Agreement

Cooperator's Name: _____

NC Wildlife Resources Commission (NCWRC) Permit Tracking Number: _____

Covered Species: Red-cockaded woodpecker (*Picoides borealis*) (RCW)

Baseline RCW Number: _____

Physical Address of Property: _____

Signature of Cooperator: _____

Date of Report Completion: _____

Reporting Period: _____

Section I. Basic Site Information

A. Ownership (circle one): State Private Other (explain) _____

B. Site Name _____

C. Name of Individual Filling Out This Form _____

E-mail Address _____ Phone Number _____

D. Please provide the name, phone number, and email address of the individuals/organization who conducted the following activities on the enrolled property during the reporting period:

1. RCW Population Monitoring

2. Surveyed Enrolled Property for above-baseline RCWs

3. Constructed Artificial Cavities

4. Installed Restrictor Plates

5. Translocated RCWs

Section II. Habitat Management Data

A. Habitat Management Planned for the Reporting Period

The following is a list of habitat management activities that were planned for the reporting period: *(will be specific to a particular SHMA and reporting period)*

- 1.
- 2.
- 3.

B. Habitat Management Completed during the Reporting Period

Please list and describe what habitat management activities were implemented during the reporting period including how many acres were treated by the management action and the date of completion.

1. Management: _____

Number Acres Treated: _____; Date of Completion: _____

2. Management: _____

Number Acres Treated: _____; Date of Completion: _____

3. Management: _____

Number Acres Treated: _____; Date of Completion: _____

C. Habitat Management Planned for the Next Reporting Period

Please list and describe what habitat management activities are planned for the next reporting period including how many acres are expected to be treated with each management action and a proposed timeline.

1. Management: _____

Number of Acres: _____; Estimated Start Date: _____

2. Management: _____

Number of Acres: _____; Estimated Start Date: _____

3. Management: _____

Number of Acres: _____; Estimated Start Date: _____

D. Problems with Management Implementation

Please describe any problems you had with implementing the planned habitat management activities during the reporting period. For example, if you were unable to implement or complete a management activity, what is/are the reason(s) for not doing so (i.e. weather conditions, lack of funding, problems with contractor, etc.)? Attach additional pages, if necessary.

Section III. Incidental Take

Incidental take of above-baseline RCWs and/or their habitat is allowed under the Certificate of Inclusion in accordance with the terms and conditions set forth in the Safe Harbor Management Agreement (see section IV.C of the SHMA).

A. Were any dead, injured, or ill RCWs observed on the property during the reporting period?

____ Yes ____ No

If yes, please explain the circumstances. (attach additional pages if necessary)

B. Did any incidental take of above-baseline RCW groups or their habitat occur during the reporting period in accordance with the terms and conditions of the SHMA?

____ Yes ____ No

If yes, please describe the activities that resulted in incidental take of above-baseline RCWs or their habitat. (attach additional pages if necessary)

C. Do you anticipate conducting any activities on the enrolled property during the next reporting period that may result in incidental take? Yes No
If yes, please describe the activities that may result in incidental take of above-baseline RCWs or their habitat. (attach additional pages if necessary)

Section IV. RCW Population Monitoring

Part 1. Baseline of Zero

If your RCW Baseline is Zero, then answer questions 1.A through 1.E. If your RCW Baseline is greater than Zero, proceed to Part 2 of this section.

1.A. Was the enrolled property surveyed for the presence of RCWs during the reporting period? Yes No If yes, answer questions 1.A.a. and 1.A.b.

1.A.a. How many acres of the enrolled property were surveyed for the presence of RCWs? _____

1.A.b. Were any above-baseline RCWs located? Yes No If yes, please attach a map showing the location of all new RCW clusters and cavity trees or new cluster configuration. For each new RCW cluster, please provide the information requested in 1.B.b.1-5 below.

1.B. Were any above-baseline RCWs discovered during the reporting period?
 Yes No If yes, answer questions 1.B.a and 1.B.b.

1.B.a. Please attach a map showing the location of each new cluster and cavity trees or new cluster configuration.

1.B.b. For each new RCW cluster, please provide the following:

- (1) Cluster Status – active vs. inactive
- (2) Number of Completed Cavities
- (3) Stage of each cavity – completed, nearly complete, advanced start, start
- (4) Status of each cavity – active vs. inactive
- (5) Diameter at Breast Height (DBH) and Species (longleaf, loblolly, etc.) of each cavity tree.

