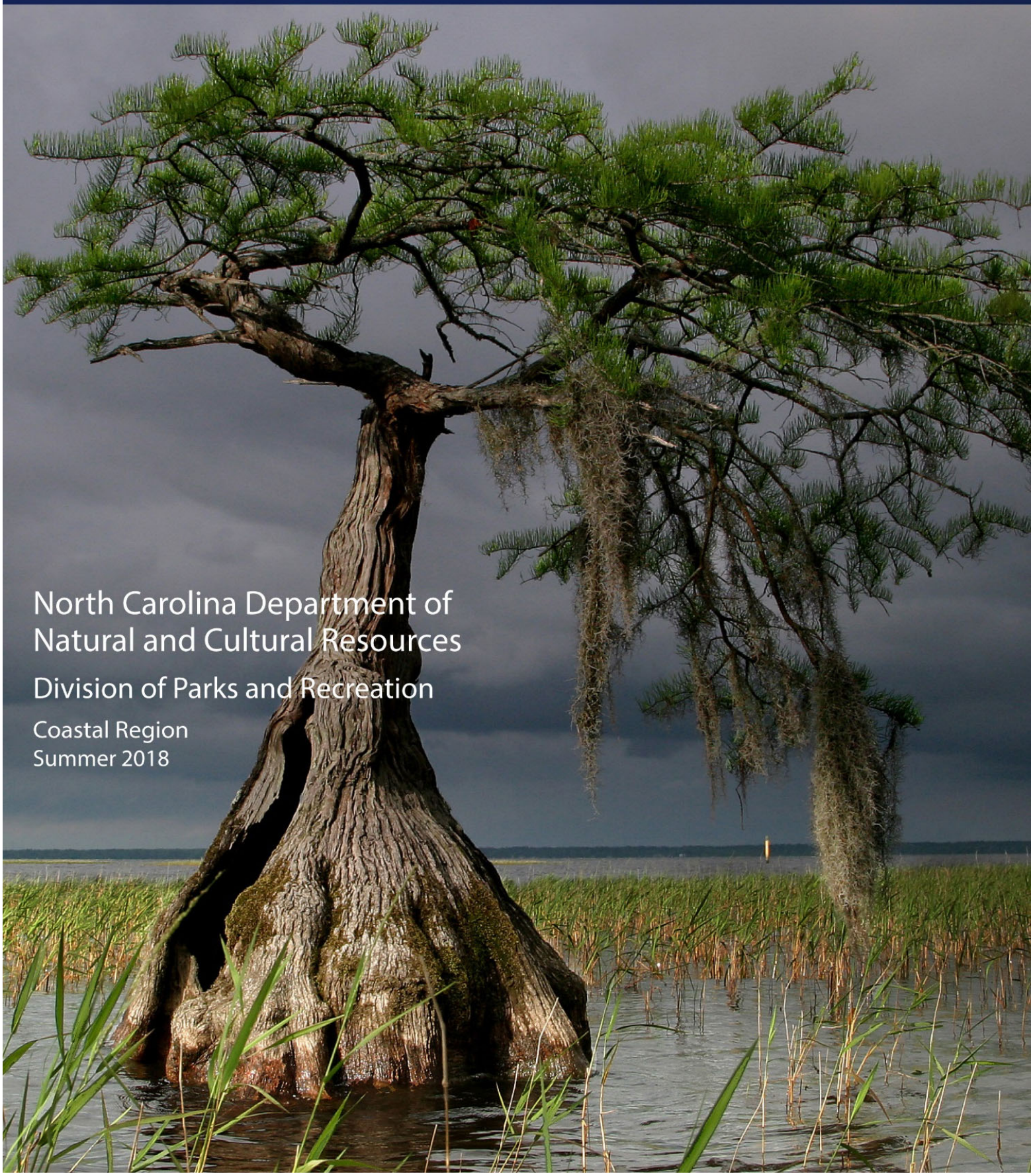
LAKE WACCAMAW STATE PARK
General Management Plan



North Carolina Department of
Natural and Cultural Resources

Division of Parks and Recreation

Coastal Region
Summer 2018

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I. MISSION AND PURPOSE

General Management Plans:

The 1987 State Parks Act (G.S.143B – 135.40) requires each park to have an individual General Management Plan. As required, these plans seek to identify an individual parks purpose as a unit within the larger parks system and provide an analysis of the parks major resources and facilities. The GMP also identifies current and future needs of the park and prioritizes a list of proposed projects intended to meet those identified needs. These plans are considered living documents, recognizing the various and dynamic factors which influence the planning process. Each park's GMP is scheduled to be revisited every five years, or sooner if needed, to reflect the direction and vision of the State Parks Division.

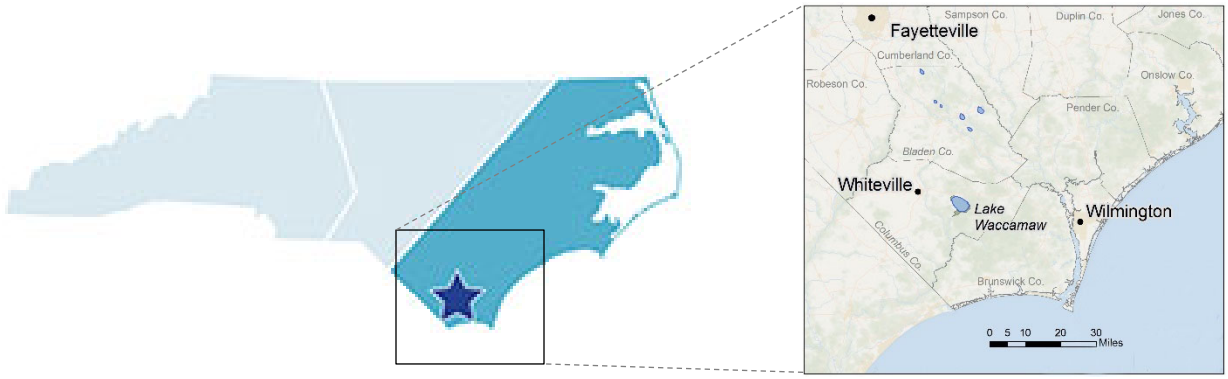
State Parks Mission

The 1987 State Parks Act also defines the purpose of the state parks system. It establishes that: The State of North Carolina offers unique archaeologic, geologic, biologic, scenic and recreational resources. These resources are part of the heritage of the people of this State. The heritage of a people should be preserved and managed by those people for their use and for the use of their visitors and descendants.

DRAFT

Park Overview:

Located in the southeastern region of the state in Columbus county, Lake Waccamaw is 38 miles west of Wilmington and 12 miles east of Whiteville. It can be accessed by US 74/76 and NC 214. Lake Waccamaw is one of the few natural lakes found in North Carolina, and the state's largest water-filled Carolina bay at 8,950 acres.



