



Birkdale Landing

Birkdale Landing Conservation Area

Conservation Management Plan

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Birkdale Landing

Conservation Management Plan

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I. Property Overview and Regional Context

The Birkdale Landing property is located in North Myrtle Beach, Horry County, South Carolina and consists of approximately 30 acres that will be protected by a perpetual conservation easement. This tract is located off Old Sanders Rd. and Bourne Trail, just off the Hwy 31 exit at Robert Edge Parkway. Although rural at one time, this area is slated for intensive development as the highway has made the area easily accessible. Some tracts along this road have already converted to single family residential development. The property has a forested buffer around the property and along the waters edge, and an open grass field. Additionally, a portion of the property is located on the Atlantic Intracoastal Waterway.

This Conservation Management plan is being prepared for the conservation area. One of the primary conservation values from this property is simply that of removing the threat of conversion to residential development. The SC Department of Natural Resources in its State Wildlife Action Plan indicates that:

“Increased population growth accompanied by unplanned and uncontrolled industrial, residential, and commercial development is a serious threat to aquatic resources in the Pee Dee-Coastal Plain Ecobasin. The majority of the growth and the greatest threat to aquatic resources is expected to occur along the eastern portion of the ecobasin near the coast...Residential and resort communities along the 'Grand Strand' will strain the already significantly degraded aquatic habitats.” In this context, removal of future development is the best conservation tool for this tract.

In addition to this, the tract has numerous habitats and values from a conservation perspective. NALT is recommending specific conservation management objectives for this tract as follows:

NALT recommends the long-term goals and objectives for Birkdale Landing Preserve be:

- Water quality protection
- Preservation and enhancement of biodiversity
- Implementation of a conservation management strategy
- Create a functional access for future users
- Scenic viewshed protection/Aesthetics, particularly from public roads and the AIW

All plans should be adaptive, recognizing that factors may change over-time, and this plan should evolve accordingly. 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. Transition open field into a native warm season grass meadow
2. Establishment of riparian protection and buffer strategy
3. Creation of trail network for management and access
4. Continue biological surveys of the property, adapting plan as necessary

By protecting the Birkdale Landing Property, the owners have ensured that ecologically valuable lands will forever remain intact.

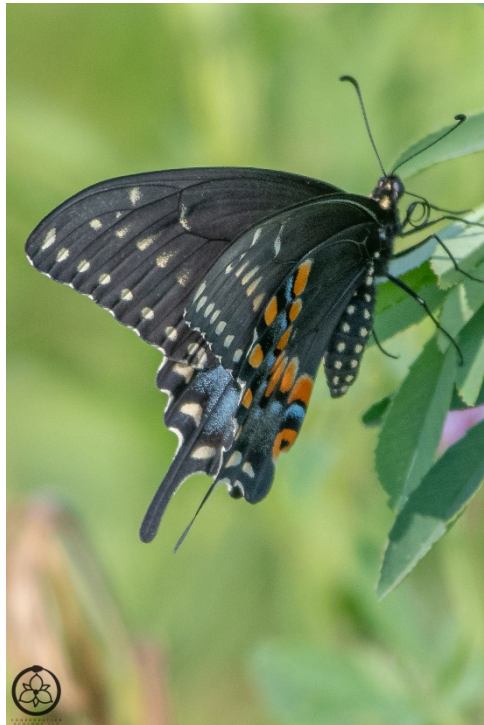
II. Management Goals and Objectives

Although Birkdale Landing is not a large site, it does offer high quality habitat for grassland species, and those utilizing successional habitat. In addition, its river buffer consists of mature trees that provide vital edge habitat for both the waterway and grasslands. The buffer could easily be used by Bald Eagles or Osprey, and is already being used by Painted Buntings and other species that utilize transitional forests. The property is directly adjacent to the Atlantic Intracoastal Waterway, a natural and recreational resource. The property is located in the Coastal Sampit watershed.

This variation in habitats allows for biodiversity. Additionally, the proximity of the preserved area which is located in the Town of North Myrtle Beach, a highly developed and developing area makes the natural communities associated with this site even more important as refuge for a variety of wildlife species, as well as for water quality protection.

