Nancy Payton Preserve

Land Management Plan

FIRST DRAFT

Managed by:
Collier County
Conservation Collier Program

[June 2008 – June 2018 (10 yr plan)]

Prepared by: Collier County Conservation Collier Staff

2008

Nancy Payton Preserve

Land Management Plan Executive Summary

Lead Agency: Conservation Collier Program, Collier County Facilities Management Department, Collier County Administrative Services Division

Properties included in this Plan: One Parcel– Folio 61730440005

Acreage Breakdown: 65 acres

Management Responsibilities: Collier County Conservation Collier Program Staff

Designated Land Use: Conservation and natural resource-based recreation

Unique Features: Mature Pine Flatwood Community

Archaeological/Historical: N/A

Management Goals:
Goal 1: Eliminate or reduce human impacts to indigenous plant and animal life
Goal 2: Implement a biological monitoring program.
Goal 3: Continue to keep populations of invasive exotic plants in maintenance state
Goal 4: Create and implement a prescribed fire program
Goal 5: Restore canopy and ground cover species in specific areas
Goal 6: Native wildlife species management
Goal 7: Problem wildlife species management
Goal 8: Develop and implement a plan for public use
Goal 9: Facilitate uses of the site for educational purposes
Goal 10: Officially open site up for public access
Goal 11: Provide a plan for disaster preparedness

Acquisition Needs: Any adjacent parcels, to increase access from the west and to increase acreage specifically to the east

Surplus Lands: None

Public Involvement: Working with neighbors and local agencies to assist in ATV trespass control. Public meeting(s) to be held before approval of this plan with residents from the surrounding homes and associations and also before controlled burns.

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1.0 Introduction

The Nancy Payton Preserve is a 65-acre preserve located in Central Collier County in an area called North Belle Meade. It is largely comprised of native, pine flatwood species. Current access to the preserve is from Blue Sage Drive off of Brantley Blvd.

The Preserve was purchased by Collier County in December 2005 through funds from the Conservation Collier Program. The County holds fee simple title. In the past, the preserve was referred to as the "School Board-Section 24 Property". In December 2006, it was officially renamed by the Board of County Commissioners, the "Nancy Payton Preserve." Nancy Payton currently works for the Florida Wildlife Federation and has been active in the preservation of this Collier County Belle Meade Area. The preserve will be open to the public and educational tours for local schools and groups will most likely be conducted at the preserve. A nature trail, benches, picnic tables and educational interpretive signs will be provided for visitors.

The Conservation Collier Program manages this parcel under authority granted by the Conservation Collier Ordinance 2002-63 (available from www.municode.com). Conservation, restoration and passive public use are the designated uses of the property. Management activities allowed are those necessary to preserve and maintain this environmentally and historically endangered land for the benefit of present and future generations. Public use of this site must be consistent with these goals.

Table 1: Acquisition History and Status of Wet Woods Preserve

Year	Benchmark
2004	Property nominated to the Conservation Collier Program
2004	Initial site assessment by Conservation Collier staff
2004	Approval of Initial Criteria Screening Report by the Conservation Collier Land Acquisition Advisory Committee
2005	Approved for purchase by the Board of County Commissioners (BCC) Closed in December 2005
2006	Developed Interim Management Plan- BCC approved
2006	Watkins-Jones property renamed "***Nancy Payton Preserve"***
2007	Conducted initial exotic plant treatment and removal
2008	Completed Final Management Plan

This is the Final Management Plan for the Nancy Payton Preserve. This management plan will be submitted to the Collier County Board of County Commissioners (BCC) for its approval. When approved, this plan will replace the Interim Management Plan. Updates to the plan will be completed every 5 years.

1.1 Conservation Collier: Land Acquisition Program and Management Authority

The Conservation Collier program was originally approved by voters in November 2002 and subsequently confirmed in the November 2006 ballot referendum. Both voter-approved referendums enable the program to acquire environmentally sensitive conservation lands within Collier County, Florida (Ordinance 2002-63). Properties must support at least two of the following qualities to qualify for further consideration: rare habitat, aquifer recharge, flood control, water quality protection, and listed species habitat. The Collier County Board of County Commissioners (BCC) appointed a Land Acquisition Advisory Committee to consider any selected or nominated properties that an owner has indicated a willingness to sell. The committee recommends property purchases for final approval by the BCC.

Lands acquired with Conservation Collier funds are titled to "COLLIER COUNTY, a political subdivision of the State of Florida, by and through its Conservation Collier program." The Board of County Commissioners of Collier County established the Conservation Collier program to implement the program and to manage acquired lands. As such, Conservation Collier holds management authority for the Wet Woods Preserve.

1.2 Purpose and Scope of Plan

The purpose of the plan is to provide management direction for Nancy Payton Preserve by identifying the goals and objectives necessary to eliminate or minimize any threats to the resources and integrity of the preserve. This text is a working document that establishes the foundation of the ten-year plan by identifying the appropriate management techniques necessary to preserve and/or restore the resource.

This plan will balance resource restoration and protection with natural resource-based recreational and educational use while looking at restoration needs, listed species protection and maintenance of the site free of invasive exotic plant and animal species. This plan is divided into sections that incorporate an introduction, descriptions of the natural and cultural resources, projected uses of the property, management issues, and goals and objectives.

1.3 Location

The School Board property is located east of Golden Gate City in the Rural Fringe Mixed Use District Lands north of Brantley Blvd. and east of Blue Sage Drive. The property is also considered to be in the North Bell Meade area. It is adjacent to a canal along the entire northern property line and along Blue Sage Drive. It is located in Township 49, Range 26 and Section 24, in Collier County, Florida. The site location is shown in Figure 1. The legal description is attached as Appendix 1.

Figure 1: Nancy Payton Preserve Location Map

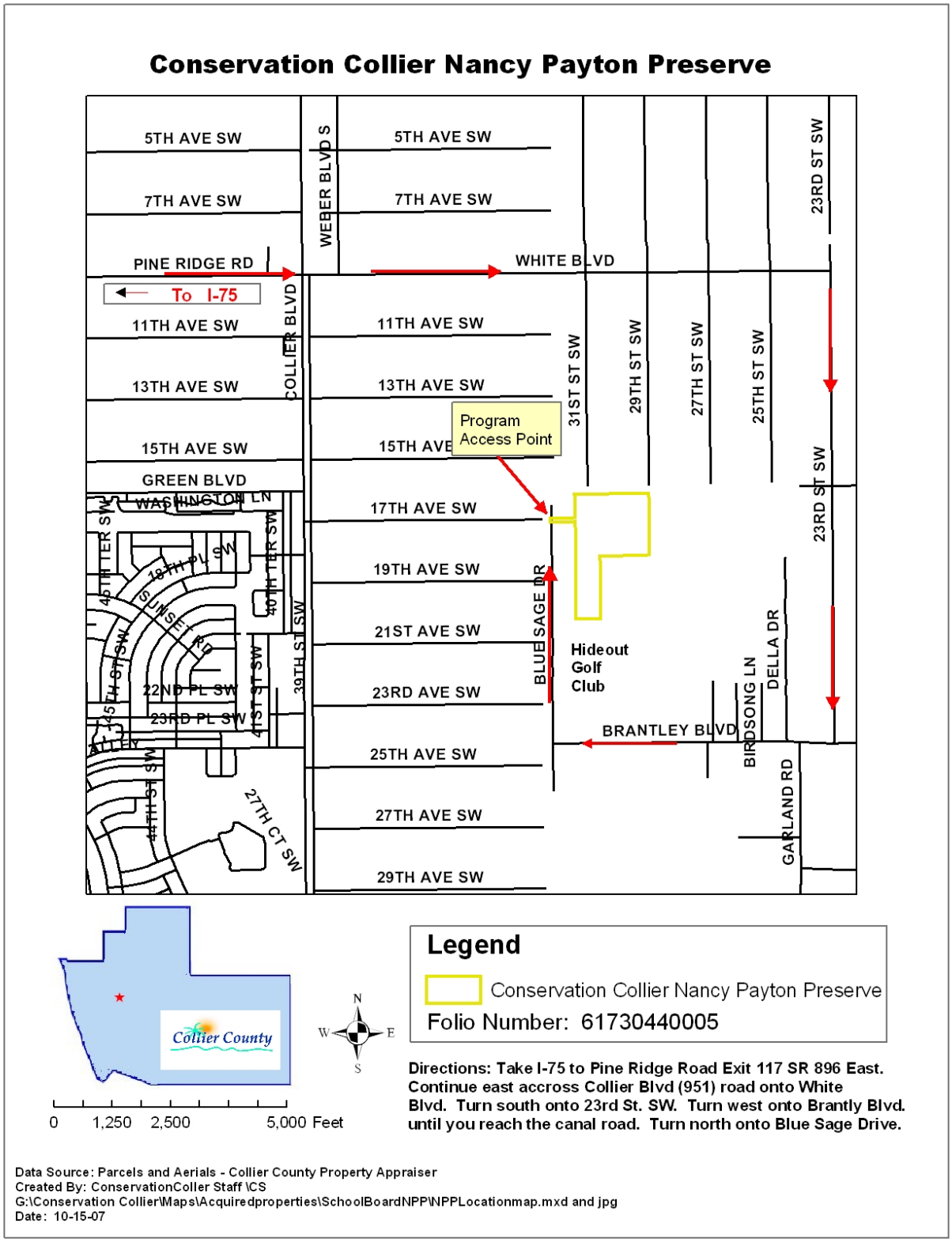
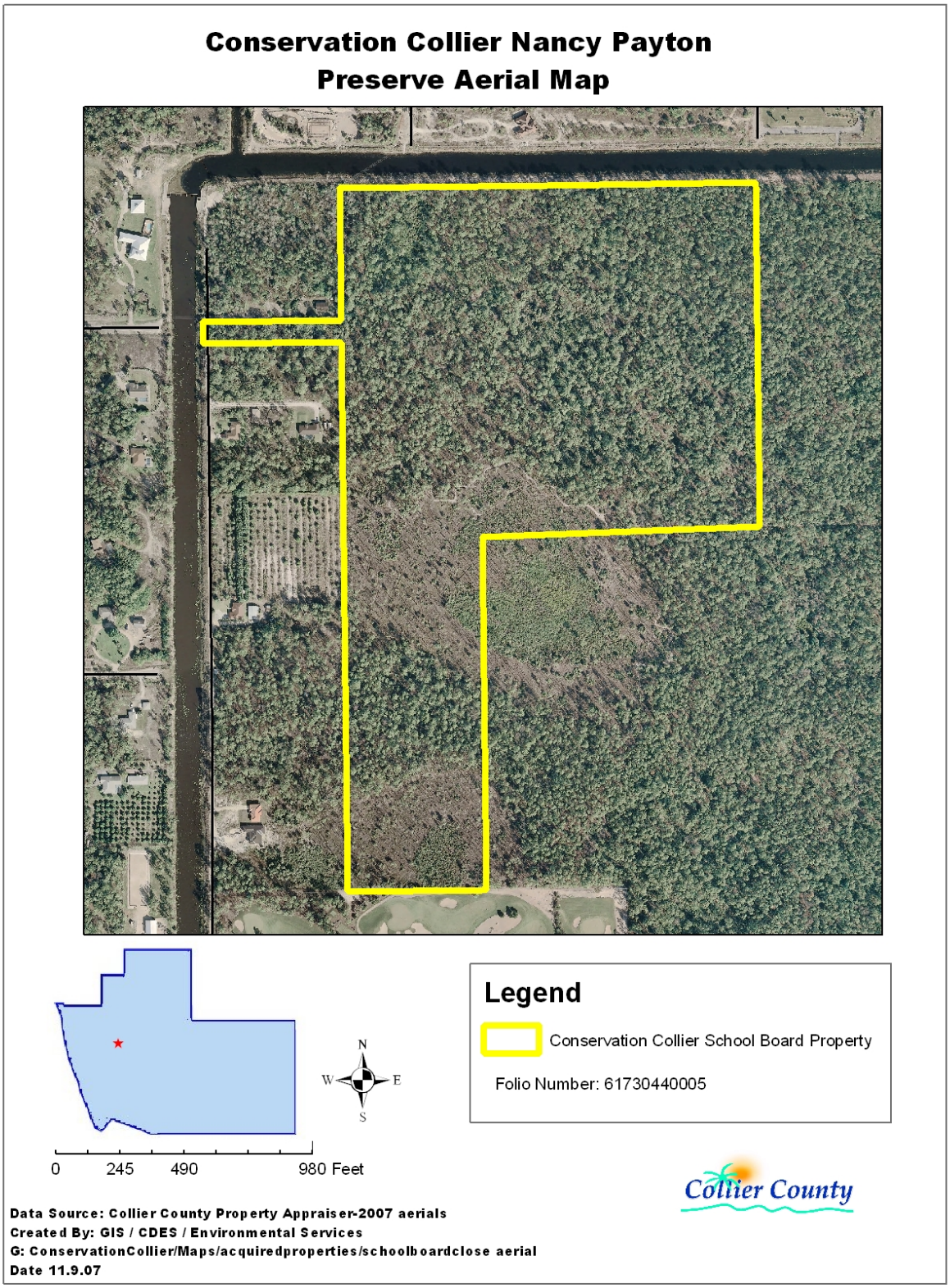


Figure 2: Nancy Payton Preserve 2007 Aerial View



1.4 Regional Significance

Despite having 867,000, or 64%, of County lands protected in conservation status, Collier County has lost, and is losing, many of its rare and unique habitats. The Conservation Collier Ordinance (2002-63) identifies these specific habitats and gives preference to them in acquisition evaluations. These habitats include, in order of preference: tropical hardwood hammocks, xeric oak scrub, coastal strand, native beach, riverine oak, high marsh (saline) and tidal freshwater marsh. The Nancy Payton Preserve is not one of these preferred habitats however, it is significant in serving as an important wildlife refuge. This property provides habitat for the State listed Gopher Tortoise and Florida Panther. It also previously provided habitat for the Endangered Red-Cockaded Woodpecker (RCW) pre-wildfire and currently continues to provide foraging habitat for RCW's. The protection and management of these listed species and their habitat is critical to their long term existence in Collier County and globally.

1.5 Nearby Public Lands and Designated Water Resources

Other preserves, in order of increasing distance are identified in Table 2 below.

Table 2: Public Lands Located Near the Logan Woods Preserve

Preserve Name	Distance (miles)	Direction	Type
Picayune State Forest	3 miles	S	State
Logan Woods Preserve	3 miles	NW	County / Conservation Collier
Milano Preserve	5 miles	NW	County / Conservaton Collier
Rookery Bay NERR	9 miles	SW	National
Florida Panther National Wildlife Refuge	10 miles	SE	National
Collier Seminole State Park	13 miles	SE	State
Ten Thousand Islands National Wildlife Refuge	15 miles	E	National

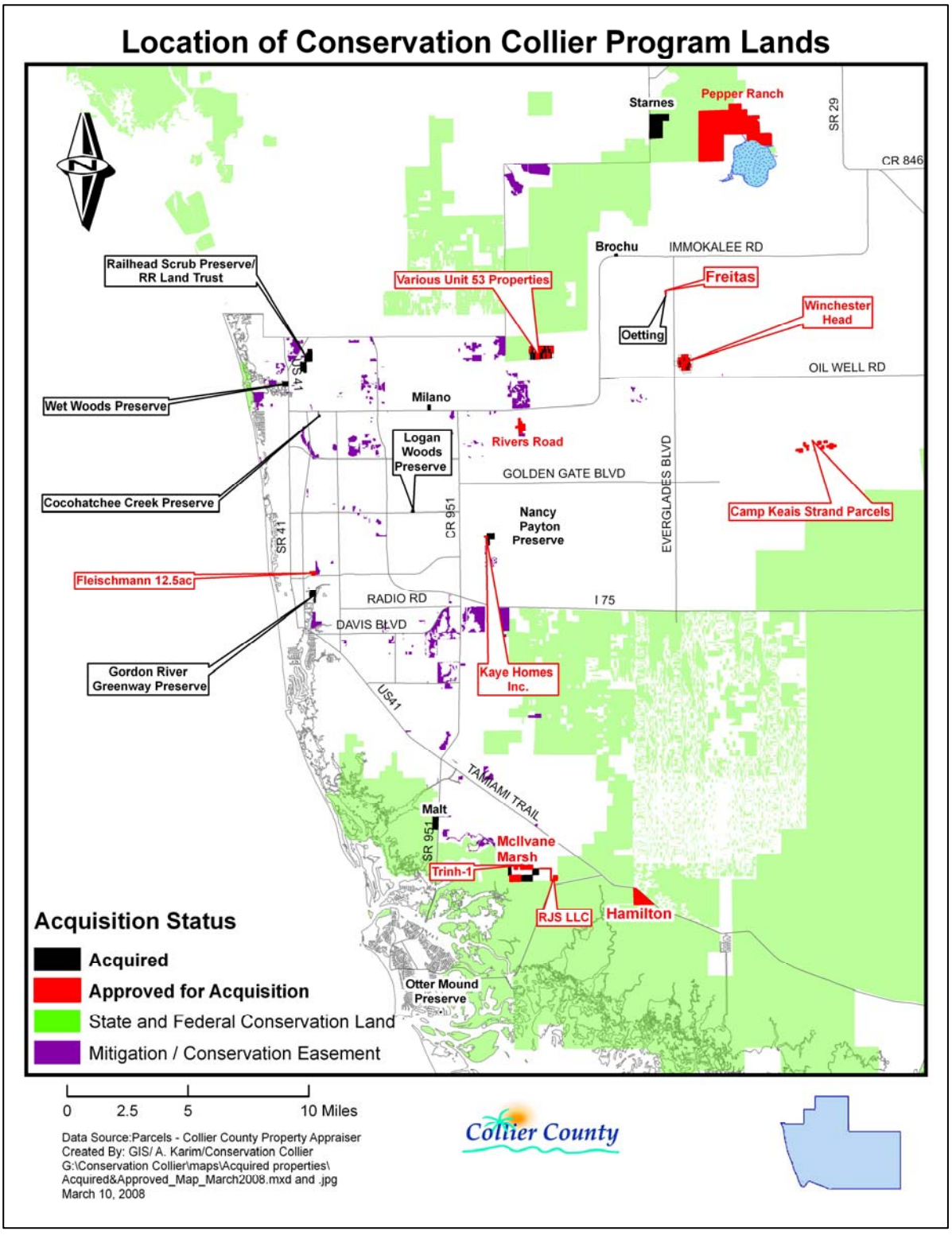


Figure 3. Conservation Collier Preserves and Designated State and Federal Land or Conservation Easements Existing in Collier County

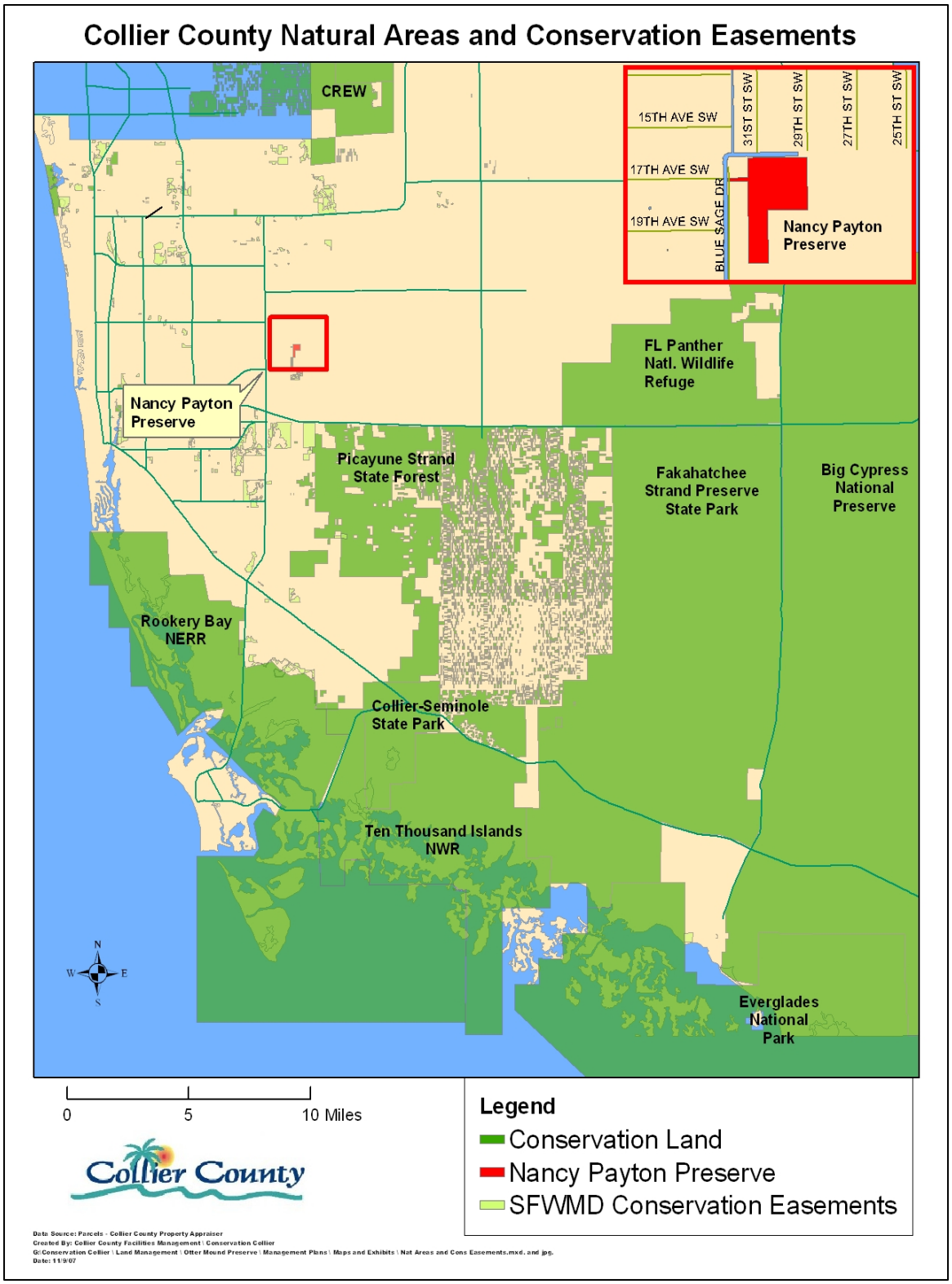


Figure 4: Collier County Conservation Areas and Designated Conservation Easements

1.6 Public Involvement

Neighborhood involvement will be sought through direct mailing notices for public meetings for residents within the surrounding area, owners of properties that border the preserve, and organizations with an interest in the preserve. Any major changes or management activities, such as prescribed fire that are likely to generate an intrusive aspect or in some way affecting neighboring properties will be reviewed with these contacts prior to conducting the activity. Staff will also seek volunteers through these contacts.

2.0 Natural and Cultural Resources

2.1 Physiography

The Nancy Payton Preserve lies within the Southwestern Flatwoods District. This largely low, flat district was developed on rocks and sediments that range mainly form Miocene to Pleistocence in age. Surficial materials are dominantly sand (often with relatively clayey substrate) limestone and organic deposits (Myers and Ewel 1990).

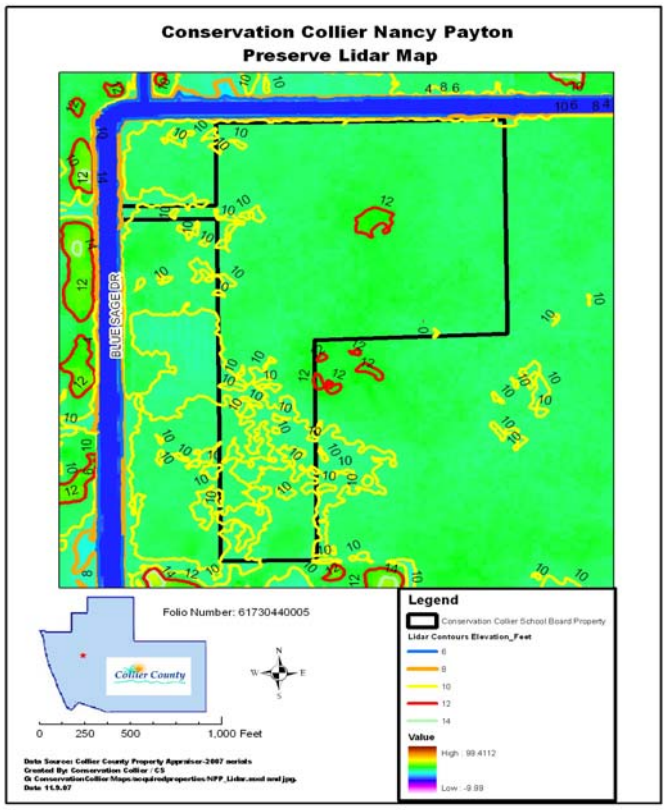


Figure 5. Nancy Payton Preserve Lidar Elevations Map

2.1.1 Topography and Geomorphology

The preserve is located in the Southwestern Slope region of the South Florida Water Management District. Topography has been established using a Light Detecting and Ranging (LIDAR) map (Figure 3). The average elevation of the surrounding lands is 10-12 feet NAVD (1988).

2.1.4 Hydrology/Water Management

Flat topography, sandy soils and seasonal precipitation strongly influence hydrological processes in flatwoods. During the rainy season, flatwood soils become saturated and poorly aerated and there may be standing water for varying periods of time. During the dry season however, high evapotranspiration draws much water from the upper horizons thus soil moisture becomes rapidly depleted and persistant droughty conditions result (Myers and Ewel 1990). A canal was dug to the north and west of the preserve in the 1950's. This has no doubt altered the natural hydrology of the site causing it to be much drier as some water runs off into the canals instead of remaining on the land. Also, since the majority of the site hasn't burned in many years the soil moisture is likely to be higher as the litter and vine ground cover layer is thick and holds in moisture that would normally evaporate. No water management structures exist on the preserve and no water management improvements are planned for the future. The property contributes

minimally to the Lower Tamiami aquifer at 7-14" annually and the surficial aquifer significantly at 56-67" annually.

2.1.2 Geology

The geology of northern Collier County, where the Nancy Payton Preserve is located, is characterized by complex sequences of interbeded sands, clays, and limestone. Closest to the surface is the Holocene aged Pamlico Sand Formation, approximately ten feet thick and composed primarily of unconsolidated quartz sand and some silt. The Pamlico Sand unconformably overlies the Pleistocene aged Fort Thompson and Caloosahatchee Formations, which vary from a few feet to more than twenty feet in thickness and are characterized by shelly and sandy limestone with vugs and solution cavities (Miller 1986).

Below the Fort Thompson and Caloosahatchee Formations are the Ochopee and Buckingham Members of the Pliocene aged Tamiami Formation, which are at least 200 feet thick in the surrounding areas (Oaks & Dunbar 1974). The Ochopee Limestone unconformably overlies the Buckingham Limestone and/or the equivalent Cape Coral Clay. This unconformity marks the bottom of the surficial aquifer separating it from the brackish underlying aquifer below. Then the Hawthorn Formation, rich in phosphate and other heavy minerals (Scott 1988), overlies the Oligocene age Suwannee Limestone and Eocene age Ocala Limestone that form the Floridan Aquifer System in Southwestern Florida. Figure 4 provides a current aerial view of the Nancy Payton Preserve.

2.1.3 Soils

Soils data is based on the Soil Survey of Collier County, Florida (USDA/NRCS, 1990, rev. 1998). Mapped soils on this parcel include, in order from larger to smaller area covered, Malabar Fine Sand, Immokalee Fine Sand, and Holopaw Fine Sand, Limestone Subtratum. Malabar soils consist of nearly level, poorly drained soils in sloughs and poorly defined drainage ways and on ridges bordering sloughs. These soils formed in sandy over loamy marine sediments. Immokalee Fine Sand are nearly level and are poorly drained found in flatwoods. These soils formed in sandy marine sediments. Holopaw Fine Sand consists of level and nearly level poorly drained and very poorly drained soils in sloughs poorly defined drainage ways and marshes.

2.2 Climate

The Nancy Payton Preserve is located in an area of Florida that is overlapped by a humid subtropical climate and a tropical savanna climate in which temperatures are moderated by winds from the Gulf of Mexico and the Atlantic Ocean. A tropical savanna climate is characterized by sharply delineated wet and dry seasons and average monthly temperatures greater than 64º Fahrenheit. Monthly rainfalls may exceed ten inches during the wet season. Humid subtropical climates are characterized by less extreme rainfall fluctuations between wet and dry seasons and average monthly temperatures less than 64º Fahrenheit in some months.

The average annual temperature for this portion of Collier County is approximately 75º Fahrenheit. The warmest months are usually July and August. The humidity is high during these months but frequent afternoon thunderstorms prevent excessively high temperatures.

Two-thirds of the annual rainfall occurs in the wet season from May to October. Thunderstorms are frequent during the wet season occurring every two out of three days between June and September. Rainfall records for the area indicate that there is not significant variation in the annual rainfall throughout much of the county; however, large variations often occur during a single year. The hurricane season extends from June through November with peak activity occurring in September and October when ocean temperatures are highest.

2.3 Natural Plant Communities

A plant community refers to the suite of plant species that form the natural vegetation of any place. In addition to anthropogenic influence, the combination of factors such as geology, topography, hydrology, underlying soils and climate determine the types of plants found in an area. These plants, in turn determine the animal species that may be found in an area.