Located relatively close to Wilmington and Fayetteville, Lake Waccamaw is the largest lake in the region.

Park Purpose:

Lake Waccamaw has a long history of public ownership that indicates the lakes value as a public resource. In 1827, legislation passed that prohibited the lands covered by the waters of any lake in North Carolina from being recorded for private ownership. In 1911, the General Assembly passed legislation declaring that certain lakes containing 500 acres or more were not to be sold but "*…should always be and remain the property of the State of North Carolina for the use and benefit of all the people of the State…*". In May of 1976 a 273-acre parcel on the south side of the lake was purchased and Lake Waccamaw State Park established.

Carolina bays, such as Lake Waccamaw, are oval depressions oriented in a southeast-northwest direction found in the loose, unconsolidated sands that cover the Atlantic Coastal Plain. They are shallow, with the deepest point southeast of the center of the bay, and have a raised sand rim, best developed at the southeast end. The term "*bay*," refers to the distinctive vegetation, such as loblolly bay, that slowly fill these depressions. Only a few Carolina Bays still contain water, due to natural fill of sediment and vegetation. Limestone along the north shore and under the lake bed of Lake Waccamaw neutralizes the water which makes it able to sustain a large diversity of aquatic life.

This Google Earth image of Bladen County, just north of Lake Waccamaw, shows the prevalence of Carolina Bays in the area.

Lake Waccamaw is one of the most unique bodies of water in the world, and it has been classified as an *Outstanding Resource Water* by the State of North Carolina. It contains over 50 species of fish, three of which are endemic to Lake Waccamaw. The lake also has a rich and diverse molluscan fauna, including bivalves and gastropods. At least five species of endangered and threatened species of plants are known to occur in the lake and along the shoreline. The biological diversity exhibited at lake Waccamaw includes several types of natural communities. The lake and its associated habitats host many species of birds including multiple species of ducks that winter on the lake. The shallow lake margin provides feeding sites for wading species, while other species nest within the swamp forest adjacent to the park. Amphibians and reptiles, including the American alligator, are commonly found in the lake edge communities and surrounding swamps.

Lake Waccamaw State Park is an important recreational resource for the coastal region. The park offers a natural setting for passive recreational activities such as: hiking, camping, picnicking, fishing, and nature study. The sandy lake bottom and clear water is attractive for wading and swimming, and nearby ramps provide access for boaters. Access to the lake and Waccamaw River is also provided at the dam. The primary interpretive theme of the park focuses on the unique ecosystem of a Carolina Bay, particularly its water chemistry and the diversity of aquatic life. Recreational activities are appropriately limited to preserve the quality of the recreational experience and to protect the outstanding natural resources. Land and Water Conservation Fund grant assistance, used to partially develop the park in the mid 1980's, requires that the park be retained and used for public outdoor recreation.

The canvas wall tent located at one of the primitive campsites is a popular amenity.

Lake Waccamaw State Park offers exceptional scenic vistas of the lake and its shoreline. The broad expanses of water, grass beds in the lake, lakeside flora, the barren sand lake rims, and the dense bay forests create a lovely visual contrast. Bald cypress trees hung with Spanish moss grow along the shoreline in the shallow water. The parks numerous trails offer opportunities to walk through and view a variety of natural communities such as densely vegetated bog areas and pine forests.

The boardwalk and pier near the visitor center offers visitors access to the lakes edge.

The digging of canals in the early-to-mid 1900's, continuous private development of lakefront houses on small lots, and a road adjacent to the park property along the lake rim have altered

most of the shoreline along Lake Waccamaw. The park serves to protect and preserve the remaining undeveloped lakeshore.

II. HISTORY

The name "Waccamaw" comes from the Waccamaw-Siouan, who settled in the area after A.D. 1000. Archaeologists have discovered evidence of civilization at Lake Waccamaw dating back thousands of years, in addition to artifacts from the Waccamaw-Siouan tribes. Artifacts found in the surrounding area dating from 100 to 1700 A.D. include beads, pipes, grinding stones, dugout canoes, and fragments of pottery.

In 1797, the State of North Carolina deeded 170,120 acres of the Green Swamp to Stephen Williams, Benjamin Rowell and William Collins for little more than $7,000. A portion of the land was drained for agricultural use, but in 1904, the property was purchased to harvest timber.

In the early 1900's lumber companies produced shingles from the cypress trees of the area and shipped them by boat across Lake Waccamaw. The shingles were then transported by mule to the nearby train station. Logging and shingle transportation eventually became rail-based, and a line was laid along the west side of Lake Waccamaw. Remnants of the railway bridge crossing can still be seen today.

State government interest in the bay lakes emerged in the early 1800's when legislation blocked further private claims on land covered by lake waters. In 1911, the General Assembly declared that "*any lake of 500 acres or more in Bladen, Columbus or Cumberland counties shall remain the property of the State of North Carolina for the use and benefit of all the people*".

In 1976 a state park was established on the lake when a 273-acre tract of land was purchased by the N.C. Division of Parks and Recreation. Additional land purchases in the mid-1980's, including acreage formerly belonging to the Federal Paper Company and Georgia-Pacific Corporation expanded the park to its current size.

Native American artifacts on display at the Waccamaw Depot Museum located in the town of Lake Waccamaw.

III. THEMES AND INVENTORY

Themes

The significant archeological, geologic, scenic, recreational and biological resources of North Carolina should be represented in the State Park system. These resources, as cited in the State Parks Act, are divided into sub-categories called resource "themes". There have been 108 themes identified that should be protected to preserve representative examples of unique resources. For this GMP only themes that are of moderate to high significance to *Lake Waccamaw State Park* are shown.

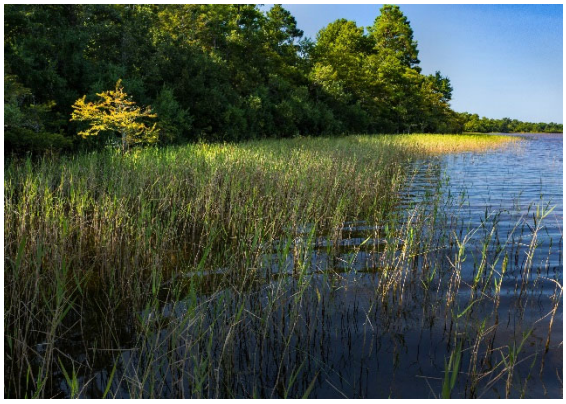
Lake Waccamaw State Park Themes Table

Theme Type	Theme	Lake Waccamaw Significance	State Parks System Representation
Archeological/Historic	Recreation	High	Adequate
Archeological/Historic	Transportation	High	Adequate
Archeological/Prehistoric	Burial/Cemetery	High	Moderate
Archeological/Prehistoric	Campsite/Activity Area	High	Adequate
Archeological/Prehistoric	Underwater	High	Adequate
Biological	Blackwater Coastal Plain Floodplains	High	Moderate
Biological	Brown water Coastal Plain Floodplains	High	Moderate
Biological	Coastal Plain Marl Outcrops	Moderate	Little
Biological	Dry Longleaf Pine Communities	High	Moderate
Biological	Natural Lake Communities	High	Adequate
Biological	Peat Dome Pocosins	High	Adequate
Geologic	Carolina Bays	High	Adequate
Geologic	Cliffs	High	Adequate
Geologic	Fluvial Depositional Features	High	Adequate
Geologic	Fossils	High	Little
Geologic	Natural Lakes and Ponds	High	Adequate
Geologic	Sedimentary Features	High	Adequate
Geologic	Unusual Rock Types	High	Adequate

