NATURAL RESOURCES ELEMENT

GEORGETOWN COUNTY COMPREHENSIVE PLAN

ADOPTED BY COUNTY COUNCIL 09/28/10

NATURAL RESOURCES ELEMENT
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Introduction

The goal of the Natural Resources Element is to identify the natural resources in Georgetown County and implement strategies to:

Protect and sustain the natural resources of the county, making the protection of these resources a top priority in shaping the future of the county

Maintain the integrity of wetlands, watersheds and flood plains in the county

Sustain upland and coastal habitats

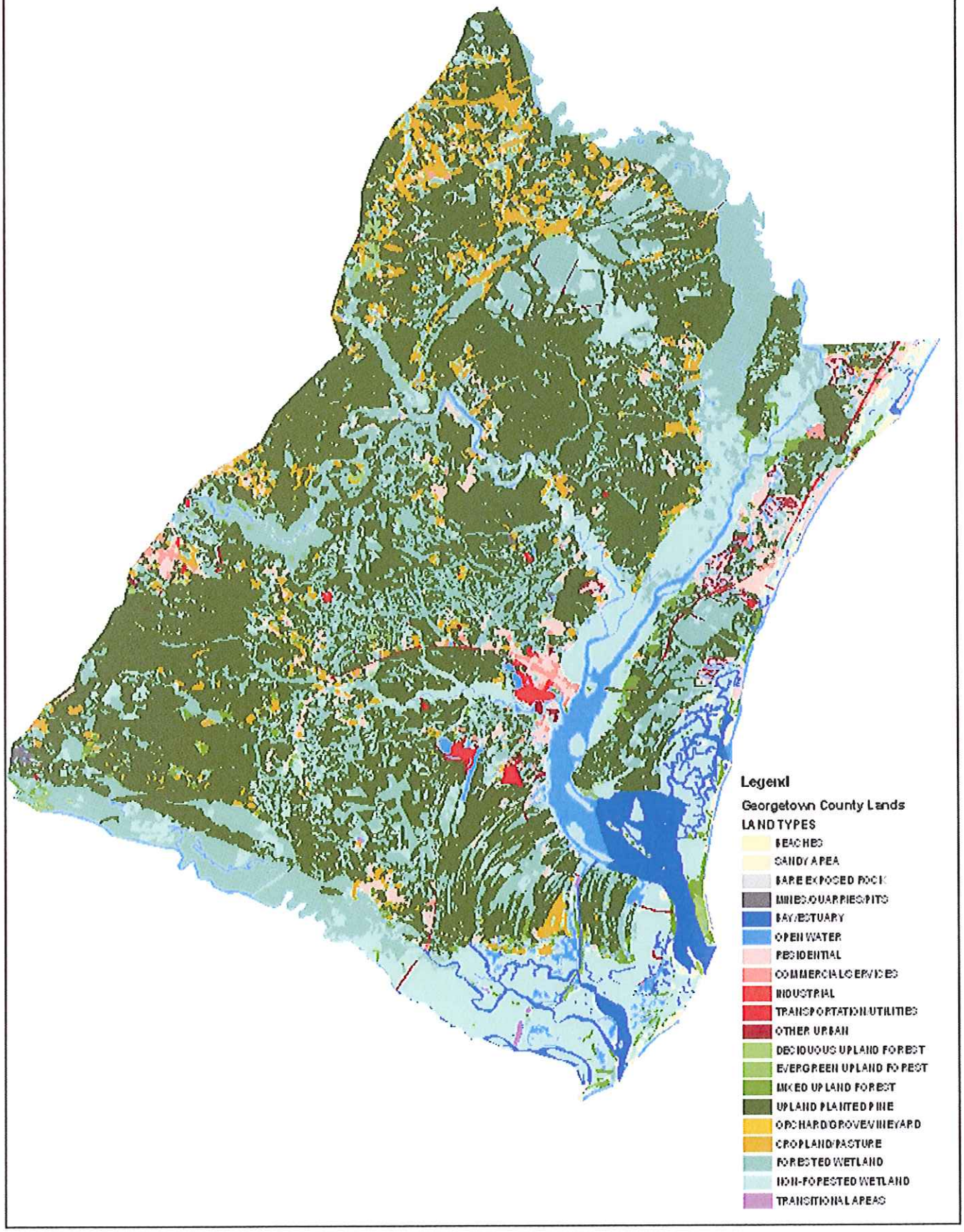
Protect agriculture and forest land in the county

The growth and economic stability of Georgetown County are based on our natural resources in ways not comparable to other areas. A diversity of natural resources including clean water, productive habitats, and abundant wildlife are among the greatest assets in the County. Wooded areas and open spaces along with the robust network of natural rivers, lakes and ponds contribute to the hydrologic function of county watersheds. Provisions should be made for the protection of natural resources that support and enhance the quality of life in Georgetown County.

Tourism, agriculture, fisheries and forestry also depend on the natural resources. The County must maintain abundant, accessible, and sustainable natural resources in order to appeal to tourists and residential growth. County residents, however, are using more resources by consuming more land, driving more miles, and increasing boating. With a 7.7% population growth between 2000 and 2008 Natural resources will provide the County with long term stability and growth if they are safeguarded and considered a key component for economic and development decisions.

The Natural Resources Element includes ten (10) sections as mandated by statute as well as those sections of specific importance to Georgetown County.

GEORGETOWN COUNTY LAND USE



Coastal Resources

Georgetown County possesses many rich and diverse coastal resources. These resources include 34 miles of coastline along the Atlantic Ocean, over 30 miles of sandy beaches with associated beach and dune systems, thousands of acres of salt, brackish and freshwater marshes, freshwater swamps, miles of salt, brackish and fresh water creeks, and salt and brackish estuaries.

Garden City Beach and Murrells Inlet

At the northeastern corner of the county lies Garden City Beach and Murrells Inlet. Garden City Beach has about 4 miles of sandy beaches and dunes, beginning at the Horry County line and ending at the mouth of Murrells Inlet. Murrells Inlet is a highly saline estuarine system surrounded mostly by residential and commercial development. The Murrells Inlet estuarine system contains salt water marshes and tidal salt water creeks.

Huntington Beach State Park and Litchfield Beaches

South of the mouth of Murrells Inlet are Huntington Beach State Park, with about 4 miles of sandy beaches and dunes, and the Litchfield Beaches (North Litchfield and Litchfield), with another 4 miles of beaches. This stretch of beaches ends at Midway Inlet.

Midway Inlet and Pawleys Island

Midway Inlet is the northern mouth of another salt water estuary and divides Litchfield Beach from Pawleys Island. This estuary extends from the western side of North Litchfield to the south end of Pawleys Island, and contains salt water marshes and tidal salt water creeks.

Pawleys Island, a coastal barrier island, has about 5 miles of beaches and dunes between Midway Inlet and Pawleys Inlet at the south tip of the island.

DeBordieu Beach and North Inlet

DeBordieu Beach is South of Pawleys Island and has about 4.5 miles of beaches and dunes, ending at North Inlet.

North Inlet is the mouth of a salt and brackish water estuary containing salt and brackish water marshes and tidal salt and brackish water creeks. At the northern part of the North Inlet estuary lays the DeBordieu Colony development, with about two miles of man-made tidal salt water canals attached to the tidal creeks. Within DeBordieu Colony are marsh impoundments containing wetlands that drain into North Inlet.

Winyah Bay, South Island, and North Island

North Inlet is connected to Winyah Bay through a series of creeks including Jones Creek and No Man's Friend Creek. South of the mouth of North Inlet lies North Island which has several miles of beaches and dunes running to the mouth of Winyah Bay. North Island is undeveloped and, under the will of the late Thomas Yawkey, is to remain in a wilderness state in perpetuity.

Winyah Bay is the largest estuary in Georgetown County. Four major rivers drain into the Bay (the Sampit, the Black, the Pee Dee and the Waccamaw), and the Winyah Bay watershed is

approximately 18,000 square miles. More than 16,000 square miles of this drainage area is associated with the Pee Dee-Yadkin river system which originates in the Blue Ridge Mountains area of North Carolina. Water from this system flows across the Piedmont region in both North and South Carolina, and into the Winyah Bay through the Pee Dee River. Much of the flow from the Pee Dee arrives at Winyah Bay through the Waccamaw River, as a series of creeks running from the Pee Dee to the Waccamaw transfers this flow. The Black and Sampit rivers drain much smaller watersheds.

South of the mouth of Winyah Bay lies South Island, which together with North Island and Cat Island, constitute the Yawkey Wildlife Center. South Island and Cat Island contain large areas of impounded wetlands which serve as habitat for large numbers of indigenous and over-wintering waterfowl.

North Santee River and South Santee River

The southern boundary of South Island is the North Santee River. The North Santee and its companion river, the South Santee, are separated by vast areas of marsh and swamps, the Great Santee Swamp. The South Santee River is the boundary between Georgetown County and Charleston County. The Santee Rivers were once the site of the only river delta system on the United States east coast. The Santee River was dammed in the 1930s to create the two Santee-Cooper lakes, and much of the flow of the river was diverted to the Cooper River and Charleston Harbor. This dam and diversion project converted the largely freshwater delta to a tidal saltwater area. In the 1980s, a re-diversion project returned much of the original flow to the Santee River.

South Carolina Department of Natural Resources

Our mission is to serve as the principal advocate for and steward of South Carolina's natural resources.

The South Carolina Department of Natural Resources (SCDNR) was created in 1994 as a new agency combining the former Wildlife and Marine Resources Department, Water Resources Commission (non-regulatory programs), Land Resources Commission (non-regulatory programs), State Geological Survey (State Geologist), and S.C. Migratory Waterfowl Committee. SCDNR has many conservation programs targeted to preserving coastal resources and marine sciences. See Figure 1: South Carolina Department of Natural Resources Regions Map

Source: www.dnr.sc.gov/

National Estuarine Research Reserve

The North Inlet–Winyah Bay National Estuarine Research Reserve (NERR) is a 12,300 acre reserve with habitats ranging from tidal and transitional marshes to oyster reefs, beaches, and inter-tidal flats and from coastal island forests to open waterways. The estuary is the third largest watershed on the east coast. The Reserve is a portion of Hobcaw Barony and promotes healthy estuaries, watershed preservation, resilient coastal communities, and thriving ecosystems. More than 90 percent of North Inlet estuary's watershed is in its natural forested state. The reserve is home to many threatened and endangered species, including sea turtles, sturgeons, least terns and wood storks. See Figures 1: North Inlet Habitat Map, Figure 2: North

Inlet–Winyah Bay National Estuarine Research Reserve, Figure 3: North Inlet–Winyah Bay National Estuarine Research Reserve Geographic Map, and Figure 4: North Inlet Creeks

Source: www.northinlet.sc.edu/

Winyah Rivers Foundation

The mission of the Winyah Rivers Foundation is to protect, preserve, monitor, and revitalize the health of the lands and waters of the greater Winyah Bay watershed, focusing on local activism through the Waccamaw Riverkeeper® program.

The Waccamaw River supports recreational fishing and other water sports, provides drinking water, is a venue for tourism, camping, and supplies power plant cooling water. The Winyah Rivers Foundation is a grassroots organization whose members support the mission of protecting the Waccamaw River and other rivers in the watershed. The river is home to a collection of diverse animals including the American Black Bear that makes its home along the Waccamaw and travels its intra-Carolina corridors. The river is also home to diverse and rare flora and fauna that are listed on the rare, threatened or endangered species index.

Existing threats to the health of the river include pollution from wastewater treatment plants, storm water runoff containing oil, fertilizers, pesticides and animal wastes and runoff of sediment due to soil erosion resulting from development. Losses of wetlands, and their natural ability to remove pollutants, exacerbate these problems. Another threat is runoff of sediment from soil erosion due to development. Many of these problems are exacerbated by the loss of wetlands that provide natural pollution removal. Timber management techniques such as ditching and draining have seriously diminished the sponge-like abilities of our swamps and wetlands to hold and slowly release rain and floodwaters. This rapid release of water causes more drastic swings in the river's flow and makes the river more prone to periods of flooding and to very low flow. Replenishment of the underlying Cretaceous aquifers is affected by wetlands drainage by agricultural as well as timber interests. Population growth has greatly increased the withdrawal from the aquifers.

Source: www.winyahrivers.org/

Institute of Coastal Ecology and Forest Science

The mission of the Belle W. Baruch Institute of Coastal Ecology and Forest Science is to conduct research and education programs focused on the ecology and management of the natural resources of the coastal region of South Carolina for the betterment of the state's citizens.

The Belle W. Baruch Institute of Coastal Ecology and Forest Science is a collaborative effort of Extension Specialists and Associates employed by Clemson University and county agents with Natural Resources responsibilities. They work closely with state Extension specialists and researchers located at and at the various research and education centers located across the state. They provide expertise in a range of topics covering many aspects of forestry, wildlife, water quality and youth education.

Source: www.baruch.sc.edu/

Institute for Marine & Coastal Sciences

The mission of the Belle W. Baruch Institute for Marine and Coastal Sciences is to conduct research and support education that will improve the management of marine and coastal resources and advance basic science for the well-being of people and their environment.

The Belle W. Baruch Institute for Marine & Coastal Sciences was established in 1969 through the joint efforts of the Belle W. Baruch Foundation and the University of South Carolina. The Baruch Institute conducts basic research on environmental processes, tidal, estuarine and coastal ocean environments. Collectively the studies span the molecular to landscape level, including the effects of human activities.

Source: www.clemson.edu/

South Carolina Estuarine and Coastal Assessment Program

The South Carolina Department of Natural Resources (SCDNR) and the South Carolina Department of Health and Environmental Control (SCDHEC) initiated a major new collaborative coastal monitoring program in 1999 entitled the South Carolina Estuarine and Coastal Assessment Program (SCECAP). The goal of SCECAP is to monitor the condition of the states estuarine habitats and provide periodic reports to both coastal managers and the public. The program collects multiple measures of water quality, sediment quality, and biological condition at a large number of sites throughout the states coastal zone each year and integrates those measures into an overall assessment of estuarine habitat condition at each site and the entire state. The program also expands historical monitoring activities that have primarily focused on open water habitats (e.g. bays, sounds, tidal rivers) to include an assessment of conditions in tidal creeks, which serve as an important nursery habitat for most of the states economically valuable species. Many of these tidal creeks are also the first point of entry for upland runoff and therefore can provide an early indication of stress related to coastal development, agriculture and industrial activities. See Figure 5: South Carolina Estuarine and Coastal Assessment Program Station Map.

Source: www.dnr.sc.gov/marine/scecap/

South Atlantic Fishery Management Council

The South Atlantic Fishery Management Council is headquartered in Charleston, South Carolina. It is one of eight regional fishery management councils in the United States and is responsible for the conservation and management of fish stocks within the federal 200-mile limit off the coasts of North Carolina, South Carolina, Georgia, and east Florida to Key West.

Marine Protected Area

The South Atlantic Council defines Marine Protected Areas (MPA's) within its jurisdiction as a network of specific areas of marine environments reserved and managed for the primary purpose of aiding in the recovery of overfished stocks and to ensure the persistence of healthy fish stocks, fisheries, and associated habitats. The protected areas may include naturally occurring or artificial bottom and water column habitats, and may include prohibition of harvest on seasonal or permanent time periods to achieve desired fishery conservation and management goals. See

Figure 6: Northern South Carolina Marine Protected Areas for area MPA located southeast of Murrells Inlet.

Fishery Ecosystem Plan
The South Atlantic Council Fishery Ecosystem Plan (FEP) was established in an effort to review biological, ecological, social, and economic information for fisheries in the South Atlantic ecosystem.

Source:www.safmc.net/

Ocean and Coastal Resource Management

Ocean and Coastal Resource Management (OCRM) protects and enhances coastal resources by preserving sensitive and fragile areas while promoting responsible development in the eight coastal counties of South Carolina.

Ocean and Coastal Resource Management (OCRM) is responsible for the following: Implementing the Coastal Zone Management Plan to manage wetland alterations, stormwater and land disturbance activities, certify all federal and state permits and direct federal actions and all alterations of tidally influenced critical area lands, waters and beaches; Preserving sensitive natural, historic and cultural resources through regulatory oversight and guidance; Providing technical expertise to resolve complex coastal management issues; and encouraging low impact and alternative development to preserve water quality and environmental integrity. See Figure 7: Coastal Zone Map.

Source: www.scdhec.gov/environment/ocrm/

Atlantic States Marine Fisheries Commission

Mission: To promote the better utilization of the fisheries, marine, shell and anadromous, of the Atlantic seaboard by the development of a joint program for the promotion and protection of such fisheries, and by the prevention of physical waste of the fisheries from any cause.

South Carolina is a member state of the Atlantic States Marine Fisheries Commission. The Commission serves as a deliberative body, coordinating the conservation and management of the states shared near shore fishery resources for sustainable use. The Commission focuses on responsible stewardship of marine fisheries resources and serves as a forum for the states to address fisheries issues. The five main policy arenas are interstate fisheries management, research and statistics, fisheries science, habitat conservation, and law enforcement.

Source: www.asmfc.org/

Recreational/Commercial Fishing and Shellfish Harvesting

Georgetown County depends on coastal resources for its economy and-quality of life. Along the coast, freshwater from the upland rivers meets with salt water inflowing from the Atlantic Ocean, where these waters meet, salt marshes and estuarine habitats flourish. Figure 8: *Freshwater/Saltwater Dividing Line* indicates the line between fresh and salt water bodies. Salt marsh systems are essential because they provide shelter and nurseries for shrimp, crabs, oysters,

clams, and other species during their larval stage. Coastal resources in Georgetown County have already suffered impacts from development and industrial pollution. In the freshwater portions of the county's rivers, fish consumption advisory is in effect due to mercury pollution of the fish.

Recreational and commercial fisheries require substantial coastal resources. In 2008, 3.2 million pounds of fish and shellfish were landed in Georgetown County. This amount represents 19 % of the total for South Carolina at 16.2 million pounds. See Chart A: Landing totals in South Carolina and Georgetown County.

Chart A: 2008 Landing totals in South Carolina and Georgetown County

	OYSTERS	CLAMS	SHRIMP *head-on*	HARD CRAB	FINFISH *including American Shad*	TOTAL LANDED FOR ALL SPECIES
SOUTH CAROLINA	264,377 BU	5,018,474 EA	3.2 million lbs	4.5 million lbs.	1.9 million lbs.	16.2 million lbs.*
GEORGETOWN	7,850 BU	25,000 EA	538,000 lbs.	1.3 million lbs.	920,000 lbs.	3.2 million lbs.

** This figure includes weight in the shell for shellfish species, and therefore should be used only to calculate percentages.*

In 2008, the total value of the reported wholesale seafood transactions for Georgetown County was over $4.4 million. This dollar amount represents 24% of the reported statewide total value of $18 million. See Chart B: 2008 Wholesale transaction value totals in South Carolina and Georgetown County.

Chart B: 2008 Wholesale transaction value totals in South Carolina and Georgetown County

	OYSTERS	CLAMS	SHRIMP *head on*	HARD CRAB	FINFISH *including American Shad*	TOTAL VALUE FOR ALL SPECIES
SOUTH CAROLINA	$1.8 million	$558,000	$6.7 million	$4.2 million	$4.6 million	$18 million
GEORGETOWN	$112,000	$2,700	$835,000	$1.2 million	$2.3 million	$4.4 million

Source: Department of Natural Resources, Office of Fisheries Management

Shellfish harvesting is prohibited in areas of Murrells Inlet that are within 1000 feet of the Marshwalk. Areas of designated shellfish habitat that are restricted from shellfish harvesting include Parsonage Creek, Alston Creek, Pawleys Creek, Litchfield Creek, DeBordieu, North Island, Mud Bay, South Santee Bay and River, North Santee Bay and River, and the Intracoastal Waterway. Areas that are conditionally approved for shellfish harvesting are Flagg Creek, Oaks Creek, Oyster Cove, and the central part of the estuary at Murrells Inlet. These areas can be closed after as little as 1" of rainfall occurs within 24 hours. The only areas where shellfish harvesting is approved at all times are most of Main Creek and some portions of Alston and Oak Creeks in Murrells Inlet, North Inlet, and the entrance to Winyah Bay. Figures 3-9 identify the locations of both recreational and commercial shellfish beds. See South Carolina Department of Natural Resources Shellfish Season Maps, Clam Bank Flats Map, and Lachicotte Oyster Factory Map.

South Carolina Oyster Restoration and Enhancement (SCORE)

Oyster populations are declining and it is important for the community to understand how oysters improve water quality, control erosion, and provide habitat for other commercially-important shellfish and fish species. South Carolina Oyster Restoration and Enhancement (SCORE) is a

community-based project that restores and enhances oyster habitats by planting recycled oyster shells in the inter-tidal environment to form new, self-sustaining oyster reefs. Restoration of the oyster habitats is necessary because of the significant ecologic and economic role of oysters in coastal areas. SCORE promotes learning about oyster biology and the human activities that can influence their well being. The University of South Carolina, Belle W. Baruch Institute, sponsors a Pawleys Island restoration site.

Source:www.score.dnr.sc.gov/

Oyster Recycling and Restoration

The Oyster Recycling and Restoration program is another effort in growing the oyster population. Though commercial shellfish harvest has remained stable over the past three decades, the closing of oyster canneries and most shucking houses during this period has resulted in a shortage of shucked oyster shell needed to cultivate oyster beds. Oyster shell recycling is important because oyster shells are the most desirable materials (called cultch) for attachment and subsequent growth of young oysters. An oyster recycling site is located at Huntington Beach State Park in Murrells Inlet. See Figure 9: Waccamaw Oyster Shell Recycling Location and Figure 10: Huntington Beach State Park Oyster Shell Recycling Location).

Source: saltwaterfishing.sc.gov/oyster

Oysters and clams support commercial and recreational fisheries and an aquaculture industry. In addition to their value when harvested, oysters create living habitat which is essential to many other estuarine species, influence water quality, and provide natural breakwaters.

Source: www.dnr.sc.gov

Beach Tourism

In addition to fishing and shellfish harvesting along the coast, Georgetown County has a thriving tourist industry that depends upon coastal and historical resources. People travel from all over the country to visit the beautiful beaches in Georgetown County, to recreate in the waters in and around Winyah Bay and the Santee Delta, and to visit the upper Winyah Bay area in downtown Georgetown. Maintaining the health of these valuable coastal resources is essential to the quality of life for both residents and tourists.

Reef Programs

Over 40 offshore artificial reefs are located in waters along the entire coast of South Carolina. The offshore artificial reefs are known for their productivity, and are therefore popular destinations for many recreational anglers and divers. The artificial reefs are constructed of materials including scrap and specifically designed and constructed reef habitat structures. Steel-hulled vessels are the most commonly employed scrap material in reef construction.

The Department of Natural Resources is expanding the reef program to inshore and inter-tidal waters in order to provide inshore fishermen with better fishing opportunities along the coast. There is an increased focus on the creation of inshore artificial reefs that are easily accessible by

small boat anglers. The first two artificial inshore reefs are located in Winyah Bay near Georgetown. See Figure 12: Winyah Bay Artificial Reefs.

Source: saltwaterfishing.sc.gov/

Marinas

Wacca Wache Marina	Murrells Inlet	Waccamaw River and Intracoastal Waterway
Marlin Quay Marina	Garden City	One-half mile inland from jetties
Captain Dick's Marina	Murrells Inlet	Highway US 17 Business
Georgetown Landing Marina	Georgetown	Black River and Intracoastal Waterway
Belle Isle Marina	Georgetown,	Intracoastal Waterway, 11 miles from jetties
Harborwalk Marina	Georgetown	Intracoastal Waterway, off Sampit River
Hazzard Marine	Georgetown	Georgetown Harbor
Exxon Marina	Georgetown	On Sampit River

Jetties

South Jetty	Murrells Inlet	Huntington Beach State Park

Piers and Bridges

Winyah Bay Fishing and Observation Pier	County	Georgetown,
Hobcaw Point Pier	County	Georgetown,

Boat Landings

Wacca Wache Landing	Public	Waccamaw River and Intracoastal Waterway
Murrells Inlet Boat Landing	Public	Murrells Inlet.
Pawleys Island (North) Landing	Public	Main Creek.
Pawleys Island (Middle) Landing	Public	Main Creek.
Pawleys Island (South) Landing	Public	Pawleys Creek
Hagley Landing	Public	Waccamaw River
East Bay Landing	Public	Sampit River.
South Island Ferry Boat Landing	Public	Winyah Bay.
Pole Yard Boat Landing	Public	North Santee River
Morse Park Landing	Public	Murrells Inlet
Browns Ferry Landing	Public	Black River
Pringles Ferry Landing	Public	Black River
Pea House Landing	Public	Black River
Peters Creek Landing	Public	Black River
Pine Tree Landing	Public	Black River
Old Pump House Landing	Public	Black River
Rocky Point Landing	Public	Black River
South Island Landing	Public	Intracoastal Waterway
Peter's Field Landing	Public	Pee Dee River
Sandy Island Landing	Public	Waccamaw River
Harris Landing	Public	North Santee River
Sandhole Landing	Public	Wadmacon Creek
Carroll Ashmore Campbell Marine Complex	Public	Sampit River
Bluff Landing	Public	Wadmacon Creek
Samworth WMA Landing	Public	Pee Dee River

Mingo Landing	Public	Mingo Creek
Belle Isle Marina Landing	Private	Winyah Bay
Cedar Hill Landing	Private	Murrells Inlet
Inlet Port Landing	Private	Murrells Inlet

Source: www.saltwaterfishing.sc.gov/coastalmarinas
www.Georgetowncountysc.org
www.dnr.sc.gov/

Figure 1: South Carolina Department of Natural Resources Regions Map

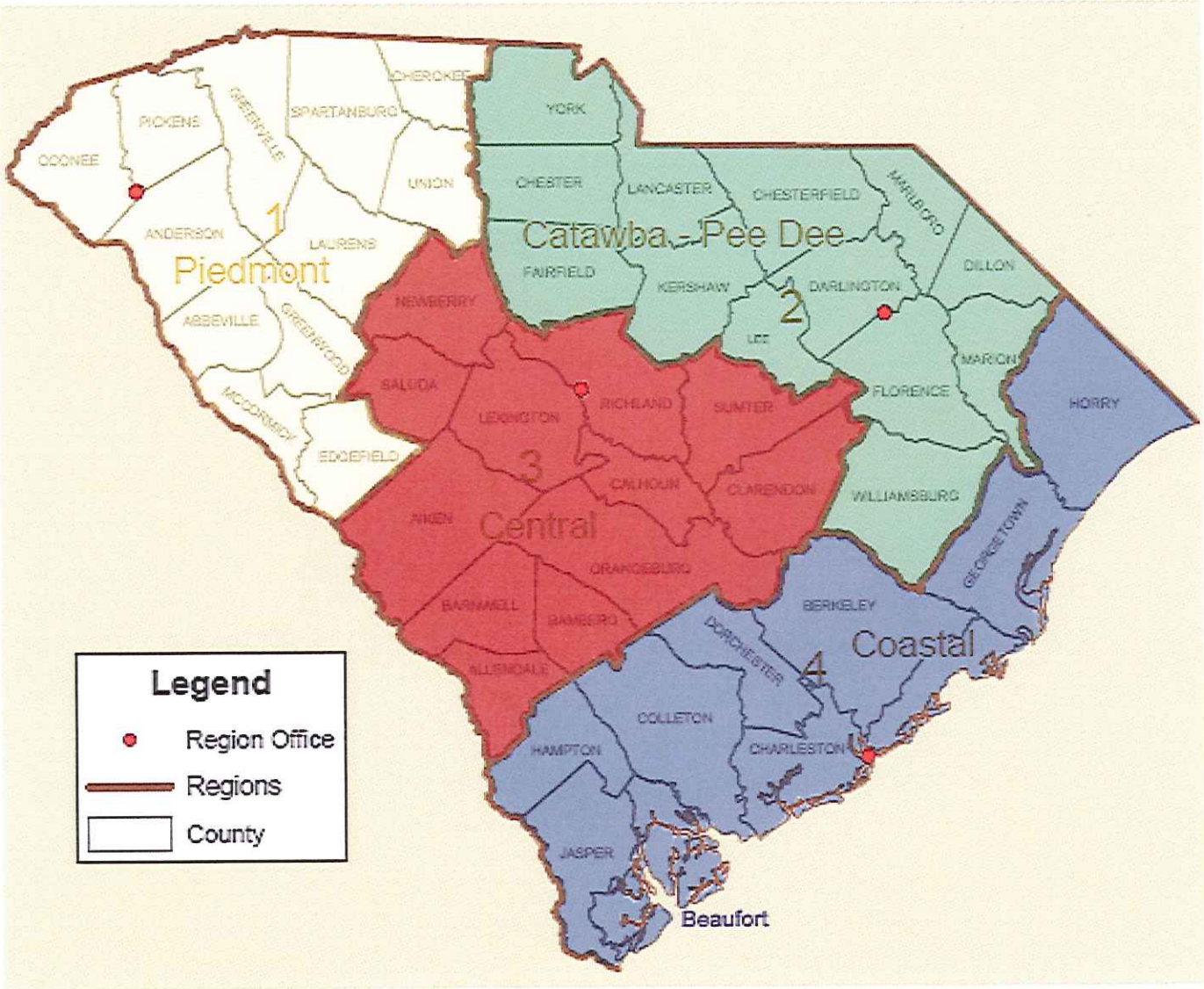


Figure 2: North Inlet Habitat Map

North Inlet NERRs Habitat Classification Legend

1000 Marine

1243 Intertidal, unconsolidated shore, sand (beach)

2000 Estuarine

2100 Subtidal

2100 Subtidal Haline

2120 Unconsolidated bottom

2123 Sand

2140 Reef

2200 Intertidal

2220 Reef

2221 Mollusk (oyster reef)

2230 Streambed

2236 Mud (Intertidal channels)

2250 Unconsolidated Shore

2253 Sand

2254 Mud

2255 Organic (wrack)

2260 Emergent wetland

2261 Persistent (Spartina alterniflora)

2300 Supratidal

2320 Unconsolidated botttom

2323 Sand

2324 Mud

2325 Organic

2340 Emergent wetland

2341 Persistent

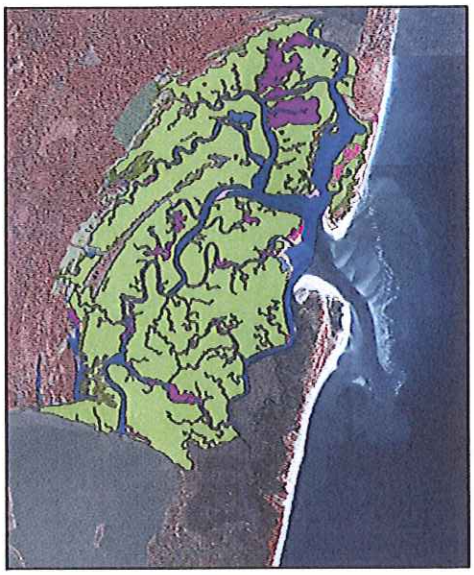
2350 Scrub-shrub wetland

2356 Mixed

2360 Forested wetland

2364 Needle-leaved evergreen

2365 Mixed



6000 Upland

6100 Supratidal upland

6130 Herbaceous upland

6131 Grassland

6140 Scrub-shrub upland

6150 Forested wetland

6154 Needle-leaveed evergreen

6155 Mixed

6200 Inland Upland

6255 Mixed

8000 Cultural Land Cover

8100 Developed upland

8110 Impervious cover

8113 Large building

8114 Impervious complex

8150 Unconsolidated cover

8152 Dirt/gravel road

8160 Herbaceous cover

8161 Managed turf (lawn)

9999 unknown

Figure 3: North Inlet-Winyah Bay National Estuarine Research Reserve

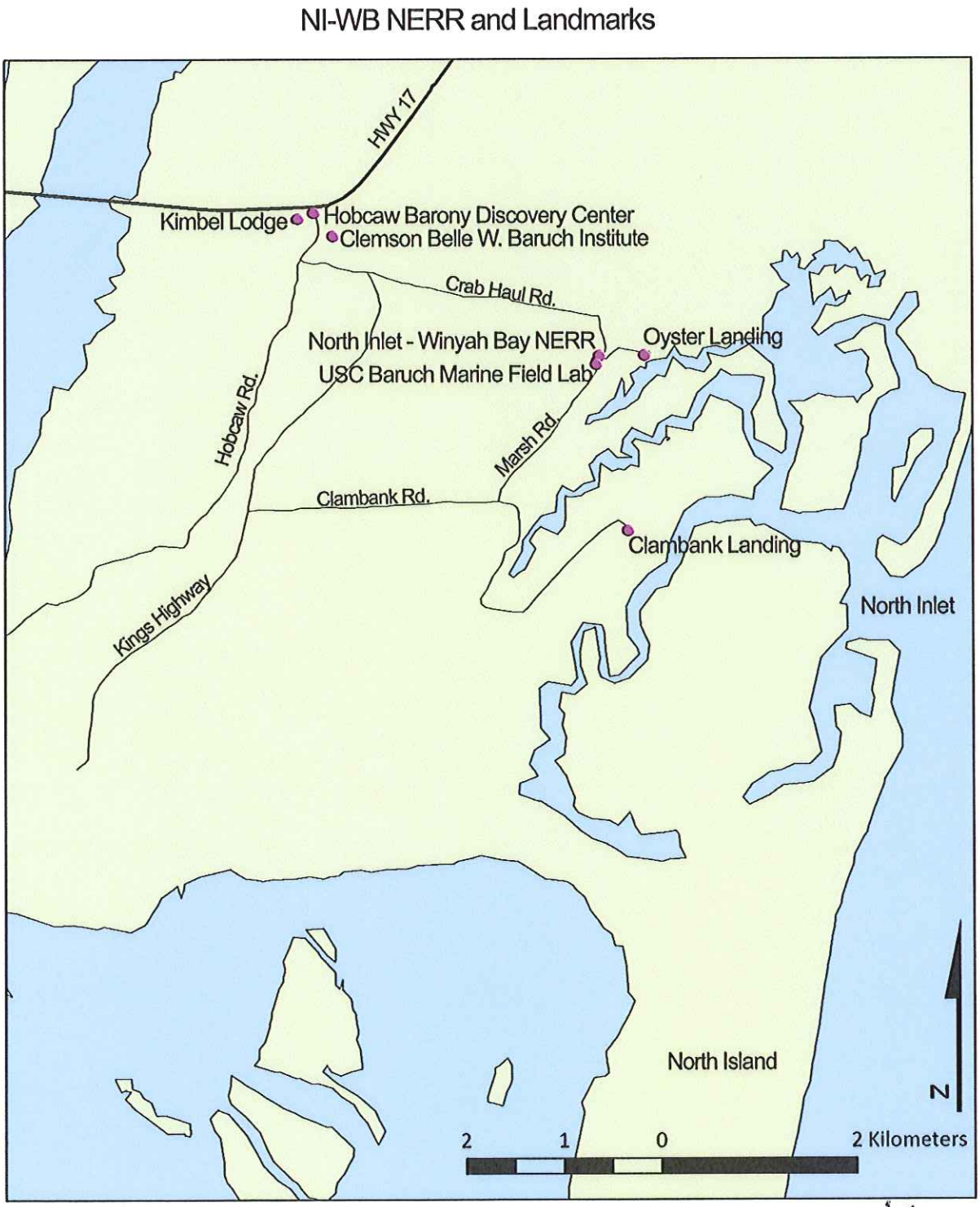


Figure 4: North Inlet-Winyah Bay National Estuarine Research Reserve Geographic Map