Management recommendations for the property include:




1. Protect the naturally vegetated river and road buffer to protect water quality, buffer habitat and scenic viewsheds from the AIW and public roads.
2. Transition open field into a warm season grass meadow.
3. Establish and maintain trails/firebreaks for the property.
4. Continue biological surveys and botanical inventories.



III. Management recommendations for Habitat or Species

Habitat Management Map

Legend

-  Freshwater wetland habitat
-  Maintain for edge habitat large and small understory
-  Native Grass Meadow Management

Google Earth

N

400 ft

Management Recommendation #1: Water Quality Protection/River Buffers

A portion of Birkdale Landing property sits along the bank of the Atlantic Intracoastal Waterway. The portion of this waterway is manmade; however it is an important natural and recreational resource. The waterway boasts a variety of aquatic and terrestrial wildlife.

Intracoastal Waterway

(taken from the Horry County Comprehensive Plan)

The Intracoastal Waterway (ICW) is a 3,000 mile inland waterway that runs parallel to the Atlantic and Gulf coasts. Some sections of the waterway consist of natural inlets, saltwater rivers, bays and sounds, while others are artificial canals. While the Waccamaw River and Little River are natural portions of the ICW, the majority of the ICW in Horry County was constructed by the US Army Corps of Engineers (ACOE) in 1936. Over time, the waterway has become a part of the natural scenery. While the ICW in Horry County is tidally influenced, salt water only influences its northern reach in Little River. The remaining portion of the ICW in the Grand Strand is freshwater until it reaches Winyah Bay in Georgetown County. Along the freshwater portions of the ICW in Horry County, the artificial portion of the waterway mimics the blackwater rivers in the area.

Originally established to provide a safe transportation route and to protect commerce, the ICW now mainly serves as a route for transient boaters and other recreational users. Because the ICW is no longer primarily used for the transportation of goods, it is no longer regularly dredged to sustain its channel, potentially affecting its use for recreational boaters.

Management recommendations:

1. Reduce impervious surfaces. The conservation easement largely addresses this by removing development from the tract.
2. River buffers. One of the single most important tools for protection of waterways is a naturally vegetated buffer.
 - a) Maintain at least 100' natural vegetation.
 - b) Birkdale Landing has high quality vegetation along the bank of the river, including mature canopy trees. Allow continued natural regeneration to occur, or plant native species to create a natural wilderness buffer for the property.
 - c) Maintain waterway views with view "windows" trimming shrub level vegetation to 1' from ground, and/or "limbing up" removing view obstruction but leaving tree canopies. This leaves root structures for erosion and filtration.
 - d) If access is desired to waters/bank edge, consider clearing a "view corridor" only, leaving specimen trees, but removing shrub understory only for the 50-75' strip. Leave the remaining area wooded and natural. If sod is part of the corridor use a

- drought tolerant species, such as carpet grass that is ideal for coastal climates and does not require fertilization or irrigation.
- e) Ensure shrub level materials such as wax myrtles are plentiful for native, seasonal and migrating songbirds such as Painted Buntings.
 - f) Protect or promote mature specimen trees for nesting sites for Bald Eagles and Osprey, as well as other species that will utilize the waterway.



Management recommendation #2: Scenic view protection

Overview: Contrary to what many landowners might consider to be true, this management recommendation is to protect the scenic qualities currently existing on the Birkdale Landing property for people viewing the property from waterways and roadways. This is particularly needed in the Myrtle Beach region, one of the most rapidly developing areas in South Carolina and the East Coast. This pressure is acute on beaches, creeks and waterways. With each high rise condominium, multi-family housing complex, commercial venture or even golf course, natural habitats are lost. First and foremost this impacts the flora and fauna of the area, but there is also a negative impact to residents and visitors to the area with the loss of natural landscapes to visually enjoy.

This property, conserved in a natural state without intense development, will benefit the larger public, residents and visitors alike.

Management recommendations:

1. The protection of this property with a conservation easement will largely protect this property as a scenic view from the waterway, public roads and even Highway 31.
2. Careful consideration should be given to any structures and their placement, orientation and size to minimize visual impact to the surrounding area.
3. Wherever possible create or maintain “nature curtains” or natural buffers of 30-100’ from roadways and/or waterways.
4. Consider natural solutions for erosion control or streambank stabilization in lieu of riprap or bulkheads. If these are necessary, native landscaping should be used to naturalize the site.
5. Avoid large scale clearings of forests in viewshed areas.
6. If exercising the reserved right for homesites, remove only vegetation required for the homesite, gradually increasing any further clearing to minimize disruption.