Theme Type	Theme	Lake Waccamaw Significance	State Parks System Representation
Scenic	Caves/Cliffs	High	Little
Scenic	Forests	Moderate	Adequate
Scenic	Marshes	High	Moderate
Scenic	Meadows/Grasslands	High	Little
Scenic	Reservoirs/Lakes	High	Adequate
Scenic	Swamps	High	Adequate
Scenic	Scenic Vistas	High	Moderate

*See the Systemwide Plan for references to Theme and Inventory terms. Themes have both actual and "potential" future needs to be at a park.

A whale fossil discovered in the lake is displayed inside the Visitor Center.



The lake and adjacent state park land represent a wide variety of biological, scenic, and geologic themes.

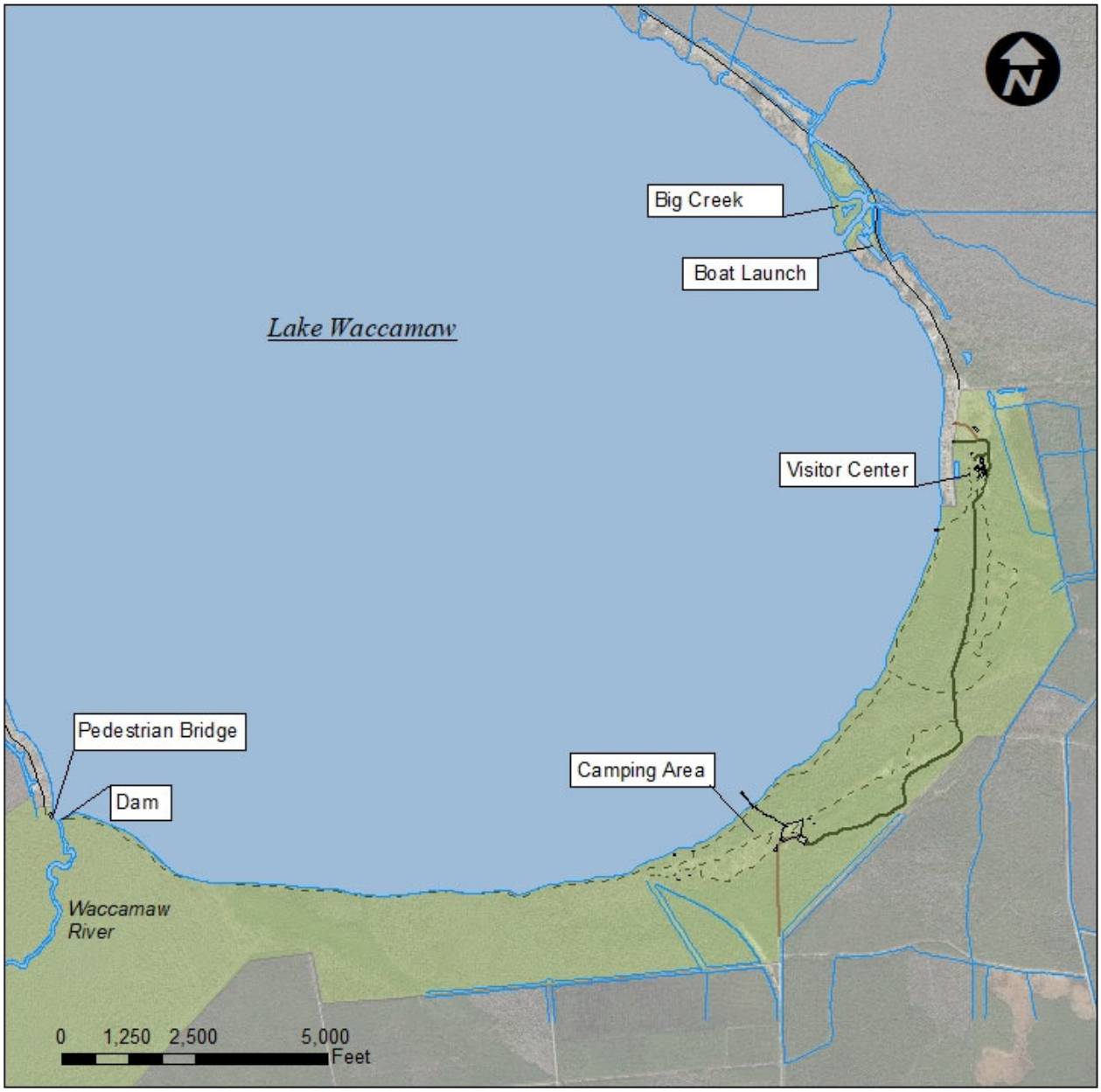
Inventory:

Lake Waccamaw State Park is modest in size, however, it receives over 144,000 visitors each year. Ensuring our facilities are of adequate size and numbers, and that they are in good operable condition helps us to provide quality visitor experiences. The following section inventories the parks facilities and trails.

LAKE WACCAMAW FACILITIES INVENTORY

Fall 2018

Facility	Location	Building no.	Date Built	Date of Renovation	Expected life of structure (from 1998 architectural evaluation)
Ranger residence	Near entrance	SP-009	2005		
State Park Drive	Through-out park	NA	1995		
Well House	Visitor center	SP-013	1998		
Visitor Center	Near entrance	033-011	1998		40 years
Parking lot	Visitor center	NA	1998		
Septic System	Visitor center	NA	1998		
Overlook boardwalk, Shelter and Pier	Near visitor center	NA	2000		
Connector Trail Boardwalk	South of visitor center	NA	2016		
Toilet, pit type	NE of picnic area	033-006	1976		15 years
Boardwalk and Pier	West of picnic area	NA	1976		
Parking Lot	Picnic area	NA	1976	1998	
Toilet, pit type	Picnic area	33-002	1976		15 years
Toilet, Flush	Central, picnic area	033-008	1990		40 years
Maintenance Shop	Maintenance area	033-009	1991		30 years
Storage Building	Maintenance area	033-010	1991		30 years
Pump House	Maintenance area	033-007	1990		40 years
Primitive Campsites	Primitive Camping Area	NA	1973		
Canvas Tent and platform	Primitive Camping Area	NA	2017		
Toilet, non-flush	Primitive Camping Area	033-005	1976		15 years