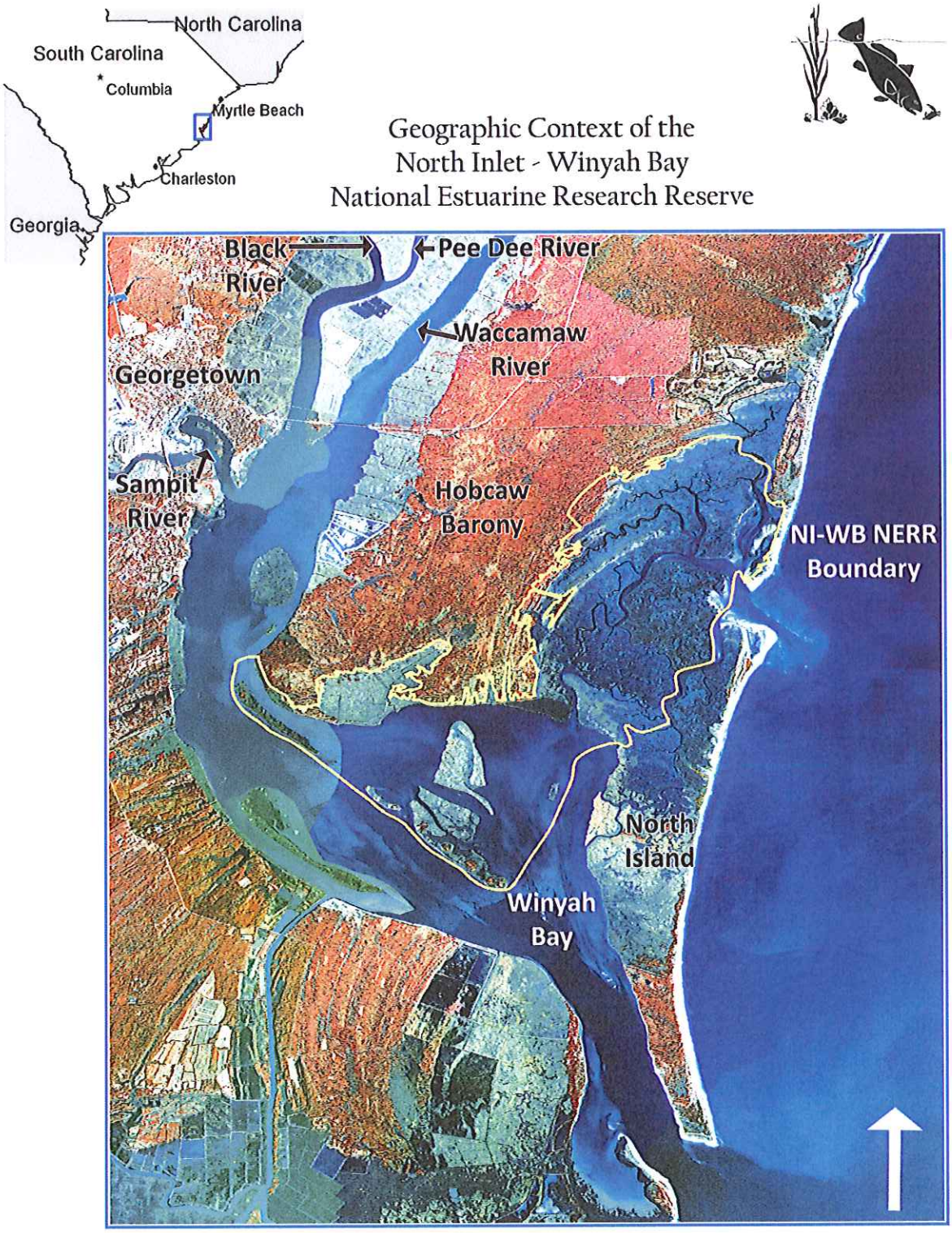


Figure 5: North Inlet Creeks

Figure 6: South Carolina Estuarine and Coastal Assessment Program Station Map

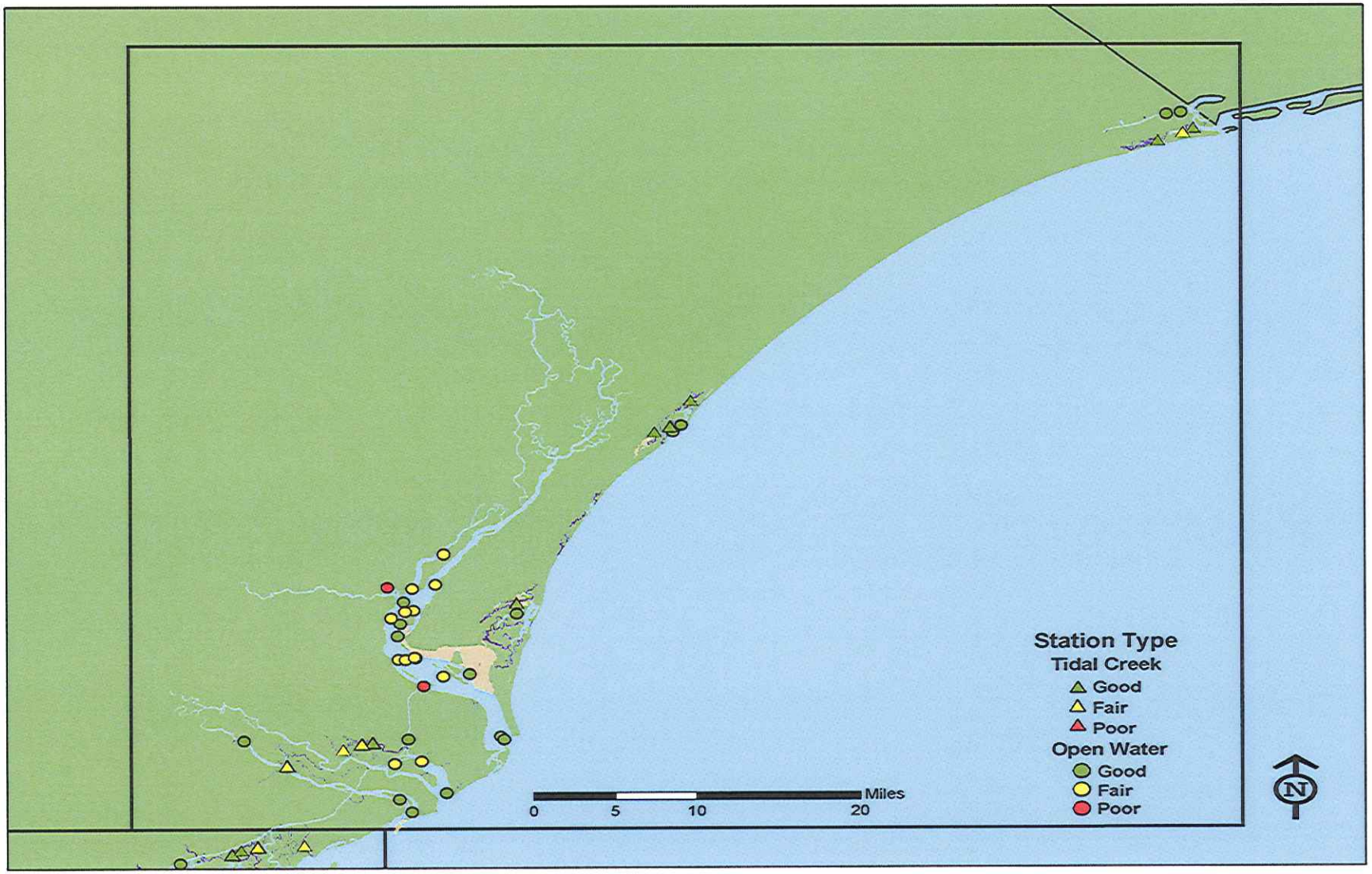


Figure 7: Northern South Carolina Marine Protected Map

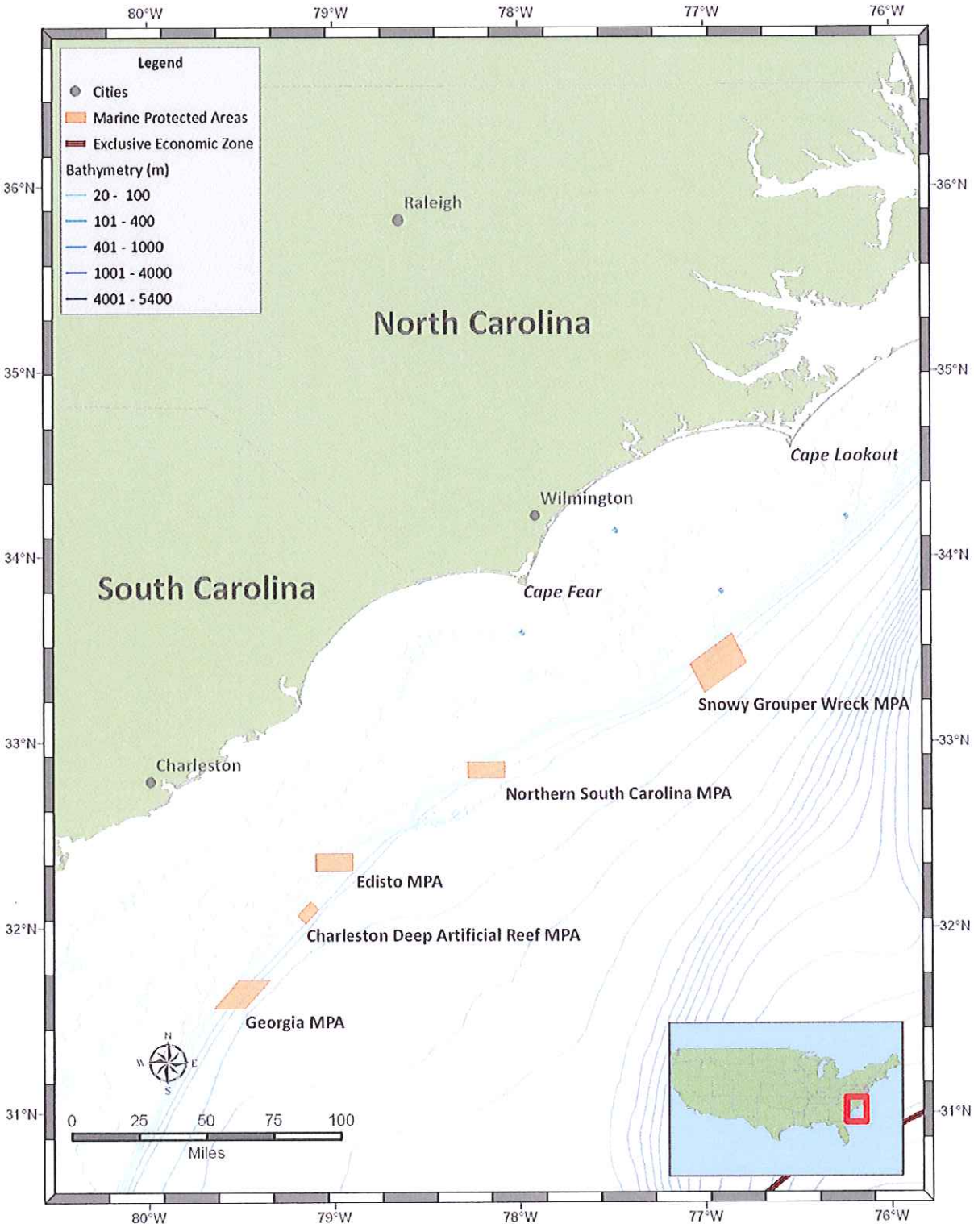
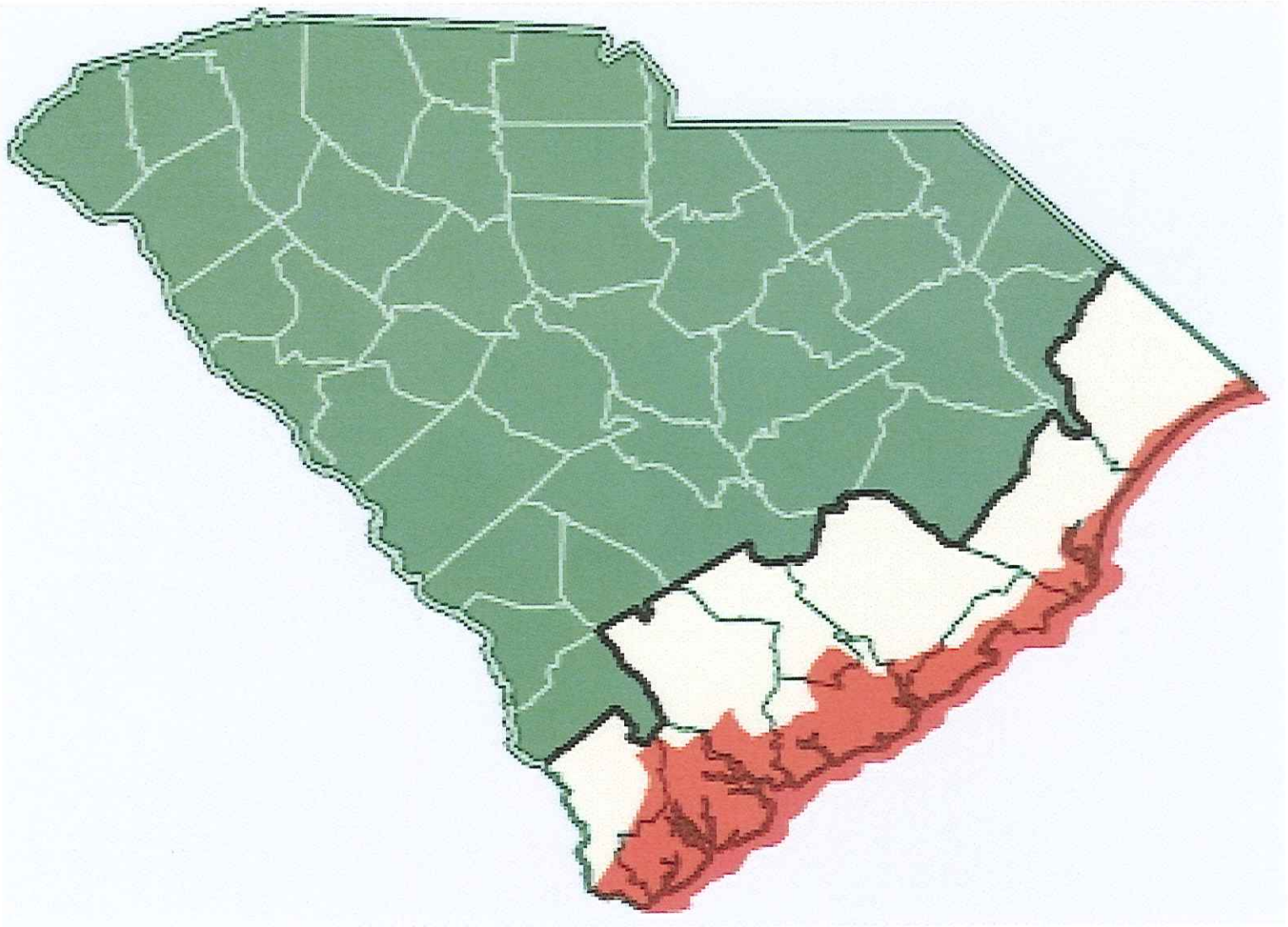


Figure 8: Coastal Zone Map

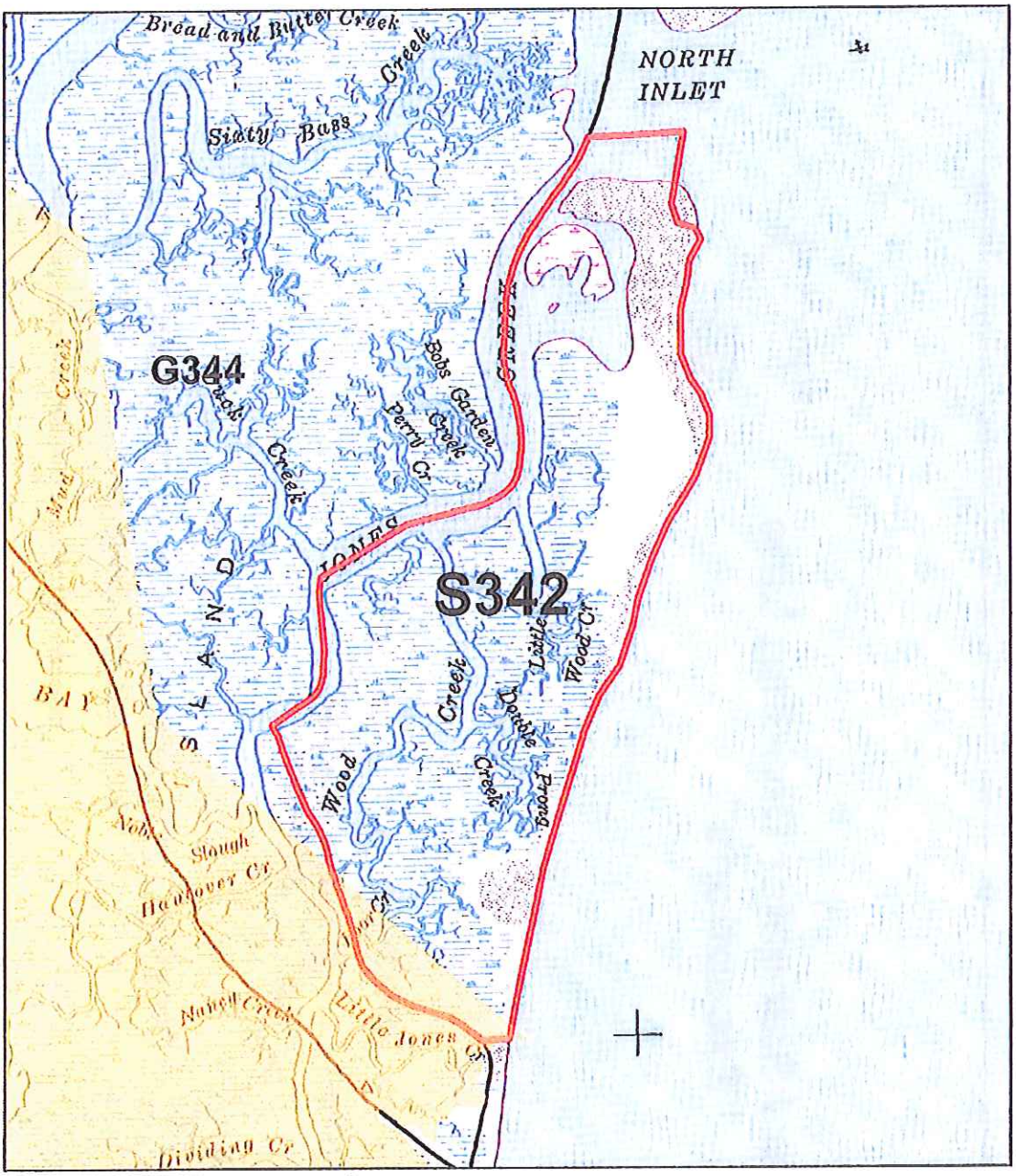


Jones Creek S342

SCDHEC Shellfish Management Area 5. These areas are subject to closure at any time. Please call 1-800-285-1618.

SHELLFISH SEASON
2009 - 2010

Clams - Partially Closed SCDHEC
Oysters - Partially Closed SCDHEC



Legend

- PERMIT BOUNDARY
- C000 = SHELLFISH CULTURE PERMIT
- G000 = GRANT PERMIT
- M000 = MARICULTURE PERMIT
- S000 = STATE SHELLFISH GROUND
- R000 = RECREATIONAL SHELLFISH GROUND

Location: Eastern shoreline of Jones Creek including Wood Creek, Little Wood Creek and Double Prong Creek.
County: Georgetown

WATER QUALITY (SCDHEC)
- CONDITIONALLY APPROVED
- PROHIBITED
- RESTRICTED

0	215	430	860	1,290	1,720	Meters
0	245	490	980	1,470	1,960	Yards

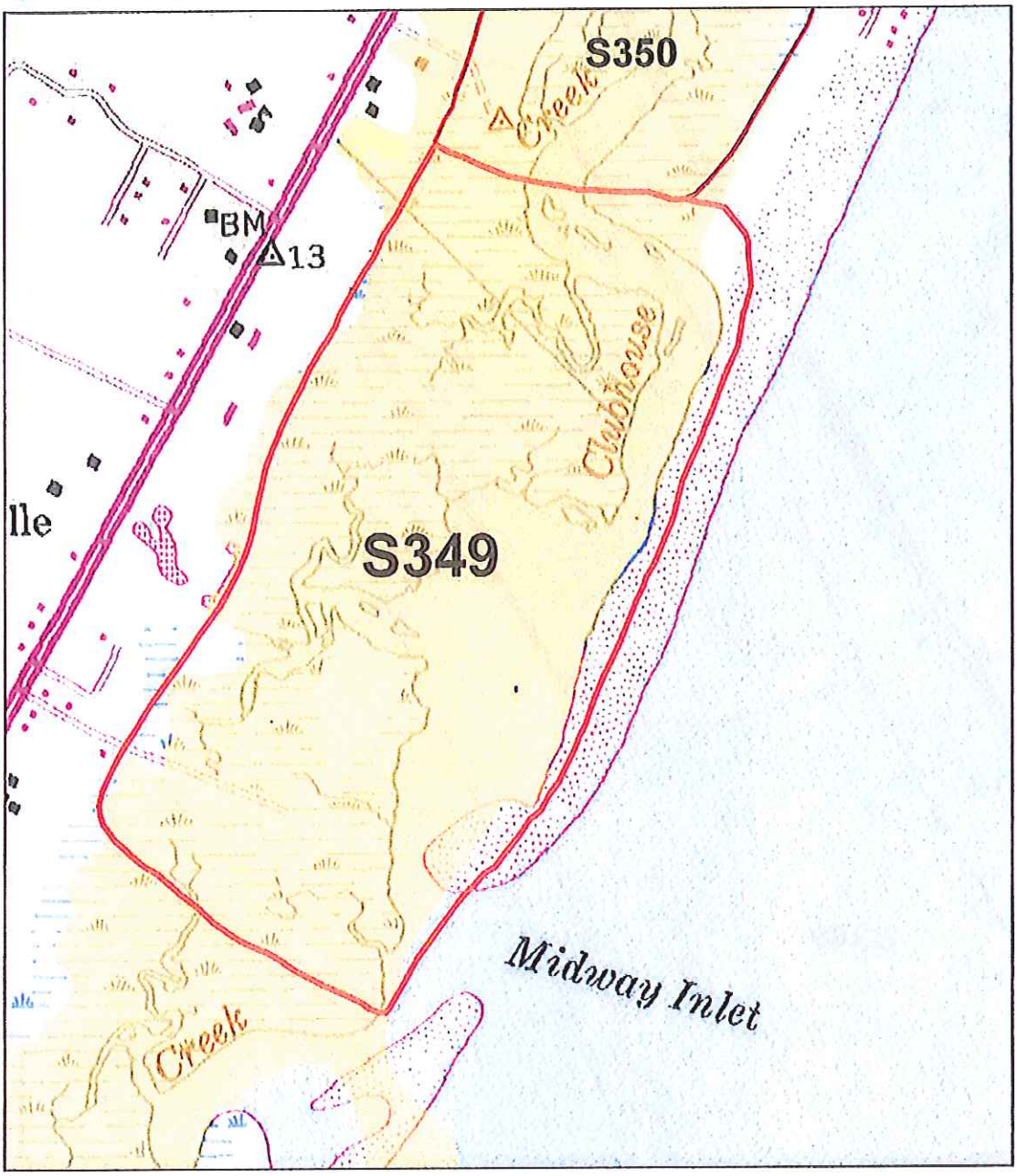
PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
09/2009

Litchfield South S349

SCDHEC Shellfish Management Area 4.
These areas are subject to closure
at any time. Please call 1-800-285-1618.

SHELLFISH SEASON
2009 - 2010

Clams - Closed - SCDHEC
Oysters - Closed - SCDHEC



Legend

PERMIT BOUNDARY
C000 = SHELLFISH CULTURE PERMIT
G000 = GRANT PERMIT
M000 = MARICULTURE PERMIT
S000 = STATE SHELLFISH GROUND
R000 = RECREATIONAL SHELLFISH GROUND

Location: Litchfield
County: Georgetown

WATER QUALITY (SCDHEC)
CONDITIONALLY APPROVED
PROHIBITED
RESTRICTED

0 90 180 360 540 720 Meters
0 100 200 400 600 800 Yards

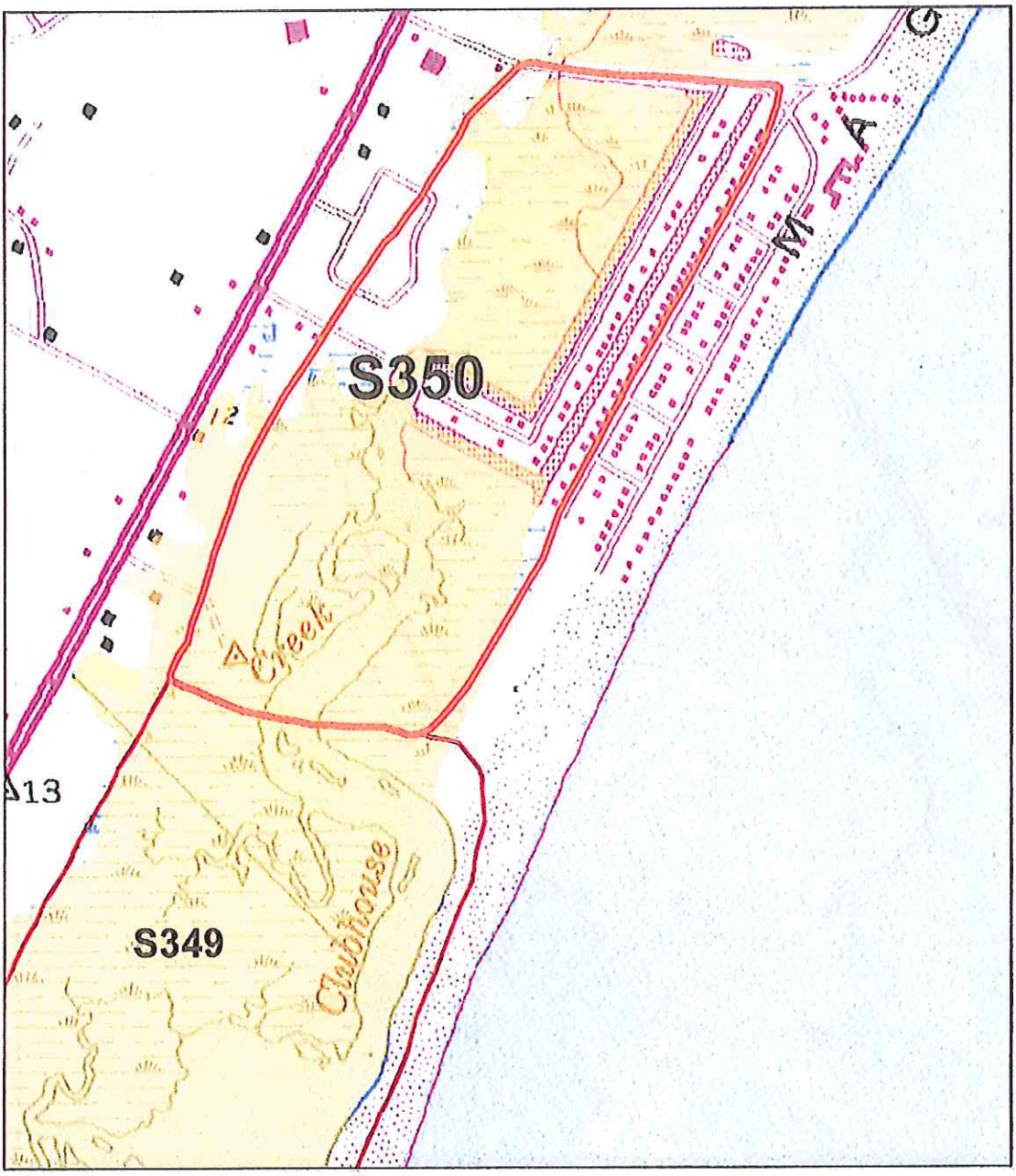
PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
00/XX/09

Litchfield North S350

SHELLFISH SEASON
2009 - 2010

Clams - Closed - SCDHEC
Oysters - Closed - SCDHEC

SCDHEC Shellfish Management Area 4.
These areas are subject to closure at any time. Please call 1-800-285-1618.



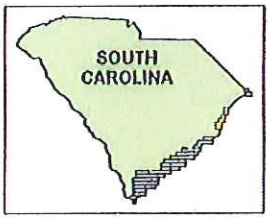
Legend

PERMIT BOUNDARY
C000 = SHELLFISH CULTURE PERMIT
G000 = GRANT PERMIT
M000 = MARICULTURE PERMIT
S000 = STATE SHELLFISH GROUND
R000 = RECREATIONAL SHELLFISH GROUND

Location: Litchfield
County: Georgetown

WATER QUALITY (SCDHEC)
CONDITIONALLY APPROVED
PROHIBITED
RESTRICTED

0 90 180 360 540 720 Meters
0 100 200 400 600 800 Yards



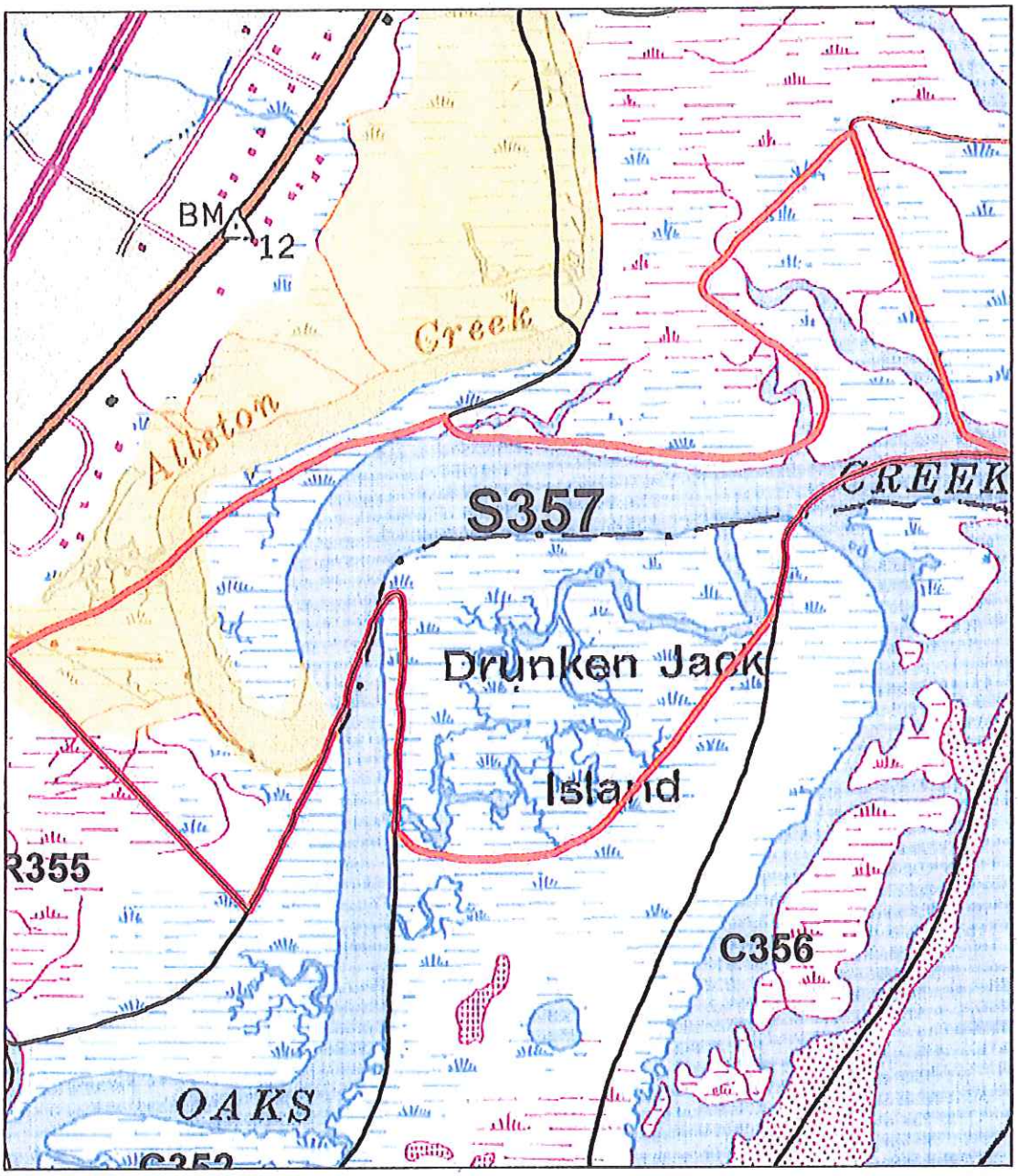
PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
09/2009

Drunken Jack Island S357

SCDHEC Shellfish Management Area 4.
These areas are subject to closure at any time. Please call 1-800-285-1618.

Clams - Partially Closed SCDHEC
Oysters - Partially Closed SCDHEC

SHELLFISH SEASON
2009 - 2010



Legend

PERMIT BOUNDARY
C000 = SHELLFISH CULTURE PERMIT
G000 = GRANT PERMIT
M000 = MARICULTURE PERMIT
S000 = STATE SHELLFISH GROUND
R000 = RECREATIONAL SHELLFISH GROUND

WATER QUALITY (SCDHEC)
CONDITIONALLY APPROVED
PROHIBITED
RESTRICTED

0 90 180 360 540 720 Meters
0 100 200 400 600 800 Yards

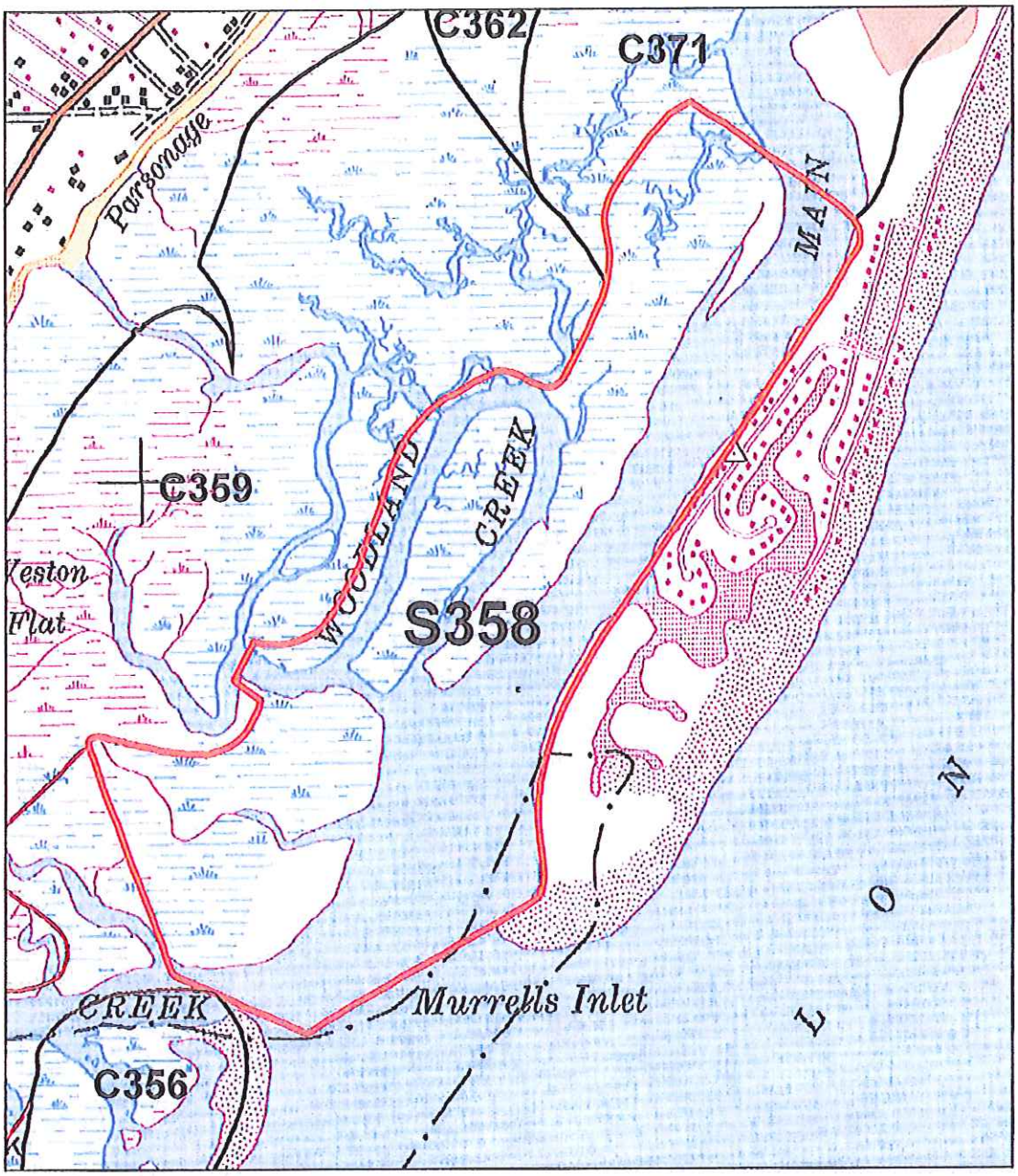
Location: Portions of Oaks Creek, Big Chase Creek and Clubhouse Creek
County: Georgetown

PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
(9/2009)

Murrells Inlet S358

SCDHEC Shellfish Management Area 4.
These areas are subject to closure
at any time. Please call 1-800-285-1618.