Management Recommendation #3: Convert open field to warm season grass meadow

Native grasslands are one of the most endangered ecosystems in the South. Historically, the region contained vast acreages of native grassland and savannas with scattered trees and shrub cover, which was maintained by fire. Today, that acreage has been replaced with non-native grasses (e.g., tall fescue, orchardgrass and bermudagrass), agricultural crops, forest cover and suburban development. As a result, several wildlife species dependent upon quality early successional habitat have experienced significant declines in population.

This region of SC would likely have contained many such grasslands, savannas, or native grass openings. Due to the construction of the AIW, and alteration of topography, restoring a true native landscape for this property is unlikely. However, restoring native habitats to a practicable extent should always be a goal.

One piece of this would be to establish openings/meadows that provide edge for wildlife. If planted and managed as wildlife habitat using native grasses, even without a natural fire regime, numerous species will benefit. NALT suggests consideration of native grass mixes and species that include: switchgrass (*Panicum virgatum*), indiagrass (*Sorghastrum nutans*), eastern gamagrass (*Tripsacum dactyloides*), big bluestem (*Andropogon gerardii*), and little bluestem (*Schizachyrium scoparium*) for this site.

Management recommendations:

Native grasses are already occurring in the fields/meadows. Essentially managing to promote them is the best start. The primary strategy for this is to mow in the early fall with the blade set to 10-12". This will keep sunlight from reaching non-native species, and allow the natives to thrive. Consider rotating compartments to allow for variety in field succession.

After one year, monitor the grass species present. If non-natives are continuing consider herbicide application for unwanted species. You may also consider supplemental plantings using high quality native grass seeds. Recommendations for planting native grasses is below:

Native warm season grass may need special attention given for purchasing and planting seed, and for management of established stands. The following features are important to note, as warm-season grass planting differs from other traditional plantings:

1. Purchasing Seed

- a. It is best to purchase certified seed of varieties adapted to the region of planting. Certified seed is guaranteed to be true to a variety, and use of certified seed may lead to a more reliable planting.
- b. It is best to order different species and varieties separately instead of pre-mixed because seeding and management specification will differ between species.
- c. Warm season grass species should be purchased on a pure live seed (PLS) basis. Do not confuse 12 lb PLS/acre with 12 bulk lb/acre.
- d. If you do purchase mixed seed consider using a short mixture of seeds and forbs that provide quality cover for ground-nesting and brood rearing birds.

2. Time Of Planting

- a. Plant seeds in March or early April at the latest.
- b. Irrigate if possible to help seed establishment.
- c. Use tilling or herbicide on undesired weed species.

3. Preparing to plant

- a. Conduct a soil test prior to planting (ideally in the fall). The pH should be adjusted to a range of 5 - 6 if needed. Incorporate lime in the fall to allow it time to adjust pH before planting in the spring. Fertility up to medium levels for phosphorous (P), and potassium (K). Incorporate P and K into the soil at planting time. Do not apply nitrogen (N) at or before planting time.
- b. Seedbeds should be adequately plowed, disked and packed prior to planting. A cultipacker works well for firming the seedbed. If a prepared hard seedbed is rained on before planting, harrow and cultipack again before planting.
- c. Till soil to a depth of 3 inches prior to seeding. Follow the procedures described above for seedbed preparation.