Lake Waccamaw State Park
Facility Inventory Overview

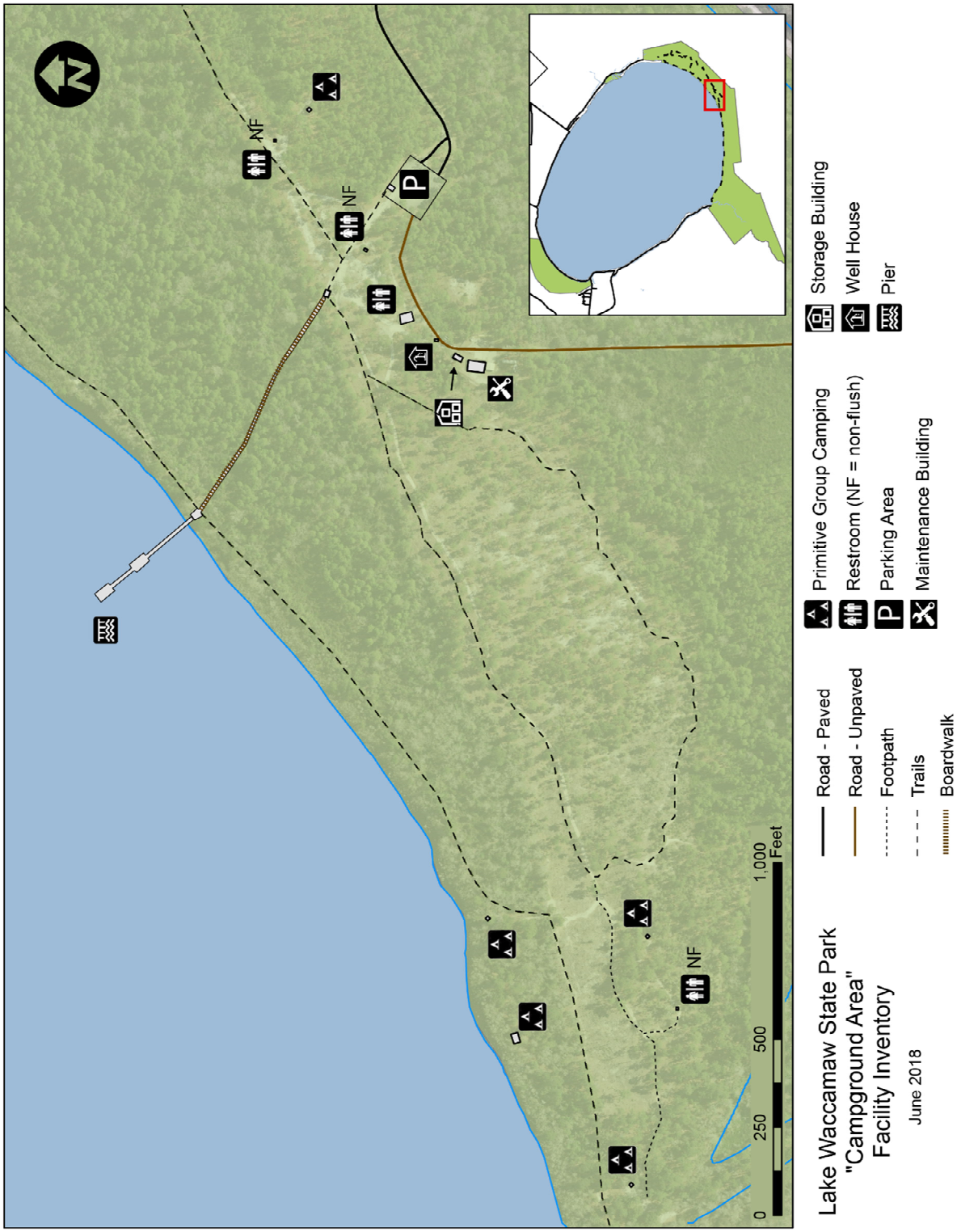
June 2018

Lake Waccamaw State Park
Entrance and Visitor Center
Facility Inventory

June 2018

0 125 250 500 Feet

Boardwalk
Paved Road
Hiking Trail
Foot Path
Well House
Ranger Residence
Visitor Center
Septic Field
Parking Lot
Pier/ Observation Deck


Lake Waccamaw State Park
"Campground Area"
Facility Inventory
June 2018
Road - Paved
Road - Unpaved
Footpath
Trails
Boardwalk
Primitive Group Camping
Restroom (NF = non-flush)
Parking Area
Maintenance Building
Storage Building
Well House
Pier
NF
NF
NF
0
250
500
1,000
Feet

Trail Inventory	Miles
Connector trail	0.25
Overlook Trail	0.20
Lakeshore Trail	4.00
Loblolly Trail	0.65
Boardwalk Trail	0.20
Pine Woods Trail	3.00
Sand Ridge Nature Trail	0.75
Lake Waccamaw SP Totals (miles)	**9.05**

Hiking:

The boardwalk on the Overlook Trail near the visitor center.

Boardwalk Trail: A gravel path from the picnic area parking lot goes through the picnic grounds leading to a 700-foot boardwalk from which hikers can get a closer look at the various plants of the bay forest along the shoreline. The boardwalk ends at a 375-foot pier for fishing.

Overlook Trail: This short boardwalk trail also traverses thru bay forest opening out onto the lake. It is located near the visitor's center and includes two sun shelters.

Lakeshore Trail: Lakeshore Trail is the longest trail at Lake Waccamaw, measuring 4 miles in length. It begins at the visitors center and follows the lakeshore to the Waccamaw River, where it connects with the newly constructed bridge. The trail passes through a variety of ecosystems including longleaf pine forest, floodplain forest and coastal plain swamp. This trail also passes through one of the oldest stands of cypress trees in the area.

The Connector Trail boardwalk meanders through the forest out to the lake.

Loblolly Trail: Loblolly Trail is a 0.65 mile loop. Similar to the Pine Woods Trail in content, this loop begins and ends at the Visitors Center. Common plants along this trail include longleaf pines, bay trees and turkey oaks.

Connector Trail: This boardwalk trail is located between Lakeshore Trail and Pine Woods Trail and guides users through the woods as well as along the lakeshore.

Pine Woods Trail: This 3 mile trail winds through the park from the picnic area to the Visitors Center. Common plants along this trail include longleaf pines, bay trees and turkey oaks and the rare venus flytrap.