SHELLFISH SEASON
2009 - 2010



Legend

PERMIT BOUNDARY
C000 = SHELLFISH CULTURE PERMIT
G000 = GRANT PERMIT
M000 = MARICULTURE PERMIT
S000 = STATE SHELLFISH GROUND
R000 = RECREATIONAL SHELLFISH GROUND

Location: Main Creek
County: Georgetown

WATER QUALITY (SCDHEC)
CONDITIONALLY APPROVED
PROHIBITED
RESTRICTED

0 120 240 480 720 960 Meters
0 140 280 560 840 1,120 Yards

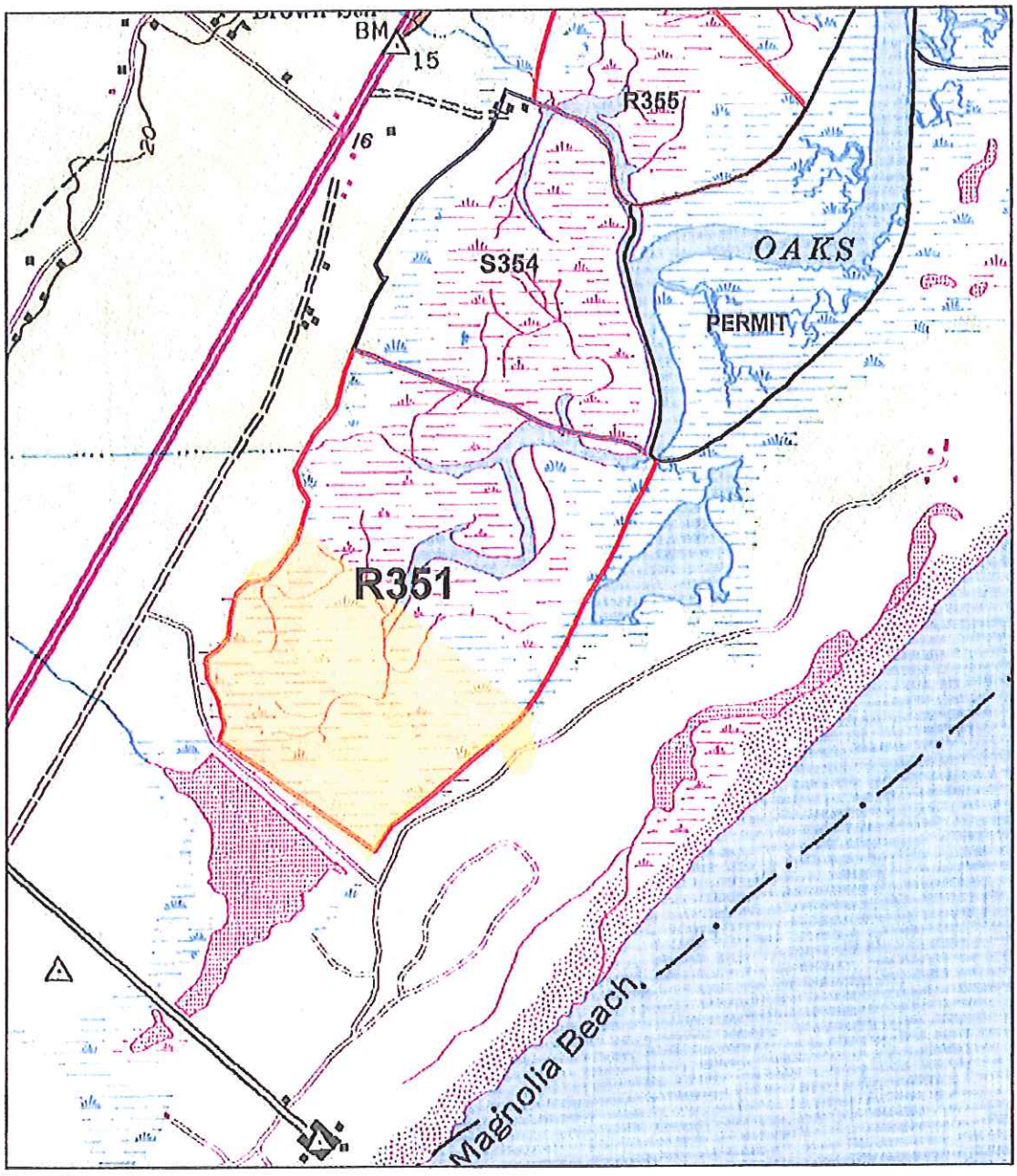
PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
03/2009

Clam Bank Flats PSG - R351

SCDHEC Shellfish Management Area 4
These areas are subject to closure
at any time. Please call 1-800-285-1618.

Clams - Partially Closed SCDHEC
Oysters - Partially Closed SCDHEC

LOCATION: Portion of Oaks Creek
COUNTY: Georgetown



Legend

PERMIT BOUNDARY
S000 = STATE SHELLFISH GROUND
R000 = RECREATIONAL SHELLFISH GROUND

WATER QUALITY (SCDHEC)
CONDITIONALLY APPROVED
PROHIBITED
RESTRICTED

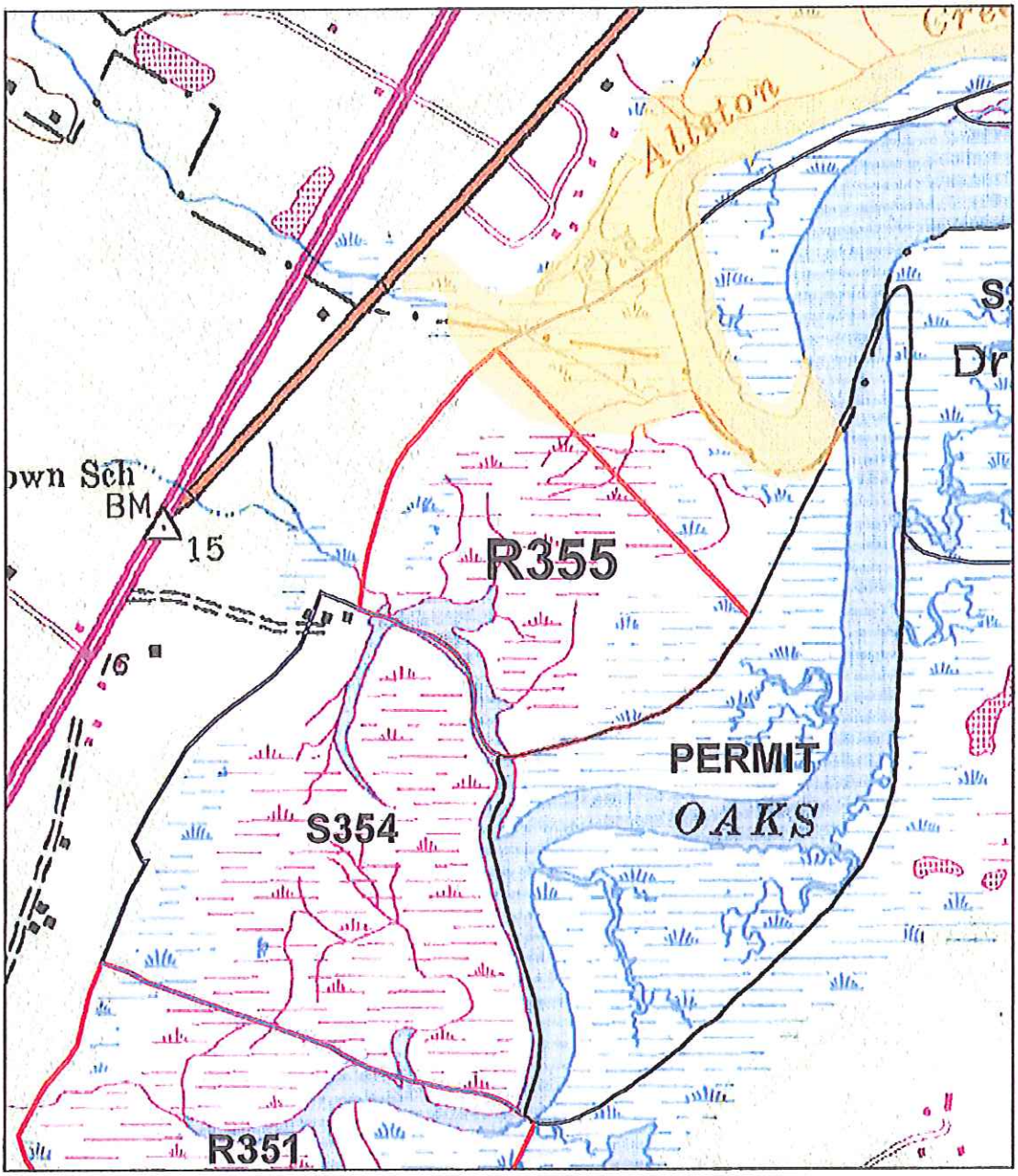
0 90 180 360 540 720
Meters

PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
(6/2000)

Lachicotte Oyster Factory PSG - R355

SCDHEC Shellfish Management Area 4
These areas are subject to closure
at any time. Please call 1-800-285-1618.

LOCATION: Portion of a tributary of Oaks Creek
COUNTY: Georgetown



Legend

PERMIT BOUNDARY
S000 = STATE SHELLFISH GROUND
R000 = RECREATIONAL SHELLFISH GROUND

WATER QUALITY (SCDHEC)
CONDITIONALLY APPROVED
PROHIBITED
RESTRICTED

0 80 160 320 480 640 Meters

PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
03/2009

Figure 9: Freshwater/Saltwater Dividing Line

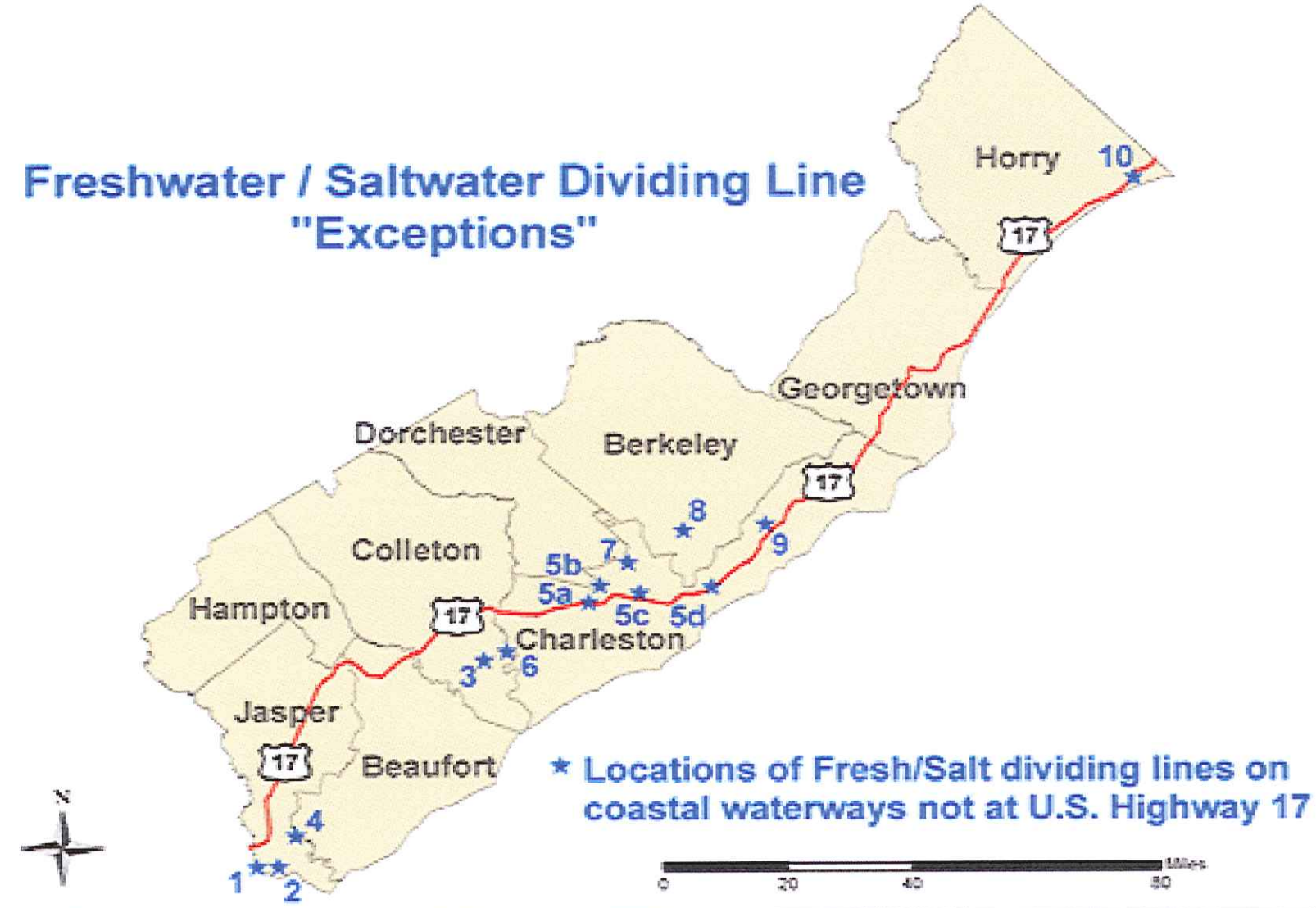


Figure 10: Huntington Beach State Park Oyster Shell Recycling Location

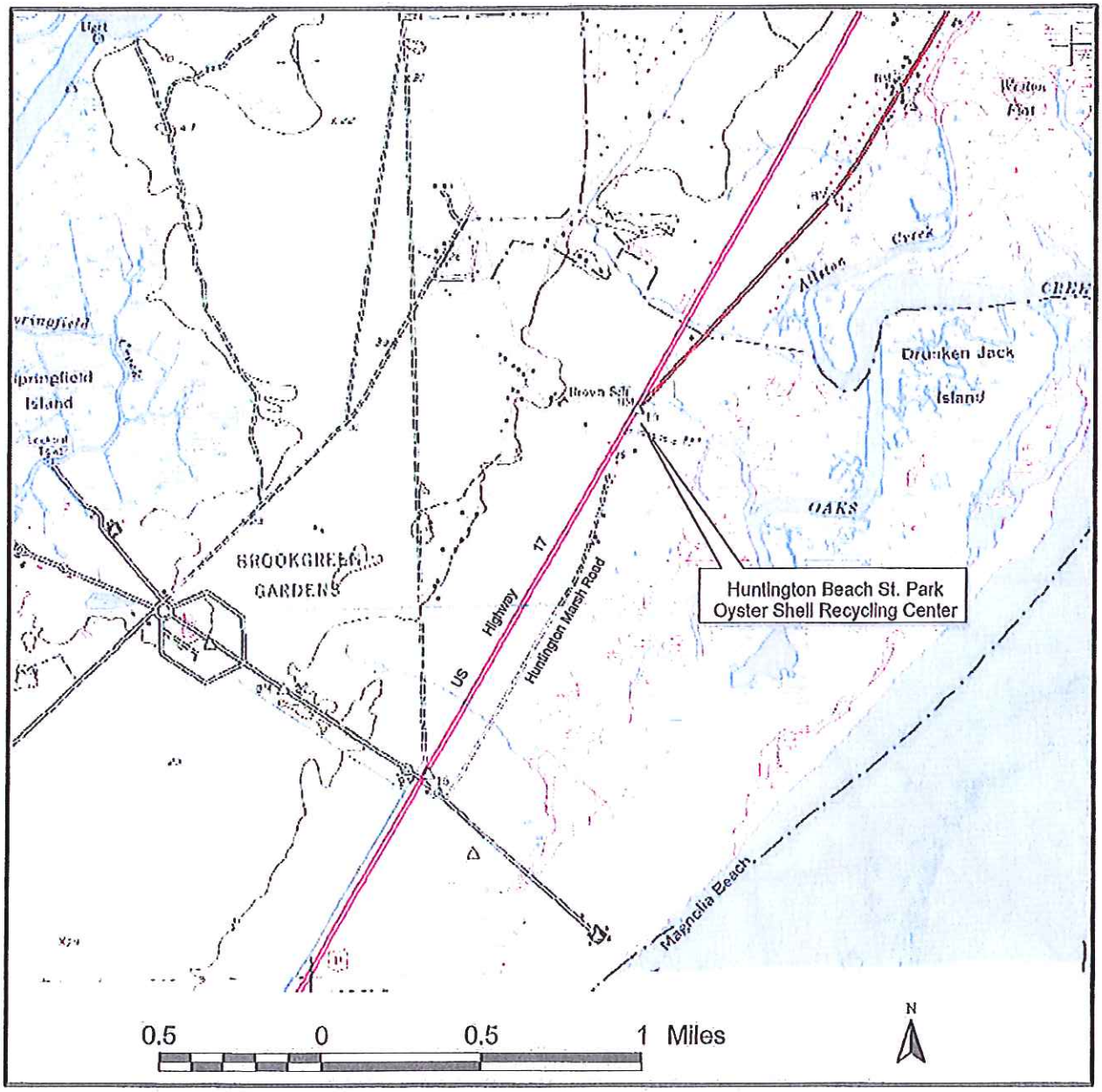


Figure 11: Waccamaw Oyster Shell Recycling Location

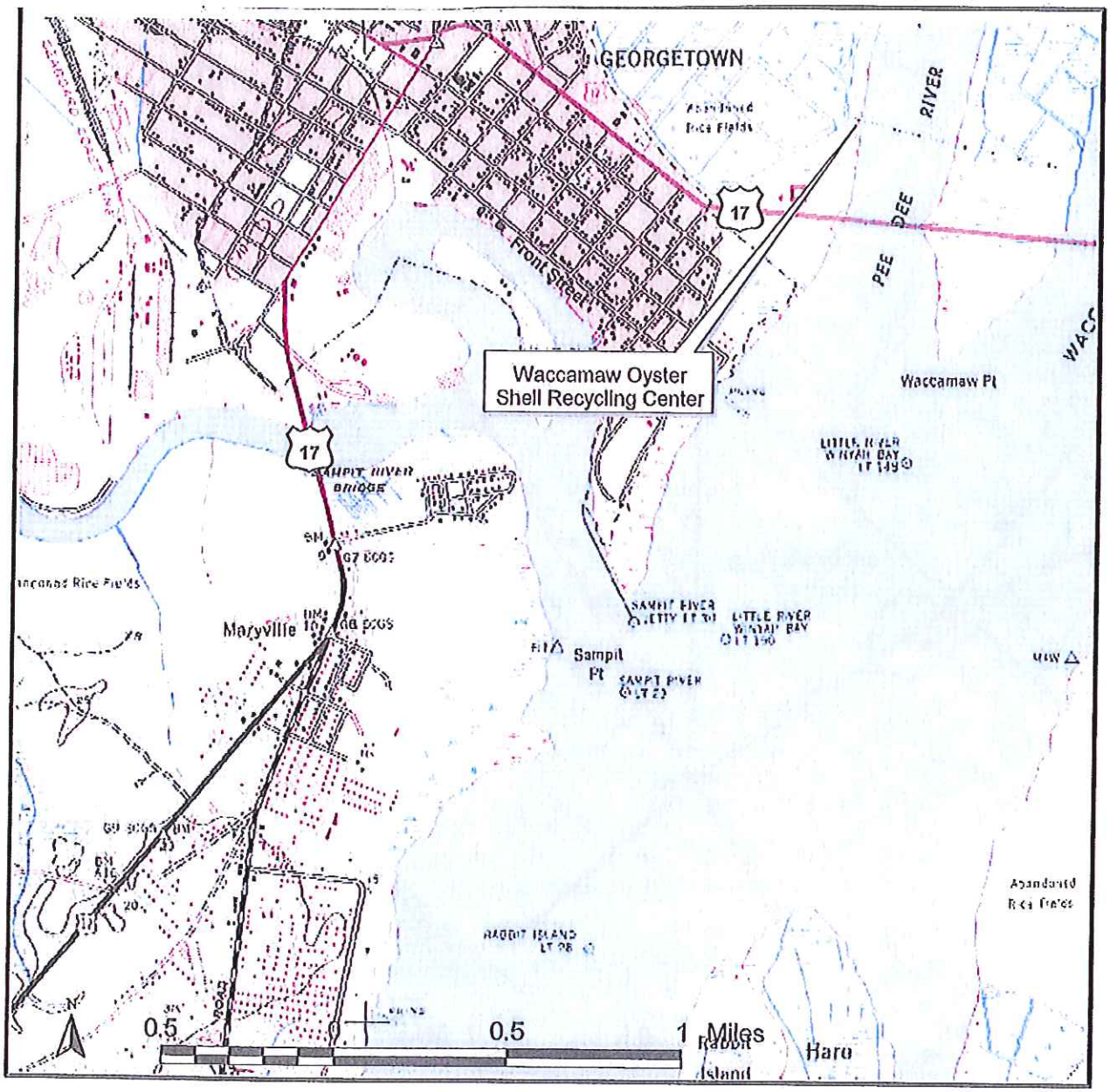
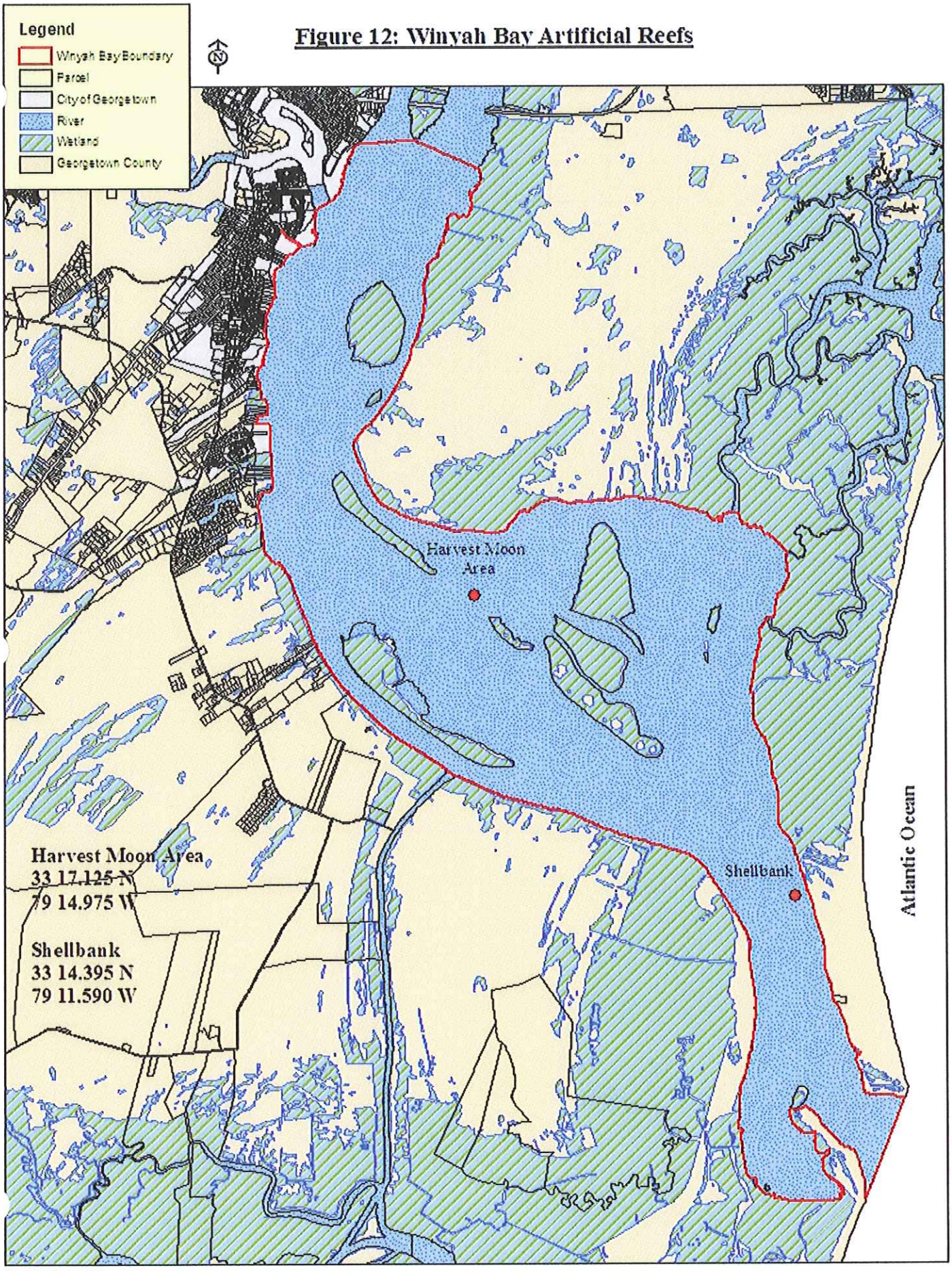


Figure 12: Winyah Bay Artificial Reefs



Slope Characteristics

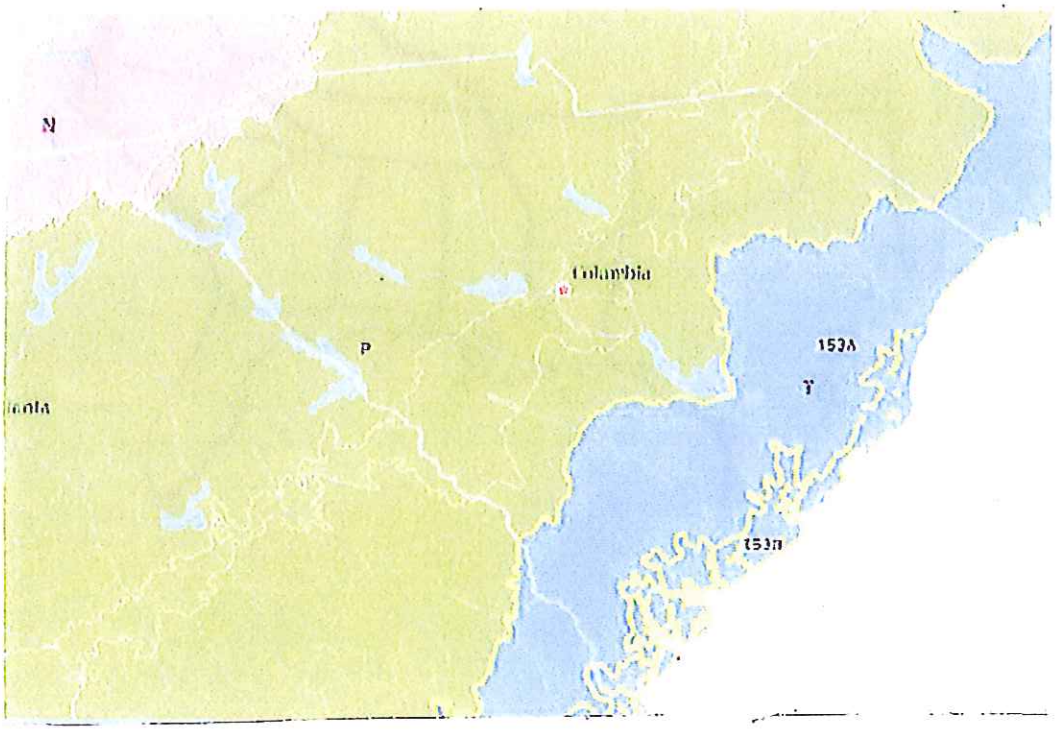
Slope is the inclination of land surface from the horizon. The elevation of Georgetown ranges from seal level sloping 60 feet to the mainland to an elevation of 76 feet on Sandy Island. Approximately 70% of the county is less than 40 feet above sea level. The County is approximately 812.5 square miles and has a portion of land in the Atlantic Coast Flatlands Land Resource Area and a portion in the Tidewater Area (See Figure 1 and Figure 2).

Characteristics of the Atlantic Coastal Flatlands include a poorly defined drainage pattern due to high water tables and moderate density of small to medium size perennial streams and a low density of associated rivers, most with moderate volume of water at very low velocity. Characteristics of the Tidewater Area include low elevation ranges from sea level and stream channels in many broad shallow valleys that terminate in estuaries along the coast.

Source: USDA 1982 Soil Survey of Georgetown County
soilphysics.okstate.edu/S257/south/mlra/153b.htm

Slope characteristics are important in Georgetown County because they affect water movement. During rainfall or storm events, water either runs across the land until it reaches the nearest surface water body or it is adsorbed by the soils. With a generally level to gently sloping characteristic in Georgetown County, water does not run off the land surface quickly, taking more time to reach surface water bodies, such as rivers and the ocean. The depth of the water table is usually positively correlated to elevation. Low elevation in Georgetown County makes its groundwater resource vulnerable to contamination. The distance from the water table, along with soil type affects how quickly the water is absorbed into soils, as well as the amount and types of pollutants that are filtered out through the soil. Future development of the county must take into account the slope characteristics and elevation to minimize flooding and water pollution.

Figure 1: Land Resource Area



Major Land Resource Area
153A *Atlantic Coast Flatwoods*

Land Resource Region
T *Atlantic and Gulf Coast Lowland Forest and Crop Region*

Source: soils.usda.gov/survey/geography/

Figure 2: Tidewater Area

Source: soilphysics.okstate.edu/

Soil Types in Georgetown County

The major soils in the County have loamy sand or sandy loam surface textures and sandy-to-sandy clay sub-soils. Drainage varies from moderately to very poor drainage which makes storm water management in the county a critical issue. Along the coast where development pressures are the greatest, the soils are thick beds of level or dune sand. The capabilities and limitations of soils in the county have a pronounced influence on how land is used for both urban and rural purposes. To promote storm water management and soil conservation, development in a specific area shall use proper cognizance of the suitability of the soil type and the Planning Commission shall require Developers to state the condition of the land and soil. Permitting processes shall include consideration of the drainage conditions and run-off gradients of the site. Control of sediment run-off in a development area shall be stated and carried out in accordance with current BMP's.

Primary emphasis is placed on the limitations for drainage, septic tanks and building foundations. In 1980, the Soil Conservation Service of the U.S. Department of Agriculture published a Soil Survey of Georgetown County, South Carolina (see local Soil Conservation Service or Cooperative Extension Service). This survey contains detailed maps locating individual soil series. See Figure 1: General Soil Map and Figure 2: Georgetown County Soils. There are 28 soil series present within the County's boundaries and they are categorized into the thirteen soil associations listed below:

Craven-Coxville- Lenoir	*Broad level area; gradients 0 –6%*
Capers	*Level tidal flats; subject to daily salt water flooding.*
Norfolk-Goldsboro-Coxville	*Broad; level or gently sloping area; gradients 0-2%.*
Lynchburg-Coxville	*Broad; nearly level areas; gradients 0-2%*
Bayboro-Portsmouth	*Level, oval shaped depressions (Carolina Bays); subject to wetness or periodic flooding.*
Chastain-Chewacca	*Flood Plains on Santee, Waccamaw, Great Pee Dee rivers old river channels; subject to flooding.*
Troup-Wagram-Rutelege	*Level or gently sloping areas; gradients 0-10%.*
Wando-Coastal Beach	*Beach areas and broad level areas around inlets; sand dunes formed naturally adjacent to the sea.*
Lakeland-Chipley	*Broad, level or gently sloping areas, gradients 0-10%.*
Kershaw-Rutelge	*Restricted to Sandy Island; high, nearly level or sloping areas; low level areas; gradients 0-10%.*
Chipley-Scranton-Rutlege	*Broad nearly level or gently sloping areas; gradients 0-10%.*
Leon-Rutlege	*Broad nearly level areas; gradients 0-6%*
Swamp-Fresh Water Marsh	*Flat swampland along Black River and Mingo Creek.*

Each of the major soil associations above is rated in accordance with the following categories:

Slight to Moderate Limitations. Development should present few soil related problems. Isolated soil deposits within the associations may, however, be unsuitable for certain applications, and an on-site investigation is recommended.
Moderate to Severe Limitations. Development can be economically feasible, but should not be considered without extensive on-site soil investigation.

Severe to Very-Severe Limitations. Development is extremely hazardous and will be difficult and costly. Development should be generally discourage and absolutely prohibited without extensive investigation.

State Level Recommendations for Soil and Water Conservation

These recommendations were taken from the Resource Planning Information Packet, which was prepared by the South Carolina Department of Natural Resources to aid local governments in specifically preparing the Natural Resources Element of the comprehensive plan.

Soil erosion is considered one of the most widespread natural resource management problems in the state. Sediment from excessive erosion produces fill in streams and lakes, which reduces their water holding capacity, and exacerbates aquatic weed problems. In rural areas, soil erosion reduces cropland productivity and damages fish and wildlife habitats. It also clogs storm drainage systems and increases the costs associated with water treatment. By volume, sediment is considered a major non-point source of water pollution.

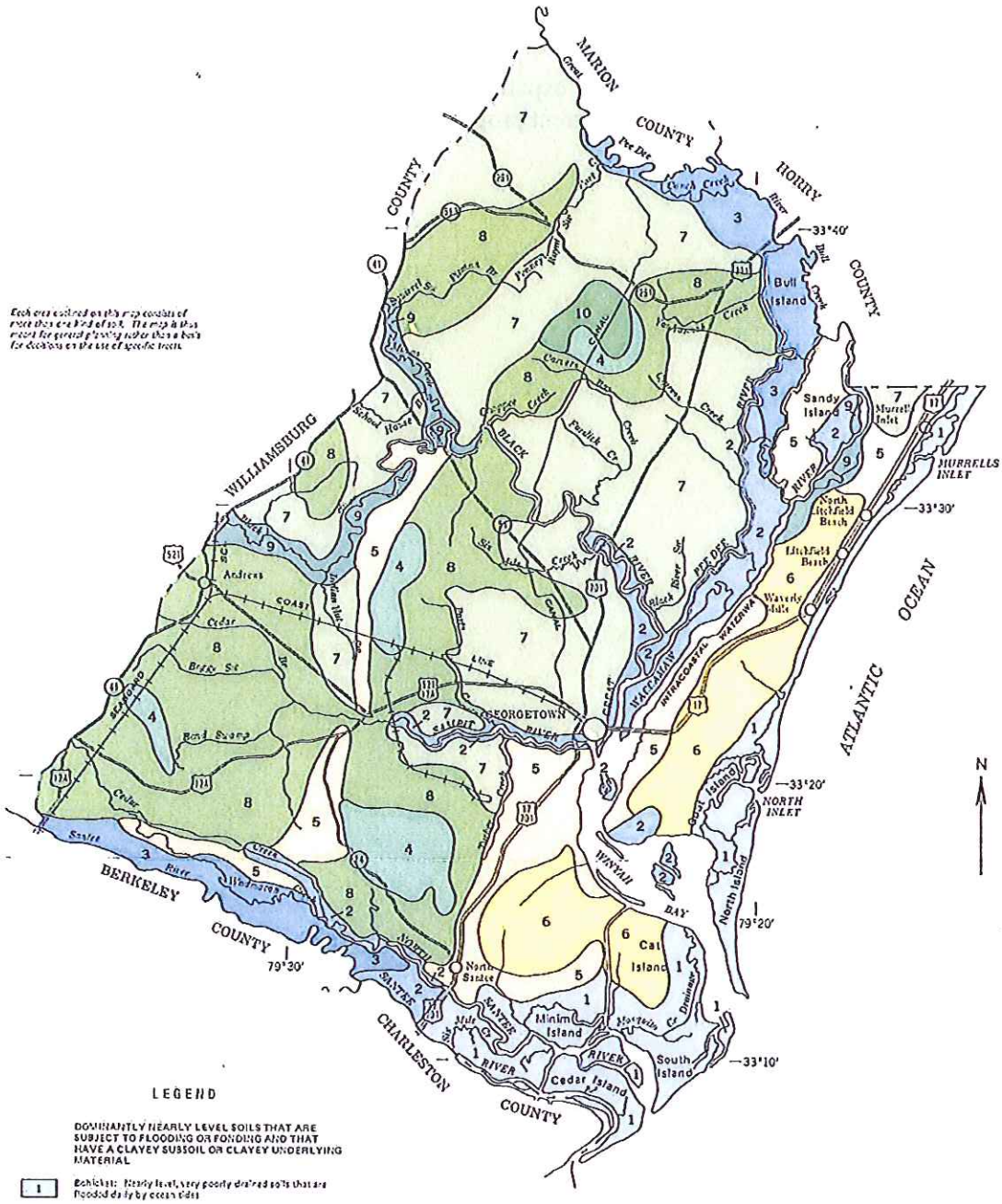
Sediment from soil erosion is carried by run-off waters into streams, lakes and marshes and generally degrades natural habitat and causes other sometimes costly effects. Sediment is considered a major non-point source pollutant. A storm water management plan for the county has been mandated by the Federal Government under the Clean Water Act. Georgetown County has met all of the suggested mandates listed below:

1. Georgetown County shall enact sediment and erosion control ordinances. Such ordinances will be part of Comprehensive Stormwater Management Program which may include the creation of a Storm water Authority and the hiring of a Stormwater Engineer in the Department of Public Works.