The Florida Land Use, Land Cover Classification System (FLUCCS) GIS layer provided by the South Florida Water Management District classifies the entire site as Upland Coniferous Forest, Pine Flatwoods-Melaleuca Infested. Site evaluations confirm this, however, no melaleuca exists on the site and no evidence is present to show that it ever has.

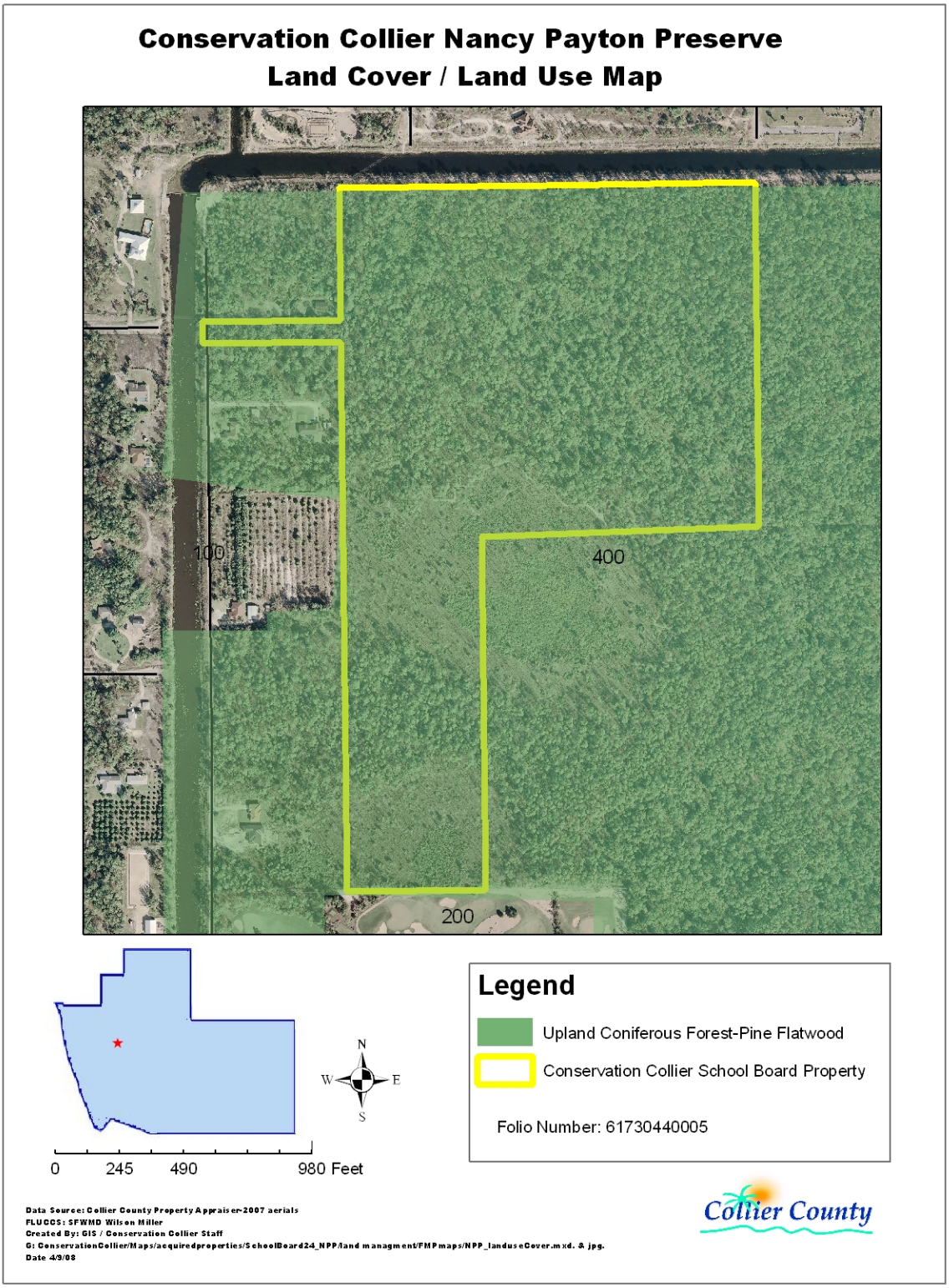


Figure 6: Nancy Payton Preserve Land Cover / Land Use Map

The vegetation classification scheme of the Florida Natural Areas Inventory (FNAI) and the Florida Department of Natural Resources (FDNR)(1990) are presented in table 3. This table is based on the plant communities observed and mapped on the Nancy Payton Preserve.

Table 3: Summary of Natural Communities in the Nancy Payton Preserve

FNAI Natural Community Type	# Acres	% of Area	Global Rank	State Rank	Comments
Mesic Flatwoods	65	100%	G4	S4	9 active gopher tortoise burrows located, 1 adult gopher tortoise observed and one juvenile

G4: Apparently secure globally (may be rare in parts of range);
S4: Apparently secure in Florida (may be rare in parts of range).

2.4 Native Plant and Animal Species

The 65-acre preserve is a natural South Florida Pine Flatwood Community. One-hundred and thirteen (113) plant species were recorded at Nancy Payton Preserve in April 2008 (Appendix 2). Data was collected by Keith Bradley of the Institute of Regional Conservation. Of these 113 plants, (91) species or 81%, are native to the site, and 22 species or 19% are exotic. In general the canopy is dominated by South Florida slash pine trees (*Pinus elliottii var. densa*) and scattered cypress (*Taxodium ascendens*), the midstory with cabbage palms (*Sabal palmetto*) and saw palmetto (*Serenoa repens*) and ground cover is mainly mucadine grapevine (Vitus rotundifolia) and grasses.

Occurrences of fauna at the preserve are based on direct visual and auditory observations of animals by Collier County staff and outside researchers during site visits or evidence of activity such as spoor, scat, or burrows, and from the site information available in documents such as:

- the site's initial criteria screening report,
- the property interim management plan,
- anecdotal information from persons with knowledge of the site.

Mammal species known to occur or individuals and/or evidence of activity directly observed within the preserve include the Florida panther (*Puma concolor coryi),* Virginia opossum (*Didelphis virginiana*), nine-banded armadillo (*Dasypus novemcinctus*), spotted skunk (*Spilogale putorius*), raccoon (*Procyon lotor*), eastern gray squirrel (*Sciurus carolinensis*), bobcat (*felis rufus*), white-tailed deer (*Odocoileus virginianus*), and cotton mouse (*Peromyscus gossypinus*). A Florida black bear was located on adjacent properties within 1 mile of the parcel.

Bird observations by staff from the Collier County Environmental Services Department are included in Table 4. It appears to be a popular spot for woodpeckers as often 6 different species can be observed in one day. The Endangered Red-cockaded Woodpecker (RCW) has nested on the property in the past however, a wildfire in 2004 burned out the cavity tree (s). Since then sightings of the bird continue on the property. No new cavities have been found on the property however, three were documented within 750 feet to the east on private adjacent lots. This would then designate the preserve a USFWS RCW foraging area.

Table 4: List of Avian Species Recorded on the Site			
Common Name	**Scientific Name**	**Common Name**	**Scientific Name**
Red-tailed Hawk	*Buteo jamaicensis*	Eastern Bluebird	*Sialia sialis*
Red-shouldered Hawk	*Buteo lineatus*	Brown Thrasher	*Toxoxtoma rufum*
Swallow-tailed Kite	*Elanoides forficatus*	Gray Catbird	*Dumetella carolinensis*
American Kestrel	*Falco sparverius*	Northern Mockingbird	*Mimus polyglottos*
Great Horned Owl	*Bubo virginianus*	Blue Jay	*Cyanocitta cristata*
Eastern Screech Owl	*Otus asio*	American Robin	*Turdus migratorius*
Barred Owl	*Strix varia*	Cedar Waxwing	*Bombycilla cedrorum*
Northern Bobwhite Quail	*Colinus virginianus*	Brown-headed Nuthatch	*Sitts pusilla*
Mourning Dove	*Zenaidura macroura*	Carolina Wren	*Thryothorus ludovicianus*
Common Ground-dove	*Columbina passerina*	Blue-gray Gnatcatcher	*Polioptila caerulea*
Red-headed Woodpecker	*Melanerpes erythrocephalus*	White-eyed Vireo	*Vireo griseus*
Red-bellied Woodpecker	*Melanerpes carolinus*	Pine Warbler	*Dendroica pinus*
Downy Woodpecker	*Picoides pubescens*	European Starling	*Sturnus vulgaris*
Hairy Woodpecker	*Picoides villosus*	Common Grackle	*Quiscalus quiscula*
Red-cockaded Woodpecker	*Picoides borealis*	Northern Cardinal	*Cardinalis cardinalis*
Northern Flicker	*Colaptes auratus*	Eastern (formerly Rufous-sided) Towhee	*Pipilo erythrophthalmus*
Great Crested Flycatcher	*Myiarchus crinitus*		

The Florida Breeding Bird Atlas lists 49 bird species that have been recorded as confirmed, probable, or possible breeding in the vicinity of the site (in the Belle Meade NW USGS quadrangle) that may be present at Nancy Payton Preserve (Table 5). The Breeding Bird Atlas documents breeding distributions of all bird species in Florida between 1986 and 1991. Some of these species may breed at the Nancy Payton Preserve.

Table 5: Breeding Bird Species Recorded in the Belle Meade NW Quadrangle Encompassing the Nancy Payton Preserve (* = non-indigenous)

Common Name	Scientific Name	Common Name	Scientific Name
Green Heron	*Butorides striatus*	Northern Flicker	*Colaptes auratus*
Wood Duck	*Aix sponsa*	Pileated Woodpecker	*Dryocopus pileatus*
Mottled Duck	*Anas fulvigula*	Great Crested Flycatcher	*Myiarchus crinitus*
Swallow-tailed Kite	*Elanoides forficatus*	Loggerhead Shrike	*Lanius ludovicianus*
Bald Eagle	*Haliaeetus leucocephalus*	White-eyed Vireo	*Vireo griseus*
Red-shouldered Hawk	*Buteo lineatus*	Blue Jay	*Cyanocitta cristata*
Red-tailed Hawk	*Buteo jamaicensis*	American Crow	*Corvus brachyrhynchos*
Northern Bobwhite	*Colinus virginianus*	Fish Crow	*Corvus ossifragus*
Common Moorhen	*Gallinula chloropus*	Purple Martin	*Progne subis*
Killdeer	*Charadrius vociferus*	Tufted Titmouse	*Parus bicolor*
Least Tern	*Sterna antillarum*	Brown-headed Nuthatch	*Sitta pusilla*
Mourning Dove	*Zenaida macroura*	Carolina Wren	*Thryothorus ludovicianus*
Common ground dove	*Columbina passerina*	Eastern Bluebird	*Sialia sialis*
Eastern Screech-Owl	*Otus asio*	Northern Mockingbird	*Mimus polyglottos*
Great Horned Owl	*Bubo virginianus*	Brown Thrasher	*Toxostoma rufum*
Burrowing Owl	*Athene cunicularia*	*European Starling	*Sturnus vulgaris*
Barred Owl	*Strix varia*	Pine Warbler	*Dendroica pinus*
Common Nighthawk	*Chordeiles minor*	Eastern Towhee	*Pipilo erythrophthalmus*
Chuck-will's-widow	*Caprimulgus carolinensis*	Northern Cardinal	*Cardinalis cardinalis*
Chimney Swift	*Chaetura pelagica*	Red-winged Blackbird	*Agelaius phoeniceus*
Ruby-throated Hummingbird	*Archilochus colubris*	Eastern Meadowlark	*Sturnella magna*
Red-headed Woodpecker	*Melanerpes erythrocephalus*	Common Grackle	*Quiscalus quiscula*
Red-bellied Woodpecker	*Melanerpes carolinus*	Boat-tailed Grackle	*Quiscalus major*
Downy Woodpecker	*Picoides pubescens*	*House Sparrow	*Passer domesticus*
Red-cockaded Woodpecker	*Picoides borealis*		

Source: Florida Breeding Bird Atlas, www.wildflorida.org/bba

Reptile and amphibian species observed on the preserve include: the brown anole (*Anolis sagrei*), green anole (*Anolis carolinensis*), southern black racer (*Coluber constrictor priapus*), and gopher tortoise (*Gopherus polyphemus*). Other potential species could include the threatened eastern indigo snake (*Drymarchon corais couperi*), and the gopher frog (*Rana capito*) due to the presence of gopher tortoise burrows.

Invertebrates observed at the preserve include: zebra waxwing butterfly (*Heliconius charitonius),* queen butterfly (Danau gilippus), gulf fritillary (*Agraulis vanillae*), white peacock butterfly (Anartia jatrophae), giant swallow-tail butterfly (*Papilio cresphontes*), red ants (solenopsis invicta), and garden/ banana spiders (Argiope aurantia).

Other wildlife species that have not been recorded undoubtedly occur at Nancy Payton Preserve.

2.5 Listed Species

Official listings of rare and endangered species are produced at the federal level by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, and at the state level by the Florida Fish and Wildlife Conservation Commission and the Florida Department of Agriculture and Consumer Services. FNAI produces a list of rare and endangered species, and maintains a database of occurrences of these species in Florida. The Institute for Regional Conservation (IRC) also ranks native plant species by conservation status in the 10-county area of South Florida.

2.5.1 Listed Plant Species

There are an estimated (4) plant species at Nancy Payton Preserve that are listed by the Florida Department of Agriculture and Consumer Services (FDACS), (1) as Endangered, (2) as Threatened, and (1) as Commercially Exploited. There are no plant species listed as Endangered or Threatened by the U.S. Fish and Wildlife Service or FNAI. A brief description of these species and their status is included in Table # and in the following paragraphs.

Table 6: Listed Plant Species Detected at the Nancy Payton Preserve

Scientific Name	Common Names	FDA	FWS
Stiff-leaved wild pine	*Tillandsia fasciculata*	E	Not listed
Reflexed wild pine	*Tillandsia balbisiana*	T	Not listed
Butterfly orchid	*Encyclia tampensis*	C	Not listed
Threadroot orchid	*Harrisella porrecta*	T	Not listed

E: Endangered, T: Threatened, C: Commercially Exploited

Additional rare plant species may be found at Nancy Payton Preserve following further field surveys. Confirmation of rare plant identifications should be made by a qualified botanist.

Stiff-leaved wild pine (Tillandsia fasciculata)

Although this air plant is abundant throughout South Florida it is listed by the State as endangered as they are threatened by the Mexican Bromeliad weevil. Leaves may grow to as much as forty inches, they forms large plants in tree tops are often mistaken for bird or squirrel nests; grows equally well in canopy or near ground. Several are present with in Nancy Payton Preserve. It is also referred to as a cardinal airplant.

Photo taken on site by: Christal Segura

Reflexed wild pine (*Tillandsia balbisiana*)

This air-plant is abundant and considered threatened by the State of Florida due to the Mexican Bromiliad Weevil. It is equally well-adjusted to deep shade where leaves grow long or to bright sunlight where they are contorted and highly colored from gray-green to blue-bronze or red.

Butterfly orchid (*Encyclia tampensis*)

This orchid is locally abundant in central and southern counties of Florida and are commercially exploitable. They grow on a wide variety of trees including live oak red maple, bald cypress, pop ash and pond apple. They normally flower in June or July but may also flower at other times of the year (Paul Martin Brown 2002).

Photo by: Rodger Hammer

Thread root orchid (*Harrisella porrecta*)

This orchid is widespread in the central and southern counties of Florida and is considered a threatened species. Their flowering period is between August and November. Other common names are the jingle bell orchid or the leafless orchid (Paul Martin Brown 2002).

2.5.2 Listed Wildlife Species

The Florida Natural Areas Inventory (FNAI) maintains a database of occurrences of rare, threatened, and endangered species in Florida. Within Nancy Payton Preserve, FNAI has documented the occurrence of the Gopher Tortoise and the Florida Panther (Appendix 3, FNAI Managed Area Tracking Record and Element Occurrence Summary). In addition, the FNAI database report indicated (4) other listed species that have the potential to occur at the preserve based on the known or predicted range of the species These likely include the eastern indigo snake, the wood stork, the red cockaded woodpecker, and the mangrove fox squirrel. The pine flatwood community at the site provides habitat for all these species besides the wood stork. The preserve may also provide habitat for Florida black bear (*Ursus americanus floridanus*) which is listed as threatened by the State. A brief description of the documented species and their status is included in the following paragraphs.

Table 7: Rare Wildlife Species Found at Nancy Payton Preserve

Common Name	Scientific Name	Federal	State	FNAI
Red-cockaded woodpecker	*Picoides borealis*	**E**	**SSC**	
Gopher tortoise	*Gopherus polyphemus*		**T**	**G3, S3**
Florida Panther	*Puma concolor coryi*	**E**	**E**	**G5T1,S1**

Gopher tortoises (*Gopherus polyphemus*)

This tortoise species is listed by the State of Florida as "Threatened" and a map has been prepared by staff showing locations of existing Gopher tortoise burrows; however, it is not appended to this plan to protect the animals from disturbance. One large Gopher tortoise and one juvenile have been observed on site and several burrows found appear to be active. The majority of the burrows are found in the area that burned in the 2004 wildfire. A complete survey of the population will be conducted on the site before any site alteration is done.

Red-cockaded woodpecker (*Picoides borealis*)

This federally protected woodpecker has been listed as endangered since 1970. Florida downgraded the species from threatened to species of special concern in 2003. Florida hosts approximately 25% of the nation's RCW populations. They require at least 75 acres for nesting and feeding and prefer open Pine Forests maintained by periodic fire. A family may claim as many as 30 trees as their home. They only nest in mature live pine trees. There was an active cavity on the Nancy Payton Preserve until it was burned out in a wildfire in 2004. Cavities do currently exist on adjacent properties to the southeast and RCW's have been documented on the Nancy Payton preserve frequently as they are currently using the site for foraging.

Florida Panther (*Puma concolor coryi)*

Photo taken by an automatic motion detector camera owned by neighbor on Blue Sage Dr. adjacent to the Preserve in December 2007

This large cat is a year-round resident of undeveloped lands in South Florida. It is listed as endangered by the Federal and State government. Panthers prefer hardwood hammocks and pine forests with numerous saw palmettos for resting, raising kittens, and stalking prey. In 2006, a Panther was reported along Blue Sage Drive on a property holding small goats in a fenced in area. This panther was reported to have succeeded in killing one or more of these small goats. Later reports from the Florida Fish and Wildlife Conservation Commission Indicated that this panther was most likely killed by an automobile while crossing over nearby I-75 to the south. Neighbors along Blue Sage Drive documented another Florida Panther sighting in December 2007. It first walked up to a pool cage, came into contact with a large dog then retreated back into the preserve. It then made several attempts to feed on goats on the same neighboring property, however, they were locked in a secure enclosure so it did not succeed. Several photos of the cat were taken at night with a motion detector camera. In March 2007, local news reports stated a young male panther was killed on a nearby roadway, it was most likely the same cat. Florida Fish and Wildife Conservation Commission (FFWCC) were contacted when each sighting occurred and they provided "Living with Panther" brochures to County staff which were in turn mailed to the Preserve neighbors. Panthers are losing their habitat in South Florida and males need a large range. Increased development and traffic are another reason why this species is listed as endangered.

2.6 Invasive Non-native and Problem Species

Several invasive, non-indigenous plant and animal species are known to occur within Florida. A list of invasive plant species is available from the Florida Exotic Pest Plant Council (EPPC). Although Florida does not have an official invasive non-indigenous animal species list, at least 400 exotic fish and wildlife animal species have been reported in Florida, and approximately 125 species are established.

2.6.1 Exotic Wildlife Species

The wild hog, (Sus scrofa) is an exotic animal that has not been documented on the preserve but could potentially become a nuisance. They can also be referred to as wild boar or feral pig, and may have been introduced as early as 1539 (FFWCC). "Feral hogs are a big problem on all conservation lands," according to Kevin Love, a land manager with the Southwest Florida Water Management District, who calls them one of the most severe exotic problems facing Florida."

Their favorite food is acorns but they roam in large groups and will eat native frogs, snakes and ground nesting birds while rooting up the ground with their snouts – destroying acre upon acre. Virtually overnight, they can change the entire plant composition of the land by scooping up indigenous species and clearing a path for monocultures of invasive plants.

They may weigh over 150 pounds, and be 5-6 feet long and reproduce at a rapid rate. They travel in herds containing several females and their offspring. Wild hogs occur throughout Florida in various habitats, but prefer moist forests and swamps, and pine flatwoods. They are omnivorous and feed by rooting with their broad snouts. They may cause great damage of the understory and leave an area looking like a plowed field.
(http://baysoundings.com/fall06/hogsgonewild.asp)

Armadillos are also a nuisance species but on a much smaller scale. They impact on native species is controversial, but is potentially more significant for reptiles and amphibians on whose young armadillos may feed.

Other invasive wildlife species include the brown anole (*Anolis sagrei)*, red imported fire ants (*Solenopsis invicta*) and Cuban tree frogs (*Osteopilus septentrionalis*).

2.6.2 Invasive and Problem Plant Species

Few invasive exotic plants are present on the Nancy Payton Preserve. The initial removal and treatment was performed in February 2007 when only 10% of the site contained invasive exotics. All exotic plants documented on the preserve are listed in Table 8. Seven species of exotic plants found on the site are considered Category I: Invasive by the Florida Exotic Pest Plant Council (FLEPPC), two are considered Category II and one non-native grass (Pennisetum polystachion) is not listed yet by FLEPPC however, is spreading rapidly into the preserve from the disturbed land to the west. FLEPPC defines Category I plants as those that alter native plant communities by displacing native species, change community structures or ecological functions, or hybridize with natives. Category II plants have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species. These definitions do not rely on the economic severity or geographic range of the problem, but on the documented ecological damage caused (FLEPPC 2007).

Table 8: Invasive Plant Species at Nancy Payton Preserve		
Scientific Name	**Common Name(s)**	**FLEPPC Category**
Acacia auriculiformis	Earleaf aacia	I
Schinus terebinthifolius	Brazilian pepper	I
Syzygium cumini	Java Plum, Jambolan	I
Cupaniopsis anacardioides	Carrotwood	I
Abrus precatorius	Rosary-pea, Crab-eyes	I
Lantana camara	Shrub verbena	I
Rhynchelytrum repens	Rose natal grass	I
Pteris vittata	China brake fern	II
Urena lobata	Caesar's Weed	II
Pennisetum polystachion	West Indian pennisetum, mission grass	

Under certain conditions, especially following hydrologic disturbance, some native plant species can become invasive. Muscadine grapevine *(Vitis rotundifolia Michx.)* is currently very dense and is growing up into the pine canopy due to lack of fire. Cabbage palms can also become invasive when hydrology is altered and without fire. Management of this species is planned to enhance the gopher tortoise and red-cockaded woodpecker habitat.

2.7 Forest Resources

No commercial forests exist, and timber extraction is not appropriate for this site. If portions of the preserve need thinning, fire should assist in this process to thin out young pines. The total stand basal area should not exceed 80 ft squared per acre.

2.8 Archaeological, Historical and Cultural Resources

The School Board property is not within an area of historical and archaeological probability, and no historical or archaeological sites appear to be present on the property. The County will notify the Division of Historical Resources immediately if evidence is found to suggest any archaeological or historic resources are discovered. If such resources are identified on-site, staff shall cordon off the area, and a professional survey and assessment shall be instituted. The archaeologist shall prepare a report outlining results of the assessments and issue recommendations to County staff about management of any sites discovered, per provisions of the Land Development Code Section 2.2.25. This report shall be sent to the Division of Historical Resources. The County shall cooperate fully with direction from the Division of Historical Resources on the protection and management of archaeological and historical resources. The management of these resources will comply with the provisions of Chapter 267, Florida Statutes, specifically Sections 267.061 2 (a) and (b).

3.0 Use of the Property

3.1 Previous and Current Use

Aerial photography taken in 1962 (see Figure 7) and recent physical visits to the site show that there has been no previous development on this property. These photographs are available in the public records and available at the Collier County Property Appraisers office. A canal system was created in the 1950's that hydrologically altered the site.

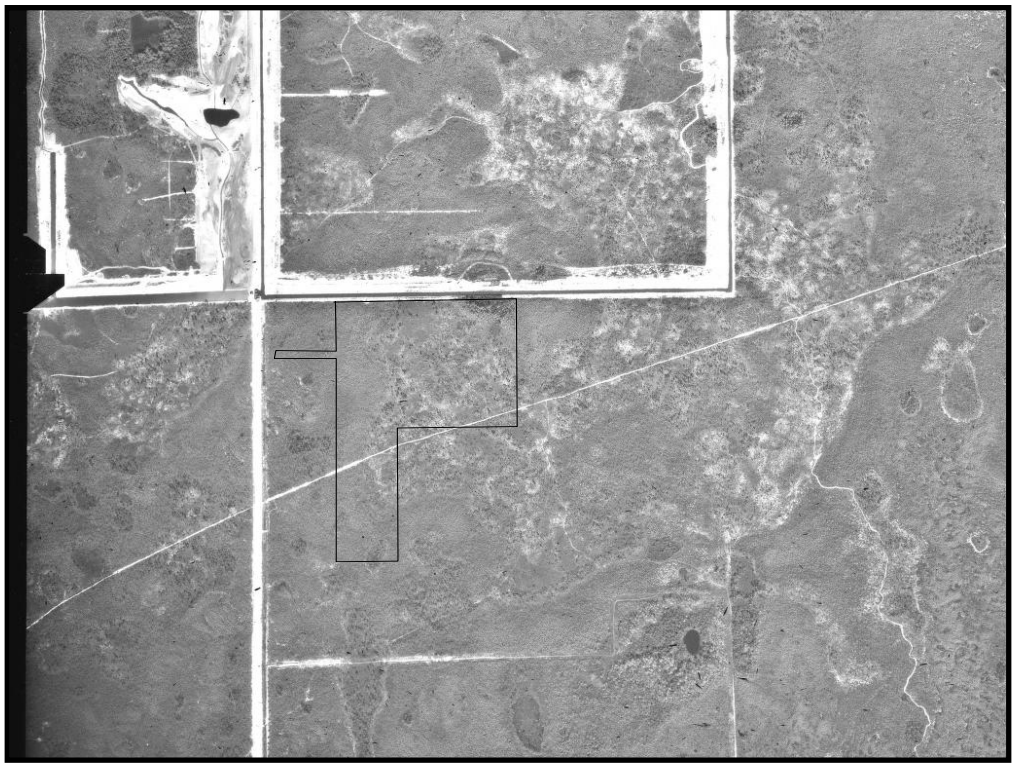


Figure 7: Area Historical Maps- 1962 Aerial- The land is fully vegetated. A dirt road cuts through the center of the property and a canal system had been built to the north and to the west (shape of Nancy Payton Preserve is only an estimate of location and size).

3.2 Planned Uses and Assessment of their Impacts

Currently, the site is not officially open to the public for recreational use. Occasional researchers and bird surveyors visit the property and they sign access waivers beforehand. The only way to currently access the site is off of Blue Sage Drive which is a private unpaved road. Future planned uses include passive recreational opportunities for the public. Details of planned uses for the Nancy Payton Preserve and assessment of their potential impacts are provided in the following sections.

3.2.1 Identification of Public Uses Consistent with Preservation, Enhancement, Restoration, Conservation and Maintenance of the Resources.

As defined in Ordinance 2002-63 Section 5.9 the following are uses consistent with the sites classification.

- **Hiking:** Consistent with the nature of the site and its purpose
- **Nature Photography:** There is potential for nature photography of wildlife and plant life
- **Bird Watching:** There is huge potential for bird watching on this site specifically for several different species of woodpecker.
- **Environmental education:** Several interpretive signs will be created installed throughout the site as well and plant identification signage. A brochure outlining the native ecosystem and wildlife present at the preserve will also be created.

3.2.2 Planned Public Uses and Assessment of their Impacts

Trail Network – Long trails will be established throughout most of the property to allow for hiking and nature observation within the preserve (See Figure 11 for conceptual plan). Local birding groups will frequent the preserve and County staff will provide quarterly public tours of the site to the public. Local Schools may also use the site for nature based field trips. Some trails already exist due to fire lines that were cut as a result of a wildfire that impacted the site in late 2004 as well as trails that have been worn due to trespass and ORV use. Future trails can follow new fire breaks that are installed and maintained. Trails will need to be maintained and monitored to ensure that the public stay on the established trails and no additional new trails are being made. Clearing the current trails of fallen trees and debris and creating new trails may also enable and increase the illegal use of ATVS and dirt bikes on the property. See Security Management section 4.5.13 for more detail.