Lake Waccamaw State Park Trail Inventory

June 2018

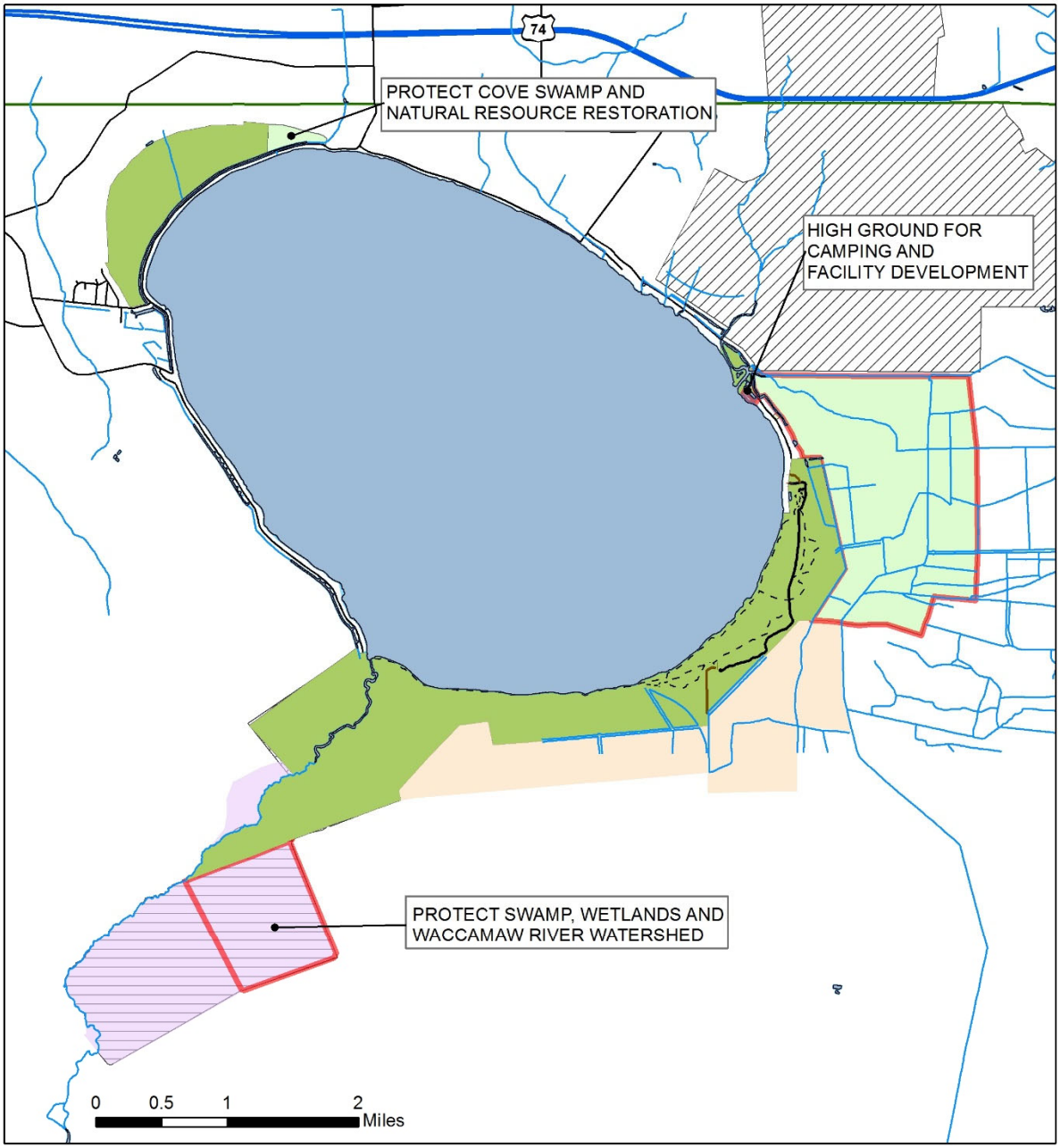
- State Parks Unit
- Boardwalk Trail 0.2 mile
- Connector Trail 0.25 mile
- Lakeshore Trail 4 mile
- Loblolly Trail 0.65 mile
- Pine Woods Trail 3 mile
- Overlook Trail 0.2 mile
- Sand Ridge Nature Trail 0.75 mile
- Existing Facilities
- Streams, Rivers, Canals
- Road - Paved
- Road - Unpaved

IV. PLANNING

Watershed protection is a key strategy in state land acquisition.

LAND PROTECTION FOR STATE PARKS

To achieve the highest level of connectivity between park properties already owned by the State of North Carolina, further acquisition of land is expected to take place. Additional land will ensure the maximum protection of natural resources, scenic preservation, outdoor recreation and public access. Each park has several tracts of land that have been distinguished as a future need or a critical need for the park. The following map show current land acquisition needs for Lake Waccamaw State Park.



Lake Waccamaw State Park
Land Protection Plan

June 2018

State Parks Unit

Land Protection Plan

- Primary resource protection
- Water quality protection
- Facilities development
- Buffer

Other Conservation Land

- Federal
- State
- Other
- Critical Need

The following section outlines projects which have been identified and prioritized in order to improve park operations and to provide the best possible experience to park visitors. These lists serve as a general recommendation regarding

Project #	Project Title	Conceptual Cost
1	Dam Repairs - Scoping	$40,000
2	Lakeshore Trail Improvements	$150,000
3	Tent and Trailer Campground Development	$1,813,500
4	RV Sites off State Park Drive	$522,100
5	Maintenance Area Development	$852,700
6	Big Creek Camping Development Phase I	$1,792,200
7	Boat Decontamination Station	$100,000
8	L - Summerset Campground Development	*Decisions pending*
9	Big Creek Floating Camping Platforms – Phase II	$634,500
TOTAL		**$5,905,000**

*** Planning estimated project cost does not include contingencies, design fee, nor escalation.*

1. **Dam Repairs – Initial Scoping**

   The structural integrity of the dam at the western end of the lake is failing, and will require repairs or replacement soon. This funding will cover the initial assessment by a contracted engineer.

2. **Lakeshore Trail Improvements**

   Multiple hurricanes and extreme weather events have damaged existing infrastructure of the trail. Other low-lying areas along the lake shore remain wet most of the year which detracts from the usability of the trail. With the pedestrian bridge complete, priority should be placed on improving the trail to allow visitors to make the most of this side of the park. Initial improvements will address wet and impassible areas by building raised boardwalk areas. (is this right?)

3. Tent and Trailer Campground Development

Development of a proposed tent and trailer campground along the Loblolly trail will likely occur after Longleaf Pine restoration efforts begin in this area. The restoration will entail removing most of the standing trees, and conducting a controlled burn to clear undergrowth. Planting of long leaf seedlings and other vegetation should be coordinated to enhance the development of this space as a campground.

The future site of a tent and trailer campground on the Loblolly Pine trail.

Campground development includes; graveling the existing dirt road to a 16' width loop, this road will remain a one-way. Twelve tent and trailer campsites with centrally located water spigots, a shower house with adequate toilets and showers, and a handicap parking space. Camp site furnishings will include tables, grills, lantern holders, and fire rings.

4. RV Sites off State Park Drive

Soils throughout the park are marginal for RV parking. This project may require use of fill material or other methods to stabilize the ground for parking of large RVs.