2. Developers and their Consultants who prepare site development plans must include standard and current BMP's that reduce run-off and retain soil sediment on the site. Required practices for permitting include (but are not restricted to) swales that allow run-off to percolate naturally where possible in parking areas, strict adherence to the tree ordinance, restricted "cut and fill" operations and thorough and effective control of construction produced silt during the entire lifetime of the construction project. The Stormwater Management Plan revisions will likely include the use of vegetative buffers and preferably using native species (not palm trees) as suggested in the mandate.

3. The Planning Commission, which reviews development projects, shall require that Developers prepare a soil and water component to any development that disturbs or adds fill dirt to the natural land surface. A soil survey must precede any earth-moving activity. Survey and technical assistance can be obtained from the South Carolina Department of Natural Resources.

4. The Planning Commission may make use of experts in the Soil and Water Conservation district for technical advice and information on current programs.



Each area colored on this map contains one or more soils described in text. The map is best used for general planning rather than as a basis for decisions on the use of specific tracts.

LEGEND

DOMINANTLY NEARLY LEVEL SOILS THAT ARE SUBJECT TO FLOODING OR PONDING AND THAT HAVE A CLAYEY SUBSOIL OR CLAYEY UNDERLYING MATERIAL

1 — Bohicket: Nearly level, very poorly drained soils that are flooded daily by ocean tides

2 — Levy: Nearly level, very poorly drained soils along the major rivers and backwater areas

3 — Chastain: Nearly level, poorly drained soils along the upper reaches of the major rivers

4 — Cape Fear: Nearly level, very poorly drained soils in depressions

DOMINANTLY NEARLY LEVEL TO GENTLY SLOPING SOILS THAT ARE SANDY THROUGHOUT

5 — Lakeland-Chipley-Centenary: Nearly level to gently sloping, excessively drained and moderately well drained soils

6 — Leon-Lynn Haven-Chipley: Nearly level, poorly drained and moderately well drained soils

DOMINANTLY NEARLY LEVEL UPLAND SOILS THAT HAVE A LOAMY SUBSOIL

7 — Yauhannah-Varnado: Nearly level, moderately well drained and somewhat poorly drained soils

DOMINANTLY NEARLY LEVEL UPLAND SOILS THAT HAVE A CLAYEY SUBSOIL

8 — Bladen-Wahee-Exum: Nearly level, poorly drained to moderately well drained soils

DOMINANTLY NEARLY LEVEL SOILS THAT ARE SUBJECT TO FLOODING OR PONDING AND THAT ARE ORGANIC THROUGHOUT OR HAVE SANDY UNDERLYING MATERIAL OR A LOAMY SUBSOIL

9 — Hobonny: Nearly level, very poorly drained organic soils on flood plains

10 — Johnston-Hobcaw: Nearly level, very poorly drained soils in depressions

Compiled 1981

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
SOUTH CAROLINA AGRICULTURAL EXPERIMENT STATION
SOUTH CAROLINA LAND RESOURCES CONSERVATION COMMISSION

GENERAL SOIL MAP

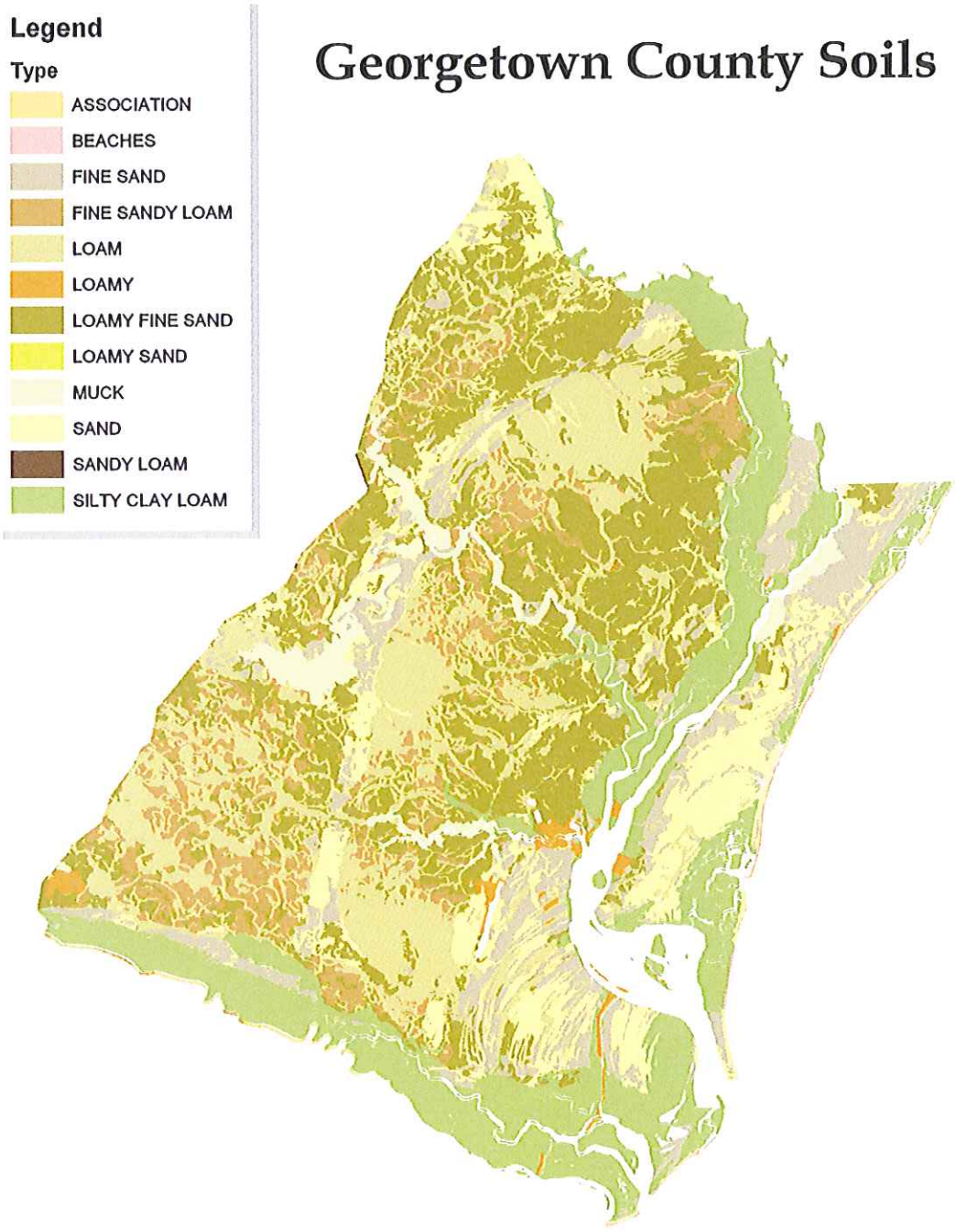
GEORGETOWN COUNTY, SOUTH CAROLINA

Scale 1:316,800

1 0 1 2 3 4 5 Miles

1 0 5 10 Km

Figure 2: Georgetown County Soils



Prime Agricultural, Aquaculture, and Forest Land

Prime Agriculture

Prime agricultural soils are included in some of the major soil associations in the county. These soils, as defined by the U.S. Department of Agriculture, are the soils best suited to producing food, feed, forage and fiber and oilseed crops. These soils have properties that are favorable for the economic production of sustained high yields of crops. About 115,000 acres or 22% of the county is considered prime agricultural land. Prime agricultural land is found primarily west of the Waccamaw River in the western section of the county.

United States Government Department of Agriculture Us: Soil & Water Conservation Service
The Service Center in the City of Georgetown includes Farm Service Agency, Natural Resources Conservation Service, and Conservation District

Source: http://offices.sc.egov.usda.gov/

Natural Resources Conservation Service
The Natural Resources Conservation Service (NRCS) programs are aimed to help people reduce soil erosion, enhance water supplies, improve water quality, increase wildlife habitat, and reduce damages caused by floods and other natural disasters. NRCS provides technical and financial assistance for many conservation activities. Participation in the programs is voluntary.

Source: http://www.nrcs.usda.gov/about/

South Carolina Department of Agriculture

Our mission is to promote and nurture the growth and development of South Carolina's agriculture industry and its related businesses while assuring the buying public of safety and security. Our shared vision is for the state economy to grow and prosper providing everyone, producers and consumers, opportunities to enjoy the fruits of agriculture.

The South Carolina Department of Agriculture supports efforts to promote the commerce of agriculture while ensuring a fair marketplace for consumers. There is not an office location in Georgetown County.

Source: http://agriculture.sc.gov/

Open Air Farmers Markets
Georgetown County has two open air farmers markets. One is in the City of Georgetown at East Bay Park and the other is in the Pawleys Island Community at the Parkersville Park, which is located on Recreation Loop Road between Petigru and Duncan.

Aquaculture

Aquaculture refers to the breeding, rearing, and harvesting of plants and animals in all types of water environments. These environments include ponds, rivers, lakes, and the ocean. Similar to agriculture, aquaculture can take place in the natural environment or in a manmade environment.

Marine aquaculture refers to the culturing of marine species, while freshwater aquaculture focuses on the culturing of freshwater species.

Source: http://aquaculture.noaa.gov/

The Marine Resources Research Institute

The Marine Resources Research Institute (MRRI) supports the Department of Natural Resource Marine Division resource management and educational programs. MRRI scientists work with the Office of Fisheries Management (OFM) to conduct research and monitoring programs, assess the condition of our coastal resources and provide data required to address policy and management issues related to those resources. MRRI also provides facilities for research.

MRRI has focused various activities on development of tools to increase fishery resources as well as the development of new farmed seafood products. Wild fishery resources have been reduced by habitat loss, pollution, and overfishing at non-sustainable levels. As more people have moved to the coast and as tourism grows in importance demand for fresh seafood supplies has increased. Research areas of MRRI include development of environmentally friendly technologies for producing seafood; utilization of hatchery-produced organisms to improve our understanding of natural fish populations and the ecosystems upon which they depend; testing the potential of increasing fish populations through releases of hatchery produced fish; and technology transfer of important findings to the private and public sectors.

Source: www.dnr.sc.gov/marine/mrri/aquaculture

Clemson University Extension

The mission of the Belle W. Baruch Institute of Coastal Ecology and Forest Science is to conduct research and education programs focused on the ecology and management of the natural resources of the coastal region of South Carolina for the betterment of the state's citizens.

Clemson University conducts aquaculture research. The Extension programs are directed at all aquaculture species in South Carolina.

University of South Carolina

The mission of the Belle W. Baruch Institute for Marine and Coastal Sciences is to conduct research and support education that will improve the management of marine and coastal resources and advance basic science for the well-being of people and their environment.

The Belle W. Baruch Institute for Marine & Coastal Sciences conducts basic research on environmental processes, tidal, estuarine and coastal ocean environments. Studies include the molecular to landscape level, including the effects of human activities.

Source: www.hobcawbarony.org/

Carolinas Coastal Ocean Observing and Prediction System

The Carolinas Coastal Ocean Observing and Prediction System (Caro-COOPS) monitors and models estuarine and coastal ocean conditions, as well as develops predictive tools and

ultimately forecasts for coastal managers. Future applications of Caro-COOPS information will include water quality and transport of pollutants, sediment transport and shoreline stability, and the state of the fisheries. Caro-COOPS also includes information management infrastructure designed to process and deliver information to a variety of public users, as well as to model applications. Caro-COOPS is a partnership among the University of South Carolina, North Carolina State University, and the University of North Carolina at Wilmington. It is funded by the National Oceanic and Atmospheric Administration.

Source: www.carocoops.org/carocoops

South Carolina Aquaculture Association

The South Carolina Aquaculture Association (SCAA) conducts activities beneficial to the production, promotion and marketing of aquaculture in South Carolina. SCAA is a producer-oriented association represented by all areas of the industry including producers, suppliers, educators, technical support, regulatory agencies, government representatives and interested individuals. The goals are to unite all segments of the aquaculture community and to serve as an umbrella organization to represent mutual interests.

Source: http://agriculture.sc.gov/

Forest Land

Georgetown County is rich in botanical resources. Chief among these resources are the forests which account for 377 square miles or about three fourths of the total land area in the county. The multi-functional forest provides food and shelter for wildlife and they also provide economic wealth to the County's population. Other important types of vegetation found in the County protected by the forestation include grasses, legumes, herbaceous plants and wetland plants. Examples of these include the wetland plants wild rice and cord grass, the herbaceous plants bluestem and goldenrod, and the grass plant fescue.

According to satellite imagery there are three types of forests in the county, covering 71% of the land area; evergreen forests cover 46%, mixed forests cover 12% and saturated bottomland forest covers 13%. Georgetown County forest land includes slash pine, loblolly pine, oak, bald cypress, tupelo gum, and black willow, red maple, and sweet gum trees. Regular burning is essential to maintain the viability of the pine forests.

Between 66% and 77% of the land in Georgetown County was classified as forest in 2006. The value of timber delivered to Forest Product Mills in 2007 by Georgetown County was:

County Acres of Forestland:	419,907 acres*
Percent Forest:	73%*
Stumpage Timber Value Delivered:	$25,618,713**
Timber Value Delivered Value:	$40,829,995**
Rank:	2

*estimates from the Forest Inventory and Analysis (FIA))
**value from Timber Products Output (TPO) Survey

Source: www.state.sc.us/forest/geo.htm

American Forest Foundation

Conserving and enhancing family forests by developing and disseminating innovative approaches for family forest owners to manage for both ecological and economic gains

The Center for Conservation Solutions initiative for conservation-reliant species in South Carolina is motivating and educating family forest owners in South Carolina to improve and protect wildlife habitat. The initiative encourages landowners to practice conservation forestry that creates and restores habitat for species on the decline and at the same time generates income for the landowner from timber and other uses.

Source: conservationforestry.org

South Carolina Forestry Commission

The mission of the South Carolina Forestry Commission is to protect, promote, enhance, and nurture the forest lands of South Carolina in a manner consistent with achieving the greatest good for its citizens.

The Forestry Commission is charged with protecting South Carolina's forest resources. The Black River Unit in Kingstree, SC, is the regional dispatch center for Georgetown County. The Commission also provides educational programs to better inform citizens concerning the wise use and management of forest resources.

Source: www.trees.sc.gov/

Sustainable Forestry Initiative

The Sustainable Forestry Initiative (SFI) Inc. balances the growing and harvesting of trees with the protection of wildlife habitat, soil, and air and water quality. SFI is an independent, non-profit organization responsible for maintaining, overseeing and improving a sustainable forestry certification program that is internationally recognized and is the largest single forest standard in the world. In addition to promoting sustainable forest management on SFI certified lands, SFI participants must also ensure that the wood they purchase comes from legal and well-managed sources.

Source: www.sfiprogram.org/sustainable-forestry-initiative/

International Paper

International Paper (IP) is a paper and packaging industry and supplies a range of products including uncoated papers and industrial and consumer packaging. Georgetown County has three IP sites. The Georgetown East Region Fiber Supply Procurement Office has corporate and business offices; the Georgetown Mill produces paper and offers commercial printing and imaging; and the Georgetown Santee Woodyard also houses corporate and business offices.

IP practices third-party certification of independent standards including the Sustainable Forestry Initiative® (SFI®), the Program for the Endorsement of Forest Certification (PEFC), the Forest Stewardship Council (FSC) and the Brazilian Forest Certification Standard.

Source: www.ipaper.com/US/

Mead Westvaco

Mead Westvaco (MWV) provides packaging solutions to brands in the healthcare, personal & beauty care, food, beverage, media and entertainment, and home & garden industries. MWV has a Community Development and Land Management Group division which includes Forestry Centers. MWV has corporate offices in North Charleston and Summerville, SC, but own a significant amount of land in Georgetown County. All of the forests and wood procurement operations in the U.S. are third-party certified to the SFI® Standard.

Source: www.meadwestvaco.com/StewardshipSustainability/

Resource Management Services, LLC

Resource Management Services, LLC (RMS) is a private timberland investment firm. RMS provides timberland owners and investors services through the disciplined integration of forestry and finance. All RMS-managed properties are third-party certified in accordance with the principles, objective and indicators set forth in either Forest Stewardship Council standard (Brazil) or the Sustainable Forestry Initiative Standard (United States).

Source: www.resourcemgt.com/

Preservation of Prime Agricultural, Aquaculture, and Forest Land

The following state recommendations shall be considered by Georgetown County to address some of the threats to prime agriculture and forest land.

- Long-term comprehensive planning efforts at the local, county and regional level shall require proper planning of industrial and urban development so that "leapfrog" development does not occur on agricultural and associated rural lands.

- Cooperation between planners, local governments and all vested parties shall be established. These relationships shall be maintained through common projects to protect prime agricultural and forest lands. The county shall promote the use of conservation easements, land trusts and preservation programs as outlined in the state's Conservation Bank Act as a means to protect natural resources.

- Continue to implement Low-Density Zoning in the Western part of the County to encourage the preservation of rural prime agricultural and forest lands.

- Local and regional comprehensive planning efforts shall address the vital roll of rural landscapes and agriculture communities in the quality of life status of the overall community. The protection of natural habitats that support hunting, fishing and related outdoor activities are crucial elements of the rural setting and are important in attracting new growth to local communities.

- County government shall minimize the impacts to traditional rural areas by carefully

planning ahead of transportation, water and sewer expansions and other infrastructure developments known to accelerate and intensify growth.

Plant and Animal Habitats

Georgetown County encompasses a wide range of natural habitats, varying from dry upland ridges that have sparse plant cover to upland deciduous forest that provide a variety of food and cover for wildlife. Bottomlands afford another kind of habitat; while farm ponds, lakes, and streams provide favorable conditions for many species of fish. The southeastern part of the County includes large areas of marshland that extend inland for many miles along the major streams. These marsh areas are suited to ducks, geese, and other wetland wildlife. This variety of habitats supports rich wildlife, including a large number of recreationally and commercially targeted species.

The county's inland aquatic habitats—ponds, lakes, rivers, and marshes—harbor many species of fish and waterfowl, including a number of migratory bird species. Upland and forested habitats are home to popular game species such as the eastern cottontail rabbit, gray squirrel, white-tailed deer, wild turkey, bobwhite quail, and mourning dove. The wild turkey population is increasing because of restocking carried out by the South Carolina Department of Natural Resources. The Region also lies within the Atlantic Flyway, which accounts for the tremendous population of waterfowl in the fall and spring.

Interdependent species of flora and fauna referred to as an ecological community, simultaneously shape and rely upon the habitats in which they are found. Thus, wildlife protection is practiced more effectively on the habitat scale than through single species conservation. Rivers, wetlands, coastal marshes and estuaries, and sand beach and dune habitats are among the most environmentally sensitive areas of the county and merit special protection.

In recognition of the importance of habitat preservation to wildlife protection, land use planning in Georgetown County shall be compatible with the protection of critical wildlife habitats. A number of federal, state, and privately held protected areas exist in Georgetown County. Private protected areas include conservation easements and foundation holdings.

Shellfish

Oysters

Oysters create living habitats which are essential to many other estuarine ecosystems. Oysters influence water quality by filtering large quantities of water, improving water clarity and quality while transferring nutrients from the water column to the benthos. Oysters also provide natural breakwaters.

The South Carolina Oyster Restoration and Enhancement Program (SCORE) is a community-based habitat restoration and monitoring program of the South Carolina Department of Natural Resources. Community volunteers work with scientists to restore and monitor oyster habitat along the South Carolina coast. See Table A for SCORE sites in Georgetown County.

Table A: Georgetown County SCORE sites

Site	Location	Year Built	Oyster Reef Assessment
Murrells Inlet	near Oyster Landing	2001	This site has average recruitment and above average growth of oysters. The site was expanded in 2003. In 2004, the site had the largest oysters of 5 sites tested and clear evidence of multiple year classes, indicating continuing recruitment. This site is judged to be successful. Water monitoring data is available for this site.
Pawleys Island	Pritchard Street Landing	2001	This site has poor recruitment and growth of oysters. The pattern of water flow at this site results in a stagnant area over the reefs and silt tends to smother most oyster recruits. In response to these conditions, in 2002, vertical (stump) bags and bags preset with hatchery-reared oysters were added. This site was assessed in 2006. The main reefs are still not doing well but the vertical bags have dense populations of oysters and mussels.
Huntington Beach State Park,	near education center pier	2003	This site has not yet been assessed to determine how the reefs are doing.

Source: score.dnr.sc.gov/

Marine Resources Research Institute

The Marine Resources Research Institute (MRRI) provides the scientific expertise and facilities to support the Marine Division's resource management and educational programs. MRRI scientists collaborate with the Office of Fisheries Management (OFM) to conduct research and monitoring programs to assess the condition of our coastal resources and provide data required to address policy and management issues related to those resources. The Shellfish Research Section of the (MRRI) monitors the state of oyster and clam resources, studies oyster reef ecology, develops and evaluates oyster restoration methods, and assesses the success of restoration efforts.

Source: www.dnr.sc.gov/marine/mrri/

Shellfish Harvesting

State-approved shellfish harvesting areas and oyster beds exist along the coast. Due to discharges from oxidation ponds, treatment plants, malfunctioning septic tanks, and urban runoff, some shell fishing areas periodically closed. Maps S342, S349, S350, S357, S358, P351, and P357 indicate the locations of the shellfish beds in Georgetown County that are both open and closed to shell fishing.

Marine Turtle Conservation Program

The South Carolina Department of Natural Resources Marine Turtle Conservation Program is responsible for managing and protecting sea turtles in the state of South Carolina. This program has several components including management, monitoring, research, and education. The program provides technical expertise on anthropogenic activities, such as nourishment and dredging that have the potential to impact sea turtles; locates and protects sea turtle nests; documents strandings and works with the SC Aquarium to provide rehabilitation for live strandings; and monitors nearshore waters for leatherbacks.

Source: www.dnr.sc.gov/

South Carolina United Turtle Enthusiasts

South Carolina United Turtle Enthusiasts (SCUTE) is a volunteer organization dedicated to sea turtle conservation in Georgetown and Horry counties. SCUTE is permitted by the S.C. Department of Natural Resources to protect, monitor, and relocate turtle nests as well as recording turtle deaths through the Sea Turtle Stranding and Salvage Network. SCUTE works to control beachfront lighting which disorients nesting female turtles and hatchlings. Georgetown County and the Town of Pawleys Island have passed ordinances to limit beachfront lighting along their beaches. Companies have also contributed to minimizing beachfront lighting by shielding lights as well as supporting sea turtle public education programs.

Source:www.santeecooper.com/

Protected Areas

The borders of preserves and wildlife refuges are not impenetrable ecological barriers. Rather, they are fluid boundaries that are susceptible to the influence of outside activities. These protected areas safeguard Georgetown County's natural legacy and are important areas for education and scientific research. The county shall promote the designation of additional preserves and encourage the conservation of natural habitats by private land owners. See Table B for the protected areas in Georgetown County.

Table B. Protected Areas in Georgetown County

Protected Area	**Designation**
Huntington Beach State Park	State Park
Samworth Wildlife Management Area	Wildlife Management Area
Sandy Island	Preserve
Tom Yawkey Wildlife Center	Heritage Trust Program
North Inlet-Winyah Bay National Estuarine Research Reserve	National Estuarine Research Reserve
Waccamaw National Wildlife Refuge	National Wildlife Refuge
Santee Delta Reserve Wildlife Management Areas	Wildlife Management Areas

Wildlife Management Areas

Wildlife Management Areas in Georgetown County provide open public lands to sportsmen and other wildlife enthusiasts. Portions of the Santee Delta and Samworth Wildlife Management Areas are open year-round to public hunting and recreation. These areas are subject to regulations and special schedules of the South Carolina Department of Natural Resources.

The Heritage Trust Program

The Heritage Trust Program was the first such program in the nation. The South Carolina Department of Natural Resources created the Heritage Trust Program to help prevent habitat loss by protecting critical natural habitats and significant cultural sites. The Heritage Trust Program enabled South Carolina Department of Natural Resources (SCDNR) and other state agencies to set aside natural areas to serve as protected heritage preserves. These natural areas provide resources for scientific research; serve as reservoirs of natural and historical elements, and habitats for rare and vanishing species. The Tom Yawkey Wildlife Center is 31 square miles of

marsh, managed wetlands, forest openings, ocean beach, longleaf pine forest and maritime forest. The preserve is part of the Heritage Trust Program and is principally dedicated as a wildlife preserve, research area and waterfowl refuge

Source: www.dnr.sc.gov/

National Estuarine Research Reserve System

The National Estuarine Research Reserve (NERR) System is a partnership program between the National Oceanic and Atmospheric Administration and the coastal states. Each reserve is managed on daily basis by a lead state agency or university, with input from local partners to help communities develop strategies to deal successfully with these coastal resource issues. Reserve staff work with local communities and regional groups to address natural resource management issues including habitat restoration and invasive species.

The NERR site in Georgetown County is the North Inlet-Winyah Bay National Estuarine Research Reserve. The Reserve protects more than 12,327 acres of habitats ranging from tidal and transitional marshes to oyster reefs, beaches, and inter-tidal flats and from coastal island forests to open waterways. More than 90% of the North Inlet estuary watershed is in its natural forested state. The salt marshes and tidal creeks have higher habitat quality than those in adjacent Winyah Bay. The estuary has the third largest watershed on the east coast. The brackish waters and marshes have been greatly influenced by agriculture, industry and other human activities. The reserve is home to many threatened and endangered species, including sea turtles, sturgeons, least terns and wood storks. See Figure 1: North Inlet Habitat Map and Figure 2: North Inlet-Winyah Bay National Estuarine Research Reserve.

Source:www.nerrs.noaa.gov/

Flora and Fauna

In addition to commercially and recreationally important species, rare and endangered species of flora and fauna are of special concern for land use decision makers in Georgetown County. Figure 3: South Carolina Rare, Threatened, & Endangered Species Inventory lists all species of concern in Georgetown County.

To encourage the use of native species of plant material, to help with the protection of our open space and native tree species, Georgetown County Planning staff is currently revising the Zoning Ordinance regarding tree regulations and landscaping/buffer requirements to include the use of native species in tree replacement and landscaping as well as tree preservation and protection.

Brookgreen Gardens

The E. Craig Wall, Jr. Lowcountry Center at Brookgreen Gardens offers natural flora gardens native to Georgetown County. The Center is also home to the Cultural Garden, a display of vegetable and herbs grown during the plantation period at Brookgreen Gardens.

Source: www.brookgreen.org/

Hobcaw Barony

Hobcaw Barony is a 17,500 acre research reserve and is one of the few undeveloped tracts on the Waccamaw Neck. There is an abundance of swamps, pine and hardwood forests, salt marsh and barrier island environments providing a habitat to native plants.

Source: hobcawbarony.org/

Sandy Island

Sandy Island is the largest undeveloped tract remaining in the Waccamaw Neck. The 9,000 acre island of wetland and upland communities supports a large number of rare plant communities. The uplands cover about half of the island and exhibit many plant communities typical of the Sand hills Region, along with those more commonly found in the Outer Coastal Plain. The north end of the island supports a longleaf pine community with very little hardwoods under story. Mature longleaf pine in excess of 100 years old dominate the upland landscape. Fire is a natural component of such communities, preserving health, quality and diversity. Where fire was suppressed in the south end of the island, turkey oak dominates the upland landscape.

Source:www.nature.org/

Waccamaw National Wildlife Refuge

The National Wildlife Refuge (NWR) is located in portions of Horry, Georgetown, and Marion County Waccamaw and spans over 55,000 acres. The Waccamaw NWR manages 22,931 acres. The Waccamaw NWR was established to protect and manage diverse habitat components within an important coastal river ecosystem for the benefit of endangered and threatened species, freshwater and anadromous fish, migratory birds, and forest wildlife, including a wide array of plants and animals associated with bottomland hardwood habitats; and provide compatible wildlife-dependant recreational activities including hunting, fishing, wildlife observation, photography, and environmental education and interpretation for the of present and future generations.

Source: www.fws.gov/waccamaw/

American Forest Foundation

Conserving and enhancing family forests by developing and disseminating innovative approaches for family forest owners to manage for both ecological and economic gains.

The Center for Conservation Solutions initiative for conservation-reliant species in South Carolina is motivating and educating family forest owners in South Carolina to improve and protect wildlife habitat. The initiative encourages landowners to practice conservation forestry that creates and restores habitat for species on the decline and at the same time generates income for the landowner from timber and other uses.

Source: conservationforestry.org

Coastal Conservation League

OUR MISSION is to protect the natural environment of the South Carolina coastal plain and to enhance the quality of our life of our communities by working with individuals, businesses and government to ensure balanced solutions.

Georgetown County is in the North Coast Region of the Coastal Conservation League (CCL). The CCL works with communities, businesses, other conservation and citizen groups to protect natural habitats and the wildlife that depends on them. Georgetown County is continuing to develop and CCL promotes protection of natural and rural landscapes, water resources, and traditional communities as this development increases.

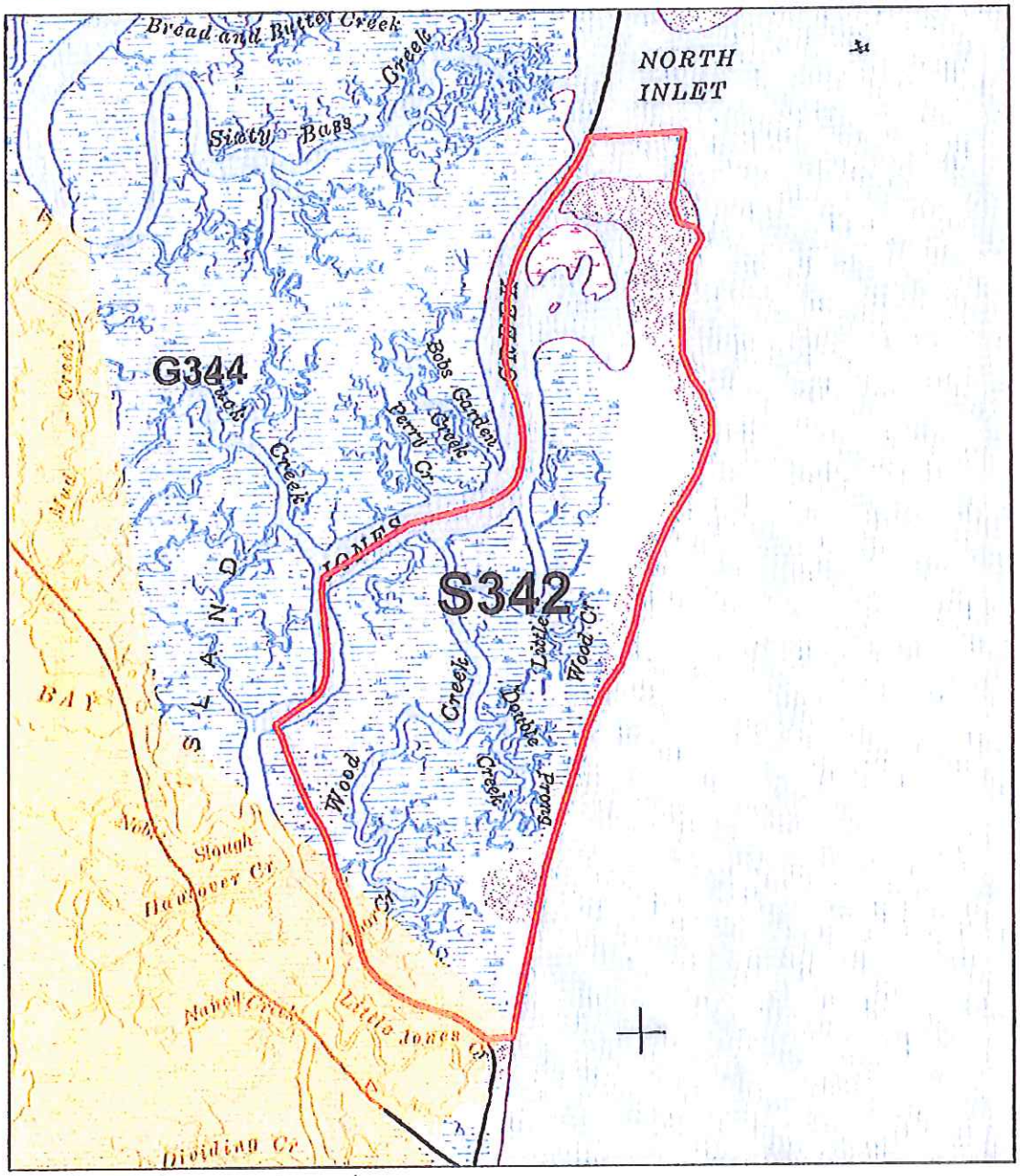
Source: coastalconservationleague.org/

Jones Creek S342

SCDHEC Shellfish Management Area 5. These areas are subject to closure at any time. Please call 1-800-285-1618.

SHELLFISH SEASON
2009 - 2010

Clams - Partially Closed SCDHEC
Oysters - Partially Closed SCDHEC



Legend

- PERMIT BOUNDARY
- C000 = SHELLFISH CULTURE PERMIT
- G000 = GRANT PERMIT
- M000 = MARICULTURE PERMIT
- S000 = STATE SHELLFISH GROUND
- R000 = RECREATIONAL SHELLFISH GROUND

WATER QUALITY (SCDHEC)
- CONDITIONALLY APPROVED
- PROHIBITED
- RESTRICTED

0 215 430 860 1,290 1,720 Meters
0 245 490 980 1,470 1,960 Yards

Location: Eastern shoreline of Jones Creek including Wood Creek, Little Wood Creek and Double Prong Creek.
County: Georgetown

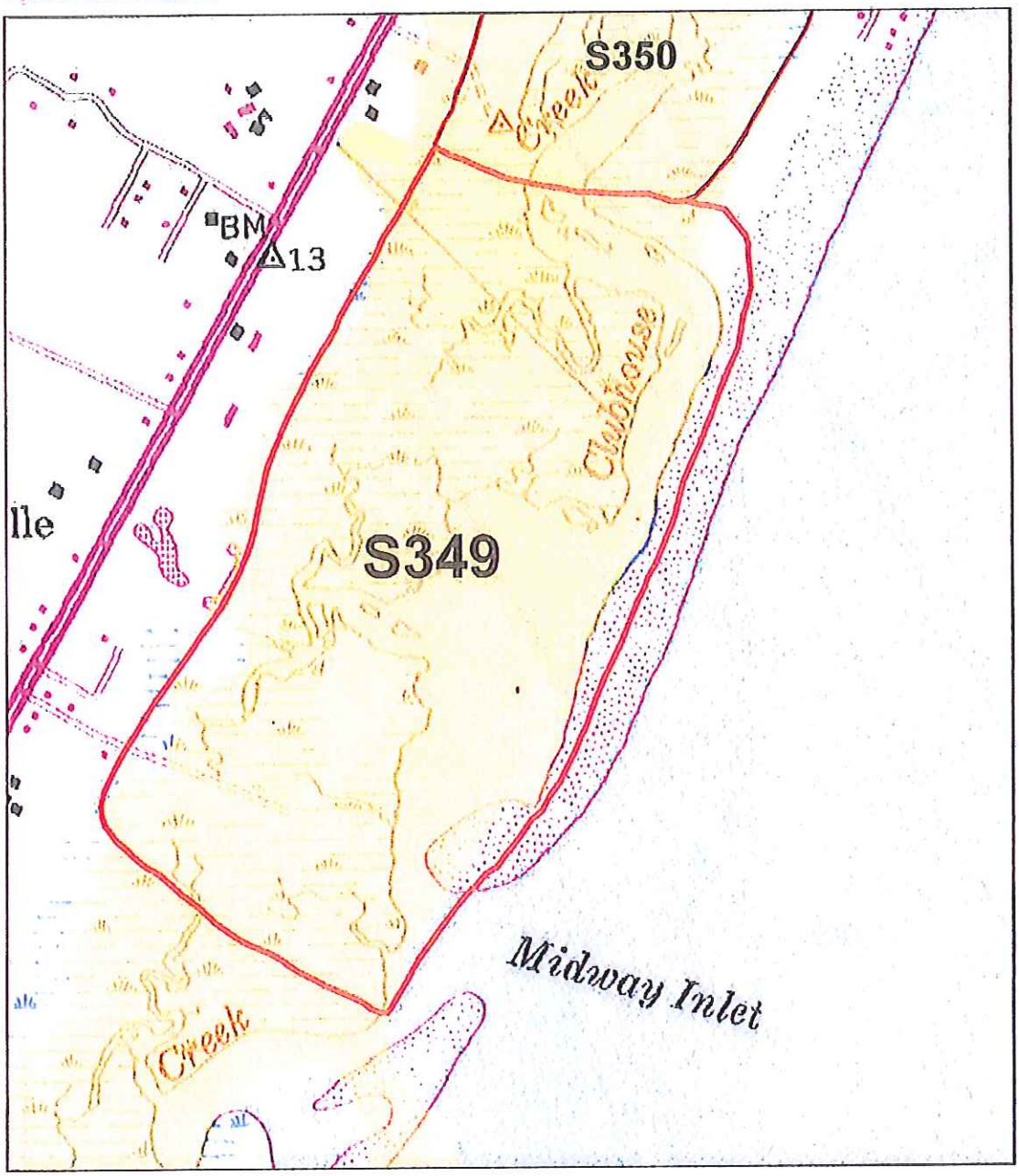
PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
09/2009

Litchfield South S349

SCDHEC Shellfish Management Area 4.
These areas are subject to closure
at any time. Please call 1-800-285-1618.