4. Equipment Needed

- a. Ideally seed will be drilled into a prepared seedbed.
- b. Switchgrass may be planted with a conventional drill because it has a hard, smooth seed coat. Conventional drills equipped to seed alfalfa work well.
- c. Eastern gamagrass seed is about the size of corn seed and is best planted with a corn planter.
- d. Big and little bluestem and indiangrass seed have appendages with fine hair and will not pass through conventional equipment unless they can be ordered as "debearded" or brushed seed. Most likely a drill with a specialized seed box containing "picker wheels" is necessary or the fluffy seed of these grasses will lodge in the seed chute. These drills often are available for use through state wildlife agencies, soil conservation districts, the Natural Resources Conservation Service Seed drills advertised as "native grass drills", such as a Tye or Truax drill, have special boxes equipped with picker wheels and augers which help prevent seed from sticking together and move the seed to the drilling mechanism. Native seed drills have multiple boxes, which allow for the planting of both switchgrass and fluffy seeded species at the same time.
- e. Switchgrass, indiangrass, and big and little bluestem should be seeded at ¼ to ½ inch deep.
- f. If a seed drill is not available, seed may be broadcast over a site.
- g. Broadcast fluffy seed (bluestem and indiangrass) with a drop spreader or cyclone spreader and then drag to lightly cover seed.

5. After Planting the Meadow

- a. Ideally, native grasses meadows would be managed with prescribed burning to mimic natural processes. Size of the property and proximity to the airport makes this unlikely on this site. As a result, routine mowing/bush-hogging will likely be the maintenance regime, with herbicide treatment for non-native competition.
- b. The best time of year to mow is during the fall through late winter.

- c. Mow on a three-year cycle where 1/3 of the area is mowed each year.
 - d. Do not mow during the spring or summer months because of the nesting season.
 - e. When mowing, cut grass no lower than 10-12" inches and allow stubble to remain until spring to help insulate plant roots and provide cover for wildlife.
6. Weed Control
- a. Post-planting weed control requires prompt attention especially during the establishment year. Inspect the planting every two to four weeks for weed pressure.
 - b. A combined program of mowing and herbicides will likely be necessary to control weeds. Use herbicides labeled for most native grass restoration plantings, such as PlateauTM.
7. Long-term Management of Native Warm-Season Grass Fields
- a. Periodically disking (once every 2 years) should maintain open structure at ground level.



Management recommendation #5: Create Trail/firebreak Network

Wildfires are a serious threat in the North Myrtle Beach area. Given that, the fuel load for Birkdale Landing is not problematic. Although NALT generally encourages the reintroduction of prescribed burning to any property to mimic natural conditions, and to reduce the threat of wildfire, that is unlikely on this property.

NALT does recommend that a naturalized trail network be established to serve multiple purposes: access for management activities, potential access for future homesites, passive recreational use for the property, and to act as a firebreak in the unlikely event that a wildfire were to occur.

Management recommendations:

1. Establish logical trail network as identified
2. Roads should be placed on a long-term maintenance rotation



Management Recommendation #6: Eradicate Invasive Species

Invasive species are non-native plant, insect or animal species that have been introduced into an area outside of their original range and compete with native species for resources. Invasive species reproduce and spread rampantly because they have no natural enemies in their new homes. Invasive species are recognized as one of the leading threats to biodiversity and impose enormous costs to agriculture, forestry, fisheries, and other human enterprises, as well as to human health.

No invasive species were noted on site, however, there are many species in close proximity so vigilance is necessary.

Management Recommendation #7: Continue Biological Surveys/Manage for Species of Concern (current/future)

Overview: 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.

Any species identified should be input into a Priority Species Map when discovered. Overall management techniques should be adapted and refined as new priority species are discovered.

Species of Concern observed at Birkdale Landing (more detailed fact sheets attached):

1. Eastern Fox Squirrel, *Sciurus Niger*
2. Eastern Meadowlark
3. Painted Bunting

Eastern/Southern Fox Squirrel (*Sciurus niger*)



Overview: The Eastern Fox Squirrel is typically found throughout the eastern and central United States, where it inhabits a variety of open hardwood, hardwood pine, and swamp areas. This species' ideal habitat consists of well dispersed tall pines and oaks interspaced with agricultural land with little understory vegetation. They take refuge and raise their young in leaf nests made of a large ball of leaves and shredded material on twigs in hardwoods and pines, as well as cavities in a variety of tree species during winter and spring

Threats & Status: Despite the fact that it is considered a federally secure species, the Eastern Fox Squirrel's range in the eastern states has been greatly reduced in the past 100 years due to rapid deforestation from heavy logging and urbanization, mange mite, game hunting, and severe winter weather. The loss of this species' preferred habitat consisting of mature open pine-oak forests and bottomland swamps, as well as the large-scale monocultural replacement of longleaf pine by loblolly pine, are especially detrimental to fox squirrels throughout the southeast. The lack of suitable cavity trees is a possible critical factor in the survival of the Eastern Fox Squirrel's litter.

