



North American Land Trust

## CONSERVATION MANAGEMENT PLAN

# MAGNOLIA BAY RESORT

Horry County ♦ South Carolina

# Magnolia Bay Conservation Area

## Conservation Management Plan

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# Magnolia Bay Conservation Area

## Conservation Management Plan

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## **I. Property Overview and Regional Context**

The Magnolia Bay Conservation Area property is located in Horry County, South Carolina and consists of approximately 155 acres. The property is comprised of several terrestrial communities explored in the document, including high quality upland and wetland systems. Moreover, the property represents the opportunity to manage for high quality Long Leaf Pine habitat.

In recent years, portions of the property were used for the production of forest products, and most of the uplands planted in Loblolly Pine for commercial timber operations. In 2015, the property was protected by a conservation easement.

**Regional context:** The property lies within the Coastal Plain Ecoregion, and historically boasted upland maritime forests, sandhill ecosystems and other depressional wetlands. The property lies in an area referred to by SCDNR as the “outer belt” or “flatwoods” landscape of this ecoregion, referencing the primarily pine-dominated forest with close proximity to both the Waccamaw and Little Rivers.

This region and this property are part of a large system of Carolina Bays along the coastline. Horry County has documented over 410 Carolina Bays of various degrees of productivity. All are significant as a natural feature, but many are falling prey to alteration, ditching or poor management. Known for the plethora of botanical species associated with them, this region and the nearby Lewis Ocean Bay Heritage Preserve also host the largest population of coastal black bears in SC.

This property is located in North Myrtle Beach, an area that has remained one of the fastest growing regions on the East Coast for many years. From a natural resource perspective, residential and commercial development is the single largest threat to the region, leading to the loss of habitat and flora and faunal species, as well as water quality degradation.

### ***General Property characteristics of ecologically significance:***

The Magnolia Bay Conservation Area contains several productive habitats indicative of the region, or allowed to naturally occur on the property. The tract supports areas of planted pine (primarily longleaf pine, *Pinus palustris*, with lesser amounts of loblolly pine, *P. taeda*), and wetlands associated with Carolina Bays. Four natural communities, three with high conservation value, have been identified on the property: Sand Barren (Coastal Fringe Subtype, G2), High Pocosin (G2), and Xeric Sandhill Scrub (Coastal Fringe Subtype, G2) and Bay Forest (G4).

#### **Pine/Sandhill Pine Woodlands**

1. Dry Long Leaf Pine-Xeric Sandhill-Sandhill Pine Woodland
2. Loblolly Pine Plantation

#### **Wetlands**

1. Southern Atlantic Coastal Plain Nonriverine Swamp and Wet Hardwood Forest System



2. Small Depression Shrub Border community (although not biologically intact due to dominance of Loblolly Pine)
3. Coastal Plain Depression Swamp

***Watershed context:*** Magnolia Bay is located in the Coastal Sampit watershed in SC. This watershed includes properties from Myrtle Beach as well as Georgetown County.

## **II. Management Goals and Objectives:**

Based on the current land cover and use, the North American Land Trust submits the following recommendations for short term, and long term conservation and forest management objectives for the landowner as outlined below:

### **The long term goals and objectives for the Magnolia Bay Preserve are as follows:**

- To restore high quality native habitats whenever possible
- To re-introduce prescribed burning for upland portions of the property
- To protect wetlands and associated habitats
- To maintain and manage for species of concern
- To protect and document biodiversity
- To preserve, fulfill and enhance Conservation Values and Purposes
- To allow for passive recreational use and enjoyment of the property while managing for conservation
- To restore and maintain road, trail and firebreak networks

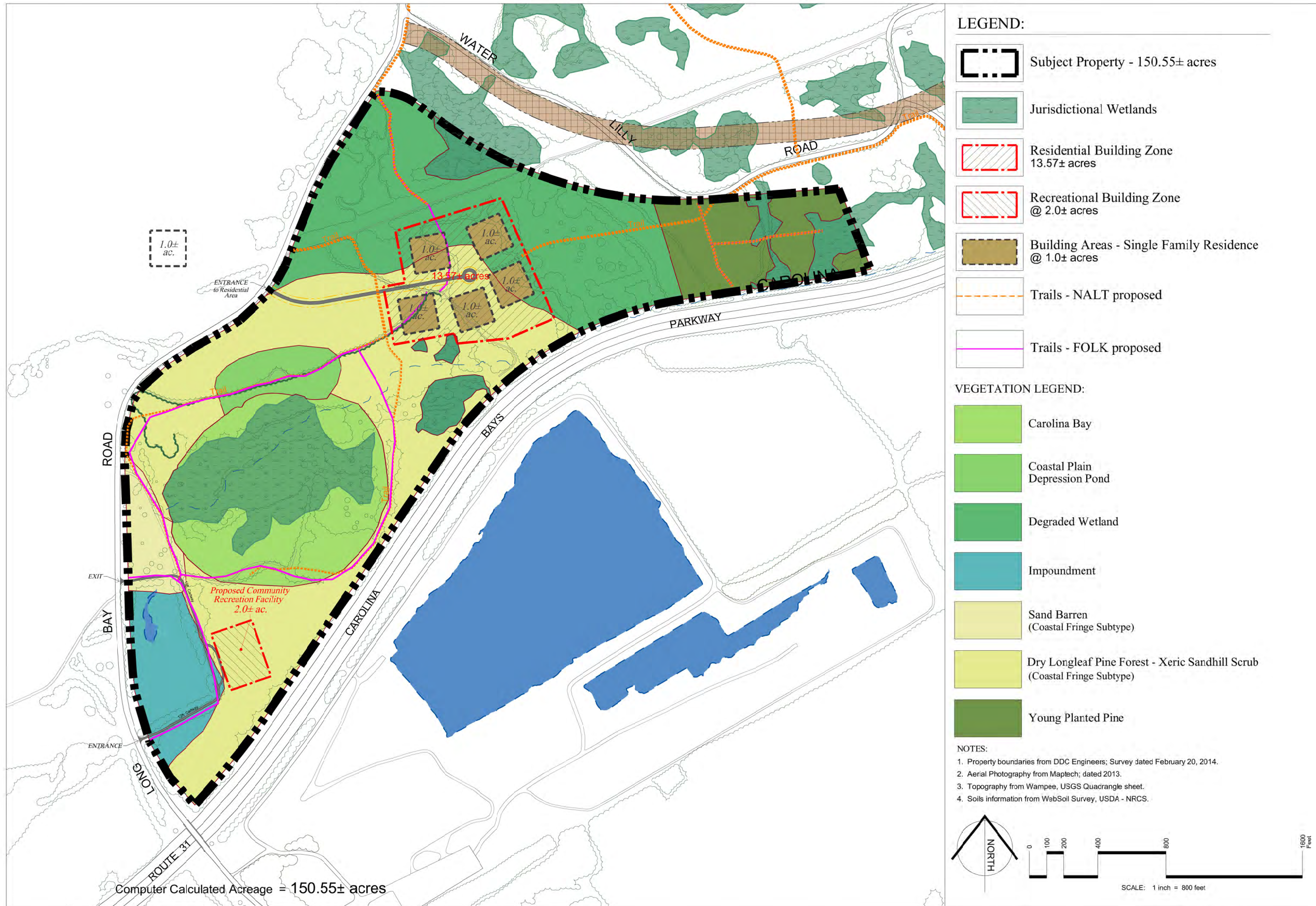
### **The short term goals and objectives would be:**

1. Secure site
2. Restore natural/historical landscapes
  - a. Manage current habitat for Long Leaf Ecosystem
  - b. Transition planted pine stands to Long Leaf Ecosystem
  - c. Establish prescribed burning routine
3. Protect and manage for species of concern
4. Eradicate invasive species when documented
5. Continue biological surveys and species inventories

For this to be possible, a plan is necessary to accomplish these goals. The management plans should be adaptive. Natural and sometimes manmade occurrences can require adjustments to a long range plan. Listed below are practices that are recommendations by the North American Land Trust, to achieve the long term and short term goals of an integrated conservation management plan.

1. Secure site and remove debris present from illegal dumping
2. Conduct biological surveys to further identify habitats and species of concern
3. Identification and prioritization of areas for prescribed fire due to highways and roads
4. Strategic timber thinning (for revenue generation, but also for habitat transition)
5. Maintenance of road systems
6. Work with Grand Strand Water and Sewer Authority on management/maintenance

### **III. Management Recommendations for Habitat and Species**



## MAGNOLIA BAY RESORT

HORRY COUNTY, SOUTH CAROLINA

## ADDITIONAL MANAGEMENT FEATURES MAP

BASE MAP: 6.22.2014 .JPG  
UPDATED: 11.2.2014 .JPG  
BASE MAP: 5.12.2013 .JPG  
C.P.: 3.25.2015 .JPG



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## Management Recommendation #1: Long Leaf Pine Restoration

*Overview:* Prior to the colonial settlement of the southeastern United States, the primary landscape was a Long Leaf Pine Savanna, with widely spaced pines and a diverse herbaceous ground cover maintained by frequent wildfire. It is estimated that this habitat dominated up to 90 million acres over nine states ranging from Virginia to Texas. An entire ecosystem was supported and thrived in this natural environment with over 200 species of plants and animals found in this habitat type. Due to cropland conversion, logging and urban development, there remains only about 3 percent of this native habitat (about 3.4 million acres); as the acres declined so did many of the species which are dependent on the habitat and/or the wildfires that sustained it. Currently, there are 29 species of concern or endangerment directly attributed to the loss of this habitat.

At least three dozen grasses occur in longleaf pine-grassland habitats, indispensable as shelter for birds and small mammals, edible grains, and fuel for fires. As with most species identified with this habitat, the grass species for open forest habitats are tolerant or dependent on frequent fire.

*A note on wiregrass: Wiregrass is the most noted native grass for an open forest ecosystem. The reason is that its physical structure encourages fire. Overlapping leaves from adjacent clumps act as a net to catch fallen pine needles, allowing air to circulate along the savanna floor and keep the ground primed for burns. Fire spreads easily from clump to clump, burning rapidly under dry conditions. This structure also discourages the decomposition of the pine needles over a two- to three-year cycle and results in the maintenance of higher fuel loading than sites without wiregrass. As conservationists we will always recommend establishing wiregrass as a prime understory plant, however, we recognize that this can be cost prohibitive or even difficult in some forest situations.*

There are numerous resources on managing/restoring Long Leaf Ecosystem, and the Forestry Management Plan included in Appendix A provides details for management of Magnolia Bay.

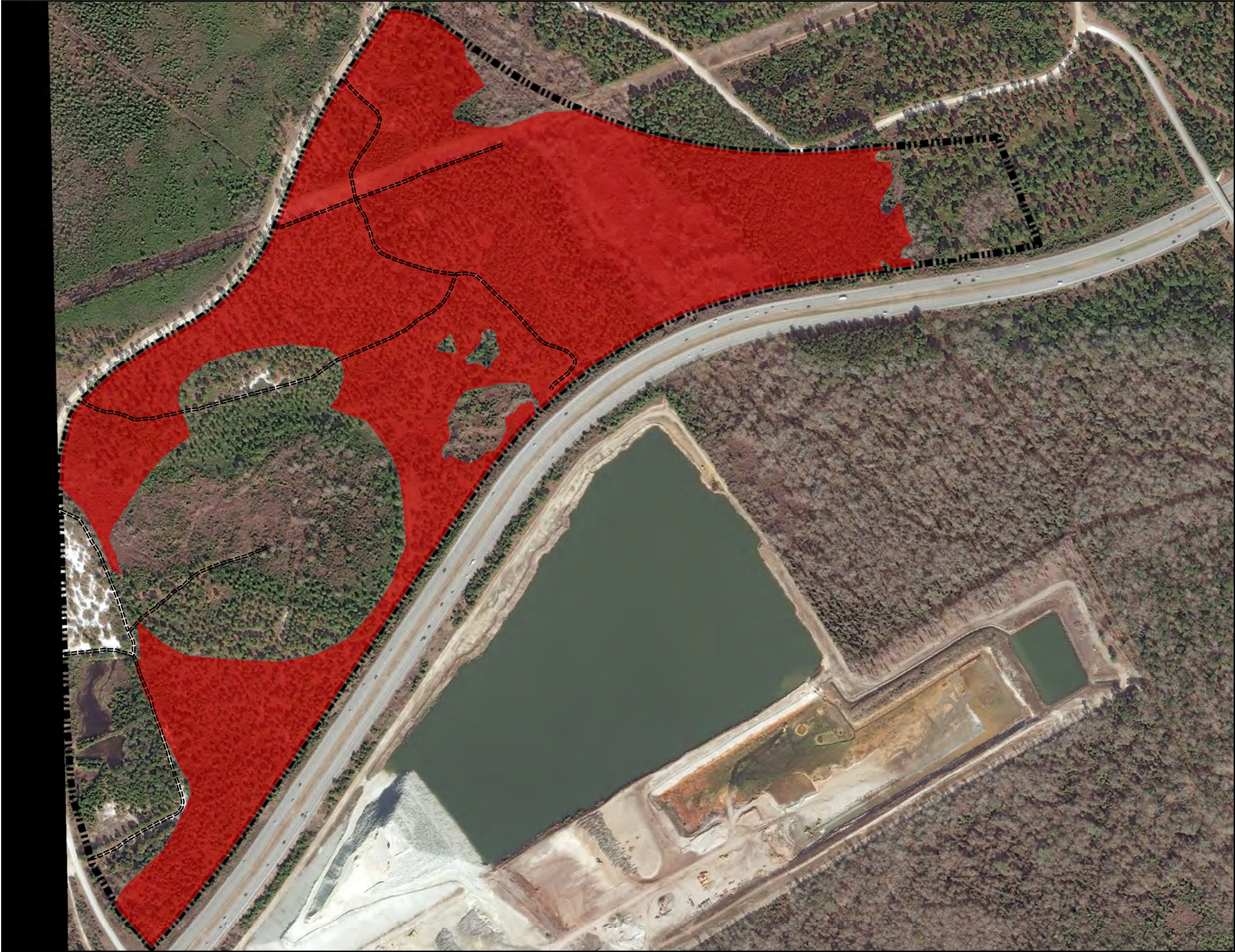
The primary components of this ecosystem and management strategy is to manage for Long Leaf Pine overstory, native grass (primarily wiregrass understory), maintained with prescribed fire. The long-term goal for the property is for passive recreational uses, without intense timbering objectives.

### **Management recommendations:**


- a. Create openings through sweetgum or low-canopy shrubby oaks through a silvicultural timber harvest. Openings should be away from low lying areas. Openings of this type adjacent to mature hardwood/pine stands would benefit several passerine bird species (neo-tropical migrants like Hooded Warblers, Kentucky Warblers, White-eyed Vireos).
- b. Thin Slash Pine and some Long-leaf Pine to improve the ground cover in the more pure pine stands.
- c. Manage openings by planting fruit-producing shrubs, mast-producing hardwoods, annual-forage wildlife plantings, fallow field management, etc.
- d. For Xeric Sandhill Scrub areas (with mostly Pine Overstory)

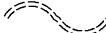
1. Management of the pine stands as uneven aged stands. This would involve retention of the existing overstory and promotion of natural longleaf pine recruitment.
2. Timed prescribed fire should be applied in advance of heavy longleaf pine seed production.
3. Prescribed burning to benefit native grasses and legumes. (see Prescribed burning recommendations.)






**LEGEND:**

 Prescribed Burn

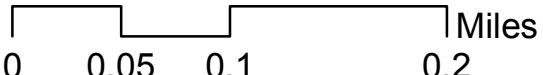

 Firebreaks/Trail System

 Magnolia Bay Boundary

**Management Recommendations**

1. Prescribe Burn Units and Priorities
2. Manage undesirable species, e.g. Sweetgum, etc. with herbicide
3. Uneven age Stand Management (to promote Longleaf establishment)
4. Establish and/or maintain Firebreaks/Trail System

-Wetland compartments from DDC Engineers, Myrtle Beach, SC wetland surveys  
-Trail system derived from NALT on-site GPS capture (+/- 2 meters)  
-Aerial Image from The World View Satellite 3, image captured on 2/20/2015



MAGNOLIA BAY

HORRY COUNTY, SOUTH CAROLINA

LONGLEAF PINE MANAGEMENT

3/9/16  
Final per PK  
WCG



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## Management Recommendation #2: Re-introduce Prescribed Burning

*Overview:* One of the singular most destructive factors for natural habitats in the southeast has been the suppression of natural fires. Once occurring routinely, through lightning strikes or by Native Americans, both open grasslands and forest stands benefited from periodic low level fires. With the loss of these fires due to human settlement and conversion to agriculture and silviculture, numerous habitats have been altered by the inclusion of fire intolerant species, and numerous plant and animal species associations are in decline.

NALT strongly recommends the reintroduction of prescribed burning for the Magnolia Bay Preserve. Although sandy soils or proximity to Carolina Bays may limit burning activities, prescribed burning is essential to successfully achieving the Long Leaf Ecosystem.

### **Management recommendations:**

1. Create a prescribed burning map, identifying:
  - a. priorities for prescribed burning each year
  - b. areas that may be burned with specific weather patterns
  - c. smoke management protection zones
  - d. fire breaks and trail networks
2. Management induced fire frequency should be every 3 to 4 years. (Portions of the xeric sand hill sites will not likely burn because of lack of herbaceous ground cover. Fire should not be forced through these areas but rather allow fire to carry naturally.) Mesic stands will burn significantly and repeated fire will reduce coverage of shrubby species and promote herbaceous ones.
3. Prescribed fires should be timed to control entry of fire into the Carolina bays. While fire is beneficial for Carolina bays it should not burn as frequently as adjacent uplands.
4. Dormant season fire when Carolina bays are likely to contain water would limit the travel of fire across the bay. Also, the peat-like soils in Carolina bays can smolder for days or weeks after a fire. Timing of prescribed fire during the wet season would minimize smolder associated smoke for the following days or weeks. Persistent smoke associated with a smoldering fire could pose a safety hazard to Carolina Bays Parkways (State Highway 31).
5. North Myrtle Beach operate a water treatment facility to the east of Magnolia Bay. Research should be given as to whether this municipality would accept prescribed fire in proximity to water treatment ponds.





PROPOSED BURN AREAS

MAGNOLIA BAY  
HORRY COUNTY, SOUTH CAROLINA

PROPOSED BURN AREAS

Map Drawn by Clay Folk, SC  
Registered Forester #1814  
Date Drawn: 7 April 2016

### Management Recommendation #3: Wetland Conservation

*Wetlands Overview:* Often called “nurseries of life,” wetlands provide habitat for thousands of species of both aquatic and terrestrial plants and animals. These nurseries support the critical developmental stages for many plants and animals.

The wetlands at Magnolia Bay have particular importance due to their proximity to high quality sand hill sites. Not only are they productive fishless habitats in and of themselves, their relationship to high sandy soils is particularly important to numerous reptile species.

*Depressional wetlands (further outlined in habitat descriptions in Section 4)*

Magnolia Bay has two distinct wetland communities identified on the property.

1. High Pocosin (G2), (Carolina Bay) and
2. Bay Forest (G4)

It should be noted that the communities associated with the Carolina Bay have been highly disturbed in the past due to timber harvest practices. These areas are in transitional stages and exhibit features commonly found in the associated communities.

Though both of these communities have slightly different geomorphology and vegetative structure, they have similar ecological function. As is typical with coastal plain wetlands, they have variable water levels depending on rainfall; they are detritus-based; and they are “fishless” habitats. As a result, they are extremely biologically important for a number of plant and animal species. As stated above, proximity to high quality sandhill habitat increases the importance of this habitat to support larval stages of many amphibian and reptiles.

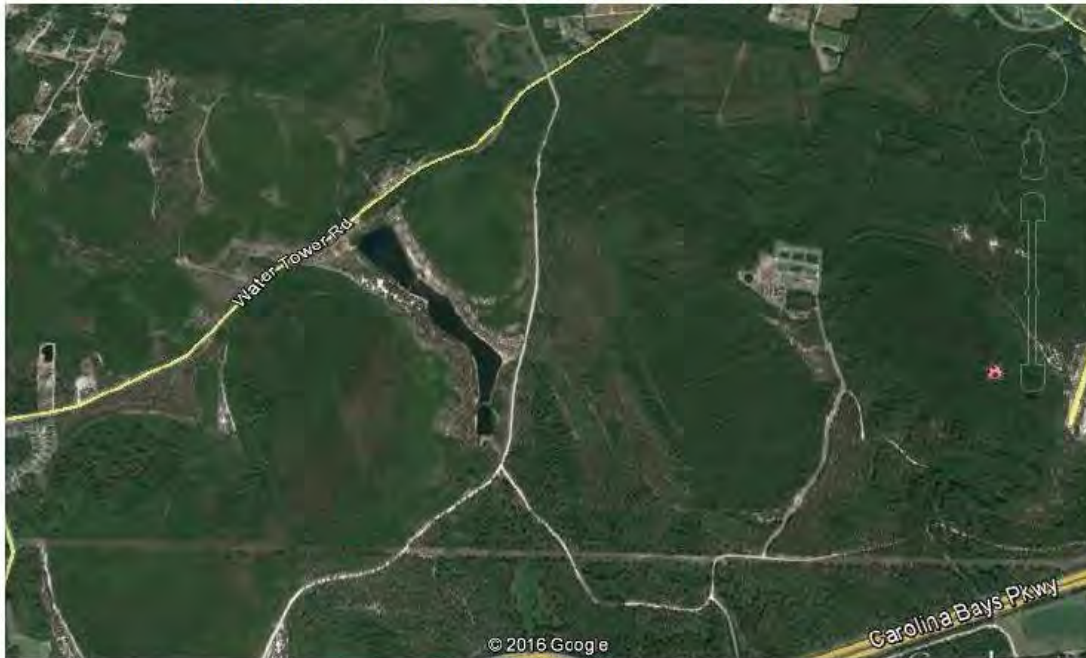
#### **Wetland Management recommendations:**

1. Install signage or silt fencing to identify, protect wetlands and buffers.
2. Create a reproducible map of protected wetlands to give to loggers or equipment operators showing areas to avoid
3. Consider growing season prescribed fire (spring/summer) every 1 to 3 years in the wetlands. (Careful consideration for burning in Carolina Bay’s should be given, however, the system would benefit greatly from this activity.)
4. Avoid ditching, bedding, plowed fire lines, food plots or other soil disturbance within identified wetlands or buffers.
5. Walk-in only access – no off-road vehicles.
6. Allow a 100-foot natural buffer around a depressional wetland to protect water quality. A 1,000-foot radius is ideal for the habitat and food supply of amphibians.
7. Leave mature specimen trees in place. Trees and leaf litter are an important part of the wetland ecosystem. Leaf litter is important for food and protection. Brush, logs and dead trees are important as well, since some salamanders live beneath dead trees and logs.

8. Avoid dumping debris in a dry depression. Do not dig in the bottom of a pool, even if it is dry, or you will impact the area's ability to hold water. Dormant salamanders living under the ground will also be affected.
9. Continue biological surveys of both wetlands and uplands to further document species.



### Wetland Conservation in regards to Carolina Bays



The Magnolia Bay Preserve serves as the upland portion of a system of Carolina Bays that occur in the region. It has a small, degraded Carolina Bay on-site, and its close proximity and direct relationship to the Peter Horry Preserve owned and managed by the Grand Strand Water and Sewer Authority are worth mentioning and managing cooperatively.

Carolina Bays are elliptical-shaped, freshwater wetlands that are only found in the coastal plain of the eastern United States. They are oriented in a northwest-southwest direction, and their origin remains unknown. The Carolina Bay is sometimes called 'pocosin' which is the Indian word for "swamp on a hill". Many have raised sand rims and their interiors are rich with peat. The plants and animals that live in or around these wetlands are dependent upon their seasonal fluctuations in water levels. Many are reliant upon fire for increased productivity.

Bays can range in size from less than one acre to more than 1,000 acres. According to a SCDNR report, Horry County has 410 Carolina Bays over 2 acres, which is more than any other county in the states (Bennett & Nelson, 1991). Unlike bays found in other counties, those in Horry County are typically small and often overlap with one another. The Waccamaw River happens to be the only river in the world to originate and be fed by a Carolina Bay.







Carolina Bays have been heavily impacted by ditching, draining, or ponding for agricultural uses. Activities along the perimeter of these Bays, such as development and sand mining, can have an indirect impact on the biodiversity of these wetlands. Many animals, especially reptiles are dependent upon these adjacent uplands for a portion of their lives, but these outer rims are not protected by Federal and State wetland regulations. Because Carolina Bays are considered a threatened ecosystem, SCDNR has incorporated Lewis Ocean Bay and Cartwheel Bay into their Heritage Preserve Program.

NALT recommends coordinating management activities with state Natural Resource Agencies and Grand Strand Water and Sewer Authority.