SHELLFISH SEASON
2009 - 2010

Clams - Closed - SCDHEC
Oysters - Closed - SCDHEC



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M000 = MARICULTURE PERMIT
S000 = STATE SHELLFISH GROUND
R000 = RECREATIONAL SHELLFISH GROUND

WATER QUALITY (SCDHEC)
CONDITIONALLY APPROVED
PROHIBITED
RESTRICTED

0 90 180 360 540 720 Meters
0 100 200 400 600 800 Yards

Location: Litchfield
County: Georgetown

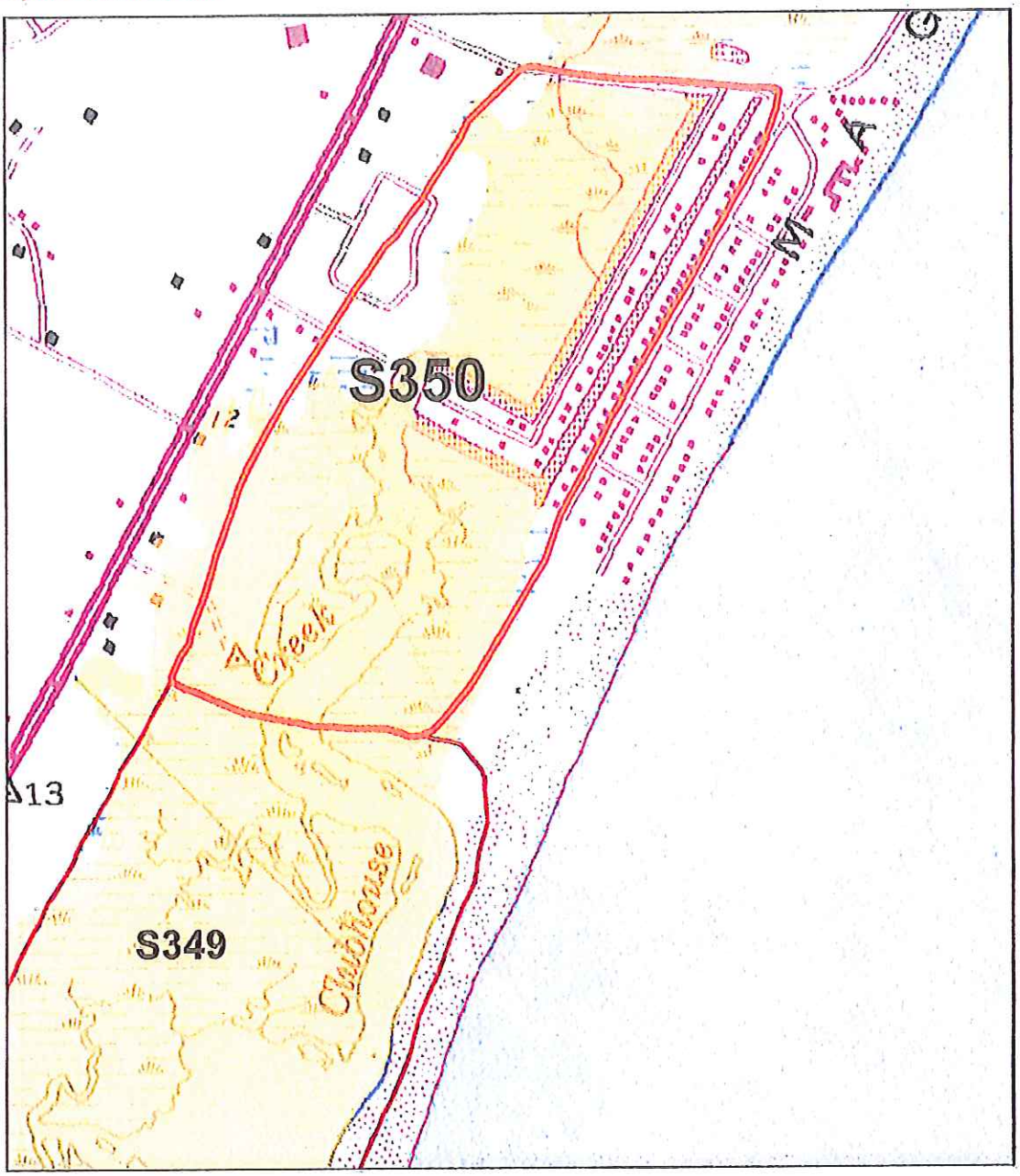
PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
©2009

Litchfield North S350

SHELLFISH SEASON
2009 - 2010

SCDHEC Shellfish Management Area 4.
These areas are subject to closure at any time. Please call 1-800-285-1618.

Clams - Closed - SCDHEC
Oysters - Closed - SCDHEC



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M000 = MARICULTURE PERMIT
S000 = STATE SHELLFISH GROUND
R000 = RECREATIONAL SHELLFISH GROUND

WATER QUALITY (SCDHEC)
CONDITIONALLY APPROVED
PROHIBITED
RESTRICTED

0 90 180 360 540 720 Meters
0 100 200 400 600 800 Yards

Location: Litchfield
County: Georgetown

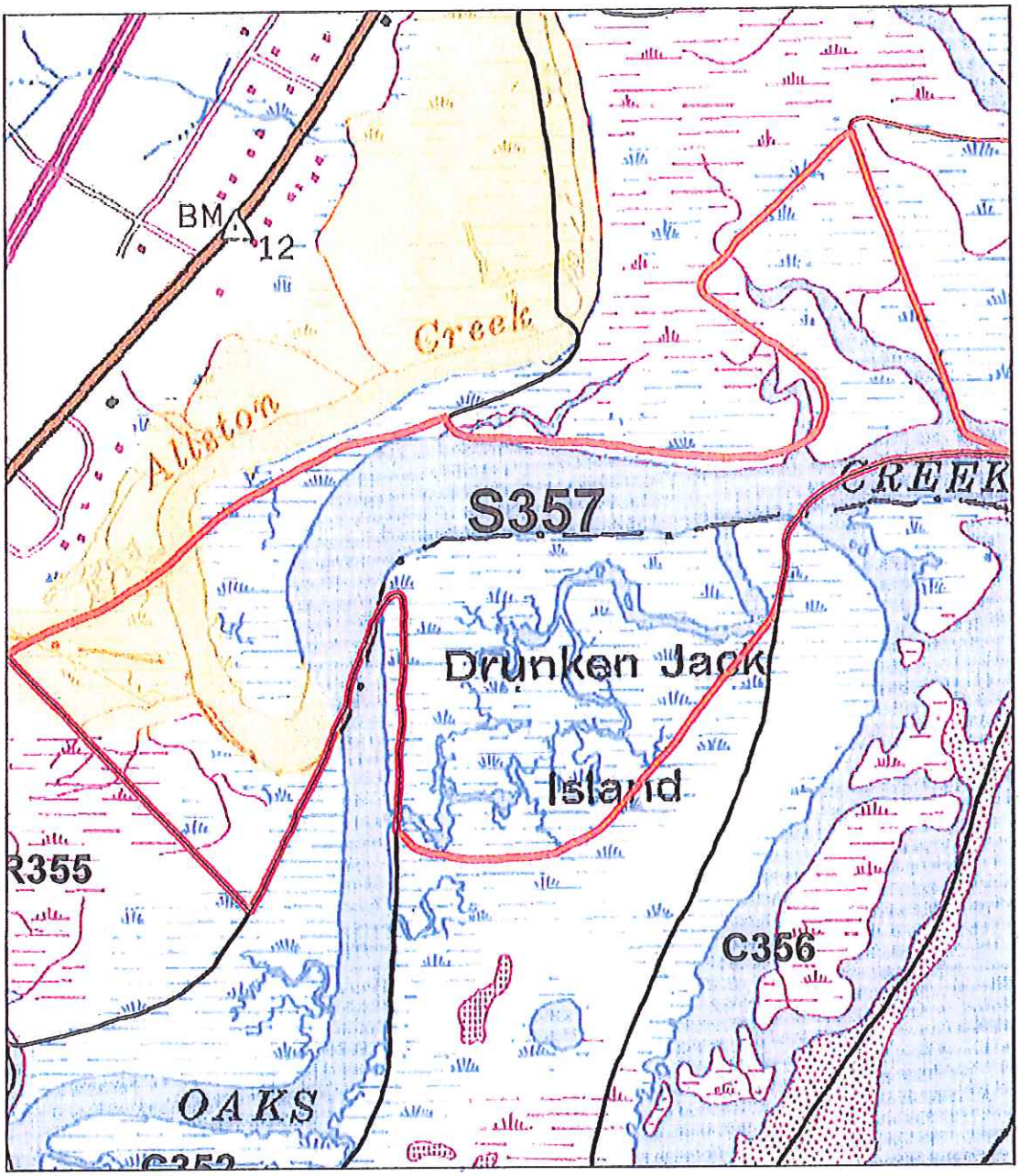
PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
09/2009

Drunken Jack Island S357

SCDHEC Shellfish Management Area 4. These areas are subject to closure at any time. Please call 1-800-285-1618.

Clams - Partially Closed SCDHEC
Oysters - Partially Closed SCDHEC

SHELLFISH SEASON
2009 - 2010



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C000 = SHELLFISH CULTURE PERMIT
G000 = GRANT PERMIT
M000 = MARICULTURE PERMIT
S000 = STATE SHELLFISH GROUND
R000 = RECREATIONAL SHELLFISH GROUND

WATER QUALITY (SCDHEC)
CONDITIONALLY APPROVED
PROHIBITED
RESTRICTED

Location: Portions of Oaks Creek, Big Chase Creek and Clubhouse Creek
County: Georgetown

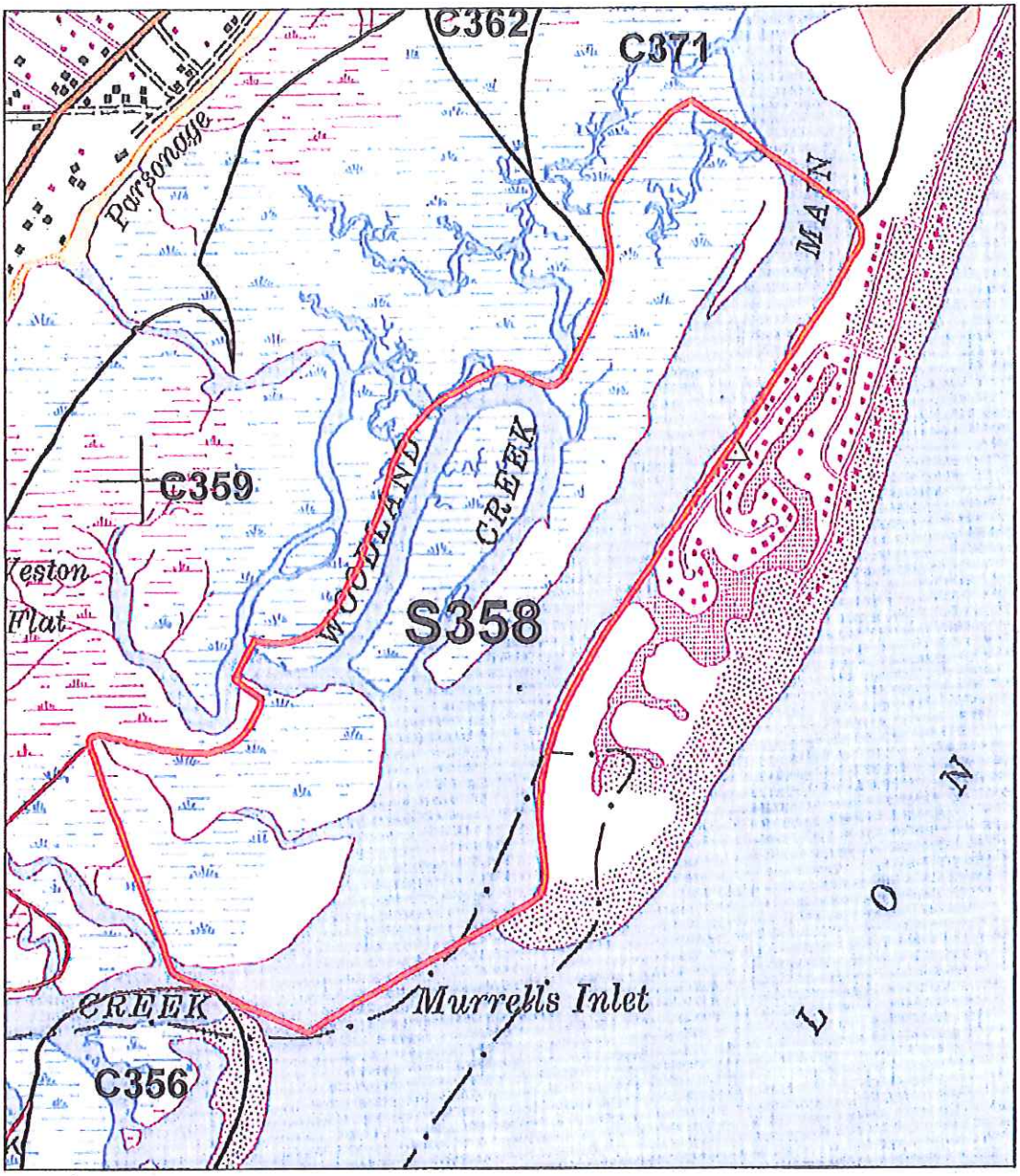
0 90 180 360 540 720 Meters
0 100 200 400 600 800 Yards

PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
08/2009

Murrells Inlet S358

SCDHEC Shellfish Management Area 4. These areas are subject to closure at any time. Please call 1-800-285-1618.

SHELLFISH SEASON
2009 - 2010



Legend

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C000 = SHELLFISH CULTURE PERMIT
G000 = GRANT PERMIT
M000 = MARICULTURE PERMIT
S000 = STATE SHELLFISH GROUND
R000 = RECREATIONAL SHELLFISH GROUND

Location: Main Creek
County: Georgetown

WATER QUALITY (SCDHEC)
CONDITIONALLY APPROVED
PROHIBITED
RESTRICTED

0 120 240 480 720 960 Meters
0 140 280 560 840 1,120 Yards

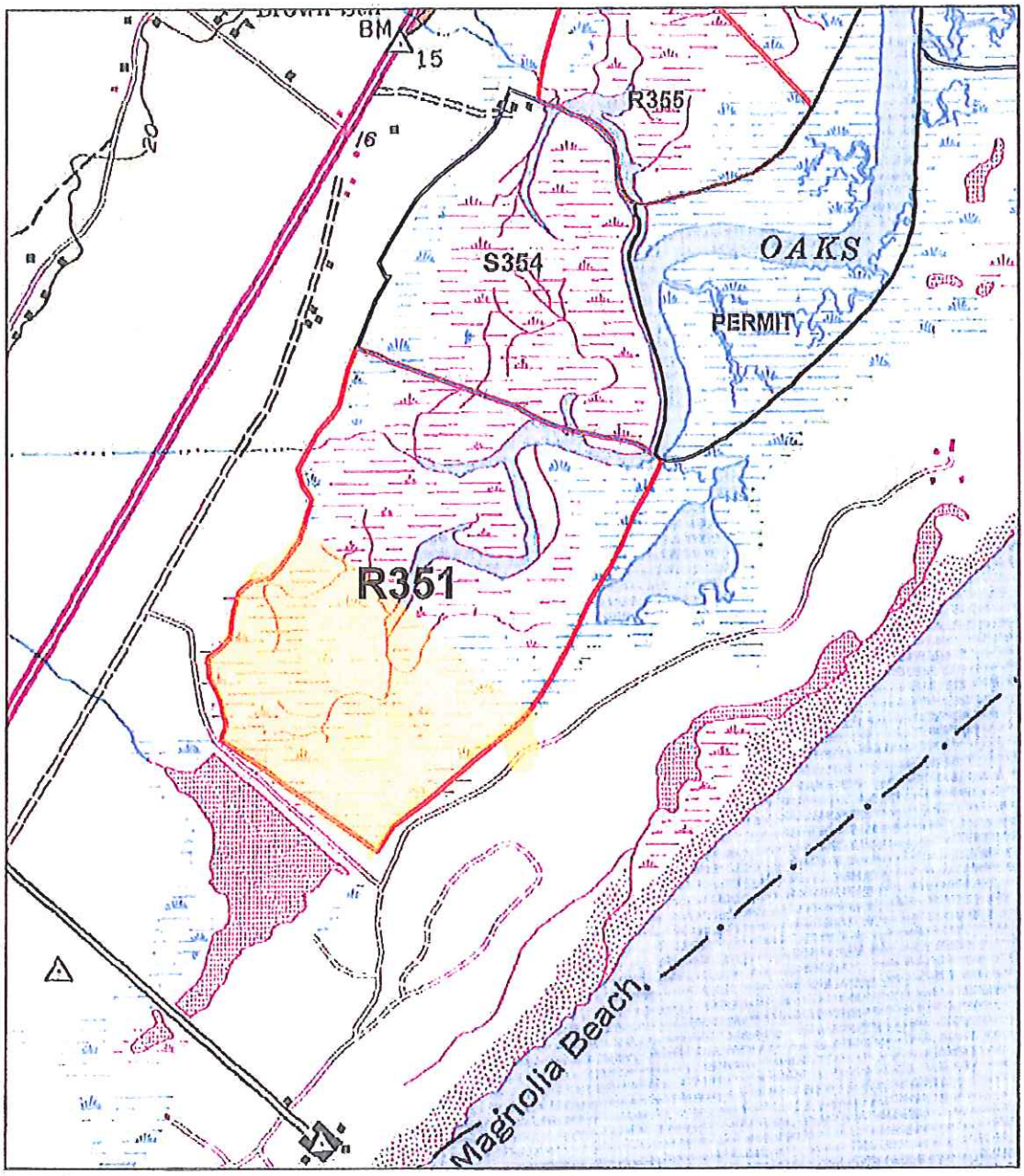
PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
09/2009

Clam Bank Flats PSG - R351

SCDHEC Shellfish Management Area 4
These areas are subject to closure
at any time. Please call 1-800-285-1618.

Clams - Partially Closed SCDHEC
Oysters - Partially Closed SCDHEC

LOCATION: Portion of Oaks Creek
COUNTY: Georgetown



Legend

PERMIT BOUNDARY
S000 = STATE SHELLFISH GROUND
R000 = RECREATIONAL SHELLFISH GROUND

WATER QUALITY (SCDHEC)
CONDITIONALLY APPROVED
PROHIBITED
RESTRICTED

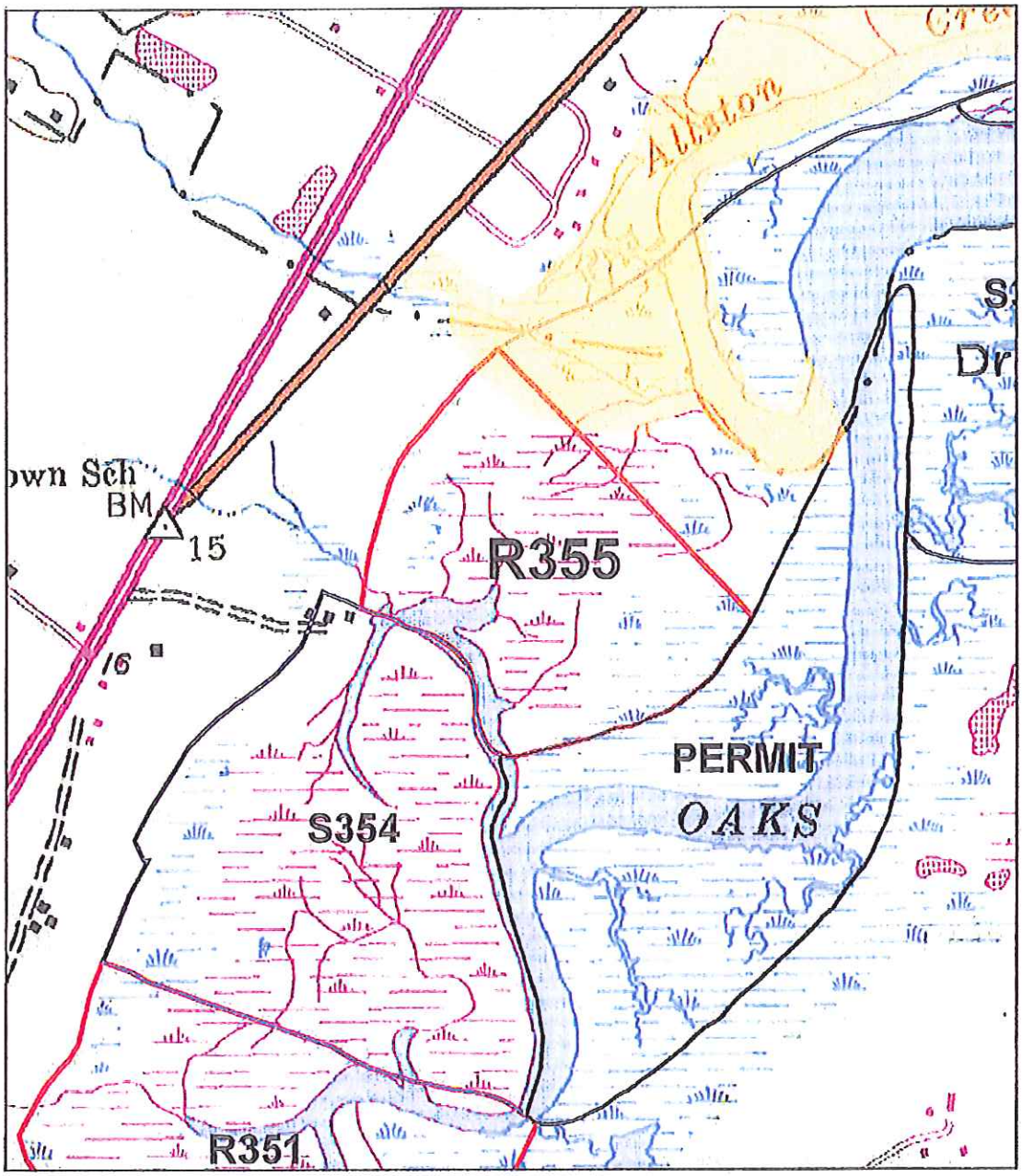
0 90 180 360 540 720 Meters

PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
08/2009

Lachicotte Oyster Factory PSG - R355

SCDHEC Shellfish Management Area 4
These areas are subject to closure
at any time, Please call 1-800-285-1618.

LOCATION: Portion of a tributary of Oaks Creek
COUNTY: Georgetown



Legend

PERMIT BOUNDARY

S000 = STATE SHELLFISH GROUND
R000 = RECREATIONAL SHELLFISH GROUND

WATER QUALITY (SCDHEC)
CONDITIONALLY APPROVED
PROHIBITED
RESTRICTED

0 80 160 320 480 640 Meters

SOUTH CAROLINA

PRODUCED BY:
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES
OFFICE OF FISHERIES MANAGEMENT
SHELLFISH MANAGEMENT SECTION
6/2009

Figure 1: North Inlet Habitat Map

North Inlet NERRs Habitat Classification Legend

1000 Marine

- 1243 Intertidal, unconsolidated shore, sand (beach)

2000 Estuarine

2100 Subtidal

- 2100 Subtidal Haline

2120 Unconsolidated bottom

- 2123 Sand

2140 Reef

2200 Intertidal

2220 Reef

- 2221 Mollusk (oyster reef)

2230 Streambed

- 2236 Mud (Intertidal channels)

2250 Unconsolidated Shore

- 2253 Sand
- 2254 Mud
- 2255 Organic (wrack)

2260 Emergent wetland

- 2261 Persistent (Spartina alterniflora)

2300 Supratidal

2320 Unconsolidated botttom

- 2323 Sand
- 2324 Mud
- 2325 Organic

2340 Emergent wetland

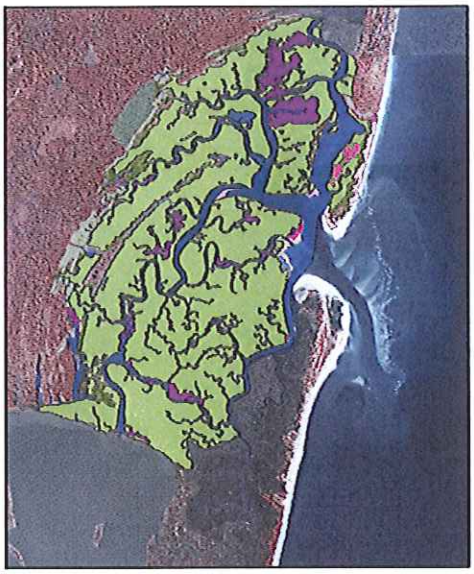
- 2341 Persistent

2350 Scrub-shrub wetland

- 2356 Mixed

2360 Forested wetland

- 2364 Needle-leaved evergreen
- 2365 Mixed



6000 Upland

6100 Supratidal upland

6130 Herbaceous upland

- 6131 Grassland

6140 Scrub-shrub upland

6150 Forested wetland

- 6154 Needle-leaveed evergreen
- 6155 Mixed

6200 Inland Upland

- 6255 Mixed

8000 Cultural Land Cover

8100 Developed upland

8110 Impervious cover

- 8113 Large building
- 8114 Impervious complex

8150 Unconsolidated cover

- 8152 Dirt/gravel road

8160 Herbaceous cover

- 8161 Managed turf (lawn)

- 9999 unknown

Figure 2: North Inlet-Winyah Bay National Estuarine Research Reserve

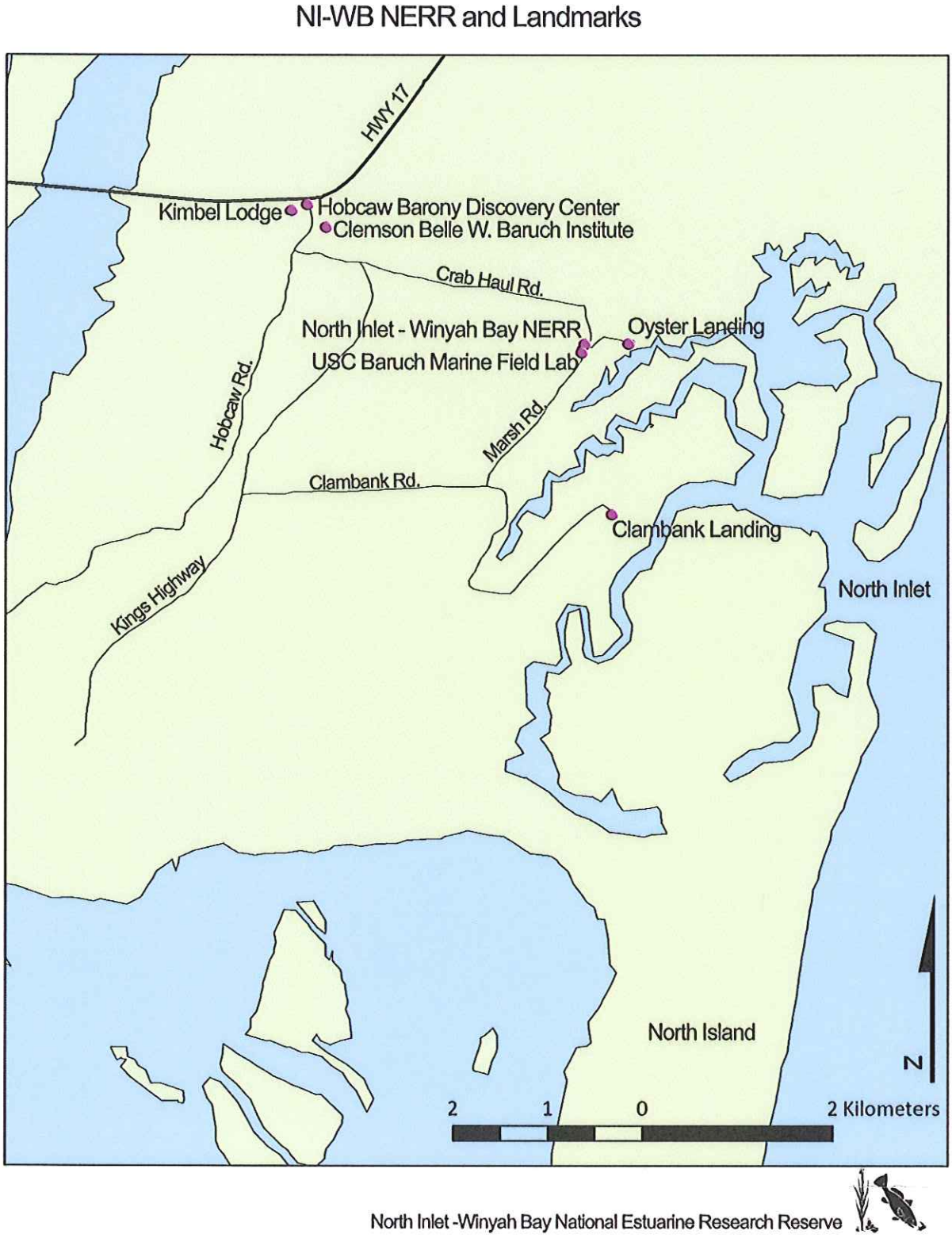


Figure 3: South Carolina Rare, Threatened, & Endangered Species Inventory
All Species Found In South Carolina
Data Last Updated January 17th, 2006.