Management: Studies in the southeast show that forest management practices that reduce understory vegetation and promote the retention of mature mast-producing hardwood can benefit the Eastern Fox Squirrel's survival. Prescribed burning at 2 to 5 year intervals can help maintain an open understory and improve foraging habitat. In addition, habitat can be improved with: selective cutting that encourages nut-bearing trees and other food species, leaving over mature and large-crowned trees for cavities, mowing or light grazing of forest understory, and the placement of den boxes in areas that lack natural cavities.



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Gwynn, S., & Barnes, J. (n.d.). Southern Fox Squirrel: *Sciurus niger niger*. Retrieved December 30, 2015, from [ftp://dnr.sc.gov/pub/wildlife/CWCS/Chapter1-Mammals/Fox squirrel done.doc](ftp://dnr.sc.gov/pub/wildlife/CWCS/Chapter1-Mammals/Fox%20squirrel%20done.doc)

Maslowski, S & D & K. Arkive [internet]. [cited 2016 February 2016]. Available from <http://www.arkive.org>.

USDA Forest Service. *Sciurus niger*. (n.d.). *Index of Species Information*. Retrieved December 30, 2015, from <http://www.fs.fed.us/database/feis/animals/mammal/scni/all.html>



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IV. Existing Habitats and Species of Concern

Habitat Overview:

Successional Fields/ Grasslands

Habitat description: Although not a natural community per se, this open field does have biological importance. The field provides important “edge” habitat. In ecology, edge effects refer to the changes in populations or community structures that occur at the boundary of two habitats. Though the relationship can have both positive and negative outcomes, in this situation the field likely offers opportunities for foraging and bugging for some species of wildlife.

Management recommendations:

1. Convert this field into a native warm season grass meadow (Management recommendation #3)
2. Establish naturally vegetated river buffer (Management recommendation #1)
3. This meadow also is critical to the scenic conservation purpose for Birkdale Landing from the Intracoastal Waterway (Management recommendation #2)
4. Continue biological surveys of this area (Management recommendation #7)

Species of concern associated with this habitat:

Early Secesional Terrestrial Priority Species							
SCIENTIFIC NAME	COMMON NAME	G-RANK	S-RANK	LEGAL STATUS	PRIORITY		SPECIFIC HABITAT REQUIREMENTS
<u>MAMMALS</u>	-	-	-	-			
<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>Microtus pennsylvanicus</i>	Meadow Vole	G5	SNR	Of concern, State	High	X	tall grass prairie habitats
<i>Neotoma floridana</i>	Eastern Woodrat	G5	S3/S4	Of concern, State	Moderate	X	wide variety of habitats
<i>Ursus americanus</i>	Black Bear	G5	S3?	Of concern, State	Moderate	X	early successional habitat and forest interior; den sites
<u>REPTILES & AMPHIBIANS</u>	-	-	-	-	-	-	-
<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>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>Terrapene carolina</i>	Eastern Box Turtle	G5	SNR		Moderate	X	moist woodlands; sandy or loamy soils in open for egg laying; loose soils and leaf litter for burrowing
BIRDS	-	-		-			
<i>Ammodramus savannarum</i>	Grasshopper Sparrow	G5	SNRB, SNRN		Highest	X	broomsedge fields and other openings
<i>Caprimulgus carolinensis</i>	Chuck-will's-widow	G5	S4		High	X	openings for nocturnal feeding; mixed forests with light to moderate understory
<i>Caprimulgus vociferus</i>	Whip-poor-will	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>Columbina passerine</i>	Common Ground-Dove	G5	SNR	State Threatened	Highest	X	shrubs near openings for nesting; sandy bare ground or short grass for foraging
<i>Dendroica discolor</i>	Prairie Warbler	G5	S4		High	X	open old fields with scattered saplings; open woodlands with shrub-scrub
<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>Empidonax virescens</i>	Acadian Flycatcher	G5	S4B		High		Riverbanks, streams, banks, alder zones
<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>Gallinago gallinagodelicata</i>	Wilson's Snipe	G5	SNRN		High	X	boggy areas; wet meadows with short grass; along pond and marsh margins for probe 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>Lanius ludovicianus</i>	Loggerhead Shrike	G4	S3	Of Concern, State	Highest	X	open areas with perches
<i>Passerina caerulea</i>	Blue Grosbeak	G5	SNRB		Moderate	X	hardwood saplings or shrubs for nesting; open areas
<i>Passerina cyanea</i>	Indigo Bunting	G5	SNRB		Moderate	X	woodland margins; shrubby thickets in openings
<i>Pipilo erythrophthalmus</i>	Eastern Towhee	G5	SNR		High	X	brushy areas; woodland margins and understory
<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
<i>Scolopax minor</i>	American Woodcock	G5	S4		Moderate	X	moist soils and leaf litter for probe foraging; woodlands for nesting; openings for mating displays
<i>Spiza americana</i>	Dickcissel	G5	SNRB		Moderate	X	open, grassy areas
<i>Spizella pusilla</i>	Field Sparrow	G5	S5?		High	X	saplings and shrubs in weedy thickets and woodland margins
<i>Sturnella magna</i>	Eastern Meadowlark	G5	SNR		High	X	short to medium-height grasses for nesting and foraging