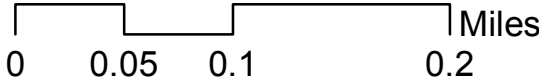
LEGEND:

-  Wetlands
-  Wetlands 100 ft Buffer
-  Proposed Fencing
-  Proposed Gates
-  Existing Trails
-  Magnolia Bay Boundary

Management Recommendations

1. Allow a 100-foot natural buffer around a depressional wetland to protect water quality. A 1,000-foot radius is ideal for the habitat and food supply of amphibians
2. Install signage or silt fencing to identify, protect wetlands and buffers
3. Consider growing season prescribed fire (spring/summer) every 1 to 3 years in the wetlands
4. Avoid any soil disturbance within identified wetlands or buffers
5. Walk-in only access – no off-road vehicles
6. Leave mature specimen trees in place
7. Leave leaf litter, brush, logs and dead trees for amphibians
8. Consider installing proposed fencing and gates

-Wetland compartments from DDC Engineers, Myrtle Beach, SC wetland surveys  
-Trail system derived from NALT on-site GPS capture (+/- 2 meters)  
-Aerial Image from The World View Satellite 3, image captured on 2/20/2015



# MAGNOLIA BAY

HORRY COUNTY, SOUTH CAROLINA

## HABITAT & SPECIES PROTECTION

3/9/16  
Final per PK  
WCG





#### Management Recommendation #6: Priority Species/Biological Surveys and Botanical Inventories

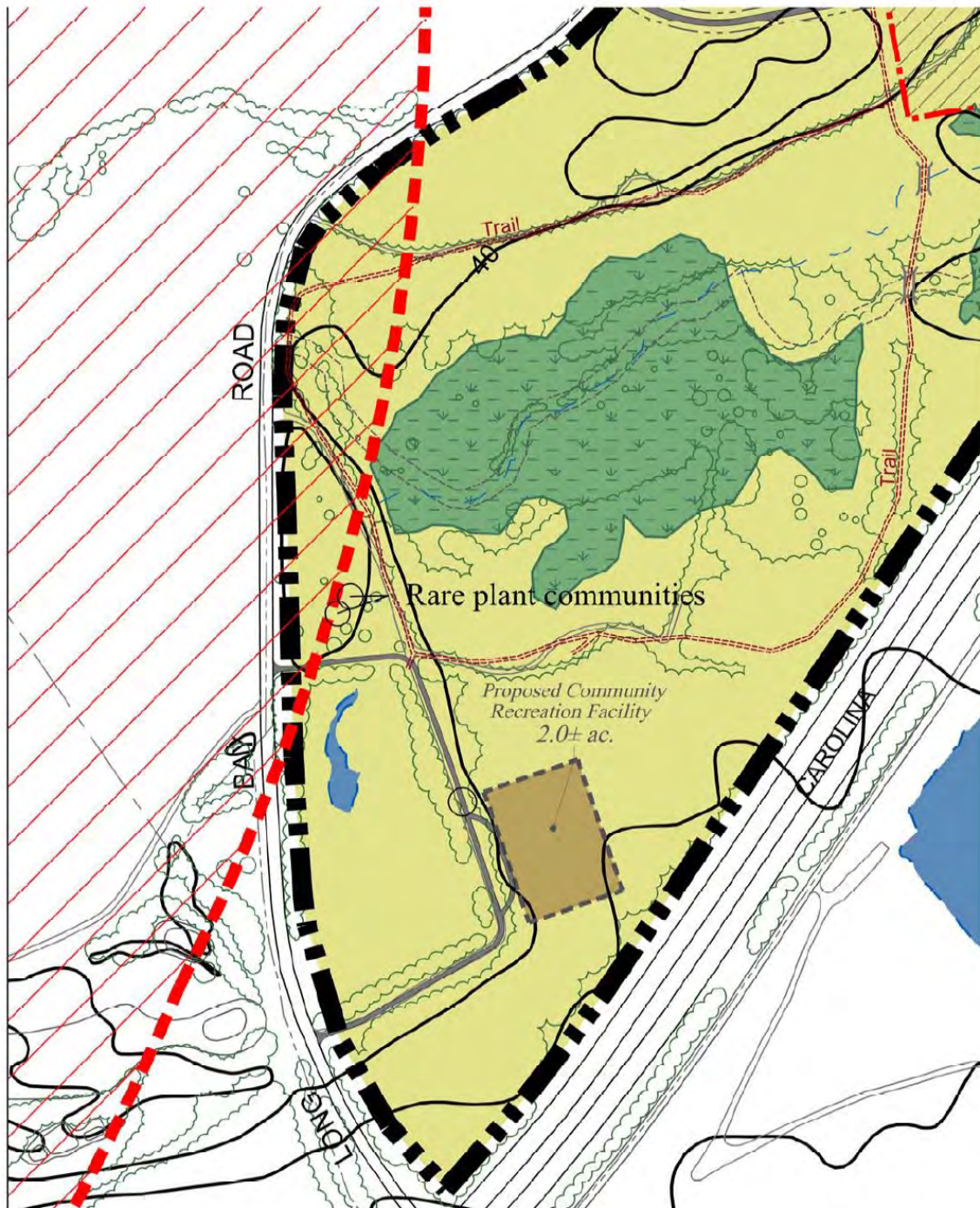
*Overview:* Numerous priority species have been identified, or are suspected to exist in Magnolia Bay Resort. Locations for these will be identified on the Priority Species Map when discovered. Listed below are fact sheets and management strategies for target species that are known to exist on site. Overall management techniques should be adapted and refined as new priority species are discovered.

NALT recommends that biological inventories and botanical surveys be continued each season, and management strategies refined accordingly. Whether hiring experts in a particular biological discipline, engaging with natural resource agencies, or partnering with universities and coalitions, NALT recommends continued documentation of this property. The priority species listed in the next section should be a starting point for inventories.

Species of concern known to, or believed to exist at Magnolia Bay Resort include:

1. Sandhill-rosemary (*Ceratiola ericoides*)
2. Red-cockaded Woodpecker (*Picoides borealis*)-observed foraging
3. Black Bear, *Ursus americanus*
4. Flora and Fauna of Long Leaf Ecosystem
  - a. Southern Fox Squirrel, *Sciurus niger*
  - b. Canebrake Rattlesnake, *Crotalus horridus*

Fact sheets for some of these species, are attached. Additional species will be added as inventories occur.



**Sandhill Rosemary**  
(*Ceratiola ericoides* Michaux)



**Listed:** SC Rare (S1),

**Description:** Evergreen **shrub** up to 6 feet (2½ meters) tall, rounded, and densely branched; older branches with gray, shredding bark and rough leaf scars; young twigs with dense hairs. **Leaves** less than 5/8 inch (8 - 15 mm) long, dark green, needle-like, in pairs set at right angles to each other and appearing to be in whorls of 4 or 6 needles when viewed from the end of the twig; leaves smell strongly of rosemary or, during hot weather, of honey. **Female flowers** and **male flowers** on separate plants, small, papery, yellow to brown, clustered in the angle between leaf and twig, sometimes filling nearly all the spaces between leaves.

**Habitat:** Extremely dry sandhills and sand ridges along the east sides of several Coastal Plain rivers; with woody goldenrod, dense patches of lichens, and large areas of bare sand.

**Life History:** Sandhill rosemary has a whorled branching pattern, each whorl representing one year of growth; plants may be aged by counting the number of whorls (or nodes) on the main stem. Plants studied in Florida scrub begin to set seed between 10 - 15 years; seed production declines between 20 - 30 years. Fruits are eaten by ants, mice, and birds. Sandhill rosemary habitat does not burn frequently or readily, largely due to a lack of fine fuels (grasses). When fires do occur, they tend to be catastrophic, burning most plants to the ground, and killing sandhill rosemary which responds to fire with a flush of germination of seeds stored in the soil seed bank.

**Conservation and Management Recommendations:** Burn scrub sites every 20 - 40 years, leaving some areas unburned. Rosemary is killed by fire but will vigorously re-seed. Prevent conversion of sand ridges and scrub to pine plantations or pasture.



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## The Red-Cockaded Woodpecker (*Leuconotopicus borealis*)



**Overview:** The Red-cockaded woodpecker is the only woodpecker to excavate cavities in living pine trees, rather than dead trees. Preferring mature southern pine forests, the Red-cockaded woodpecker will typically live in longleaf pines, averaging 80 to 120 years old, and loblolly pines, averaging 70 to 100 years old. These older pines often suffer from red heart disease, a fungus that attacks the center of the trunk, which results in the inner heartwood becoming soft, allowing the woodpecker to more easily excavate its cavity.

**Habitat:** When the Red-cockaded woodpecker establishes its cavity in one of these longlife pine trees, a process that takes 1 to 6 years, the bird will peck holes around actively used cavities. Its cavity can then be identified by the surrounding, numerous small resin wells from which sap flows. The sap acts as a defense mechanism against predators, such as rat snakes.

These woodpeckers are faithful to their cavity trees, which are called a cluster, and may include 1 to 20 or more trees on 3 to 60 acres. The typical territory for a group of the Red-cockaded woodpecker ranges from 125 to 200 acres.

**Threats & Management:** In order to protect the red-cockaded woodpecker, its dwindling ecosystem upon which the species depends must be preserved. Frequent, low intensity controlled burns can help keep the forest midstory from getting too tall and therefore prevent predators and nest competitors from having easier access to woodpecker cavities. This fire and the subsequent removal of undergrowth prevents the woodlands from becoming too dense with trees, and it creates open, park-like areas that the woodpeckers like. In addition, the construction of artificial cavities that are placed 60 feet up a suitable pine tree by a biologist, as well as the planting of longleaf pine trees are other efforts used to preserve the Red-cockaded woodpecker's habitat. It is also beneficial to identify nests, and mark trees with an established cavity, so as to prevent its accidental removal.



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## American Black Bear (*Ursus americanus*)



**Overview:** The smallest of the three bear species found in North America, the American black bear is the smallest. Black, brown or cinnamon, they have short, non-retractable claws that allow them to climb trees easily. This species is found throughout North America, from Canada to Mexico, inhabiting both coniferous and deciduous forests, as well as open alpine habitats. They live in a variety of areas where they can find food, but they typically do not occur on the Great Plains or other open areas.

The American Black Bear is an opportunistic omnivore, meaning it will consume herbaceous vegetation, fruits, nuts, insects, fish, animals, and human-related foods such as garbage and apples. This variety in their diet allows them to inhabit a diversity of habitat types. An important habitat feature for the black bear is a source of fall mast, such as American chestnuts, acorns, beechnuts, hazelnuts, and pine nuts. This available source is eaten during the fall to increase fat reserves in preparation for winter hibernation. American black bears hibernate for up to 7 months in the northern areas of their range, or for shorter periods in the southern portions. Females will typically den and give birth to 2-5 cubs.

**Threats & Management:** Thanks to effective conservation efforts, the American Black Bear is not currently a species of conservation concern; however, increased conflicts with humans are a threat to the species. As more people encroach on bear habitat, due to urbanization and increasing density of roads, the frequency of interactions between bears and humans has increased. As a result, the leading cause of bear deaths is car accidents. Another threat to the Black Bear is hunters and poachers and the opportunity for illicit commercial tradeoff bear claws and gallbladders by poachers. In order to maintain successful co-existence between bears and humans, humans must be responsible for the welfare of the bear population by preserving wild areas as important bear habitat.

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## The Flora of the Long Leaf Pine System

(excerpted from Sherpa Guides. Written By Elizabeth W. Crofton. Photos by Richard T. Bryant.)  
**Grasses**

At least three dozen grasses occur in longleaf pine-grassland habitats, indispensable as shelter for birds and small mammals, edible grains, and fuel for fires. Grasses are wind-pollinated plants with inconspicuous flowers and extensive root systems comprising up to 90 percent of the plant's total weight. Because the growing part of a grass stem is at the base rather than the tip, grasses reappear quickly after fire. Bunch-form grasses growing in clumps, rather than sod forms, populate this ecosystem.



Wiregrasses, which have narrow, stiff leaves, are a vital component of the ecosystem in parts of Georgia, North Carolina, and most of Florida. Broader-leaved grasses such as broomsedge (*Andropogon virginicus*), Indiangrass (*Sorghastrum secundum*), wood grass (*S. nutans*), panic grass (*Panicum spp.*), and water grass (*Bulbostylis barbata*) may also be prevalent in Georgia. Elsewhere on the Coastal Plain, bluestem, silky scale, toothache, and dropseed grasses become common. Bluestem grasses (*Andropogon spp.*, *Schizachyrium spp.*) replace wiregrasses in longleaf pine habitats from western Alabama to Texas. In parts of the coastal flatlands from southeast Mississippi to southeast Georgia and into central Florida, saw palmetto (*Serenoa repens*) is the dominant ground cover species.



### Wiregrass

This perennial bunch grass grows in the seasonal wet bogs and dry sandhills of the Atlantic Coastal Plain from Mississippi to southeastern North Carolina to south Florida. Carolina wiregrass (*Aristida stricta*) dominates in the northern longleaf woodlands but is replaced by southern wiregrass (*Aristida beyrichiana*) in the more southerly Coastal Plain sections. Wiregrass thrives under open longleaf pine canopies, occurring in clumps up to 6 inches across with soft, hairlike tufts at the leaf base. Flat leaves, which sometimes reach lengths of 20 inches, appear cylindrical because they curl inward at the edges.

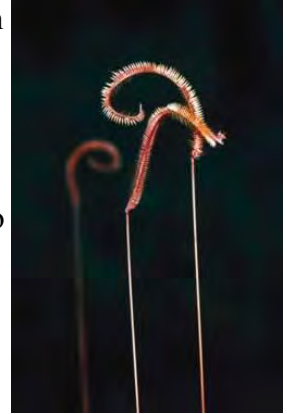


Wiregrass's physical structure encourages fire.

Overlapping leaves from adjacent clumps act as a net to catch fallen pine needles, allowing air to circulate along the savanna floor and keep the ground primed for burns. Fire spreads easily from clump to clump, burning rapidly under dry conditions. This structure also discourages the decomposition of the pine needles over a two- to three-year cycle and results in the maintenance of higher fuel loading than sites without wiregrass.



Wiregrass and longleaf pines have a mutually beneficial relationship based on the need for fire. Without fire, hardwood seedlings would dominate the understory, overshadowing wiregrass and competing for moisture and nutrients (and eventually overtaking the pine trees). Fires during growing season stimulate flowering and seeding in wiregrass. Fire suppression can be fatal. Debris accumulated over a number of years can fuel a fire hot enough to kill the plant's roots. Wiregrass does not readily re-establish once destroyed.



## Legumes

Members of the bean family (Fabaceae), legumes are a large and important group of over 13,000 species, exceeded in diversity only by the composites.

Legumes are typical inhabitants of a fire-maintained longleaf pine-wiregrass ecosystem. Most native species are perennials and tolerant of the shade created by the open pine canopy. Identifiable by flowers that resemble peas and pod-like seed packets, legumes can be vines, herbs, or woody shrubs.

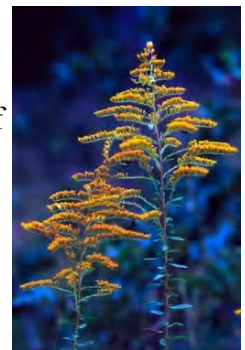
Legumes are an important source of food and/or cover for wildlife including gopher tortoises, bobwhite quail, songbirds, white-tailed deer, and pocket gophers. The plants also fix nitrogen from the atmosphere, replenishing what's lost in prescribed fires, and make these nutrients available through rapid decomposition.

Longleaf pine grasslands host abundant and diverse native legume species; a study at the Joseph W. Jones Ecological Research Center in Baker County, Georgia showed almost 50,000 stems per acre and 43 distinct species at the research site. Common native legumes include numerous beggarweeds (*Desmodium* spp.) and lespedezas (*Lespedeza* spp.), goat's rue (*Tephrosia virginiana*), sensitive briar (*Schrankia microphylla*), butterfly pea (*Clitoria mariana*), dollar leaf (*Rhyncosia reniformis*), and rabbitbells (*Crotalaria rotundifolia*).

## Composites

The composite family (Compositae) wears the title of the most diverse family of flowering plants on the planet. They are, along with grasses and legumes, one of the more dominant families of flora represented in the longleaf pine-wiregrass ecosystem.

Composites owe their name to their flowers: What appears to be a single bloom is actually a cluster of hundreds of tiny individual flowers pressed densely together. In most composites, tiny tubular disk flowers create the round center of the display. Ray flowers, commonly called petals, emanate from the center. The advantage of this arrangement is that during pollination, an insect can make contact with hundreds of flowers at once. Their seeds are a food source for many birds and small mammals.



Common examples of composites in the longleaf pine-wiregrass habitat include goldenrod (*Solidago* spp.), asters (*Aster* spp.), goldenaster (*Chrysopsis mariana*), rayless sunflower (*Helianthus radula*), narrow leaf sunflower (*Helianthus angustifolia*), pineland daisy (*Chaptalia tomentosa*), ironweed (*Vernonia*

*angustifolia*), deer tongue (*Carphephorus odoratissima*), blazing star (*Liatris* spp.), thistles, Sun's bonnets (*Chaptalia tomentosa*), thoroughwort (*Eupatorium cuneifolium*, other spp.), and black-eyed susan (*Rudbeckia hirta*).



### Insectivorous Species

Insectivorous plants are common in the bogs associated with some longleaf pine forests. They include hooded pitcher plants (*Sarracenia minor*), yellow pitcher plants (*S. flava*), parrot pitcher plants (*S. psittacina*), bladderworts (*Utricularia inflata*, other spp.), yellow butterwort (*Pinguicula lutea*), and sundews (*Drosera capillaris*, several other spp.) These plants have special structures that allow them to capture and digest protein-rich insects and spiders. When broken down, the proteins release nitrogen, a nutrient essential for plant growth. Since soil acidity slows decomposition, sources of mineralized nitrogen do not exist in bogs. Their carnivorous nature is an adaptation that allows these plants to survive.

The pitcher plant provides a good illustration of this adaptation. It secretes nectar from its hood to attract insects. An insect alights on one of the plant's hollow, tubular leaves and is lured under the hood, where it tries to escape through translucent spots in the hood. Instead, tired from the struggle, the insect falls into the liquid-filled "pitcher" of the leaf, where curved hairs prevent the prey from escaping and it is broken down by plant enzymes and bacterial action. Bladderworts use suction to trap living aquatic or terrestrial organisms that have touched the trigger hairs at the mouth of one of the bladders.

The sundew's flowers occur as clusters of white blooms on one side of a tall, leafless stalk rising above a rosette of small, sticky leaves. Pitcher plants have fiddle-shaped, yellow to reddish-green flowers that grow on separate, leafless stalks. Bladderworts and yellow butterworts have yellow flowers.

### Scrub Oaks

Various scrub oaks comprise the sparse, broad-leaved understory (the middle layer of flora, between the pine overstory and grassy/herbaceous ground cover) in longleaf-wiregrass woodlands of the Coastal Plain and Fall-Line sandhills. Blackjack and post oaks (*Quercus marilandica*, *Q. stellata*) are prevalent where clay content is high; turkey, bluejack, and sand post oaks (*Q. laevis*, *Q. incana*, *Q. margaretta*) are scattered on sandier sites.



Running oak (*Quercus pumila*), which has evolved under fire conditions just as longleaf pines and wiregrass have, is a natural hardwood component of this ecosystem. The running oak's adaptation to fire is its ability to form a major root and trunk system underground (though not in the shape of the aboveground trunk). The tree produces a full-sized acorn that is food for quail, turkey, songbirds, and deer.



The running oak rarely grows taller than 4 feet in height, even after years of fire suppression. Without fire, this tree will eventually disappear, succumbing to shading and competition from other hardwoods. Because it is difficult to re-establish once eradicated from an area, its presence indicates healthy, virgin soil.

## The Fauna

### Red-Cockaded Woodpecker



Now on the federal list of endangered species, the red-cockaded woodpecker (*Picoides borealis*) was once a common inhabitant of Coastal Plain pine forests. Populations have dwindled significantly from habitat loss.

Mature red-cockaded woodpeckers are about 7 inches long, with a black crown, white cheek, and back barred with black and white horizontal stripes that give a ladder-back appearance. Juvenile males have a small red area on the crown. Adult males have a thin red streak above the cheek, visible only up close or when the bird is excited.

Unlike other woodpeckers that nest in dead trees, the red-cockaded is the only woodpecker that excavates cavities exclusively in living pine trees. The birds choose trees infected with red heart disease, a fungus that softens the heartwood and allows for easier excavation. Cavities are used for nesting and roosting and generally take from one to three years to excavate. One bird occupies each cavity. The red-cockaded woodpecker is a cooperative breeding species and nests from April through June.

These nonmigratory birds inhabit territories of 125 to 200 acres and live in clans, family groups consisting of a breeding pair and one to four of the male's offspring who act as helpers. Clans



spend a great deal of time foraging for food-insect larvae, cockroaches, beetles, ants, and centipedes-in tree limbs and trunks.

To protect nest cavities from predators such as tree-climbing snakes, red-cockaded woodpeckers drill resin wells around the cavity opening, allowing sticky sap to coat the tree's trunk. The white sap gives the tree a candle-like appearance.

### **Northern Bobwhite Quail**

Since the 1940s, bobwhite quail (*Colinus virginianus*) numbers have steadily declined throughout the southern United States, owing mainly to loss of habitat. Hedgerows between fields-prime quail cover-have become less prevalent as small family farms divided by hedgerows and weedy edges have been amalgamated into large fields with intensified methods. Extensive timber production and fire suppression (which allows a dense understory to choke out the herbaceous plants quail feed on) has also limited quail populations.

Adults are an irregular reddish-brown color with a short gray tail and striped flanks. Males have a white throat and eye stripe. The males' rising "bob-white" whistle is heard in spring and summer.

Quail live in groups, or coveys, until the nesting season begins in April. Courting pairs construct ground nests of dead plant matter. Average clutch size is 13 eggs, incubated by males 25 percent of the time. Juveniles are fully feathered at about six weeks, when their diet starts to shift from insects to seeds and fruit.

Because it is a premier game bird across the Southeast, efforts have been made to increase wild quail populations by releasing pen-raised birds, a restocking strategy that has not been effective. Annual survival rates for these birds are low, but they do provide hunting opportunities for sportsmen. A compromise in some managed hunting areas has been to dedicate a specific block of land to pen-raised quail while devoting most of the property to native populations. Pen-raised birds can be distinguished from wild quail by weight; their average weight is 0.44 pound, while wild birds generally weigh about 0.35 pound.



### **Eastern Diamondback Rattlesnake**

Ranging from 3 to 8 feet in length, the Eastern diamond rattlesnake (*Crotalus adamanteus*) is the largest rattler in North America and one of the most dangerous. They inhabit sandhill and longleaf pine communities and abandoned farmland of the Coastal Plain from eastern Louisiana to

southeastern North Carolina and throughout Florida. These are heavy-bodied snakes, recognizable by a distinctive pattern of dark diamonds with light centers bordered by light yellow scales. Their large heads are distinct from their necks.

Diamondback rattlers are known to inhabit gopher tortoise burrows and dense patches of saw palmetto in southern pine grasslands. They eat rabbits, squirrels, and birds, and their venom is highly destructive to blood tissue. Their numbers have decreased as a result of habitat loss and hunting by humans.

### **Flatwoods Salamander**

Because their required breeding habitat-small, upland ponds that dry up every few years and prevent predatory fish from flourishing-has declined significantly over time due to habitat destruction, the flatwoods salamander (*Ambystoma cingulatum*) population has also declined. Eggs laid in dried-up woodland ponds in the rainy months from October to December are coated with a protective jelly that dissolves when rain fills the pond. Eggs must be inundated with water to hatch. Prey changes from zooplankton to small insects as the flatwoods salamander larvae grow.

In the winter, the larvae lose their gills, develop adult coloring, and gain leg strength, a metamorphosis that allows them to live on land. Adult salamanders average 3.5 to 5 inches in length and are dark brown or black in color with silvery netlike markings on their backs. They are most active during breeding season, remaining dormant underground when conditions are dry.

### **Bachman's Sparrow**

This bird's traditional habitat is mature to old-growth southern pine woodland characterized by frequent fire and a thick grass and herb understory. With the loss of much of that habitat, the Bachman's sparrow (*Aimophila aestivalis*) has gradually begun to colonize recent clear-cuts and old fields, but those areas do not provide suitable long-term habitat. Moreover, the sparrow no longer breeds in longleaf pine stands where fire has been suppressed for five years or more and canopy cover has increased.

The adult Bachman's sparrow has a large bill, thin russet stripe extending back from the eye, gray back heavily streaked with dark brown, light gray or buff sides and breast, and whitish belly. Adults are 3 to 4 inches in total length. Juveniles have a distinctive eye ring and streaked breast, throat, and sides. The song of the male Bachman's sparrow is a medley of trills and whistles at different pitches, sung from low, open perches.

### **Brown-Headed Nuthatch**

Along with the Bachman's sparrow and red-cockaded woodpecker, the brown-headed nuthatch (*Sitta pusilla*) forms a triumvirate of birds most closely associated with the longleaf pine-wiregrass plains of southwestern Georgia. The woodpecker's preference for older growth pine is well documented, as is the sparrow's preference for the grassland's thick groundcover. The nuthatch nests in low snags in the pine trees and subsists on the insects and larvae it pries from the trees' bark.

True to its name, the brown-headed nuthatch has a dark brown cap atop a buff- colored neck and breast and a gray back. Its call is a short double note that sounds like the squeak of a child's rubber toy. Feeding flocks may also twitter and chirp.



#### Management Recommendation #5: Roads/trails/Firebreaks

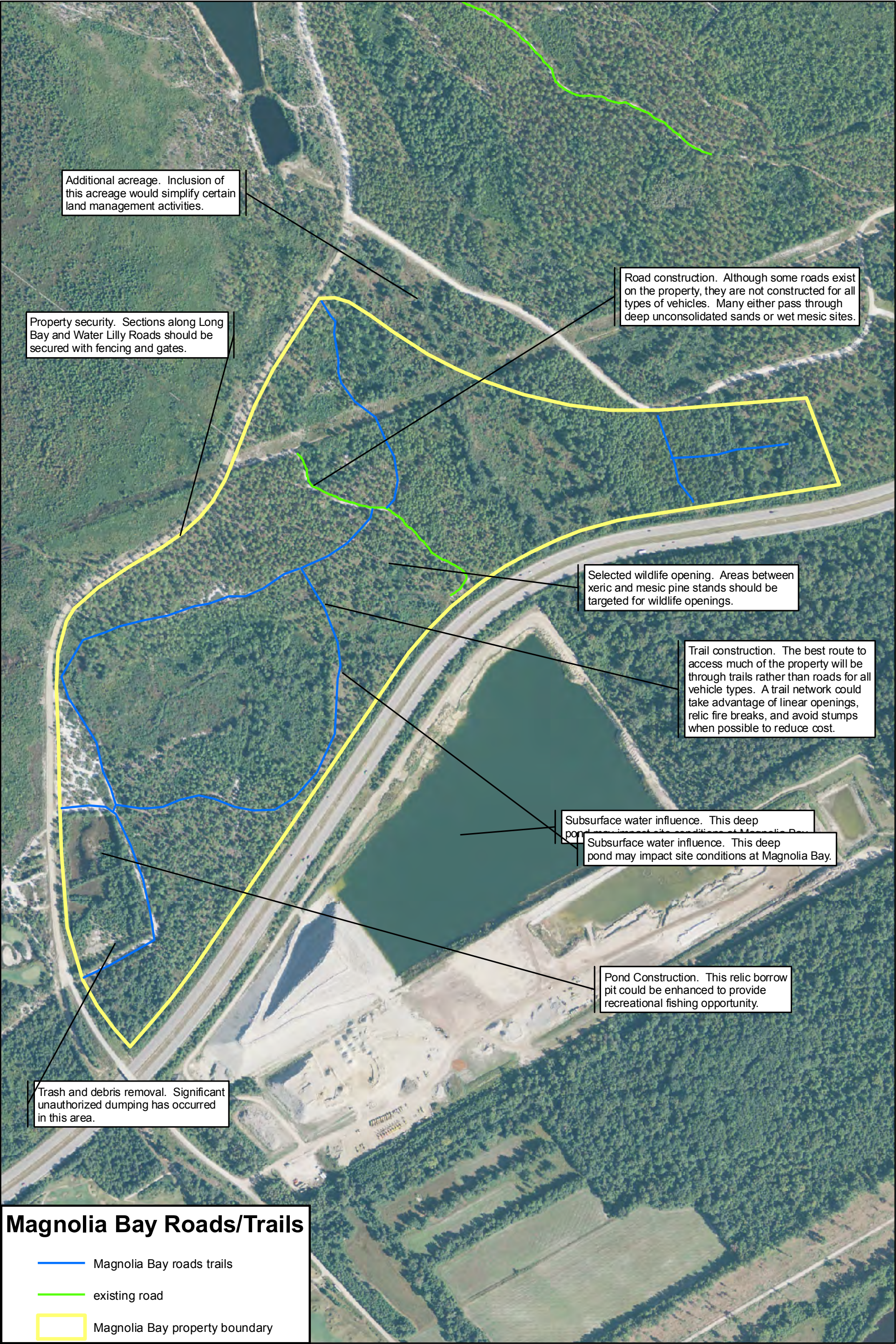
Access across the property is important for its ultimate use as a recreational and hunting parcel; however, soil conditions pose some limitations. The higher sand hill soils are deep, unconsolidated material and travel through these areas is possible for only all-terrain vehicles. Mesic portions of the parcel are subject to moist soil conditions that would make travel difficult except for all terrain vehicles. One or two primary road routes have been identified for enhancement as all weather and all vehicle roads. This would allow access throughout significant portions of the property. Additional roads or trails could be created from native soil material to reduce cost.