Four RV pull-off sites will be constructed along either side of State Park Drive just south where the Pine Woods Trail crosses the road. These sites will be situated parallel to the road and will have 50 Amp electric hookups, as well as picnic tables and fire rings. Water spigots will be located between the sites. A turn around area of adequate circumference will be built further south down State Park Drive to accommodate standard length RVs. A dump station will be situated north of the Loblolly Campground entrance.

5. Maintenance Area Development

This project includes: demolition and/or relocation of the existing maintenance facilities. It also includes security fencing, paved or graveled work and storage areas, a wash pad, a septic system, a flammable-storage building, miscellaneous maintenance equipment, a standard warehouse with a concrete floor, a six-bay vehicle and boat storage pole barn, a 2,500 sq ft. maintenance building, and a vehicle lift.

6. Big Creek Camping Development Phase I & II

Phase I of the development of the Big Creek peninsula will include the construction of 6 camper cabins and 3 canvas wall tents on wooden deck platforms. Cabin and canvas tent sites will be furnished with picnic tables, grills, lantern holders, and fire rings. Native shrubs will be planted to provide privacy screening.

This open space at Big Creek is adjacent to the lake and canals making it an ideal location for camper cabins.

The existing bridge will be repaired to accommodate a large pickup truck (4 ton capacity? No such DOT rating for bridges?) for park staff maintenance and emergency access. Campers will access all sites by foot. A small storage shed will be located on the east side of the bridge, housing wheel barrows or garden carts for transporting luggage and camping gear. A gravel parking area with 26 spaces will provide overnight parking for campers and accommodate over-flow parking from the boat launch to the south. Eight gravel parking spaces for vehicles with boat trailers will also be established in the southeastern section of the property.

Phase II of this development will be eight "floating campsite" platforms suspended over the lake on wooden piers will extend off the repaired existing dock, and a similar pier and dock will be constructed to the north. A covered slip with boat lift will provide park staff quick access to boats for emergency response. A centralized area on the mainland will provide picnic tables, grills and fire rings for campers using the floating campsites.

Lake Waccamaw's status as an Outstanding Resource Water mandates a 50-foot setback of all buildings from the bank of the lake and many of the canals. Significant efforts should be made during construction to minimize disturbance and to protect the natural resources of the lake.

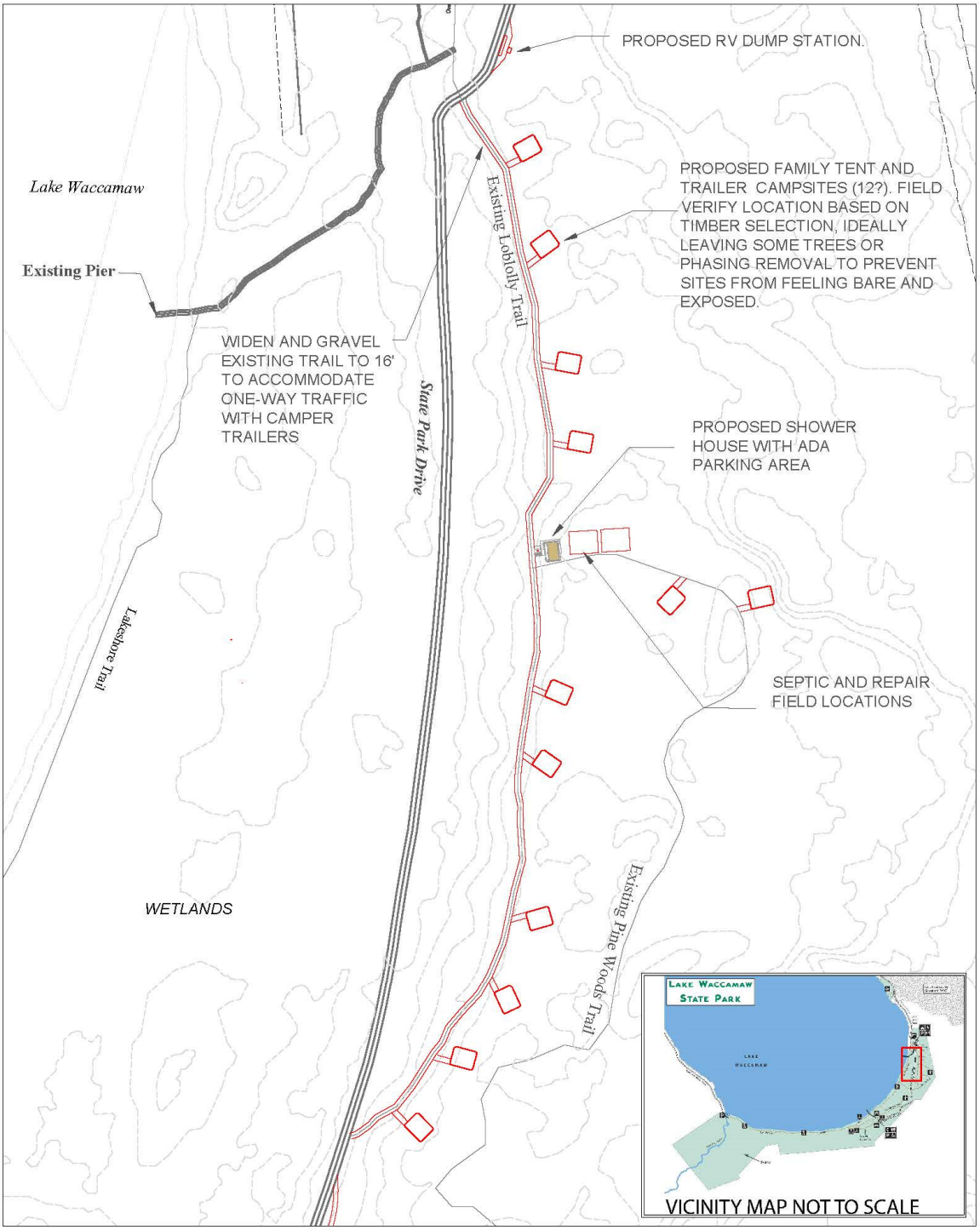
7. Boat Decontamination Station

Lake Waccamaw is currently engaged in a 10-year chemical treatment plan for managing the invasive aquatic plant hydrilla. Like many other invasive aquatic species, it is spread in-part by boats that are trailered between various waterbodies.

The state, town of Lake Waccamaw, and Columbus county are collectively spending hundreds of thousands of dollars towards this eradication effort. Regardless of this substantial treatment effort and cost, there are no boat decontamination stations on Lake Waccamaw, making another future infestation likely.

Development of a boat washing station at the park would include a wash-down pad, with a high-pressure water source (ideally hot water, > 140*F), and some type of containment system for the wash water and materials released from boats and trailers, possibly tying into the sewer system? An information kiosk educating boaters of the risks from invasive species and wash-down procedures would also be necessary.