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK	STATE RANK	LEGAL STATUS
ACCIPITER COOPERII	COOPER'S HAWK	G5	S3?	SC
ACER PENSYLVANICUM	STRIPED MAPLE	G5	S1S2	SC
ACIPENSER BREVIROSTRUM	SHORTNOSE STURGEON	G3	S3	FE/SE
ACONITUM UNCINATUM	BLUE MONKSHOOD	G4	S2	SC
ACRIS CREPITANS CREPITANS	NORTHERN CRICKET FROG	G5T5	S5	SC
AESCULUS PARVIFLORA	SMALL-FLOWERED BUCKEYE	G2G3	S1	RC
AGALINIS APHYLLA	COASTAL PLAIN FALSE-FOXGLOVE	G3G4	S?	SC
AGALINIS AURICULATA	EARLEAF FOXGLOVE	G3	S1	SC
AGALINIS LINIFOLIA	FLAX LEAF FALSE-FOXGLOVE	G4?	S?	SC
AGALINIS MARITIMA	SALT-MARSH FALSE-FOXGLOVE	G5	S?	SC
AGALINIS TENELLA		G4Q	S?	SC
AGARISTA POPULIFOLIA	CAROLINA DOG-HOBBLE	G4G5	S1	SC
AGRIMONIA INCISA	INCISED GROOVEBUR	G3	S1	NC
GRIMONIA PUBESCENS	SOFT GROOVEBUR	G5	S1	SC
AIMOPHILA AESTIVALIS	BACHMAN'S SPARROW	G3	S3	SC
ALASMIDONTA VARICOSA	BROOK FLOATER	G3	S?	SC
ALETRIS OBOVATA	WHITE COLICROOT	G4G5	S?	SC
ALLIUM CERNUUM	NODDING ONION	G5	S?	SC
ALLIUM CUTHBERTII	STRIPED GARLIC	G3	S?	SC
AMARANTHUS PUMILUS	SEABEACH AMARANTH	G2	S1	FT/ST
AMBLYSCIRTES REVERSA	REVERSED ROADSIDE SKIPPER	G3G4	S?	N3N4
AMBYSTOMA CINGULATUM	FLATWOODS SALAMANDER	G2G3	S1	FT/SE
AMBYSTOMA TIGRINUM TIGRINUM	EASTERN TIGER SALAMANDER	G5T5	S2S3	SC
AMORPHA GEORGIANA VAR GEORGIANA	GEORGIA LEADPLANT	G3T2	S?	SC
AMORPHA GLABRA	SMOOTH INDIGOBUSH	G4?	S?	SC
AMORPHA SCHWERINII	SCHWERIN INDIGOBUSH	G3	S1	SC
AMPHIANTHUS PUSILLUS	POOL SPRITE	G2	S1	FT/ST
AMPHICARPUM MUEHLENBERGIANUM	BLUE MAIDEN-CANE	G4	S?	SC
ANDROPOGON BRACHYSTACHYUS	SHORT-SPIKE BLUESTEM	G4	S?	SC
ANDROPOGON MOHRII	BROOMSEDGE	G4?	S?	SC
ANDROPOGON PERANGUSTATUS	NARROW LEAVED BLUESTEM	G5T3T4	S1	SC
NEIDES AENEUS	GREEN SALAMANDER	G3G4	S1	SC

NEMONE BERLANDIERI	SOUTHERN THIMBLE-WEED	G4?	S?	SC
ANEURA MAXIMA	ANEURA	G4?	S?	SC
ANODONTA COUPERIANA	BARREL FLOATER	G4	S?	SC
ANTHAENANTIA RUFA	PURPLE SILKYSCALE	G5	S?	SC
APALONE FEROX	FLORIDA SOFTSHELL	G5	S?	SC
ARABIS MISSOURIENSIS	MISSOURI ROCK-CRESS	G5?Q	S1	SC
ARETHUSA BULBOSA	BOG ROSE	G4	S1	RC
ARISTIDA BEYRICHIANA	BEYRICH'S THREE-AWN	G5?	S?	SC
ARISTIDA CONDENSATA	PIEDMONT THREE-AWNED GRASS	G4?	S?	SC
ARISTIDA SPICIFORMIS	PINE BARREN THREE-AWNED GRASS	G4	SR	SC
ARISTOLOCHIA MACROPHYLLA	PIPEVINE	G5	S2	SC
ARISTOLOCHIA TOMENTOSA	WOOLLY DUTCHMAN'S-PIPE	G5	S?	SC
ARNOGLOSSUM MUEHLENBERGII	GREAT INDIAN PLANTAIN	G4	S?	SC
ASCLEPIAS CONNIVENS	LARGE-FLOWER MILKWEED	G4?	S?	SC
ASCLEPIAS PEDICELLATA	SAVANNAH MILKWEED	G4	S1	RC
ASPLENIUM BRADLEYI	BRADLEY'S SPLEENWORT	G4	S1	RC
ASPLENIUM HETERORESILIENS	WAGNER'S SPLEENWORT	G2Q	S1	NC
ASPLENIUM MONANTHES	SINGLE-SORUS SPLEENWORT	G4	S1	RC
ASPLENIUM PINNATIFIDUM	LOBED SPLEENWORT	G4	S1	SC
SPLENIUM RESILIENS	BLACK-STEM SPLEENWORT	G5	S1S2	SC
ASPLENIUM RHIZOPHYLLUM	WALKING-FERN SPLEENWORT	G5	S2	SC
ASPLENIUM TRICHOMANES	MAIDENHAIR SPLEENWORT	G5	S?	SC
ASTER AVITUS	ALEXANDER'S ROCK ASTER	G3	S1	NC
ASTER ELLIOTTII	ELLIOTT'S ASTER	G3G4	S?	SC
ASTER GEORGIANUS	GEORGIA ASTER	G2G3	S?	SC
ASTER LAEVIS	SMOOTH BLUE ASTER	G5	S?	SC
ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	G5	S?	SC
ASTER SPECTABILIS	SHOWY ASTER	G5	S?	SC
ASTRAGALUS MICHAUXII	SANDHILLS MILKVETCH	G3	S?	SC
ASTRAGALUS VILLOSUS	A MILK-VETCH	G4	S?	SC
ATRYTONE AROGOS	AROGOS SKIPPER	G3G4	S?	SC
AUTOCHTON CELLUS	GOLDEN-BANDED SKIPPER	G4	S2S4	N4
BACOPA CYCLOPHYLLA	COASTAL-PLAIN WATER-HYSSOP	G3G5	S1	SC
BALDUINA ATROPURPUREA	PURPLE BALDUINA	G2G3	S?	SC
BALDUINA UNIFLORA	ONE-FLOWER BALDUINA	G4	S?	SC
BAPTISIA LANCEOLATA	LANCE-LEAF WILD-INDIGO	G4?	S?	SC
BETULA ALLEGHANIENSIS	YELLOW BIRCH	G5	S1	SC
BOTRYCHIUM LUNARIOIDES	WINTER GRAPE-FERN	G4?	S?	SC
DYKINIA ACONITIFOLIA	BROOK SAXIFRAGE	G4	S1	SC

URMANNIA BIFLORA	NORTHERN BURMANNIA	G4G5	S?	SC
CALAMOVILFA BREVIPILIS	PINE-BARRENS REED-GRASS	G4	S?	NC
CALOPOGON BARBATUS	BEARDED GRASS-PINK	G4?	S?	SC
CALOPOGON MULTIFLORUS	MANY-FLOWER GRASS-PINK	G2G3	S?	SC
CAMASSIA SCILLOIDES	WILD HYACINTH	G4G5	S2	RC
CAMPANULA AMERICANA	TALL BELLFLOWER	G5	S1	SC
CANNA FLACCIDA	BANDANA-OF-THE-EVERGLADES	G4?	S4	SC
CARDAMINE CLEMATITIS	MOUNTAIN BITTER CRESS	G2G3	S?	SC
CARDAMINE DISSECTA	DIVIDED TOOTHWORT	G4?	S?	SC
CARDAMINE FLAGELLIFERA	BITTER CRESS	G3	S?	SC
CARETTA CARETTA	LOGGERHEAD	G3	S3	FT/ST
CAREX AMPHIBOLA	NARROWLEAF SEDGE	G5	S?	SC
CAREX AMPLISQUAMA	FORT MOUNTAIN SEDGE	G3	S?	SC
CAREX APPALACHICA	APPALACHIAN SEDGE	G4	S?	SC
CAREX AUSTROCAROLINIANA	SOUTH CAROLINA SEDGE	G4	S?	SC
CAREX BASIANTHA		G5	SR	SC
CAREX BILTMOREANA	BILTMORE SEDGE	G3	S1	NC
CAREX CANESCENS SSP DISJUNCTA	SILVERY SEDGE	G5T4?	S?	SC
CAREX CHAPMANII	CHAPMAN'S SEDGE	G3	S1	NC
CAREX CHEROKEENSIS	CHEROKEE SEDGE	G4G5	SR	SC
CAREX COLLINSII	COLLINS' SEDGE	G4	S1	SC
CAREX CRUS-CORVI	RAVENFOOT SEDGE	G5	S?	SC
CAREX DECOMPOSITA	CYPRESS-KNEE SEDGE	G3	S?	SC
CAREX ELLIOTTII	ELLIOTT'S SEDGE	G4?	S?	SC
CAREX FOLLICULATA	LONG SEDGE	G4G5	S1	SC
CAREX GRACILESCENS	SLENDER SEDGE	G5?	S?	SC
CAREX GRACILLIMA	GRACEFUL SEDGE	G5	S?	SC
CAREX GRANULARIS	MEADOW SEDGE	G5	S?	SC
CAREX HYALINOLEPIS	SHORE-LINE SEDGE	G4G5	S?	SC
CAREX JAMESII	NEBRASKA SEDGE	G5	S?	SC
CAREX MANHARTII	MANHART SEDGE	G3	S?	SC
CAREX OLIGOCARPA	EASTERN FEW-FRUIT SEDGE	G4	S?	SC
CAREX PEDUNCULATA	LONGSTALK SEDGE	G5	S1	SC
CAREX PLANTAGINEA	PLANTAIN-LEAVED SEDGE	G5	S?	SC
CAREX PRASINA	DROOPING SEDGE	G4	S?	SC
CAREX PROJECTA	NECKLACE SEDGE	G5	S?	SC
CAREX RADFORDII		G2	S1?	N?
CAREX SCABRATA	ROUGH SEDGE	G5	S?	SC
CAREX SOCIALIS	SOCIAL SEDGE	G4	S?	SC
CAREX STRICTA	TUSSOCK SEDGE	G5	S?	SC

CAREX WOODII	PRETTY SEDGE	G4	S?	SC
CAROLINA BAY		G?	S?	SC
CARYA MYRISTICIFORMIS	NUTMEG HICKORY	G4	S1	RC
CASTILLEJA COCCINEA	SCARLET INDIAN-PAINTBRUSH	G5	S2	RC
CAULOPHYLLUM THALICTROIDES	BLUE COHOSH	G4G5	S2	SC
CAYAPONIA BOYKINII	CAYAPONIA	G4	S?	SC
CHAMAEDAPHNE CALYCULATA	LEATHERLEAF	G5	S?	SC
CHARADRIUS WILSONIA	WILSON'S PLOVER	G5	S3?	ST
CHASMANTHIUM NITIDUM	SHINY SPIKEGRASS	G3	S?	SC
CHEILOLEJEUNEA EVANSII	EVAN'S CHEILOLEJEUNEA	G1	S1	SC
CHELONE LYONII	PINK TURTLEHEAD	G4	S?	SC
CHRYSOMA PAUCIFLOSCULOSA	WOODY GOLDENROD	G4G5	S1S2	SC
CHRYSOSPLENIUM AMERICANUM	AMERICAN GOLDEN-SAXIFRAGE	G5	S1	SC
CIMICIFUGA AMERICANA	MOUNTAIN BUGBANE	G4	S?	SC
CIRCAEA LUTETIANA	SOUTHERN BROADLEAF ENCHANTER'S NIGHTSHADE	G5	S?	SC
CIRCAEA LUTETIANA SSP CANADENSIS	ENCHANTER'S NIGHTSHADE	G5T5	S1	SC
CLADIUM MARISCOIDES	TWIG RUSH	G5	S1	SC
CLADRASTIS KENTUKEA	YELLOWWOOD	G4	S1	RC
CLEMMYS GUTTATA	SPOTTED TURTLE	G5	S5	ST
CLETHRIONOMYS GAPPERI	SOUTHERN RED-BACKED VOLE	G5	S2S3	SC
CLETHRIONOMYS GAPPERI CAROLINENSIS	CAROLINA RED-BACKED VOLE	G5T4	S2S3	SC
CLIFTONIA MONOPHYLLA	BUCKWHEAT-TREE	G4G5	S?	SC
COLLINSONIA SEROTINA	SOUTHERN HORSE-BALM	G3G4	S?	SC
COLLINSONIA VERTICILLATA	WHORLED HORSE-BALM	G3	S?	SC
COLONIAL WATERBIRD		G?	S?	SC
COMPTONIA PEREGRINA	SWEET FERN	G5	S?	SC
CONDYLURA CRISTATA	STAR-NOSED MOLE	G5	S3?	SC
CONVALLARIA MONTANA	AMERICAN LILY-OF-THE-VALLEY	G4	S?	SC
COREOPSIS GLADIATA	SOUTHEASTERN TICKSEED	G3G5	S?	SC
COREOPSIS INTEGRIFOLIA	CILIATE-LEAF TICKSEED	G1G2	SR	SC
COREOPSIS LATIFOLIA	BROAD-LEAVED TICKSEED	G3	S1	NC
COREOPSIS ROSEA	ROSE COREOPSIS	G3	S2	RC
CORNUS RACEMOSA	STIFF DOGWOOD	G5?	S1	SC
CORYNORHINUS RAFINESQUII	RAFINESQUE'S BIG-EARED BAT	G3G4	S2?	SE
CORYNORHINUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4	S1	N4
CROTALUS ADAMANTEUS	EASTERN DIAMONDBACK RATTLESNAKE	G4	S3	SC
CROTALUS HORRIDUS	TIMBER RATTLESNAKE	G4	S?	SC

ROTON ELLIOTTII	ELLIOTT'S CROTON	G2G3	S?	SC
CROTONOPSIS LINEARIS	NARROWLEAF RUSHFOIL	G5	S?	SC
CRYPTOBRANCHUS ALLEGANIENSIS	HELLBENDER	G3G4	S?	SC
CUSCUTA CEPHALANTHI	DODDER; LOVE-VINE	G5	S?	SC
CUSCUTA INDECORA	DODDER; LOVE-VINE	G5	S?	SC
CYNANCHUM SCOPARIUM	LEAFLESS SWALLOW-WORT	G4	S?	SC
CYPERUS DISTINCTUS	MARSHLAND FLATSEDGE	G4	S1	SC
CYPERUS GRANITOPHILUS	GRANITE-LOVING FLATSEDGE	G3Q	S?	SC
CYPERUS LECONTEI	LECONTE FLATSEDGE	G4?	S?	SC
CYPERUS TETRAGONUS	PIEDMONT FLATSEDGE	G4?	S1	SC
CYPRIPEDIUM PUBESCENS	LARGE YELLOW LADY'S-SLIPPER	G4G5	S?	SC
CYSTOPTERIS BULBIFERA	BULBLET FERN	G5	S?	SC
CYSTOPTERIS PROTRUSA	LOWLAND BRITTLE FERN	G5	S?	SC
DANTHONIA EPILIS	BOG OAT-GRASS	G3?	S?	SC
DASISTOMA MACROPHYLLA	MULLEIN FOXGLOVE	G4	S?	SC
DELPHINIUM CAROLINIANUM	CAROLINA LARKSPUR	G5	S?	SC
DENDROICA VIRENS	BLACK-THROATED GREEN WARBLER	G5	S4	SC
DESCHAMPSIA FLEXUOSA	CRINKLED HAIRGRASS	G5	S?	SC
DESMOGNATHUS AENEUS	SEEPAGE SALAMANDER	G3G4	S?	SC
ESMOGNATHUS MARMORATUS	SHOVELNOSE SALAMANDER	G4	S2	SC
DICENTRA CUCULLARIA	DUTCHMAN'S BREECHES	G5	S1	SC
DICENTRA EXIMIA	WILD BLEEDING-HEART	G4	S?	SC
DICERANDRA ODORATISSIMA	ROSE BALM	G4G5	S1	SC
DICHANTHELIUM ACICULARE	BROOMSEDGE	G4G5	S?	SC
DIONAEA MUSCIPULA	VENUS' FLY-TRAP	G3	S1	RC
DIPHYLLEIA CYMOSA	UMBRELLA-LEAF	G4	S1	RC
DIPLAZIUM PYCNOCARPON	GLADE FERN	G5	S1	SC
DIRCA PALUSTRIS	EASTERN LEATHERWOOD	G4	S?	SC
DISTOCAMBARUS YOUNGINERI	A CRAYFISH	G1	S1	SC
DODECATHEON MEADIA	SHOOTING-STAR	G5	S?	SC
DRABA APRICA	OPEN-GROUND WHITLOW-GRASS	G3	S1	NC
DRABA REPTANS	CAROLINA WHITLOW-GRASS	G5	S?	SC
DRYOPTERIS CARTHUSIANA	SPINULOSE SHIELD FERN	G5	S?	SC
DRYOPTERIS GOLDIANA	GOLDIE'S WOODFERN	G4	S1	SC
DRYOPTERIS INTERMEDIA	EVERGREEN WOODFERN	G5	S?	SC
DRYOPTERIS SPINULOSA	SPINULOSE WOOD-FERN	G5	S?	SC
ECHINACEA LAEVIGATA	SMOOTH CONEFLOWER	G2	S1	FE/SE
ECHINODORUS PARVULUS	DWARF BURHEAD	G3Q	S2	SC
CHINODORUS TENELLUS	DWARF BURHEAD	G5?	S?	SC

GRETTA CAERULEA	LITTLE BLUE HERON	G5	S?	SC
ELANOIDES FORFICATUS	AMERICAN SWALLOW-TAILED KITE	G5	S2	SE
ELASSOMA BOEHLKEI	CAROLINA PYGMY SUNFISH	G2	S1	ST
ELASSOMA OKATIE	BLUEBARRED PYGMY SUNFISH	G2G3	S?	SC
ELEOCHARIS PALUSTRIS	SPIKE-RUSH	G5	S?	SC
ELEOCHARIS ROBBINSII	ROBBINS SPIKERUSH	G4G5	S?	SC
ELEOCHARIS ROSTELLATA	BEAKED SPIKERUSH	G5	S?	SC
ELEOCHARIS TRICOSTATA	THREE-ANGLE SPIKERUSH	G4	SR	SC
ELEOCHARIS VIVIPARA	VIVIPAROUS SPIKE-RUSH	G5	S?	SC
ELIMIA CATENARIA	GRAVEL ELIMIA	G4	S?	SC
ELLIPTIO CONGARAEA	CAROLINA SLABSHELL	G4	S?	SC
ELLIPTIO LANCEOLATA	YELLOW LANCE	G2G3	S?	SC
ELYMUS RIPARIUS	WILD-RYE	G5	S?	SC
ENEMION BITERNATUM	FALSE RUE-ANEMONE	G5	S1	RC
EPIDENDRUM CONOPSEUM	GREEN-FLY ORCHID	G4	S?	SC
ERIOCAULON TEXENSE	PIPEWORT	G4	S?	SC
ERIOCHLOA MICHAUXII	CUPGRASS	G3G4	S?	SC
ERYNGIUM AQUATICUM VAR RAVENELII	MARSH ERYNGO	G4T2T4Q	S?	SC
ETHEOSTOMA COLLIS	CAROLINA DARTER	G3	S?	SC
ETHEOSTOMA FLABELLARE	FANTAIL DARTER	G5	S1	SC
ETHEOSTOMA HOPKINSI	CHRISTMAS DARTER	G4G5	S4	SC
EUMECES ANTHRACINUS PLUVIALIS	SOUTHERN COAL SKINK	G5T5	S?	ST
EUONYMUS ATROPURPUREUS	WAHOO	G5	S1	SC
EUPATORIUM ANOMALUM	FLORIDA THOROUGH-WORT	G2G3	SR	SC
EUPATORIUM FISTULOSUM	HOLLOW JOE-PYE WEED	G5?	S?	SC
EUPATORIUM RECURVANS	COASTAL-PLAIN THOROUGH-WORT	G3G4Q	SR	SC
EUPATORIUM RESINOSUM	PINE BARRENS BONESET	G3	S?	SC
EUPATORIUM SCABRIDUM		G5T?	SR	SC
EUPATORIUM SESSILIFOLIUM VAR VASEYI	THOROUGHWORT	G5T?	S?	SC
FALCO PEREGRINUS ANATUM	AMERICAN PEREGRINE FALCON	G4T3	S?	DM/SE
FIMBRISTYLIS PERPUSILLA	HARPER'S FIMBRISTYLIS	G2	S2	NC
FIMBRISTYLIS VAHLII	VAHL FIMBRY	G5	S?	SC
FORESTIERA GODFREYI	GODFREY'S PRIVET	G2	S?	SC
FORESTIERA LIGUSTRINA	UPLAND SWAMP PRIVET	G4G5	S1	SC
FORESTIERA SEGREGATA	SOUTHERN PRIVET	G4	S1	SC
FOTHERGILLA MAJOR	MOUNTAIN WITCH-ALDER	G3	S1	RC
ASERA CAROLINIENSIS	COLUMBO	G5	S1	RC

FUNDULUS DIAPHANUS	BANDED KILLIFISH	G5	S1	SC
GALACTIA ELLIOTTII	ELLIOTT'S MILKPEA	G5	SR	SC
GALEARIS SPECTABILIS	SHOWY ORCHIS	G5	S?	SC
GAULTHERIA PROCUMBENS	TEABERRY	G5	S1	SC
GAURA BIENNIS	BIENNIAL GAURA	G5	S?	SC
GAYLUSSACIA BACCATA	BLACK HUCKLEBERRY	G5	S?	SC
GAYLUSSACIA MOSIERI	WOOLLY-BERRY	G4	S?	SC
GENTIANA AUTUMNALIS	PINE BARREN GENTIAN	G3	S2	SC
GLYPTEMYS MUHLENBERGII	BOG TURTLE	G3	S1	FT/ST
GOPHERUS POLYPHEMUS	GOPHER TORTOISE	G3	S1	SE
GYMNODERMA LINEARE	ROCKY GNOME LICHEN	G2	S1	FE/SE
HABENARIA QUINQUESETA	LONG-HORN ORCHID	G4G5	S?	SC
HACKELIA VIRGINIANA	VIRGINIA STICKSEED	G5	S?	SC
HALESIA DIPTERA	TWO-WING SILVERBELL	G5	S1	SC
HALESIA PARVIFLORA	SMALL-FLOWERED SILVERBELL-TREE	G?	S?	SC
HALIAEETUS LEUCOCEPHALUS	BALD EAGLE	G4	S2	FT/SE
HELENIUM BREVIFOLIUM	SHORTLEAF SNEEZEWEED	G3G4	S1	RC
HELENIUM PINNATIFIDUM	SOUTHEASTERN SNEEZEWEED	G4	S?	SC
HELIANTHEMUM GEORGIANUM	GEORGIA FROSTWEED	G4	S?	SC
HELIANTHUS GLAUCOPHYLLUS	WHITE-LEAVED SUNFLOWER	G3	S?	NC
HELIANTHUS LAEVIGATUS	SMOOTH SUNFLOWER	G4	S?	SC
HELIANTHUS PORTERI	PORTER'S GOLDENEYE	G4	S1	SC
HELIANTHUS SCHWEINITZII	SCHWEINITZ'S SUNFLOWER	G2	S1	FE/SE
HELONIAS BULLATA	SWAMP-PINK	G3	S1	FT/ST
HEPATICA ACUTILOBA	LIVERLEAF	G5	S?	SC
HETERANTHERA RENIFORMIS	KIDNEYLEAF MUD-PLANTAIN	G5	S?	SC
HETERODON SIMUS	SOUTHERN HOGNOSE SNAKE	G2	S?	SC
HEUCHERA PARVIFLORA	LITTLE-LEAVED ALUMROOT	G4	S?	SC
HEXASTYLIS NANIFLORA	DWARF-FLOWERED HEARTLEAF	G2	S2	FT/ST
HOTTONIA INFLATA	FEATHERFOIL	G4	S?	SC
HUDSONIA ERICOIDES	GOLDEN-HEATHER	G4	S1	RC
HYDRANGEA CINEREA	ASHY-HYDRANGEA	G4	S?	SC
HYDROCOTYLE AMERICANA	AMERICAN WATER-PENNYWORT	G5	S?	SC
HYDROLEA CORYMBOSA	CORYMB FIDDLELEAF	G5	S1	SC
HYDROPHYLLUM CANADENSE	BLUNT-LEAF WATERLEAF	G5	S1	SC
HYLA ANDERSONII	PINE BARRENS TREEFROG	G4	S2S3	ST
HYLA AVIVOCA	BIRD-VOICED TREEFROG	G5	S5	SC
HYMENOCALLIS CORONARIA	SHOALS SPIDER-LILY	G2Q	S2	NC
HYMENOPHYLLUM TAYLORIAE	TAYLOR'S FERN	G1G2	S1	SC

HYMENOPHYLLUM TUNBRIGENSE	TUNBRIDGE FERN	G4G5	S1	NC
HYPERICUM ADPRESSUM	CREEPING ST. JOHN'S-WORT	G2G3	S1	RC
HYPERICUM HARPERI		G3	S?	SC
HYPERICUM NITIDUM	CAROLINA ST. JOHN'S-WORT	G4	S?	SC
ICTINIA MISSISSIPPIENSIS	MISSISSIPPI KITE	G5	S4	SC
ILEX AMELANCHIER	SARVIS HOLLY	G4	S3	SC
IMPATIENS PALLIDA	PALE JEWEL-WEED	G5	S?	SC
IPOMOEA MACRORHIZA	LARGE-STEM MORNING-GLORY	G3G5	S1?	SC
IPOMOEA STOLONIFERA	BEACH MORNING-GLORY	G5?	S?	SC
IPOMOPSIS RUBRA	RED STANDING-CYPRESS	G4G5	S?	SC
IRIS HEXAGONA	WALTER'S IRIS	G4G5	S?	SC
ISOETES CAROLINIANA	ENGELMANN'S QUILLWORT	G3Q	S?	SC
ISOETES MELANOSPORA	BLACK-SPORED QUILLWORT	G1	S1	FE/SE
ISOETES PIEDMONTANA	PIEDMONT QUILLWORT	G3	S2	SC
ISOETES RIPARIA	RIVER BANK QUILLWORT	G5?	S1	SC
ISOTRIA MEDEOLOIDES	SMALL WHORLED POGONIA	G2	S1	FT/ST
JUGLANS CINEREA	BUTTERNUT	G3G4	S?	SC
JUNCUS ABORTIVUS	PINEBARREN RUSH	G4G5	S?	SC
JUNCUS GEORGIANUS	GEORGIA RUSH	G4	S?	SC
JUNCUS GYMNOCARPUS	NAKED-FRUITED RUSH	G4	S?	SC
JUNCUS SUBCAUDATUS	WOODS-RUSH	G5	S?	SC
JUNGERMANNIA FOSSOMBRONIOIDES	JUNGERMANNIA	G4	S?	SC
JUNIPERUS COMMUNIS	GROUND JUNIPER	G5	S?	SC
KALMIA CUNEATA	WHITE-WICKY	G3	S1	NC
KINOSTERNON BAURII	STRIPED MUD TURTLE	G5	S?	SC
KOGIA BREVICEPS	PYGMY SPERM WHALE	G4	SA	SC
KRIGIA MONTANA	FALSE DANDELION	G3	S?	SC
LACHNOCAULON BEYRICHIANUM	SOUTHERN BOG-BUTTON	G2G3	S?	SC
LACHNOCAULON MINUS	SMALL'S BOG BUTTON	G3G4	SR	SC
LAMPROPELTIS TRIANGULUM	MILK SNAKE	G5	S2	SC
LAMPSILIS CARIOSA	YELLOW LAMPMUSSEL	G3G4	S?	SC
LAMPSILIS SPLENDIDA	RAYED PINK FATMUCKET	G3	S?	SC
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G4	S3	SC
LASIURUS CINEREUS	HOARY BAT	G5	S?	SC
LASIURUS INTERMEDIUS	NORTHERN YELLOW BAT	G4G5	S?	SC
LASMIGONA DECORATA	CAROLINA HEELSPLITTER	G1	S1	FE/SE
LECHEA TORREYI	PIEDMONT PINWEED	G4G5	S?	SC
LEPUROPETALON SPATHULATUM	SOUTHERN LEPUROPETALON	G4G5	S?	SC
LIATRIS MICROCEPHALA	SMALL-HEAD GAYFEATHER	G3G4	S?	SC

ICANIA MICHAUXII	GOPHER-APPLE	G4G5	S?	SC
LILAEOPSIS CAROLINENSIS	CAROLINA LILAEOPSIS	G3G5	S1	NC
LILIUM CANADENSE	CANADA LILY	G5	S1?	SC
LILIUM IRIDOLLAE	PANHANDLE LILY	G2	S1	SC
LIMNOTHLYPIS SWAINSONII	SWAINSON'S WARBLER	G4	S4	SC
LINDERA MELISSIFOLIA	PONDBERRY	G2	S1	FE/SE
LINDERA SUBCORIACEA	BOG SPICEBUSH	G2	S?	RC
LIPARIS LILIIFOLIA	LARGE TWAYBLADE	G5	S?	SC
LIPOCARPHA MICRANTHA	DWARF BULRUSH	G4	S2	SC
LISTERA AUSTRALIS	SOUTHERN TWAYBLADE	G4	S?	SC
LISTERA SMALLII	KIDNEY-LEAF TWAYBLADE	G4	S?	SC
LITHOSPERMUM TUBEROSUM	TUBEROUS GROMWELL	G4	S1	SC
LITSEA AESTIVALIS	PONDSPICE	G3	S3	SC
LOBELIA BOYKINII	BOYKIN'S LOBELIA	G2G3	S?	SC
LOBELIA SP 1	LOBELIA	G?	S?	SC
LONICERA FLAVA	YELLOW HONEYSUCKLE	G5?	S2	SC
LOPHOCOLEA APPALACHIANA	APPALACHIAN LOPHOCOLEA	G1G2Q	S1	SC
LUDWIGIA LANCEOLATA	LANCE-LEAF SEEDBOX	G3	SR	SC
LUDWIGIA SPATHULATA	SPATULATE SEEDBOX	G3G4	S?	SC
YCOPODIUM POROPHILUM	ROCK CLUBMOSS	G4	S1	SC
YCOPODIUM TRISTACHYUM	DEEP-ROOT CLUBMOSS	G5	S1	SC
LYCOPUS COKERI	CAROLINA BUGLEWEED	G3	S?	SC
LYGODIUM PALMATUM	CLIMBING FERN	G4	S1S2	SC
LYONIA FERRUGINEA	RUSTY LYONIA	G5	S1	SC
LYSIMACHIA ASPERULIFOLIA	ROUGH-LEAVED LOOSESTRIFE	G3	S1	FE/SE
LYSIMACHIA FRASERI	FRASER LOOSESTRIFE	G2	S1	RC
LYSIMACHIA HYBRIDA	LANCE-LEAF LOOSESTRIFE	G5	S1	SC
MACBRIDEA CAROLINIANA	CAROLINA BIRD-IN-A-NEST	G2G3	S?	SC
MACROMIA MARGARITA	MARGARET'S RIVER CRUISER	G3	S?	SC
MAGNOLIA CORDATA	PIEDMONT CUCUMBER TREE	G?Q	S?	SC
MAGNOLIA MACROPHYLLA	BIGLEAF MAGNOLIA	G5	S?	SC
MAGNOLIA PYRAMIDATA	PYRAMID MAGNOLIA	G4	S1	RC
MELANERPES ERYTHROCEPHALUS	RED-HEADED WOODPECKER	G5	S?	SC
MELANTHIUM VIRGINICUM	VIRGINIA BUNCHFLOWER	G5	S?	SC
MENISPERMUM CANADENSE	CANADA MOONSEED	G5	S?	SC
MICROTUS PENNSYLVANICUS	MEADOW VOLE	G5	S?	SC
MICRURUS FULVIUS	EASTERN CORAL SNAKE	G5	S2	SC
MINUARTIA UNIFLORA	ONE-FLOWER STITCHWORT	G4	S?	SC
MITELLA DIPHYLLA	TWO-LEAF BISHOP'S-CAP	G5	S?	SC
.ONADNOCK		G?	S?	SC

'ONARDA DIDYMA	OSWEGO TEA	G5	S?	SC
MONOTROPSIS ODORATA	SWEET PINESAP	G3	S1	RC
MUHLENBERGIA FILIPES	BENTGRASS; HAIRGRASS	G?Q	S?	SC
MYCTERIA AMERICANA	WOOD STORK	G4	S1S2	FE/SE
MYOTIS AUSTRORIPARIUS	SOUTHEASTERN MYOTIS	G3G4	S1	SC
MYOTIS LEIBII	EASTERN SMALL-FOOTED MYOTIS	G3	S1	ST
MYOTIS LUCIFUGUS	LITTLE BROWN MYOTIS	G5	S3?	SC
MYOTIS SEPTENTRIONALIS	NORTHERN MYOTIS	G4	S4	SC
MYOTIS SODALIS	INDIANA MYOTIS	G2	S1	FE/SE
MYRIOPHYLLUM LAXUM	PIEDMONT WATER-MILFOIL	G3	S2	RC
NAJAS FLEXILIS	SLENDER NAIAD	G5	S?	SC
NAPAEOZAPUS INSIGNIS	WOODLAND JUMPING MOUSE	G5	S4?	SC
NEOTOMA FLORIDANA	EASTERN WOODRAT	G5	S3S4	SC
NEOTOMA FLORIDANA FLORIDANA	EASTERN WOODRAT	G5T5	S3S4	SC
NERODIA CYCLOPION	GREEN WATER SNAKE	G5	S2	SC
NERODIA FLORIDANA	FLORIDA GREEN WATER SNAKE	G5	S2	SC
NESTRONIA UMBELLULA	NESTRONIA	G4	S2	SC
NOLINA GEORGIANA	GEORGIA BEARGRASS	G3G5	S?	SC
NOTROPIS CHILITICUS	REDLIP SHINER	G4	S1?	SC
NYSSA OGECHE	OGEECHEE TUPELO	G4G5	S?	SC
OENOTHERA LINIFOLIA	THREAD-LEAF SUNDROPS	G5	S?	SC
OENOTHERA PERENNIS	SMALL SUNDROPS	G5	S?	SC
OPHIOGLOSSUM PETIOLATUM	LONGSTEM ADDER'S-TONGUE FERN	G5	S?	SC
OPHIOGLOSSUM VULGATUM	ADDER'S-TONGUE	G5	S?	SC
OPHISAURUS COMPRESSUS	ISLAND GLASS LIZARD	G3G4	S1S2	SC
OPHISAURUS MIMICUS	MIMIC GLASS LIZARD	G3	S?	SC
ORBEXILUM LUPINELLUM	SAMPSON SNAKEROOT; SCURF PEA	G3G4	S?	SC
OROBANCHE UNIFLORA	ONE-FLOWERED BROOMRAPE	G5	S?	SC
OSMORHIZA CLAYTONII	HAIRY SWEET-CICELY	G5	S?	SC
OUTCROP		G?	S?	SC
OXYPOLIS CANBYI	CANBY'S DROPWORT	G2	S1	FE/SE
OXYPOLIS TERNATA	PIEDMONT COWBANE	G3	S?	SC
PACHYSANDRA PROCUMBENS	ALLEGHENY-SPURGE	G4G5	S1	RC
PANAX QUINQUEFOLIUS	AMERICAN GINSENG	G3G4	S2S3	RC
PANICUM NEURANTHUM		G5?	SR	SC
PANICUM WEBBERIANUM	A PANICGRASS	G5T5	SR	SC
PARASCALOPS BREWERI	HAIRY-TAILED MOLE	G5	S?	SC
ARNASSIA ASARIFOLIA	KIDNEYLEAF GRASS-OF-PARNASSUS	G4	S1	RC

ARNASSIA CAROLINIANA	CAROLINA GRASS-OF-PARNASSUS	G3	S1S2	NC
PARNASSIA GRANDIFOLIA	LARGE-LEAVED GRASS-OF-PARNASSUS	G3	S2	RC
PARONYCHIA AMERICANA	AMERICAN NAILWORT	G3?	S?	SC
PASPALUM BIFIDUM	BEAD-GRASS	G5	S?	SC
PELECANUS OCCIDENTALIS	BROWN PELICAN	G4	S1S2	SC
PELLAEA ATROPURPUREA	PURPLE-STEM CLIFF-BRAKE	G5	S1	SC
PELLAEA WRIGHTIANA	CLIFF-BRAKE FERN	G5	S?	SC
PELLIA APPALACHIANA	APPALACHIAN PELLIA	G1?	S1	SC
PELTANDRA SAGITTIFOLIA	SPOON-FLOWER	G3G4	S?	SC
PHACELIA BIPINNATIFIDA	FERNLEAF PHACELIA	G5	S1	SC
PHILADELPHUS HIRSUTUS	STREAMBANK MOCK-ORANGE	G5	S1	SC
PHOCA VITULINA	HARBOR SEAL	G5	SA	SC
PHYSOSTEGIA LEPTOPHYLLA	SLENDER-LEAVED DRAGON-HEAD	G4?	S?	SC
PICOIDES BOREALIS	RED-COCKADED WOODPECKER	G3	S2	FE/SE
PIERIS PHILLYREIFOLIA	CLIMBING FETTER-BUSH	G3	S?	SC
PILEA FONTANA	SPRINGS CLEARWEED	G5	S?	SC
PINCKNEYA PUBENS	HAIRY FEVER-TREE	G3G4	S1	SC
PITUOPHIS MELANOLEUCUS	PINE OR GOPHER SNAKE	G4	S3S4	SC
PITUOPHIS MELANOLEUCUS UGITUS	FLORIDA PINE SNAKE	G4T3?	S2	SC
PITYOPSIS PINIFOLIA	PINE-LEAVED GOLDEN ASTER	G4	S?	SC
PLAGIOCHILA CADUCILOBA	GORGE LEAFY LIVERWORT	G2	S1	SC
PLAGIOCHILA SULLIVANTII		G2	S?	SC
PLAGIOMNIUM CAROLINIANUM	MOUNTAIN WAVY-LEAF MOSS	G3	S1	SC
PLANTAGO SPARSIFLORA	PINELAND PLANTAIN	G3	S?	SC
PLATANTHERA INTEGRA	YELLOW FRINGELESS ORCHID	G3G4	S2	SC
PLATANTHERA INTEGRILABIA	WHITE FRINGELESS ORCHID	G2G3	S1	SC
PLATANTHERA LACERA	GREEN-FRINGE ORCHIS	G5	S1	SC
PLATANTHERA PERAMOENA	PURPLE FRINGELESS ORCHID	G5	S?	RC
PLEEA TENUIFOLIA	RUSH FALSE-ASPHODEL	G4	S?	SC
PLEGADIS FALCINELLUS	GLOSSY IBIS	G5	S?	SC
PLETHODON WEBSTERI	WEBSTER'S SALAMANDER	G3	S2	SE
POA ALSODES	BLUE-GRASS	G4G5	S?	SC
POLYCENTROPUS CARLSONI	CARLSON'S POLYCENTROPUS CADDISFLY	G1G3	S1S3	SC
POLYGALA HOOKERI	MILKWORT	G3	S1	SC
POLYGALA NANA	DWARF MILKWORT	G5	S1S2	SC
POLYGALA PAUCIFOLIA	GAY-WING MILKWORT	G5	S1	SC
PONTHIEVA RACEMOSA	SHADOW-WITCH ORCHID	G4G5	S?	SC
ORELLA JAPONICA SSP		G5?T1	S1	SC