- a. Numerous trails exist that appear to have been created during previous timber harvests and/or emergency fire break development. These areas are devoid of larger timber and stumps. They do have an irregular grade that should be leveled.
- b. Once graded, establish routine maintenance schedule.
- c. Improve primary roads to provide all terrain vehicle access.
- d. Firebreaks will be added as prescribed burning work is undertaken, and these should be maintained each year.
- e. The following map shows the network.



Magnolia Bay Resort Parcel

Land Management Recommendations





#### Management recommendation #6 – Control of invasive, exotic plant species

Although small in area, several invasive plant species exist on the property (i.e., English ivy, Japanese honeysuckle, and multiflora rose). These should be treated to ensure they do not spread to other areas of the property.

- a. English Ivy and Japanese honeysuckle could be treated with 3% glyphosate and 1% surfactant applied to leaf surface area in late spring.
- b. Multiflora rose should be treated with 2% Arsenal and 2% surfactant applied to leaf surface area in late spring.
- c. Monitor site for Chinese Tallow intrusion in wetlands or near road beds. Eradication at the start of an infestation is accomplished through multiyear applications of herbicide Clearcast (foliar at 4% with 2% surfactant).



### Management recommendation #7 – Freshwater habitat/Lagoon Improvements

Magnolia Bay has numerous productive wetlands that provide important fishless habitat for herpetiles. Additionally, there is a depression resulting from sand excavation that functions as a freshwater lagoon that has ecological value as a freshwater source for birds and mammals. This lagoon can be improved to enhance value, but also to serve as a recreational amenity for future owners.

#### **Management recommendation:**

1. The impoundment is rather random in current size and configuration and could be expanded to as much as six or seven acres by further upland excavation.
2. Excavation and installation of a clay-sand liner would ensure the wet-season water table would easily keep several feet of standing water and could be made to readily hold eight to ten feet of water over five to eight surface acres.
3. A shallow water well could serve as a back-up water supply and for management turn-over water.
4. Shallow littoral shelves should be built and planted to proper aquatic vegetation to provide good bass and panfish habitat; and to benefit regional aquatic wildlife.

#### Management recommendation #8: Site Security

Magnolia Bay has an immediate need for security fencing and gates. The sand barrens (one of the most sensitive habitats on the site) are being abused by trespassers on four-wheelers for recreation.

Additionally, it is readily apparent that four wheelers are accessing the entirety of the site for riding, and potentially illegal hunting.

Immediate steps to post and secure the site are recommended.

#### **Management recommendations:**

1. No trespassing signs should be posted throughout the property.
2. The property should be entered in the SC DNR Property Watch program, a program that gives State Wildlife Officials and the local sheriff's department the ability to patrol and remove unwanted individuals.
3. Gates should be installed at all entry points.
4. Fencing should be installed along Long Bay Rd. at the location of the Sand Barren to protect this resource from off road vehicles.

#### **IV. Existing Habitats and Associated Species of Concern**




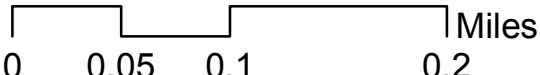


**LEGEND:**

**Vegetation Community**

- Xeric Sandhill Scrub (Coastal Fringe Subtype)
- Sand Barren (Coastal Fringe Subtype)
- Young Planted Pine
- Wetlands with Bay Forest elements
- Carolina Bay with High Pocosin and Bay Forest elements
- Coastal Plain Depression Pond (mixed subtype)
- Surveyed Wetlands
- Impoundment
- Magnolia Bay Boundary

-Wetland/Vegetation compartments and Boundary from DDC Engineers, Myrtle Beach, SC wetland surveys  
-Aerial Image from The World View Satellite 3, image captured on 2/20/2015



Property overview: Habitats at Magnolia Bay are the quintessential Coastal Plain Sandhills. SC DNR appropriately characterized this property:

“Although xeric sandy soils predominate, the rolling terrain and variations in soil and subsoil composition provide significant local variation in habitat composition. The principal habitat of this ecoregion is Sandhills pine woodland, with local structure and composition influenced mainly by fire history. Fire is a dominant factor in the ecology of this region. Sandhills pine forests are a fire climax community; as such, these forests are dependent on frequent ground fires to reduce hardwood competition and to perpetuate pines and grasses.

Deep sand ridges ranging from 91 to over 183 m (300-600 ft.) above mean sea level are one of the most striking and dominant features of the Sandhills Ecoregion. Ridge tops of pure sands, some up to 9 m (30 ft.) in depth (Wharton 1978), support the most extreme xeric scrub communities of longleaf pine and turkey oaks. The sandy soils on the ridges, excessively drained with low available water capacity, are low in fertility due to rapid leaching and possess little to no leaf litter (Lawrence 1976).

Sand ridges that have more clay and silt mixed with sand support subxeric Sandhill scrub vegetation and mesic pine flatwoods. Increased plant diversity in such areas is a result of the more moderate growing conditions. Due to the increase in leaf litter, fire is an important factor in the maintenance of the subxeric scrub forest and woodlands.

Rainwater rapidly percolates through the sand ridges until it reaches hardpan, at which point it moves laterally until emerging at the surface on side slopes or near the base of sand ridges. These natural seepage areas result in distinctive wetland habitats embedded within the xeric forests and woodlands.

The community type that develops is determined by the amount of water, the position on the slope, and—especially—by fire. In the absence of fire, this wetland habitat can be forested with longleaf or pond pines (*Pinus serotina*) growing over a dense evergreen pocosin-like shrub layer or, with frequent fire, it can be an open hillside herb bog. Seepage accumulating at the base of the sand ridges results in a saturated zone that supports a streamside pocosin forest.”

Listed below are the existing habitat and species of concern associated with them.

The tract supports areas of planted pine (primarily longleaf pine, *Pinus palustris*, with lesser amounts of loblolly pine, *P. taeda*), and wetlands associated with Carolina Bays.

Four natural communities, three with high conservation value, have been identified on the property:

3. Sand Barren (Coastal Fringe Subtype, G2),
4. High Pocosin (G2), and
5. Xeric Sandhill Scrub (Coastal Fringe Subtype, G2) and
6. Bay Forest (G4)

### ***Pine Woodlands/Sandhill Pine Woodlands***

The most common is Dry Long leaf Pine Forest – Xeric Sandhill Scrub (Typic Subtype). This community “is one of the driest longleaf pine types on the Atlantic Coastal Plain, north of central South Carolina. It is the typical xeric sandhill *Pinus palustris*-dominated association, within the range of *Aristida stricta*.” The open canopy is dominated by Longleaf pine (*Pinus palustris*). The subcanopy is characteristically dominated by Turkey oak (*Quercus laevis*). The herbaceous stratum contains wiregrass (*Aristida stricta*), with the lichen *Cladonia spp.* (Natureserve 2014).

Dry Long leaf Pine Forest – Xeric Sandhill Scrub (Coastal Fringe Subtype). This Subtype is distinguished by exhibiting *Ilex vomitoria* and *Quercus geminata* (Schafale, 2011).

#### **Summary of species of concern associated with this habitat:**

Highest Priority: American Kestrel, Bachman’s Sparrow, Brown-headed Nuthatch, Eastern Wood Pewee, Northern Bobwhite, Red-cockaded Woodpecker, Wood Thrush, Coral Snake, Gopher Tortoise, Pine Snake, Southern Hognose Snake, Henslow’s Sparrow, Black Bear, Northern Yellow Bat

High Priority: Eastern Diamondback Rattlesnake, Mimic Glass Lizard Pine Woods Snake

Moderate Priority: Eastern woodrat, Eastern Fox Squirrel, Slender Glass Lizard

#### **Management Recommendations:**

Recommendation #1 Long Leaf Pine management/transition

Recommendation #2 Prescribed burning

Recommendation #4 Biological inventories

Recommendation #5 Roads and Trails

Recommendation #6 Invasive Species

Recommendation #7 Site Security and Debris Removal



						Sandhill Pine Woodland	
SCIENTIFIC NAME	COMMON NAME	G-RANK	S-RANK	LEGAL STATUS	PRIORITY	SPECIFIC HABITAT REQUIREMENTS	
<b><u>MAMMALS</u></b>	-	-	-	-			
<i>Eptesicus fuscus</i>	Big Brown Bat	G5	SNR		Highest	X	buildings, cavity trees, under bridges and in bat boxes; forage in open fields or forest gaps
<i>Lasionycteris noctivagans</i>	Silver-haired Bat	G5	SNR		Highest	X	roosts include tree cavities, under loose bark, rock crevices, under tree foliage, and occasionally in buildings, stacks of firewood, and bird boxes; forage over water
<i>Lasiurus borealis</i>	Red Bat	G5	SNR		Highest	X	thinned stands; roost on smaller branches or twigs, often in the hardwood tree canopy; may roost in leaf litter
<i>Lasiurus cinereus</i>	Hoary Bat	G5	S?		Highest	X	tree cavities, trunks, tree foliage, squirrel nests, and Spanish moss
<i>Lasiurus intermedius</i>	Northern Yellow Bat	G4/G5	S?	Of concern, State	Highest	X	forage over open areas such as fields, pastures, golf courses, marshes, and along lake and forest edges; roost in clumps of Spanish moss or under old palm fronds
<i>Lasiurus seminolus</i>	Seminole Bat	G5	SNR		Highest	X	roost in large pines located near forested corridors; may roost in leaf litter
<i>Neotoma floridana</i>	Eastern Woodrat	G5	S3/S4	Of concern, State	Moderate	X	wide variety of habitats
<i>Parascalops breweri</i>	Hairy-tailed Mole	G5	SNR	Of concern, State	High		loose and easily drained soils for excavation
<i>Perimyotis subflavus</i>	Tri-colored Bat	G5	SNR		Highest	X	abandoned mines and caves, bridges, buildings
<i>Sciurus niger niger</i>	Southern Fox Squirrel	G5	S4	Of concern, State	Moderate	X	cavity trees
<i>Ursus americanus</i>	Black Bear	G5	S3?	Of concern, State	Moderate	X	early successional habitat and forest interior; den sites
<b><u>REPTILES &amp; AMPHIBIANS</u></b>	-	-	-	-	-	-	
<i>Ambystoma cingulatum</i>	Flatwoods Salamander (Frosted)	G2/G3	S1	Federal Threatened; State Endangered	Highest	X	isolated, temporary wetlands with no fish that have open canopy above and abundant grasses and sedges
<i>Ambystoma tigrinum</i>	Tiger Salamander	G5	S2/S3	Of Concern, State	Highest	X	isolated, temporary wetlands with no fish that have open canopy above and abundant grasses and sedges
<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G4	S3	Of Concern, State	High	X	underground refugia such as stump holes and rodent burrows
<i>Crotalus horridus</i>	Timber Rattlesnake	G4	SNR	Of Concern, State	High	X	dry, south-facing slopes at high elevations; rock outcrops or logs for den sites with south face exposed to sun
<i>Heterodon simus</i>	Southern Hognose Snake	G2	SNR	Of Concern, State	Highest	X	friable soils; underground refugia such as stump holes and rodent burrows; abundance of toads
<i>Micrurus fulvius</i>	Coral Snake (Harlequin)	G5	S2	Of Concern, State	Highest	X	underground refugia such as stump holes and rodent burrows; loose soil for burrowing

<i>Ophisaurus attenuatus</i>	Slender Glass Lizard	G5	S4		Moderate	X	underground refugia such as stump holes and rodent burrows; open canopied forests or fields
<i>Pituophis melanoleucus</i>	Pine Snake (Northern)	G4	S2/S3	Of Concern, State	Highest	X	pine sites with dry soils; underground refugia such as stump holes and rodent burrows
<i>Pituophis melanoleucus mugitus</i>	Pine Snake (Florida)	G4	S2	Of Concern, State	Highest	X	pine sites with well-drained soils; underground refugia such as stump holes and rodent burrows
<i>Rana capito capito</i>	Gopher Frog (Carolina)	G3/G4	S1	Federal Threatened; State Endangered	Highest	X	isolated, temporary to semi-permanent wetlands with no fish that have open canopy above and abundant grasses and sedges
<i>Rhadinea flavilata</i>	Pine Woods Snake	G4	SNR	Of Concern, State	High	X	moist pine flatwoods with many rotten logs; underground refugia such as stump holes and rodent burrows
<b><u>BIRDS</u></b>	-	-		-			
<i>Aimophila aestivalis</i>	Bachman's Sparrow	G3	S3	Of Concern, State	Highest	X	dense grass amongst pines for nesting; saw palmettos in coastal areas
<i>Ammodramus henslowii</i>	Henslow's Sparrow	G4	SZN	Of Concern, State	Highest	X	moist, grassy areas in open pinewoods
<i>Caprimulgus carolinensis</i>	Chuck-will's-widow	G5	S4		High	X	openings for nocturnal feeding; mixed forests with light to moderate understory
<i>Chaetura pelagica</i>	Chimney Swift	G5	SNRB		High	X	open areas for foraging; cavity for nesting (often chimneys)
<i>Colinus virginianus</i>	Northern Bobwhite	G5	S4		Highest	X	brushy areas and grasslands, thickets, woodland margins
<i>Contopus virens</i>	Eastern Wood-Pewee	G5	S5		High	X	open forests with sparse midstory
<i>Dendroica discolor</i>	Prairie Warbler	G5	S4		High	X	open old fields with scattered saplings; open woodlands with shrub-scrub
<i>Dendroica pinus</i>	Pine Warbler	G5	SNR		Moderate	X	typically middle to mature pine forests
<i>Dryocopus pileatus</i>	Pileated Woodpecker	G5	SNR		Moderate	X	extensive mature forests with dead snags for nest cavities; probably prefer riverbottom hardwoods
<i>Elanoides forficatus</i>	Swallow-tailed Kite	G5	S2	State Endangered	Highest	X	open savannahs for foraging; mature trees for nesting near swamps and marshes
<i>Falco sparverius paulus</i>	American Kestrel	G5	SNR		Highest	X	nest cavity in large open area; extensive open areas with high perches for foraging
<i>Icteria virens</i>	Yellow-breasted Chat	G5	S4B		High	X	old fields, briar thickets, dry woodland margins;
<i>Icterus spurius</i>	Orchard Oriole	G5	S5?B		Moderate	X	orchard-like sttings; woodland margins
<i>Junco hyemalis</i>	Dark-eyed Junco	G5	SNRB,SNRN		Moderate	X	short grass openings near conifer woodlands
<i>Melanerpes carolinus</i>	Red-bellied Woodpecker	G5	SNR		Moderate	X	open, mature woods with dead snags for nest cavities; man-made poles with cavities
<i>Melanerpes erythrocephalus</i>	Red-headed Woodpecker	G5	SNR		Moderate	X	open, mature woods with dead snags for nest cavities; man-made poles with cavities
<i>Passerina cyanea</i>	Indigo Bunting	G5	SNRB		Moderate	X	woodland margins; shrubby thickets in openings
<i>Picoides borealis</i>	Red-cockaded Woodpecker	G3	S2	Federal and State Endangerd	Highest	X	open pine woods with little to no understory; prefers longleaf; heartwood disease for nest cavity excavation
<i>Picoides pubescens</i>	Downy Woodpecker	G5	SNR		Moderate	X	middle-aged to mature woodlands; prefer hardwoods; dead snags for nest cavities
<i>Pipilo erythrophthalmus</i>	Eastern Towhee	G5	SNR		High	X	brushy areas; woodland margins and understory

<i>Piranga rubra</i>	Summer Tanager	G5	S?		Moderate	X	dry, mixed woodlands
<i>Poecile carolinensis</i>	Carolina Chickadee	G5	SNR		Moderate	X	mature woodlands with dead snags for nest cavities; will use bird boxes
<i>Regulus satrapa</i>	Golden-crowned Kinglet	G5	S4		Moderate	X	winter in coniferous or mixed woodlands
<i>Setophaga dominica</i>	Yellow-throated Warbler	G5	S3?		Moderate	X	moderately open, mature, moist forests; pines, mixed forests; Spanish moss
<i>Sitta pusilla</i>	Brown-headed Nuthatch	G5	S4		Moderate	X	mature, open pines for foraging; nest cavities in snags
<i>Thryothorus ludovicianus</i>	Carolina Wren	G5	SNR		Moderate	X	woodland thickets; leaf litter; cavities or ledges for nesting; will use bird boxes and many other human material
<i>Toxostoma rufum</i>	Brown Thrasher	G5	SNR		High	X	moderate to dense brush and saplings
<b><u>INSECTS</u></b>							
<i>Atrytone arogos</i>	Arogos Skipper					X	specialist in seasonally wet to dry grassland and pine savannah habitats; regenerating burn sites; host plants: Little Bluestem, Pine Barrens Reed Grass, and Lopsided Indian Grass; nectar plants
<i>Dorymyrmex bureni</i>	"A Pyramid Ant"					X	prefer sandy soils in highly disturbed areas like pastures, open fields, open scrub, sandhills, dunes, lawns, and roadsides
<i>Dorymyrmex medeis</i>	"A Pyramid Ant"					X	prefer sandy soils in highly disturbed areas like pastures, open fields, open scrub, sandhills, dunes, lawns, and roadsides
<i>Mycotrupes retusus</i>	Sandhills Earth Boring Scarab Beetle					X	restricted to deep, well-drained xeric sands of Fall-line Sandhills; mostly fossorial
<i>Rhadinoceraea zigadenusae</i>	Zigadenus Sawfly					X	dependent upon host plant: Death Camas ( <i>Zigadenus densus</i> )



## ***Wetlands Systems***

There are two primary wetland systems at Magnolia Bay:

1. High Pocosin (G2) (Carolina Bay)
2. Bay Forest (G4)

It should be noted that the communities associated with the Carolina Bay have been highly disturbed in the past due to timber harvest practices. These areas are in transitional stages and exhibit features commonly found in the associated communities. With appropriate management, NALT believes that ecological function for this unique resource could be restored.

### **Associated Species of Concern with this habitat:**

- Highest Priority: Little Blue Heron, Yellow-crowned Night-Heron, Flatwoods Salamander, Tiger Salamander, Carolina Gopher Frog, Broad-striped Dwarf Siren, Chamberlain's Dwarf Salamander
- High Priority: Black Swamp Snake, Chicken Turtle, Florida Cooter, Florida Green Watersnake, Florida Softshell Turtle, Gulf Coast Mud Salamander, Yellowbelly Turtle, Upland Chorus Frog, Mink, Southeastern Bat
- Moderate Priority: Great Blue Heron, Great Egret, Common Snapping Turtle, Spotted Turtle, Southern Dusky Salamander, Northern Cricket Frog

### **Management recommendations:**

1. Management recommendation #3 Wetland Protection
2. Management recommendation #2 Prescribed burning
3. Management recommendation #4 Biological surveys

Appendix 1-A Terrestrial Priority Species and Their Ecosystems						Depressions	
SCIENTIFIC NAME	COMMON NAME	G-RANK	S-RANK	LEGAL STATUS	PRIORITY	SPECIFIC HABITAT REQUIREMENTS	
<b><u>MAMMALS</u></b>	-	-	-	-			
<i>Condylura cristata</i>	Star-nosed Mole	G5	S3?	Of concern, State	High	X	swamps, marshes, bogs, streamsid es; dense leaf litter
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat	G3/G4	S2?	State Endangered	Highest	X	T-beam and I-beam bridges, abandoned buildings, old bunkers and tunnels, cavity trees, rock outcrops, mines, caves
<i>Eptesicus fuscus</i>	Big Brown Bat	G5	SNR		Highest	X	buildings, cavity trees, under bridges and in bat boxes; forage in open fields or forest gaps
<i>Lasiurus cinereus</i>	Hoary Bat	G5	S?		Highest	X	tree cavities, trunks, tree foliage, squirrel nests, and Spanish moss
<i>Lasiurus intermedius</i>	Northern Yellow Bat	G4/G5	S?	Of concern, State	Highest	X	forage over open areas such as fields, pastures, golf courses, marshes, and along lake and forest edges; roost in clumps of Spanish moss or under old palm fronds
<i>Lasiurus seminolus</i>	Seminole Bat	G5	SNR		Highest	X	roost in large pines located near forested corridors; may roost in leaf litter
<i>Mustela vison</i>	Mink	G5	SNR		High	X	near swamps, streams, rivers, ponds, and saltwater marshes
<i>Myotis austroriparius</i>	Southeastern Bat	G3/G4	S1	State Threatened	Highest	X	caves (including limestone sinks), mines, abandoned buildings, and large hollow trees; prefers to feed and roost over water
<i>Perimyotis subflavus</i>	Tri-colored Bat	G5	SNR		Highest	X	abandoned mines and caves, bridges, buildings
<i>Ursus americanus</i>	Black Bear	G5	S3?	Of concern, State	Moderate	X	early successional habitat and forest interior; den sites
<b><u>REPTILES &amp; AMPHIBIANS</u></b>	-	-	-	-	-	-	-
<i>Acris crepitans</i>	Northern Cricket Frog	G5	S5	Of Concern, State	Moderate	X	isolated, temporary wetlands with no fish; open grassy marshes or shallow water bodies
<i>Ambystoma cingulatum</i>	Flatwoods Salamander (Frosted)	G2/G3	S1	Federal Threatened; State Endangered	Highest	X	isolated, temporary wetlands with no fish that have open canopy above and abundant grasses and sedges
<i>Ambystoma tigrinum</i>	Tiger Salamander	G5	S2/S3	Of Concern, State	Highest	X	isolated, temporary wetlands with no fish that have open canopy above and abundant grasses and sedges
<i>Chelydra serpentina</i>	Snapping Turtle (Common)	G5	SNR	State Threatened	Moderate	X	soft -bottomed wetlands like rivers, ponds, and lakes that have abundant aquatic vegetation
<i>Clemmys guttata</i>	Spotted Turtle	G5	S5	State Threatened	High	X	small ponds, streams, swamps, flooded bottomland hardwood forests, and other shallow water bodies with soft substrate for burrowing; aquatic vegetation
<i>Eurycea chamberlainii</i>	Chamberlain's Dwarf Salamander	G4	SNR		Highest	X	wetland types like seepages near small streams; leaf litter and small debris
<i>Kinosternon baurii</i>	Striped Mud Turtle	G5	S?	Of Concern, State	Moderate	X	in and around the floodplain swamps of rivers; shallow water; soft substrates
<i>Nerodia floridana</i>	Florida Green Watersnake	G5	S2	Of Concern, State	Highest	X	quiet open water such as Carolina bays, lakes, old rice fields, and reservoirs with "pad plants"
<i>Pseudacris feriarum</i>	Upland Chorus Frog	G5	S3/S4	Of Concern, State	Moderate	X	isolated, temporary wetlands with no fish

<i>Pseudemys floridana</i>	Florida Cooter	G5	SNR	State Threatened	Moderate	X	slow-moving rivers and non-flowing wetlands like ponds and small lakes with soft bottoms, basking sites, and aquatic vegetation
<i>Pseudobranchius striatus striatus</i>	Broad-striped Dwarf Siren	G5	S2	State Threatened	Highest	X	isolated, shallow, acidic, temporary wetlands with no fish that have open canopy above and abundant grasses and sedges; small streams with no flow and muck bottoms sometimes
<i>Rana capito capito</i>	Gopher Frog (Carolina)	G3/G4	S1	Federal Threatened; State Endangered	Highest	X	isolated, temporary to semi-permanent wetlands with no fish that have open canopy above and abundant grasses and sedges
<i>Rana palustris</i>	Pickereel Frog	G5	SNR	Of Concern, State	High	X	standing water in late winter; moist habitat usually within hardwood forests; sphagnum bogs, meadows, and grassy fields near shaded streams
<i>Seminatrix pygaea</i>	Black Swamp Snake	G5	S?	Of Concern, State	High	X	wetlands with abundant aquatic vegetation; leaf litter; <i>Sphagnum</i> moss
<i>Trachemys scripta</i>	Yellow-bellied Slider	G5	SNR	State Threatened	High	X	non-flowing wetlands like ponds and small lakes with soft bottoms and abundant vegetation
<b>BIRDS</b>	-	-		-			
<i>Ammodramus henslowii</i>	Henslow's Sparrow	G4	SZN	Of Concern, State	Highest	X	moist, grassy areas in open pinewoods
<i>Ammodramus savannarum</i>	Grasshopper Sparrow	G5	SNRB,SNRN		Highest	X	broomsedge fields and other openings
<i>Ardea alba</i>	Great Egret	G5	SNRB,SNRN		High	X	shallow water bodies or shorelines for foraging; trees over or surrounded by water for nesting
<i>Ardea herodias</i>	Great Blue Heron	G5	SNRB,SNRN		Moderate	X	shallow water bodies or shorelines for foraging; trees over or surrounded by water for nesting
<i>Butorides virescens</i>	Green Heron	G5	SNRB,SNRN		Highest	X	shallow water bodies and shorelines for foraging; dense shrubs and thickets near water for nesting
<i>Cistothorus platensis</i>	Sedge Wren	G5	SUB		Highest	X	favor brackish marshes
<i>Egretta caerulea</i>	Little Blue Heron	G5	SNRB,SNRN	Of Concern, State	Highest	X	shorelines, shallow water, or mudflats for foraging; shrubs or trees over or surrounded by water for colonial nesting
<i>Egretta thula</i>	Snowy Egret	G5	SNRB,SNRN		Moderate	X	shorelines, shallow water, or mudflats for foraging; shrubs or trees over or surrounded by water for colonial nesting
<i>Egretta tricolor</i>	Tricolored Heron	G5	SNRB,SNRN		High	X	shorelines, shallow water, or mudflats for foraging; shrubs or trees over or surrounded by water for colonial nesting
<i>Eudocimus albus</i>	White Ibis	G5	SNR		Highest	X	shallow water or mudflats for foraging on crustaceans; wet meadows or mudflats for probing; thickets or trees over or surrounded by fresh water for colonial nesting
<i>Gallinago gallinogodelicata</i>	Wilson's Snipe	G5	SNRN		High	X	boggy areas; wet meadows with short grass; along pond and marsh margins for probe foraging
<i>Mycteria americana</i>	Wood Stork	G4	S1S2	Federally Threatened and State Endangerd	Highest	X	shallow water with concentrated prey (6-10 in. deep) for foraging; trees over or surrounded by water for colonial nesting, particularly cypress swamps and trees on small islands
<i>Nyctanassa violacea</i>	Yellow-crowned Night Heron	G5	SNRB,SNRN		Highest	X	shorelines of water bodies for foraging, especially for crustaceans; trees or thickets near water for colonial nesting, will nest in trees that are on dry lands
<i>Progne subis</i>	Purple Martin	G5	SNRB		High	X	forage over open areas near or over water; nest in man-made houses or gourds