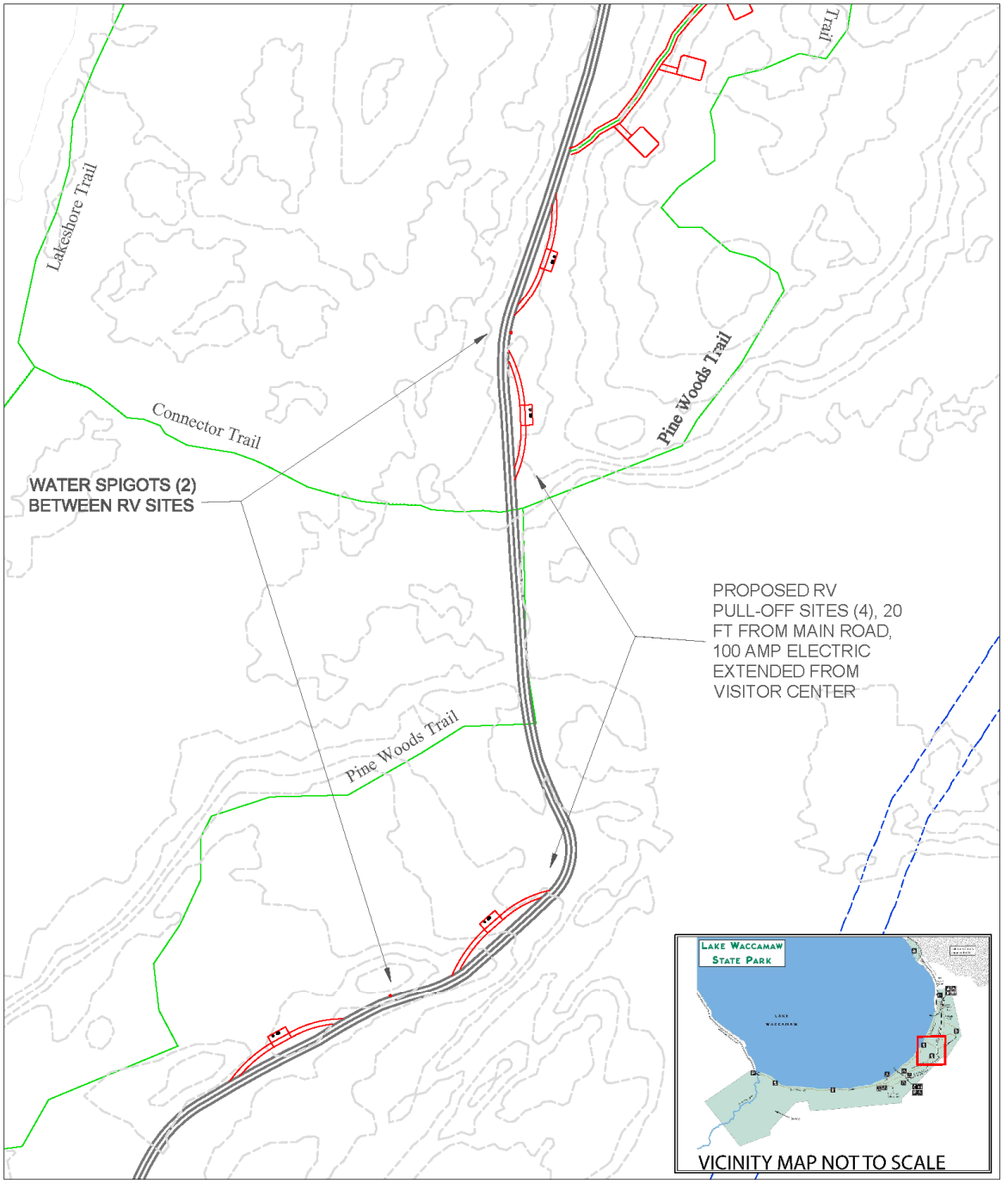
Project #3: Tent & Trailer Campground



Lake Waccamaw State Park
Loblolly Pine Campground and RV Sites

0 500 1000 Feet

Project #4: RV Sites off State park Drive



Lake Waccamaw State Park
Proposed RV Sites
June 2018

0 500 1000 Feet

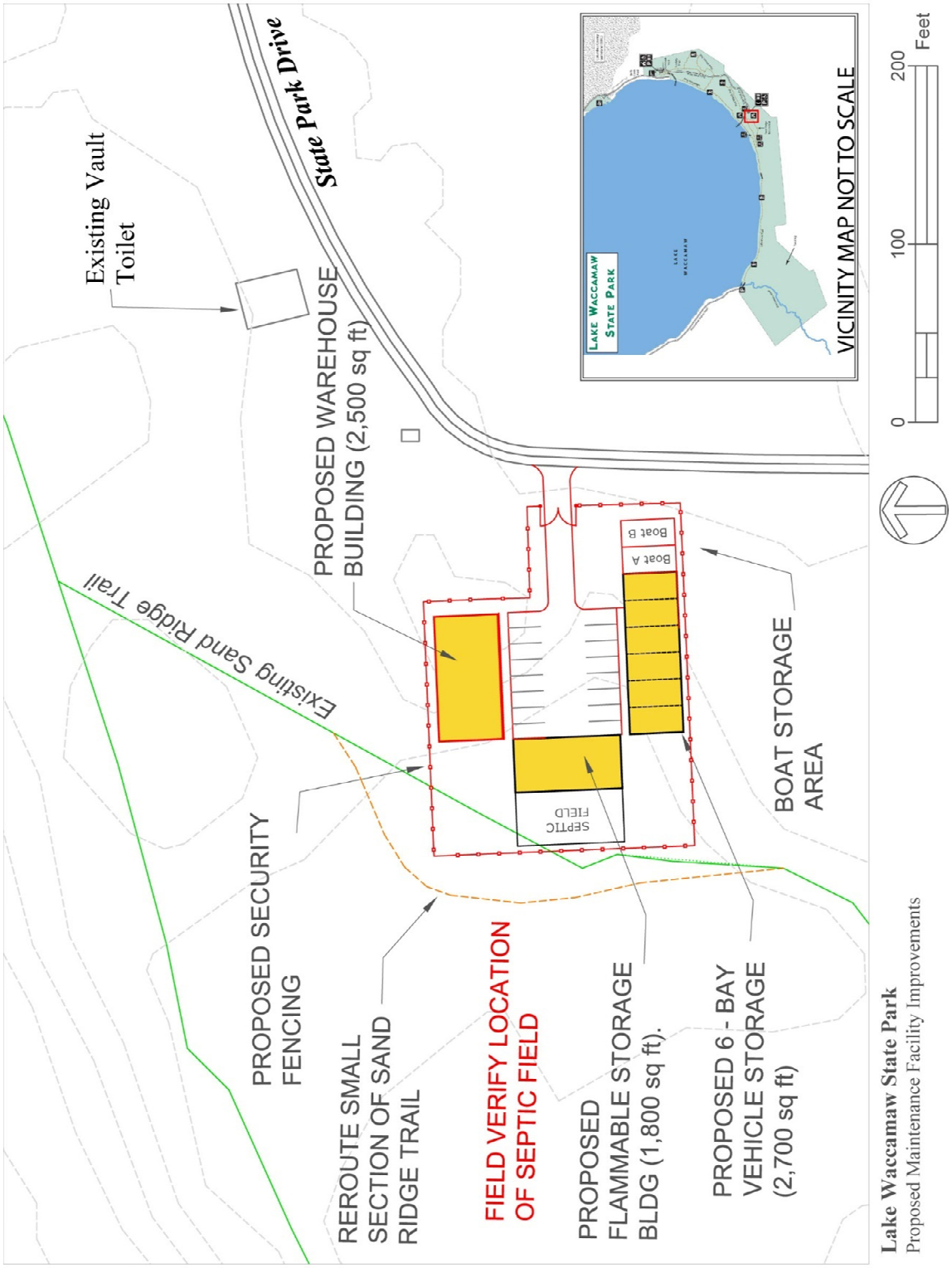
Project #6: Big Creek Campground Development Phase I & II