Easements, Concessions and Leases – There is one undeveloped 60 foot easement that runs north and south through the center of the westernmost peninsular portion of the property. Currently, there is no reason why this would need to be cleared for access or in the foreseeable the future. There is also a 20 foot easement in the lower half of the same peninsular portion which runs east and west in the properties owned by Kay Homes Inc. in which the County is tentatively scheduled to close on in June 2008. This easement is already cleared as a driveway. Legal access is highlighted in yellow in Figure 8. In accordance with the management goals of the preserve, no additional future easements,

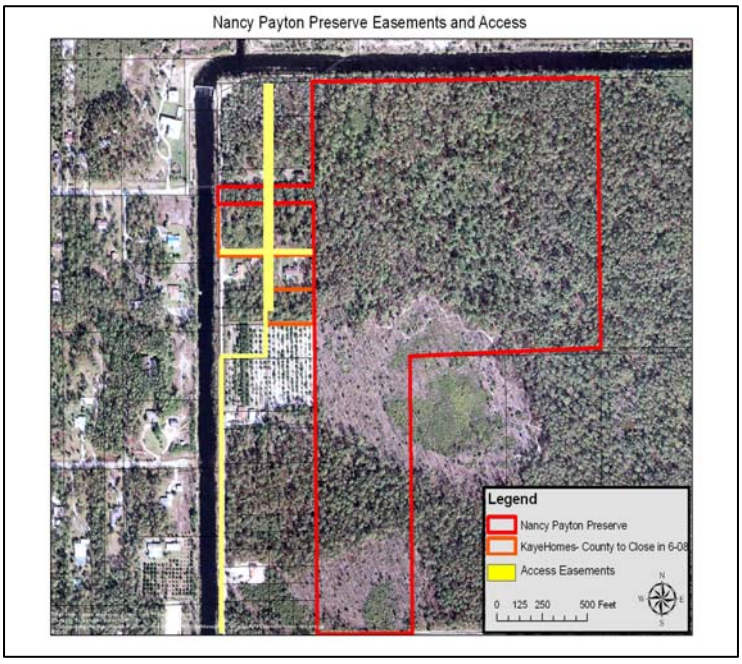


Figure 8. Nancy Payton Preserve Easements and Access

concessions, or leases are appropriate in association with this site, other than conservation related easements. Due to the minor easements present there exists the potential of the requirement to grant neighboring properties access in the future; however, Blue Sage Drive runs the entire length of the property north and south and that is currently what each existing resident uses to access the area. (Add Kaye Homes if acquired)

Parking / Handicap Facilities- A parking area will be installed in the future. The parking spaces will be ADA compliant and will connect to an ADA compliant trail.

Landscaping – There may be minimal native landscaping installed around the future parking area. Natural area restoration of the preserve should include only site specific native plant material that has been determined to be non-problematic at the site and whenever possible, site specific seed sources should be utilized. In addition, hardwoods that may invade the natural areas should not be planted.

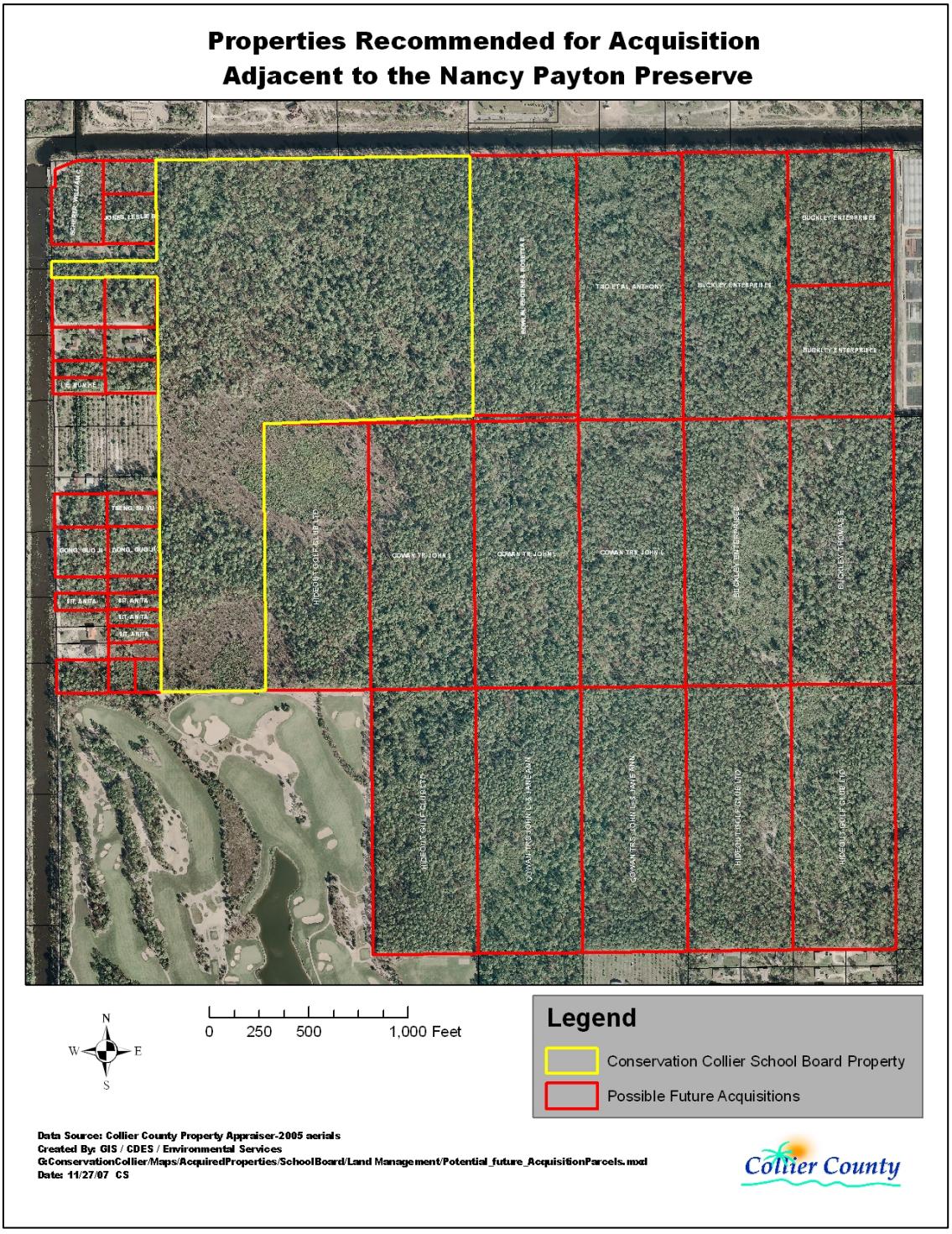
3.4 Adjacent Land Uses - Currently surrounding the preserve are a small number of single family homes, a canal, a private golf course and vacant undisturbed land.

3.5 Prospective Land Acquisitions

Several surrounding properties are prospects for acquisition (See Figure 9). Acquiring any additional properties would further conservation efforts by expanding not only pine flatwood habitat but critical Red-cockaded woodpecker habitat at the same time. Letters have been sent out to several of the surrounding property owners in 2006 and 2007 with responses from only a few of the smaller parcels. See Appendix 4 for a list of (34) prospective properties, acreage, current ownership, and the reason for interest in acquisition. Since this list is quite extensive and for management practicality the parcels that are immediately adjacent to the preserve should be pursued and acquired first then expand out accordingly.

There is currently a settlement agreement in litigation between the Department of Community Affairs, Florida Audubon, Florida Wildlife Federation and land owners to the east and south of the preserve. The land owners and their attorneys are proposing to obtain approval to cluster their allowed zoning density. This will mean that the landowners will be allowed to develop 20% of their properties while preserving 80% while entering into a Safe Harbor Agreement with the U.S. Fish and Wildlife Service. There is potential that this 80% (140+ acres) or a portion of it will be conveyed to Conservation Collier.

Figure 9: Potential Properties Recommended for Future Acquisition



3.6 Analysis of Multiple-Use Potential

Table 9: Analysis of Multiple-Use Potential

Activity	Approved	Conditional	Rejected
Protection of endangered and threatened species	Y		
Ecosystem maintenance	Y		
Soil and water conservation	Y		
Hunting			N
Fishing			N
Wildlife observation	Y		
Hiking	Y		
Bicycling		Y	
Horseback riding		Y	
Timber harvest			N
Cattle grazing			N
Camping			N
Apiaries			N
Linear facilities			N
Off road vehicle use			N
Environmental education	Y		
Citriculture or other agriculture			N
Preservation of archeological and historical sites	Y		
(Other uses as determined on an individual basis)			

3.7 Proposed Single - or Multiple - Use Management

Management of this parcel for public use will focus on maintenance of the trail, signage, and picnic area. All of the uses are restricted to those consistent with conservation of plants, animals and historical/archaeological features and passive enjoyment of these resources by visitors.

4.0 Future Use of the Logan Woods Preserve including Management Issues, Goals and Objectives

This section describes the main management issues, goals, and objectives for Logan Woods Preserve as well as the overall management framework. Central to the management of the Preserve is the mission of the Conservation Collier Program, and the goals and objectives set forth in this management plan.

4.1 Management Plan Framework

Each property purchased by Conservation Collier shall have its own management plan. At the time the property was purchased, the Conservation Collier Ordinance required that an "Interim" Management Plan be developed within 60 days of closing. Interim plans include basic items such as removal of invasive exotics and trash, establishing site security, developing management partnerships and planning for public access. The interim plan for this site was officially approved in January 2006. The ordinance then requires a "Final" management plan be developed within two years. Subsequently, the property management plan must be updated every five years. Final management plans, however, are considered living documents and can be updated at any time. Review of all management plans start in the Lands Evaluation and Management subcommittee and must be approved by both the CCLAAC and the Board of County Commisioners.

4.1.1 Preserve Manager: Contact Information

The Site Manager for Logan Woods Preserve will be a designated Collier County Environmental Specialist who can be contacted through electronic mail: ConservationCollier@Colliergov.net.

4.1.3 Preserve Rules and Regulations

No dumping, use of unauthorized vehicles, or removal or destruction of natural or historical/archaeological resources shall be permitted within the preserve. The goal is to allow limited nondestructive public access to natural resource habitat and native plant communities and animal species.

4.2 Desired Future Conditions

This section includes a description of the proposed future condition for the site's natural areas. Management techniques to achieve these conditions are listed in the following sections.

After management goals are met, Nancy Payton Preserve will consist of a well maintained pine flatwood habitat. The canopy will be comprised of slash pine trees. Mid-story will be maintained in an open state and will also continue to consist of scattered natives including: wild coffee and smooth sumac. Groundcover will remain native and will include: saw palmetto at heights of less than 3 feet, muscadine grape, swamp fern, grasses and herbs. Prescribed burns will be conducted on a 2-4 year cycle to keep saw palmettos low and hardwoods and palm cover sparse (<25%), allowing for a diverse and dense herb layer.

The managed habitat will also improve productivity for the endangered Red-cockaded woodpecker and promote reoccupancy of the state listed Gopher tortoises in the currently no occupied mesic flatwood areas. RCW's and gopher tortoises act as umbrella species for other suited wildlife species that thrive in well managed pine flatwood habitats. Artificial RCW cavities will be installed in suitable areas after the first controlled burn to attempt to increase existing neighboring populations and bring the birds back onto the preserve property. The slash pine canopy will eventually be restored to no greater than 50% canopy cover in the wildfire areas as a result of replanting efforts. This will continue to facilitate appropriate habitat for gopher tortoises.

4.3 Major Accomplishments during previous years

Table 10: Major Accomplishments during previous years

Accomplishment	Year(s)
Initial removal of invasive exotic vegetation	2007
Posting Property with no trespassing signs every 500 feet	2007

4.4 Goals and Objectives for 10 year period

A set of goals and objectives for the Nancy Payton Preserve were developed in conjunction with the drafting of this Management Plan. The goals and objectives in this plan are tailored specifically for the Nancy Payton Preserve, based on the purposes for which the lands were acquired, the condition of the resources present, and management issues for the property. On-site

managers should be familiar with the entire Management Plan. Goals and objectives from the interim management plan for the Nancy Payton Preserve were reviewed to determine if they remain meaningful and practical and should be included in this plan. The goals and objectives presented here reflect programmatic goals and ideas of Conservation Collier personnel in charge of managing and protecting the area. These goals shall not be modified, but specific application of management techniques may take into consideration input by user groups and other stakeholders from outside the program, accommodating user needs and desires where practicable and where overarching management goals are not violated.

Management issues are discussed below in separate sections. Within each section, approaches for dealing with these issues are described. The ability to implement the specific goals and objectives identified in this plan is dependent upon the availability of funding resources. The following goals have been identified for the Nancy Payton Preserve:

Goal 1: Eliminate or reduce human impacts to indigenous plant and animal life
Goal 2: Implement a biological monitoring program.
Goal 3: Continue to keep populations of invasive exotic plants in maintenance state
Goal 4: Create and implement a prescribed fire program
Goal 5: Restore canopy and ground cover species in specific areas
Goal 6: Native wildlife species management
Goal 7: Problem wildlife species management
Goal 8: Develop and implement a plan for public use
Goal 9: Facilitate uses of the site for educational purposes
Goal 10: Officially open site up for public access
Goal 11: Provide a plan for disaster preparedness

GOAL 1: Eliminate or reduce human impacts to indigenous plant and animal life

The site is currently being illegally utilized by citizens on off road vehicles (ORV's) and potentially for poaching deer. In order to provide for the safety of those who will be lawfully using this site for passive recreation and research, and to ensure that the programs of ecological preservation and restoration can take place unabated, strong security measures will be put into place.

Action Item 1.1 Prohibit unauthorized vehicle use in the preserve

Staff will continue to maintain the site as legally posted. Currently "No Trespassing-Collier County" signs are posted every 500 feet or less and at every corner of the property. Conservation Collier signs also exist in two of the trailhead areas with additional signage stating "authorized vehicular used only". This fulfills our legal posting requirement. If signs are removed or vandalized, they will be fixed and replaced as needed. They may need to be stabilized with concrete if they continue to be removed.

Staff will continue to work with enforcement agencies such as the Collier County Sheriff's Department Agriculture Division and Florida Fish and Wildlife Conservation Commission to enforce trespassing by citizens on off-road vehicles and poachers. One warning will be given by the Sheriff's office officers, then violators will be arrested. If anyone is caught poaching on the property or in possession of a firearm, they will automatically be arrested and brought to jail. Staff has received approval from the

Board of County Commissioners to sign Sheriff's department affidavits to press charges as needed. Staff will also continue to stay in contact with preserve neighbors for trespassing updates. Fences (field fence) and or gates will be installed around the perimeter or portions of at last resort.

Action Item 1.2 Identify locations of rare and listed native plant and animal species.

The location of plant species will be identified using a global positioning system (GPS) device and mapped to allow staff to monitor them. Public trails will be constructed to avoid areas where rare and listed species exist. Actual and potential locations of resident animal life will also be identified and documented and steps will be taken to construct visitor amenities away from animal nesting sites.

Action Item 1.3 Monitor public access

Once the site is opened up for public access, future visitors will be encouraged to stay on established trails. Staff will frequent the site to conduct inspections and will coordinate with visiting children's groups to educate them about how important protecting the resource is.

Action Item 1.4 Enforce regulations prohibiting trash in or near the preserve.

Staff will monitor the trails on a regular basis and if excessive dumping or littering start to occur, enforcement actions will be sought through the County Sheriff's Department.

GOAL 2: Implement a biological monitoring program

Action Item 2.1 Set up permanent photopoints throughout the preserve.

Locations of photo points will be recorded with a GPS and all photographs taken at these locations will be taken at a standard height and angle of view. During photo documentations, one photo is taken in each of the cardinal directions (north, east, south and west) and a 360-degree panoramic photo is taken. These photos will help to monitor exotic removal and native plant recruitment over time. If necessary, more photo points will be established to aid in management decision activities.

Before and after each prescribed burn, photos will be taken at each photo point station with a vegetation height measuring stick present in each photo.

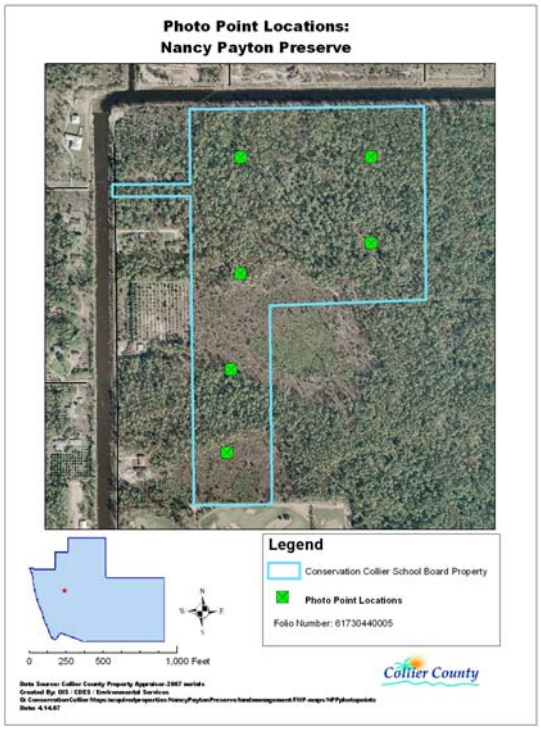


Figure 10. Photo Point Locations at Nancy Payton Preserve

Action Item 2.2 Establish long term vegetation monitoring

Long-term management of the preserve should be based on biological data. Changes following baseline conditions should be assessed as negative or positive, and management strategies changed appropriately. This section discusses information needs and long-term monitoring needs.

Keith Bradley from the Institute for Regional Conservation (IRC) has been contracted to conduct a thorough floristic inventory of the Nancy Payton Preserve. The initial survey was conducted in April of 2008 (See appendix 2). The second half of the survey will be completed later in 2008 and the final initial survey will become a part of this plan. His findings along with those of Conservation Collier staff will comprise the baseline floristic data on which future actions will be based. The site should be inspected by Conservation Collier Staff at least twice a year and thoroughly inventoried at regular intervals (ca. 5-10 years) to detect new invasions (by natives or exotics) and extinctions. Areas undergoing extreme restoration should be assessed more frequently. Eventually permanent vegetation monitoring plots will be established. A sampling design should be established to detect changes in species composition and structure. These plots should be sampled several times a year to determine trends, especially where management is taking place to monitor changes in species variety and percent cover.

Action Item 2.3 Establish long term wildlife monitoring

While some wildlife data has been collected, additional baseline data should also be collected, especially on invertebrates, small mammals, reptiles, and amphibians. The site manager may contract this work out or enlist the assistance of local educators to coordinate student research projects. Wildlife sampling, like plant sampling, should take place at regular intervals (ca. 5-10 years) to detect long-term trends.

After the first prescribed burn, artificial RCW cavities will be installed. These will be monitored on a regular basis to determine success. If the birds do move back on the preserve a more intense monitoring system will be established with the help of FFWCC.

Staff may also in the long term, attempt to work with the Florida Audubon and FFWCC on setting up a Red-cockaded woodpecker web camera if the birds eventually move back into this preserve. This will allow the County, all interested agencies, and Collier County school children to remotely view a nest cavity. Grants could be sought to help to cover the costs of the project as an educational and research based tool.

GOAL 3: Continue to keep populations of invasive exotic plants in maintenance state

The control of invasive exotic species is critical for the preservation of Nancy Payton Preserves native natural community. Minimal invasive species are present in the Preserve and many have been eliminated after the initial treatment. However, for the plants that will continue to need treatment and that will invade, the following treatment methods should be followed.

Action Item 3.1: Monitor site for new exotic invasions and treat accordingly

- Staff will continue to inspect and treat all areas of the site for new invasive exotic growth or invaders. Approved Collier County contractors will be hired to remove any invasive exotics on an annual basis or if only a small amount exists in-house removal and/or treatment will be conducted. Small seedlings should be pulled by hand to avoid unnecessary herbicide application. Chemically treat in place or cut and treat all shrub and tree-like species on the FLEPPC Category I or II list as well as identified nuisance weedy species. Specific methods should be done according to recommended control column in Table 11, unless new treatments are discovered that work well and do not cause non-target damage. Extreme care should be used to avoid any non-target damage, near sensitive natives, native seedlings and mature pine trees. The use of imazapyr containing herbicides should be avoided on site.

Action Item 3.2 Conduct initial exotic removal on any newly acquired properties purchased adjacent to the preserve as soon as possible after closing

Table 11: Invasive, Exotic Plant Species Control Plan for the Nancy Payton Preserve

Scientific Name	Common Name(s)	Description and Recommended Control(s)[a]
Acacia auriculiformis	Earleaf acacia	Hand pull seedlings, basal bark application of 10% Garlon 4 or cut-stump treatment with 50% Garlon 3A.
Schinus terebinthifolius	Brazilian pepper	Hand pull seedlings. Cut-stump treatment with 50% Garlon 3A, 10% Garlon 4 or a basal bark application of 10% Garlon 4. Foliar application of Garlon 4, Garlon 3A, Roundup Pro, Roundup Super Concentrate, or Rodeo, according label directions may be used where appropriate. Glyphosate products are less effective when used alone in spring and early summer. Use Rodeo where plants are growing in aquatic sites.
Syzygium cumini	Java Plum, Jambolan	Hand pull seedlings, mature trees may take up to 9 months to die. Cut-stump treatment with 50% Garlon 3A or 10% Garlon 4, or use a basal bark treatment with 10% Garlon 4.
Cupaniopsis anacardioides	Carrotwood	Hand pull seedlings, basal bark application of 100% Pathfinder II, or 10%-20% Garlon 4 diluted with oil; or cut stump application of 10% Garlon 3A, 100% Brush-B-Gon, 100% Roundup Pro, 100% Rodeo, or equivalent glyphosate containing product, or 100% Pathfinder II.
Abrus precatorius	Rosary-pea, Crab-eyes	Cut stem or basal bark and treat with 10% Garlon 4. Site must be revisited frequently to pull seedlings.
Lantana camara	Shrub verbena	Basal application with 10% Garlon 4 or cut stump treatment with Garlon 3A or 10% Garlon 4.
Rhynchelytrum repens	Rose natal grass	Foliar-2.5% glyphosate mixed in water with non-ionic surfactant, treat in spring prior to seed set
Pteris vittata	China brake fern	
Urena lobata	Caesar's Weed	Hand pull seedlings, Foliar treatment with 2-5% Glyphosate in water can be sprayed on young plants. Its best to treat in the spring or summer prior to seed maturation. Responds aggressively to fire
Pennisetum polystachion	West Indian pennisetum, mission grass	Foliar- 1-3% glyphosate. If natives surrounding, cut plants to ground level and spray with 5% glyphosate when it re-grows to 8-12 feet Remove cut stems from site. Responds aggressively to fire- re-treat growth soon after fire

GOAL 4: Create and implement a prescribed fire program

The use of prescribed fire as a management tool will be critical to the long-term health of the natural habitats and native species at the Nancy Payton Preserve. Pine Flatwood communities require periodic fires. A controlled burn is planned for the entire property as soon as weather and proper conditions allow in late Fall / Early Winter of 2008. Burning at this time of the year is safest and is necessary to reduce fuel loads before switching to growing season burning. Subsequent controlled burns should occur in 2 years (2010). This will create desirable effects on native ground cover and will further reduce hardwoods and undesirable vegetation. Following the growing season burns the site should be burned within 3-5 year increments.

Action Items 4.1: Create a Prescribed Burn Plan

The preserve land manager will create a fire management plan and will coordinate other local qualified agencies and with the Department for review and approval. A burn plan shall include the following key elements: purpose and measurable objectives, description of the burn unit, map of the burn unit, weather factors, safety concerns, fuel conditions, season and time of day, smoke screening, publicity, legal requirements, firing plan, equipment and personnel, contingencies, control and mop-up, declaring the fire out and evaluation and monitoring (Interagency 2006). An example prescribed burn plan for this preserve is in Appendix 4 in the back of this plan.

Action Item 4.2 Establish Burn Units and Install Perimeter Fire Lines / Obtain Permits

This entire preserve could be burned in one day if weather conditions permit. If timing, smoke issues or weather hinder this, the unit could be divided up into smaller units. Before clearing any vegetation, permits must be received from the County Community Development and Environmental Services Department. Fire lines will be installed utilizing best management practices to minimize impacts to mature trees, habitat and wildlife populations. Fire breaks will be disked down to soil and will go around all mature pines trees; they will be a maximum of 8-10 feet wide. No lines will need to be cleared along the northern property line as the canal road and canal already exist. An estimated 6,000 linear feet or 48,000 square feet of fire lines around the perimeter will need to be installed.

Action Item 4.3: Reduce and control hardwood basal area and mid-story vegetation in occupied and potentially suitable RCW and Gopher tortoise habitat

Action Item 4.3a: Map and plan areas to reduce midstory vegetation

Goals will be to mechanically or manually reduce cabbage palms to no greater than 4 per acre and within 100 feet of potential or active cavity trees before any controlled burn. Saw palmetto greater than 3 feet in height or that surround potential or active cavity trees should be reduced before any controlled burn. These areas will need to be mapped, with acreage calculated to obtain appropriate County permits before conducting any of the above mentioned activities. This activity shall be conducted within one month of a scheduled prescribed burn to allow the debris to dry out. The debris can be spread out in open areas to assist in carrying the fire. If any RCW cavities exist on the property either artificial or natural, special precautions will be taken around each particular tree.

Action Item 4.3b: Cut and pull vines down out of canopy trees

Vines that extend into the canopy of trees in the preserve will need to be removed before any prescribed burns to prevent the fire from traveling up into the canopy. Also, this will prevent enabling predators, such as snakes into future RCW cavities.

Action Item 4.4 Hold Pre-Fire Public Meetings and Notify Surrounding Community

Public meeting(s) will be held before each burn and a system of notifying neighboring landowners in advance of prescribed burns will be established (via door postings, email, phone trees, etc.) this system will be executed before each prescribed fire. A press release will also be sent out to notify the newspaper, radio and news channels. Information will also be provided to our County Manager and County Commissioners and local fire departments prior to any burns.

Staff will work with the County Comprehensive Planning department to discuss where we need our smoke to go for our future prescribed burns on the preserve. This will hopefully influence where future development is planned or encourage "Fire Wise Communites" to be considered or required.

Action Item 4.5 Conduct the prescribed burn, mop-up and declare fire out

Due to lack of County staffing qualified to perform a prescribed burn, the County will seek assistance from one or more of the following agencies: Department of Forestry, Florida Parks, Lee County, Florida Fish and Wildlife Conservation Commission and the Florida Panther Refuge. We will need to utilize their equipment and staff time to conduct the burn and mop up until the fire is officially declared out. A certified burn manager shall be present on site during the entire burn.

Action Item 4.6 Conduct pre- and post-burning monitoring and evaluation to assess fire effects and timing

Photo points will be conducted as per Goal 2, Action Item 2.1. Protocols for monitoring fire effects on soil, water, air, vegetation and wildlife should be included in site burn plans. Fuel loads, wildlife observations, wildlife surveys, vegetation survey and soil and duff conditions should be recorded before the burn (Interagency 2006). A comprehensive evaluation of every burn must be conducted. The first monitoring/field evaluation should take place within 2 weeks after burn completion to record any needle scorch before any needles fall. The second evaluation should be made during or after the first postfire growing season to get a good assessment of vegetative response(USDA 1989).

Action Item 4.7 Explore the use of alternatives to fire

Overgrown management areas in between houses where prescribed burning appears impossible to achieve shall be mechanically or manually reduced to prevent wildfire. Methods will be explored that will inflict the least amount of disturbance to these areas.

GOAL 5 Restore canopy and ground cover species in specific areas

Action Item 5.1 Plant supplemental canopy trees

The two areas on the property that burned in a wildfire in 2004 killed approximately 90-95% of the existing canopy in these areas. After the intial prescribed burn, south Florida Slash Pine Trees (Pinus elliottii var. densa) will be planted right before rainy season. Due to the presence of gopher tortoise and their need for a ground cover food source, the goal will be to aim for a recovery of no more than 60% canopy cover in both areas.

Action Item 5.2 Plant supplemental ground cover species

After a burn regime is established, vegetation monitoring will take place. If forage species for gopher tortoise is determined to be inadequate, supplemental ground cover species will be planted.

GOAL 6 **Native wildlife species managment**

Management of native animal species at the Nancy Payton Preserve should correspond with the management goals of the Pine Flatwood Community. Maintenance of viable populations of native animal species should be conducted by implementing management measures that maintain the viability of the natural communities at the preserve.

Action Item 6.1 Listed Wildlife Species Management

The Nancy Payton Preserve should be managed to provide habitat for listed species found or potentially found on the site. Some management recommendations for state and federally listed plant and animal species found on the preserve are listed below. General management for all listed species would be consistent with general vegetation management recommendations, exotic species control-Goal 3, and fire management-Goal 5.

Action Item 6.2 Establish Red-Cockaded Woodpecker Management Guidelines

A population of Red-cockaded Woodpeckers (RCWs) exist in close proximity to the preserve. The preserve once contained an active cavity tree before it burned in the 2004 wildfire. RCWs require an open mid-story. Due to lack of fire in the majority of the site, the midstory and ground cover vines are growing at a rapid rate. This overgrowth needs to be reduced as soon as possible to prevent another potential wildfire and to increase potential habitat for RCWs.

County staff has been working with the Florida Fish and Wildlife Conservation Commission to enter into a Safe Harbor Agreement and U.S. Fish and Wildlife (See appendix 4). This agreement is generally for landowners who wish to develop their property which may contain RCWs. This allows them to establish baseline level responsibilities for protecting RCWs while allowing incidental takings for any new colonizers that may come into their property after the fact. Conservation Collier is in no way interested in this aspect of the plan. However, by entering into the agreement, we would be able to gain technical management assistance from FFWCC and USFWS in regard to protecting the species. This will also hold our program accountable for the continued proper management for the species and other listed species. FFWCC also provides information on cost-share programs to offset the cost of necessary land-management actions that the program may benefit from.