<b><u>INSECTS</u></b>							
<i>Acanthametropus pecatonica</i>	"A Mayfly"					X	mesic forests near water
<i>Dolania americana</i>	American Sand Burrowing Mayfly	G4	S3			X	mesic forests near water
<i>Euphyes bimacula</i>	Two-Spotted Skipper					X	isolated wetlands: open bogs, fens, and marshes with <i>Carex</i> sp.; nectar plants like iris
<i>Homoeoneuria dolani</i>	"A Mayfly"					X	mesic forests near water
<i>Rhadinoceraea zigadenusae</i>	Zigadenus Sawfly					X	dependent upon host plant: Death Camas ( <i>Zigadenus densus</i> )
<i>Siphonurus decorus</i>	"A Mayfly"					X	mesic forests near water
<i>Somatochlora calverti</i>	Calvert's Emerald	G3	SNR			X	boggy forest seepages for breeding; forest openings for foraging
<i>Taeniopteryx robinae</i>	Savannah Willowfly	G1	SNR			X	mesic forests near water
<i>Toxorhynchites rutilus rutilus</i>	"An Elephant (Tree Hole Mosquito)"					X	tree holes and artificial basins for breeding; nectar producing plants for foraging
<i>Toxorhynchites rutilus septentionalis</i>	"An Elephant (Tree Hole Mosquito)"					X	tree holes and artificial basins for breeding; nectar producing plants for foraging
<b><u>TERRESTRIAL LEECHES</u></b>							
<i>Haemopsis septagon</i>	"A terrestrial leech"				High	X	moist areas near water sources; feeds on earthworms; only known from Georgetown County but probably more widespread in Pee Dee region of Coastal Plain


## **V. Mapping**

- A. Aerial
- B. Soils
- C. Concept Plan A & B



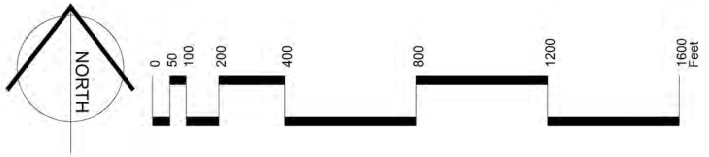


LEGEND:

-  Subject Property - 150.55± acres

NOTES:

1. Property and wetland boundaries from DDC Engineers, Myrtle Beach, SC; dated 2/20/2014.
2. Aerial Photography from Maptech; dated 2013.
3. Topography from Wampee, USGS Quadrangle sheet.
4. Soils information from USDA - NRCS National Soil Information System (NASIS) Database.
5. Entire property is in Zone X per FEMA Floodplain Map Panels 45051C0578H, 45051C0579H, and 45051C0580J.



MAGNOLIA BAY RESORT

HORRY COUNTY, SOUTH CAROLINA

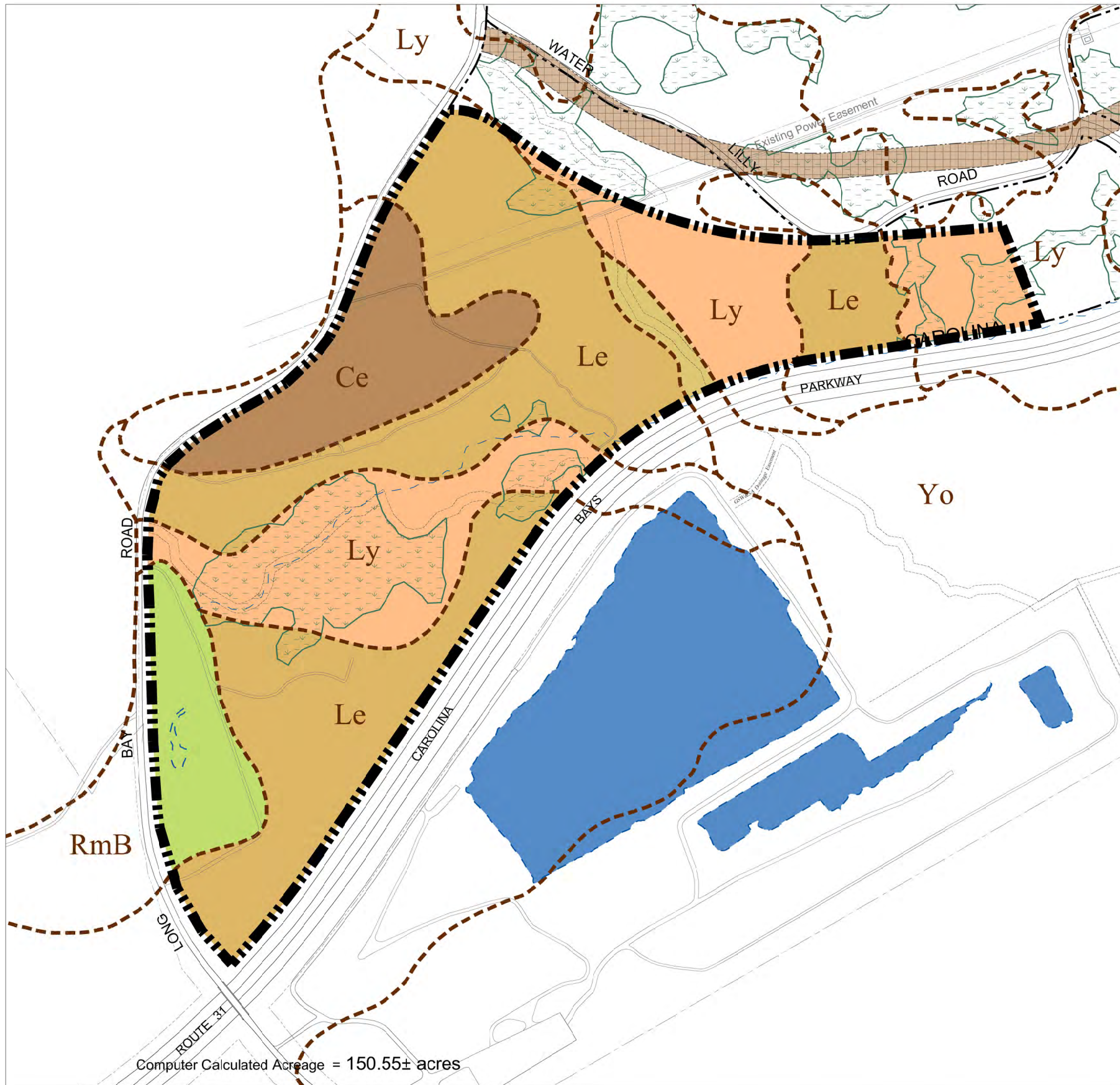
AERIAL PHOTOGRAPH

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UPDATED: 12/2/2014 .JPG  
BASE MAP: 5/12/2013 .JPG  
C.P.: 3/25/2015 .JPG



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LEGEND:

- Subject Property - 150.55± acres
- Wetlands

SOIL LEGEND:

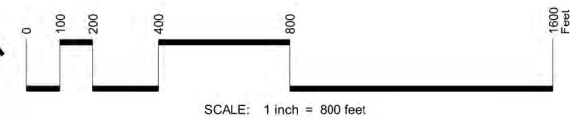
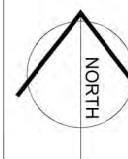
- Centenary Fine Sand ^
- Leon Fine Sand ^
- Lynn Haven Sand ^
- Rimini Sand, ^  
0 to 6% slopes
- Yorges Fine Sandy Loam \*\* ^

Soil Notes:

- \*\* denotes Farmland of Statewide Importance
- ^ denotes Hydric Soils

NOTES:

1. Property boundaries from DDC Engineers; Survey dated February 20, 2014.
2. Aerial Photography from Maptech; dated 2013.
3. Topography from Wampee, USGS Quadrangle sheet.
4. Soils information from WebSoil Survey, USDA - NRCS.



MAGNOLIA BAY RESORT

HORRY COUNTY, SOUTH CAROLINA

SOILS MAP

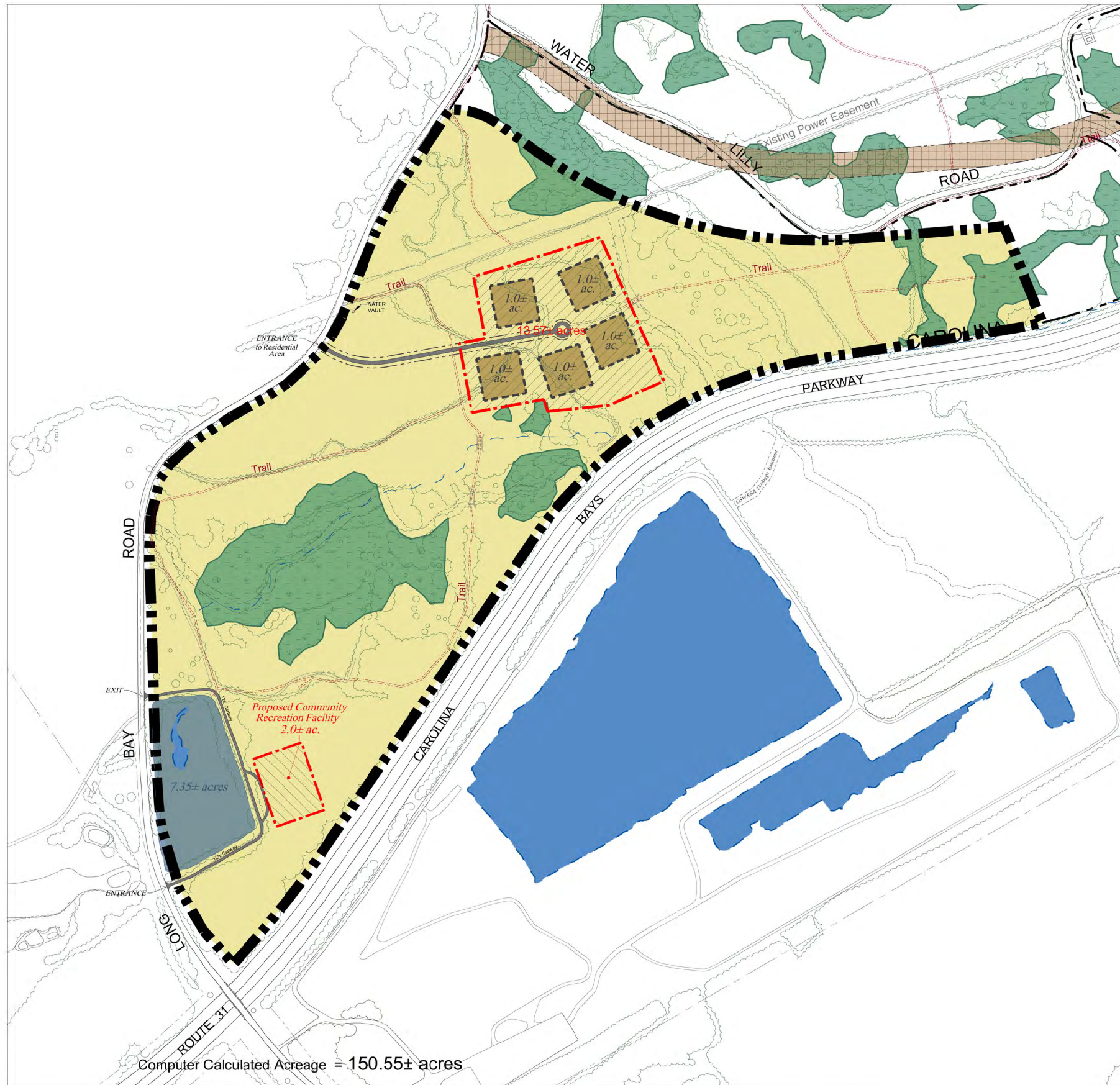
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BASE MAP: 5/12/2013 .JPG  
C.P.: 3/25/2015 .JPG



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SOILS MAP



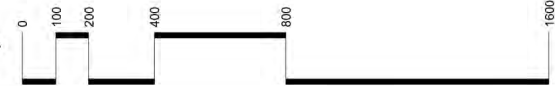
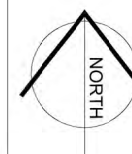


#### LEGEND:

-  Subject Property - 150.55± acres
-  Wetlands
-  Residential Building Zone  
13.57± acres
-  Recreational Building Zone  
@ 2.0± acres
-  Building Areas - Single Family Residence  
@ 1.0± acres
-  Proposed Pond Expansion Area  
@ 7.35± acres
-  Trails

#### NOTES:

1. Property boundaries from DDC Engineers; Survey dated February 20, 2014.
2. Aerial Photography from Maptech; dated 2013.
3. Topography from Wampee, USGS Quadrangle sheet.
4. Soils information from WebSoil Survey, USDA - NRCS.



## MAGNOLIA BAY RESORT

HORRY COUNTY, SOUTH CAROLINA

## CONCEPT PLAN A

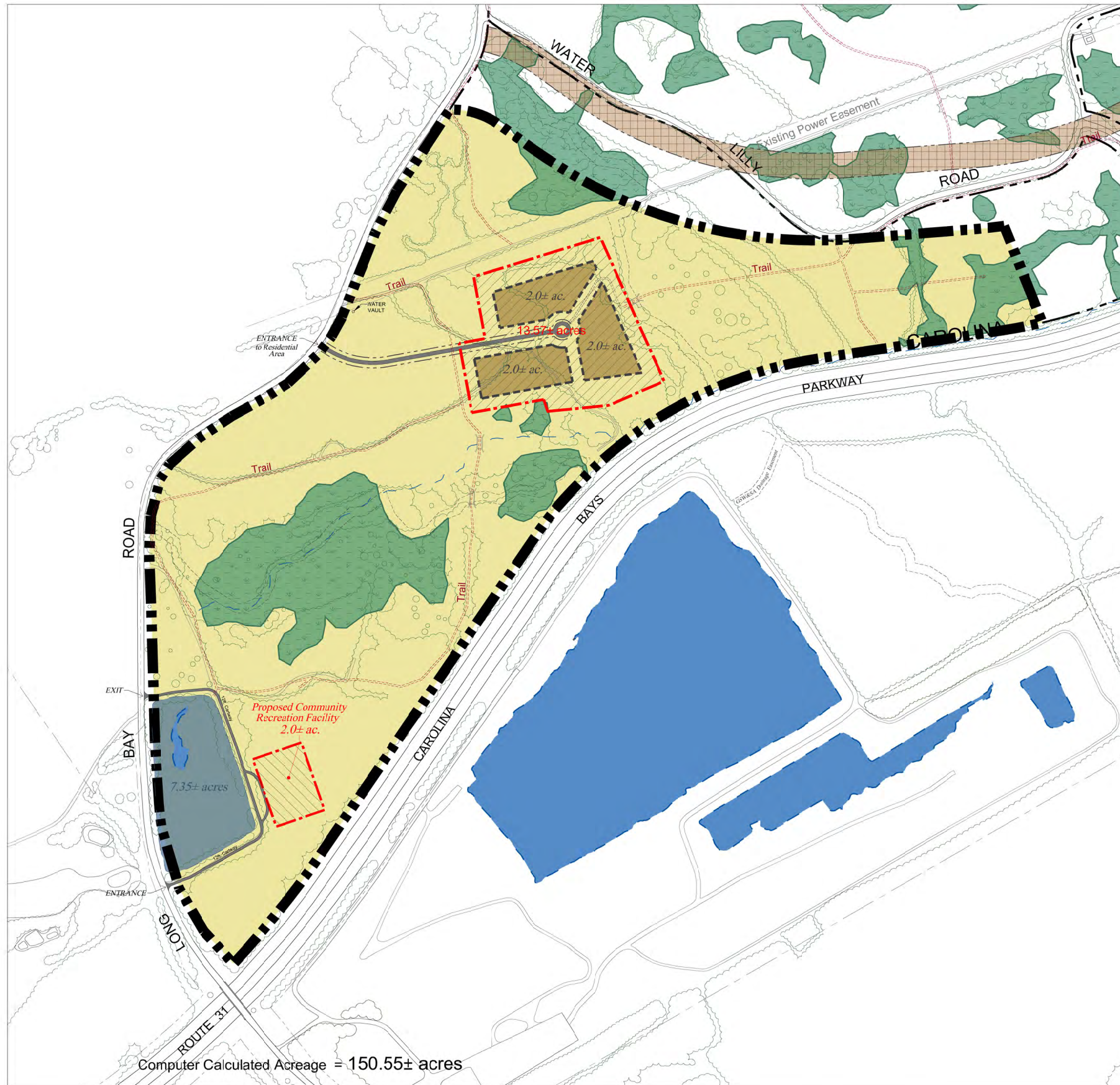
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BASE MAP: 5.12.2013 .JPG  
C.P.: 3.25.2015 .JPG






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## CONCEPT PLAN A



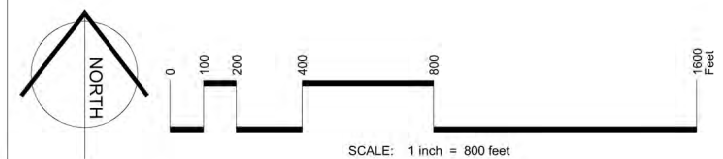


#### LEGEND:

-  Subject Property - 150.55± acres
-  Wetlands
-  Residential Building Zone  
13.57± acres
-  Recreational Building Zone  
@ 2.0± acres
-  Building Areas -Resort Building  
@ 2.0± acres
-  Proposed Pond Expansion Area  
@ 7.35± acres
-  Trails

#### NOTES:

1. Property boundaries from DDC Engineers; Survey dated February 20, 2014.
2. Aerial Photography from Maptech; dated 2013.
3. Topography from Wampee, USGS Quadrangle sheet.
4. Soils information from WebSoil Survey, USDA - NRCS.



## MAGNOLIA BAY RESORT

HORRY COUNTY, SOUTH CAROLINA

## CONCEPT PLAN B

BASE MAP: 6.22.2014 .JPG  
 UPDATED: 12.2.2014 .JPG  
 BASE MAP: 5.12.2013 .JPG  
 C.P.: 3.25.2015 .JPG



## CONCEPT PLAN B

## **VI. Next Steps and Activity Timeline**

NALT recommends the following tasks during the first year of operation:

1. Identify Conservation Management Team to include:
  - a. Forestry Management Contractor
  - b. Prescribed burning contractor
  - c. Road maintenance contractor (general)
  - d. Site improvement/repair contractor (construction)
  - e. Lagoon maintenance contractor (as necessary)
  - f. Biological expertise (as necessary)
  - g. Site security contractors (as necessary)
  - h. Natural resource agencies and partners
2. Develop a list of local partners/players to open dialogue as necessary:
  - a. Utility companies (particularly with powerline easement rights of way)
  - b. Local government and planning departments
  - c. Academics or natural resource partners
  - d. Adjacent POA/landowners
  - e. Hunt clubs
  - f. State parks or nearby Preserves
  - g. Local NGO partners
3. Meet with contractors on CMP Plan components to obtain bids, determine timetable for implementation
4. Draft annual Management Budget for the property (begin 3-5 year projection)
5. Implement Conservation Management Plan to include
6. Modify budget and timetables for the next five-year period.

## VII. Proposed Budget

Sample budget to be used for implementation				
Proposed 2015-2016 Budget				
	Proposed Cost	Committed	Discretionary	Notes
Site Maintenance				
Securing site gate, locks, fencing, etc.)				
Misc (signs, hardware, etc.)				
Routine mowing				
Preserve				
ROW				
Drainage pipes				
Road repair/maintenance				
Habitat Enhancement/Land Mngmt				
Prescribed burning				
New firebreaks/trails				
Burning (labor, equip, etc.)				
Timber thinnings				
Improvement cut/transition				
Removal of regeneration stands				
Invasive species treatments				
Lagoon Management				
Water quality monitoring/treatment				
Fish stocking				
Native Grass/Prairie Restoration				
Wildlife Management				
Nuisance control (hogs, beavers, etc.)				
Healthy herd management				
Biological surveys/enhancements				
Wetland enhancement/restoration/monitoring				
Biological surveys				
Site improvement				
Building envelope/view shed ex.				
New trails				
Capital Expenditure/Amenity/Improvements				
Fishing dock/pier				
Boardwalks				
Docks				
Site inspection and management				
Total				
Total Committed				
Total Discretionary				



## **Appendix 1: Conservation Easement**

Prepared by, and after recording please return to:  
George Asimos, Esquire  
North American Land Trust  
P.O. Box 467  
Chadds Ford, PA 19317  
(610)388-3670

**NOTICE OF CONVEYANCE  
AND TRANSFER PAYMENT  
REQUIRED – SEE ARTICLE 7**

TMS# 143-00-01-077  
PIN 358-00-00-0007

Instrument#: 2015000160306, DEED BK:  
3880 PG: 1647 DOCTYPE: 062 12/22/2015  
at 01:04:59 PM, 1 OF 42, EXEMPT, MARION  
D. FOXWORTH III, HORRY COUNTY, SC  
REGISTRAR OF DEEDS

**CONSERVATION EASEMENT  
AND  
DECLARATION OF RESTRICTIONS AND COVENANTS**

**THIS CONSERVATION EASEMENT AND DECLARATION OF RESTRICTIONS AND COVENANTS** (“Conservation Easement”) first executed on December 15, 2015, to be effective on December 22, 2015, is made by and between **MAGNOLIA BAY RESORT, LLC**, a Delaware limited liability company (“Owner”), having an address of 2200 Century Parkway, Suite 550, Atlanta, Georgia 30345, and **NORTH AMERICAN LAND TRUST** (“Holder”), a Pennsylvania non-profit corporation having an address of Post Office Box 467, Chadds Ford, PA 19317.

**ARTICLE 1. BACKGROUND**

- 1.1 Owner is the owner of certain real property in City of North Myrtle Beach, Horry County, South Carolina that consists of 150.55 acres of land, more or less (hereinafter called the “Conservation Area”) as described in a deed to Owner that was recorded on April 15, 2015 in the office of the Registrar of Deeds of Horry County as Instrument # 2015000043971 and at Deed Book 3813 page 1314 and described as shown on plat entitled “Map of 150.55 +/- acres of land” prepared by DDC Engineers dated February 19, 2015 and recorded March 19, 2015 in Plat Book 265 page 192 in the office of the Registrar of Deeds of Horry County, which deed and plat are incorporated in this Conservation Easement only for the purpose of describing the boundaries of the Conservation Area.
- 1.2 Holder is a non-profit corporation, having a tax-exempt status under Section 501(c)(3) of the Internal Revenue Code of 1986, as amended (hereinafter called the “Code”), which has been established as a public charity for the purpose of preserving and conserving

scenic landscapes, natural habitats and environmentally sensitive areas and for other charitable, scientific and educational purposes and which is a “qualified organization” under Section 170(h)(3) of the Code (hereinafter a “Qualified Organization”).

1.3 Preservation of the Conservation Area by this Conservation Easement shall serve the following purposes pursuant to 26 U.S.C. § 170 (h)(4)(a) and 26 CFR §1.170A-14(d)(i), (the “Conservation Purposes”):

- 1.3.1 Preservation of the Conservation Area as a relatively natural habitat of fish, wildlife, or plants or similar ecosystem; and
- 1.3.2 Preservation of the Conservation Area as open space which provides scenic enjoyment to the general public and yields a significant public benefit; and
- 1.3.3 Preservation of the Conservation Area as open space which, if preserved, will advance a clearly delineated Federal, State or local governmental conservation policy and will yield a significant public benefit.

1.4 The Conservation Purposes and the natural, physical or other characteristics of the Conservation Area that support and justify the Conservation Purposes (which may be hereinafter called the “Conservation Values”) have been documented and established in the reports, plans, photographs, and documents assembled by, and retained in the offices of, North American Land Trust (collectively called the “Baseline Documentation”), pursuant to 26 CFR §1.170A-14(g)(5). The Baseline Documentation describes the following Conservation Values of the Conservation Area, among others:

- 1.4.1 This Conservation Easement will preserve biologically diverse and valuable forest and wildlife habitats in a region which is rapidly losing these resources due to encroaching residential and commercial development. The habitats in the Conservation Area host a wide-variety of birds, plants and wildlife. The Conservation Area is composed of wetlands (evergreen and mixed hardwood approximately 21 acres total), upland pine stands, and sandhill habitats.
- 1.4.2 The Conservation Area provides the natural ecological requirements and supports at least one animal Species of Special Concern (S3) in South Carolina: American Black Bear (*Ursus americanus*).
- 1.4.3 The Conservation Area provides wildlife corridors, breeding habitat, foraging habitat and shelter for at least one hundred species of animals.
- 1.4.4 The Conservation Area provides the natural ecological requirements for at least one hundred-fifty species of plants.
- 1.4.5 The Conservation Area contains significant wetland acreage that provides the aquatic breeding habitat for obligate amphibians and invertebrate species.
- 1.4.6 The Conservation Area contains 3 globally imperiled (G2) natural communities as classified by NatureServe and the National Vegetation Classification System:



Sand Barrens (Coastal Fringe Subtype), Xeric Sandhill Scrub (Coastal Fringe Subtype), and High Pocosin (G2) community types.