PPALACHIANA				
PORTULACA SMALLII	SMALL'S PURSLANE	G3	S?	SC
PORTULACA UMBRATICOLA	WING-PODDED PURSLANE	G5	S1	SC
POTAMOGETON CONFERVOIDES	ALGAE-LIKE PONDWEED	G4	S1	SC
POTAMOGETON FOLIOSUS	LEAFY PONDWEED	G5	S?	SC
PRUNUS ALABAMENSIS	ALABAMA BLACK CHERRY	G4	S?	SC
PSEUDACRIS TRISERIATA	WESTERN CHORUS FROG	G5	S3S4	SC
PSEUDOBRANCHUS STRIATUS	DWARF SIREN	G5	S2	ST
PSEUDOTRITON MONTANUS FLAVISSIMUS	GULF COAST MUD SALAMANDER	G5T4	S3S4	SC
PSILOTUM NUDUM	WHISK FERN	G5	S1S2	SC
PTEROGLOSSASPIS ECRISTATA	CRESTLESS PLUME ORCHID	G2	S2	SC
PTILIMNIUM NODOSUM	HARPERELLA	G2	S1	FE/SE
PYCNANTHEMUM MONTANUM	SINGLE-HAIRED MOUNTAIN-MINT	G3G5	S1	RC
PYCNANTHEMUM NUDUM	PINELANDS MOUNTAIN MINT	G5?	S?	SC
PYGANODON CATARACTA	EASTERN FLOATER	G5	S?	SC
PYXIDANTHERA BARBULATA	FLOWERING PIXIE-MOSS	G4	S1	NC
PYXIDANTHERA BARBULATA VAR BARBULATA	WELL'S PYXIE MOSS	G4T4	S?	SC
PYXIDANTHERA BREVIFOLIA	WELL'S PIXIE-MOSS	G2Q	S2	NC
JERCUS AUSTRINA	BLUFF OAK	G5	S?	SC
QUERCUS BICOLOR	SWAMP WHITE OAK	G5	S1	SC
QUERCUS MYRTIFOLIA	MYRTLE-LEAF OAK	G5	S?	SC
QUERCUS OGLETHORPENSIS	OGLETHORPE'S OAK	G3	S3	SC
QUERCUS SIMILIS	BOTTOM-LAND POST OAK	G4Q	S1	SC
QUERCUS SINUATA	DURAND'S WHITE OAK	G5	S1	SC
RANA CAPITO	GOPHER FROG	G3	S1	SE
RANA PALUSTRIS	PICKEREL FROG	G5	S?	SC
RANA SYLVATICA	WOOD FROG	G5	S3	SC
RANUNCULUS FASCICULARIS	EARLY BUTTERCUP	G5	S?	SC
RATIBIDA PINNATA	GRAY-HEAD PRAIRIE CONEFLOWER	G5	S?	SC
RHAPIDOPHYLLUM HYSTRIX	NEEDLE PALM	G4	S?	SC
RHEXIA ARISTOSA	AWNED MEADOWBEAUTY	G3	S2	SC
RHEXIA CUBENSIS	WEST INDIAN MEADOW-BEAUTY	G4G5	SR	SC
RHINICHTHYS ATRATULUS	BLACKNOSE DACE	G5	S1	SC
RHIZOMNIUM APPALACHIANUM	LARGE-LEAVED MNIUM	G5	S?	SC
RHODODENDRON CATAWBIENSE	CATAWBA RHODODENDRON	G5	S?	SC
RHODODENDRON EASTMANII	MAY WHITE	G2	S2	SC
RHODODENDRON FLAMMEUM	PIEDMONT AZALEA	G3	S2	SC
RHYNCHOSPORA ALBA	WHITE BEAKRUSH	G5	S1	SC

HYNCHOSPORA BREVISETA	SHORT-BRISTLE BALDRUSH	G3G4	S?	SC
RHYNCHOSPORA CAREYANA	HORNED BEAKRUSH	G4?Q	SR	SC
RHYNCHOSPORA CEPHALANTHA VAR ATTENUATA		G5T3?	SR	SC
RHYNCHOSPORA GLOBULARIS VAR PINETORUM	BEAKRUSH	G5?T3?	S?	SC
RHYNCHOSPORA HARPERI	HARPER BEAKRUSH	G4?	S?	SC
RHYNCHOSPORA INUNDATA	DROWNED HORNEDRUSH	G3G4	S?	SC
RHYNCHOSPORA LEPTOCARPA		G3Q	SR	SC
RHYNCHOSPORA MACRA	BEAK RUSH	G3	S?	SC
RHYNCHOSPORA OLIGANTHA	FEW-FLOWERED BEAKED-RUSH	G4	S?	SC
RHYNCHOSPORA PALLIDA	PALE BEAKRUSH	G3	S?	SC
RHYNCHOSPORA PLEIANTHA	BROWN BEAKED-RUSH	G2	S?	SC
RHYNCHOSPORA SCIRPOIDES	LONG-BEAKED BALDRUSH	G4	SR	SC
RHYNCHOSPORA STENOPHYLLA	CHAPMAN BEAKRUSH	G4	S?	SC
RHYNCHOSPORA TRACYI	TRACY BEAKRUSH	G4	S?	SC
RIBES ECHINELLUM	MICCOSUKEE GOOSEBERRY	G1	S1	FT/ST
RORIPPA SESSILIFLORA	STALKLESS YELLOWCRESS	G5	S?	SC
RUDBECKIA HELIOPSIDIS	SUN-FACING CONEFLOWER	G2	S1	NC
RUDBECKIA MOLLIS	SOFT-HAIR CONEFLOWER	G3G5	S1	SC
JELLIA CAROLINIENSIS SSP CILIOSA	A PETUNIA	G5T3T4	S?	SC
RUELLIA PEDUNCULATA SSP PINETORUM	STALKED WILD PETUNIA	G5T3	S?	SC
SABATIA BARTRAMII	BARTRAM'S ROSE-GENTIAN	G4G5	S?	SC
SABATIA KENNEDYANA	PLYMOUTH GENTIAN	G3	S1	RC
SAGERETIA MINUTIFLORA	TINY-LEAVED BUCKTHORN	G4	S2	SC
SAGITTARIA FASCICULATA	BUNCHED ARROWHEAD	G1	S1	FE/SE
SAGITTARIA GRAMINEA VAR WEATHERBIANA	GRASSLEAF ARROWHEAD	G5T2	S?	SC
SAGITTARIA ISOETIFORMIS	SLENDER ARROW-HEAD	G4?	S2	SC
SANGUISORBA CANADENSIS	CANADA BURNET	G5	S?	SC
SANICULA TRIFOLIATA	LARGE-FRUITED SANICLE	G4	S1	SC
SARRACENIA RUBRA	SWEET PITCHER-PLANT	G3	S4	SC
SARRACENIA RUBRA SSP JONESII	MOUNTAIN SWEET PITCHER-PLANT	G3T1	S?	FE/SE
SAXIFRAGA CAREYANA	CAREY SAXIFRAGE	G3	S1	SC
SAXIFRAGA MICRANTHIDIFOLIA	LETTUCE-LEAF SAXIFRAGE	G5	S?	SC
SCHOENOLIRION CROCEUM	YELLOW SUNNYBELL	G4	S1	SC
SCHWALBEA AMERICANA	CHAFFSEED	G2	S2	FE/SE
SCIRPUS CESPITOSUS VAR ALLOSUS	TUSSOCK BULRUSH	G5T?	S?	SC

CIRPUS ERISMANAE	A BULRUSH	G?Q	S?	SC
SCIRPUS ETUBERCULATUS	CANBY BULRUSH	G3G4	S?	SC
SCIRPUS SUBTERMINALIS	WATER BULRUSH	G4G5	S?	SC
SCIURUS NIGER	EASTERN FOX SQUIRREL	G5	S4	SC
SCLERIA BALDWINII	BALDWIN NUTRUSH	G4	S1S2	SC
SCLERIA RETICULARIS	RETICULATED NUTRUSH	G4	SR	SC
SCUTELLARIA PARVULA	SMALL SKULLCAP	G4	S?	SC
SEDUM PUSILLUM	GRANITE ROCK STONECROP	G3	S2	NC
SEMINATRIX PYGAEA	BLACK SWAMP SNAKE	G5	S?	SC
SEMOTILUS LUMBEE	SANDHILLS CHUB	G3	S2	SC
SENECIO MILLEFOLIUM	PIEDMONT RAGWORT	G2	S2	RC
SHORTIA GALACIFOLIA	OCONEE-BELLS	G2	S2	NC
SIDEROXYLON LANUGINOSUM	GUM BUMELIA	G4G5	S?	SC
SIDEROXYLON RECLINATUM		G4G5	S?	SC
SILENE OVATA	OVATE CATCHFLY	G2G3	S?	SC
SILPHIUM TEREBINTHINACEUM	PRAIRIE ROSINWEED	G4G5	S1	SC
SISYRINCHIUM DICHOTOMUM	REFLEXED BLUE-EYED GRASS	G2	S?	FE/SE
SMILAX BILTMOREANA	BILTMORE GREENBRIER	G4?	S?	SC
SOLIDAGO AURICULATA	EARED GOLDENROD	G4	S?	SC
SOLIDAGO BICOLOR	WHITE GOLDENROD	G5	S1	SC
SOLIDAGO PTARMICOIDES	PRAIRIE GOLDENROD	G5	S?	SC
SOLIDAGO PULCHRA	CAROLINA GOLDENROD	G3	S?	SC
SOLIDAGO RIGIDA	PRAIRIE GOLDENROD	G5	S1	SC
SOLIDAGO VERNA	SPRING-FLOWERING GOLDENROD	G3	S1	NC
SOREX CINEREUS	CINEREUS OR MASKED SHREW	G5	S?	SC
SOREX FUMEUS	SMOKY SHREW	G5	S4	SC
SOREX HOYI	PYGMY SHREW	G5	S3S4	SC
SPEYERIA DIANA	DIANA	G3	S3?	N3
SPILOGALE PUTORIUS	EASTERN SPOTTED SKUNK	G5	S4	SC
SPIRANTHES LACINIATA	LACE-LIP LADIES'-TRESSES	G4G5	S1	SC
SPIRANTHES LONGILABRIS	GIANT SPIRAL LADIES'-TRESSES	G3	S?	SC
SPOROBOLUS CURTISSII	PINELAND DROPSEED	G3	SR	SC
SPOROBOLUS FLORIDANUS	FLORIDA DROPSEED	G3	SR	SC
SPOROBOLUS PINETORUM	CAROLINA DROPSEED	G3	SR	SC
SPOROBOLUS TERETIFOLIUS	WIRE-LEAVED DROPSEED	G2?	S1	NC
STACHYS CLINGMANII	CLINGMAN'S HEDGE-NETTLE	G2Q	S1	SC
STACHYS TENUIFOLIA	SMOOTH HEDGE-NETTLE	G5	S?	SC
STACHYS TENUIFOLIA VAR LATIDENS	BROAD-TOOTHED HEDGE-NETTLE	G5T4T5	S1	SC
TERNA ANTILLARUM	LEAST TERN	G4	S3	ST

TEWARTIA OVATA	MOUNTAIN CAMELLIA	G4	S2	RC
STILLINGIA AQUATICA	CORKWOOD	G4G5	S1	SC
STROPHITUS UNDULATUS	SQUAWFOOT	G5	S?	SC
STYLISMA PICKERINGII VAR PICKERINGII	PICKERING'S MORNING-GLORY	G4T2T3	S1	SC
SYLVILAGUS AQUATICUS	SWAMP RABBIT	G5	S2S3	SC
SYLVILAGUS TRANSITIONALIS	NEW ENGLAND COTTONTAIL	G4	S3	SC
SYNGONANTHUS FLAVIDULUS	YELLOW PIPEWORT	G5	S1	RC
TAMIASCIURUS HUDSONICUS	RED SQUIRREL	G5	S3?	SC
THALIA DEALBATA	POWDERY THALIA	G4	S?	SC
THALICTRUM SUBROTUNDUM	RECLINED MEADOW-RUE	G1G2Q	S1	SC
THELYPTERIS OVATA VAR OVATA		G3G5T3T4	SR	SC
THERMOPSIS MOLLIS	SOFT-HAIRED THERMOPSIS	G4?	S?	SC
THRYOMANES BEWICKII	BEWICK'S WREN	G5	S1?	SE
TIARELLA CORDIFOLIA VAR CORDIFOLIA	HEART-LEAVED FOAM FLOWER	G5T5	S?	SC
TOFIELDIA GLABRA	WHITE FALSE-ASPHODEL	G3	S?	SC
TORREYOCHLOA PALLIDA	PALE MANNA GRASS	G5?	S?	SC
TOXOLASMA PULLUS	SAVANNAH LILLIPUT	G2	S1S3	SC
TRADESCANTIA VIRGINIANA	VIRGINIA SPIDERWORT	G5	S?	SC
TRAUTVETTERIA CAROLINIENSIS	CAROLINA TASSEL-RUE	G5	S?	SC
TREPOCARPUS AETHUSAE	AETHUSA-LIKE TREPOCARPUS	G4G5	S?	SC
TRICHECHUS MANATUS	MANATEE	G2	S1S2	FE/SE
TRICHOMANES BOSCHIANUM	BRISTLE-FERN	G4	S1	RC
TRICHOMANES PETERSII	DWARF FILMY-FERN	G4G5	S2	RC
TRICHOSTEMA SP 1	DUNE BLUECURLS	G2	S?	SC
TRIDENS CAROLINIANUS	CAROLINA FLUFF GRASS	G3	S?	SC
TRIDENS CHAPMANII	CHAPMAN'S REDTOP	G?	S?	SC
TRIDENS STRICTUS	LONG-SPIKE FLUFF GRASS	G5	SR	SC
TRILLIUM DISCOLOR	FADED TRILLIUM	G3	S?	SC
TRILLIUM GRANDIFLORUM	LARGE-FLOWER TRILLIUM	G5	S?	SC
TRILLIUM LANCIFOLIUM	NARROW-LEAVED TRILLIUM	G3	S1	NC
TRILLIUM PERSISTENS	PERSISTENT TRILLIUM	G1	S1	FE/SE
TRILLIUM PUSILLUM VAR PUSILLUM	LEAST TRILLIUM	G3T2	S1	NC
TRILLIUM RELIQUUM	RELICT TRILLIUM	G2	S1	FE/SE
TRILLIUM RUGELII	SOUTHERN NODDING TRILLIUM	G3	S?	SC
TRILLIUM SIMILE	A TRILLIUM	G3	S?	SC
TRILLIUM UNDULATUM	PAINTED TRILLIUM	G5	S?	SC
TRIPHORA TRIANTHOPHORA	NODDING POGONIA	G3G4	S2	SC
TYTO ALBA	BARN-OWL	G5	S4	SC

URSUS AMERICANUS	BLACK BEAR	G5	S3?	SC
URTICA CHAMAEDRYOIDES	WEAK NETTLE	G4G5	S?	SC
UTRICULARIA FLORIDANA	FLORIDA BLADDERWORT	G3G5	S1	SC
UTRICULARIA MACRORHIZA	GREATER BLADDERWORT	G5	SR	SC
UTRICULARIA OLIVACEA	PIEDMONT BLADDERWORT	G4	S1	SC
UTTERBACKIA IMBECILLIS	PAPER PONDSHELL	G5	S?	SC
VACCINIUM CRASSIFOLIUM SSP SEMPERVIRENS	RAYNER'S BLUEBERRY	G4G5T1	S1	NC
VALLISNERIA AMERICANA	EEL-GRASS	G5	S?	SC
VERBENA SIMPLEX	NARROW-LEAVED VERVAIN	G5	S?	SC
VERONICASTRUM VIRGINICUM	CULVER'S-ROOT	G4	S?	SC
VILLOSA CONSTRICTA	NOTCHED RAINBOW	G3	S?	SC
VILLOSA DELUMBIS	EASTERN CREEKSHELL	G4	S?	SC
VILLOSA VIBEX	SOUTHERN RAINBOW	G4Q	S?	SC
VIOLA CONSPERSA	AMERICAN BOG VIOLET	G5	S?	SC
VIOLA PUBESCENS VAR LEIOCARPON	YELLOW VIOLET	G5T5	S?	SC
VIOLA TRIPARTITA	THREE-PARTED VIOLET	G5	S?	SC
VIOLA TRIPARTITA VAR GLABERRIMA	THREE-PARTED VIOLET	G5T?	S?	SC
VIOLA TRIPARTITA VAR TRIPARTITA	THREE-PARTED VIOLET	G5T3?	S?	SC
WALDSTEINIA LOBATA	PIEDMONT STRAWBERRY	G2	S2	RC
WAREA CUNEIFOLIA	NUTTALL WAREA	G4	S?	SC
WATERFALL		G?	S?	SC
XEROPHYLLUM ASPHODELOIDES	EASTERN TURKEYBEARD	G4	S1	SC
XYRIS BREVIFOLIA	SHORT-LEAVED YELLOW-EYED GRASS	G4G5	S?	SC
XYRIS CHAPMANII	CHAPMAN'S YELLOW-EYED GRASS	G3	S?	SC
XYRIS DIFFORMIS VAR FLORIDANA	FLORIDA YELLOW-EYED GRASS	G5T4T5	SR	SC
XYRIS ELLIOTTII	ELLIOTT YELLOW-EYED GRASS	G4	S2	SC
XYRIS FLABELLIFORMIS	SAVANNAH YELLOW-EYED GRASS	G4	SR	SC
XYRIS SCABRIFOLIA	HARPER'S YELLOW-EYED GRASS	G3	S?	SC
XYRIS SEROTINA	ACID-SWAMP YELLOW-EYED GRASS	G3G4	SR	SC
XYRIS STRICTA	PINELAND YELLOW-EYED GRASS	G3G4	SR	SC
XYRIS TORTA	TWISTED YELLOW-EYED-GRASS	G5	S?	SC
ZAPUS HUDSONIUS	MEADOW JUMPING MOUSE	G5	S?	SC

Parks and Recreation Areas

This section includes natural sites and developed locations that enhance the natural features of the County. There are a number of scenes and sites in the County that generally inspire appreciation for the natural environment and resources of the area.

Natural Recreation Areas

Brookgreen Gardens – Brookgreen Gardens is a 9,200-arce privately owned botanical garden in Murrells Inlet that is a diverse mix of forested swamps, salt marsh, sandy ridges and fresh tidal swamps. The Wildlife Preserve has native plants and animals of the South Carolina Lowcountry that can be viewed by walking trails, overland vehicle, or boat excursions. The gardens include live oak trees, perennials, roses, shrubs and mature trees such as dogwoods and palmettos. The Lowcountry Center Garden offers a view of natural flora as well as a display of vegetable and herbs grown during the plantation period. Entrance fee required.

Source: www.brookgreen.org/

Hobcaw Barony – Hobcaw Barony is a 17,500 acre undeveloped tract on the Waccamaw Neck owned by the Belle Baruch Foundation. Clemson University and the University of South Carolina use the facility for research in forestry, wildlife and marine resource management. Swamps, abandoned rice fields, pine and hardwood forests, salt marsh and barrier island environments provide habitat for many native animals of the coastal plain as well as native flora and fauna. Public access is limited.

Source: hobcawbarony.org/

Huntington Beach State Park – Huntington Beach is a 2,500 acre public park maintained by the State. The natural coastal environment of the park includes freshwater lagoon, salt marsh, maritime forest and beach. This environment provides a habitat for birds and has native flora and fauna. The park also provides observation decks and walking trails. Entrance fee required.

Source: huntingtonbeachsc.org/

Tom Yawkey Wildlife Center Heritage Preserve – The Heritage Trust Program was created to conserve those natural features and cultural resources that are quickly disappearing as the state's population increases in size. The Center is a 20,000 acre wildlife preserve managed by the South Carolina Department of Natural Resources. Public access is limited.

Wildlife Management Areas – The Wildlife Management Area (WMA) Program was initially developed to provide public hunting opportunities throughout the state. WMA's also offer public recreational activities such as fishing, wildlife viewing and nature study. WMA land includes DNR-owned properties and lands leased from the US Forest Service, other state agencies, utility companies, local governments, timber management and investment corporations and private landowners. There are three (3) WMA's in Georgetown County.

Samworth WMA

Samworth WMA is a 1,588 acre tract of land that was a gift from Thomas G. Samworth. Currently, the S.C. Department of Natural Resources manages about 1,300 acres of wetland impoundments, 200 acres of uplands and agricultural fields and 88 acres of longleaf pine. Public hunting on the WMA includes waterfowl, deer, feral hogs and doves. A public boat launch, fishing opportunities, bird watching opportunities, a nature trail and river access for canoeing and kayaking are all available on this property.

Sandy Island WMA

Sandy Island is a unique land form in South Carolina located between the Waccamaw and Great Pee Dee Rivers and represents the largest undeveloped tract remaining in the Waccamaw Neck. The island is a complex of wetland and upland communities managed by the S.C. Department of Natural Resources manages. There are 1,100 acres of wetlands along the Waccamaw River, on the east side of the island. Hunting is regulated by the WMA.

Santee Delta WMA

The S.C. Department of Natural Resources manages Santee Delta (WMA) to provide quality habitat for wintering waterfowl and other wetland wildlife including wood storks, wading birds, ospreys and bald eagles. The WMA consists of Santee Delta East which is predominately impounded remnant rice fields and Santee Delta West which is impounded bottomland hardwood forest. The area also provides habitat for upland game and non-game species. The area also provides recreational opportunities for the hunting and non-hunting public. The habitat provides bird watching opportunities. Nine miles of dikes, accessible by foot, provide access to visit the area.

Source: www.dnr.sc.gov/

Beach Access and Public Boat Ramps

Beach Access

Georgetown County contains almost thirty-five miles of beaches. Beach segments include Garden City Point (3 miles), Hunting Beach (3 miles), Litchfield (4 miles), Pawleys Island (4 miles), DeBordieu/Arcadia (5miles), North Island (8 miles), South Island (5 miles) and Cedar Island (3 miles). Only forty percent of the County's beach area possesses general access to the public. There are currently seventy-four (74) public beach access locations in Georgetown County. Every effort should be made to encourage more public access to beaches.

Pawleys Island has eight (8) beach access locations. The access at the south end of the island has a one hundred (100) car parking lot. The other seven (7) accesses have limited car parking and a handicapped access at the beach access location on 1st Street.

North Litchfield Beach has fifteen (15) beach access locations. All of the accesses are off Parker Drive on North Litchfield Beach. There are handicapped accesses at the beach access location at the end of Eutaw Street and just North of Windover Street.

Litchfield Beach has seven (7) beach access locations. All of the accesses are off Norris Drive with access from Litchfield Drive.

Garden City Beach has forty-four (44) beach access locations but only a few have parking availability. All beach access locations are off South Waccamaw Drive. There is a handicapped access at the beach access location # 42.

Boat Ramps

28 boat ramps have been constructed throughout the County to provide access to the number of rivers and creeks located in the County. The recently opened Carroll Campbell Marine Complex is a comprehensive tournament fishing and boat launch facility.

Browns Ferry Landing
Cowhead Landing
Eastbay Landing
Hagley Landing
Mingo Creek Landing
Pea House Landing
Peters Creek Landing
Pine Tree Landing
Pump House Landing
Dirleton Landing
Rock Point Landing
South Island Landing
Wacca Wache Landing
Murrells Inlet Landing
Ports Hill Landing
Peterfields Landing
Yauhannah Bridge
Morse Landing Park
Sandy Island Landing
Shell Road Landing
First Street Landing
Pritchard Street Landing
Pole Yard Landing
Harris Landing
Wadmacon Creek Landing
Sand Hole Landing
Dawhoo Lake Landing
Jamestown Bridge Landing

Observation Piers

Winyah Bay Fishing and Observation Pier

Winyah Bay Fishing and Observation Pier is half of the old Lafayette Bridge located off U.S. Highway 17 in Georgetown. The pier is open daily from 6 am until midnight and is free of charge.

Hobcaw Point Observation Pier

Hobcaw Point Observation Pier is located off U.S. Highway 17 and open during daylight hours. Admission is free of charge.

Veterans Pier

Veterans Pier is a new public pier located at the south end of the Marsh Walk in Murrells Inlet and was part of a community revitalization project. Admission is free of charge.

Private Commercial Nature Tours and Expeditions

There are several Plantation tours and charter trips offered throughout Georgetown County. In addition to the opportunities to view the natural resources in the area by charter boat or tour, are two centers that offer guided tours through the creeks and rivers via canoe and kayak. The County also offers kayak and canoe trips through the Parks and Recreation Department.

Black River Outdoors Center

Black River Outdoors Center offers canoe and kayak tours through the tidelands including cypress-tupelo swamps through the Black River Nature Preserve, Huntington Beach State Park salt marsh creeks, and Sandy Island Nature Preserve.

Surf The Earth

Surf The Earth offers kayak tours through the creek to South DeBordieu Island and North Island, as well as the Hobcaw estuary. The tours provide an opportunity to view the coastal eco-system.

Scenic Views and Sites

Georgetown County is a peninsula situated between the Atlantic Ocean and the confluence of five major rivers (Waccamaw River, Great Pee Dee River, Black River, Sampit River, and Santee River) that meet at the Winyah Bay. The rivers are black-water rivers, tidal saltwater creeks, vast pine forests and cypress swamps. The beaches on the Atlantic Ocean include Pawleys Island, Litchfield, and Garden City. These beaches have white, sandy beaches, abundant seashell, and ocean and creek scenic views. See Figure 1:Georgetown County Beaches.

Source: www.visitgeorgetowncountysc.com/

South Carolina Scenic Rivers Program

The South Carolina Scenic Rivers Act of 1989 created the Scenic Rivers Program to protect unique or outstanding scenic, recreational, geologic, botanical, fish, wildlife, historic or cultural values of selected rivers or river segments in the state. State Scenic Rivers are designated by the General Assembly after being determined eligible by the South Carolina Department of Natural Resources and after local support for designation is demonstrated. The method of scenic river conservation is through a cooperative, voluntary management, which involves landowners, community interest, and the SCDNR working together for common river management goals. The Scenic Rivers designated in Georgetown County include the Black River and the Great Pee Dee River.

Black River Scenic River

A 75-mile segment of the Black River from County Road (#40) Bridge in Clarendon County that extends southeast through Williamsburg County to Pea House Landing in Georgetown County was designated as a State Scenic river in 2001.

The Great Pee Dee Scenic River

A 70 mile segment of the Great Pee Dee River was designated as a State Scenic River in 2002. The scenic river segment begins at the US Highway 378 bridge between Florence and Marion Counties and extends in a southerly direction past parts of Williamsburg and Horry counties to the US Highway 17 bridge in Georgetown.

Source: www.dnr.sc.gov/

Tom Yawkey Wildlife Preserve

The Tom Yawkey Wildlife Preserve is made up of 20,000 acres of land along the shoreline in Georgetown County that has been granted to the South Carolina Department of Natural Resources. The marshes, marine wetlands, forests, and sandy beaches play host to hundreds of species of coastal wildlife and serve as an undisturbed habitat for migratory birds, eagles, alligators, and many other endangered species. The Preserve is widely considered among the greatest natural conservation grants in the United States. See Wildlife Preserve Map.

Source:/www.yawkeyfoundation.org/

Brookgreen Gardens

Brookgreen Gardens is a 9,200-acre property intended to preserve the native flora and fauna of South Carolina's coastal community. The garden land is a diverse mix of forested swamps, salt marsh, sandy ridges and fresh tidal swamps. See Figure 2: Map of Brookgreen Gardens.

Live Oak Allee

The Live Oak Allee garden is comprised of 250 year old live oaks trees that were planted in the early 1700s when Brookgreen Gardens was a thriving rice plantation. The trees frame the garden space like a living cathedral.

Creek Excursions

Creek Excursions on a 48-foot pontoon boat along rice fields offer a view of alligators, waterfowl, and osprey. An interpreter accompanies the tour to define the distinctive landscape of the rice plantations.

Trails

The Lowcountry Trail consists of a boardwalk that crosses the hillside overlooking Mansfield, a restored rice field of the former Brookgreen Plantation.

The Oaks Plantation History and Nature Trail is a self guided through the woods of South Carolina Lowcountry.

Source: www.brookgreen.org/

Hobcaw Barony

Hobcaw Barony is a 17,500-acre wildlife refuge. Swamps, abandoned rice fields, pine and hardwood forests, salt marsh and barrier island environments provide habitat for many native animals of the coastal plain, as well as an abundance of indigenous flora and fauna. The historic Hobcaw House is located on a bluff overlooking Winyah Bay. Tours of this scenic view are available.

http://hobcawbarony.org/

Indian Lake

Indian Lake is located in the Plantersville area of Georgetown County. The lake is a scenic fishing destination.

Source: www.fishingworks.com/lakes/south-carolina/georgetown/plantersville/indian-lake/

Sandy Island

Sandy Island is located between the Waccamaw and Great Pee Dee Rivers and represents the largest undeveloped tract remaining in the Waccamaw Neck. The island is comprised of wetland and upland communities. The 1,100 acres of wetlands along the Waccamaw River, on the east side of Sandy Island, were converted to rice plantations during the 1800s. The island is accessible only by boat.

Source: www.nature.org/

Huntington Beach State Park

Huntington Beach State Park is an oceanfront park that offers some 2,500 acres of native flora and fauna as well as many observation decks and coastal walking trails. The park includes three miles of remote, unspoiled beach. The park's freshwater lagoon, salt marsh, maritime forest and beach provide prime habitat for birds and other coastal animals. See Figure 3: Huntington Beach State Park.

Source: www.huntingtonbeachsc.org/

Waccamaw National Wildlife Refuge

The Waccamaw National Wildlife Refuge spans over 55,000 acres and includes large sections of the Waccamaw and Great Pee Dee Rivers and a small section of the Little Pee Dee River. The refuge provides wildlife observation, photography, and environmental education and interpretation. Presently there are four Refuge owned tracts that are accessible by automobile on Waccamaw NWR. The Refuge is actively improving access on these tracts and as the acquisition process continues, more tracts offering vehicular access may be acquired.

Source: www.fws.gov/waccamaw/

Murrells Inlet

Murrells Inlet offers salt mash ecology tours as well as a 1250-foot Marshwalk that skirts the creek to observe the inlet inhabitants including egrets, herons, waterfowl, fish and crabs. See Figure 4: Murrells Inlet.

Source: www.visitgeorgetowncountysc.com/

City of Georgetown

Morgan Park

Morgan Park is located on the point where the Sampit River enters Winyah Bay, at the southern tip of the town of Georgetown, just beyond East Bay Park, Visitors have a scenic view of Winyah Bay with access to the beach and picnic table shelters. Future plans for the park include fishing/crabbing piers, a boardwalk to meet ADA standards, fishing/observation point, walking trails, and a maritime memorial *(see Morgan Park Master Plan Conceptual Plan).*

Source: City of Georgetown Morgan Park Master Plan

Harbor Walk

Downtown Georgetown has a waterfront business district. Behind the stores, you can walk along the boardwalk for views of the boats in the harbor and the uninhabited Goat Island.

See Figure 5: City of Georgetown Port and Winyah Bay.

Source: www.scgreatoutdoors.com/

Scenic Sites in Georgetown County

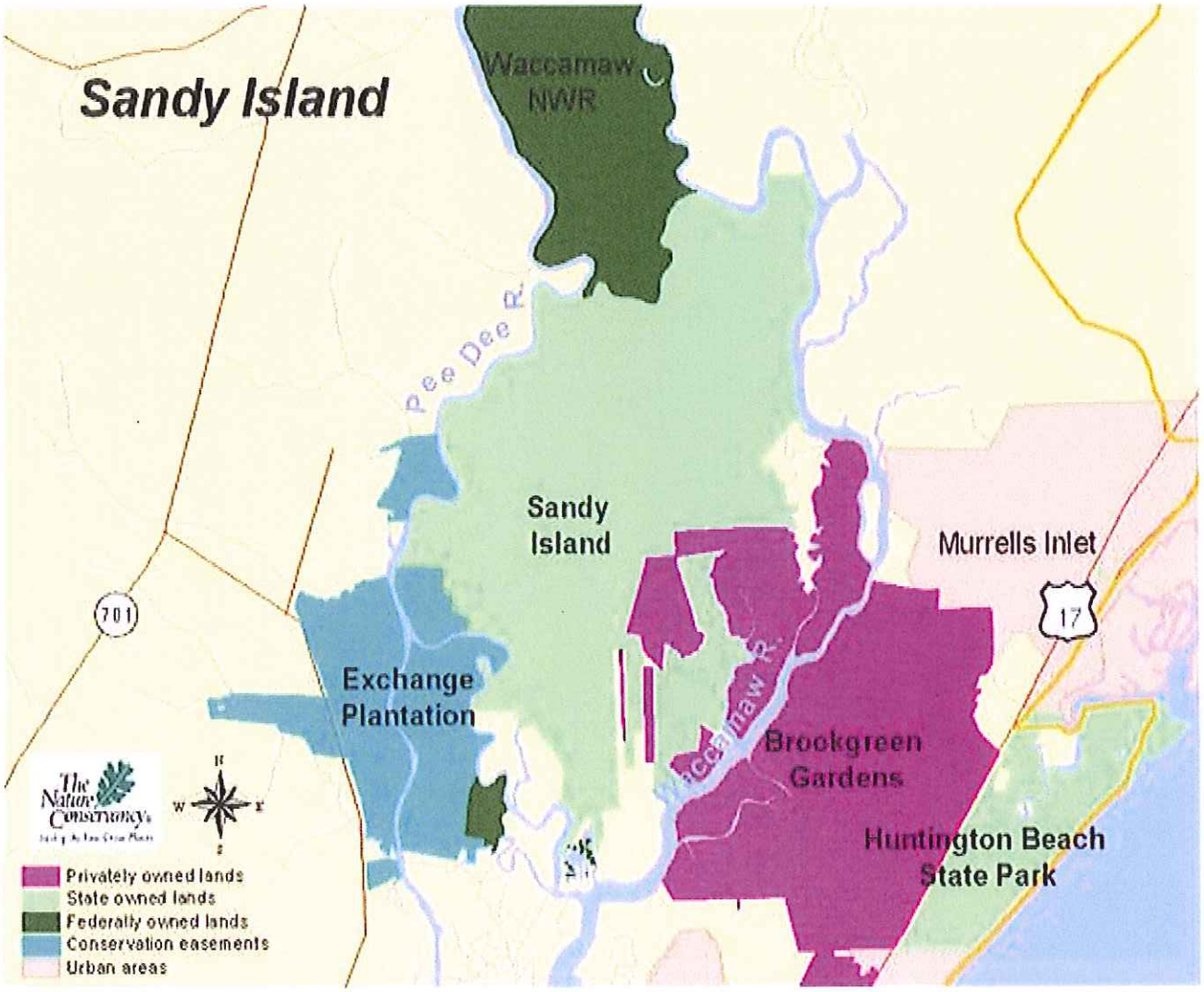
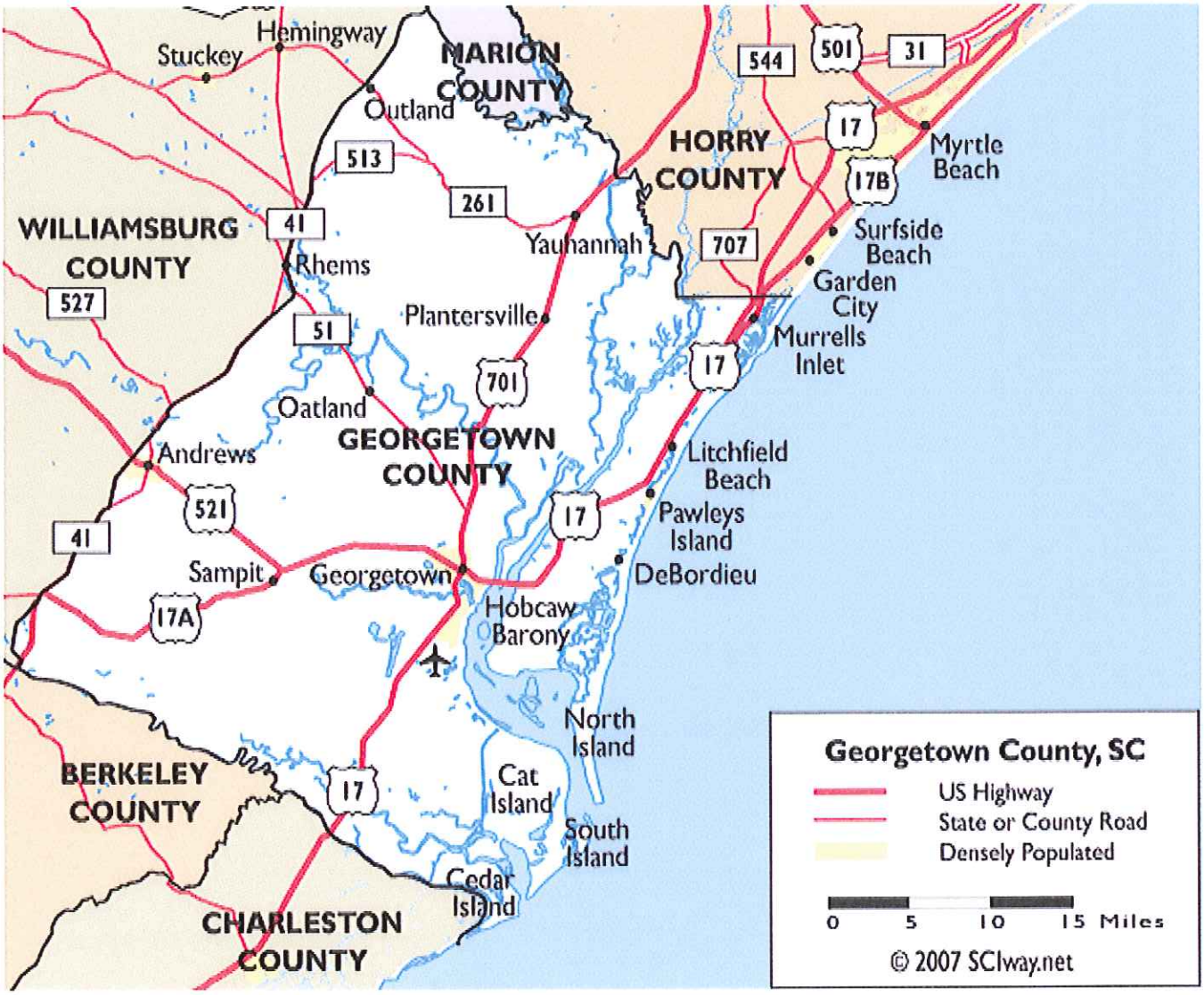