Additional conservation benefits to be gained would be to manage our site to the degree that it can become a suitable recipient site for translocated birds. Artificial cavities will be installed after the first prescribed burn on the site. This would also foster public support for RCW conservation and endangered species management. It will demonstrate government agency sensitivity, cooperativeness and flexibility.

This agreement includes all management goals listed in this plan already and would need to be signed by the Board of County Commissioners to be put into effect. It is a voluntary program and it would be in effect for 98 years. The agreement can be cancelled with 60 days' notice.

Action Item 6.3 Monitor Gopher Tortoise Population

Another main priority shall be the management and inventory of the gopher tortoise population. Eight gopher tortoise burrows have been located in the preserve. The burrows have been GPS located and mapped however this information will not be included in the plan one mature tortoise was observed in 2004 and another juvenile was observed in 2007. All of the burrows appear to be active. Several also exist on an adjacent parcel not owned by the County. A gopher tortoise survey will be conducted on site before any fire lines or fuel reduction measure take place. Once a controlled burn is conducted on the preserve site, an additional comprehensive survey will be done to verify the estimated population. This will allow us to determine if it is appropriate to become a gopher tortoise relocation site. If the site is deemed acceptable, staff will pursue all actions necessary to become recognized as a relocation site with the Florida Fish and Wildlife Conservation Commission (FFWCC). FFWCC guidelines for management identify a viable gopher tortoise population as consisting of 40 – 50 individuals requiring 25-50 acres of appropriate habitat. Eliminating illegal access by ORV would also ensure that tortoises are protected from collisions and burrow collapses by ORV use.

Other priorities shall be to monitor the occurrence of the eastern indigo snake and the gopher frog. Managing the preserve for the benefit of the gopher tortoise will also benefit these potential existing species.

GOAL 7: Problem wildlife species management

Indigenous and non-native vertebrate and invertebrate species may become pests under certain conditions. Control of indigenous pest species is recommended if they interfere with management goals.

Action Item 8.1 Acquire services of licensed or qualified contractors for the removal of invasive exotic or problematic animal species

Wild hogs have not currently been observed on the preserve, however, if they become a nuisance, they will be trapped using pens with trap doors and baited with acorns or old corn (FFWCC). A contractor would most likely be hired to accomplish this if the need arises. They may be hunted in other areas of the County that are designated wildlife management areas however, his will be strongly prohibited on the preserve. Total exclusion of hogs is not usually possible. However, as soon as the first hog is observed trappers will be contacted.

To date, two (2) introduced animal species have been documented on the Wet Woods Preserve, the RIFA and the brown anole. It is doubtful that the total eradication of these species can be achieved. However, staff and/or contractors should take measures to remove RIFA populations close to or on public access trails.

If feral cat colonies are found near the preserve, the element that sustains an undesirable population should be identified and efforts made to ask property owners to control (i.e., refuse bins, dumpsters, and supplementary feeding by humans). A similar approach shall be taken to control feral dog populations, through elimination of the elements that sustain their undesirable population.

GOAL 8: Develop and implement a plan for public use

Action Item 8.1: **Develop a parking area along Blue Sage Drive**

A small parking area will be developed off of Blue Sage Drive to facilitate 4-6 cars and also provide a handicapped parking space (Refer to Figure 11-Conceptual Plan). Crushed/hardened rock, shell or pervious concrete will be used for the non-ADA parking spaces. Contractors will provide a design and pricing to County staff to determine how to implement while providing the least amount of impacts to the site. If school buses visit the site, the east west driveway/easement to the south of the westernmost peninsular portion of the site will be utilized. All activities must be permitted by the Collier County Community Development and Environmental Services Department.

Action Item 8.2: Develop an ADA accessible trail system into the preserve

An ADA accessible trail will start off of the parking area and will lead out into the larger northern pineland area roughly 700 feet until it reaches a picnic area. This trail will be composed of a crushed lime rock shell material or other semi- pervious material. A contractor will be hired to design and install providing the least amount of impact possible. This will be installed as soon as possible after the first prescribed burn.

Action Item 8.3: Develop a hiking trail throughout the preserve

Two mulched hiking trails will start off of the picnic area at the east end of the ADA accessible trail (See Figure 11). One will lead to the north and another to the south. These trails will follow already impacted or cleared trails made either by ATV use or trails made by DOF during the wildfire of 2004. One large circular trail will be made through the largest intact pineland area in the northernmost portion of the property- the trail will follow the fire line along the eastern boundary of the property. Another will lead south through the center of the property to the southernmost portion of the property. There will be a short loop through the southernmost portion that will circle back to the north south trail and will lead back north to the parking area. The total estimated length of the trail is 7,600 feet at 5 feet wide. This would offer a visitor who desired to hike from the parking area through the entire trail system, a two mile total hike.

The County will work with the Sheriff's Department weekend work crews and/or local boy scout troops to assist in laying the mulch down to create the trails. Environmentally friendly mulch will be used on the trails. Mulch will smolder in a fire so it should not be laid down until after the first prescribed burn and will not be replenished until after each subsequent burn. Further evaluation will be done to determine is mulch is even needed to establish the trails.

The areas that were burned in the wildfire of 2004 will be avoided during trail creation as they contain large standing snags that could become potential hazards for visitors. A sign will be installed to warn visitors of this and to stay on designated trails. The snags do benefit the wildlife community, specifically the woodpecker species that nest and feed on the site.

GOAL 9: **Facilitate uses of the site for educational purposes**

Actions Item 9.1 Develop interpretive signage to educate preserve visitors.

Once a trail system is complete, site specific signage will be developed to educate visitors on plant and animal identification and ecosystem information. A kiosk will be built and placed near the parking area with a large sign and map of the trails. An additional sign will be installed to explain who the preserve was named after and about how Nancy Payton has been instrumental in preserving land in Collier County. Another educational sign will be installed near the picnic area.

Action Item 9.2 Provide preserve brochures in rainproof box on site.

A brochure outlining the native plant communities and wildlife present at the preserve will be created by County staff and kept in a rainproof boxes attached to the kiosk near the preserve entrances. These boxes will be inspected monthly by the Preserve Manager and refilled as necessary.

Action Item 9.3 Coordinate with local groups to encourage site visitation

Staff will contact the Parks and Recreation Department to encourage visitation by summer campers. The Local Boy and Girl Scout Troops will be notified about the site and will be encouraged to assist in small projects on site. Birding groups will also be notified about the birding opportunities on site.

GOAL 10: Officially open up the site for public access

Action Item 10.1 Open the site up to the public via an on site ceremony

Once the site is determined to be safe for public access, after the parking area and trails and signage have been installed, the site will become officially open for public use. A ceremony will be held on site to commemorate the event. Nancy Payton will be invited to speak, as the preserve is named after her, as will as the district Collier County Commissioner. Anticipated opening is in 2010.

Action Item 10.2 Discourage visitation to the park at night.

A sign designating park hours as dawn to dusk will be installed at the entrance to the preserve and adjacent landowners will be given an emergency phone number if they detect human activity on the preserve after hours. If problems arise, the Collier County Sheriff's Office will be contacted to patrol the area and site on a routine basis.

GOAL 11: **Provide a plan for disaster preparedness**

The Conservation Collier Program has a plan in place to examine the preserve and future access ways after storms. Collier County also has several vendors under contract for disaster debris removal.

Action Item 11.1 Establish pathway for emergency rescue crews to access

Pathways for Fire and Rescue include maintaining fire breaks around the preserve. EMT access may be accommodated via these fire breaks or on at-grade stabilized pathways. Fire lines will be cut and maintained to allow for the Department of Forestry (DOF) to access areas of the property however, once controlled burns are conducted the chances of a wildfire will be greatly reduced.

Action Item 11.2 Survey trees along the trail and the perimeter of the property annually for damage

Staff will utilize the services of a certified arborist to determine diseased, weak, or damaged trees/limbs surrounding the trails and kiosks that should be removed for safety reasons and prior to hurricane season. This activity is intended to reduce the risk of visitor injury.

Action Item 8.4 Visit preserve within 48 hours after a storm event to assess damage.

Staff will take photos of damage and fill out appropriate Collier County Risk Management Department forms. If damage is extensive, the preserve will be closed until public safety hazards are cleared.

Action Item 8.5 Promptly clear storm debris from preserve.

If necessary, a Collier County emergency debris removal contractor will be contracted as soon as possible after the storm to schedule clean-up. Removal of debris and damaged or downed trees along the trail system may be needed. Downed trees and limbs that do not appear to be a public safety hazard will be cleared at the discretion of the Preserve Manager. As much hurricane debris as possible will be chipped and retained on-site – to be used as mulch for the trail.

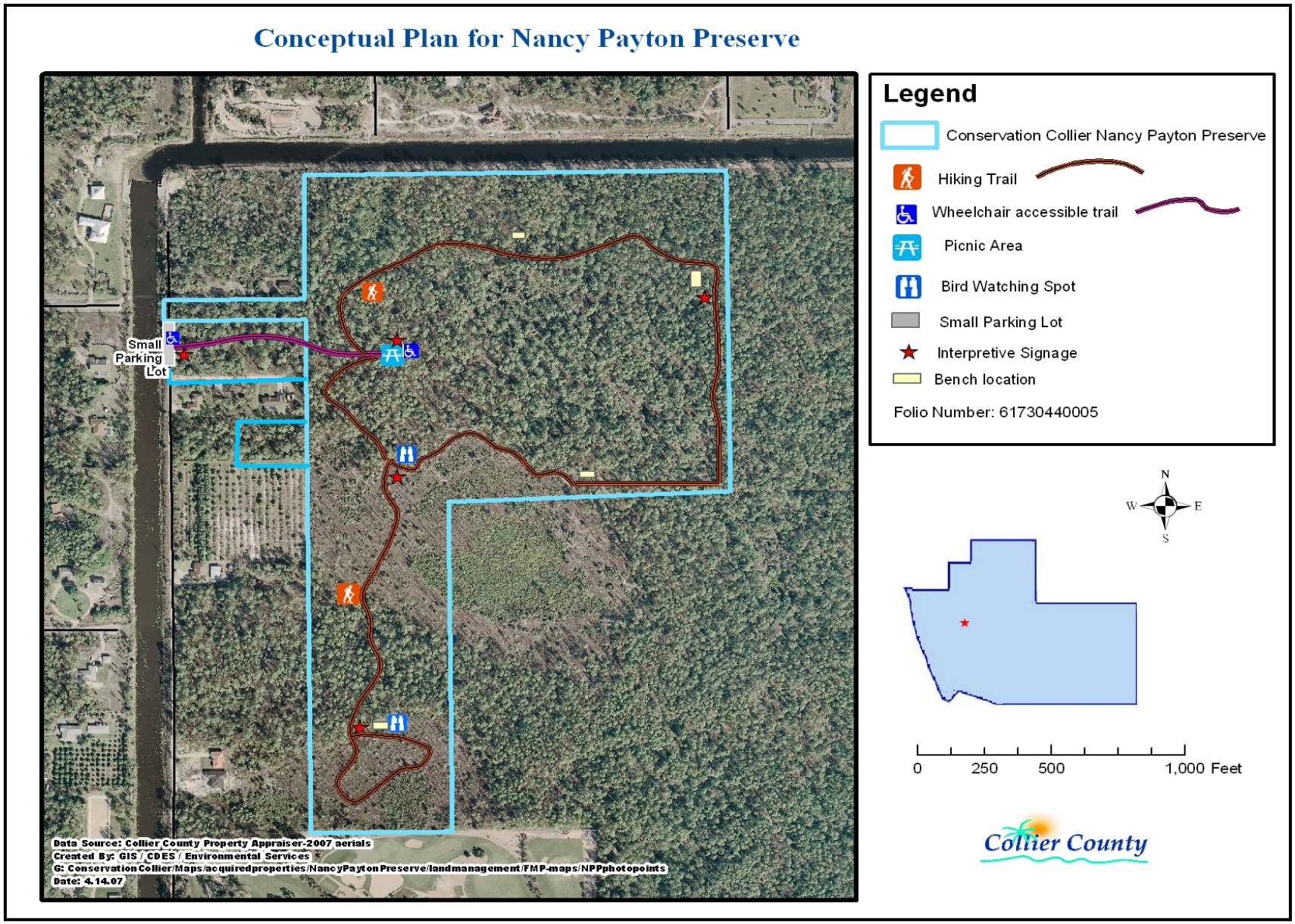


Figure 11. Conceptual Plan for Nancy Payton Preserve

Table 12. Estimated Annual Land Management Budget –

Table 12: Estimated Annual Land Management Budget (Amounts in $)													
			YEARS										
Item	QTY	Cost ($)	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13[1]	2013-14	2014-15	2015-16	2016-17	Total
Facilities Development													
Mulched Trails (LF) [2]	7,600	$9,504			$9,504								$9,504
ADA Trail		$50,000			$50,000								$50,000
Parking Area [4]		$25,000			$25,000								$25,000
Fence (4' field fence) [5]		$5 per foot											
Interior Info signage: Interpretative [6]	4	500				2,000							$2,000
Small signs	10	100				1,000							$1,000
Plant signs	50	10				500							$2,500
Entry signage (set) [7]	1	2,500				2,500							$2,500
*Benches, Picnic table (ADA) & trashcans [9]	6*	6,600				3,000							$3,000
***One ADA picnic table, 3 benches, two garbage cans a**													
Resource Restoration/Monitoring													
Establish vegetation plots and photo points		n/a											
Remove exotics (acres) [14]		13,155	4,880	3000	3000	3000	3000	3000	3000	3000	3000	3000	45,035
Apply Prescribed Fire (treatment) [16]		t.b.d.											t.b.d.
Fire Break Installation		DOF funded?											
Native Plant Restoration (acres) [17]		t.b.d.											t.b.d.
Plant Survey	1		$2,950					$2,950					$5,900
Regular Maintenance													
Reduce Fuel Loads [18]	TBD	$25,000		$25,000									$25,000
General Facilities Maintenance (month/yr) [19]	6	200					200	200	200	200	200	200	$1,200
Grand Total			**7830**		**$87,504**	**14500**	**3200**	**6150**					**$175,139**
***One ADA picnic table, 3 benches, two garbage cans and one bike rack**													

4.5 Partnerships and Regional Coordination

4.5.1 Interagency Agreements and Cooperating Agencies

The Safe Harbor Management Agreement (**Appendix 6**) would be an interagency agreement between Collier County and the U.S. Fish and Wildlife and is implemented by the Florida Fish and Wildlife Conservation Commission. This program was previously mentioned in section 4.4 under Goal 6, 6.2.

4.5.2 Cooperating Agencies

Florida Fish and Wildlife Conservation Commission
US Fish and Wildlife Service
Florida Wildlife Federation
Florida Audubon Society

4.5.3 Cooperating Organizations

Naples Chapter of the Florida Native Plant Society
Boy and Girl Scouts

4.5.4 Land Use Coordination

4.6 Priority List of Management, Research, and Information Needs

Wildlife surveys
Complete second half of plant survey
Gopher Tortoise Survey

5.0 Literature Cited

Abrahamson, W. G., and D. C Hartnett. 1990. Pine flatwoods and dry prairies. Pages 103-149 in R. L. Myers and J. J. Ewel editors. Ecosystems of Florida. University of Central Florida Press; Orlando, Florida.

Florida Exotic Pest Plant Council (FLEPPC). 2007. List of Florida's invasive plant species. Florida Exotic Pest Plant Council. Available from http://www.fleppc.org/list/07list_ctrfld.pdf (accessed October 2007).

Florida Fish and Wildlife Conservation Commission (FFWCC). 2002. A conceptual management plan for Caravelle Ranch Wildlife Management Area: 2002 – 2007. Tallahassee, FL. 218 pp. Available from http://myfwc.com/wma/planning/CMP/Caravelle%20Ranch%20WMA/Caravelle%20Ranch%20CMP%20200 2-2007.pdf (accessed December 2007)

Florida Natural Areas Inventory (FNAI) and Florida Department of Natural Resources (FDNR) 1990. Guide to the Natural Communities of Florida. Florida Natural Areas Inventory and Florida Department of Natural Resources.

Florida Natural Areas Inventory (FNAI). 2008. Managed Area Tracking Record and Element Occurrence Summary for Nancy Payton Preserve. FNAI, Tallahassee, Florida.

Gann, G. D., K. A. Bradley, and S. W. Woodmansee. 2002. Rare Plants of South Florida: Their History, Conservation, and Restoration. The Institute for Regional Conservation, Miami, Florida.

Kline, W. N. and J. G. Duquesnel. 1996. Management of invasive exotic plants with herbicides in Florida. Down to Earth 51(2):22-28. http://www.fleppc.org/Misc/trtguide.pdf

Langeland, K. A., and R. K. Stocker. 2001. Control of non-native plants in natural areas of Florida. University of Florida Cooperative Extension Service Document SP 242. 34pp. University of Florida, UF/IFAS Extension Digital Information Source (EDIS) Database. Available from http://edis.ifas.ufl.edu/pdffiles/WG/WG20900.pdf (accessed December 2007).

Larson, B. C., J. H. Frank, G. M. Allen, M. B. Main. 2006. Florida's native bromeliads. University of Florida Cooperative Extension Service Circular 1466. 10pp. University of Florida, UF/IFAS Extension Digital Information Source (EDIS) Database. Available from http://edis.ifas.ufl.edu/UW205 (accessed November 2007).

Lodge, T. E. 2005. The Everglades handbook - Understanding the Ecosystem. 2nd edition. CRC Press, Boca Raton, FL.

Luidahl, K., D.J. Belz, L. Carey, R.W. Drew, S. Fisher, and R. Pate. 1990. Soil survey of Collier County area Florida. USDA, Natural Resources Conservation Service; Washington, D.C.

Miller J. A. 1986. Hydrogeologic Framework of the Floridan Aquifer System in Florida and in parts of Georgia, Alabama, and South Carolina. United States Geological Survey Professional Paper 1403-B. United States Government Printing Office, Washington, D.C.

Oaks, R. Q. and J. R. Dunbar. 1974. Post Miocene Stratigraphy of the Central and Southern Atlantic Coastal Plain. Utah State University Press, Logan, Utah.

Scott, T. M. 1988. Lithostratigraphy of the Hawthorne Group (Miocene). Florida Geological Survey Bulletin No. 59, Tallahassee, Florida.

Stimac J. L., and S. B. Alves. 1994. Pest Management in the Subtropics: Biological Control A Florida Perspective. (Rosen D, Bennett FD, Capinera JL, Ed.) pp. 353-380. Intercept Limited, Andover, Hants SP10 1 YG, UK.

State University System of Florida. 2004 Publication of Archival Library and Museum materials. Aerial Photography of Florida. http://www.uflib.ufl.edu/digital/collections/flap/ accessed March 2008.

United States Fish and Wildlife Service (USFWS). 1999. Mesic pine flatwoods. South Florida multi-species recovery plan – a species plan…an ecosystem approach. USFWS Southeast Region, Compact Disk.

United States Geological Survey (USGS). 1958. Bonita Springs, Florida 7.5 Minute Series Topographic Quadrangle.

URS. 2007. Railhead Scrub Preserve Land Management Plan: managed by Conservation Collier Program Collier County, FL. June 2007 – March 2017.

Wunderlin, R. P., and B. F. Hansen. 2004. Atlas of Florida vascular plants. [S.M. Landry and K.N. Campbell (application development), Floirda Center for Community Design and Research]. Institute for Systematic Botany, University of South Florida, Tampa. Available from http.//www.plantatlas.usf.edu/.

Add:

(http://baysoundings.com/fall06/hogsgonewild.asp)

Florida Audubon Website

IRC website

Guide for Prescribed Fire in Southern Forests-USDA 1989

Interagency Basic Prescribed Fire Manual

Appendix 1: Legal Description

*** OR: 3944 PG: 3925 ***

CONSERVATION COLLIER
Property Identification Number: 61730440005

EXHIBIT "A"

TAX IDENTIFICATION NUMBER: 61730440005

LEGAL DESCRIPTION:

ALL OF TRACTS 7, 8, 9 AND 12, AND THE NORTH 82.5 FEET OF THE SOUTH 825.0 FEET OF TRACT 10, NAPLES FARM SITES, INC., ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 4, PAGE 34, OF THE PUBLIC RECORDS OF COLLIER COUNTY, FLORIDA. SUBJECT TO AN ACCESS EASEMENT OVER, ALONG AND ACROSS THE WEST 30 FEET THEREOF.

School Board Attorney Review

Appendix 2. Preliminary Plant List

Nancy Payton Preserve: Preliminary Plant List
Keith A. Bradley, The Institute for Regional Conservation
April 1, 2008

Scientific Name	Common Names	Native Status	State	FNAI	FLEPPC	Cypress	Disturbed	Mesic Flatwoods (unburned)	Mesic Flatwoods (burned)
Abrus precatorius	Rosary-pea, Crab-eyes	Introduced			I	X	X		
Acacia auriculiformis	Earleaf acacia	Introduced			I			X	
Amphicarpum muhlenbergianum	Blue-maidencane	Native					X	X	X
Andropogon glomeratus var. *pumilus*	Common bushy bluestem	Native						X	
Andropogon virginicus	Broomsedge bluestem	Native						X	
Asimina reticulata	Common pawpaw, Netted pawpaw	Native						X	X
Baccharis halimifolia	Saltbush, Groundsel tree, Sea-myrtle	Native					X		X
Bambusa vulgaris	Common bamboo	Cultivated Only					X		
Bidens alba var. radiata	Spanish-needles	Native				X	X		
Blechnum serrulatum	Swamp fern, Toothed midsorus fern	Native				X		X	
Bulbostylis ciliatifolia	Densetuft hairsedge	Native						X	
Callicarpa americana	American beautyberry	Native				X		X	X
Cassytha filiformis	Lovevine, Devil's gut	Native					X	X	X
Catharanthus roseus	Madagascar-periwinkle	Introduced					X		
Cenchrus echinatus	Southern sandbur	Native					X		
Cenchrus incertus	Coastal sandbur	Native					X		
Cephalanthus occidentalis	Common buttonbush	Native						X	
Chamaesyce ophthalmica	Florida hammock sandmat	Native					X		
Chiococca parvifolia	Pineland snowberry	Native						X	X
Chromolaena odorata	Jack-in-the-bush	Native				X		X	
Cladium jamaicense	Saw-grass, Jamaica swamp sawgrass	Native				X		X	
Conyza canadensis var. *pusilla*	Dwarf Canadian horseweed	Native					X		X
Croton glandulosus	Vente conmigo	Native					X	X	
Crotalaria rotundifolia	Rabbitbells	Native						X	
Cupaniopsis anacardioides	Carrotwood	Introduced			I			X	X
Cynanchum scoparium	Hairnetvine, Leafless swallowwort	Native				X		X	
Cyperus ligularis	Swamp flatsedge	Native					X		
Dactyloctenium aegyptium	Crow's-foot grass, Durban crowfootgrass	Introduced					X		
Desmodium incanum	Beggar's-ticks	Native					X		
Dichanthelium commutatum	Variable witchgrass	Native				X		X	
Dichanthelium ensifolium var. *unciphyllum*	Cypress witchgrass	Native						X	
Dichanthelium portoricense	Hemlock witchgrass	Native						X	
Dichanthelium strigosum var. *glabrescens*	Glabrescent roughhair witchgrass	Native						X	
Digitaria longiflora	Indian crabgrass	Introduced					X		
Diodia teres	Poor joe, Rough buttonweed	Native					X		X
Dyschoriste angusta	Rockland twinflower, Pineland snakeherb	Native						X	X
Emilia sonchifolia	Lilac tassleflower	Introduced					X		X
Encyclia tampensis	Florida butterfly orchid	Native	C					X	
Eragrostis atrovirens	Thalia love grass	Introduced					X	X	
Eupatorium capillifolium	Dog-fennel	Native				X		X	X
Euphorbia polyphylla	Pineland euphorbia, Lesser Florida spurge	Native						X	
Eustachys glauca	Prairie fingergrass, Saltmarsh fingergrass	Native					X	X	
Eustachys petraea	Common fingergrass, Pinewoods fingergrass	Native					X	X	

Nancy Payton Preserve: Preliminary Plant List
Keith A. Bradley, The Institute for Regional Conservation
April 1, 2008

Scientific Name	Common Names	Native Status	State	FNAI	FLEPPC	Cypress	Disturbed	Mesic Flatwoods (unburned)	Mesic Flatwoods (burned)
Euthamia caroliniana	Slender goldenrod	Native				X		X	
Ficus aurea	Strangler fig, Golden fig	Native				X			
Harrisella porrecta	Needleroot airplant orchid	Native	T	S1		X			
Hedyotis corymbosa	Flattop mille graines	Introduced							X
Hedyotis procumbens	Innocence, Roundleaf bluet	Native						X	
Hyptis alata	Musky mint, Clustered bushmint	Native							X
Ilex cassine	Dahoon holly, Dahoon	Native						X	
Ilex glabra	Gallberry, Inkberry	Native						X	X
Iresine diffusa	Bloodleaf, Juba's bush	Native					X		
Juniperus virginiana	Red cedar	Introduced					X		X
Lantana camara	Shrubverbena	Introduced			I	X	X		X
Lyonia fruticosa	Coastalplain staggerbush	Native						X	
Macroptilium lathyroides	Wild-bean, Wild bushbean	Introduced					X		
Melothria pendula	Creeping-cucumber	Native							X
Melochia spicata	Bretonica peluda	Native						X	
Momordica charantia	Wild balsam-apple, Balsampear	Introduced					X		
Muhlenbergia capillaris	Muhlygrass, Hairawnmuhly	Native						X	
Myrica cerifera	Wax myrtle, Southern Bayberry	Native						X	
Panicum hemitomon	Maidencane	Native				X			
Panicum tenerum	Bluejoint panicum	Native						X	
Parthenocissus quinquefolia	Virginia-creeper, Woodbine	Native				X	X	X	X
Paspalum monostachyum	Gulfdune paspalum	Native						X	X
Paspalum notatum	Bahia grass	Introduced				X	X		
Paspalum setaceum	Thin paspalum	Native					X	X	X
Passiflora suberosa	Corkystem passionflower	Native					X		
Pennisetum polystachion	West Indian pennisetum, Missiongrass	Introduced					X	X	X
Persea palustris	Swamp bay	Native						X	
Phlebodium aureum	Golden polypody	Native				X			
Piloblephis rigida	Wild pennyroyal	Native						X	X
Pinus elliottii var. densa	South Florida slash pine	Native				X		X	X
Piriqueta caroliniana	Pitted stripeseed	Native					X	X	X
Pityopsis graminifolia	Narrowleaf silkgrass	Native							X
Polygala grandiflora	Candyweed, Showy milkwort	Native						X	X
Polypremum procumbens	Rustweed, Juniperleaf	Native					X	X	
Pteridium aquilinum var. *pseudocaudatum*	Tailed bracken fern	Native				X			X
Pterocaulon pycnostachyum	Blackroot	Native						X	
Pteris vittata	China brake	Introduced			II			X	
Quercus laurifolia	Laurel oak, Diamond oak	Native				X		X	
Rapanea punctata	Myrsine, Colicwood	Native				X			X
Rhus copallinum	Winged sumac	Native					X	X	
Rhynchelytrum repens	Rose Natalgrass	Introduced			I		X	X	X
Sabal palmetto	Cabbage palm	Native				X		X	X
Schizachyrium rhizomatum	Rhizomatous bluestem	Native						X	

Nancy Payton Preserve: Preliminary Plant List
Keith A. Bradley, The Institute for Regional Conservation
April 1, 2008

Scientific Name	Common Names	Native Status	State	FNAI	FLEPPC	Cypress	Disturbed	Mesic Flatwoods (unburned)	Mesic Flatwoods (burned)
Schizachyrium scoparium	Little bluestem	Native						X	
Scoparia dulcis	Sweetbroom, Licoriceweed	Native						X	X
Serenoa repens	Saw palmetto	Native				X	X	X	X
**Shinus terebinthofolious*	Brazillian Pepper	Introduced			I				
Sideroxylon reclinatum subsp. *austrofloriden*	Everglades bully	Native						X	
Sideroxylon reclinatum	Recline Florida bully	Native							X
Smilax auriculata	Earleaf greenbrier	Native				X		X	
Spermacoce verticillata	Shrubby false buttonweed	Introduced				X	X	X	X
Sporobolus indicus var. *pyramidalis*	West Indian dropseed	Introduced					X		X
Stillingia sylvatica	Queensdelight	Native						X	
Stipulicida setacea	Pineland scalypink	Native						X	
Taxodium ascendens	Pond cypress	Native				X		X	X
Tillandsia balbisiana	Reflexed wild-pine, Northern needleleaf	Native	T			X			
Tillandsia fasciculata var. *densispica*	Stiff-leaved wild-pine, Cardinal airplant	Native	E			X	X	X	
Tillandsia paucifolia	Twisted wild-pine, Potbelly airplant	Native						X	
Tillandsia recurvata	Ball-moss	Native						X	
Tillandsia setacea	Thin-leaved wild-pine, Southern needleleaf	Native				X		X	
Tillandsia usneoides	Spanish-moss	Native				X			
Toxicodendron radicans	Eastern poison-ivy	Native				X		X	
Trema micranthum	Florida trema, Nettletree	Native				X	X		
Urena lobata	Caesarweed	Introduced			II	X	X	X	X
Vaccinium myrsinites	Shiny blueberry	Native							X
Verbesina virginica	Frostweed, White crownbeard	Native						X	
Vitis rotundifolia	Muscadine, Muscadine grape	Native				X	X	X	X
Vittaria lineata	Shoestring fern	Native						X	
Ximenia americana	Hog-plum, Tallowwood	Native						X	

**staff found small seedlings on site after survey*

Appendix 3:

Florida Natural Areas Inventory

Biodiversity Matrix Query Results
UNOFFICIAL REPORT
Created 4/10/2008
(Contact FNAI Data Services Coordinator
for an official **Standard Data Report**)
(Contact the FNAI Data Services Coordinator at 850.224.8207 for information on an official Standard Data Report)
NOTE: The Biodiversity Matrix includes only rare species and natural communities tracked by FNAI.