- 1.4.7 The Conservation Area is highly visible from SC Highway 31 (Carolina Bays Parkway), Long Bay Road, Water Lily Road and Bourne Trail thus providing a natural scenic view to the general public.
- 1.4.8 The Conservation Area supports at least one South Carolina Critically Imperiled (S1) plant species: sandhill rosemary (*Ceratiola ericoides*).
- 1.4.9 The Conservation Area is close to two other conserved tracts of land in which Holder holds conservation easements and the aggregation of additional conserved natural areas close to each other will enhance the ecological benefits of preserving each of them, particularly as regards the benefits to migratory species.
- 1.5 The following government conservation policies are supported by the grant of this Conservation Easement and the Conservation Values described above achieve a significant public benefit towards the fulfillment of these conservation policies:
  - 1.5.1 The Conservation Area helps to fulfill Conservation Action 1 of the South Carolina Comprehensive Wildlife Management Strategy, which includes ensuring habitat linkage through conservation easements within Forested Habitats of the Coastal Plain, which are protected in perpetuity within the Conservation Area.
  - 1.5.2 The Conservation Area helps to fulfill the goals of the South Carolina Forest Legacy Program, including the following specified goals: “protect river systems, wetlands, and their associated upland habitats; reduce forest fragmentation caused by development; provide buffer areas and connectivity to already protected areas; and promote Best Management Practices for forestry”.
  - 1.5.3 South Carolina Code Annotated 48-59-20 et seq., states that “rapid land development and economic growth which has benefited the state’s people and economy, but has also led to the loss of forestlands, farmlands, wildlife habitats, outstanding natural areas, beaches and public areas for outdoor recreation; and has impacted the health of the state’s streams, rivers, wetlands, estuaries, and bays, all of which impacts the quality of life of the state’s current and future citizens and may jeopardize the well-being of the state’s environment and economy if not addressed appropriately”.
  - 1.5.4 South Carolina Code Annotated 48-59-20 et seq., also notes that “the protection of open space by acquisition of interests in real property from willing sellers is essential to ensure that the State continues to enjoy the benefits of wildlife habitats, forestlands, farmlands, parks, historical sites, and healthy streams, rivers, bays, and estuaries; for recreational purposes, for scientific study, for aesthetic appreciation, for protection of critical water resources, to maintain the state’s position as an attractive location for visitors and new industry, and to preserve the opportunities of future generations to access and benefit from the existence of the state’s outstanding natural and historical sites”.

- 1.5.5 South Carolina Code Annotated 12-43-220(d) grants a special agricultural use value for real property which is “actually used for agricultural purposes.” Section 12-43-230(a) defines agricultural real property as “...any tract of real property which is used to raise, harvest or store crops, feed, breed or manage livestock, or to produce plants, trees, fowl or animals useful to man, including the preparation of the products raised thereon for man’s use and disposed of by marketing or other means....”.
- 1.5.6 The Horry County Parks and Open Space Plan sets forth the following public objectives that are advanced by the conservation of the Conservation Area by this Conservation Easement:
- (a) Promote the preservation of open space, scenic areas and vistas, greenways, squares and village greens;
  - (b) Promote the protection and conservation of environmental or natural resources.
- 1.5.7 The Horry County Comprehensive Plan sets forth the following public Water Resource needs and goals that are advanced by the conservation of the Conservation Area by this Conservation Easement:
- (a) Maintain and improve the surface water quality for all waterbodies located in Horry County.
  - (b) Maintain and improve water quality in the coastal zone.
  - (c) Conserve the essential flood reduction, groundwater recharge, pollution filtering, and recreation functions of wetlands.
  - (d) Recognize the link between land use and water quality, use a combination of regulation and incentives to ensure that new development adequately mitigates its impacts on water quality.
  - (e) Encourage development techniques which maintain or improve water quality.
- 1.5.8 The Horry County Comprehensive Plan sets forth the following public Land Resource needs and goals that are advanced by the conservation of the Conservation Area by this Conservation Easement:
- (a) Horry County needs to protect and conserve its forests, agriculture, plant and animal habitat, and urban trees while increasing its preserved open areas, scenic areas and recreational opportunities.
  - (b) Protect, promote, and enhance, the forestlands of Horry County in a manner consistent with achieving the greatest good for its citizens.

- (c) Recognize the fragmentation of the natural landscape that is occurring and take steps to mitigate these effects.

- (d) The use of native species should be encouraged whenever possible.

1.5.9 The Horry County Comprehensive Plan sets forth the following public Implementation Strategies that are advanced by the conservation of the Conservation Area by this Conservation Easement:

- (a) Cooperate with the Natural Resource Conservation Service to promote the Wetlands Reserve Program as a viable conservation option for qualified landowners.

- (b) Provide incentives for developers to preserve natural vegetation at residential development sites.

- (c) Encourage private forest landowners to participate in the SCFC Forest Stewardship Program and the Forest Land Enhancement Program.

- (d) Use the open space fund to purchase large tracts of land designated as ecologically significant by the open space plan.

- (e) Explore creative planning techniques, such as transfer of development rights, as a means to conserve important natural and scenic features of the County.

1.5.10 The South Carolina Comprehensive Wildlife Conservation Strategy sets forth the following conservation actions to be taken that are advanced by conserving the Conservation Area by this Conservation Easement:

- (a) Develop and enhance education and outreach programs that encourage land stewardship values, particularly to private landowners in priority habitats. [Highest priority].

- (b) Develop and enhance education and outreach programs that inform the public about the importance of prescribed burning to benefit wildlife species. [Highest priority].

1.5.11 The South Carolina Statewide Forest Resource Assessment and Strategy sets forth the following goal that is advanced by the conservation of the Conservation Area by this Conservation Easement:

- (a) Conserve and manage working forest landscapes in South Carolina to achieve multiple objectives.

1.5.12 The South Carolina Forest Legacy Program Assessment of Need sets forth the following goals that are advanced by the conservation of the Conservation Area by this Conservation Easement:



- (a) Identify and protect environmentally important forest lands threatened with conversion to non-forest uses;
  - (b) Protect river systems, wetlands, and their associated upland habitats;
  - (c) Maintain important scenic resources of the state;
  - (d) Promote Forest Stewardship;
  - (e) Promote Best Management Practices for forestry;
  - (f) Enhance forest diversity.
- 1.6 Owner and Holder desire to perpetually accomplish, fulfill and protect the Conservation Purposes and conserve the Conservation Values.
- 1.7 Owner intends to grant the easement and impose the restrictive covenants on the Conservation Area as set forth in this Conservation Easement to accomplish the Conservation Purposes.
- 1.8 Owner and Holder intend that this document be a "conservation easement" as defined in the South Carolina Conservation Easement Act of 1991, as amended (the "State Conservation Easement Law"), Sections 27-8-10 et seq. of the South Carolina Code of Laws.

NOW, THEREFORE, for no consideration and as an absolute charitable gift and further in consideration of the above premises, the mutual covenants, terms, conditions, restrictions, and promises contained in this Conservation Easement, and intending to be legally bound hereby, Owner hereby voluntarily, unconditionally and absolutely grants and conveys unto Holder, its successors and assigns, the easements, covenants, prohibitions, and restrictions set forth in this Conservation Easement, in perpetuity, to accomplish the Conservation Purposes. Holder hereby accepts the grant of such easement and the right to enforce such covenants, prohibitions and restrictions and agrees to hold such easements and rights exclusively for the Conservation Purposes and to enforce the terms of the covenants, prohibitions and restrictions set forth in this Conservation Easement.

## **ARTICLE 2. GRANT OF EASEMENT**

Owner hereby voluntarily, unconditionally and absolutely grants and conveys unto Holder, its successors and assigns, a perpetual conservation easement and easement in gross over the Conservation Area for the purpose of preserving and protecting the Conservation Purposes and enforcing the restrictive covenants set forth below. In addition, Owner hereby grants and conveys unto Holder, its successors and assigns, pursuant to 26 CFR §1.170A-14(g)(5)(ii), the easement and right of Holder and its agents to enter upon and inspect the Conservation Area for compliance with this Conservation Easement at any time and from time to time. Holder shall make a reasonable effort to give Owner notice of any such entry and inspection at least seven (7) days in advance, except in instances when Holder reasonably suspects or knows of a violation of this Conservation Easement.

### **ARTICLE 3. OWNER'S DECLARATION OF COVENANTS AND RESTRICTIONS**

Owner, for Owner and Owner's successors and assigns, covenants and declares that the Conservation Area shall be, and hereby is, bound by and made subject to the following covenants and restrictions in perpetuity, SUBJECT TO AND EXCEPTING however the Reserved Rights which are reserved to Owner and Owner's successors and assigns, as set forth in Article 4 of this Conservation Easement:

- 3.1 Use Restrictions. The Conservation Area shall not be used for a residence or for any commercial, institutional, industrial or agricultural purpose or purposes. Among the uses prohibited by the preceding sentence are, without limiting the meaning or interpretation of the preceding sentence, any of the following: (1) construction or occupancy of any dwellings; (2) manufacture or assembly of any products, goods, equipment, chemicals, materials or substances of any kind or nature whatsoever; (3) sale of any products, goods, equipment, chemicals, materials, substances or services of any kind or nature whatsoever; (4) storage of any products, goods, equipment, chemicals, materials or substances of any kind or nature, except if stored for use upon the Conservation Area in connection with activities not prohibited by this Conservation Easement; and (5) offices for persons involved in the sale, manufacture or assembly of goods or services or for the performance of services.
- 3.2 Structures Prohibited. No Structure (hereinafter defined) of any kind shall be built, erected, installed, placed, affixed or assembled within or upon the Conservation Area or upon any trees or other natural features upon the Conservation Area. "Structure" shall mean any assembly of material forming a construction for occupancy or use for any purpose and erected upon or attached to the ground including, for example but not to limit the foregoing definition, the following: building; platform; shed; bin; shelter; dam; dike; tower; tank; antenna; bulkhead; or paved, stone or concrete street, driveway or vehicle parking area.
- 3.3 Removal of Ground or Surface Water from Conservation Area. No ground or surface water from the Conservation Area shall be removed, collected, impounded, stored, transported, diverted or otherwise used for any purpose or use outside the Conservation Area unless approved by Holder in its sole discretion without obligation to do so nor for any purpose or use within the Conservation Area that is prohibited by this Conservation Easement.
- 3.4 Roads, Driveways, Etc. There shall not be constructed, cut, created or placed on the Conservation Area any road, driveway, cartway, path or other means or right of passage across or upon the Conservation Area. No road, driveway, cartway, path or other means or right of passage located on the Conservation Area shall be used for access to any use (whether or not upon the Conservation Area) which is prohibited by this Conservation Easement.

- 3.5 Live Trees. No cutting, removal or destruction of live trees shall be permitted upon or within the Conservation Area.
- 3.6 Signs and Similar Structures. No signs, billboards or outdoor advertising structures shall be placed, erected or maintained within the Conservation Area.
- 3.7 Land Disturbance; Mineral Extraction. There shall be no filling, excavating, dredging, surface mining, drilling or any removal of topsoil, sand, gravel, rock, peat, gas, oil, coal, other minerals or other materials, upon or from the Conservation Area; provided however that this Conservation Easement shall not prohibit production of natural gas, oil and accompanying liquids from beneath the Conservation Area provided that (a) only horizontal or similar drilling methods from surface locations not within the Conservation Area are used; (b) within the Conservation Area no surface mining or drilling methods are used, and no pipeline construction, equipment or water storage, or other land disturbance occurs; (c) no visible or discernible impact on the surface of the Conservation Area occurs; (d) no methods shall be permitted which enter or interfere with the water bearing zones under the Conservation Area; and (e) any impact upon the biological, aquatic, hydrologic or other natural resources of the Conservation Area is prohibited. Due to historical military uses in the general vicinity of the Conservation Area, though not with certainty known to have occurred on the Conservation Area, and the possibility, albeit remote, of unexploded ordnance being found on the Conservation Area, it is agreed that this Conservation Easement shall not prohibit the removal of such ordnance under the auspices and legal requirements of the United States government and state and local government to the extent applicable.
- 3.8 Dumping and Pollution. There shall be no dumping of ashes, trash, garbage, or any other unsightly or offensive materials at any place on, under or within the Conservation Area. There shall be no discharge of chemicals, waste water or other pollutants onto the Conservation Area or into any permanent or intermittent water course within the Conservation Area.
- 3.9 Change of Topography. There shall be no change in the topography of the Conservation Area by any means or method.
- 3.10 Water Courses. There shall be no dredging, channelizing or other manipulation of natural water course or of any other water course existing within the Conservation Area as of the date of this Conservation Easement except that manmade drainage swales, ditches or storm water management facilities may be dredged or otherwise altered for maintenance purposes or to maintain its function for its intended purpose on the date of this Conservation Easement.
- 3.11 Wetland and Riparian Protection Area.
- 3.11.1 "Wetland and Riparian Protection Area" shall mean that part of the Conservation Area that lies within, or within 100 feet of: (a) any body of water or permanent or intermittent watercourse (including but not limited to any lake or pond, but excluding manmade storm water swales or ditches not fed by a spring, pond or



other natural source) as defined by its banks or the mean water elevation as Holder deems relevant and appropriate in the circumstances; or (b) any wetland under the regulatory jurisdiction of the federal or state government; but does not include any area within a Building Zone (hereinafter defined).

- 3.11.2 There shall be no clearing, cutting or removal of live or dead trees, other clearing or removal of vegetation, clearing or removal of leaf litter or other natural detritus, or digging, earth movement or other alteration of the earth surface or topography within the Wetland And Riparian Protection Area, except that areas within the Wetland And Riparian Protection Area that are predominantly in grasses on the date of this Conservation Easement may be mowed.
- 3.11.3 Owner shall be responsible for ascertaining the boundaries of the Wetland And Riparian Protection Area, at Owner's expense, in consultation with Holder, before undertaking any action that is or may be prohibited in the Wetland And Riparian Protection Area. If the banks of a water course are not clearly defined then Holder shall, in its reasonable discretion, establish a line of the mean water elevation to substitute for that purpose upon request by Owner, relying on available topographic, hydrologic information, and other maps and relevant information. Owner shall bear the expense of any survey or field work necessary to establish the line.
- 3.11.4 Any approvals by Holder of Reserved Rights to be conducted within the Wetland And Riparian Protection Area, if permitted under this Conservation Easement subject to approval by Holder, shall be granted by Holder only if Holder concludes that the Reserved Rights shall have no material adverse effect on the habitat within the Wetland And Riparian Protection Area and thus on the Conservation Values and Conservation Purposes pertaining to the Wetland And Riparian Protection Area.
- 3.12 Soil Erosion and Sedimentation Control. All activity on the Conservation Area shall be conducted so as to avoid the occurrence of soil erosion and sedimentation of streams or other water courses. Without limitation of the foregoing, Owner and Holder shall, in identifying practices that will prevent soil erosion and sedimentation, refer to the soil conservation practices as then established or recommended by the Natural Resources Conservation Service of the United States Department of Agriculture or any successor governmental office or organization performing the same function within the United States government, as approved by Holder.
- 3.13 Non-Native Plant Species. There shall be no introduction of plant species within the Conservation Area except those that are native to the area in which the Conservation Area is located or that are recognized as non-invasive horticultural specimens or fruit orchard trees.
- 3.14 Transfers of Development Rights or Development Density Credits. The Conservation Area may not be used as open space for purposes of obtaining or qualifying for governmental approval of any subdivision or development on lands outside the

boundaries of the Conservation Area nor, without limitation of the foregoing, may the Conservation Area be used in the calculation of the amount or density of housing units or other construction for development or other impervious ground coverage on lands outside the boundaries of the Conservation Area or for sale by Owner.

- 3.15 No Subdivision. There shall be no subdivision or other division of the Conservation Area into one or more lots, tracts or parcels of land under separate ownership.
- 3.16 Notice of Exercise of Reserved Rights. As required by 26 C.F.R. § 1.170A-14(g)(5)(ii), Owner shall notify Holder in writing before exercising any Reserved Right that may impair the conservation interests associated with the Conservation Area.
- 3.17 Preservation of Conservation Area. The parties recognize that this Conservation Easement cannot address every circumstance that may arise in the future, and the parties agree that the purpose of this Conservation Easement is to preserve the Conservation Values of the Conservation Area and to fulfill the Conservation Purposes in accordance with 26 U.S.C. § 170(h). Without limiting the preceding covenants and restrictions, and in fulfillment of the requirements of 26 CFR §§1.170A-14(g)(i) and 170A-14(e)(2), any right, use or activity which is not reserved in Article 4 of this Conservation Easement and which is inconsistent with the Conservation Purposes or which materially threatens the Conservation Purposes is prohibited.
- 3.18 Restrictions Cumulative. The prohibitions and restrictions in this Conservation Easement shall be considered cumulative. No prohibition or restriction contained herein shall be interpreted as a limitation on the meaning, effect, interpretation or enforceability of another prohibitive or restrictive provision.

#### **ARTICLE 4. RESERVED RIGHTS**

Owner reserves for Owner and Owner's successors and assigns who may now or hereafter be an owner of all or part of the Conservation Area the rights set forth in this Article 4 (the "Reserved Rights"). Owner and Holder intend that these Reserved Rights and the activities and uses which are described below as the Reserved Rights are exceptions to the prohibitions and restrictions set forth in Article 3 and, hence, may be conducted as described below without having an adverse effect on the Conservation Purposes; except, however, that none of the Reserved Rights shall supersede the protections of the Wetland And Riparian Protection Area set forth in Article 3 except with the approval of Holder which may be given or withheld in its discretion. A Reserved Right to "construct" a Structure or other improvement shall include the right to maintain, repair, replace, use, and occupy such Structure or improvement for the purpose and within the limitations stated in this Article.

##### **4.1 Dwellings and other Buildings in Building Zone.**

- 4.1.1 Subject to the limitations in this Section, within the area described as the "Residential Building Zone" in Exhibit "A" attached to and incorporated in this Conservation Easement (the "Residential Building Zone") Owner may construct

either Residences (hereinafter defined) or Resort Residential Buildings (hereinafter defined) but not both.

- 4.1.2 Subject to the limitations in this Section, within the area described as the “Recreational Building Zone” in Exhibit “A” attached to and incorporated in this Conservation Easement (the “Recreational Building Zone”) Owner may construct one Recreational Building (hereinafter defined).
- 4.1.3 A “Building Zone” shall mean the Residential Building Zone and the Recreational Building Zone.
- 4.1.4 A “Recreational Building” shall mean one building having up to 5,000 square feet in ground coverage area for use in recreational activities and social gatherings and that may contain a kitchen but shall have no bedrooms or similar living accommodations nor be used for a hotel, lodging, residence or other place of human habitation. The Recreational Building shall be within the Recreational Building Zone in the location approved by Holder.
- 4.1.5 “Residences” shall mean not more than five (5) single family dwellings. Each single family dwelling and all Structures customarily accessory to residential use, such as a shed, kennel, garage, gazebo, septic system, well, or swimming pool, which are also permitted in the Residential Building Zone, shall be constructed within a “Building Area” to be identified and located within the Residential Building Zone as provided below. Use of the Residences may include, without limitation, customary home occupations such as an office for a home-based business or a craft business such as furniture making, provided that the business is actively operated by one or more of the residents of the permitted dwelling and that the business use does not occupy more than one half of the space within the buildings in the Building Area in which the business use is contained.
- 4.1.6 “Resort Residential Buildings” shall mean up to three buildings, each containing no more than one kitchen and up to 15 bedrooms, for use by any persons, whether or not for compensation, as the Owner may choose. Each of such Resort Residential Buildings shall be constructed within a Building Area to be identified and located within the Residential Building Zone as provided below.
- 4.1.7 Each “Building Area” shall mean and be identified and located with Holder’s approval as follows:
- (a) Each Building Area shall be no more than one (1) acre in area for Residences or two (2) acres in area for Resort Residential Buildings.
  - (b) There shall be no more Building Areas than the number of permitted Residences or Resort Residential Buildings, whichever is applicable.
  - (c) The location and dimensions of each Building Area and the permitted roads and driveways serving the Building Area shall have been



reviewed and approved by Holder and shall be contained within the Residential Building Zone.

- (d) The description of the Building Area and, when approved by Holder, acknowledgment of the review and approval of the Building Area by Holder shall be set forth in a written document, signed by duly authorized officers of Holder and by Owner, which shall be recorded in the same place of public record in which this Conservation Easement was recorded.

4.1.8 In addition to the foregoing permitted uses, within a Building Zone Owner may:

- (a) remove vegetation and perform grading to the extent reasonably necessary to facilitate the construction and use of the buildings and other Structures permitted in this Section;
- (b) install landscaping and other vegetation (including ornamental gardens) and irrigation system;
- (c) construct storm water drainage systems; and
- (d) install roads, driveways, utilities, and walkways.
- (e) Any permitted clearing or construction shall be done so as to minimize the impact on surrounding vegetation, and shall be done in accordance with best management practices.

4.2 Road and Driveway. Owner may construct a road and driveway for access to any Building Zone and each Building Area in a location or locations approved by Holder. The width of the road and driveway and any area of land disturbance, grading or tree removal for such driveway shall be no greater than the minimum necessary to meet any legal requirements or, to the extent no legal requirements apply or are lawfully waived, the minimum practicable consistent with sound engineering techniques and methods.

4.3 Alternative Energy Structures. Owner may construct Structures to generate energy for the conduct of any of the permitted activities in the Conservation Area, provided that the energy is derived from a natural source such as solar or wind energy, substantially all of the energy produced is consumed on the Conservation Area for the permitted uses and not sold or otherwise transferred for use off of the Conservation Area, and the location and appearance of any such Structures are approved by Holder.

4.4 Picnic Shelters and Areas. Owner may construct in locations approved by Holder roofed shelters for outdoor picnicking and similar outdoor recreation uses provided they are open, without walls, on at least three sides and that the aggregate ground coverage area of all such shelters shall not exceed 2,500 square feet for all shelters. Owner may construct picnic tables and benches, charcoal cooking grills, fire pits or rings, and similar Structures commonly associated with outdoor picnicking and similar outdoor recreation.

- 4.5 Accessory Buildings. Owner may construct, within or outside any Building Zone, buildings for storage of equipment and materials used in the maintenance of the Conservation Area, agricultural use, equestrian use, or recreational use, provided that the aggregate ground coverage area of all such buildings shall not exceed 10,000 square feet and the locations of such buildings shall be approved by Holder. This ground coverage limitation shall not apply to such buildings that are permitted to be and are located within any Building Zone.
- 4.6 Unpaved Vehicle Trails. Owner may also construct unpaved vehicle trails for limited vehicular access to the areas of the Conservation Area otherwise inaccessible by vehicle for use in maintenance, emergency access, and other permitted uses of the Conservation Area if the following requirements and conditions are satisfied: (a) the surface of such trails shall remain pervious (such as dirt or gravel); (b) such trails shall be located, to the extent possible, in the path of forestry roads existing on the date of this Conservation Easement; (c) the width of the area cleared for such trails shall not exceed that which is necessary for a single lane of vehicular traffic; (d) and such trails shall be otherwise constructed in a manner to avoid unnecessary tree removal and land disturbance; (e) if such trails require any grading or change in topography, then such grading shall blend into the natural topography of the Conservation Area, shall control erosion, and shall be of a design and location approved, in advance, by the Holder in its discretion; and (f) Holder approves the proposed service vehicle trail based on the foregoing requirements.
- 4.7 Trails and Raised Walkways. Owner may construct trails or paths for nature education and outdoor recreation purposes if the following requirements and conditions are satisfied: (a) the surface of the trail shall remain pervious (such as dirt, wood chips or gravel); (b) the trail shall be located, to the extent possible, in the path of a trail or forestry road existing on the date of this Conservation Easement; (c) the width of the area cleared and improved for the trail shall not exceed that which is necessary for pedestrian or equestrian use; and (d) the trail shall be otherwise constructed in a manner to avoid unnecessary tree removal, grading and other land disturbance. Owner may construct raised walkways (but not bridges or similar structures for motor vehicle use) for access to any or all of the land within the Conservation Area if the following requirements and conditions are satisfied: (a) it can be demonstrated to Holder that it is not feasible to use any existing walkway or pathway or to improve any existing walkway or pathway for such access purpose; (b) Owner shall comply with all other covenants and restrictions of this Conservation Easement; and (c) Holder approves the proposed walkway based on the foregoing requirements.
- 4.8 Pond. Owner may enlarge one existing pond up to a maximum surface area of the entire enlarged pond of eight acres and having a design and location that is approved in advance by Holder.
- 4.9 Permitted Work within a Wetland And Riparian Protection Area. Owner may, with the approval of Holder, dredge or otherwise manipulate previously-altered natural or manmade water courses within the Wetland And Riparian Protection Area or perform work, including the removal of vegetation or disturbance of land, within the Wetland And Riparian Protection Area if necessary to (a) maintain wetlands existing on the

Conservation Area, (b) restore wetlands previously existing on the Conservation Area, or (c) restore natural stream channel morphology and natural wetland hydrology

4.10 Participation in Ecological Programs. Owner may participate in, and retain revenue from, future conservation, preservation, or mitigation programs involving ecological assets, including but not limited to, carbon sequestration credits, wetland and stream credits, endangered species credits, water quality credits, and ground water credits, located within the Conservation Area, even if protected by this Conservation Easement, so long as (a) such participation does not require any use or action upon the Conservation Area that is prohibited by this Conservation Easement (nor is any such use or action permitted by this Section); (b) any approval by Holder required by this Conservation Easement for any use or action permitted by this Conservation Easement is obtained; (c) the uses and the Conservation Purposes that are intended to be protected by this Conservation Easement remain protected as provided in this Conservation Easement; and (d) notice is provided to Holder at least 30 days before Owner enters into any agreement by which Owner will be legally obligated to participate in any such program.

4.11 Subdivision and Allocation of Reserved Rights. Owner may, with prior approval from Holder, subdivide the Conservation Area into lots for separate conveyance and ownership. Holder's review and decision whether to approve subdivision shall take into consideration the effect of the proposed lot boundaries and intended transfer upon the Conservation Purposes, the lot size and combination with any Structure or Reserved Rights that would be most likely to promote the long term care, maintenance and stewardship of the Conservation Area, and the burdens of monitoring and enforcing this Conservation Easement. Holder shall cooperate with Owner to identify at least one subdivided lot for each of the Residences with boundaries acceptable consistent with the foregoing considerations. Subdivision shall result in no addition to or other amendment of the Reserved Rights and any parcel subdivided from out of the Conservation Area shall remain under and subject to this Conservation Easement. Owner acknowledges that, if the Conservation Area is subdivided, Reserved Rights which are limited in number or area must be allocated between the lots resulting from such subdivision. In connection with any subdivision or partition of the Conservation Area by any means, the following procedures shall apply:

4.11.1 Owner shall allocate, but not increase, such Reserved Rights between or among the lots resulting from such subdivision. Such allocation shall be set forth in a document which shall be subject to review and approval by Holder and which shall be recorded in the place of public record in which this Conservation Easement has been recorded before any conveyance of an interest in the lots resulting from such subdivision. Such allocation shall specifically identify, with respect to number or the allowable ground coverage, how much of the unused coverage or other Reserved Rights permitted by this Conservation Easement will be allocated to the respective lots.