<i>Toxostoma rufum</i>	Brown Thrasher	G5	SNR		High	X	moderate to dense brush and saplings
<i>Tyrannus tyrannus</i>	Eastern Kingbird	G5	SNRB		High	X	open areas with scattered trees and other perches
<i>Tyto alba</i>	Barn Owl	G5	S4	Of Concern, State	Moderate	X	grasslands or marshes for foraging; nest cavities; dense roosting cover
INSECTS							
<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

IV. Mapping

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

BIRKDALE LANDING

HORRY COUNTY, SOUTH CAROLINA

SOILS MAP



LEGEND:

Subj ect Property

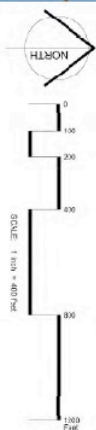
Wetlands

Soil Legend:

Ec	Estero Sand *
Jo	Johannes Lamm *
Le	Leon Fine Sand *
YaA	Yallahadi Fine Sandy Lamm. *** *
Ye	Yermine Lamm Fine Sand *** *
Ye	Yonges Fine Sand Lamm ** *

Soil Notes:
*** denotes Fine Fumad
** denotes Fumad of Substrate Importance
* denotes Hydric Soil

NOTES:
1. Property boundaries from survey by The Sargent Company, Conway, SC.
2. Aerial photograph from North Carolina State University, Raleigh, NC, 2013.
3. Topography digitized from Wetland 10000 Challenge map, Coastal Impact - Sheet 4.
4. SCA information from USDA - NRCS, National Soil Information System Database (NSED).



SOILS MAP

Horry County, South Carolina

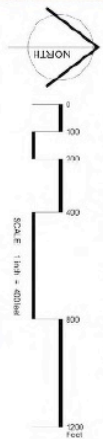
AERIAL PHOTOGRAPH



Computer Calculated Acreage = 31.67 ± acres

NOTES:

1. Property boundaries from a survey by The Biggins Company, Conway, SC.
2. Aerial photograph from Apollo Mapping, date from February 20, 2015.
3. Topography digitized from Wetmore-USGS Cassinette map. Contour interval = 5 feet.
4. Data information from USDA - NRCO National Soil Information System Database (NASD).