Report for 1 Matrix Unit: 41651

Descriptions

DOCUMENTED - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit.

DOCUMENTED-HISTORIC - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit; however the occurrence has not been observed/reported within the last twenty years.

LIKELY - The species or community is *known* to occur in this vicinity, and is considered likely within this Matrix Unit because:

1. documented occurrence overlaps this and adjacent Matrix Units, but the documentation isn't precise enough to indicate which of those Units the species or community is actually located in; *or*
2. there is a documented occurrence in the vicinity and there is suitable habitat for that species or community within this Matrix Unit.

POTENTIAL - This Matrix Unit lies within the known or predicted range of the species or community based on expert knowledge and environmental variables such as climate, soils, topography, and landcover.

Matrix Unit ID: 41651

2 **Documented** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Gopherus polyphemus Gopher Tortoise	G3	S3	N	LS
Puma concolor coryi	G5T1	S1	LE	LE

Florida Panther

0 **Documented-Historic** Elements Found

4 **Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi Eastern Indigo Snake	G3	S3	LT	LT
Mycteria americana Wood Stork	G4	S2	LE	LE
Picoides borealis Red-cockaded Woodpecker	G3	S2	LE	LS
Sciurus niger avicennia Mangrove Fox Squirrel	G5T2	S2	N	LT

Matrix Unit ID: 41651

13 **Potential** Elements for Matrix Unit 41651

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Andropogon arctatus Pine-woods Bluestem	G3	S3	N	LT
Elytraria caroliniensis var. angustifolia Narrow-leaved Carolina Scalystem	G4T2	S2	N	N
Eumops floridanus Florida bonneted bat	G1	S1	N	LE
Lechea cernua Nodding Pinweed	G3	S3	N	LT
Linum carteri var. smallii Carter's Large-flowered Flax	G2T2	S2	N	LE
Mesic flatwoods	G4	S4	N	N
Mustela frenata peninsulae Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana Celestial Lily	G2	S2	N	LE
Polyrrhiza lindenii Ghost Orchid	G2G4	S2	N	LE
Rostrhamus sociabilis plumbeus	G4G5T3Q	S2	LE	LE

Snail Kite				
Roystonea elata Florida Royal Palm	G2G3	S2	N	LE
Sceloporus woodi Florida Scrub Lizard	G3	S3	N	N
Ursus americanus floridanus Florida Black Bear	G5T2	S2	N	LT*

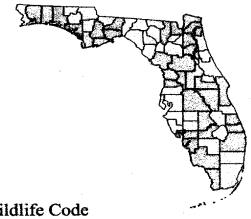
Disclaimer

The data maintained by the Florida Natural Areas Inventory represent the single most comprehensive source of information available on the locations of rare species and other significant ecological resources statewide. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. FNAI shall not be held liable for the accuracy and completeness of these data, or opinions or conclusions drawn from these data. FNAI is not inviting reliance on these data. Inventory data are designed for the purposes of conservation planning and scientific research and are not intended for use as the primary criteria for regulatory decisions.

Unofficial Report

These results are considered unofficial. FNAI offers a Standard Data Request option for those needing certifiable data.

RED-COCKADED WOODPECKER
Picoides borealis



Order: Piciformes
Family: Picidae
FNAI Ranks: G3/S2
U.S. Status: Endangered
FL Status: Threatened
U.S. Migratory Bird Treaty Act and state Wildlife Code prohibit take of birds, nests, or eggs.

Description: This small woodpecker can be distinguished by its barred, black and white back and wings, black cap and nape, and white cheek patches on each side of the head. Sexes of adults are difficult to distinguish. Red streaks or "cockades" on either side of head of adult males are rarely visible. Juvenile males can be identified by a small, circular patch of red on top of the head that is visible until early fall. This is absent in juvenile females.

© Barry Mansell

Similar Species: No other Florida woodpecker has a barred "ladder" or "zebra" back and the large, unbroken white cheek patches. Downy (*Picoides pubescens*) and hairy (*P. villosus*) woodpeckers are most likely to be confused, but these species have solid white down the middle of the back and a black triangular patch that covers much of the cheek.

Habitat: Inhabits open, mature pine woodlands that have a diversity of grass, forb, and shrub species. Generally occupies longleaf pine flatwoods in north and central Florida, mixed longleaf pine and slash pine in south-central Florida, and slash pine in south Florida outside the range of

RED-COCKADED WOODPECKER ***Picoides borealis***

longleaf pine. Forage in several forested habitat types that include pines of various ages, but prefer more mature pines.

Seasonal Occurrence: Nonmigratory. Maintains territories throughout year. They are cooperative breeders with young males characteristically remaining in many natal territories. Young females and non-helper males typically disperse a limited distance during their first winter in search of breeding opportunities elsewhere. Social groups or clans generally constrict the use of their home range when nestlings are present and expand their use during fall and winter after young have fledged.

Florida Distribution: Occurs locally from the western panhandle through the peninsula to south Florida. Distribution tied to remaining areas of old-growth pine forests. Southernmost occurrence is the Big Cypress National Preserve in Collier and Monroe counties.

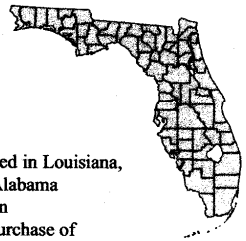
Range-wide Distribution: Primarily Southeastern Coastal Plain from North Carolina to Texas and southern Arkansas. Currently, populations are highly fragmented, and most are small. As of 1990, nearly 90 percent of active sites were in Florida, Georgia, the Carolinas, Louisiana, and Texas. More than half of the remaining population (9,300 birds) were found on just six sites, while the remaining birds were scattered across more than 100 sites.

Conservation Status: Florida has the largest number of active sites in the world, but increasing fragmentation and poor management of appropriate habitat is cause for concern. Largest concentrations occur on federally managed lands (ca. 80 percent of active sites), with state-owned and private lands supporting a significant number of smaller populations. Two largest populations, comprising 70 percent of active sites, occur on Eglin Air Force Base and Apalachicola National Forest, and there is evidence of declines in the latter.

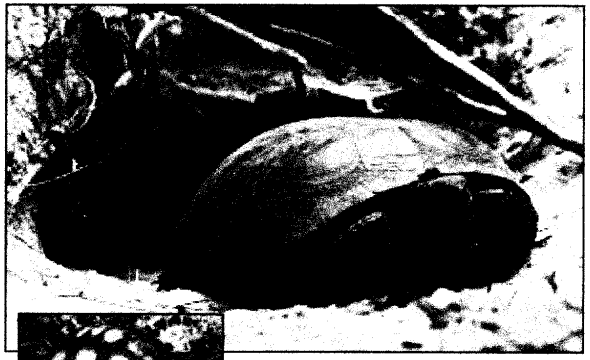
Protection and Management: Federal and state agencies must aggressively manage their extensive tracts of pine forests. Habitat quality in such areas depends on fire for maintaining open, park-like conditions. Considerable variation exists in habitat parameters range-wide, resulting in variable home-range sizes depending on amount and quality of available habitat. Focus management actions on both nesting and foraging requirements. Protect additional populations on private lands to help guard against catastrophic events (e.g., hurricanes).

Selected References: James 1991, Kulhavy et al. (eds.) 1995, Poole and Gill (eds.) 1994, Robertson and Woolfenden 1992, Rodgers et al. (eds.) 1996, Stevenson and Anderson 1994.

GOPHER TORTOISE
Gopherus polyphemus



Order: Testudines
Family: Testudinidae
FNAI Ranks: G3/S3
U.S. Status: None in Florida; Threatened in Louisiana, Mississippi, and western Alabama
FL Status: Species of Special Concern
Florida prohibits take, possession, sale, or purchase of tortoises or their parts except by permit.



© Dan Hipes

juvenile
© Dan Hipes

Description: A medium-sized turtle (to 10 in. = 254 mm) fully adapted for life on land. Upper shell brown and relatively flat above; lower shell yellowish, without hinge, and projecting forward, especially in male; skin brown to dark gray. Forelimbs greatly expanded for digging; hind limbs reduced, stumpy, lacking any form of webbing between toes. Lower shell of male somewhat concave. Young: scales of carapace often with yellow centers, skin yellowish to tan; approximately 2 in. (51 mm) shell length at hatching.

Similar Species: The only other native land turtle in Florida, the box turtle (*Terrapene carolina*), is distinguished by its smaller size (to 8 in. =

GOPHER TORTOISE ***Gopherus polyphemus***

203 mm), less stout feet, moveable hinge on lower shell, and often but not always by black and yellow upper shell. Tortoise burrows, which are useful in determining species' presence, typically have lower, flatter profile than more rounded burrows of armadillos; this reflects differences in cross-sectional shapes of the two animals.

Habitat: Typically found in dry upland habitats, including sandhills, scrub, xeric oak hammock, and dry pine flatwoods; also commonly uses disturbed habitats such as pastures, oldfields, and road shoulders. Tortoises excavate deep burrows for refuge from predators, weather, and fire; more than 300 other species of animals have been recorded sharing these burrows.

Seasonal Occurrence: Above-ground activity is greatly reduced during cold weather, with tortoises in northern Florida remaining below ground for months. Nonetheless, burrows are relatively conspicuous year-round.

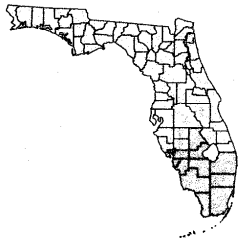
Florida Distribution: State-wide except absent from the Everglades and Keys.

Range-wide Distribution: Lower Southeastern Coastal Plain, extending from southern South Carolina southward through lower Georgia and Florida and westward through southern Alabama, Mississippi, and extreme southeastern Louisiana.

Conservation Status: Despite its widespread occurrence throughout Florida, there is considerable concern about the declining abundance of this species. Much of its native habitat has been lost to agriculture, citriculture, forestry, mining, and urban and residential development. Although protected populations occur on many state, federal, and private conservation lands, recent development of a severe respiratory disease threatens even those.

Protection and Management: Manage large, undivided tracts of upland habitat to maintain native vegetative conditions; this generally requires periodic prescribed fire beneath trees to reduce brush and favor growth of grasses and forbs. Avoid building roads and houses in xeric uplands. Because of risk of introducing tortoises infected with respiratory disease to uncontaminated populations, tortoises should not be relocated except under strictly controlled programs.

FLORIDA PANTHER
Puma concolor coryi



Order: Carnivora
Family: Felidae
FNAI Ranks: G5T1/S1
U.S. Status: Endangered
FL Status: Endangered

© Jerry Lee Gingerich, DVM

Description: A large (70 - 150 lbs. = 32 - 68 kg) cat with a long tail. Fur is dark buff to tawny above and light buff to white below; muzzle and tip of tail are black. The head is broad, and ears are round. Typical track shows four clawless toe pads around a three-lobed heel pad. Defining characteristics of the subspecies are a dorsal hair whorl, a crook in the tail, and white flecking on the neck and shoulders.

FLORIDA PANTHER *Puma concolor coryi*

Similar Species: Bobcat (*Lynx rufus*) has a short tail and is approximately half the size of a Florida panther. Western cougars (panthers, pumas; different subspecies) occasionally escape captivity or have been released and can be mistaken for Florida panthers; defining characteristics listed above may be unreliable in distinguishing these close relatives.

Habitat: Requires extensive blocks of mostly forested communities. Large wetlands that are generally inaccessible to humans are important for diurnal refuge. Will tolerate improved areas in a mosaic of natural communities.

Seasonal Occurrence: Year-round resident.

Florida Distribution: Collier, Glades, and Lee counties are the stronghold for the Florida panther; Miami-Dade and Monroe counties are also important. Dispersing individuals may range well north in the peninsula searching for new territories.

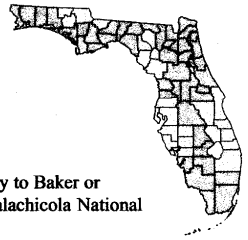
Range-wide Distribution: Subspecies formerly found throughout the southeastern U.S. from Arkansas and Louisiana east to Georgia and south to Florida.

Conservation Status: Found on several public conservation lands, including Big Cypress National Preserve, Florida Panther National Wildlife Refuge, Fakahatchee State Park, Picayune Strand State Forest, and Everglades National Park. Apparently, numbers are increasing as a result of genetic improvement project.

Protection and Management: Preserve large natural or slightly modified landscapes. Maintain viable populations of deer. Develop safe places for crossing highways. Maintain public support for recovery projects.

Selected References: Brown 1997, Humphrey (ed.) 1992, Maehr 1997.

FLORIDA BLACK BEAR
Ursus americanus floridanus



Order: Carnivora
Family: Ursidae
FNAI Ranks: G5T2/S2
U.S. Status: None
FL Status: Threatened (does not apply to Baker or Columbia counties or Apalachicola National Forest)

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Description: A large mammal (3 to 3.5 ft. = 2.8 - 3.2 m at the shoulder) with glossy black hair and a brown muzzle. Females average approximately 180 lbs. (82 kg); males average approximately 250 lbs. (113 kg). Individuals in southern Florida may lose their dorsal guard hairs, exposing the woolly brown undercoat. A white chest patch may be present on some individuals. Tail is short and inconspicuous. Ears are round and widely separated. In males, front feet range from 3.5 - 5.5 in. (89 -140 mm)

Appendix 4: Potential Adjacent Properties to Pursue for Future Acquisition

Recommended Acquisition Priorities--All properties contain Additional Pine Flatwood Habitat			
Parcel Folio #	**Acres**	**Property Description Current Owner**	**Acquisition Reason**
61730640009	0.50	BARRETT EST, TED E	To increase access and habitat off of Blue Sage
61731280002	1.00	BENNETT, RAYMOND	To increase access and habitat off of Blue Sage
61730400003	15.64	BOWLIN, EUGENE & ROSETTA E	To expand preserve & RCW habitat
61730280003	8.00	BUCKLEY ENTERPRISES	To expand preserve & RCW habitat
61730320002	16.00	BUCKLEY ENTERPRISES	To expand preserve & RCW habitat
61730240001	8.00	BUCKLEY ENTERPRISES	To expand preserve & RCW habitat
61731800000	16.00	BUCKLEY ENTERPRISES	To expand preserve & RCW habitat
61731840002	16.00	BUCKLEY, THOMAS E	To expand preserve & RCW habitat
61731720009	16.00	COWAN TR, JOHN L	To expand preserve & RCW habitat
61731680000	16.00	COWAN TR, JOHN L	To expand preserve & RCW habitat
61734080005	16.00	COWAN TRS JOHN L=& JANE ANN	To expand preserve & RCW habitat
61731760001	16.00	COWAN TRS, JOHN L	To expand preserve & RCW habitat
61734040003	16.00	COWAN TRS, JOHN L=& JANE ANN	To expand preserve & RCW habitat
61731160009	0.50	DURGA, BRAMHANAND=& SHANTI	To increase access and habitat off of Blue Sage
61731440004	1.50	GONG, GUO JI	To increase access and habitat off of Blue Sage
61731480006	1.50	GONG, GUO JI	To increase access and habitat off of Blue Sage
61731360003	0.50	HIDEOUT GOLF CLUB LTD	To increase access and habitat off of Blue Sage
61731320001	0.50	HIDEOUT GOLF CLUB LTD	To increase access and habitat off of Blue Sage
61734000001	16.00	HIDEOUT GOLF CLUB LTD	To expand preserve & RCW habitat
61731640008	16.00	HIDEOUT GOLF CLUB LTD	To expand preserve & RCW habitat
61733960003	16.00	HIDEOUT GOLF CLUB LTD	To expand preserve & RCW habitat
61734120004	16.00	HIDEOUT GULF CLUB LTD	To expand preserve & RCW habitat
61730840003	1.50	JONES, LESLIE B	To increase access and habitat off of Blue Sage
61731000004	1.52	KAYE HOMES INC	To increase access and habitat off of Blue Sage-
61731040006	1.01	KAYE HOMES INC	To increase access and habitat off of Blue Sage
61730960006	1.52	KAYE HOMES INC	To increase habitat
61731080202	0.50	LIE, RUN HE	To increase access and habitat off of Blue Sage
61730800001	2.38	SCHERER, WILLIAM C	To increase access and habitat off of Blue Sage
61731578002	0.50	SIT, ANITA	To increase access and habitat off of Blue Sage
61731577003	0.50	SIT, ANITA	To increase access and habitat off of Blue Sage
61731576004	0.50	SIT, ANITA	To increase access and habitat off of Blue Sage
61731573007	0.50	SIT, ANITA	To increase access and habitat off of Blue Sage
61730360004	16.00	TISO ET AL, ANTHONY	To expand preserve & RCW habitat
61731571009	0.50	TRAPANI, DOLORES S	To increase access and habitat off of Blue Sage

Appendix 4. Example Prescribed Fire Plan

Appendix 5: Interagency Agreement
Safe Harbor Agreement

Florida Fish
and Wildlife
Conservation
Commission

Division of Habitat and Species Conservation
Timothy A. Breault
Director
(850)488-3831
(850)921-7793 FAX
TDD: (850)488-9542

Managing fish and wildlife resources for their long-term well-being and the benefit of people.

620 South Meridian Street
Tallahassee, Florida
32399-1600
Voice: (850)488-4676
TDD: (850)488-9542
MyFWC.com

June 15, 2007

Ms. Christal Segura
Conservation Collier
Facilities Building W
3301 Tamiami Trail
Naples, FL 34112

Dear Ms. Segura,

The Florida Fish and Wildlife Conservation Commission (FWC) sincerely appreciates and applauds Conservation Collier's efforts to help conserve Red-cockaded Woodpecker (RCW) habitat. We are pleased to present for your signature the RCW Safe Harbor Management Agreement and the associated Certificate of Inclusion. Please return the signed copies to me. The other copies are for your records.

The duration of Conservation Collier's RCW Safe Harbor Management Agreement is for 98 years. The FWC acknowledges that prescribed burning will occur on *approximately* 100% of the enrolled acreage every 3-5 years due to varying weather conditions that could potentially limit the amount of acreage burned in any given year. This is in part the reason for including mechanical or chemical removal of the midstory as needed.

Please refer to page 18 of the Safe Harbor Agreement for a list of activities that could potentially result in an incidental take. I have also included a list of notification procedures and timelines. If you have any questions, please do not hesitate to contact me.

Sincerely,

Jennifer L. Perkins

Jennifer L. Perkins
Red-cockaded Woodpecker Safe Harbor Coordinator
Florida Fish and Wildlife Conservation Commission
1239 SW 10th Street
Ocala, FL 34474
Office: (352) 732-1225 x101 Mobile: (540) 250-4545
jennifer.perkins@myfwc.com

Safe Harbor Management Agreement
For Florida'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 Florida Fish and Wildlife Conservation Commission ("Commission") and the participating Property Owner, Collier County Conservation Collier Program (Property Owner) (herein referred to as the Parties). This SHMA is subject to all terms and conditions in the Florida Statewide RCW Safe Harbor Agreement (FL RCW SHA) between the United States Fish and Wildlife Service ("Service') and the Commission and the Enhancement of Survival Permit ("Permit") both of which are incorporated herein and made a part of this SHMA by reference.

Agreement/Tracking Number:
_003_ (the Commission shall provide a tracking number for each SHMA it enters into)

Agreement Duration:
The duration of this SHMA is for _98_ 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 real property covered by this SHMA ("enrolled property") is described in Attachment A of this document and delineated in Attachment B to this SHMA.

This Agreement covers the following species:
The Red-cockaded woodpecker (*Picoides borealis*) ("RCW"), a federally endangered species, is the only species for which incidental take authority is sought. This species is considered the "covered species" as defined in the Service's Safe Harbor Policy (published at 64 FR 32717) (herein referred to as the "Policy").

II. Purpose

The purpose of this SHMA is for the Parties to collaborate in order to implement management activities for the RCW on the enrolled property that will provide a net conservation benefit to the RCW in the State of Florida. Under this SHMA, the Property Owner agrees to undertake the activities and procedures described herein on the enrolled property for the benefit of the RCW. In accordance with the FL RCW SHA and the associated Permit, the Property Owner is authorized to carry out lawful activity on the enrolled property that may result in the incidental take[1] of RCW(s) or RCW habitat that is above the Property Owner's baseline responsibilities

---

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

pursuant to the Certificate of Inclusion ("Certificate"; Attachment D), subject to all of the following:

1. The enrolled Property Owner must be in total compliance with the SHMA;
2. The enrolled Property Owner must have maintained his or her RCW baseline as specified in the SHMA;
3. RCWs may not be shot, captured, or otherwise directly taken;
4. The take is incidental to otherwise lawful activities;
5. The enrolled Property Owner must conduct a supplemental survey immediately (no more than 180 days but no less than 60 days) prior to any activity, which may result in the incidental taking of above-baseline RCWs or RCW habitat and provide the Commission with the results of the survey 60 days prior to the commencing of this activity. Only the specific area that will be treated requires this supplemental RCW survey. No surveys will be required within one year of the baseline survey, unless recruitment clusters have been established in the area that will be affected by this activity;
6. Proposed activities that could result in the incidental take of RCWs must take place only during the non-reproductive season (August 1st through March 31st of following year) unless otherwise authorized by the Commission; and
7. The enrolled Property Owner shall not undertake any activity that could result in take of RCWs until the Property Owner has provided the Commission with at least 60 days notice of the Property Owner's intention to conduct such activity to allow the Commission, the Service and/or their agents the opportunity to translocate the affected RCW group to a suitable donor site. The Property Owner's notice to the Commission shall be provided in the manner provided in the FL RCW SHA.

III. Net Conservation Benefits

The Property Owner's voluntary management activities will provide one or more of the following expected conservation benefits to RCWs:

1. Maintain occupied nesting and foraging habitat at current levels and help maintain population stability.
2. Increase existing populations through the installation of artificial nesting and roosting cavities.
3. Create new groups and populations through natural population expansion and translocation efforts.
4. Augment populations through translocation of surplus subadults to acceptable sites.
5. Enhance, restore, and/or create suitable habitat on enrolled properties.
6. Decrease pine forest fragmentation and increase habitat connectivity as a result of habitat enhancement, restoration, and creation efforts.

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

---

authorized by an Incidental Take Permit.

IV. SHMA Implementation

A. Conservation Strategy

On one or more mutually agreeable areas, the Property Owner 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 native pine species).
3. Providing hardwood midstory control
4. Install artificial cavities in baseline and/or recruitment clusters.
5. Population management.

The above conservation strategy will be provided to the RCW by the management activities of the Property Owner, as set forth below in Attachment A[2].

B. Baseline Considerations

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

1. RCW Surveys

Unless all Parties have previously agreed upon the Property Owner's baseline[3], a baseline survey will be made within one (1) year prior to the SHMA to inventory all existing groups to establish baseline responsibilities. Surveys for RCWs will follow the protocol described in Section 7.2.2 in the FL RCW SHA. The survey will only include RCWs, unless the Property Owner specifically requests other species to be surveyed. 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.

The Property Owner is responsible for any costs associated with surveys (baseline or supplemental). The results of the surveys done shall be the property of the Property Owner and shall be used only at the Property Owner's discretion. However, no SHMA will be signed until

---

2 The Property Owner has described the nature, extent, timing, and other pertinent details of the management activities that the Property Owner will voluntarily undertake to provide a net conservation benefit, including a schedule for implementation. The Property Owner has described how the management activities will benefit the RCW.

3 Property Owners that agree to implement management activities to enhance RCW populations or territories on their property prior to the availability of this SHMA may establish a baseline with the approval of the Commission and the Service. The Property Owner must receive concurrence with the baseline assessment from the Commission and the Service. However, concurrence with the baseline assessment in no way guarantees participation or acceptance in the Agreement.

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

The Commission and the Service will ensure that Property Owners accurately classify RCW groups. The Property Owners 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

The baseline responsibilities 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 a baseline survey of the enrolled property[4]. Baseline responsibilities may include providing foraging areas for known groups on neighboring lands as described below in Section IV(F). **If no groups are discovered during the baseline survey and there are no known groups on neighboring lands, there are no baseline responsibilities.**

Specifically, the Property Owner's baseline responsibilities as derived from the Service's guidelines for managed stability set forth in Appendix 5 of the RCW Recovery Plan, 2nd Revision[5] (USFWS 2003), are to:

1. Mark all trees containing complete and incomplete cavities (i.e. cavity trees) in baseline clusters and take reasonable[6] precautions when conducting silvicultural, prescribed burning[7], or other activities within baseline clusters to protect cavity trees that are part of the baseline from injury or timber harvest.
2. Manage each cluster as a timber stand comprising at least ten contiguous acres, if currently present on the Property Owner's land, with the purpose of retaining potential cavity trees (pines greater than 60 years of age). If ten contiguous acres are not currently present on the Property Owner's land, the Property Owner will retain all of the potential cavity trees within the cluster.
3. Maintain cluster boundaries of at least 200 feet from cavity trees.
4. Provide at least 50 ft^2 of basal area per acre in pine trees $\geq$10 inches in diameter at breast height (DBH) in active baseline clusters if the trees are currently present on the Property Owner's land or when they become available. On property where south Florida slash pine is

4 The Property Owner will provide a complete description of the agreed upon baseline inventory. This description will include; when and how the baseline surveys were conducted, maps of the survey area, and location, cavity stage and activity status of all RCW cavity trees, if applicable.

5 The Commission and the Service will not require the Property Owner to abide by more strict 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 agreement will be modified to reflect the new guidelines.

6 Reasonable precautions would include, but are not limited to, directional felling away from cavity trees, logging during dry conditions to minimize soil compaction, careful log removal to avoid scraping or otherwise damaging residual trees, careful prescribed burning to minimize the risk of igniting cavity trees, avoidance of skidding near cavity trees, and avoidance of fire line plowing near cavity trees.

7 Precautions should be taken to minimize the risk of igniting cavity trees—examples include raking litter away from the base of cavity trees (10-20 ft. depending on fuel load), wetting cavity trees or limiting burning to high moisture conditions.

the predominant pine species, basal area requirements are for pine trees ≥8 inches DBH. Small areas of regenerating trees that exceed 70 ft^2 of basal area per acre may be retained within a cluster provided RCW cavity tree entrances are not obstructed by the regenerating trees.

5. Maintain the midstory vegetation within RCW clusters in an "open" condition by prescribed burning, precommercial thinning, or other means by ensuring that 1) no hardwood midstory exists or if a hardwood midstory is present it is sparse and less than 2.1 m (7 ft.) in height and 2) canopy hardwoods are less than 10 percent of the number of canopy trees.
6. Provide at least 3000 ft^2 of basal area in pine trees (including the trees in the cluster) ≥10 inches DBH (≥8 inches DBH in S. Florida slash pine) for foraging habitat on a minimum of 75 acres[8], if the trees are currently present on the Property Owner's land. If 3000 ft^2 of basal area of pine trees ≥10 inches DBH is not available for foraging habitat (≥8 inches DBH in S. Florida slash pine), the Property Owner will maintain the existing pines inside the foraging area and provide the 3000 ft^2 of basal area of pine trees ≥10 inches DBH as soon as possible.
7. Conduct timber harvesting within the active baseline clusters only between August 1 and March 31, or as otherwise approved by the Commission. If there is a need to harvest timber within an active cluster outside this window of time, the Property Owner should notify the Commission 60 days in advance of the desired starting harvest date. The Commission will determine the stage of nesting activity within the cluster and advise the Property Owner of appropriate precautions. Timber harvesting cannot be permitted during nest initiation, while the female is in the process of laying eggs, while the nesting cavity contains viable eggs or young, or until the fledglings are capable of sustained flight. Possible exceptions to this are emergency harvest due to insect infestations, natural disasters, or other disasters.
8. Cannot construct any new roads and/or utility right of ways within active baseline clusters.
9. Provide reasonable protection for RCW groups from human activities that could incidentally cause injury or death in active baseline clusters.
10. Provide the Commission and the Service the opportunity to review proposed timber sales at least 60 days in advance of the desired starting harvest date to ensure that the baseline responsibilities discussed above in this section will be met. As part of the review, documentation of before and after harvest foraging availability for each RCW baseline group will be provided by the Property Owner to the Commission.

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 Property Owner 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 Property Owner's baseline. The map, which is Attachment C to this SHMA, shall identify known non-enrolled property RCW groups for which the Property Owner agrees to provide habitat as part of the Property Owner's baseline responsibilities. Section VI of this document sets forth the Property Owner's responsibilities with respect to providing foraging habitat for such non-enrolled property groups.

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8 Foraging habitat for each RCW group must be contiguous to the cluster stand with no gaps between stands exceeding 200 feet.