1.C. Were any artificial cavities (drilled or inserts) constructed during the reporting period on the enrolled property? Yes No If yes, please go to Section V of this monitoring report.

1.D. Were any restrictor plates installed on RCW cavities on the enrolled property?
_____Yes _____No If yes, how many were installed? _____

1.E. Were any RCWs translocated onto or off of the enrolled property during the reporting period with prior approval of NCWRC and the Service? _____Yes _____No If yes, please go to Section VI of this monitoring report.

Part 2. Baseline Greater Than Zero

If your RCW Baseline is greater than or equal to One (1) RCW cluster, answer questions 2.A. through 2.F.

2.A. Was there any change in the status of the baseline RCW clusters on your enrolled property during the reporting period? _____Yes _____No If yes, please answer questions 2.A.a through 2.A.d below.

2.A.a. Did the activity status of the cluster change (active vs. inactive)?

2.A.b. Did the number of active, completed cavities change? _____Yes _____No If yes, please attach a map showing the changes and locations of affected cavity trees.

2.A.c. Did any cavity trees die during the reporting period? _____Yes _____No If yes, please identify the affected tree(s) and describe how the tree(s) died. Attach additional pages, if necessary.

2.A.d. Please describe any other changes that occurred to baseline RCW clusters during the reporting period (may include, but is not limited to, changes in breeding status or group composition). Attach additional pages, if necessary.

2.B. Was the enrolled property surveyed for the presence of above-baseline RCWs during the reporting period? _____Yes _____No If yes, answer questions 2.B.a and 2.B.b.

2.B.a. How many acres of the enrolled property were surveyed for the presence of RCWs? _____

2.B.b. Were any above-baseline RCWs located? _____Yes _____No If yes, please attach a map showing the location of all new RCW clusters and cavity trees. For each new RCW cluster, please provide the information requested in 2.C.b.1-5 below.

2.C. Were any above-baseline RCWs discovered during the reporting period?
_____Yes _____No If yes, answer questions 2.C.a and 2.C.b.

2.C.a. Please attach a map showing the location of each new cluster and cavity trees or new cluster configuration.

2.C.b. For each new RCW cluster, please provide the following:

(1) Cluster Status – active vs. inactive

- (2) Number of Completed Cavities
- (3) Stage of each cavity – completed, nearly complete, advanced start, start
- (4) Status of each cavity – active vs. inactive
- (5) Diameter at Breast Height (DBH) and Species (longleaf, loblolly, etc.) of each cavity tree.

2.D. Were any artificial cavities (drilled or inserts) constructed during the reporting period on the enrolled property? ____Yes ____No If yes, please go to Section V of this monitoring report.

2.E. Were any restrictor plates installed on RCW cavities on the enrolled property? ____Yes ____No If yes, how many were installed? _____

2.F. Were any RCWs translocated onto or off of the enrolled property during the reporting period with prior approval of NCWRC and the Service? ____Yes ____No If yes, please go to Section VI of this monitoring report.

Section V. Cavity Installation/Maintenance

Questions A through D refer to BASELINE clusters:

A. Number of baseline clusters where artificial cavities were constructed (either drilled or inserts)

B. Number of starts drilled in baseline clusters

C. Number of drilled cavities constructed in baseline clusters

D. Number of insert cavities installed in baseline clusters

Questions E through I refer to ABOVE-BASELINE clusters:

E. Were any recruitment clusters established on the property this year? ____Yes ____No
If yes, how many were established? _____ How many are active? _____

F. Number of above-baseline clusters (natural or recruitment) where artificial cavities were constructed during the reporting period. _____

G. Number of starts drilled in above-baseline clusters

H. Number of drilled cavities constructed in above-baseline clusters

I. Number of insert cavities installed in above-baseline clusters

Section VI. Translocations

Translocation of RCWs onto or off of the enrolled property is allowed with prior approval of NCWRC and the Service. If translocations were conducted during the reporting period, please provide the following information.

A. Describe the circumstances of the translocations including where the RCWs were captured, where the RCWs were released, and any other pertinent information. Attach additional pages, if necessary.