4.11.2 If Owner fails to make such allocation in a written document for such purpose before conveying title to or any beneficial interest in any of the lots resulting from such subdivision, then the Reserved Rights, whether or not built, shall be



allocated proportionately among the lots resulting from such subdivision, in proportion to the relative area of such lots, as determined by Holder in its discretion, it being understood that this allocation shall not result in allowing any increase in the Reserved Rights.

- 4.11.3 After any subdivision of the Conservation Area and conveyance of one or more lots resulting from such subdivision, and subject to Holder's prior approval thereof (such approval not to be unreasonably withheld, consistent with and taking into consideration the fulfillment of the Conservation Purposes and the preservation of the Conservation Values), the owners of such respective lots may mutually agree among themselves to re-allocate, but not increase, such Reserved Rights in a manner different from the original allocation as determined above, provided that such allocation or re-allocation of Reserved Rights as among such lots does not result in any increase in Reserved Rights, is reflected in a document that is signed by all owners of such lots and by Holder and is recorded in the place of public record in which this Conservation Easement has been recorded. The form and content of any such document shall be subject to Holder's review and approval.

4.12 Fences and Boundaries.

- 4.12.1 Owner may construct fences, provided that no fence shall be permitted if, in the reasonable opinion of Holder, it impairs the scenic view into the Conservation Area in any material respect. Any fence that shall be visible from a public road or a waterway accessible to the public shall be approved by Holder before construction.

- 4.12.2 Nothing in this Conservation Easement shall prohibit Owner from identifying (by survey or marking) and otherwise maintaining visual indications of the boundary lines around the perimeter of the Conservation Area to protect the Conservation Area from trespassing and to assist Owner in the management and supervision of the management of the Conservation Area in accordance with this Conservation Easement, provided that such action shall not obstruct the public scenic view into the Conservation Area.

- 4.13 Wildlife Stands, Nests and "Blinds". Owner may construct a reasonable number of wildlife hunting or observation stands and "blinds" and houses, nests or perches for birds or other wildlife; provided that in the construction of any such Structure Owner shall comply with all other covenants and restrictions of this Conservation Easement.

- 4.14 Existing Structures. Structures existing on the Conservation Area on the date of this Conservation Easement, whether or not such Structure would be permitted to be constructed on the Conservation Area under these Reserved Rights, may, nevertheless, be repaired, restored or replaced but only within the vertical and horizontal dimensions in which the Structure existed on date of this Conservation Easement, but with no change of use except to a use that would be permitted under this Conservation Easement in its location, provided however that an existing structure located within a Building Zone shall

not be subject to the limitations on dimensions in this Section but instead shall be subject to the covenants and restrictions imposed on any Structure located within the Building Zone.

- 4.15 Utility Installations. Owner may construct facilities normally used in connection with supplying utilities, removing sanitary sewage effluent and controlling storm water runoff if the following requirements and conditions are satisfied: (a) such facilities may only be constructed and used to serve the uses, Structures and improvements permitted under the terms of this Conservation Easement; (b) all such facilities be located underground to the extent feasible; (c) all such construction and maintenance is conducted in a manner designed to produce no material adverse effect on the Conservation Purposes; and (d) Holder approves the proposed utility facility based on the foregoing requirements.
- 4.16 Wildlife Harvesting and other Outdoor Activities Not Prohibited. Nothing in this Conservation Easement shall be construed to limit the right of Owner to: hunt with or without dogs, shoot, fish, trap, conduct field trials, train dogs, or conduct ecotourism activities or other outdoor recreational activities on the Conservation Area; trap or otherwise capture and remove any invasive species or harmful pest that might negatively impact the populations of game or native wildlife on the Conservation Area; use motorized vehicles for any such purpose provided such use does not violate an expressed prohibition in this Conservation Easement; or lease all or any portion of the Conservation Area for any of such activities.
- 4.17 Tree Cutting and Forest Management. Owner shall have the right, for the benefit of Owner and Owner's representatives, agents, contractors, subcontractors, licensees, and lessees, to conduct the following activities within the Conservation Area if the requirements of this Section are met:
- 4.17.1 A live tree that has been damaged or disturbed by forces of nature or by disease or that is evidently at risk of falling may be cut and removed if such tree presents a threat of injury to persons or livestock or other property or blocks a trail, road or other means of access to any part of the Conservation Area.
- 4.17.2 Trees may be removed to the most limited extent necessary to construct the Structures and other improvements expressly permitted in this Conservation Easement, according to a plan approved in advance by Holder.
- 4.17.3 Early successional tree species may be selectively removed within areas existing in a meadow condition at the time this Conservation Easement is granted, for the purpose of preserving such areas as meadow.
- 4.17.4 "Forestry Activities" shall mean (i) harvesting, cutting, removal and sale of trees and forest products (including, but not limited to, trees, logs, poles, posts, pulpwood, firewood, chips, seeds, bark, pinestraw, stumps and other forest products); (ii) planting and growing of trees for the foregoing purposes; (iii) treating trees with herbicides, pesticides and fertilizer customarily used in the forest industry; (iv) constructing forest skid trails in connection with tree

harvesting operations; (v) placing or storing sawdust, bark, sawtimber, logs, or other forest products in the Conservation Area; (vi) conducting prescribed burning; and (vii) undertaking such activities as may be necessary to facilitate production of forest products or to protect forest health and (viii) removing trees to establish wildlife food plots up to a maximum area of five (5) acres and in locations approved by Holder. Owner may conduct Forestry Activities only if all of the following requirements are met:

- (a) Forestry Activities shall not be conducted within the Wetland and Riparian Buffer Protection Area, within mixed hardwood forest outside the Wetland And Riparian Protection Area or within areas reasonably determined by Holder to be Freshwater Emergent Wetland or Forested and Shrub Wetland except (i) in accordance with a Forest Management Plan and (ii) only for the purpose of promoting the maturing and ecological enhancement of forest conditions. In determining areas that are Freshwater Emergent Wetland or Forested and Shrub Wetland Holder may refer to the methodology used by the U.S. Fish & Wildlife Service for its National Wetland Inventory or similar methodology selected by Holder, though the area need not be shown as such on a National Wetland Inventory map.
- (b) Before conducting Forestry Activities Owner shall prepare a tree harvest and forest management plan (the "Forest Management Plan"). The Forest Management Plan shall be submitted to and approved by Holder.
- (c) The Forest Management Plan must address and provide information regarding the following matters in such detail as Holder may reasonably request: the proposed location of harvesting activity, wetland delineation within the harvest area, harvesting plans and protocols, proposed road locations and design standards, erosion control measures, and replanting plans and schedule. The Forest Management Plan shall also contain: a statement of Owner's forest management objectives and goals, including the Forest Management Objectives (hereinafter defined); forest stand descriptions, including species composition, age classes and, where available, soil types; a forest stand map; and an outline of proposed silvicultural practices.
- (d) The Forest Management Plan must be prepared at Owner's expense by qualified natural resource personnel (e.g. a registered forester), who are experienced in the preparation of forest management plans.
- (e) The Forest Management Plan shall be prepared in a manner that is designed to achieve the following purposes and forest management objectives (collectively, the "Forest Management Objectives"): (i) minimizing insect infestation; (ii) identifying and protecting habitat for exceptionally rare, threatened or endangered species; (iii) avoidance of



water pollution from Forestry Activities, erosion or sedimentation; (iv) protection of the Conservation Values and fulfillment of the Conservation Purposes; (v) promotion of sustainable forestry; (vi) assuring artificial or natural regeneration of the forest in both sufficient quantity and quality; (vii) compliance with all applicable federal, state and local laws, rules, orders and regulations; (viii) identifying strategies to promote wildlife habitat and private recreational activities permitted by this Conservation Easement; and (ix) compliance with then-current best management practices published by the South Carolina Forestry Commission or its successor ("BMPs"). In the event of a conflict between the preceding Forest Management Objectives, the protection of the Conservation Values and fulfillment of the Conservation Purposes shall be the paramount consideration.

- (f) All Forestry Activities shall be conducted in accordance with (a) the Forest Management Plan; (b) BMPs; and (c) this Conservation Easement.

4.18 Signs. Owner may construct a reasonable number of signs of the following types:

- 4.18.1 regulatory or directional signs including, for example but not for limitation of the foregoing, "no trespassing" signs, "no gunning" signs, or "no hunting" signs;
- 4.18.2 signs stating the common name of the Conservation Area, the names and addresses of the occupants or both;
- 4.18.3 signs advertising or directing participants to an activity permitted under the provisions of this Conservation Easement;
- 4.18.4 signs identifying the interest of Owner or Holder in the Conservation Area; and
- 4.18.5 signs educating the public as to the ecology of the area.

Notwithstanding the foregoing, any sign that is greater than four square feet in surface area and visible from any public road or waterway accessible to the public shall be prohibited unless such sign shall have no material adverse effect upon the Conservation Purposes and such sign is approved in writing by Holder.

4.19 Maintenance of Roads, Trails, Etc. Owner may maintain in passable condition the Structures, roads, trails or walkways existing within the Conservation Area at the date of this Conservation Easement or, if applicable, constructed pursuant to the Reserved Rights in this Article 4, by such activities as the following: the pruning trees or other vegetation which threaten the safety of persons who may use or maintain the road, trail or walkway; installing or applying materials necessary to correct or impede erosion; grading earth to maintain a passable condition or to control or impede erosion; replacing existing culverts, water control structures and bridges; and dredging roadside swales and ditches.

- 4.20 Notice and Approval Before Exercise of Certain Reserved Rights. None of the Reserved Rights for which the approval of Holder is expressly required in any Section of this Article 4 may be exercised or undertaken unless Owner has first satisfied the following conditions and requirements:
- 4.20.1 Owner shall notify Holder in writing before exercising any of such Reserved Rights.
- 4.20.2 Holder must be satisfied, as evidenced by its prior written approval of Owner's proposed exercise of a Reserved Right, that any use or activity done in the exercise of the Reserved Right will meet the requirements and conditions for such Reserved Right, will have no material adverse effect on the Conservation Purposes or on the Conservation Values or other significant environmental features of the Conservation Area, will not alter or permit the alteration, disturbance or destruction of the use of the Conservation Area that is intended to be protected by this Conservation Easement.
- 4.20.3 Notwithstanding anything in this Conservation Easement to the contrary, if Owner undertakes to exercise a Reserved Right or other action, without prior approval of Holder, where such approval is expressly required under this Conservation Easement, then such exercise of the Reserved Right by Owner may be treated by Holder, in Holder's sole discretion, as an action that was prohibited by this Conservation Easement as fully as if the Reserved Right or other right was not contained in, or reserved to Owner under, this Conservation Easement. Should Holder elect, in its discretion, to decline to assert this prohibition and to waive a violation of the Conservation Easement arising solely from Owner's failure to seek and obtain Holder's approval before exercising a Reserved Right or other right where such approval is required, Holder shall not be thereby obligated to do so in any future circumstance or event and Holder's waiver shall not be construed to require any waiver in a subsequent instance.
- 4.20.4 Notwithstanding the foregoing, in the event the Conservation Area is affected or in imminent danger of being affected by casualty damage resulting from an Act of God, fire or other event beyond Owner's control then the prior approval requirements of this Section shall be waived as to any action that would otherwise require such approval but which must be undertaken by Owner immediately in order to prevent loss, damage or injury to persons or property or to prevent ecological damage to the Conservation Area or neighboring property (an "Emergency Restoration Action"); provided that Owner makes a good faith effort to notify Holder prior to undertaking such Emergency Restoration Action and to keep Holder informed of its ongoing actions.
- 4.20.5 Holder's prior written approval of the exercise of Reserved Rights for which approval of Holder is required shall be obtained, conditionally obtained or declined according to the procedure provided in this Section. At least forty-five (45) days before Owner begins, or allows, any exercise of Reserved Rights on the Conservation Area Owner must notify Holder in writing of Owner's intentions to

do so; provided, however that Holder may, upon written request, reduce the period of time for notice of the proposed exercise of Reserved Rights for simpler requests, in Holder's discretion. Such notice must include plans depicting, in such detail as Holder requests, the construction or other use or activity, and location thereof, which Owner intends to undertake. Owner may also be required to present to Holder for review any applications to, and approvals or permits issued by, any governmental entity that is required for the exercise of the Reserved Right for which Holder's approval is sought. Holder may request additional information or details not provided by Owner regarding Owner's proposed exercise of Reserved Rights as Holder reasonably believes necessary to determine compliance with this Article. Holder shall not be obligated to accept or respond to any request for approval of a Reserved Right if the Owner is then in violation of this Conservation Easement in any material respect. Holder shall have thirty (30) days from receipt of the notice or, if later, any additional information regarding the proposed use or activity requested by Holder, in which to make one of the following determinations:

- (a) Approve Owner's proposed exercise of a Reserved Right in accordance with the materials submitted by Owner ("Approval"). Approval on such terms shall constitute a covenant by Owner to exercise the Reserved Right solely in accordance with the notice and other information submitted to Holder; which covenant shall be enforceable by Holder as fully as if set forth in this Conservation Easement.
- (b) Approve Owner's proposed exercise of a Reserved Right in accordance with the materials submitted by Owner but subject, however, to such qualifications and conditions as Holder may impose in its notice of approval. Such qualifications and conditions shall be limited to those which Holder deems necessary to: assure compliance by Owner with any of the express covenants or restrictions of this Conservation Easement, preserve and protect the Conservation Purposes or restrict Owner's exercise of the Reserved Rights to that which Owner has represented to Holder. Approval on such terms shall constitute a covenant by Owner to exercise the Reserved Right, if at all, only in accordance with the notice and other information submitted to Holder, as modified or supplemented by the qualifications and conditions that Holder imposed; which covenant shall be enforceable by Holder as fully as if set forth in this Conservation Easement.
- (c) Decline to grant approval of Owner's proposed exercise of a Reserved Right on the basis of the notice and other materials submitted. Should Holder decline to grant approval Holder shall set forth in writing its reasons.



- 4.20.6 Holder shall exercise reasonable judgment in applying the standards of review and approval for the exercise of Reserved Rights, consistent with and taking into consideration the fulfillment of the Conservation Purposes and the preservation of the Conservation Values.
- 4.20.7 Holder may grant, with or without conditions, approval for recurrent exercises of Reserved Rights, particularly but not necessarily limited to activities of a de minimis nature, if Holder concludes that doing so will have no material adverse effect on the Conservation Purposes or on the burden on, and effectiveness of, Holder's monitoring and enforcement. Such approval must be in writing and shall, as with other approvals of the exercise of Reserved Rights, be limited to the description of the proposed exercise of Reserved Rights in Owner's proposal as modified or limited by the conditions in Holder's written approval.
- 4.20.8 In the event that Holder's approval is required and Holder fails to respond within the time period specified forth above and further fails to respond within ten days after a second written request by Owner to Holder, then the Holder shall be deemed to have granted Approval (as defined above) unless the activity for which approval is required is plainly prohibited by this Conservation Easement.
- 4.20.9 Owner shall be responsible for obtaining all necessary government permits and approvals for any activity for which Holder's approval is required and Holder shall have the right, but not the obligation, to require that such permits and approvals be produced for inspection by Holder before Holder's approval is granted or as a condition to approval.
- 4.20.10 Owner shall be responsible, as a condition of the right to exercise the Reserved Rights for which the approval of Holder is expressly required, for payment of Holder's reasonable costs and expenses, including legal and consultant fees, associated with review of Owner's request for approval; provided, however, that (a) Holder shall not incur expenses for its own staff or administrative time for review that can be conducted in Holder's office and (b) Holder will notify Owner before incurring any costs or expenses which it believes Owner may be obligated to pay under this Section though Holder shall not be required to predict the exact amount of the cost or expense. Holder may condition consideration of a proposal for exercise of Reserved Rights upon the deposit of a sum of money with Holder to secure payment of Holder's reasonable costs of review. The time period for Holder's consideration of Owner's request shall not run until such deposit is made.
- 4.20.11 While the parties believe that each of the Reserved Rights as to which Holder's prior approval is required can be exercised in some manner without adverse effect on the Conservation Purposes of this Conservation Easement, no assurance is given that the above Reserved Rights may be exercised in specifically the manner as Owner might initially propose without having an adverse effect on the Conservation Purposes or other significant ecological values of the Conservation

Area. The foregoing procedure is established for the purpose of making that determination.

4.20.12 In consideration for Holder accepting the perpetual responsibility and obligation to review the proposed exercise of Reserved Rights by Owner, Owner hereby waives, for Owner, and Owner's successors, legal representatives, and assigns, to the fullest extent allowed by law, any and all right to seek or recover damages from Holder in any litigation or other legal action arising from a dispute over Holder's exercise of its rights, obligations or interpretations under this Article 4 and agrees that the sole remedy or legal right to seek redress arising from any decision of Holder pursuant to this Article 4 shall be to seek a declaratory judgment or other legal declaration by a court of competent jurisdiction as to the rights of Owner hereunder.

- 4.21 Rights of Ownership Generally. Owner retains, not as a Reserved Right but incidental to its ownership of the Conservation Area, in addition to the Reserved Rights set forth in this Article, all rights accruing from ownership of the Conservation Area, including the right to engage in or permit others to engage in all uses of the Conservation Area except to the extent prohibited, restricted, limited or conveyed to Holder according to the terms of this Conservation Easement, including the rules of construction and interpretation of this Conservation Easement; subjected to procedures set forth in this Conservation Easement; or provided in applicable law.

## **ARTICLE 5. HOLDER'S COVENANTS**

- 5.1 Best Efforts to Enforce. Holder shall use its best efforts to enforce both the rights granted to it and the restrictions imposed upon the Conservation Area under this Conservation Easement.
- 5.2 Inability to Enforce: Procedure. If at any time Holder is unable to enforce this Conservation Easement or if Holder or any successor or assignee of Holder's rights under this Conservation Easement ceases to exist or ceases to be a Qualified Organization and if, within a reasonable period of time after the occurrence of any of these events, Holder or any successor or assignee fails to assign all of its rights and responsibilities under this Conservation Easement to a Qualified Organization and "holder", then the rights and responsibilities under this Conservation Easement shall become vested in and fall upon another Qualified Organization in accordance with a proceeding before, and the order of, any court of competent jurisdiction.
- 5.3 Assignment by Holder. Notwithstanding the foregoing or anything else in this Conservation Easement to the contrary, Holder and its successors and assigns shall have the right to assign, either wholly or partially, its right, title and interest hereunder provided that (a) the assignee is a Qualified Organization; (b) the assignee shall hold the Conservation Easement exclusively for the Conservation Purposes; and (c) the assignee agrees that the Conservation Purposes continue to be carried out. Holder agrees to notify Owner of its intent to assign the Conservation Easement, including disclosing the identity

of the intended assignee, at least 30 days prior to such assignment and to offer Owner, during such period after notice and until assignment, an opportunity to comment on, but not approve or disapprove, such assignment.

## **ARTICLE 6. REMEDIES AND ENFORCEMENT**

- 6.1 **Remedies Generally.** Holder shall have the right to enforce by proceedings at law or in equity each and every one of the covenants and restrictions set forth in this Conservation Easement. The foregoing shall not limit any of the rights or remedies available to Holder as specifically set forth in any law or in this Conservation Easement. Holder's remedies described in this Conservation Easement shall be cumulative and concurrent and shall be in addition to all remedies now or hereafter available or existing at law or in equity.
- 6.2 **Violation of Conservation Easement.** If Holder determines that this Conservation Easement is being or has been violated or that a violation is threatened or imminent then the following provisions shall apply:
- 6.2.1 Holder must notify Owner of the violation. Holder's notice may, in Holder's discretion, include its recommendations of measures to be taken by Owner to cure the violation and restore features of the Conservation Area damaged or altered as a result of the violation.
- 6.2.2 Holder shall afford Owner a period to cure the violation before undertaking action in court to enforce the Conservation Easement, provided, however, that no cure period is required if circumstances require prompt action to prevent or mitigate irreparable harm or alteration to, or destruction of, any natural resource or other feature of the Conservation Area described in the Conservation Purposes and Conservation Values.
- 6.2.3 Owner's cure period shall expire thirty (30) days after the date of Holder's notice to Owner subject to extension for the time reasonably necessary to cure but only if all of the following conditions are satisfied: (a) Owner ceases the activity constituting the violation promptly upon receipt of Holder's notice; (b) Owner and Holder agree in writing, within the initial thirty (30) day period, upon the measures Owners will take to cure the violation; (c) Owner commences to cure within the initial thirty (30) day period; and (d) Owner continues thereafter to use best efforts and due diligence to complete the cure measures that Holder and Owner have agreed upon in writing. In no event shall Holder be obligated, notwithstanding the foregoing, to allow a cure period of more than 90 days.
- 6.3 **Remedy of Specific Performance.** Without limitation of any other rights of Holder in this Conservation Easement, Holder's right of enforcement of this Conservation Easement shall include the right to seek specific performance by Owner of the restoration of the Conservation Area to its condition at the time of the donation of the Conservation Easement as required by 26 C.F.R. § 1.170A-14(g)(5)(ii) or to its condition prior to any activity that violates this Conservation Easement or as otherwise may be necessary to



remedy any violation of any easement, covenant, prohibition or restriction in this Conservation Easement, as Holder may elect.

- 6.4 Non-Binding Mediation. Any dispute, controversy or claim arising out of, or related to, this Conservation Easement shall be subject to mediation in accordance with this Section. If Owner and Holder are unable to resolve any dispute, controversy or claim, they shall first submit the dispute, controversy or claim to an independent third party mediator acceptable to them. Unless agreed to by Owner and Holder, neither of them shall be required to participate in mediation sessions exceeding a total of eight (8) hours as to any one dispute, controversy or claim. The cost of the mediation shall be split equally between the parties. The mediation process may be initiated by either Owner or Holder upon written request to the other. If Owner and Holder cannot agree on a mediator within fifteen (15) days of the written request, either Owner or Holder may file a request for mediation with the American Arbitration Association (“AAA”) office nearest the Conservation Area, and selection of the mediator shall proceed under the Rules then established by the AAA. Within ten (10) days of selection of the mediator, Owner and Holder shall submit a written summary of its position to the mediator, with any other reasonable documentation it believes is relevant to the dispute. These submissions will be exchanged between Owner and Holder. At a time and place convenient to Holder and Owner, but not later than thirty (30) days after submission of written materials to the mediator, Owner and Holder shall meet with the mediator, discuss any nonbinding recommendations the mediator may have, and attempt in good faith to resolve the dispute. In the event Owner and Holder have not resolved the dispute, controversy or claim within thirty (30) days of the meeting with the mediator, Owner and Holder shall each have the right to initiate legal proceedings concerning such dispute, controversy or claim without further notice to the other. If Owner or Holder breaches this obligation by refusing to participate in the mediation process outlined above (and in accordance with the established schedule), the other shall be entitled to initiate legal proceedings immediately on any dispute, controversy or claim. The content of any documents, discussions, negotiations, offers made, offers declined, settlements proposed, mitigations suggested or proposed or other matters that arise or that are produced during the mediation shall not be admissible as evidence or used as argument in any contemporaneous or subsequent legal proceeding. Notwithstanding anything in this Section to the contrary, the requirements of this Section: (a) do not create or give rise to any independent or substantive rights or cause of action not otherwise expressly set forth in this Conservation Easement and (b) shall not apply, nor shall be construed to limit or delay the right of Holder to commence and pursue litigation to enforce this Conservation Easement, in regard to any dispute, controversy or claim arising from a violation of this Conservation Easement that, in the sole and independent judgment of Holder, represents an ongoing or imminent material adverse impact upon the Conservation Values or the Conservation Purposes or upon the ultimate ability of the Owner to restore the condition of the Conservation Area.
- 6.5 Remedy of Damages. If Owner violates this Conservation Easement in such a manner as to cause damage to, extract or remove any trees, mineral resources, pond, wetland, stream, or other natural resource protected by this Conservation Easement, including violation resulting from failure to obtain Holder’s approval, Holder shall be entitled to

payment of damages in the amount of the value of the protected natural resource; provided, however, that if the natural resource effected by the Owner's violation of this Conservation Easement can be restored to its condition prior to the violation and if Owner does restore the natural resource to its condition prior to the violation within a time period accepted by Holder in writing, then Holder shall accept such restoration in lieu of damages. Holder may seek payment and recovery of such damages by any means available at law. The value of the protected natural resource shall be the greater of (a) the market value of the resource or, (b) the cost of immediate restoration of the Conservation Area and all resources to its condition prior to the violation. If such restoration is not reasonably possible then double the market value of the resource shall be the amount of liquidated damages. If the resource does not have a readily determinable market value then the amount of damages shall be the amount which a court having jurisdiction may determine, taking into account the importance of the resource to the fulfillment of the Conservation Purposes. Nothing in this Section is intended to limit, waive or release Holder's right so seek specific performance or other equitable remedy.

- 6.6 Rights and Remedies in Relation to Third Parties. As the owner of a real property interest under this Conservation Easement, Holder shall have the right, without limitation of any rights herein as against Owner, to assert and enforce any of the rights and remedies in this Conservation Easement against any person or entity other than Owner that engages in any action upon the Conservation Area that constitutes a violation of any of the covenants or restrictions of this Conservation Easement, whether such person or entity enters upon the Conservation Area as a tenant, guest or invitee of Owner, by an act of trespass or by any claim of right and Owner shall cooperate with Holder by joining in any action or proceeding commenced by Holder for such purpose.
- 6.7 Remedy: Failure to Pay Certain Charges. If Owner fails to pay any assessments, fees, fines, levies, penalties, taxes, and other charges imposed by a government, governmental agency, or governmental authority that can become a lien on the Conservation Area or upon this Conservation Easement or the rights it represents or that it grants to Holder (collectively, "Governmental Charges"), Holder may, but shall have no obligation to, pay such Governmental Charges or any part thereof upon ten (10) days after sending written notice to Owner, according to any bill, statement, or estimate procured from the appropriate public office. Payment made by Holder shall become a lien on the Conservation Area in favor of Holder upon payment by Holder and shall bear interest until Holder is paid by Owner at the rate of twelve percent (12%) per annum or at the highest rate of interest per annum as is allowed by applicable law, whichever is less.
- 6.8 Certain Events Not a Violation. Notwithstanding anything herein to the contrary, Holder shall not bring any action seeking to enforce this Conservation Easement against Owner, nor shall this Conservation Easement be considered to have been violated by Owner, as a result of any damage to the Conservation Area if such damage was solely the result of: (a) a natural event such as an earthquake or flood, wind, lightning or other storm event, including those events commonly referred to as "acts of God"; (b) damage by persons trespassing upon the Conservation Area; or (c) any emergency measures reasonably and prudently taken by Owner to abate or mitigate significant injury to the Conservation Area as a result of any such natural event or trespass.