4. Baseline Adjustment

a. 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 the following have occurred:

1. The RCW groups have remained absent from the enrolled property for a minimum of five years;
2. The RCW cluster remains inactive for a minimum of five 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 of the three criteria listed above. The Property Owner must request a baseline reduction from the Commission in writing. The Property Owner must allow the Commission and/or the Service access to the enrolled property to conduct an investigation, if the Commission and/or the Service so choose. If the Commission and/or the Service determine the group is eligible for removal from the baseline, the Commission will modify the SHMA and Certificate to reflect the change in baseline responsibilities. The enrolled property will not obtain a reduction in baseline 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 criteria above are followed. A Property Owner may be required, however, to provide foraging habitat if the owner on the neighboring property is unable or unwilling to do so.

b. Shifting Baseline

RCW baseline responsibilities will be associated with specific active clusters in existence at the time the Property Owner enters into the SHMA. Property Owners may, with the Commission'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 as long as the following conditions are met:

1. The Property Owner is in total compliance with the SHMA.
2. The Property Owner has maintained his/her baseline as specified in the SHMA.
3. The 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 Property Owner has replaced a baseline potential breeding group with an above-baseline potential breeding group[9] that has been in existence for at least six months, including a breeding season (April to July), prior to the replacement.
5. The Property Owner has replaced baseline clusters with above-baseline clusters and will provide suitable nesting and foraging habitat as defined in the guidelines for managed stability set forth in Appendix 5 of the RCW Recovery Plan, 2nd Revision.
6. The Property Owner has replaced solitary bird groups prior to replacing potential breeding groups when possible.
7. The Property Owner will be required to maintain the entire foraging and nesting habitat needed for the new group.

The Commission must concur in writing prior to a Property Owner's shifting his or her RCW baseline requirements from one group to another. The Commission's approval is required because of those circumstances in which maintenance of the original cluster is necessary in order to maintain contiguity of habitat, dispersal habitat, or other desirable features of the landscape or population. Where possible, flexibility will be used by the Commission with concurrence from the Service. Upon the Commission'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 with the Commission.

5. Management Activities for Baseline RCW Groups

The Property Owner agrees to undertake activities to maintain and enhance the habitat (foraging and nesting habitat) of all active baseline groups indicated on the map labeled Attachment B and described in Section VI of this document.

1. Manage active baseline clusters as follows:
    a. Overstory stocking in a cluster will be maintained between 50 and 80 ft^2 of pine basal area per acre ($\geq$10 inches DBH; $\geq$8 inches DBH in S. Florida slash pine) if the trees are currently present or when they become available. Small areas of regeneration may occur within a cluster provided cavity entrances are not obstructed.
    b. Hardwood basal area in a cluster will be maintained below 10 ft^2 of basal area per acre. All hardwoods within 50 ft. 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.
    d. No hardwood midstory or if a hardwood midstory is present, it is sparse and less than 7 feet in height[10].

9 If the baseline is defined as the number of active clusters, supplemental monitoring will be required to establish group composition.

10 The RCW Recovery Plan's guidance on hardwood midstory given in the RCW recovery plan refers to the hardwood midstory as a whole, which allows some flexibility for individuals so that midstory may exceed 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 understory competition will be required no more than once every other year after understory is under control.

2. Maintain at least the minimum foraging habitat of 3000 ft^2 of basal area in pine trees that are at least 30 years old with a DBH $\geq$ 10 inches ($\geq$8 inches DBH in S. Florida slash pine) on a minimum of 75 acres for each active baseline cluster as follows:
    a. Overstory stocking for foraging habitat will be maintained between 40 ft^2 and 80 ft^2 of basal area per acre. Stands managed on an uneven-aged basis may have patches of regeneration or residual stands of older trees higher than 80 ft^2 of basal area per acre.
    b. Average pine basal area of pines < 10 inches (<8 inches in S. Florida slash pine) will be maintained below 20 ft^2 per acre.
    c. Total stand basal area, including overstory hardwoods, will not exceed 80 ft^2 per acre.
    d. No hardwood midstory or if a hardwood midstory is present, it is sparse and less than 7 feet in height.
3. Allow the Commission and/or the Service, if it so chooses, to translocate surplus subadult RCWs off the enrolled property to augment other populations if such removal of subadults will not affect the Property Owner's baseline responsibilities.

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

The participating Property Owner under a SHMA and Certificate 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 RCWs or RCW habitat provided all of the following qualifications are met:

1. The enrolled Property Owner must be in total compliance with the SHMA;
2. The enrolled Property Owner must have maintained his or her RCW baseline as specified in the SHMA;
3. RCWs may not be shot, captured, or otherwise directly taken;
4. The take is incidental to otherwise lawful activities;
5. The enrolled Property Owner must conduct a supplemental survey immediately (no more than 180 days but no less than 60 days) prior to any activity, which may result in the incidental taking of above-baseline RCWs or RCW habitat and provide the Commission with the results of the survey 60 days prior to the commencing of this activity. Only the specific area that will be affected requires this supplemental RCW survey. No surveys will be required within one year of the baseline survey, unless recruitment clusters have been established in the area that will be affected by this activity;
6. Proposed activities that could result in the incidental take of RCWs must take place only during the non-reproductive season (August 1st through March 31st of following year) unless otherwise authorized by the Commission; and
7. The enrolled Property Owner shall not undertake any activity that could result in take of RCWs until the Property Owner has provided the Commission with at least 60 days notice of the Property Owner's intention to conduct such activity to allow the Commission, the Service and/or their agents the opportunity to translocate the affected RCW group to a suitable donor site. The Property Owner's notice to the Commission shall be provided in the manner provided in the FL RCW SHA.

Notwithstanding the 60-day notice requirement, the Property Owner should provide as much notification to the Commission as possible. Upon receipt of the requested notice, the Commission, the Service and/or their agents shall give a consolidated effort to respond to the Property Owner's notice. However, should the Commission, 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.

Prescribed burning and installation of artificial cavities is allowed during the nesting season as necessary for the continued survival of the group and will not require notification.

D. Monitoring and Reporting

For the duration of the SHMA the Property Owner agrees to provide an annual monitoring report by January 15 of each year to the Commission (Attachment E) that describes the general monitoring process, the implementation and results of the agreed upon management activities, and the occurrence of any incidental take of RCWs. Annual monitoring reports will also document any changes in the condition of RCWs and/or their habitat.

Specifically the Property Owner agrees to:

1. Identify the monitoring schedule as follows:
    a. Submit monitoring reports and denote whether data is provided from the Property Owner, professional scientist or other specific individual or entity.
    b. Identify when the agreed upon management activities were or will be implemented and when the results were or will be evaluated.
2. Describe the implementation of the management activities as follows:
    a. Identify which management activities the Property Owner agreed to provide for the annual monitoring period.
    b. Identify which management activities were provided during the annual monitoring period.
    c. Discuss any problems with the implementation of the management activities during the monitoring period.
3. Describe any incidental take, which occurred during the reporting period including:
    a. A description of the land-use activities that may result in incidental take of RCWs.
    b. A discussion of the actual or potential incidental take expected for above-baseline RCWs and/or habitat.
    c. A description of the activities that returned or would be expected to return the enrolled property to baseline conditions.
4. Describe any new or above-baseline clusters discovered during the reporting period including:
    a. A description of the management activities associated with the new or above-baseline clusters.
    b. A map with the new cluster's location.
    c. A description of the cluster (i.e. total number of cavities, age, species, and DBH of cavity trees).

E. Emergency Salvage Harvest Situations

Emergency situations, such as natural disasters or insect infestations, may require that emergency (salvage) harvesting of timber on the enrolled property begin with less than the 60-day notice set forth in the preceding section IV(C). For above-baseline groups, the Property Owner shall notify the Commission in writing at least three days prior to conducting an emergency harvest. The Commission, the Service, and/or their respective agents shall have this three-day time period to translocate above-baseline impacted birds. The Property Owner shall not initiate such harvest until three days after the Commission has received notice.

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

F. Neighboring Property Owners' Responsibilities

The Commission and the Service recognize the implications to neighboring Property Owners of the successful implementation of management actions on enrolled lands. Further, the Commission and the Service recognize and acknowledge 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. The implications to neighboring Property Owners with non-enrolled lands will be assessed on a case-by-case basis. For example, when the Commission and the Service believe that occupation of non-enrolled neighboring lands is likely, the Commission will make every effort to include the neighboring Property Owner in the FL RCW SHA through an SHMA and Certificate using the procedures detailed in Section 6.0 of the FL RCW SHA, thus extending the Safe Harbor assurances.

The Policy allows the Service to use the maximum flexibility allowed under the ESA in addressing neighboring properties not covered under Safe Harbor Agreements and their associated SHMAs. The Policy also allows flexibility with regard to associated incidental take authorizations, including, but not limited to, granting of incidental take to neighboring Property Owners where occupation of their lands is expected as a result of an SHMA. However, this does not mean that neighboring Property Owners fitting this scenario will be automatically given incidental take authorization if listed species occupation occurs.

G. Successors in Interest

If the provisions of the FL RCW SHA related to succession and transfer are followed, the Property Owner may transfer the rights and responsibilities granted by this SHMA in conjunction with the conveyance of all or a portion of the enrolled property to a non-Federal entity. If the FL RCW SHA provisions related to succession and transfer are followed, a new Property Owner will only be bound to undertake the original baseline responsibilities.

1. The Property Owner bears sole responsibility to inform their successor(s) in interest or potential buyers about enrollment of the listed property in the SHMA.

2. The participating Property Owner must notify the Commission of such a transfer as stated in Section 15.0 of the FL RCW SHA.
3. Upon transfer of the property to another owner, the Commission may attempt to contact the new owner, explain the baseline responsibilities applicable to the property, and seek to interest the new owner in signing a new SHMA to benefit the RCWs on the property. If the new Property Owner agrees to the terms of the SHMA in writing, the baseline will remain the same in the new SHMA.
4. The transfer will only be valid in the event that the new Property Owner enters into a SHMA in accordance with the provisions of Section 15.0 of the FL RCW SHA related to succession and transfer.

H. Regulatory Assurances

The Service and the Commission shall, through the Florida RCW SHA and its associated Permit, grant regulatory assurances to Property Owners in good standings through Certificates of Inclusion. These assurances are as follows:

"If additional conservation and mitigation measures are deemed necessary, the Service may require additional measures of the enrolled landowner, but only if such measures are limited to modifications within conserved habitat areas, if any, for the affected species and maintain the original terms of the SHMA to the maximum extent possible. Additional conservation and mitigation 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 otherwise available for development or use under the original terms of the SHMA without the consent of the enrolled Property Owner.

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."

I. Other Federally-listed Species

Although the Commission 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 Section IV. If that occurs and the Property Owner requests, the Commission and the Service may agree to amend the FL RCW SHA and associated SHMAs to cover additional species and to establish appropriate baseline conditions for such other species.

Surveys for other federally listed species will not be required of SHMA participants. However, according to Section 9 of the ESA, Property Owners will be subject to restrictions against "take"

of any federally listed animal not covered by their Certificate. The term "take" as defined by the ESA, means to harass, harm, pursue, hunt, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Federally listed plants are considered legal property of the Property Owner and according to the Policy, are not subject to "take" restrictions. If other federally listed species are known to exist on the enrolling property, then the Commission and the Service will consult with and assist the Property Owner in tailoring his/her management actions to avoid take and to minimize any disturbance of these species.

J. Obtaining Other Necessary State and Federal Permits

The Property Owner agrees that he/she and/or his/her agent must obtain any necessary state or federal permits for activities such as capturing, banding, reintroducing, etc. of RCW(s), if such is planned. The Property Owner agrees to provide a list of the names of permit holder(s) for these activities and the corresponding permit number(s) to the Commission prior to the Property Owner engaging in any such activities on the enrolled property.

V. SHMA Management

A. Termination of SHMA

1. By the Property Owner

The Property Owner or its enrolled successor in interest must give the Commission 60 days written notice, by certified letter, of his/her intent to terminate this SHMA and must give the Commission and/or the Service an opportunity to relocate individuals of the covered species within 30 days of such written notice. As provided for in Part 12 of the Policy, a 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 this SHMA, whether due to catastrophic destruction of the species population numbers or habitat or due to unforeseen hardship, the Property Owner must relinquish their Certificate of Inclusion to the Commission. Species management on the Property Owner's property would return to its status prior to the signing of this SHMA (i.e., original baseline). 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 an SHMA for any other reason, the Certificate of Inclusion shall immediately cease to be in effect.

2. By the Commission and the Service

The Commission has the right to terminate this SHMA where the Property Owner is found to be in non-compliance with the terms and conditions of this SHMA. If the Property Owner is found to be in non-compliance with this SHMA, the Commission will issue a written letter of non-compliance to the Property Owner. The Property Owner shall have 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 the Commission by the end of the 60-day period, the Commission shall terminate this SHMA and the associated Certificate, which contain the regulatory assurances.

Should the Property Owner fail to comply with the terms of this SHMA, and the Commission 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 Florida RCW SHA

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

B. Access to Enrolled Property

The Property Owner shall grant access to the Commission at least annually to verify that the conditions of the SHMA are being upheld, to assess the condition of the baseline groups and any new RCW group(s) that have been discovered, and to measure, monitor, and tag/band individual RCWs as appropriate. The Commission shall give the Property Owner reasonable notice (generally 30 days) of these visits and may be accompanied by the Property Owner or an agent of the Property Owner. The scope of the visit will be agreed to in advance. The Property Owner shall not unreasonably withhold access to enter upon his/her property and agrees to grant the Commission and/or the Service access with reasonable notification.

C. Financial Assistance

If funds become available for managing RCWs on private land, the Commission shall seek to give the Property Owner priority access to those funds to help offset the costs of undertaking management activities. Any financial assistance given to the Property Owner 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.

Section VI. Attachments to the Agreement

The following attachments are hereby incorporated and made part of this Agreement:

Attachment A – Evaluation Form Outlining Baseline Responsibilities, Conservation Measures and Conservation Benefits

Attachment B – Map of the Property Owner's Enrolled Property and the Enrolled Property's Legal Description (include RCW habitat and cluster locations)

Attachment C – Map of RCW Clusters within 0.5 miles of the Enrolled Property (if any exist)

Attachment D – Certificate of Inclusion

Attachment E – Annual Report of Activities for Safe Harbor Management Agreement (to be added after 1 year of enrollment of Property Owner through to expiration/termination date)

RCW Clusters Attachment – Form for Providing Information on Multiple RCW Clusters

VII. Signatures and Information

Administrator:
Tim Breault
Florida Fish and Wildlife Conservation Commission
620 South Meridian St.
Tallahassee, Florida 32399-1600
Phone: (850) 488-4676

Signature: Timothy A Breault Date: 5-16-07

Property Owner:

Name: Collier County Conservation Collier Program

Mailing Address: 3301 Tamiami Trail E

Naples, FL 34112

Physical Address: 1540 Blue Sage Drive

Naples, FL 34117

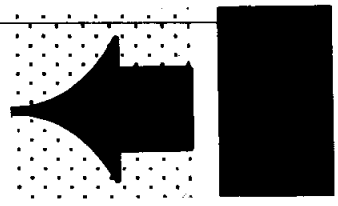
Contact Person: Christal Segura

Telephone Number: (239) 825-4811

Cellular Phone Number: _____

E-Mail Address: ChristalSegura@colliergov.net

Signature: _____ Date: _____
Collier County Board of County Commissioners



VIII. Literature Cited

U.S. Fish and Wildlife Service. 2003. Red-cockaded woodpecker (*Picoides borealis*) recovery plan: Second Revision. U.S. Fish and Wildlife Service, Southeast Region, Atlanta, Georgia. 296 pp.

ATTACHMENT A
TO
FLORIDA SAFE HARBOR MANAGEMENT AGREEMENT
NO. 2005.001
Evaluation Form Outlining Baseline Responsibilities, Conservation Measures and Conservation Benefits

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I. Background Information

A. Date of evaluation: 06/17/2006
B. Tract Name: Nancy Payton Preserve
C. Tract Location:
   1. County: Collier
   2. Tax Map #: 61730440005
   3. Latitude: 26° 11' 52" N; Longitude: 81° 40' 2" W
D. Tract Owners
   Name: Collier County Conservation Collier Program
   Address: 3301 Tamiami Trail E, Naples, FL, 34112
   Phone #: 239-403-2961; Fax #: 239-793-3795
E. Contact Person: Christal Segura
   (Owner__; Employee__; Consultant__; Manager X)
   Address: Conservation Collier – Facilities Bldg W
   3301 Tamiami Trail E, Naples, FL, 34112
   Phone #: 239-403-2495; Fax #: 239-793-3795

II. Baseline Assessment

1. Tract Information

A. Total tract acreage: 65
B. Total number of acres enrolled in Safe Harbor: 65
C. Number of active clusters for which Property Owner has 100% responsibility: 0
D. Number of active clusters for which Property Owner has partial responsibility: 0
E. Number of active clusters for which Property Owner has 100% foraging habitat responsibility: 0 ; Total acreage involved: 0
F. Number of active clusters for which Property Owner has partial foraging habitat responsibility: 0 ; Total acreage involved: 0
G. For each RCW cluster, provide the following information (see separate "RCW Clusters" attachment for providing information on more than 1 cluster):
   Cluster #____
   Total basal area of pines 10" DBH or greater (≥8 inches DBH in S. Florida slash pine) provided for forage _____ sq. ft.
   Number of RCWs present _____
   Sex & age, if known _____ _____ _____ _____ _____
   Total Number of cavity trees _____
   Number of active completed cavities _____
   Number of inactive, but suitable, cavities _____
   Number of active starts _____
   Number of inactive starts _____

H. 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:
On 06/17/2006, Roy DeLotelle and Collier County staff walked the entire site and did not locate any RCW cavities. However, 2 RCWs were observed on the site that day. Since then multiple site visits have been conducted. RCWs continue to be observed, but no cavities have been found.
Jen Perkins notes that there is a historic cluster on site that became inactive following a wildfire several years ago.

I. Individual(s) who conducted RCW cavity tree surveys:
Primary Contact: Roy DeLotelle
Phone Number: 352-871-3105
Additional Names: Mac Hatcher – Collier County
Doug Suitor – Collier County
Christal Segura – Collier County

J. Individual(s) who calculated foraging habitat analysis:
Primary Contact: n/a
Phone Number: _____
Additional Names: _____
_____
_____

K. Based on the total tract size, current number of active clusters and the associated cluster and foraging habitat, current and/or expected future forest conditions, and the Property Owner's long-term land management objectives, are there opportunities to increase the RCW population on the tract? _X_Yes ____No. If yes and the tract is large enough to support at least 10 active clusters, is the Property Owner interested in considering serving as a mitigation bank? ____Yes ____No.

2. Neighboring Tract Information –

List all known RCW populations by tract/owner name, # of active clusters, and distance (to the closest mile) within 10 miles of Property Owner's property
(1) population: Antonio Faga TR 00332360007;
size: 5 cavities; distance: 2
(2) population: Roy S. Claudio 00338400000;
size: 1 cavity; distance: 1.9
(3) population: Vincent Borrero 00339000001;
size: 1 cavity; distance: 2.3
(4) population: Charlie & Margaret Lunt 00337880003;
size: 1 cavity ; distance: 2.4
(5) population: Lisa Loiacano 00338720007;
size: 3 cavities; distance: 2.6
(6) population: Francis & Mary Hussey, Jr. 00342040003;
size: 5 cavities; distance: _____

III. Conservation Measures to be Implemented

Note: Check all that apply and fill in the blanks.

Prescribed Fire

___ Property Owner agrees to conduct prescribed fires on a regular or recurring basis in occupied RCW habitat that will be maintained or enhanced by the prescribed fire. Property Owner will prescribe burn _____ (acres or %) of the enrolled property every _____ year(s).

_X_ Property Owner agrees to conduct prescribed fires on a regular or recurring basis in potentially suitable nesting or foraging habitat and the use of prescribed fire will restore or enhance the areas as RCW habitat. Property Owner will prescribe burn _100_ (acres or **%**) of the enrolled property every _3-5_ year(s).

_X_ Property Owner agrees to conduct prescribed fires on a regular or recurring basis in unsuitable habitat, but, in this situation, also agrees 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. Property Owner will prescribe burn _100_ (acres or **%**) of the enrolled property every _3-5_ year(s).

Forest Management

___ Property Owner agrees to implement timber management practices in occupied RCW habitat that are compatible with RCW habitat requirements on the enrolled property.
Silvicultural system(s) used within RCW clusters: _____
Silvicultural system(s) used in foraging habitat: _____

_X_ Property Owner agrees to implement forest management practices that are compatible with RCW nesting and/or foraging habitat requirements in unoccupied but potentially suitable habitat.
Practices will include the following:

_____ Increase rotation age from ____ years to ____ years in potential nesting habitat over at least 10 contiguous acres.

_____ Increase rotation age from ____ years to ____ years in potential foraging habitat over at least 75 contiguous acres.

__X__ Plant appropriate native pine (typically longleaf or **south Florida slash**) and maintain those pines for at least 40 years.

_____ Thin overstocked (greater than 80ft^2 basal area/acre) stands; acres will be thinned to between 40 and 70 ft^2 pine basal area.

_X_ Property Owner agrees 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.
Practices will include the following:

_____ Increase rotation age from ____ years to ____ years in potential nesting habitat over at least 10 contiguous acres.

_____ Increase rotation age from _____ years to _____ years in potential foraging habitat over at least 75 contiguous acres.

__X__ Plant appropriate native pine (typically longleaf or **south Florida slash**) and maintain those pines for at least 40 years.

_____ Thin overstocked (greater than 80ft^2 basal area/acre) stands; acres will be thinned to between 40 and 70 ft^2 pine basal area.

Hardwood Control

___ Property Owner agrees to reduce/control hardwood basal area and midstory vegetation in occupied habitat on the enrolled property using the following methods:

_____ Prescribed burning at a ___ to ___ year interval

_____ Chemical treatment;

List chemicals_____

_____ Mechanical treatment;

List methods_____

_X_ Property Owner agrees to reduce/control hardwood basal area and midstory vegetation in unoccupied but potentially suitable RCW habitat on the enrolled property using the following methods:

_____ Prescribed burning at a ___ to ___ year interval

_____ Chemical treatment;

List chemicals_____

__X__ Mechanical treatment;

List methods possibly a Brown Tree Cutter for dense palmetto areas; hand removal of scattered sabal palms

_X_ Property Owner agrees to reduce/control hardwood basal area and midstory vegetation in habitat that is unsuitable for a period sufficient for the habitat to either become occupied by RCWs or to become potentially suitable nesting or foraging habitat using the following methods:

_____ Prescribed burning at a ___ to ___ year interval

_____ Chemical treatment;

List chemicals_____

__X__ Mechanical treatment;

List methods possibly a Brown Tree Cutter for dense palmetto areas; hand removal of scattered sabal palms

RCW Cavity Installation and Maintenance

___ Property Owner agrees to install artificial cavities in occupied RCW clusters on the enrolled property. Each active RCW cluster must have at least 4 complete cavities in suitable condition.

_____ cavities in _____ clusters

_____ insert cavities; _____ drilled cavities

___ Property Owner agrees to install cavity restrictors on enlarged cavities such that each

cluster has a minimum of 4 complete cavities in suitable condition.
_____ restrictors in _____ clusters

_X_ Property Owner agrees to install and maintain artificial cavities at appropriate sites on the enrolled property in potentially suitable, unoccupied nesting habitat and at least four (4) complete cavities are installed per site.

RCW Population Management

___ Property Owner agrees to provide opportunity for the Commission, USFWS, or a third party to translocate subadults from other properties to the enrolled property. Translocations will involve the following:
_____ Potential Breeding Pair(s) (unrelated subadults)
_____ Single Male(s)
_____ Single Female(s)

___ Property Owner agrees to provide opportunity for the Commission, USFWS, or a third party to translocate subadults into habitat on the enrolled property that is occupied by a single (male or female) RCW. Translocations will involve the following:
_____ Potential Breeding Pair(s) (unrelated subadults)
_____ Single Male(s)
_____ Single Female(s)

___ Property Owner agrees to provide opportunity for the Commission, USFWS, or a third party to translocate subadults from the enrolled property to other properties. Translocations will involve the following:
_____ Potential Breeding Pair(s) (unrelated subadults)
_____ Single Male(s)
_____ Single Female(s)

IV. Conservation Benefits

The following conservation benefits to RCWs are expected as a result of implementing the conservation measures identified in this Agreement:
Note: the Commission will check all that apply.

___ Occupied RCW nesting and foraging habitat will be maintained at current levels, which will assist in meeting RCW recovery goals and will help maintain population stability.

___ Existing RCW populations will be maintained and enhanced through the installation of artificial RCW nesting and roosting cavities.

_X_ New RCW groups will be created through natural population expansion and/or the installation of artificial RCW nesting and roosting cavities and/or translocation efforts on the enrolled property.

___ Other RCW populations will be augmented through translocation of surplus subadult RCWs from the enrolled property to suitable sites.

_X_ Suitable RCW habitat will be enhanced, restored, and/or created.

_X_ RCW habitat connectivity will increase as a result of habitat enhancement, restoration, and creation efforts.

___ Additional information on RCW population productivity and demographics in Florida will be obtained.

_X_ Public support for RCW conservation and endangered species management will increase by demonstrating government agency sensitivity, cooperativeness, and flexibility. Much of the past and current criticism of environmental regulations and private property rights has focused on ESA-related habitat management restrictions.