B. Results of previously approved translocations (attach additional sheet if necessary)

Leg Band Number	Date of Translocation	Translocation Results ¹	# Times Monitored

¹Evaluate the translocation results using these codes:

- A: Disappeared within 1 week of release and has not been observed since at release cluster or any other cluster
- B: Remained at cluster more than 1 week but was not observed at any cluster during the reporting year breeding season
- C: Remained at release cluster and established pair bond (i.e., attracted or remained with a mate for 6 months, including the breeding season (April-June)
- D: Remained at release cluster and became a breeder (i.e., nested)
- E: Dispersed to another cluster and established a pair bond (see C above for definition of pair bond)
- F: Dispersed to another cluster and became a breeder (i.e., nested)
- G: Disappeared in first week following release, seen at another cluster after first week, but not seen at any cluster during reporting year breeding season
- H: Remained at cluster as a solitary bird (see “S’ below for definition)
- I: Floater; observed at another cluster(s): 1) without RCWs but did not remain for at least 6 months including the breeding season to become a solitary bird or 2) with RCWs, but was repelled by the resident group
- J: Dispersed to another cluster and is a solitary bird (see “S’ below for definition)
- O: Other
- U: Unknown

S: Solitary bird defined: remained at cluster for at least 6 months including the breeding season

Section VII. Signatures and Reporting Information

“Under penalty of law, I _____ certify that, to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of this report, the information submitted in this report is true, accurate, and complete.”

Signature of Reporter

Date

Date Annual Report is Due: On or before January 31st for the prior calendar year.

Date Annual Report was Received: _____

Date Annual Report was Reviewed: _____

Signature of Reviewer: _____

Printed Name and Phone # of Reviewer: _____

APPENDIX 4

National Historic Preservation Act-Section 106

Note: WILL BE SPECIFIC TO EACH AGREEMENT – THIS IS HOW IT USUALLY READS:

The North Carolina Wildlife Resources Commission (NCWRC) will utilize the following processes to determine an enrolling property owner's responsibilities relative to the National Historic Preservation Act (NHPA):

1. Enrolling property owners with no active or inactive red-cockaded woodpecker (RCW) clusters on their property at the time of enrollment in a Safe Harbor Management Agreement (SHMA) will have no responsibility relative to NHPA, because there is no Area of Potential Effect (APE) (i.e., no baseline RCW clusters). Therefore, no archaeological surveys or further consultation between NCWRC and the U.S. Fish and Wildlife Service (Service) will be required.
2. Enrolling property owners, whose baseline clusters are known to not contain sites that are eligible or potentially eligible for the NRHP based on archaeological survey work conducted prior to or concurrent with the enrollment in the SHMA, will have no responsibility relative to NHPA, because there will be no adverse effects to NRHP eligible properties. The enrolling property owner shall provide NCWRC and/or the Service proper documentation of the finding of the archaeological survey. Consequently, no archaeological surveys or further consultation between NCWRC and/or the Service will be required. The enrolling property owner could undertake any management actions within the APE, including those that result in ground disturbance, provided that all other obligations in this Agreement and the enrolling property owner's SHMA have been satisfied.
3. In cases where previous archaeological survey work has not been conducted within the APE (i.e., baseline RCW clusters) or where enrolling property owners are incapable or unwilling to conduct the archaeological survey work necessary to determine the presence of historic properties, enrolling property owners who agree in the SHMA to avoid ground-disturbing activities within baseline clusters will have no responsibility relative to NHPA, because there will be no likely effects on historic properties even if they were present within the APE. Therefore, no archaeological surveys or further consultation between NCWRC and/or the Service would be required until and unless ground disturbing activities were planned in the APE. The voluntary limitation on ground-disturbing activities by the property owner would only apply to baseline clusters (i.e., a very small area in most cases and, aside from the larger, corporate timber owners, very few property owners will likely be affected). The following activities shall not be considered ground-disturbing relative to activities in the APE:

Forest site preparation, such as discing and planting of seedlings, that involves scarification or other soil disturbance if such soil disturbance is limited to the area within 8 inches of the soil surface (i.e., the area of the historic plow zone).