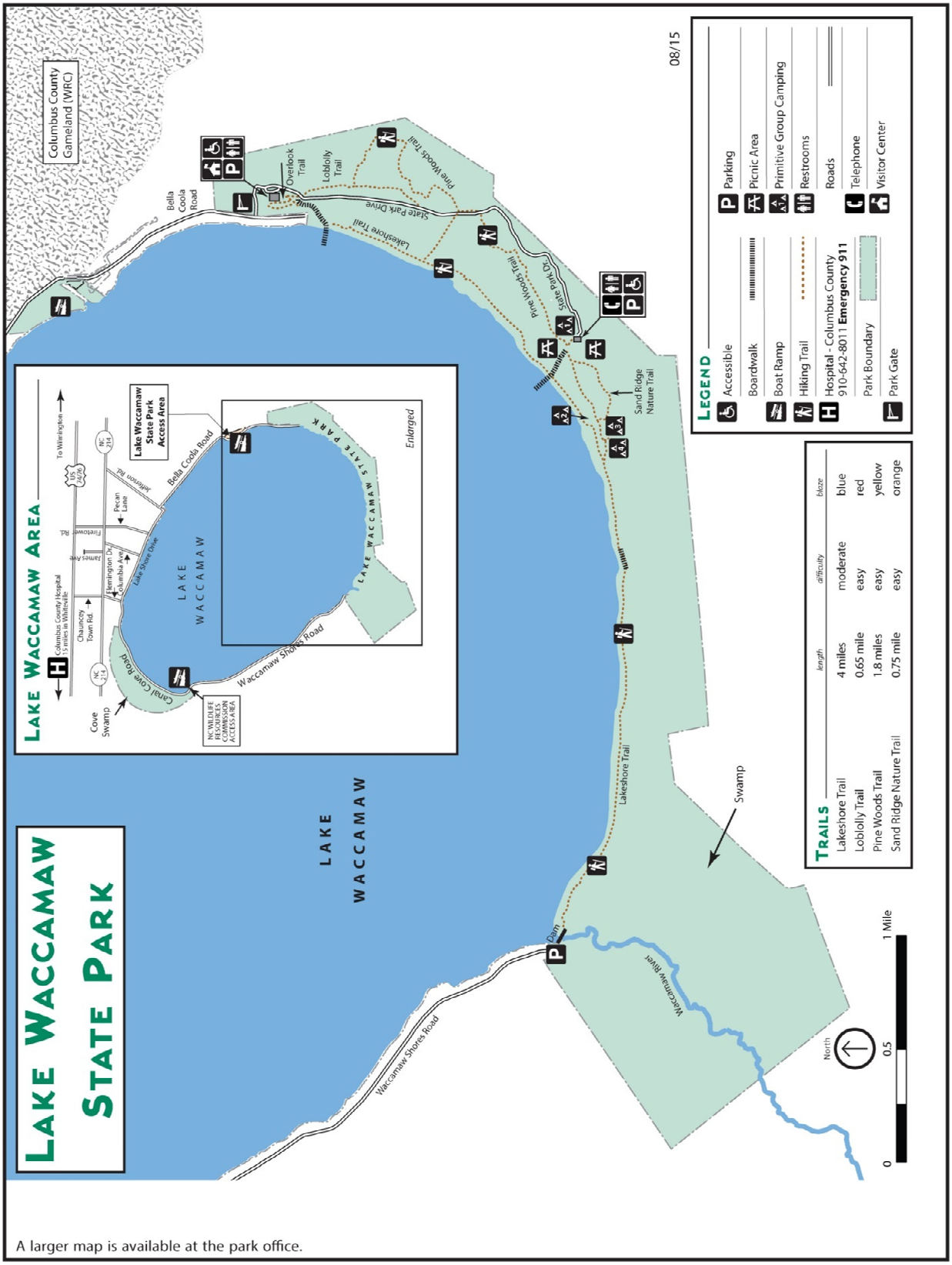
Lake Waccamaw State Park
Proposed Camping Facilities at Big Creek Canal Campground

A conceptual sketch of the Big Creek “floating campsites”

A conceptual sketch of the Big Creek camper cabins and showerhouse.

Project #5: Maintenance Area Improvement




Lake Waccamaw State Park
Lake Waccamaw Area
Columbus County Gameland (WRC)
Bella Coola Road
Overlook Trail
Loblolly Trail
Pine Woods Trail
State Park Drive
Lakeshore Trail
Sand Ridge Nature Trail
Lake Waccamaw
Waccamaw Shores Road
Canal Cove Road
Cove Swamp
Swamp
Waccamaw River
Dam
Lake Waccamaw State Park Access Area
NC WILDLIFE RESOURCES COMMISSION ACCESS AREA
Columbus County Hospital 5 miles in Whiteville
Chauncey Town Rd.
Firetower Rd.
Pecan Lane
Ashburn Rd.
James Ave
Hemington Dr.
Columbia Ave
Lake Shore Drive
To Wilmington
Enlarged
Legend
Accessible
Boardwalk
Boat Ramp
Hiking Trail
Hospital - Columbus County 910-642-8011 Emergency 911
Park Boundary
Park Gate
Parking
Picnic Area
Primitive Group Camping
Restrooms
Roads
Telephone
Visitor Center
Trails
length
difficulty
blaze
Lakeshore Trail 4 miles moderate blue
Loblolly Trail 0.65 mile easy red
Pine Woods Trail 1.8 miles easy yellow
Sand Ridge Nature Trail 0.75 mile easy orange
North
0
0.5
1 Mile
08/15
A larger map is available at the park office.