V. Implementation Schedule

Specify the time frames within which the Property Owner agrees to accomplish the conservation measures agreed upon in this Agreement. For each activity, list the agreed upon dates to accomplish each action:

Management Activities to be Implemented

A. Activity: 1st prescribe burn will occur sometime between late Fall 2008 and Winter 2008-2009. A cooler burn is necessary to reduce fuel loads before switching to growing season burning.
Completion Date: between late Fall 2008 and Winter 2008-2009

after A is completed

B. Activity: prescribe burn 100% of property every 3-5 years
Completion Date: March through June every 3-5 years

C. Activity: remove palms and palmettos by mechanical means
Completion Date: end of calendar year 2008

after C is completed

D. Activity: remove palms and palmettos using mechanical or chemical means
Completion Date: as appropriate; when midstory becomes more than sparse and/or greater than 7ft. in height

E. Activity: thin pine stands
Completion Date: as appropriate to maintain stocking at or below 70BA

F. Activity: plant south Florida slash pine in areas where wildfire occurred and where Brazilian Pepper has been cleared
Completion Date: 2013

G. Activity: install artificial cavities
Completion Date: Winter 2008-2009 after hardwood control and 1st burn

H. Activity: _____
Completion Date: _____

I. Activity: _____
Completion Date: _____

J. Activity: _____
Completion Date: _____

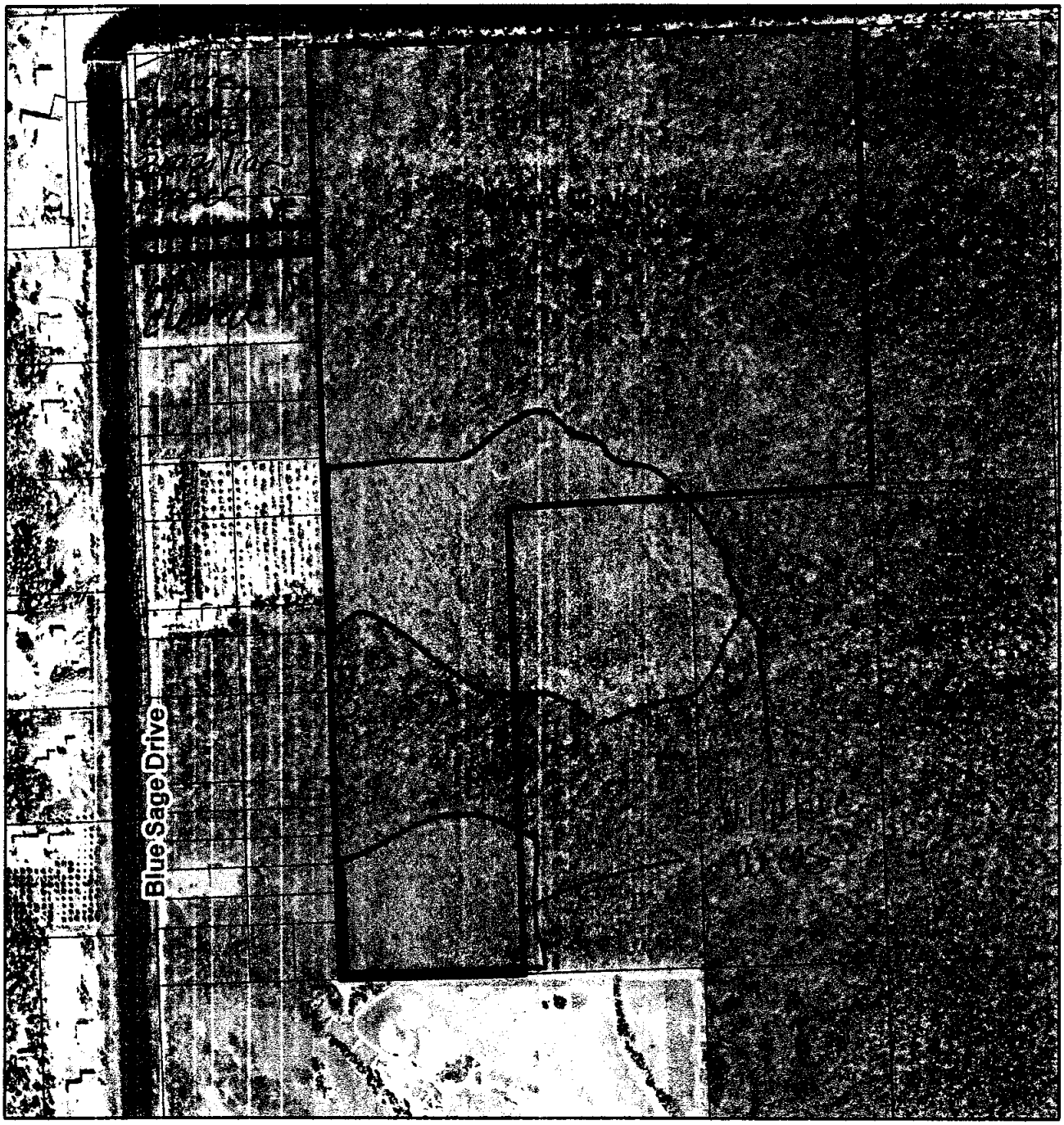
K. Activity: _____
Completion Date: _____

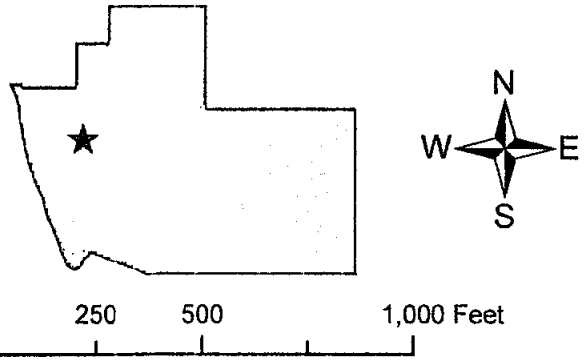
L. Activity: _____
Completion Date: _____

M. Activity: _____
Completion Date: _____

N. Activity: _____
Completion Date: _____

Conservation Collier Nancy Payton Preserve Land Use Cover





Legend

Land Use Cover FLUCCS Map

410- Pine Flatwoods

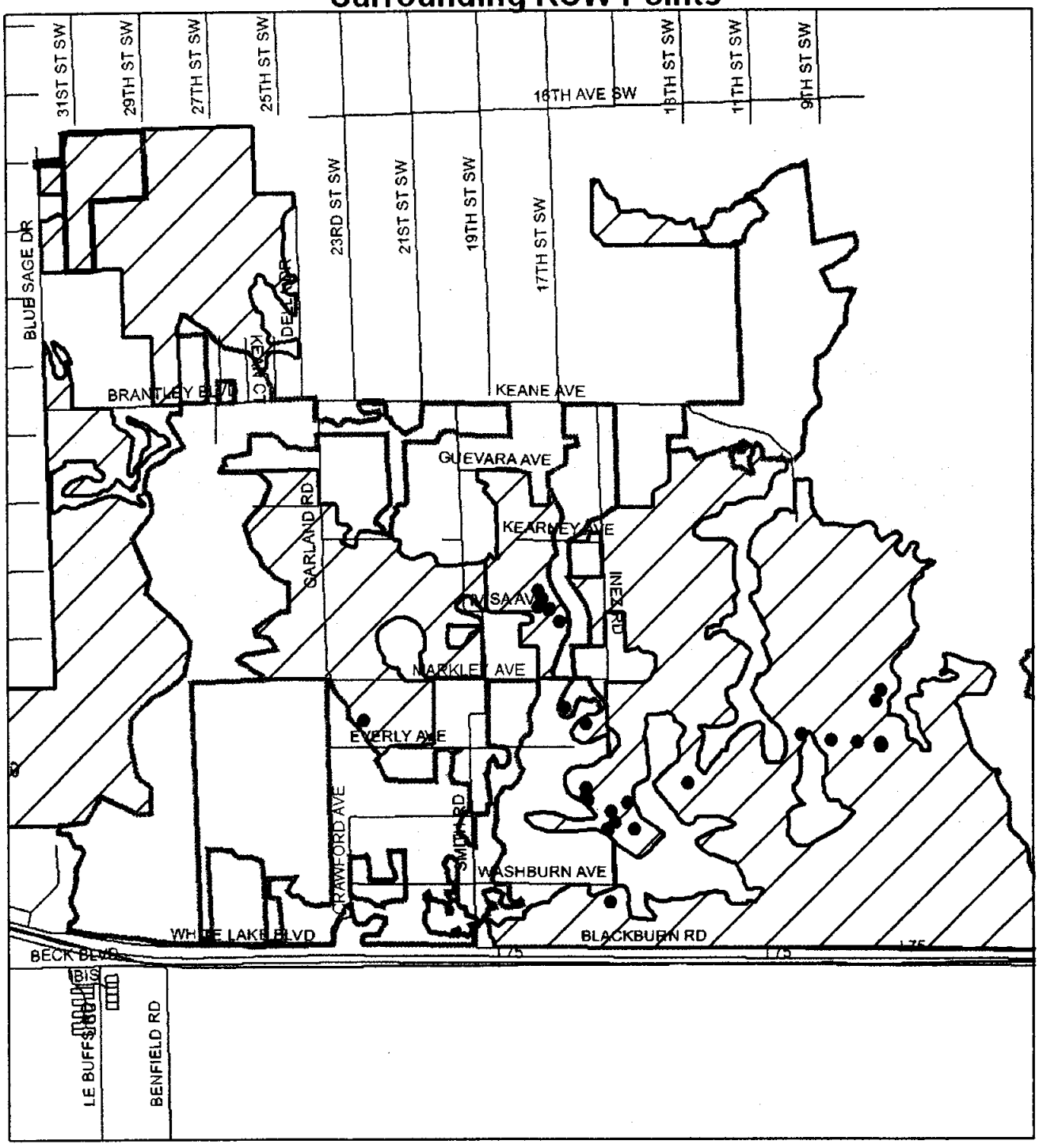
Conservation Collier Property Boundary

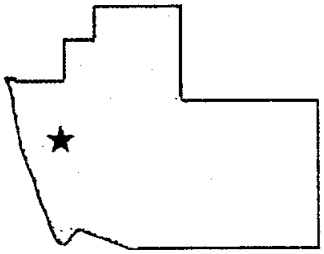
Folio # 61730440005
Sec 24 Twp 49 Range 26

Collier County

Data Source-Parcels and Aerials- Collier County Property Appraiser Land Cover / Use SFWMD 94/95
Created by: GIS/CDES/ Environmental Services/ CS
G: Conservation Collier/maps/acquiredproperties/schoolboard/safeharbor/LandCover.mxd and jpg

Conservation Collier Nancy Payton Preserve and Surrounding RCW Points





Legend

- Conservation Collier Property Boundary
- Land Use Cover-Pine Flatwoods
- RCW Cavity Trees

RCW Habitat

- Cavities/ nesting habitat
- foraging habitat
- RCW_4milebuffer

0 1,500 3,000 6,000 Feet

Data Source-Parcels and Aerials- Collier County Property Appraiser
Created by: GIS/CDES/ Environmental Services/ CS
G: Conservation Collier/maps/acquiredproperties/schoolboard/safeharbor/LandCover.mxd and jpg

Collier County

FLORIDA

STATEWIDE

RED-COCKADED WOODPECKER

SAFE HARBOR AGREEMENT

May 2006

FLORIDA STATEWIDE RED-COCKADED WOODPECKER SAFE HARBOR AGREEMENT

Additional documents associated with this agreement:

Appendix 1 National Historic Preservation Act
Appendix 2 Safe Harbor Management Agreement
Attachment A – Evaluation Form
Attachment B – Property Owner Map
Attachment C – Neighboring Lands Map
Attachment D – Certificate of Inclusion
Attachment E – Annual Monitoring Form
RCW Clusters Attachment – RCW Cluster Information Form

1.0 INTRODUCTION

This Safe Harbor Agreement (Agreement), effective and binding on the date of last signature below, is between the Florida Fish and Wildlife Conservation Commission ("Commission") and the U.S. Fish and Wildlife Service ("Service") (hereinafter collectively referred to as the "Parties"):

Permittee: Division Director
Habitat and Species Conservation
Florida Fish and Wildlife Conservation Commission
620 South Meridian St.
Tallahassee, Florida 32399-1600
Phone: (850) 410-0656 ext. 17272
Fax: (850) 921-7793

Administrator: Assistant Regional Director
Ecological Services
U.S. Fish and Wildlife Service
1875 Century Boulevard
Suite 200
Atlanta, Georgia 30345
Phone: (404) 679-4156
Fax: (404) 679-7081

Agreement Name: Florida Statewide Red-cockaded Woodpecker Safe Harbor Agreement ("Agreement" or "FL RCW SHA")

Agreement/Tracking Number: TE 113463-0

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 will issue the Commission will have the same 99-year duration.

This Agreement covers the following property: This Agreement covers all non-federal lands within the State of Florida. The property of each Property Owner enrolled by the Commission under this Agreement is considered the "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 endangered species, is the only species for which incidental take authority is sought. This species is considered the "covered species" as defined in the Service's Safe Harbor Policy.

2.0 AUTHORITY AND PURPOSE

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.

Article IV, Section 9 of the Constitution of the State of Florida and Section 372.072, Florida Statutes, provide the Commission with the authority to manage and conserve Florida wildlife.

2.2 Purpose

The FL RCW SHA establishes a program to allow numerous non-federal Property Owners in Florida to be involved in the Agreement through Certificates of Inclusion ("Certificates"), which would be issued by the Commission under the terms of this Agreement and would convey the take authorization of the official section 10(a)(1)(A) permit to the certificate recipient. The Commission will receive a Permit that authorizes it to enroll Property Owners under the provisions of this Agreement and to provide enrolled Property Owners with incidental take[1] authority for any RCWs and RCW habitat that are above each Property Owner's RCW baseline responsibilities (Section 7.2). Participating Property Owners that voluntarily agree to beneficially manage for RCW habitat on their property with measures that are sufficient to meet the provisions and intent of the Agreement will work with the Commission to develop a Safe Harbor Management Agreement ("SHMA"). The SHMA signed by the Commission and any non-federal Property Owner is subject to all of the terms and conditions of this Agreement and Permit.

RCW populations located on non-federal lands have presented problems for Property Owners whose land management objectives are incompatible with the RCWs specific habitat requirements. In some cases, management objectives for non-federal lands could include having mature pine communities that would be beneficial for RCWs, but Property Owners fear that having mature pine forests may attract RCWs (or more RCWs) to their lands and, in turn, result in increased land use restrictions. In such cases, the Property Owner's only alternative may be to manage his or her land so that it is unsuitable for RCWs. These disincentives for providing

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1 As used in this context, "take" is as defined in 16 U.S.C. 1532(19) and means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" and includes the meanings of those terms as defined in 50 C.F.R. §17.3; "Incidental" in this context is as defined in 50 C.F.R. § 402.02 and refers to takings that result from, but are not the purpose of, carrying out an otherwise lawful activity.

mature pine forest work against RCWs and have contributed to past RCW population declines, a significant reduction in the amount of RCW habitat on private lands, and the RCW distributions seen today both range-wide and in Florida.
The purpose of this Agreement is to provide a simple and programmatic method for the Commission to collaborate with non-federal Property Owners in order to implement management activities for the RCW while providing participating Property Owners with the regulatory assurances allowed by the Service's Safe Harbor Policy and regulations. Through this Agreement, the Parties will seek to conserve and maintain the existing number of occupied RCW territories in Florida and encourage the development of new RCW territories on the enrolled properties of Property Owners who participate under this Agreement. Meeting with forest Property Owners throughout the State of Florida and encouraging those Property Owners to incorporate the use of typical RCW management methods in their forest management activities will accomplish these objectives.

3.0 GOALS AND OBJECTIVES

This Agreement was developed to address the needs of both Florida's private forest Property Owners and RCWs, and it has the following goals:

1. To enhance and/or establish RCW populations on properly managed sites through long-term management commitments by private Property Owners in Florida;

2. To remove the disincentives that work against management of RCW populations and suitable RCW habitat on private lands in Florida; and

3. To provide benefits to other species and plant communities which share habitat with RCWs through a shift toward management for more natural conditions on private lands.

4.0 NET CONSERVATION BENEFITS

The primary objective of this Agreement is to encourage non-federal Property Owners to undertake voluntary management activities that will benefit RCWs and other inhabitants of open pine forest ecosystems. The management activities to be undertaken as part of this agreement are intended to provide significant conservation benefits to the RCW within the State of Florida. The conservation benefits expected to result from this Agreement include:

1. Occupied RCW nesting and foraging habitat will be maintained at current levels, which will assist in meeting RCW recovery goals and will help maintain population stability.

2. Existing RCW populations will be maintained and enhanced through the installation of artificial RCW nesting and roosting cavities.

3. New RCW groups will be created through natural population expansion and/or the installation of artificial RCW nesting and roosting cavities and/or translocation efforts on the enrolled property.

4. Other RCW populations will be augmented through translocation of surplus subadult RCWs from the enrolled property to suitable sites.

5. Suitable RCW habitat will be enhanced, restored, and/or created.

6. RCW habitat connectivity will increase as a result of habitat enhancement, restoration, and creation efforts.

7. Additional information on RCW population productivity and demographics in Florida will be obtained.

8. Public support for RCW conservation and endangered species management will increase by demonstrating government agency sensitivity, cooperativeness, and flexibility. Much of the past and current criticism of environmental regulations and private property rights has focused on ESA-related habitat management restrictions.

It is likely that most SHMAs that will result from this Agreement will provide more than one of the net conservation benefits listed above through implementation of one or more of the management activities in section 7.1 of this Agreement. Each SHMA will identify the net conservation benefits that will be achieved and are applicable to that particular agreement. Further, since each management activity covered by this Agreement is specifically designed to provide a net conservation benefit if implemented as described in this Agreement, the Parties have ensured that each SHMA will provide a RCW net conservation benefit.

5.0 BACKGROUND

5.1 Description of the Agreement Coverage Area

Florida currently has 14.7 million acres of forested lands statewide. The majority of those lands are owned by non-industrial private forest owners (53%) with another 27% managed by industrial forest owners and approximately 19% managed by federal, state and local governments (Conner and Hartsell 2002). Approximately 8.6 million acres are pine-dominated forests and of these approximately 5.6 million acres are longleaf/slash pine forest (Conner and Hartsell 2002). Although RCWs are known to occupy a variety of pine forest types in Florida, the open longleaf pine forests of north-central Florida and the Florida panhandle are currently the strongholds for the species in Florida.

5.2 Description of the Covered Species

A description of the RCW, its life history characteristics, distribution, and threats is contained in the Service's biological opinion on issuance of the Permit associated with this Agreement, dated May 1, 2006 which is hereby incorporated into this Agreement by reference. Other thorough descriptions of RCWs and their life history can be found in the RCW Recovery Plan (USFWS 2003), Ligon (1970), and Hooper *et al.* (1980). The RCW is federally listed as an endangered species and state listed as a species of special concern. No critical habitat has been designated for the species.

5.3 Description of the Existing Conditions

In Florida, the RCW is found in the Panhandle and throughout the Peninsula to northern Monroe County. Florida contains two of the largest RCW populations that occur on public lands (Apalachicola Ranger District--Apalachicola National Forest; Eglin Air Force Base) in addition to many other public lands with the potential for populations greater than 100 groups. There are an estimated 55 to 85 groups of RCWs on private lands in Florida with the largest concentrations lying in the South-central and Southern Peninsula management units (FWC 2003).

Habitat conservation is important to the RCW on private lands. Florida's "Management Plan for the Red-cockaded Woodpecker" (FWC 2003) calls for the recovery of metapopulations in six management units centered on the federal land base and state-owned properties; however, it also recognizes the importance of private lands conservation to overall recovery. Non-federal land conservation can serve to boost recovery efforts by creating buffers around existing recovery populations, by linking populations on federal lands or state lands with other functioning populations, by providing subadult birds for regional translocation programs, and by simply protecting valuable habitat (Costa and Edwards 1997).

6.0 SAFE HARBOR MANAGEMENT AGREEMENT AND CERTIFICATES OF INCLUSION

Implementation of the contemplated program will require execution of the Agreement and issuance of the Permit to the Commission by the Service. The Commission could then enroll non-federal Property Owners under the provisions of the Agreement. Property owned by the State of Florida will not be eligible for enrollment under this Agreement, because these properties have been identified as essential to the recovery of the red-cockaded woodpecker in Florida. Examples of state-owned property in Florida that are ineligible for enrollment in this Agreement include, among others, all State Forests, State Parks, Wildlife Management Areas and Water Management District-owned lands.

6.1 Enrollment Procedures

The property of each Property Owner enrolled by the Commission under this Agreement is considered the "enrolled property" as defined in the Service's Safe Harbor Policy. However,

each property applying for enrollment must be able to show a net conservation benefit for RCWs. The Commission shall consider Property Owners that apply for safe harbor only on property that currently is, or that has the potential to be, RCW habitat. In order to enroll a property under the terms of this Agreement, the Commission and the Property Owner must enter into a SHMA (Appendix 2). A Property Owner who enters into a SHMA will be issued a Certificate (Attachment D to Appendix 2) under the Commission's Permit. The Certificate will provide regulatory assurances to the Property Owner based on the baseline conditions of the Property Owner's property (See Section 7.2). The expiration date of the signed SHMA and Certificate will be no later than the expiration date of the Commission's Permit, which is requested for 99 years. A Property Owner will have the option to sign up for shorter periods of time as long as a net conservation benefit can be established during their requested SHMA duration.

Commission staff will meet with Property Owners that are interested in RCW conservation. Persons eligible to enter into a SHMA include non-federal, non-state Property Owners. Property Owners who agree to implement voluntary RCW management activities that are sufficient to meet the provisions and intent of this Agreement, the Permit, and the Service's Safe Harbor Policy (published at 64 Federal Register 32717) may enter into a SHMA (Appendix 2) with the Commission that describes the enrolled property and identifies the baseline conditions that will be maintained, the management activities that will be undertaken by the Property Owner to benefit the RCW, and the RCW net conservation benefit(s) that will be achieved. Both the Property Owner and the Commission must sign the SHMA for it to be valid. Once the Commission and a Property Owner sign a SHMA, the Property Owner will be issued a Certificate (Attachment D to Appendix 2), which contains the Property Owner's authorization to take above-baseline RCWs and habitat and the other regulatory assurances that are provided by the Permit to the Property Owner.

6.2 Content of SHMAs

Each SHMA shall, among other things:

1. Specify the species and/or habitats covered, including foraging habitat conditions (stands, basal area, etc), and identify the enrolled property[2] (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;
2. Fully describe the agreed-upon baseline conditions that will be maintained for the covered species on the enrolled property;

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2 Enrolled Property Description: All SHMAs between a Property Owner and the Commission will identify the total number of acres included in the SHMA and include a description of the habitats present, the existing and predicted land uses on the enrolled property, and the boundaries of the enrolled property. A legal boundary description will be used, and an accurate map or maps will be used to identify and characterize the enrolled property. The enrolled property may or may not include all of a particular Property Owner's property. However, the Parties anticipate that for most SHMAs, entire parcels will be used as the enrolled property to enable the Property Owner to receive the maximum coverage of the Permit's regulatory assurances.

3. 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;
4. 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;
5. Describe any incidental take associated with the management actions during the term of the SHMA;
6. Incorporate a notification requirement that provides the Commission 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;
7. Describe the activities that would be expected to return the enrolled property to baseline conditions and the extent of incidental take that would likely result from such activities;
8. 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;
9. Incorporate a requirement for the enrolled Property Owner or their agent to obtain any necessary state or federal permits for activities such as capturing, banding, reintroducing, etc. that is planned; and
10. Incorporate a procedure for notifying and transferring the Certificate to any successor in interest, where appropriate.

7.0 AGREEMENT IMPLEMENTATION

7.1 Management Activities

The Commission may enter into a SHMA with, and issue a Certificate of Inclusion to, Property Owners who voluntarily agree to implement one or more of the management activities identified below. The specific management activities that will be identified in the SHMA and implemented by the Property Owner will likely vary on a case-by-case basis due to site-specific factors, which include, but are not limited to, whether or not RCWs are present on the enrolled property, the age and condition of the pine forest stands present on the enrolled property, and the Property Owner's forest management goals and objectives. However, all SHMAs will require the Property Owner to describe the nature, extent, timing, and other pertinent details of the management activities that he or she will voluntarily undertake to provide a net conservation benefit, including a schedule for implementation of the management activities. SHMAs will also describe how the management activities will benefit the RCW.

In some cases, implementation of only one management activity may be necessary in a SHMA to achieve the required net conservation benefit, whereas, in other situations, more than one conservation measure may be necessary to achieve the net conservation benefit (e.g., such as in degraded forest habitat). It is the privilege of the Commission to determine if more than one

management activity would be necessary to meet the conservation benefit standard. However, the Commission will, as part of all SHMAs that they enter into, ensure that the management activities covered by each SHMA will result in the required net conservation benefit. If a particular Property Owner does not agree to implement at least one of the following management activities, as described below, the Commission will not enter into a SHMA. The management activities described below will be used by the Commission to determine if the net conservation benefit standard will be met, when it will be met, and, thus, if the Commission can enter into a SHMA with a particular Property Owner:

1. Prescribed Fire – A management activity that a Property Owner may agree to through a SHMA is to maintain or increase his or her use of prescribed fire on the enrolled property and agree that prescribed fires will occur under any of the following circumstances:

   (a) The Property Owner conducts prescribed fires on a regular or recurring basis within areas of the enrolled property that are occupied RCW habitat and continues to maintain or enhance those areas by use of prescribed fire. This will provide an immediate RCW net conservation benefit.

   (b) The Property Owner conducts prescribed fires on a regular or recurring basis within areas of the enrolled property that are potentially suitable RCW nesting or foraging habitat in order to restore or enhance the areas as RCW habitat. This will provide an immediate RCW net conservation benefit.

   (c) The Property Owner conducts prescribed fires on a regular or recurring basis within areas of the enrolled property that are unsuitable RCW habitat, for a period sufficient for the habitat to either become occupied by RCWs or to become potentially suitable RCW 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 RCW nesting or foraging habitat. This may also mean that the Property Owner may have to implement other management activities, such as a forest management strategy, that could benefit RCWs, in order for net conservation benefit to be achieved at an earlier date.

2. Timber Management – A management activity that a Property Owner may agree to through a SHMA is to maintain or implement a forest management strategy or plan on the enrolled property that would provide the habitat RCWs require. In general, this would entail the Property Owner's use of the Private Land Guidelines for RCW habitat in Appendix 5 of the RCW Recovery Plan (USFWS 2003). An eligible timber management strategy or plan would include any of the following circumstances:

   (a) The Property Owner implements or maintains a timber management strategy or plan that maintains or enhances occupied RCW habitat. This will provide an immediate RCW net conservation benefit.

(b) The Property Owner implements or maintains a timber management strategy or plan that maintains or enhances existing habitat that is potentially suitable RCW nesting or foraging habitat. This will provide an immediate RCW net conservation benefit.

(c) The Property Owner implements or maintains a timber management strategy or plan that restores habitat to a condition that will, in the future, provide potentially suitable RCW nesting or foraging habitat. The net conservation benefit will not be achieved until the areas where the timber management strategy or plan was implemented or maintained either become occupied by RCWs or become potentially suitable RCW nesting or foraging habitat. This may also mean that the Property Owner may have to implement other management activities in order for net conservation benefit to be achieved at an earlier date.

3. Hardwood Control – A management activity that a Property Owner may agree to through a SHMA is to control hardwood canopy and midstory encroachment in pine forest stands on the enrolled property in any of the following circumstances:

(a) The Property Owner controls hardwoods in occupied RCW habitat through the use of mechanical or chemical methods or through the use of prescribed fire so that the hardwood density guidelines contained in Appendix 5 of the RCW Recovery Plan (USFWS 2003) are met. This will provide an immediate RCW net conservation benefit.

(b) The Property Owner controls hardwoods in potentially suitable RCW nesting or foraging habitat through the use of mechanical or chemical methods or through the use of prescribed fire so that the hardwood density guidelines contained in Appendix 5 of the RCW Recovery Plan (USFWS 2003) are met. This will provide an immediate RCW net conservation benefit.

(c) The Property Owner controls hardwoods on a regular or recurring basis within an enrolled property that is unsuitable RCW habitat so that the hardwood density guidelines contained in Appendix 5 of the RCW Recovery Plan (USFWS 2003) are met, but, in this situation, the Property Owner will also agree to control hardwoods for a period sufficient for the habitat to either become occupied by RCWs or to become potentially suitable RCW 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 RCW nesting or foraging habitat. This may also mean that the Property Owner may have to implement other management activities, such as maintaining a suitable pine forest density for RCWs, in order for a net conservation benefit to be achieved.

4. RCW Cavity Installation and Maintenance – A management activity that a Property Owner may agree to through a SHMA is to install artificial RCW cavities, which includes nest boxes and/or drilled cavities, or to install cavity restrictors on enlarged but otherwise suitable cavities on the enrolled property under any of the following circumstances:

(a) The Property Owner installs artificial RCW cavities on the enrolled property in occupied RCW clusters that are cavity-deficient (i.e., each RCW present does not have its own complete cavity in which to roost) such that each RCW in the cluster has its own complete cavity for roosting. However, each cluster shall have no fewer than four (4) complete cavities. This will provide an immediate RCW net conservation benefit.

(b) The Property Owner installs cavity restrictors on enlarged but otherwise suitable cavities on the enrolled property in occupied RCW clusters such that each RCW cluster has a minimum of four complete cavities that can be used by RCWs. This will provide an immediate RCW net conservation benefit.

(c) The Property Owner installs and maintains artificial cavities at appropriate sites on the enrolled property in potentially suitable, unoccupied nesting habitat and at least four (4) complete cavities are installed per site. This will provide an immediate net conservation benefit.

5. RCW Population Management – A management activity that a Property Owner may agree to through a SHMA is to implement certain RCW population management activities on the enrolled property and agree that the RCW population management activities will occur under any of the following circumstances:

(a) The Property Owner translocates pairs of surplus, unrelated, subadult RCWs into unoccupied, suitable habitat on the enrolled property and such translocations are approved by the Commission and the Service prior to their implementation. The Property Owner also would ensure that at least four suitable RCW cavities are available per potential breeding pair that is translocated. The RCW net conservation benefit will be achieved upon the successful translocation of the surplus RCWs to the enrolled property.

(b) The Property Owner translocates surplus, unrelated, subadult RCWs into RCW territories on the enrolled property that are occupied by a single (male or female) RCW and such translocations are approved by the Commission and the Service prior to their implementation. The Property Owner also would ensure that at least four suitable RCW cavities are available per potential breeding pair. The RCW net conservation benefit will be achieved upon the translocation of the surplus RCW(s) to the enrolled property.

(c) The Property Owner allows the Service or the Commission to remove surplus subadult RCWs from the enrolled property to augment other RCW populations if such removal will not affect the Property Owner's baseline responsibilities. The RCW net conservation benefit will be achieved upon the removal of the surplus RCWs.

6. Forest Management – A management activity that a Property Owner may agree to through a SHMA is to manage the pine forest stands on the enrolled property under any of the following circumstances:

(a) The Property Owner plants appropriate pine species to be determined by the Commission, i.e., longleaf pine (*Pinus palustris*), slash pine (*P. elliottii*), or south Florida slash pine (*P. elliottii* var. *densa*), on the enrolled property, maintains those pines for at least 40 years, and thins those pines at intervals sufficient to ultimately result in potentially suitable RCW foraging habitat at the end of 30 years. The net conservation benefit will be achieved once the pine stands reach 30 years of age and meet the RCW foraging habitat density thresholds established in guidelines in Appendix 5 of the RCW Recovery Plan (USFWS 2003).

(b) The Property Owner maintains natural or planted pine forest stands on the enrolled property for a time period sufficient for the stands to become either potentially suitable RCW foraging (i.e., >30 years) or nesting/roosting (i.e., >60 years) habitat. The net conservation benefit will be achieved once the stands reach the chosen age (i.e., either 30 or 60 years) and meet the RCW foraging or nesting habitat densities established in the guidelines in Appendix 5 of the RCW Recovery Plan (USFWS 2003).

(c) The Property Owner maintains groups of pine trees that are at least 60 years old and cover 10 acres or more to serve as potential RCW cavity trees and clusters and the groups of pine trees are within or adjacent to existing or future RCW foraging habitat. This will provide an immediate net conservation benefit if existing RCW foraging habitat is already present. If only future foraging habitat exists, the net conservation benefit will be achieved once the future foraging habitat is at least 30 years old.

7. Future Conservation Measures – There may be a time in the Future when the Service identifies a conservation measure, based on future RCW research, which may be identified as critical in the recovery of the covered species. The Commission and the Service will allow enrolled landowners, with concurrence by both the Commission and the Service to choose any of these conservation measure(s) as their voluntary RCW management action(s). This will provide an immediate net conservation benefit.

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". Enrolling Property Owners and the Commission will utilize the methods described in the RCW Recovery Plan (USFWS 2003), or any successor document that may be in effect at the time a particular Property Owner enters into a SHMA, to determine the number and composition of the RCW groups present on the property, if any, and, thus, the Property Owner's baseline responsibilities. These baseline responsibilities will typically be expressed in terms of the number of potential breeding groups and solitary bird groups and/or the number of active clusters. In either case, the baseline will also include a description of the required foraging habitat (total basal area and acres) for each group or active cluster. 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 or if a known RCW group exists within one-half-mile of the property (at the discretion of the Commission, Property Owner knowledge may be the basis for determining the distance to known sites on neighboring properties). Suitable 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 habitat for the RCW cluster, as required by the ESA, that portion of habitat will be incorporated into the Property Owner's baseline.