- 6.9 Enforcement After Permitted Subdivision. If ownership of the Conservation Area has been subdivided in accordance with this Conservation Easement such that the Conservation Area is no longer owned by one Owner and, thereafter, a violation of this Conservation Easement occurs or appears to Holder to have occurred, Holder need only give notice of violation or enforcement action to, and need only undertake legal and other enforcement action against, the owner of that portion of the Conservation Area on which the event, condition or circumstance which constitutes a violation has occurred or exists. Notwithstanding the foregoing, Holder may, in its discretion, give notice of a violation or enforcement action to, undertake enforcement action against and make a party to any legal action, such other Owners or parties as Holder deems necessary or appropriate to the correction of the violation, monitoring or management of the Conservation Area or the Conservation Easement, protection of Holder's rights, or fulfillment of the Conservation Purposes of this Conservation Easement.
- 6.10 Limitation on Certain Rights. This Conservation Easement may only be enforced by Owner and Holder and no third party beneficiary rights, rights of enforcement or other rights are created or intended to be created or granted by this Conservation Easement in or to any other person or entity, any person or entity that was once an "Owner" but is no longer an owner of the Conservation Area, the public generally or any governmental authority except to the limited extent necessary to undertake an action under Section 5.2 or as required by statute (and only to the extent such statute cannot be waived by agreement of Holder and Owner). Owner and Holder do not intend that this Conservation Easement be or create a trust. Without limitation of the foregoing, no person or entity that has been an Owner shall have any rights under this Conservation Easement after such Owner has conveyed that Owner's legal ownership interest in the Conservation Area and no person or entity that is an Owner as to a part of the Conservation Area shall have any rights under this Conservation Easement as to any part of the Conservation Area not owned by that Owner.
- 6.11 Reimbursement of Expenses of Enforcement. In the event that Holder acts, after violation of the Conservation Easement, to enforce this Conservation Easement or any obligation hereunder, all reasonable expenses incurred by Holder shall be charged to and paid by Owner, including reasonable attorneys' fees regardless of whether an action or proceeding is commenced and whether incurred before or after the expiration of any cure period provided in this Conservation Easement; except however that Owner shall not be responsible to Holder for costs of a frivolous action by Holder or an action brought in bad faith by Holder, as determined by a court of competent jurisdiction. All such reasonable expenses, together with costs of collection (including reasonable attorneys' fees), shall be recoverable by Holder and be subject to collection by all lawful means for the collection of a debt under the law of the state in which the Conservation Area is located.
- 6.12 No Merger of Title. Notwithstanding anything to the contrary in this Conservation Easement, should Holder become an Owner of any portion of the Conservation Area, this Conservation Easement shall not merge with any interest in the Conservation Area upon conveyance to Holder and title shall be transferred subject to the continued validity and enforceability of this Conservation Easement in accordance with the laws of the State in which the Conservation Area is located. In such event the rights of Holder under this



Conservation Easement as to the portion of the Conservation Area owned by Holder shall forthwith be transferred to a Qualified Organization in accordance with Section 5.3. or, if necessary, 5.2.

- 6.13 Reimbursement of Expenses of Litigation. Owner acknowledges that for the fulfillment of Owner's purposes and intentions for this Conservation Easement, Owner requires Holder to accept perpetual obligations for the interpretation and enforcement of this Conservation Easement and that, pursuant to 26 CFR § 1.170A-14(c), Holder must maintain its reserve capacity to enforce this Conservation Easement. It is therefore agreed that, should Owner or anyone acting by, through, under or on behalf of Owner, commence litigation against Holder to enforce any rights hereunder or to dispute any actions or inaction of Holder, to enforce any alleged duty or obligation of Holder hereunder or to seek damages or specific performance against Holder then unless Holder is finally determined by a court of competent jurisdiction, beyond right of appeal, to have acted contrary to the terms of this Conservation Easement and to have failed to exercise reasonable judgment taking into account the Conservation Purposes, the Conservation Values and the circumstances of which Holder had actual knowledge at the relevant time, then Owner shall reimburse Holder on demand for all reasonable costs and expenses, including attorney's fees, reasonably incurred by Holder in its defense in such litigation. Holder shall not be considered to have failed to exercise reasonable judgment as aforesaid solely based on the fact that Holder did not or does not prevail in legal proceedings or that Holder is determined to have adopted an interpretation of this Conservation Easement not accepted by the court.
- 6.14 No Waiver of Rights of Enforcement. The failure of Holder to exercise any of its rights under this Conservation Easement on any occasion shall not be deemed a waiver of said rights and Holder retains the right in perpetuity to require full compliance by Owner of the covenants and restrictions in this Conservation Easement.

## **ARTICLE 7. GENERAL PROVISIONS**

- 7.1 Owner and Holder Further Defined. The term Owner used in this Conservation Easement shall mean and include the above-named Owner and any of Owner's successors or assigns, whether one or more, that are the legal owners of the Conservation Area or any part thereof as to such part of the Conservation Area. The term Holder used in this Conservation Easement shall mean and include the above-named Holder and its successors and assigns, it being understood and agreed that any assignee of the rights of Holder hereunder must be a Qualified Organization and shall carry out the obligations of Holder and the intent of this Conservation Easement.
- 7.2 Vesting of Real Property Interest. This Conservation Easement gives rise to a real property right and interest immediately vested in Holder with a fair market value that is at least equal to the proportionate value that this Conservation Easement at the time of this gift bears to the value of the Conservation Area as a whole at that time. That proportionate value of the Holder's property rights shall remain constant. The fair market value of this Conservation Easement shall be the difference between the fair market value

of the Conservation Area unrestricted by this Conservation Easement and the fair market value of the Conservation Area as restricted by this Conservation Easement.

- 7.3 Rules of Construction and Interpretation. The parties recognize the environmental, scenic, and natural values of the Conservation Area and have the common purpose of preserving these values. Any general rule of construction to the contrary notwithstanding, this Conservation Easement shall be liberally construed in favor of the grant to promote, protect and fulfill the Conservation Purposes and the policies and purposes of Holder. If any provision in this Conservation Easement is found to be ambiguous, an interpretation consistent with the Conservation Purposes that would render the provision valid should be favored over any interpretation that would render it invalid. If any provision of this Conservation Easement is determined by final judgment of a court having competent jurisdiction to be invalid, such determination shall not have the effect of rendering the remaining provisions of this Conservation Easement invalid. The parties intend that this Conservation Easement, which is by nature and character primarily prohibitive (in that Owner has restricted and limited the rights inherent in ownership of the Conservation Area), shall be construed at all times and by all parties to promote, protect and fulfill the Conservation Purposes.
- 7.4 Indemnification. Owner covenants and agrees to indemnify, defend, reimburse, and hold harmless Holder, its directors, officers and employees from, for and against any Loss (hereinafter defined) to the extent such Loss arose from an Indemnified Cause (hereinafter defined). A "Loss" shall mean any loss, cost, liability, penalty, fine, or damage of any kind or nature whatsoever which Holder or any of its directors, officers or employees may reasonably be concluded to have suffered, paid or incurred. The term "cost" shall include, but shall not be limited to, reasonable attorneys' fees and witness and court fees. An "Indemnified Cause" shall mean any of the following: the violation or alleged violation of any law in, upon or involving the Conservation Area by Owner or anyone acting by, for, through or under the direction of Owner, including but not limited to any tenant, contractor, agent, licensee or invitee of Owner; any tax or assessment upon the Conservation Area or upon this Conservation Easement or the rights it represents or that it grants to Holder; any death or injury to any person occurring on or about the Conservation Area; any lien or attempts to enforce a lien asserted against the Conservation Area; the costs of performing any work on the Conservation Area; any loss or damage to any property on or about the Conservation Area; or any lawsuit or governmental administrative or law enforcement action which is commenced or threatened against Holder or any of its directors, officers or employees or to which any of the foregoing are made a party or called as a witness; but notwithstanding the foregoing, "Indemnified Cause" shall not include any cause which results from Holder's own acts which are finally determined by a court to have been the result of bad faith, negligence or willful misconduct of Holder. It is further agreed that no person shall have an indemnification obligation or liability under this Section as to any Indemnified Cause which arises entirely and solely from events which occurred after such person is no longer the legal owner of the Conservation Area or any part thereof and is no longer in possession of the Conservation Area or any part thereof (it being understood that one or more subsequent Owners shall have such indemnification, defense, reimbursement, and holding harmless obligation).

- 7.5 Responsibilities and Liabilities of Owner. Without limitation of anything herein to the contrary, Owner shall (a) retain all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operations, upkeep, and maintenance of the Conservation Area, including the general liability insurance coverage and obligation to comply with applicable law and (b) pay all Governmental Charges.
- 7.6 Allocating Proceeds Following Extinguishment of Conservation Easement. It is the intention of the parties that no change in conditions, including for example but not for limitation of the foregoing changes in the use of properties adjoining or in the vicinity of the Conservation Area, will at any time or in any event result in the extinguishment of any of the covenants, restrictions or easements contained in this Conservation Easement. If, however, notwithstanding the foregoing intention, any cause or circumstance gives rise to the extinguishment of this Conservation Easement or a material term or provision hereof by judicial proceeding then Holder, on any subsequent sale, exchange or involuntary conversion of the Conservation Area, shall be entitled, as required in 26 CFR 1.170A-14(g)(6)(ii), to a portion of the proceeds at least equal to the proportionate value that the Conservation Easement at the time of this gift bears to the value of the Conservation Area as a whole at that time, unless state law provides that the Owner is entitled to the full proceeds from the conversion without regard to the terms of this Conservation Easement. All such proceeds received by Holder shall be used in a manner consistent with the Conservation Purposes.
- 7.7 Allocating Proceeds of Condemnation. Whenever all or part of the Conservation Area is taken by exercise of eminent domain by public, corporate or other authority so as to abrogate the restrictions imposed by this Conservation Easement, Owner and Holder shall join in appropriate actions at the time of such taking to recover the full value of the taking and all incidental or direct damages resulting from the taking. All reasonable expenses incurred by Owner and Holder, including reasonable attorneys' fees, in any such action shall be paid out of the recovered proceeds. Holder shall be entitled to a portion of the recovered proceeds proportioned to Holder's real property interest and shall use such proceeds in a manner consistent with the Conservation Purposes. The respective rights of the Owner and Holder set forth in Section 7.6 and this Section 7.7 shall be in addition to and not in limitation of, any rights they may have in common law with respect to a modification or termination of this Conservation Easement by reason of changed conditions or the exercise of powers of eminent domain as aforesaid.
- 7.8 Covenants, Etc. Run With The Land. This Conservation Easement and all of the covenants, indemnifications, releases, easements and restrictions set forth in this Conservation Easement shall run with the land and be binding upon Owner and Owner's successors and assigns, unless otherwise expressly provided in this Conservation Easement.
- 7.9 Limitation on Owner Liability. An Owner shall be and remain liable, even after ownership has been transferred, for any breach or violation of this Conservation Easement if, but only if, such breach or violation occurred during such time as such Owner was the legal or equitable owner of, or is in possession of, the entire Conservation Area or that part of the Conservation Area on which the breach or violation occurred.



- 7.10 Effect On Mortgages and Other Liens. All mortgages, deeds of trust and other liens or encumbrances upon all or any part of the Conservation Area which either come into existence or are recorded in the place for the recording of such liens or encumbrances after the date of this Conservation Easement will be subject to and subordinate to this Conservation Easement.
- 7.11 Right of Conveyance Retained; Notice Required. Nothing in this Conservation Easement shall limit the right of Owner, Owner's successors or assigns to grant or convey the Conservation Area, provided that any such grant or conveyance shall be under and subject to this Conservation Easement. Owner shall notify Holder in writing of any sale, transfer, lease or other disposition of the Conservation Area or any part thereof, whether by operation of law or otherwise, not later than 30 days after such disposition and such notice shall include a copy of the deed, lease, or other declaration of transfer, the date of transfer, and the name or names and addresses for notices of the transferee.
- 7.12 Transfer Payment. In consideration of the perpetual obligations assumed by Holder in this Conservation Easement, the costs of which are unpredictable, including, but not necessarily limited to, the obligations to travel to and inspect the Conservation Area for compliance with this Conservation Easement, communicate with present and future owners and respond to questions and other matters, and maintain financial resources for the enforcement of compliance when necessary in fulfillment of Holder's obligation to be a Qualified Organization under 26 CFR §1.170A-14(c)(1), and in consideration of Owner's desire to support Holder in its charitable mission with respect to the Conservation Area and other properties in which Holder may have accepted conservation easement restrictions, Owner agrees for itself, Owner's successors and assigns, that there shall be paid to Holder the Transfer Payment (hereinafter defined) at the time of each Qualifying Transfer (hereinafter defined) in the manner set forth herein.
- 7.12.1 The "Transfer Payment" shall be the amount equal to one percent (1.0%) of the Purchase Price (hereinafter defined) of the Conservation Area or part thereof, the improvements on the Conservation Area and all of the other land and improvements that are included in the Qualifying Transfer.
- 7.12.2 A "Qualifying Transfer" shall mean the conveyance of legal title to the Conservation Area or any part thereof, the improvements on the Conservation Area, and any other land and improvements which are conveyed by the same deed of conveyance with which the Conservation Area or part thereof is conveyed.
- 7.12.3 The "Purchase Price" shall be the sum of all of the following given in consideration for a Qualifying Transfer: (a) payment of money, (b) transfer of real or personal property or other tangible consideration, (c) purchase money indebtedness, and (d) the assumption of indebtedness. Owner shall be obligated to provide to Holder a true and correct copy of the agreement of sale pertaining to the Qualifying Transfer or other documents verifying the Purchase Price to the reasonable satisfaction of Holder.

- 7.12.4 In the event of a Qualifying Transfer in which all or part of the consideration to seller is in the form of real or personal property rather than the payment of money, purchase money indebtedness or assumption of indebtedness, the Purchase Price shall include an amount equal to the fair market value of such real or personal property given in consideration for the Qualifying Transfer as determined by a qualified appraiser approved by Holder in its reasonable judgment. Appraisals used in the determination of the Purchase Price shall be based upon the guidelines and ethical standards of the Appraisal Institute, as then in effect, for the type of property involved. However, Owner and Holder may, if they so elect in their discretion, without obligation to do so, accept an alternate method of establishing the value of property including by contemporaneous agreement.
- 7.12.5 Purchase Price shall not impute fair market value to that portion of a Qualifying Transfer that is a gift, devise, bequest or other transfer not involving consideration by the payment of money, transfer of real or personal property, purchase money indebtedness or assumption of indebtedness.
- 7.12.6 The Transfer Payment shall not be applicable to a Qualifying Transfer into a corporation, limited liability company or general or limited partnership where the Owner that is the transferor receives all of the shares of the transferee entity as consideration and receives no other consideration.
- 7.12.7 The obligation for payment of the Transfer Payment shall be binding upon the Owner that is the transferor in the Qualifying Transfer and the purchaser or grantee that is the transferee in the Qualifying Transfer, all of whom shall be jointly and severally liable for the payment of the Transfer Payment, and also shall be binding upon their respective successors and assigns, and shall run with the land until paid.
- 7.12.8 The Transfer Payment shall be paid to Holder at or before the time of transfer of legal title as aforesaid. The amount of any Transfer Payment not paid in the amount and at the time required herein shall, (a) accrue interest payable to Holder in the amount of twelve percent (12%) per annum and (b) constitute, together with the accrued interest, to the extent permitted by applicable law, a lien on the Conservation Area in favor of the Holder until paid in full, provided that such lien shall not be superior to any mortgage, deed of trust or other lien that was executed, recorded and otherwise validly established against the Conservation Area prior to the date of the Qualifying Transfer.
- 7.12.9 Owner shall be liable for reasonable attorneys' fees and other costs of collection reasonably incurred by Holder in the enforcement of this Section.
- 7.12.10 If and to the extent the law of the state in which the Conservation Area is located so requires in order to preserve the validity of this Section, it is agreed that the Transfer Payment shall not apply to any Qualifying Transfer that occurs after the lifetime plus twenty-one (21) years of any biological child of Andrew L Johnson, Vice President of the North American Land Trust.

- 7.12.11 Without limitation of any other provision of this Conservation Easement, neither the validity of this Section nor compliance with or enforcement of this Section shall have any bearing whatever on the validity or enforceability of any other provision of this Conservation Easement.
- 7.13 Managerial Control Retained by Owner. Nothing in this Conservation Easement shall be construed as giving rise to any right or ability of Holder to exercise physical or managerial control over day-to-day operations of the Conservation Area, or any of Owner's activities on the Conservation Area, or otherwise to become an operator with respect to the Conservation Area within the meaning of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended.
- 7.14 Compliance With Law. Notwithstanding provisions hereof to the contrary, if any, Owner shall be solely responsible for complying with all federal, state and local laws and regulations in connection with the conduct of any use of the Conservation Area or the erection of any Structure permitted hereunder, and Owner shall be solely responsible for obtaining any required permits, approvals from the relevant governmental authorities in connection therewith.
- 7.15 Public Access Not Created. Nothing in this Conservation Easement shall be construed to create any right of access to the Conservation Area by the public.
- 7.16 Notices. All notices required of Owner under the terms of this Conservation Easement, and all requests for the approval by Holder, shall be in writing shall be deemed to have been given when either served personally or when sent by certified mail, with return receipt requested and postage prepaid, addressed to Holder at the address set forth on the first page of this Conservation Easement or such other address provided by notice from Holder or Owner to the other for the purpose. Notices by Holder to an Owner need only be given to the Owner of the portion of the Conservation Area that is the subject of the notice.
- 7.17 Headings. The underlined headings preceding the Sections in this Conservation Easement are intended for convenience of reference only and shall not be applied in the construction or interpretation of the substance of this Conservation Easement nor shall any such headings be construed to add to, detract from or otherwise alter the substance, meaning, force or effect of any of the Sections in this Conservation Easement.
- 7.18 Availability or Amount of Tax Benefits. Holder makes no warranty, representation or other assurance regarding the availability, amount or effect of any deduction, credit or other benefit to Owner or any other person or entity under United States or any state, local or other tax law to be derived from the donation of this Conservation Easement or other transaction associated with the donation of this Conservation Easement. This donation is not conditioned upon the availability or amount of any such deduction, credit or other benefit. Holder makes no warranty, representation or other assurance regarding the value of this Conservation Easement or of the Conservation Area. As to all of the foregoing, Owner is relying upon Owner's own legal counsel, accountant, financial advisor, appraiser or other consultant and not upon Holder or any legal counsel,



accountant, financial advisor, appraiser or other consultant of Holder. In the event of any audit or other inquiry of a governmental authority into the effect of this donation upon the taxation or financial affairs involving Owner or Owner's successors or assigns or other similar matter then Holder shall be reimbursed and indemnified for any cost or expense of any kind or nature whatsoever incurred by Holder in responding or replying thereto.

7.19 Warranties and Representations of Owner. By signing this Conservation Easement, Owner acknowledges, warrants and represents to Holder that:

7.19.1 Owner has received and fully reviewed the Baseline Documentation in its present form in its entirety.

7.19.2 The Baseline Documentation includes, among other things:

- Naturalist's Report on the Conservation Area.
- Environmental Conditions Map of the Conservation Area.
- Photographs of current site conditions on the Conservation Area.
- Narrative description of the significant ecological and other conservation values and characteristics of the Conservation Area.
- Topographic map of the Conservation Area

7.19.3 The Baseline Documentation is an accurate representation of the condition of the Conservation Area at the time of granting this Conservation Easement.

7.19.4 Owner has had the opportunity to be represented by counsel of Owner's selection, and fully understands that Owner is hereby permanently relinquishing property rights which would otherwise permit Owner to have a fuller use and enjoyment of the Conservation Area.

7.19.5 The undersigned individual or individuals signing as or on behalf of Owner has all legal authority to enter into this Conservation Easement and perform all of the obligations of Owner hereunder, as the binding act of Owner.

7.19.6 Owner is seized of the Conservation Area in fee simple title. Owner has the right to grant and convey this Conservation Easement. The Conservation Area is free and clear of any Deed of Trust, Mortgage and any other liens and monetary encumbrances except: (a) liens for taxes not yet due and payable and (b) Deed of Trust or Mortgage liens that are subordinate to this Conservation Easement by virtue of the executed form of Joinder and Consent of Lienholder attached hereto and incorporated herein.

7.19.7 There are no recorded or unrecorded leases or other agreement for the production of minerals or removal of timber from the Conservation Area which would, if any of the activities permitted under such lease or other agreement was undertaken by Owner, violate the covenants or restrictions in this Conservation Easement or otherwise defeat the Conservation Purposes.

- 7.19.8 Owner has, to the extent Owner in Owner's discretion has deemed appropriate, investigated with all due diligence the cost, practicality, right, and ability to use and improve the Building Zone according to the Reserved Rights permitted within a Building Zone under this Conservation Easement, as such use and improvement may be affected by zoning, other governmental regulation, access, availability of utilities, soil conditions, geology, topography, other physical and environmental conditions, and any other factor or condition. As to the cost, practicality, right, and ability of Owner to use and improve a Building Zone as and to the extent permitted in this Conservation Easement, Holder makes no warranty or representation, has no obligation, gives no assurance, and is released by Owner, Owner's successors and assigns from any liability and claims, both compensatory and consequential.
- 7.20 State Conservation Easement Law. This Conservation Easement shall be a "conservation easement" under, and shall be governed by, the State Conservation Easement Law and Holder shall have all of the rights and powers of a "Holder" under the State Conservation Easement Law.
- 7.21 Governing Law. This Conservation Easement shall be governed by and construed under the law of the state in which the Conservation Area is located.

**TO HAVE AND TO HOLD** the easements and rights set forth in this Conservation Easement unto Holder, its successors and assigns, for its own use and benefit forever.

IN WITNESS WHEREOF, and intending to be legally bound hereby, Owner and Holder have executed this Conservation Easement intending this Conservation Easement to be effective on the date of the last signature below.

MAGNOLIA BAY RESORT, LLC, a Delaware limited liability company

By: Magnolia Bay Management, LLC, a Delaware limited liability company, Its Manager

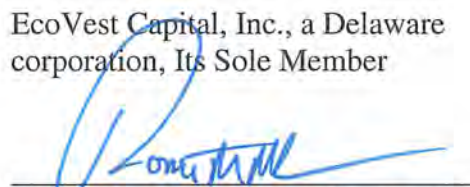
By: EcoVest Magnolia Bay, LLC, a Delaware limited liability company, Its Manager

By: EcoVest Capital, Inc., a Delaware corporation, Its Sole Member

Witness:



By:



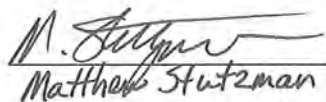
Robert M. McCullough, Senior Vice President, Chief Financial Officer, Secretary and Treasurer

Witness:



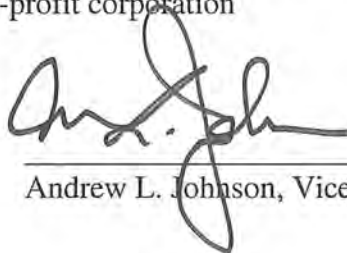
NORTH AMERICAN LAND TRUST  
a non-profit corporation

Witness:



Matthew Stutzman

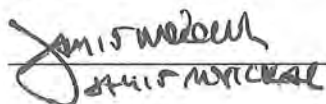
By:



[Seal]

Andrew L. Johnson, Vice President

Witness:




Janis Weiden



State of Georgia

County of Cherokee

The foregoing instrument was acknowledged before me this 16<sup>th</sup> day of December, 2015 by Robert M. McCullough, Senior Vice President, Chief Financial Officer, Secretary and Treasurer of EcoVest Capital, Inc., Sole Member of EcoVest Magnolia Bay, LLC, which is Manager of Magnolia Bay Management, LLC, which is Manager of MAGNOLIA BAY RESORT, LLC, a Delaware limited liability company, on behalf of the company.