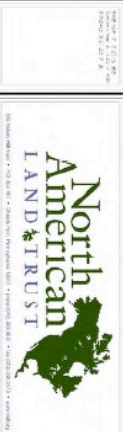


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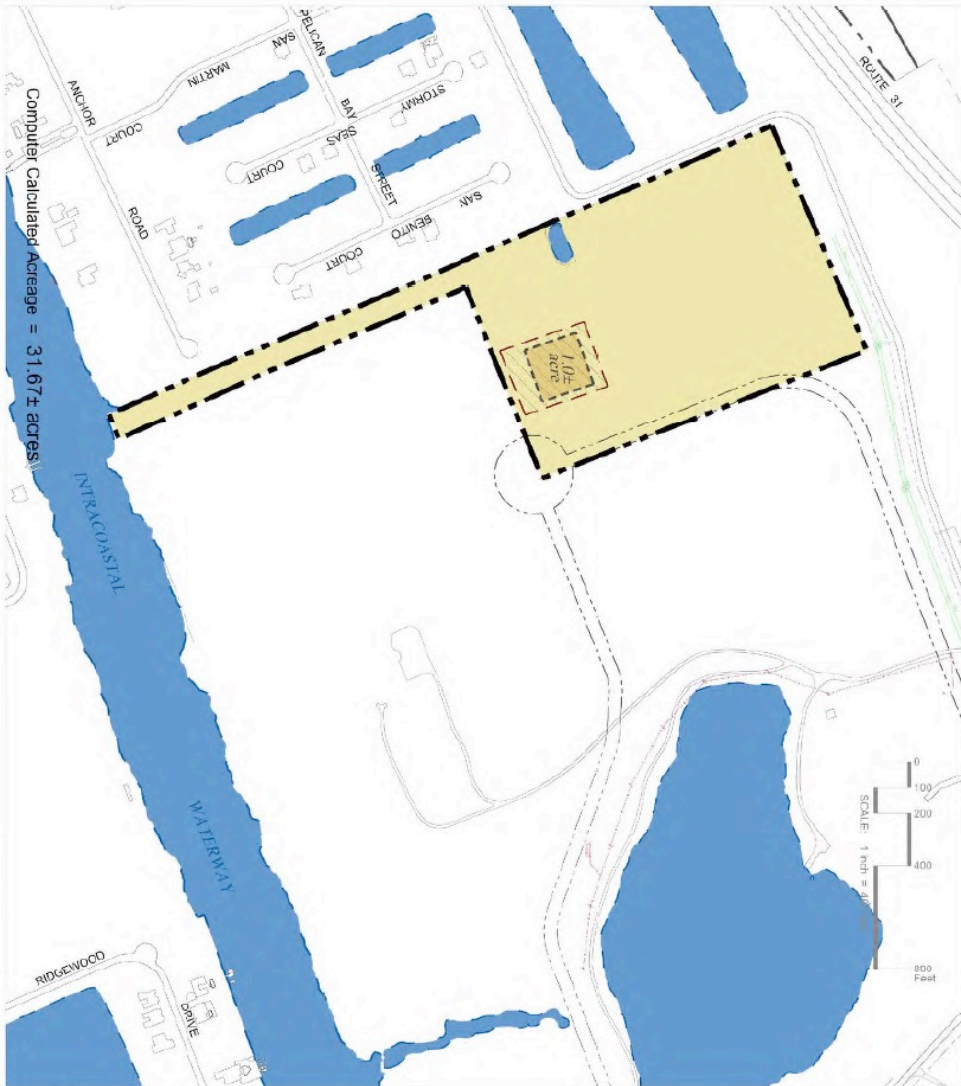
Subject Property

AERIAL PHOTOGRAPH






BIRKDALE LANDING HORRY COUNTY, SOUTH CAROLINA

CONCEPT PLAN



LEGEND:

-  Subject Property
-  Building Zone @ 2± acres
-  Building Area @ 1.0± acres

NOTES:

1. Property boundaries from a survey by The Bigner Company, Conway, SC
2. Aerial photograph from Aerial Mapping, dated February 20, 2015
3. Topography digitized from USGS 1:250K Quadrangle map, Columbia River, South Carolina
4. Data information from USGS, NCEC, National Oceanic and Atmospheric Administration (NOAA)



CONCEPT PLAN

V. 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 (Native Grass work)
 - b. Road maintenance contractor (general)
 - c. Site improvement/repair contractor (construction)
 - d. Biological expertise (as necessary)
 - e. Site security contractors (as necessary)
 - f. Natural resource agencies and partners
2. Develop a list of local partners/players to open dialogue as necessary:
 - a. Local government and planning departments
 - b. Academics or natural resource 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:
 - a. Native Grass Planting
 - b. Shorescaping
 - c. Road/trail improvements
6. Modify budget and timetables for the next five-year period.

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