If suitable habitat is present, the Property Owner will determine if RCW groups exist. To determine if RCW groups exist, the Property Owner will conduct surveys for cavity trees in stands that contain suitable nesting habitat. Red-cockaded woodpeckers select and require old-growth pines for cavity excavation. Age of cavity trees depends on the ages of pines available, but there is a minimum age, generally 60 to 80 years, depending on tree and site factors (USFWS 2003). Old-growth pines are relatively rare throughout the south and remnants (both single trees and stands) within today's forests are critically important habitat (USFWS 2003). Property Owner properties that must be surveyed for RCW cavity trees include:

1. Pine and pine-hardwood stands over 60 years of age.
2. Pine and pine-hardwood stands under 60 years of age containing scattered or clumped old-growth (over 60 years of age) pine trees.

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

Accurate surveys are essential for determining baseline conditions. To limit undetected cavity trees and misjudged activity status, qualified personnel should be used to conduct baseline surveys. Base line numbers are subject to approval by the Commission and the Service.

Potential nesting habitat (pines greater than or equal to 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 are run north-south, because many cavity entrances are oriented in a westerly direction (USFWS 2003).

When cavity trees are found, their location is 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 are assessed and recorded at this time. If cavity trees are found, more intense surveying within 1500 feet of each cavity tree is conducted to locate all cavity trees in the area. Cavity trees are later assigned into clusters based on observations of RCWs as described below.

Property Owners that wish 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 Recovery Plan (USFWS 2003). To perform group checks, trained and qualified personnel 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, b) a solitary bird, or c) no birds. Groups of two or more birds that remain together and peacefully interact are assumed to represent potential breeding groups.

The Commission 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, the Commission 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 group check 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.

Property Owners 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.

The Parties to this Agreement must concur with the baseline determination. If the Commission, the Service, and/or their respective agents do not directly take part in surveys to determine the baseline, concurrence with the determination is mandatory.

7.2.3 Maintaining the RCW Baseline

For each enrolled property that has a RCW baseline responsibility, the Property Owner must agree to maintain that baseline (i.e., the RCW groups/clusters and nesting and/or foraging habitat that comprise his or her baseline responsibilities) through the use of those management activities identified in this Agreement that are necessary to maintain the baseline responsibilities. The Commission and each enrolling Property Owner will agree to the set of management activities that will ensure that the baseline is maintained on each enrolled property, and these management activities and a description of how the management activities will be implemented on the enrolled property (e.g., the schedule of implementation) will be described in the SHMA. This will provide an immediate RCW net conservation benefit.

The baseline responsibilities/constraints of the Property Owner are to provide sufficient basal area of pines of appropriate size to maintain the nesting and foraging areas for all RCW groups identified by the baseline survey of the Property Owner's property, as specified below. 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. Protect active and inactive cavities and cavity start trees, within active baseline clusters, from harvesting. The Commission can provide assistance in locating and marking all cavity and start trees at its discretion. The Commission 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 outside of the nesting season (August-March). For each active cavity tree removed in the construction area, a minimum of two artificial cavities (drilled or inserts) must be installed elsewhere on the lot (at least 200 feet from the building site) four months prior to initiation of construction.

2. Manage each cluster as a timber stand comprising at least ten contiguous acres, if currently present on the enrolled Property Owner's property, with the purpose of retaining potential cavity trees. If ten 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. Provide at least 50 ft^2 of basal area per acre of pine trees $\geq$10 inches diameter at breast height (DBH) in active baseline clusters if the trees are currently present on the enrolled Property Owner's property. On property where south Florida slash pine is the predominant pine species, basal area requirements are for pine trees $\geq$8 inches DBH.
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 to twenty feet away from the base of cavity trees, depending on the fuel load. Other precautions include 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 two artificial cavities (inserts or drilled).
6. Provide at least 3000 ft^2 of basal area in pine trees (including the trees in the cluster) $\geq$10 inches DBH for foraging habitat on a minimum of 75 acres ($\geq$8 inches DBH in south Florida slash pine), if the trees are currently present on the enrolled Property Owner's property. If 3000 ft^2 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 ft^2 of basal area of pine trees greater than 10 inches DBH as soon as possible. Foraging habitat for each RCW group must be contiguous to the cluster stand with no gaps between stands exceeding 200 feet.
7. Conduct timber harvesting within the active baseline clusters only between August 1st and March 31st, or as otherwise approved by the Commission and the Service. If there is a need to harvest timber within an active cluster outside this window of time, the enrolled Property Owners should notify the Commission 30 days in advance of the desired starting harvest date. The Commission 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, avoiding skidding near 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 near cavity trees.

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 years;
2. The RCW cluster remains inactive for a minimum of five 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 of the criteria listed above. However, the Property Owner must make a request to the Commission in writing for a baseline reduction. The Property Owner must allow the Commission and/or the Service access to the enrolled property to conduct an investigation, if the Commission and/or the Service so choose. If the Commission and/or the Service determine the group is eligible for removal from the baseline, the Commission 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. The Commission, at its discretion, may allow participating Property Owners to shift 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 has implemented the management activities specified in the

SHMA and is in compliance with the SHMA.
2. The enrolled Property Owner has maintained his or her baseline responsibilities as specified in the SHMA.
3. The enrolled Property Owner has replaced baseline solitary bird groups prior to replacing baseline potential breeding groups.
4. The enrolled Property Owner has replaced a baseline potential breeding group with another potential breeding group, or a baseline solitary bird group is replaced with either a potential breeding group or another solitary bird group of the same sex.
5. The enrolled Property Owner has replaced a baseline potential breeding group with an above-baseline group that contains a potential breeding group that has been in existence for at least six months, including a breeding season, (April through July) prior to the replacement.
6. The enrolled Property Owner has replaced baseline groups with above-baseline groups that provide suitable breeding and foraging habitat and, if other groups are present within the enrolled property, replaced groups are located so that they can physically contact the other groups that are present on the enrolled property.
7. The landowner is maintaining foraging and nesting habitat needed for the newly identified baseline group

For a Property Owner to shift his or her baseline responsibilities, the Property Owner must request that the Commission and Service evaluate the proposed baseline shift and ensure that the conditions outlined above are met. Where possible, flexibility will be used by the Commission with concurrence from the Service. If the conditions are met, the Commission will document the shift in the records associated with the applicable SHMA, noting that the enrolled Property Owner's baseline responsibilities did not change and that the baseline was maintained prior to any incidental take associated with the baseline shift.

7.3 Incidental Take

The authorization for a participating Property Owner to incidentally take RCWs under this program is contingent upon the Property Owner maintaining certain baseline responsibilities for RCW groups and habitat that is present at the time the SHMA is signed. The only take that will be authorized under this Agreement and associated SHMAs is take that is both above-baseline RCWs and incidental to and not the purpose of carrying out of an otherwise lawful activity. It is important to note that such taking may or may not ever occur. It is also imperative to emphasize that it is unlikely that RCWs would utilize the habitat involved if not for the voluntary management practices of the participating Property Owner. These voluntary habitat management activities undertaken through this Agreement will likely increase the number of RCW groups and the total area of suitable, actively managed RCW nesting and foraging habitat in Florida. Therefore, the only habitat that may be lost due to incidental take is habitat that does not currently exist, is unoccupied at the time the Property Owner signs the SHMA, or is replaced by an above-baseline group as discussed in Baseline Adjustment (Section 7.2.4). The expectation underlying this Agreement is that while Property Owners will be permitted to carry out activities that could result in the take of above-baseline groups on their land; they may choose not to do so at all or not to do so for many years.

Activities that would or could result in take include, but are not limited to: any activities occurring within a cluster during the RCW breeding season, any timber harvesting within a cluster, any timber harvesting within foraging habitat that reduces basal area in pine trees $\geq$10 inches DBH below 3000 ft^2 (on property where south Florida slash pine is the predominant pine species, basal area requirements are for pine trees $\geq$8 inches DBH), application of forest chemicals within a cluster, new road construction within or near a cluster, and any new building construction within or near a cluster. The Property Owner agrees to contact the Commission and/or the Service to determine if a proposed activity may result in take of RCWs.

The participating Property Owner under a SHMA and Certificate 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 all of the following qualifications are met:

1. The enrolled Property Owner must be in total compliance with the SHMA;
2. The enrolled Property Owner must have maintained his or her RCW baseline as specified in the SHMA;
3. RCWs may not be shot, captured, or otherwise directly taken;
4. The take is incidental to otherwise lawful activities;
5. The enrolled Property Owner must conduct a supplemental survey immediately--no more than180 days but no less than 60 days prior to any activity that may result in the incidental taking of above-baseline RCWs or RCW habitat and provide the Commission with the results of the survey 60 days prior to the commencing of this activity. Only the specific area that will be affected requires this supplemental RCW survey. No surveys will be required within one year of the baseline survey, unless recruitment clusters have been established in the area that will be affected by this activity;
6. Proposed activities that could result in the incidental take of RCWs must take place only during the non-reproductive season (August 1st through March 31st of following year) unless otherwise authorized by the Commission; and
7. The enrolled Property Owner will not undertake any activity that could result in incidental take of RCWs until the Property Owner has provided the Commission with at least 60 days written notice of the Property Owner's intention to conduct such activity in order to allow the Commission, the Service and/or their respective agents the opportunity to translocate the affected RCW group(s) to a suitable recipient site.

The Commission shall consult with the appropriate offices of the Service after receipt of a request for incidental take. If the Service, the Commission, or their respective agent(s) do not respond to the Property Owner's 60-day notification within 60 days of receipt of the notification, the Property Owner is authorized to proceed with the proposed activity. This notification requirement shall apply to all situations, except those defined in 7.4 below.

For baseline groups/clusters the Property Owner will notify the Commission and/or the Service as soon as possible. The Commission and the Service will evaluate each case on an individual basis and both will concur on the appropriate management actions.

7.4 Emergency Salvage Harvest Situations

Emergency situations, such as natural disasters or insect infestations, may require that emergency (salvage) harvesting of timber on the enrolled property begin with less than the 60-day notice set forth in Section 7.3. For above-baseline groups, the enrolled Property Owner will notify the Commission by written certified notice at least three days prior to conducting an emergency harvest. The Commission, the Service, and/or their respective agents shall have this three-day time period to translocate above-baseline impacted birds to sites that are outside the enrolled property or, with the Property Owner's written permission, to sites within the enrolled property. The Property Owner shall not initiate such harvest until three days after the Commission has received the written certified notice.

For emergency situations involving baseline groups/clusters, the Property Owner will notify the Commission and/or the Service before emergency (salvage) harvesting begins. The Commission 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 The Commission Monitoring and Reporting Responsibilities

The Commission will annually monitor the implementation of this Agreement and fulfillment of its provisions as specified in the Permit. To do this, the Commission will contact each enrolled Property Owner at intervals appropriate for a particular SHMA to evaluate the Property Owner's implementation and maintenance of the management activities specified in the SHMA, identify any modifications of the management activities that may be necessary, and discuss other issues with the Property Owner. In addition, at least 50 percent of all enrolled properties, including all enrolled properties where incidental take was proposed or occurred during the current or previous year, will be visited each year by the Commission to verify that the management activities have been implemented and that the Property Owner is otherwise in compliance with the SHMA.

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

1. Any increase in the number of RCW groups on all enrolled Property Owner properties.

2. The number of acres included in this Agreement through Certificates.

3. The number of Property Owners included in this Agreement through Certificates.

4. A summary of all incidental take that has or is expected to occur on enrolled Property Owner's properties.

5. A list of all Property Owners that are in noncompliance with their SHMA.

6. A list of all SHMAs that have been terminated.

7. Any other information as may be required or appropriate to monitor this Agreement that is agreed to by the Parties.

8.2 Enrolled Property Owners' Monitoring and Reporting Responsibilities

All SHMAs will require the enrolled Property Owner to submit an annual monitoring report by January 15 of each year to the Commission for the duration of the Property Owner's SHMA. Property Owners will use the template monitoring form incorporated into this Agreement (Attachment E to Appendix 2).

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 the other Party and/or Property Owners to assist with implementation of the Agreement and/or the SHMAs and to ensure that this Agreement is implemented as intended.

The Service will also evaluate the monitoring results and reports submitted to it by the Commission and coordinate closely with the Commission after Permit issuance to ensure compliance with the terms and conditions of this Agreement, the associated Permit, and the subsequent SHMAs and Certificates issued to Property Owners.

9.2 The Commission

This Agreement is large in geographic scope and long in duration. Therefore, precise funding requirements for the Agreement are difficult to predict, but the Commission agrees to provide adequate funding and other resources necessary for implementation of this Agreement.

9.3 Shared Responsibilities of the Parties

Each Party agrees to notify the other Party as soon as practicable of any inability to meet the financial provisions of this Agreement or the Permit

The Parties will meet on an as-needed basis to review the information contained in the monitoring reports or to discuss any matters related to this Agreement or the Permit. These meetings will provide an opportunity for resolutions of disputes regarding Agreement implementation and Permit compliance and to discuss amendments or modifications to this Agreement or the Permit. The Parties will mutually agree upon the date, time, and location of these meetings, as well as a list of potential attendees and potential discussion topics.

The Parties, at their own discretion and with an enrolled Property Owner's permission, can provide technical, financial, and other assistance to the Property Owner in order to facilitate implementation of the management activities covered by a SHMA.

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.

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

9.4 Enrolled Property Owners

In addition to the specific responsibilities as set forth elsewhere in this Agreement and Permit, 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 the Commission 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.

10.0 ASSURANCES TO ENROLLED PROPERTY OWNERS

Through this Agreement and the associated Permit, the Service provides the Commission with certain regulatory assurances that, through Certificates, are conveyed to enrolled Property Owners. Those assurances, which apply to the Commission and any enrolled Property Owner, are set forth in Attachment D to the SHMA and shall be incorporated verbatim into each SHMA and Certificate issued by the Commission.

11.0 AGREEMENT MANAGEMENT

11.1 Amendments

11.1.1 Amendment of the Agreement

Either Party to this Agreement may propose amendments to the Agreement by providing written 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. The Parties will have at least 60 days to evaluate proposed amendments and any amendments, other than minor modifications, must be in writing and signed by both Parties.

Certain amendments to the Agreement shall be considered minor modifications. Minor modifications 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) management activities modified through adaptive management, if applicable. Proposed minor modifications to this Agreement must be provided to the other Party in writing. The non-proposing Party shall have 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 60 days after receipt of written notice of the same unless: (a) the non-proposing Party provides in writing its disapproval of the proposed modification or (b) the non-proposing Party responds in writing that the non-proposing Party has determined that the modification requires a formal amendment. Amendments that would result in outcomes that are significantly different from those analyzed for this Agreement (including, but not limited to, 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) are not considered minor modifications and would require a formal amendment.

Formal 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.

The Parties further acknowledge that each Party is under no affirmative obligation to approve any proposed amendments, and, in particular, the Service cannot approve any proposed amendment that would violate the Safe Harbor Policy, the ESA, and the Service's implementing regulations.

11.1.2 Amendment of the Permit

The Commission 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 the Commission 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 Amendment of SHMA(s) and Certificates of Inclusion

The Commission 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 the Commission can only effect such amendments that are minor modifications. If, however, in accordance with the criteria in Section 11.1.1, the Commission determines that the proposed amendment constitutes a formal amendment, the Commission 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 the Commission 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) management activities modified through adaptive management, if applicable.

11.2 Termination of the Agreement

The Agreement and the Permit will be for the duration of 99 years. However, the Commission may terminate this Agreement by providing the Service with at least 60 days advance written notice. The Commission acknowledges that terminating the Agreement will result in a corresponding termination of the Permit, which will lead to a loss of the regulatory assurances and RCW incidental take authority provided by the Permit for both the Commission and any enrolled Property Owners. The Commission further 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 those set forth in 50 CFR §13.28(a)(1) through (4), 50 CFR. §17.22(c)(7), and 50 C.F.R. §17.22(c)(2)(iii), or unless continuation of the permitted activity would be inconsistent with the criterion set forth in 16 U.S.C. 1539(a)(2)(B)(iv) and the inconsistency has not been remedied in a timely fashion.

11.3 Termination of SHMAs

11.3.1 Enrolled Property Owner

An enrolled Property Owner or its enrolled successor in interest must give the Commission 60 day written notice, by certified letter, of its intent to terminate a SHMA and give the Commission and/or the Service an opportunity to relocate individuals of the covered species within 30 days of such written notice. As provided for in Part 12 of the Service's Safe Harbor Policy 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 his/her Certificate of Inclusion to the Commission. 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 may terminate his/her SHMA due to circumstances beyond its control after giving the required notice. 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) 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 The Commission and the Service

The Commission 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, the Commission will issue a written letter of non-compliance to the Property Owner. The Property Owner shall have 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 the Commission by the end

of the 60-day period, the Commission shall terminate the Property Owner's SHMA and associated Certificate, which contain the Property Owner's assurances.

An individual SHMA shall be revocable by the Commission only if the Property Owner fails to comply with the terms of their SHMA. If a Property Owner fails to comply with the terms of their SHMA and the Commission is unwilling or unable to terminate the Property Owner's SHMA, the Service reserves for itself the right 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

An individual Property Owner's SHMA can be renewed with or without modification with the written approval of the Commission and the consent of the enrolled participating Property Owner, as long as the duration of that SHMA does not exceed that of this agreement. In addition, the Service must not object to any SHMA renewal.

15.0 SUCCESSION AND TRANSFER

Property Owners who enter into SHMAs with the Commission shall have the right to transfer their rights and obligations under the SHMA to non-federal entities in conjunction with the conveyance of all or part of the enrolled property and within the limits set forth in this section of the Agreement. The provisions of this section shall be part of all SHMAs. A Property Owner is required to notify the Commission by written certified letter at least 30 days in advance of any conveyance of the enrolled property whether in whole or part or as soon as practicable, but prior to such conveyance.

If the enrolled Property Owner conveys ownership of all of the enrolled property, the Commission and the Service will regard the new Property Owner as having the same rights and obligations as the previously enrolled Property Owner under the SHMA and the associated Certificate, if the new property owner agrees in writing to accept the transfer of SHMA rights and responsibilities and signs an amendment to the SHMA making the new property owner a party to the original SHMA within 90 days of the conveyance. If the new Property Owner attempts to do so more than after 90 days after the conveyance, the Commission and the Service may allow such

a transfer in their sole discretion. Upon becoming 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 the predecessor Property Owner.
If the enrolled Property Owner conveys ownership of a portion of the enrolled property, the enrolled Property Owner may continue to operate under the existing SHMA; however, the SHMA must be amended to redefine the enrolled property and the number of active clusters on the newly defined enrolled property. If the new Property Owner enters into a SHMA within 90 days of the conveyance of the portion of the enrolled property, that SHMA shall limit baseline responsibilities to those for which there were baseline responsibilities under the previous SHMA, thus, effectively transferring the baseline for the conveyed portion of the enrolled property. If the new Property Owner attempts to enter into a SHMA more than after 90 days after the conveyance, the Commission and the Service may allow such a transfer in their sole discretion.

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, the Commission, at its discretion, may 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 ISSUANCE OF SHMAS

If the Commission does not have the financial or personnel resources to enroll Property Owners under the Agreement during a particular time period, it is under no affirmative obligation to enroll Property Owners during that time and may choose to enroll Property Owners at a later date once sufficient financial or personnel resources are available. However, the Commission shall be responsible for meeting all of its obligations under this Agreement relating to SHMAs for previously enrolled Property Owners (e.g. providing annual reports and monitoring of the enrolled properties).

The idea and expectation of this program is to maintain or increase the number of RCW groups in Florida. 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, the Commission determines that the program is redistributing existing birds without any net benefit to RCW conservation, the Commission, upon written notice to the Service, will cease entering into any new SHMA(s).

17.0 NEIGHBORING PROPERTY OWNERS

The Parties recognize the implications to neighboring Property Owners of the successful implementation of management actions on enrolled lands. Further, the Parties recognize and acknowledge 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. The implications to neighboring Property Owners with non-enrolled lands will be assessed on a case-by-case basis. For example, when the Parties believe that occupation of non-enrolled neighboring lands is likely, the Parties will make every effort to include the neighboring Property Owner in the Agreement through a SHMA and Certificate using the procedures detailed in Section 6.1, thus extending the Safe Harbor assurances.

Safe Harbor policy allows the Service to use the maximum flexibility allowed under the ESA in addressing neighboring properties not covered under Agreements and their associated SHMAs. Safe Harbor policy also allows flexibility with regard to associated incidental take authorizations, including, but not limited to, granting of incidental take to neighboring Property Owners where occupation of their lands is expected as a result of an SHMA. However, this does not mean that neighboring Property Owners fitting this scenario will be automatically given incidental take authorization if listed species occupation occurs.

18.0 DISPUTE RESOLUTION

The parties agree to work together in good faith to resolve any disputes that may arise.

19.0 AVAILABILITY OF FUNDS

As to the Service, 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.

As to the Commission, implementation of this Agreement is subject to 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 by the Commission. The Parties acknowledge that the Commission will not be required under this Agreement to expend any agency appropriated funds unless and until an authorized official of that agency affirmatively acts to commit to such expenditures.

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 the Commission 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 implementation of this Agreement and any subsequent SHMAs. If that occurs and the Property Owner requests, the Parties may agree to amend the Agreement and associated SHMAs to cover additional species and to establish appropriate baseline conditions for such other 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 as a condition to participating in the SHA. However, according to Section 9 of the ESA, Property Owners will be subject to restrictions against "take" of any federally listed animal not covered by their Certificate of Inclusion. The term "take" as defined by the ESA, means to harass, harm, pursue, hunt, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Federally listed plants are considered legal property of the Property Owner and 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 the Commission and the Service will consult with and assist the Property Owner in tailoring his/her management actions to avoid take and to minimize any disturbance of these species.

22.1 Property Owner Notification Requirement for Other Listed Species

The enrolled Property Owner shall notify the Commission in advance of any activity covered by the SHMA that may potentially impact any federally-listed wildlife species other than the RCW in order to be advised of ways to avoid incidental take of that species and/or to obtain an incidental take permit or an incidental take statement to cover the potential take of that species.

The enrolled Property Owner shall notify the Commission at least 60 days in advance of any activity that may result in the destruction of any federally-listed, proposed, or candidate plant

species *known to occur* on the enrolled property and shall provide the Commission with an opportunity to remove the affected plants, where appropriate to do so, to sites that are outside of the enrolled property or, with the Property Owner's written permission, to other sites within the enrolled property.

23.0 ADDITIONAL MANAGEMENT ACTIVITIES

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.

24.0 ADAPTIVE MANAGEMENT PROVISIONS

Adaptive management approaches have been included throughout this Agreement that will allow the Agreement's procedures to be evaluated and modified in response to changing circumstances and other factors. However, the Parties shall have the option to propose additional adaptive management approaches if the adoption of such approaches would be beneficial to the Agreement's implementation. Implementation of these approaches shall not occur without the consent of the other involved Parties.

25.0 NATIONAL HISTORIC PRESERVATION ACT COMPLIANCE

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 enhancement of survival permits to the Commission to support implementation of this Agreement is a Federal undertaking subject to section 106 of the NHPA. As such, the Service must consult with the State Historic Preservation Officer (SHPO) and federally recognized Native American Tribes, consider their comments on the potential impacts to historic properties resulting from the undertaking, and endeavor to incorporate their comments into project planning.

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 Commission). 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's determination regarding the APE and finding of effect is subject to comment from the SHPO and federally recognized tribes.

The Service has determined that the RCW clusters that exist on a Property Owner's property at the time the Property Owner signs a SHMA (i.e. the baseline clusters) are the areas of potential effect for this Agreement. The RCW Recovery Plan (USFWS 2003) defines "cluster" as "the aggregation of cavity trees previously and currently used and defended by a group of RCWs." For the purpose of this Agreement the minimum area encompassing a cluster is ten acres. This is generally the aggregate of cavity trees and a 200-foot buffer zone.

This definition of the APE was based on the fact that, before enrolling in a SHMA, Property Owners 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 Property Owner 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.

The process that will be utilized by the Commission to determine an enrolling Property Owner's responsibilities relative to the NHPA are set forth in Appendix 1 to this Agreement.

26.0 ACCESS TO ENROLLED PROPERTY OWNERS' PROPERTY

It is also important for the Commission 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. Enrolled Property Owners will be given reasonable notice (generally 30 days) of these visits and may accompany the Commission and/or the Service or their respective agents. The scope of the visit will be agreed to in advance.

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 50 C.F.R. § 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:

Florida Fish and Wildlife Conservation Commission
Attention: Endangered Species Coordinator
620 S. Meridian St.
Mail Station 2A
Tallahassee, FL 32399-1600
850-488-3831
Daniel.Sullivan@myfwc.com

Field Office Supervisor
U.S. Fish and Wildlife Service
Panama City Field Office
1601 Balboa Ave.
Panama City, FL 32405
850-769-0552

Field Office Supervisor
U.S. Fish and Wildlife Service
Jacksonville Field Office
6620 Southpoint Drive South
Suite 310
Jacksonville, FL 32216-0912
904-232-2580

Field Office Supervisor
U.S. Fish and Wildlife Service
South Florida Field Office
1339 20th Street
Vero Beach, FL 32960-3559
772-562-3909

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.

_____ _____

Director, Florida Fish and Wildlife Conservation Commission Date

_____ _____

Regional Director, Southeast Region, Fish and Wildlife Service Date

30.0 DEFINED TERMS

The following terms and acronyms as used in the Agreement shall have the meaning indicated below unless their use clearly requires otherwise:

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 selected trees (these can be drilled or inserts).

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

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 the Commission'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 Attachment A & B of the enrolled Property Owner's SHMA, and afforded Safe Harbor assurances under the Florida Statewide RCW Safe Harbor Agreement.

ESA- Endangered Species Act

FWC – Florida Fish and Wildlife Conservation Commission

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 - As defined in 50 CFR 17.3, a person with a fee simple, leasehold, or other property interest (including owners of water or other natural resources), or any other entity that may have a property interest, sufficient to carry out the proposed management activities, subject to applicable State law. In the context of this Agreement, the term does not include State or Federal government entities.

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 Office

USFWS- U.S. Fish and Wildlife Service

31.0 LITERATURE CITED

Conner, R.C. and A.J. Hartsell. 2002. Forest Area and Conditions. Pages 357-401, *In* David N. Wear and John G. Greis, eds., *Southern Forest Resource Assessment.* Southern Research Station, Asheville, NC.

Costa, R. and J.W. Edwards. 1997. Cooperative conservation agreements for managing red-cockaded woodpeckers on industrial forest lands: what are the motivations? Pages 111-124 *In* R. Johnson, ed., *Proceedings of the Symposium on the Economics of Wildlife Resources on Private Lands*. Auburn Univ., Auburn, AL.

Florida Fish and Wildlife Conservation Commission. 2003. Management Plan: Red-cockaded Woodpecker (*Picoides Borealis*). FWC, Tallahassee, FL. 74pp.

Hooper, R.G., A.F. Robinson, Jr., and J.A. Jackson. 1980. The red-cockaded woodpecker: notes on life history and management. USDA Forest Service. Atlanta, GA. General Report SA-GR. 8 pp.

Ligon, J.D. 1970. Behavior and breeding biology of the red-cockaded woodpecker. Auk 87:255-278.

U.S. Fish and Wildlife Service. 2003. Red-cockaded woodpecker (*Picoides borealis*) recovery plan: Second Revision. U.S. Fish and Wildlife Service, Southeast Region, Atlanta, Georgia. 296 pp.

ATTACHMENT D
TO
FLORIDA SAFE HARBOR MANAGEMENT AGREEMENT
Certificate of Inclusion
in the Florida Statewide Red-cockaded Woodpecker
Safe Harbor Agreement and Enhancement of Survival Permit

This certifies that (Property Owner's Name = Property Owner) Collier County Conservation Collier Program, the Property Owner (s) of the property located at 1540 Blue Sage Drive, Naples, FL 34117, and any future owner(s) of the property, are included within the scope of Enhancement of Survival Permit No. TE 113463-0, issued by the U.S. Fish and Wildlife Service (Service) on (Date) 05/19/2006 to the Florida Fish and Wildlife Conservation Commission (the Commission). This Certificate of Inclusion authorizes the Property Owner to conduct the activities that are specified in Safe Harbor Management Agreement (SHMA) No. 003 between the Property Owner and the Commission for the red-cockaded woodpecker (*Picoides borealis*) (RCW). The Property Owner, and any future owners of the property, are hereby authorized, subject only to the terms and conditions of the Permit and the terms and conditions of the SHMA, to engage in, implement, or otherwise conduct the activities specified in the SHMA on the property even though these activities may result in the incidental taking of the RCW. However, the incidental taking of the RCW shall not result in a diminishment of the Property Owner's baseline responsibilities on the property as specified in the SHMA.

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

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

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

These assurances allow the enrolled 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) 12/31/2105

Timothy A. Nieratka 5-16-07

(The Commission, Permittee) (Date)

Collier County Board of County Commissioners (Date)