- a. Removal of trees by manual felling, mowing, use of herbicides, manual uprooting with hand tools, and prescribed burning when hand constructed fire breaks or existing features, such as ditches, levees, roads, water, firelines, and

- habitats, contain the fire and there is no excavation or plowing of new fire lines that penetrate deeper than 8 inches below the current soil surface.
- b. Timber harvest when removal of logs does not result in soil disturbance below 8 inches of the current soil surface.
 - c. Maintenance of existing roads, such as grading, cleaning ditches, repairing, brushing, or replacing culverts, guards, and gates, within an RCW cluster if the maintenance occurs within the existing road profile (i.e., in the same location and maintaining the same width).
 - d. Other activities which are non-ground disturbing, such as predator control, installation of artificial cavities or cavity restrictors, or any other activity in which soil disturbance is limited to the area within 8 inches of the soil surface (i.e., the area of the historic plow zone).

The following activities shall be considered ground disturbing:

- a. Soil disturbance, plowing, or excavation that extends more than 8 inches below the current soil surface, such as root raking, windrowing, and bedding.
- b. Skidding or cabling of logs, removal of hardwoods, or creation of firebreaks that creates ruts, ditches, or other soil disturbances which extend below 8 inches of the current soil surface.
- c. Construction of new roads, widening of existing roads, or road maintenance activities that involve the installation of new features outside of the road's existing profile.

4. Enrolling property owners whose activities identified in the SHMA will include unavoidable ground-disturbing activities within the APE (i.e., the baseline RCW clusters) must determine, with the assistance of the North Carolina State Historic Preservation Officer (SHPO), NCWRC, and the Service, whether the APE has been surveyed for historic properties and whether sites eligible, potentially eligible, or are on the NRHP are known to exist within the APE. The initial step in this determination will be a query by either the SHPO, NCWRC, or the Service (these parties will decide on a case-by-case basis who will conduct this query) of the SHPO archaeological sites files to determine whether archaeological surveys of the APE have been conducted and, if so, whether or not any NRHP potentially eligible or eligible sites are located within the APE. If no archaeological surveys have been conducted within the APE, NCWRC and/or the Service shall determine if archaeological surveys are necessary (i.e., in some cases surveys may not be necessary due to the location of the APE on a landform that is unsuitable for historic properties) and, if surveys are necessary, discuss the survey requirements and other options (e.g., avoidance or protection) available with the enrolling property owner. Any necessary archaeological surveys must be conducted prior to implementation of the property owner's ground-disturbing activities.

All historic properties identified during surveys of the APE that are determined to be potentially eligible or eligible for the NRHP will be protected from ground-disturbing activities by the enrolled property owner pending an evaluation of the property owner's activities by NCWRC and/or the Service relative to NHPA. The enrolled property owner will submit to NCWRC

and/or the Service a document or letter that outlines the property owner's planned activities within the APE, including the specific measures and/or silvicultural practices that would be conducted. This document will be used in the evaluation conducted by NCWRC and/or the Service to make a determination of effect concerning the planned activities to the relevant historic property, which will include the identification of proposed measures to avoid or minimize adverse effects to the historic property. The determination of effect would then be sent to the SHPO for comment. NCWRC and/or the Service will consult with the SHPO on their determination of effect, and, if either receives concurrence from the SHPO, NCWRC and/or the Service will provide the enrolled property owner and/or their agent with recommendations to minimize adverse effects to the historic property within the APE.

Appendix 5

Assurances to Enrolled Property owners

The following assurances are provided to the North Carolina Wildlife Resources Commission (NCWRC) and the Cooperator(s). The following shall be incorporated verbatim into each Safe Harbor Management Agreement (SHMA):

“If additional conservation measures are necessary to respond to unforeseen circumstances, the Service may require additional measures of the Permittee (and/or participating Cooperator(s)) only if such measures are limited to modifications within the SHMA’s conservation strategy for the affected species, and only if those measures maintain the original terms of the SHMA (and Certificates issued therein) 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 SHMA (and Certificates issued therein) without the consent of the Permittee (and affected participating property owner(s)).”

The U.S. Fish and Wildlife 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 U.S. Fish and Wildlife 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 property owner to alter or modify the enrolled property, even if such alteration or modification results in the incidental take of the RCW to such an extent that the take returns the RCW to the originally agreed upon baseline conditions. These assurances may apply to the entire enrolled property or to portions of the enrolled property as designated or otherwise specified in the SHMA. These assurances are also contingent on the enrolled property owner’s compliance with the obligations of the SHMA. Further, the assurances apply only to this particular SHMA, only if the SHMA is being properly implemented, and only with respect to species covered by the SHMA.