  
\_\_\_\_\_  
Notary Public  
My commission expires: 10/9/2017



STATE OF PENNSYLVANIA

:  
:  
:

COUNTY OF CHESTER

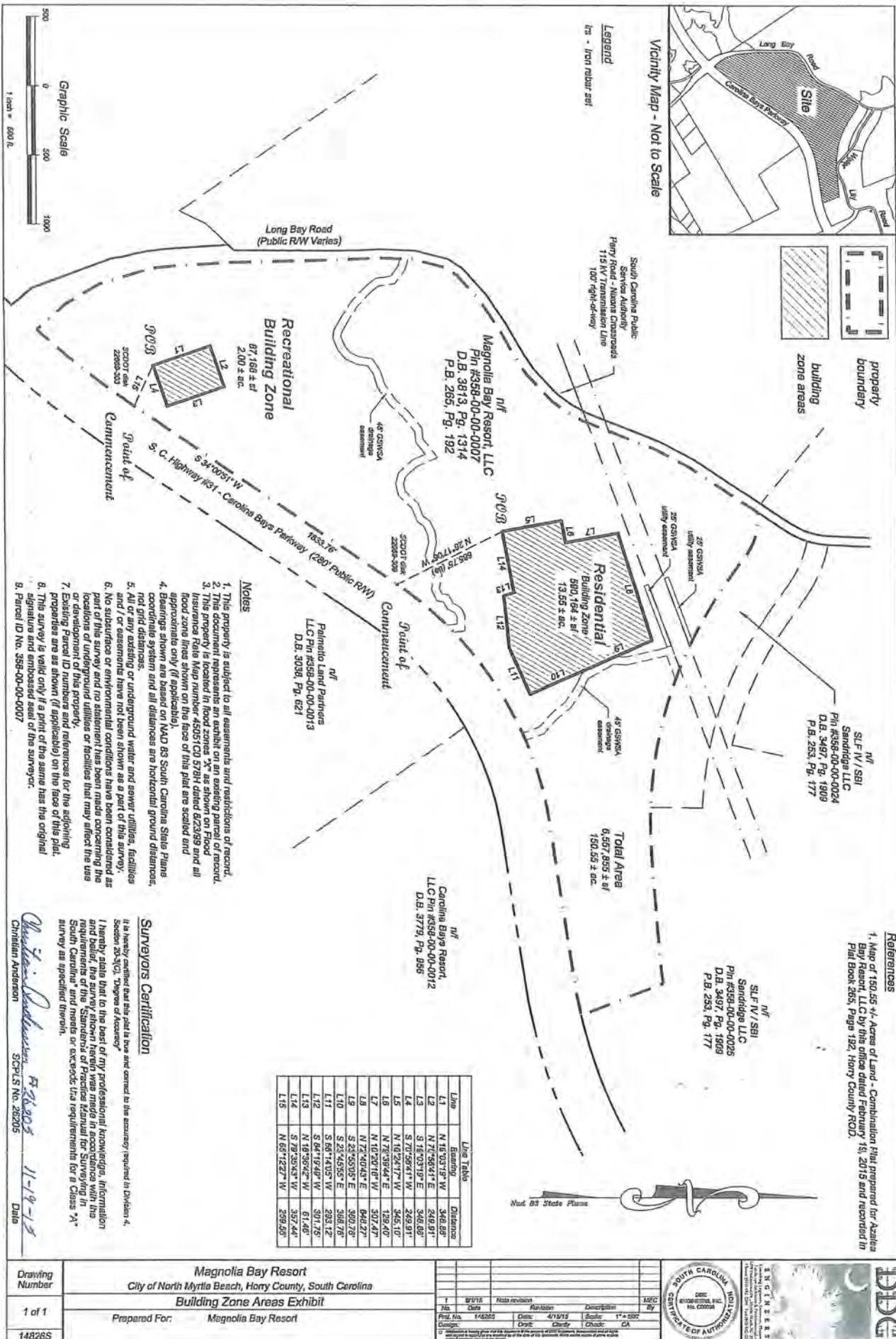
On this, the 15<sup>th</sup> day of December, 2015, before me, a Notary Public in and for the State of Pennsylvania, the undersigned officer, personally appeared Andrew L. Johnson, who acknowledged himself to be the Vice President of North American Land Trust, a Pennsylvania Non-Profit Corporation, and that he as such officer, being authorized to do so, executed the foregoing conservation easement for the purposes therein contained by signing the name of the corporation by himself as Vice President.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

(Seal)

Karen M. Mazza  
Notary Public  
My commission expires: AUG. 22, 2018

COMMONWEALTH OF PENNSYLVANIA  
NOTARIAL SEAL  
Karen M. Mazza, Notary Public  
Pennsbury Twp., Chester County  
My Commission Expires Aug. 22, 2018  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES





Legal Description – Residential Building Zone

All and singular, that certain piece, parcel or tract of land lying and situate in the City of North Myrtle Beach, Horry County, South Carolina, and being referenced on a plat entitled Boundary Survey - Map of 150.55 +/- Acres of Land prepared for Magnolia Bay Resort, LLC by DDC Engineers Inc. dated February 19, 2015 and being more particularly described as follows:

Commencing at SCDOT disk 22669-309, being on the western right-of-way of S. C. Highway #31 – Carolina Bays Parkway, thence N 26°17'06" W, 685.75' to the point of beginning; thence N 10°24'17" W, 345.10' to a point; thence N 79°39'44" E, 129.40' to a point; thence N 10°20'16" W, 307.47' to a point; thence N 72°40'40" E, 648.27' to a 1/2" to a point; thence S 23°55'05" E, 380.78' to a point; thence S 23°45'55" E, 388.78' to a point; thence S 66°14'05" W, 293.12' to a point; thence S 84°19'49" W, 301.75' to a point; thence N 18°36'42" W, 61.46' to a point; thence S 79°35'43" W, 357.44' to the point of beginning and containing 13.55 acres, more or less.

This property is bounded on the north, south, east and the west by SLF IV / SBI Sandridge, LLC.

Legal Description – Recreational Building Zone

All and singular, that certain piece, parcel or tract of land lying and situate in the City of North Myrtle Beach, Horry County, South Carolina, and being referenced on a plat entitled Boundary Survey - Map of 150.55 +/- Acres of Land prepared for Magnolia Bay Resort, LLC by DDC Engineers Inc. dated February 19, 2015 and being more particularly described as follows:

Commencing at SCDOT disk 22669-303, being on the western right-of-way of S. C. Highway #31 – Carolina Bays Parkway, thence N 65°12'27" W, 259.58' to the point of beginning; thence N 19°03'19" W, 348.88' to a point; thence N 70°56'41" E, 249.91' to a point; thence S 19°03'19" E, 348.88' to a point; thence S 70°56'41" W, 249.91' to the point of beginning and containing 2.00 acres, more or less.

This property is bounded on the north, south, east and the west by SLF IV / SBI Sandridge, LLC.

STATE OF SOUTH CAROLINA

COUNTY OF HORRY

)  
)  
)

AFFIDAVIT

PERSONALLY appeared before me the undersigned, who being duly sworn, deposes and says:

1. I have read the information on this affidavit and I understand such information.
2. The Easement being granted is described as "Conservation Easement and Declaration of Restrictions and Covenants, between Magnolia Bay Resort, LLC and North American Land Trust dated December 22, 2015.
3. The deed is exempt from the deed recording fee because (See Information section of affidavit):

SC Code Section 12-24-40 (1) - Value Less than One Hundred (\$100.00) Dollars

If exempt under exemption #14 as described in the Information section of this affidavit, did the agent and principal relationship exist at the time of the original sale and was the purpose of this relationship to purchase the realty?

Check Yes \_\_\_\_\_ or No \_\_\_\_\_

4. As required by Code Section 12-24-70, I state that I am a responsible person who was connected with the transaction as: Grantor
5. I understand that a person required to furnish this affidavit who wilfully furnishes a false or fraudulent affidavit is guilty of a misdemeanor and, upon conviction, must be fined not more than one thousand dollars or imprisoned not more than one year, or both.

Magnolia Bay Resort, LLC

BY: Magnolia Bay Management, LLC, Manager

BY: Ecovest Magnolia Bay, LLC, Manager

BY: Ecovest Capital, Inc., Sole Member

By: [Signature]

Robert M. McCullough, Sr. Vice President and Chief  
Financial Officer

Sworn to before me this 21<sup>st</sup>  
day of December, 2015.

[Signature]  
Notary Public for Georgia  
My Commission Expires: 10/9/2017





## INFORMATION

Except as provide in this paragraph, the term "value" means "the consideration paid or to be paid in money or money's worth for the realty." Consideration paid or to be paid in money's worth includes, but is not limited to, other realty, personal property, stocks, bonds, partnership interest and other intangible property, the forgiveness or cancellation of a debt, the assumption of a debt, and the surrendering of any right. The fair market value of the consideration must be used in calculating the consideration paid in money's worth. Taxpayers may elect to use the fair market value of the realty being transferred in determining fair market value of the consideration. In the case of realty transferred between a corporation, a partnership, or other entity and a stockholder, partner, or owner of the entity, and in the case of realty transferred to a trust or as a distribution to a trust beneficiary, "value" means the realty's fair market value. A deduction from value is allowed for the amount of any lien or encumbrance existing on the land, tenement, or realty before the transfer and remaining on the land, tenement, or realty after the transfer. Taxpayer may elect to use the fair market value for property tax purposes in determining fair market value under the provisions of the law.

### **Exempted from the fee are deeds:**

- (1) transferring realty in which the value of the realty, as defined in Code Section 12-24-30, is equal to or less than one hundred dollars;
- (2) transferring realty to the federal government or to a state, its agencies and departments, and its political subdivisions, including school districts;
- (3) that are otherwise exempted under the laws and Constitution of this State or of the United States;
- (4) transferring realty in which no gain or loss is recognized by reason of Section 1041 of the Internal Revenue Code as defined in Section 12-6-40(A);
- (5) transferring realty in order to partition realty as long as no consideration is paid for the transfer other than the interests in the realty that are being exchanged in order to partition the realty;
- (6) transferring an individual grave space at a cemetery owned by a cemetery company licensed under Chapter 55 of Title 39;
- (7) that constitute a contract for the sale of timber to be cut;
- (8) transferring realty to a corporation, a partnership, or a trust in order to become, or as, a stockholder, partner, or trust beneficiary of the entity provided no consideration is paid for the transfer other than stock in the corporation, interest in the partnership, beneficiary interest in the trust, or the increase in value in such stock or interest held by the grantor. However, the transfer of realty from a corporation, a partnership, or a trust to a stockholder, partner, or trust beneficiary of the entity is subject to a fee even if the realty is transferred to another corporation, a partnership, or trust;
- (9) transferring realty from a family partnership to a partner or from a family trust to a beneficiary, provided no consideration is paid for the transfer other than a reduction in the grantee's interest in the partnership or trust. A "family partnership" is a partnership whose partners are all members of the same family. A "family trust" is a trust, in which the beneficiaries are all members of the same family. The beneficiaries of a family trust may also include charitable entities. "Family" means the grantor and the grantor's spouse, parents, grandparents, sisters, brothers, children, stepchildren, grandchildren, and the spouses and lineal descendants of any the above. A "charitable entity" means an entity which may receive deductible contributions under Section 170 of the Internal Revenue Code as defined in Section 12-6-40(A);
- (10) transferring realty in a statutory merger or consolidation from a constituent corporation to the continuing or new corporation;
- (11) transferring realty in a merger or consolidation from a constituent partnership to the continuing or new partnership; and,
- (12) that constitute a corrective deed or a quitclaim deed used to confirm title already vested in the grantee, provided that no consideration of any kind is paid or is to be paid under the corrective or quitclaim deed.
- (13) transferring realty subject to a mortgage to the mortgagee whether by a deed in lieu of foreclosure executed by the mortgagor or deed pursuant to foreclosure proceedings.
- (14) transferring realty from an agent to the agent's principal in which the realty was purchased with funds of the principal, provided that a notarized document is also filed with the deed that establishes the fact that the agent and principal relationship existed at the time of the original purchase as well as for the purpose of purchasing the realty.
- (15) transferring title to facilities for transmitting electricity that is transferred, sold, or exchanged by electrical utilities, municipalities, electric cooperatives, or political subdivisions to a limited liability company which is subject to regulation under the Federal Power Act (16 U.S.C. Section 791(a)) and which is formed to operate or to take functional control of electric transmission assets as defined in the Federal Power Act.

## **Appendix 2: Baseline Assessment**

# Magnolia Bay Resort

Biological Assessment  
Horry County, South Carolina

Prepared For:  
North American Land Trust  
P.O Box 467, Chadds Ford, PA 19317

Prepared By:  
Peter Smith, Conservation Biologist  
North American Land Trust  
NC Field Office  
P.O. Box 414  
Boone, NC 28607  
(828) 406.1583  
[psmith@nalt.org](mailto:psmith@nalt.org)

February 2015



Sandhill-rosemary (*Ceratiola ericoides*)



**DATES VISITED:** 2015-02-16, 2015-02-17, 2015-11-17

**COUNTY:** Horry

**CONSERVATION AREA SIZE:** ±150.55 acres

**LOCATION:** Approximate property center: 33°49'33.38"N 78°44'07.59"W

**UNITED STATES ECOREGION:** EPA Ecoregion Level III: Middle Atlantic Coastal Plain (63); Level IV: Carolina Flatwoods (63h)

**WATERSHED:** Carolina Coastal-Sampit (USGS Cataloging unit: 03040207)

**USGS QUAD:** Wampee

### **GENERAL DESCRIPTION**

The conservation area lies immediately north of Myrtle Beach which is one of the most densely developed coastal areas in the state of South Carolina. That reason alone gives this tract high conservation value. This property is located across Carolina Bays Parkway from Carolina Bays Resort Conservation Area, this property abuts Long Bay Road along the entirety of the western boundary and Carolina Bays Parkway along the southern boundary. The tract supports areas of planted pine (primarily longleaf pine, *Pinus palustris*, with lesser amounts of loblolly pine, *P. taeda*), and wetlands associated with Carolina Bays. Four natural communities, three with high conservation value, have been identified on the property: Sand Barren (Coastal Fringe Subtype, G2), High Pocosin (G2), and Xeric Sandhill Scrub (Coastal Fringe Subtype, G2) and Bay Forest (G4). It should be noted that the communities associated with the Carolina Bay have been highly disturbed in the past due to timber harvest practices. These areas are in transitional stages and exhibit features commonly found in the associated communities. The pine uplands need to be managed. Prescribed burning will be the most important part of the management plan. Fire is also an integral component to the sand barren and xeric sandhill scrub communities. Other than unimproved roads there are no structures on the conservation lands. In addition to the uncommon natural communities at least on SC State Rare plant is supported on the property: Sandhill-rosemary (*Ceratiola ericoides*, S1 G4). A notable occurrence was the sighting of a Federally Endangered Red-cockaded Woodpecker foraging in the long leaf pine stands.

The property is highly visible from Long Bay Road, Carolina Bays Parkway, Water Lilly Road, and Bourne Trail. All public roads.

### **PHYSICAL DESCRIPTION**

**ASPECT:** Site is to flat for meaningful aspect

**SLOPE:** Property drains to the southeast but no meaningful slope present

**ELEVATION:** Approximately 35 feet

**TOPOGRAPHY:** Typical outer coastal plain topography: flat

**HYDROLOGY AND MOISTURE:** Mesic bays and wetlands and xeric sandhill scrub

**GEOLOGY:** Qso: Pleistocene: Primarily sand with clay or mud

### **ANIMAL HABITAT FACTORS**

**HABITAT HETEROGENEITY:** Fairly heterogeneous supporting seasonally wet depressions, perennial inundated areas, and xeric sandhills.

**AMPHIBIAN BREEDING SITES:** Abundant. Woody debris in various states of decay and seasonally inundated depressions and bay rims and edges.

**DENNING SITES:** None noted.

**BIG TREES/LARGE CAVITIES:** Occasional throughout forested areas.

**MAST PRODUCING SPECIES:** Oaks (*Quercus* spp.)

### **AQUATIC HABITAT FACTORS**

**HYDROLOGY:** Carolina bay and seasonally inundated wooded wetland areas

### **RARE, UNCOMMON OR INDICATOR SPECIES**

Global, Federal, and State ranking information for rare species is maintained by the State Natural Heritage Program and the US Fish and Wildlife Service. Any rare species discussed in the following text will follow the standardized ranking system. Global ranks are defined thusly: G1 = critically imperiled globally because of extreme rarity (5 or fewer occurrences), G2 = imperiled globally because of rarity (6 to 20 occurrences), G3 = rare or uncommon (localized within range or narrowly endemic to special habitats, generally 20-100 occurrences), G4 = apparently secure, G5 = demonstrably secure, T<sub>-</sub> = the rank of a subspecies or variety. State rankings follow the same categories: S1 = critically imperiled in state because of extreme rarity (5 or fewer occurrences), S2 = Imperiled in state because of rarity (6 to 20 occurrences), S3 = rare or uncommon (localized within range or narrowly endemic to special habitats, generally 20-100 occurrences), S4 = apparently secure, S5 = demonstrably secure. Watchlist status is as follows: W1 = rare, but relatively secure, W2 = rare, but taxonomically questionable, W3 = rare, but uncertain documentation, W4 = rare, but believed not native, W5A = rare because of severe decline, W5B = exploited plants, W6 = regionally rare, W7 = rare and poorly known. A “?” after a ranking indicates that the ranking is uncertain. An “X” after state or global designation indicates that the species is presumed extirpated. State Designations: E = Endangered, T = Threatened, SC = Special Concern, SR = Significantly Rare, -L = Limited, -T = Throughout, -D = Disjunct, -P = Peripheral. Federal Designations: LT = Listed Threatened, LE = Listed Endangered, FSC = Federal Species of Concern

### **SPECIAL STATUS SPECIES PRESENT:**

Red-cockaded Woodpecker (*Picoides borealis* S2, G3, LE)-foraging  
Sandhill-rosemary (*Ceratiola ericoides*, S1, G4)

**Partners In Flight Species Assessment Database, Species of Regional Importance**

Belted Kingfisher (*Ceryle alcyon*)  
Carolina Chickadee (*Poecile carolinensis*)  
Carolina Wren (*Thryothorus ludovicianus*)  
Eastern Towhee (*Pipilo erythrophthalmus*)  
Field Sparrow (*Spizella pusilla*)  
Northern Bobwhite (*Colinus virginianus*)  
Northern Flicker (*Colaptes auratus*)  
Pine Warbler (*Dendroica pinus*)  
Red-bellied Woodpecker (*Melanerpes carolinus*)  
Tufted Titmouse (*Baeolophus bicolor*)

**POTENTIAL FOR OTHER SPECIAL STATUS SPECIES:** Surveys conducted throughout the entire growing season will likely reveal other special status species.

**EXOTIC/WEEDY SPECIES:** See Plant Species Observed

**LANDSCAPE FACTORS**

**ADJACENT LAND USE/OFFSITE STRESSES:** Increasing pressure for suburban sprawl and coastal resort development

**RELATION/CONNECTION TO OTHER SITES:** Within one airmile of NALT held Long Bay Marina Conservation Area and Carolina Bays Resort Conservation Area. Within 3 air miles of the Lewis Ocean Bay Nature Preserve.

**DEGREE OF THREAT/POTENTIAL FOR CHANGE:** Very low other than Reserved Rights documented in the Conservation Easement document.

**MANAGEMENT**

A separate conservation and forest management plan will be produced for the conservation area.

**PLANT SPECIES OBSERVED**

Scientific Name	Common Name	Notes
<i>Acer rubrum</i>	red maple	
<i>Ambrosia artemisiifolia</i>	annual ragweed	
<i>Andropogon gerardii</i>	big bluestem	
<i>Andropogon glomeratus</i>	bushy bluestem	
<i>Aristida stricta</i>	pineland threeawn	
<i>Arundinaria gigantea</i>	giant cane	
<i>Arundinaria tecta</i>	small cane	
<i>Asclepias humistrata</i>	pinewoods milkweed	
<i>Baccharis halimifolia</i>	eastern baccharis	



<i>Carex</i> spp.	sedges	
<i>Ceratiola ericoides</i>	sandhill rosemary	
<i>Chamaecrista fasciculata</i>	partridge pea	
<i>Cladina evansii</i>	reindeer moss (a lichen)	
<i>Clitoria mariana</i>	butterfly pea	
<i>Cnidoscolus stimulosus</i>	tread-softly	
<i>Cuthbertia graminea</i>	grassleaf roseling	
<i>Cyrilla racemiflora</i>	swamp titi	
<i>Dalea pinnata</i>	summer farewell	
<i>Desmodium paniculatum</i>	panicked tick trefoil	
<i>Dicanthelium</i> sp.	panic grass	
<i>Diodea virginiana</i>	buttonweed	
<i>Eubotrys racemiflora</i>	sweetbells	
<i>Eupatorium album</i>	white-bracted thoroughwort	
<i>Eupatorium capillifolium</i>	dogfennel	
<i>Eupatorium leucolepis</i>	savanna eupatorium	
<i>Gaylussacia frondosa</i>	huckleberry	
<i>Gelsemium sempervirens</i>	Carolina jessamine	
<i>Gordonia lasianthus</i>	loblolly bay	
<i>Hedera helix</i>	English ivy	non-native
<i>Helenium flexuosum</i>	southern sneezeweed	
<i>Helianthus angustifolius</i>	narrowleaf sunflower	
<i>Houstonia caerulea</i>	common bluet	
<i>Hydrocotyle</i> sp.	a pennywort	
<i>Hypericum cistifolium</i>	roundpod St. John's wort	
<i>Hypericum crux-andreae</i>	St. Peters-wort	
<i>Hypericum tenuifolium</i>	Atlantic St. John's-wort	
<i>Ilex coriacea</i>	large gallberry	
<i>Ilex myrtifolia</i>	myrtle dahoon	
<i>Ilex opaca</i>	American holly	
<i>Ilex vomitoria</i>	yaupon	
<i>Juncus</i> sp.	rush	
<i>Juniperus virginiana</i>	eastern red cedar	
<i>Lachnanthes caroliniana</i>	redroot	
<i>Lachnocaulon anceps</i>	whitehead bogbutton	
<i>Leucothoe axillaris</i>	coastal doghobble	
<i>Liquidambar styraciflua</i>	sweetgum	
<i>Lobelia nuttallii</i>	Nuttall's lobelia	
<i>Lonicera japonica</i>	Japanese honeysuckle	non-native/invasive
<i>Ludwigia pilosa</i>	hairy seedbox	
<i>Ludwigia virgata</i>	savannah primrose willow	

<i>Lycopodiella alopecuroides</i>	foxtail clubmoss	
<i>Lyonia lucida</i>	fetterbush	
<i>Magnolia virginiana</i>	sweetbay	
<i>Marshallia graminifolia</i>	Barbara's buttons	
<i>Mitchella repens</i>	partridgeberry	
<i>Myrica cerifera</i>	wax-myrtle	
<i>Nymphaea odorata</i>	fragrant water lily	
<i>Nyssa biflora</i>	swamp tupelo	
<i>Nyssa sylvatica</i>	black gum	
<i>Opuntia humifusa</i> var. <i>humifusa</i>	eastern prickly pear	
<i>Persea palustris</i>	redbay	
<i>Persicaria</i> spp.	smartweeds	
<i>Pinus palustris</i>	longleaf pine	
<i>Pinus serotina</i>	pond pine	
<i>Pinus taeda</i>	loblolly pine	
<i>Pityopsis graminifolia</i>	narrowleaf silkgrass	
<i>Prunus</i> sp.	a cherry	
<i>Pteridium aquilinum</i>	western bracken fern	
<i>Pterocaulon pycnostachyum</i>	black-root	
<i>Quercus geminata</i>	sand live oak	
<i>Quercus incana</i>	bluejack oak	
<i>Quercus laevis</i>	turkey oak	
<i>Quercus nigra</i>	water oak	
<i>Quercus phellos</i>	willow oak	
<i>Rhexia alifanus</i>	savannah meadowbeauty	
<i>Rhexia mariana</i> var. <i>exaltida</i>	white meadow-beauty	
<i>Rhexia mariana</i> var. <i>mariana</i>	pale meadow-beauty	
<i>Rhododendron atlanticum</i>	dwarf azalea	
<i>Rhus coppalinum</i>	winged sumac	
<i>Rhynchospora megalocarpa</i>	sandhill beaksedge	
<i>Rosa multiflora</i>	multiflora rose	non-native/invasive
<i>Rubus</i> sp.	blackberry	
<i>Salix nigra</i>	black willow	
<i>Sassafras albidum</i>	sassafras	
<i>Selaginella acanthonota</i>	spiny spikemoss	
<i>Smilax bona-nox</i>	saw greenbriar	
<i>Smilax laurifolia</i>	laural greenbriar	
<i>Smilax rotundifolia</i>	roundleaf greenbriar	
<i>Solidago</i> spp.	goldenrod	
<i>Sphagnum</i> spp.	sphagnum moss	
<i>Stipulicida setacea</i>	wire plant	

<i>Symphytotrichum concolor</i>	eastern silvery aster
<i>Symplocos tinctoria</i>	horse sugar
<i>Taxodium ascendens</i>	pond cypress
<i>Tetragonotheca helianthoides</i>	squarehead
<i>Thelypteris palustris</i>	marsh fern
<i>Vaccinium crassifolium</i>	creeping blueberry
<i>Vaccinium stamineum</i> var. 1	dwarf deerberry
<i>Vaccinium tenellum</i>	southern blueberry
<i>Vitis rotundifolia</i>	muscadien grape
<i>Xyris fimbriata</i>	yellow-eyed grass
<i>Yucca filamentosa</i>	Adam's needle

Description of observed plants can be found at: <http://plants.usda.gov/>

### **ANIMAL SPECIES OBSERVED**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Notes</b>
<b>Mammal</b>		
Black Bear	<i>Ursus americanus</i>	scat
Bobcat	<i>Lynx rufus</i>	tracks, scat
Coyote	<i>Canis latrans</i>	tracks, scat
Eastern Gray Squirrel	<i>Sciurus carolinensis</i>	
Gray Fox	<i>Urocyon cinereoargenteus</i>	
Opossum	<i>Didelphis marsupialis</i>	tracks
Raccoon	<i>Procyon lotor</i>	tracks
Whitetail Deer	<i>Odocoileus virginianus</i>	tracks
<b>Bird</b>		
American Crow	<i>Corvus brachyrhynchos</i>	
American Woodcock	<i>Scolopax minor</i>	
Belted Kingfisher	<i>Ceryle alcyon</i>	
Blue Jay	<i>Cyanocitta cristata</i>	
Brown Thrasher	<i>Toxostoma rufum</i>	
Carolina Chickadee	<i>Poecile carolinensis</i>	
Carolina Wren	<i>Thryothorus ludovicianus</i>	
Chipping Sparrow	<i>Spizella passerina</i>	
Common Grackle	<i>Quiscalus quiscula</i>	
Coopers Hawk	<i>Accipiter cooperii</i>	
Downy Woodpecker	<i>Picoides pubescens</i>	
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	
Field Sparrow	<i>Spizella pusilla</i>	



Northern Bobwhite	<i>Colinus virginianus</i>	
Northern Cardinal	<i>Cardinals cardinalis</i>	
Northern Flicker	<i>Colaptes auratus</i>	
Palm Warbler	<i>Dendroica palmarum</i>	
Pileated Woodpecker	<i>Dryocopus pileatus</i>	
Pine Warbler	<i>Dendroica pinus</i>	
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	
Red-cockaded Woodpecker	<i>Picoides borealis</i>	foraging
Tufted Titmouse	<i>Baeolophus bicolor</i>	
Yellow-rumped Warbler	<i>Dendroica coronata</i>	
<b>Herpetiles</b>		
Green Anole	<i>Anolis carolinensis</i>	
Southeastern Five-lined Skink	<i>Eumeces fasciatus</i>	
Timber Rattlesnake	<i>Crotalus horridus</i>	
<b>Butterflies</b>		
Eastern Tiger Swallowtail	<i>Papilio glaucus</i>	
Gulf Fritillary	<i>Agraulis vanillae</i>	
Monarch	<i>Danaus plexippus</i>	
Orange Sulphur	<i>Colias eurytheme</i>	
Red Admiral	<i>Vanessa atalanta</i>	
Zabulon Skipper	<i>Polites zabulon</i>	
Zebra Swallowtail	<i>Eurytides marcellus</i>	

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