Figure 1: Georgetown County Beaches



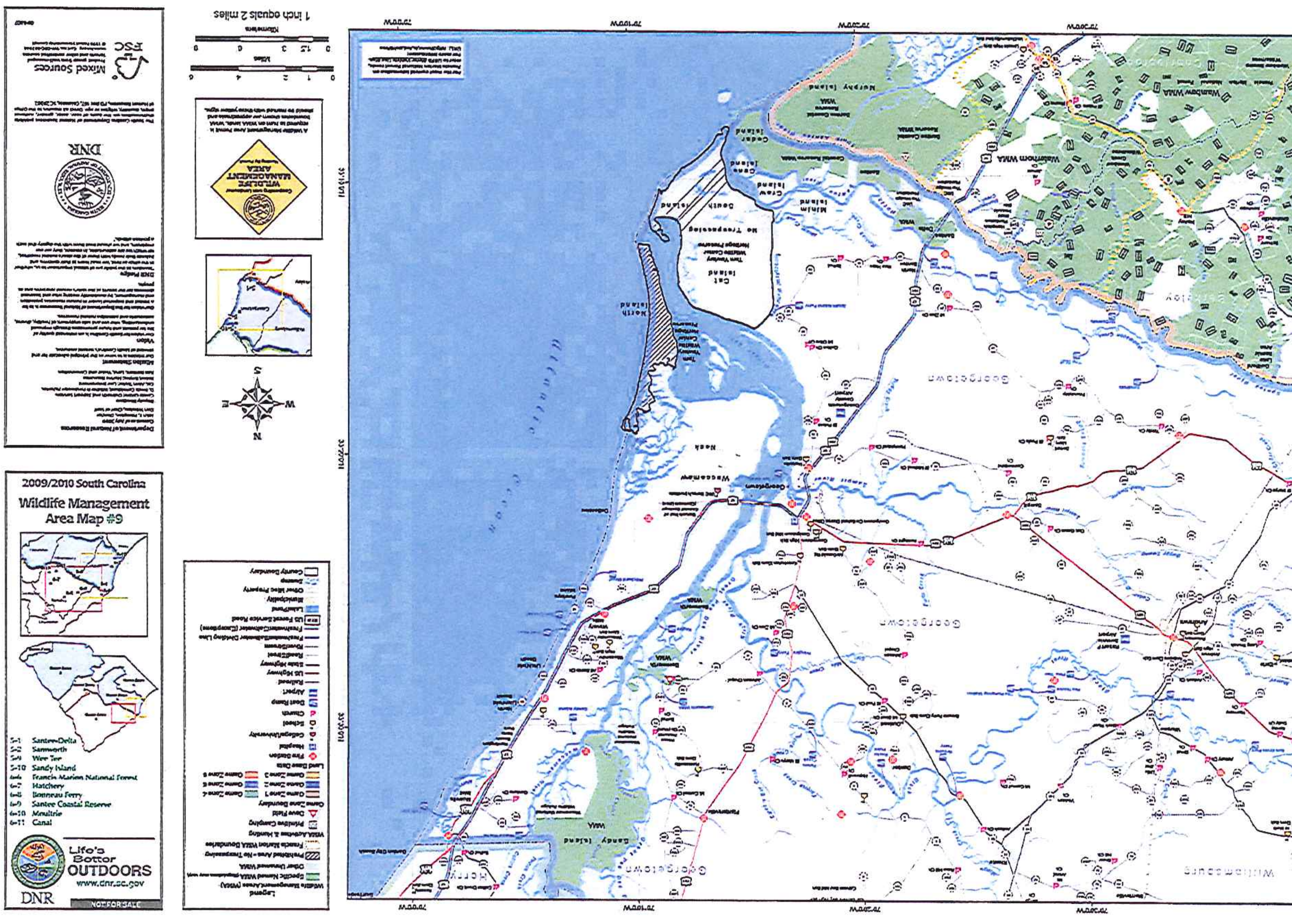
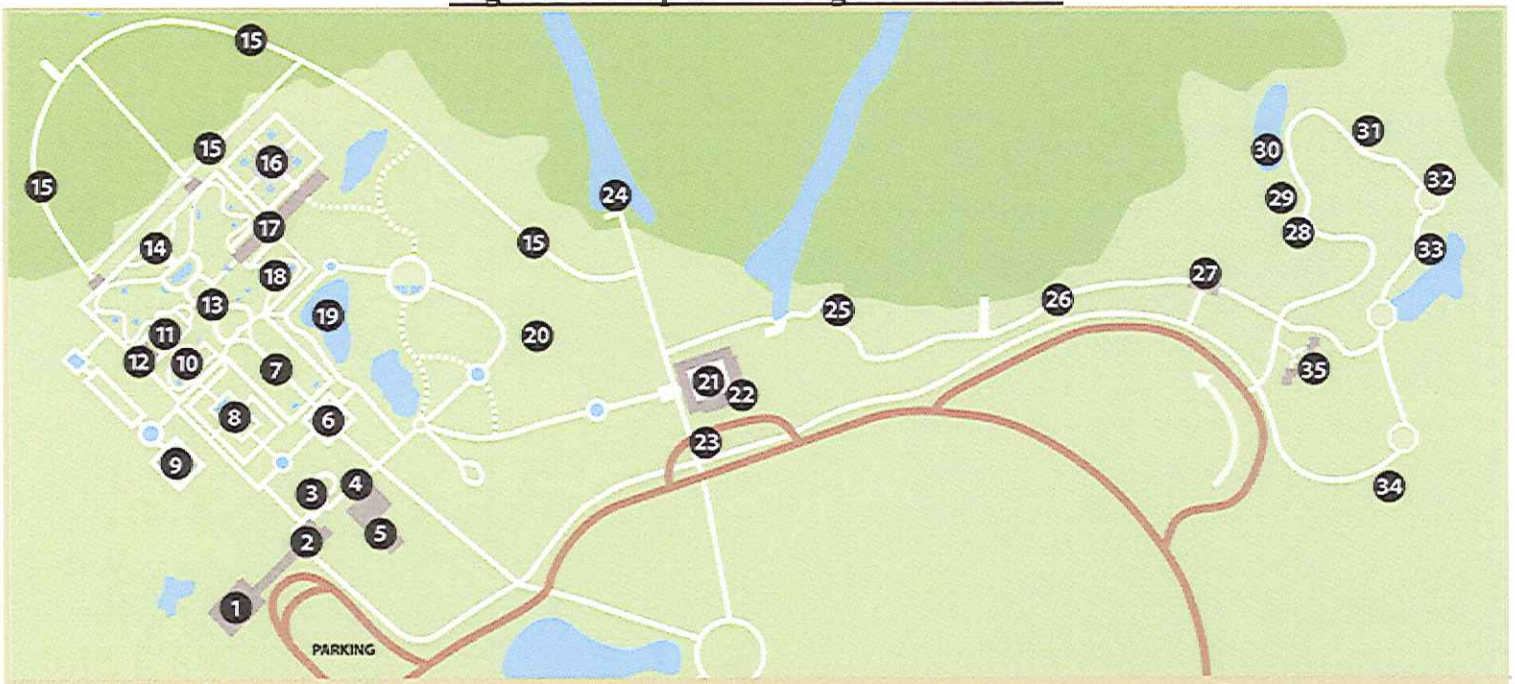

2009/2010 South Carolina
Wildlife Management
Area Map #9
5-1 Santee-Delta
5-2 Samworth
5-3 Wee Tee
5-10 Sandy Island
6-6 Francis Marion National Forest
6-7 Hatchery
6-8 Bonneau Ferry
6-9 Santee Coastal Reserve
6-10 Moultrie
6-11 Canal
Life's Better OUTDOORS
www.dnr.sc.gov
DNR
NOT FOR SALE
Georgetown
Williamsburg
Horry
Atlantic Ocean
Sandy Island WMA
Cat Island
Tom Yawkey Wildlife Center Heritage Preserve
No Trespassing
South Island
North Island
Cedar Island
Murphy Island
Crow Island
Minim Island
Santee Coastal Reserve WMA
Wambaw WMA
Waterhorn WMA
Georgetown
Andrews
Waccamaw Neck
1 inch equals 2 miles
Miles
Kilometers
Mixed Sources
FSC

Figure 2: Map of Brookgreen Gardens



1 Tarbox Welcome Center
2 Keepsakes Gift Shop
3 Anne's Garden
4 Rainey Sculpture Pavilion
5 Pavilion Restaurant
6 Diana Pool
7 Live Oak Allee
8 Palmetto Garden
9 Muses Garden
10 Sea Urchin Garden
11 Old Kitchen
12 Offner Sculpture Center
13 Center Garden
14 Rosen Carolina Terrace
15 Trail Beyond the Garden Wall
16 Dogwood Garden
17 Brown Sculpture Court
18 Peace Garden Room for Children
19 Dogwood Pond
20 Arboretum
21 Wall Lowcountry Center
22 Courtyard Cafe
23 Trekker Excursions
24 Boat Dock
25 Lumpkin Ricefield Overlook
26 Lowcountry Trail
27 Floyd Domestic Animals of the Plantation
28 Cypress Swamp Aviary
29 Otters
30 Alligators
31 Red and Gray Foxes
32 Birds of Prey Aviaries
33 Wild Turkeys
34 Deer – White Tailed
35 Campbell Center for American Sculpture

Figure 3: Huntington Beach State Park

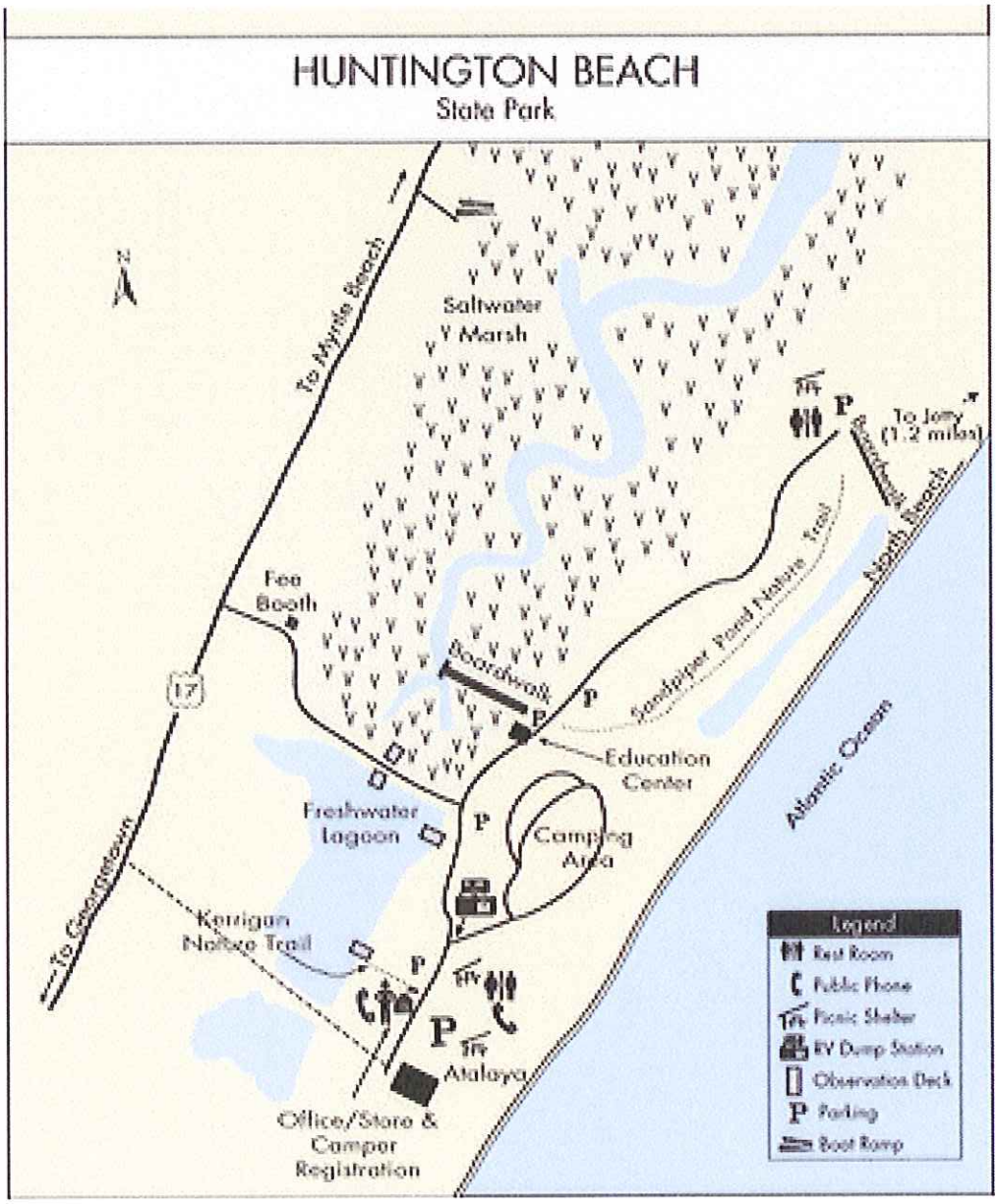


Figure 4: Murrells Inlet

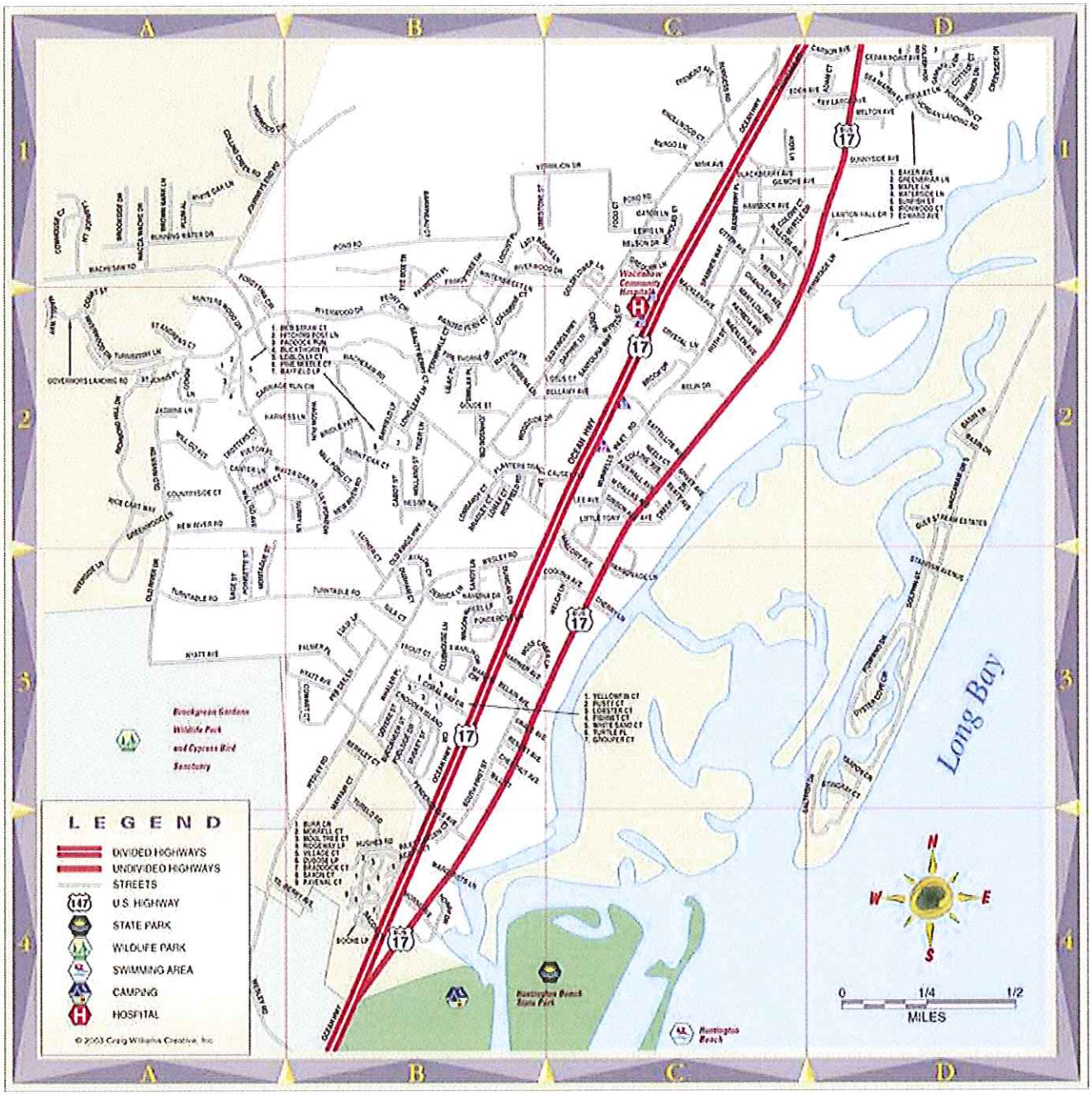
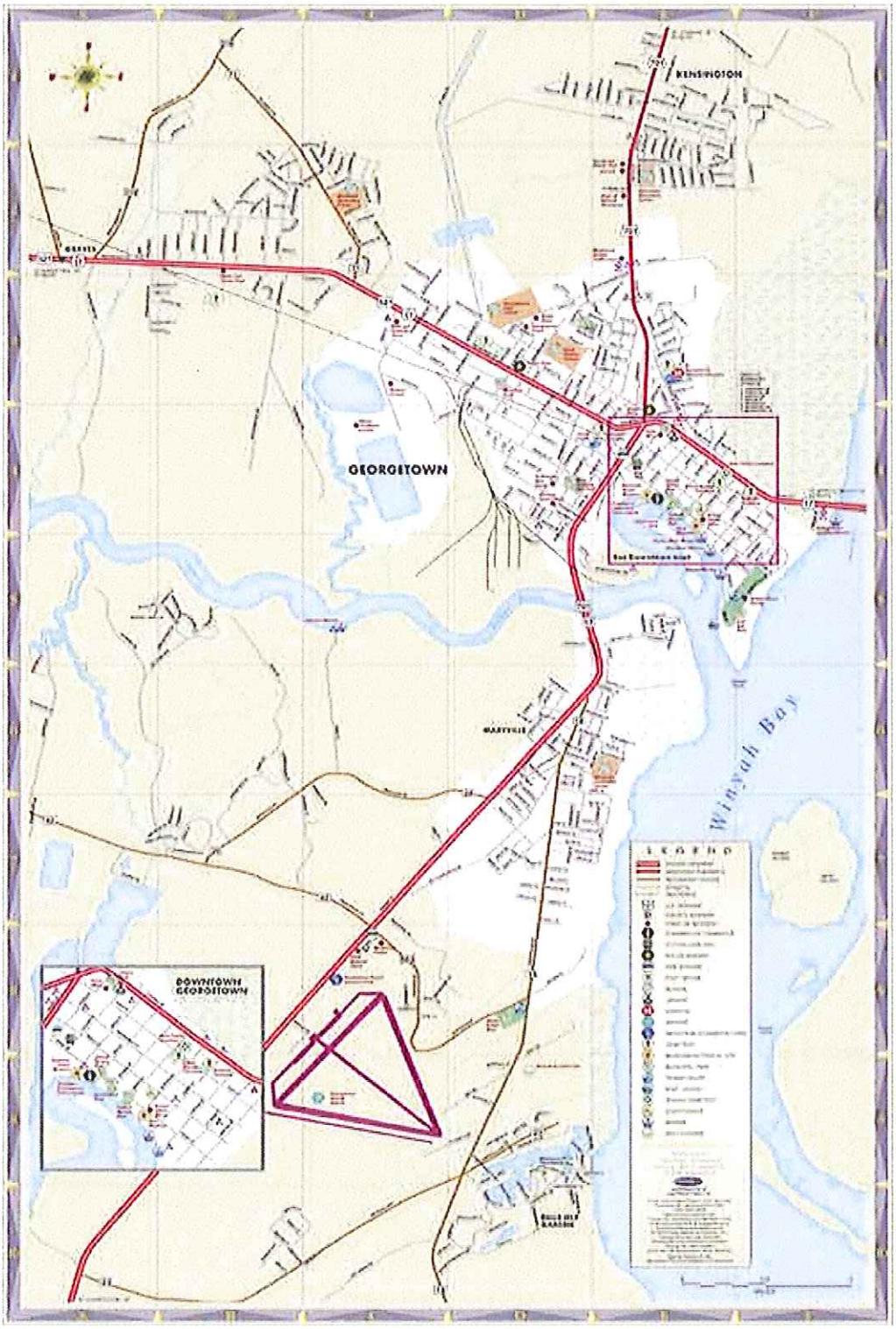


Figure 5: City of Georgetown
Port and Winyah Bay

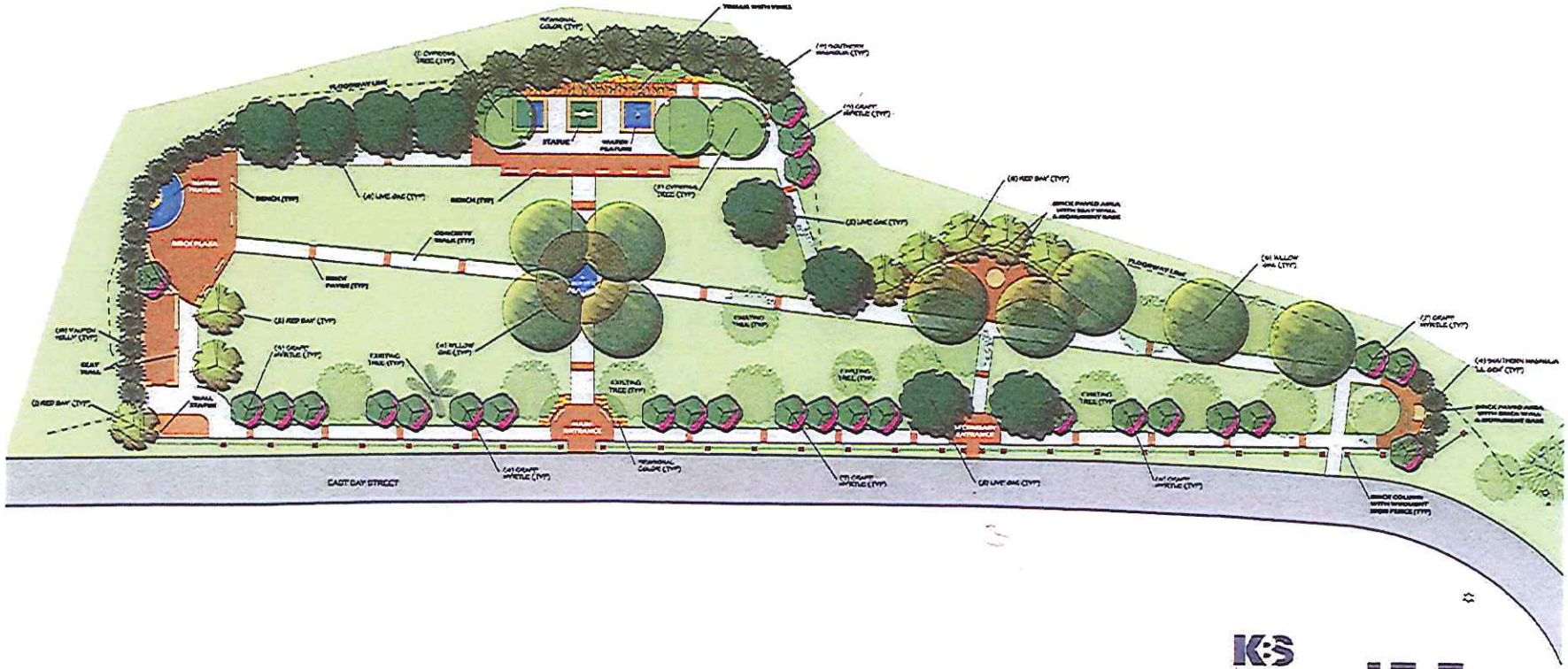



FISHING PIER
RICE PADDY TRUNK GATE
PARKING LOT
POND
PRIMITIVE / NATURAL AREA
EXISTING ROAD CONVERTED TO PARKING LOT
OPEN GREEN SPACE
RIVER ROAD
PATH (TYP.)
OBSERVATION POINT
EXISTING PILING (TYP.)
MEMORIAL TREE GARDEN
STATUE OF FRANCIS MARION
PARKING LOT (PHASE II)
MAIN BUILDING W/ TOWER
PARKING LOT
MEMORIAL PLAZA
APPROXIMATE FORT LOCATION
FORMAL GARDEN
BOARDWALK
MARITIME MONUMENT
BOARDWALK AROUND FORT
PICNIC AREA IMPROVEMENTS
FISHING PIER
CANOE/KAYAK STAGING AREA
BOAT PARKING
MARITIME DISCOVERY SITE
STATUE FROM BROOKGREEN GARDEN
SAMPIT CHANNEL
BOAT LANDING
FISHING PIER
SAMPIT CHANNEL
0
50
100
200
300
Morgan Park Master Plan
GEORGETOWN, SC
REVISED NOVEMBER 12, 2008

CONCEPTUAL PLAN

TREE MEMORIAL GARDEN

GEORGETOWN, SOUTH CAROLINA



Wetlands and Surface Water Bodies

Georgetown County has many unique freshwater wetland ecosystems. Freshwater or non-tidal wetlands receive their water mainly from surface water runoff, groundwater discharge, and direct precipitation. Wetlands are characterized by the presence of wetland vegetation, hydric soils, and hydrologic conditions. Some wetland types encountered in Georgetown County include the famous Carolina Bays, marshes, cypress swamps, bottomland hardwoods, picosins, and mud flats.

Wetlands

Georgetown County is approximately 44% wetlands. The Clean Water Act interprets wetlands to mean those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

Wetlands are essential components of the landscape of Georgetown County. Their functions are multiple and diverse and include Critical breeding, nesting, and feeding habitats for many species of waterfowl, mammals, and reptiles; Water quality protection and enhancement by moderating surface runoff, recharging groundwater supplies, and trapping and removing sediments, nutrients, and chemical pollutants; Spawning and nursery grounds for many commercial fish and shellfish species; Flood hazard reduction by reducing the velocity of flowing water, absorbing and slowly releasing floodwaters, thereby lowering flood peaks; and Recreational opportunities for bird watchers, hunters, canoeists, anglers, and others.

The critical areas of the County include beaches, dunes, coastal and riverine wetlands and waterfowl nesting areas. Riverine wetlands are wooded swamps along rivers and streams. The bottomland hardwoods and cypress trees of these wetlands are nourished by a layer of water, which usually covers the surface area. Coastal wetlands consist of tidal, salt, brackish, and fresh water marshes. Because these wetlands harbor, nourish and produce a wide variety of wildlife, they are the most unique of all the wildlife habitats. The major types of coastal wetlands include the shallow fresh marshes, deep fresh marshes, open fresh water, irregularly flooded salt marshes, regularly flooded salt marshes, and bays.

The benefits provided by the marshes and wetlands are plentiful, including commercial fishing, shrimping and shell fishing. The vibrancy of this industry is dependent on the health of the marshes and wetlands. Wetlands provide nutrients, nursing areas and spawning grounds for fish and shrimp. They also provide a habitat for a diverse plant life. Georgetown County contains over 137,000 acres of wetlands. The filling of wetland to create high ground shall be prohibited in wetlands, unless no feasible alternatives exist. A full environmental assessment is needed before development occurs.

Freshwater wetlands provide a number of important ecological functions. For example, wetlands:

- Promote ground water recharge and discharge, holding water after heavy rainfalls and discharging it slowly into lakes, streams, and groundwater aquifers

- Act as flood buffers, absorbing water and decreasing the speed at which water flows
- Aid in erosion control by stabilizing soil and encouraging sediment deposition
- Improve water quality by filtering out nutrients, heavy metals, and organics
- Provide vital habitat for fish and wildlife

Not only are wetlands ecologically crucial, but they also contribute to the economy and the quality of life in Georgetown County. During rainstorms, runoff from urbanized areas, farm land, and highways washes into wetlands, carrying harmful pollutants. When wetlands are degraded or destroyed, they lose their capacity to filter out these pollutants. Instead, citizens absorb the cost of water treatment to prevent the pollutants from entering our drinking water. In addition, when pollutants enter the water, many types are taken up by the fish and bird species on which we depend for recreational and commercial uses.

Freshwater marshes and forested wetlands, primarily cypress-tupelo swamps and bottomland hardwood forests, are prevalent along the lower portions of the Waccamaw, Santee, and Black Rivers. Located partly in Georgetown County, the Waccamaw National Wildlife Refuge, as well as areas like Sandy Island, is under protection.

Rather than looking at each wetland area as separate and hydrologically unconnected to the system, the county encourages a watershed based approach in assessing water quality and the protection of freshwater wetlands. In order to maintain the quality of life and the economy of Georgetown County, the integrity of wetlands, watersheds, and flood plains in this county must be maintained through protection of water quality and wetlands within distinct watersheds.

Sources: www.epa.gov/owow/wetlands/ and Horry County Comprehensive Plan

Carolina Bays

Carolina bays. Carolina Bays are isolated wetlands in natural shallow, elliptical, depressions that are largely fed by rain and shallow groundwater. The Bays are especially rich in biodiversity, including some rare and/or endangered species. Habitats include birds, such as wood storks, herons, egrets, and other migratory waterfowl; mammals such as deer, black bears, raccoons, skunks, and opossums; and dragonflies, green anoles and green tree frogs. Trees such as black gum, bald cypress, pond cypress, sweet bay, loblolly bay, red bay, sweet gum, maple, magnolia, pond pine, and shrubs such as fetterbush, clethra, sumac, button bush, zenobia, and gallberry are found in the Bays. Plants common in Carolina Bays are water lilies, sedges, various grasses, and carnivorous plants including bladderwort, butterwort, pitcher plant, and sundew. Some of the Bays have been greatly modified due to farming, highway building, housing developments and golf courses. Carvers Bay, a large one in Georgetown County was used as a bombing practice range during World War II. It has been drained and is mostly used for tree farming today.

Researchers believe Carolina Bays are 30,000 to 100,000 years old and are found primarily in North and South Carolina, and Georgia. Their origins are not certain. They fill with rainwater during winter and spring and dry during summer months. When left in an unaltered condition, these bays are generally considered to be an isolated, freshwater wetland. The bays provide many of the values associated with wetlands including stormwater storage, water quality enhancement,

and habitat for many wildlife species. Each bay may range in size of less than one acre to more than 1,000 acres.

Source: http://en.wikipedia.org/wiki/Carolina_Bay

United States Environmental Protection Agency

The mission of EPA is to protect human health and to safeguard the natural environment -- air, water and land -- upon which life depends.

United States Environmental Protection Agency (EPA) was established to consolidate federal research, monitoring, standard-setting and enforcement activities into one agency. South Carolina wetlands are in EPA Region 4. The wetlands in this region have important hydrological, chemical, biological and socioeconomic functions that add value to plant and animal habitats. Region 4 wetlands include salt marshes; cypress and gum swamps in the coastal plain areas; freshwater ponds and bogs; flood plain wetlands; and riverine wetlands found along the headlands of major rivers.

Source: www.epa.gov/owow/wetlands/

Clean Water Act

The Clean Water Act (CWA) is a Federal Act intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

Section 404 of the Clean Water Act (CWA) establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation. Many normal farming practices are exempt from Section 404.

On February 1, 2010, the U.S. Supreme Court overturned a 2008 lower-court verdict and as a result gave states oversight of development regarding freshwater wetlands. State regulators have had little authority over development leaving isolated wetlands with little federal protection due to the 2001, the U.S. Supreme Court ruling which stated isolated wetlands that have no channel connecting it to a larger body of water are not protected under the permitting requirements of the Clean Water Act. The result of this ruling is that more than 400,000 acres of wetlands in South Carolina (10% of the state's total) may have had their protection removed.

Isolated wetlands consist of many valuable and unique resources including Carolina bays. The Department of Health and Environmental Control (DHEC) now have oversight and may require plan changes or deny development plans. The 2010 ruling does not, however, protect salt marshes which fall under a separate state permitting program.

Sources: http://www.epa.gov and www.TheSunNews.com

United States Department of Agriculture

There are many resources available to address wetland needs in Georgetown County. The Georgetown Soil and Water Conservation District and the USDA Natural Resource Conservation Service have programs available for the restoration, protection, and enhancement of wetlands. Local participation in the Wetland Reserve Program has restored and protected approximately 4000 acres with permanent easements to date. Conservation easements have been voluntarily placed on 100 acres of private lands through the Farm and Ranch Protection Program that have protected the integrity of wetlands on these properties. The Georgetown Soil and Water Conservation District Office is a veritable clearinghouse of technical resource information, including, historic and current aerial photography, soils technical information with soil surveys, hydric-soils lists and technical descriptions are available for planning and assessment.

Source: USDA, Natural Resources Conservation Service

Georgetown County Stormwater Management Plan

Georgetown County generally is experiencing growth and revitalization that is impacting the County's natural resources. This increased urbanization is especially evident with its surface water resources. The growth and revitalization necessitates an increased need to protect and enhance the natural water resource features that are evident throughout the County and so significantly and critically contributes to the County's distinctive character. Georgetown County recognizes this need for a more proactive and comprehensive approach to manage stormwater runoff. The purpose of the Georgetown County Stormwater Management Plan is to establish the framework and goals that will direct Stormwater Management for Georgetown County.

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers Regulatory Program has the responsibility of protecting and maintaining the nation's waters, including wetlands. Georgetown County is in the Charleston District of the South Atlantic Division of the U.S. Army Corps of Engineers Regulatory permitting program. The Regulatory program provides protection for waters of the United States, including federally delineated wetlands and navigable waters.

Source: www.sad.usace.army.mil/regulatory

Surface Water and Ground Water

Surface Water in Georgetown County is available from five locations. These are the Pee Dee, Waccamaw, Santee, Sampit, and Black Rivers. The Georgetown County Water and Sewer District has constructed a water treatment plant on the Waccamaw Neck that draws water from the Waccamaw River. There is an Industrial surface water intake in the county and it is located on the Great Pee Dee River.

The county has abundant quantities of ground water of good quality available from a number of principal and secondary aquifers. Principal aquifers are encountered at depths of 500 to 900 feet with secondary aquifers encountered at depths of 70 feet or less. Yields from the principal aquifers range from 150 – 900 gallons per minute (g.p.m.) and from 50 to 100 g.p.m. in the

secondary aquifers. Both the principal and secondary aquifers are subject to salt water intrusion near the coast and probably do not contain a sufficient quantity of water to support concentrated development.

Some of the groundwater in Georgetown County is used for various purposes in the communities throughout the County. Table A: Surface Water Usage and Table B: Ground Water Usage below identifies how ground water and surface water are used in Georgetown County compared to the adjacent Counties

Table A: Surface Water Usage for Georgetown and Neighboring Counties (Million Gallons for 2005)

COUNTY	PUBLIC SUPPLY	INDUSTRY	IRRIGATION	GOLF COURSE
GEORGETOWN	2268.05	12,294.862	2025.72	775.90
HORRY	14,890.15	15.88	66.33	2899.80
WILLIAMSBURG	NR	NR	2.15	NR
BERKELEY	5071.40	3110.429	1110.14	6.42
CHARLESTON	27,901.81	8873.806	26.99	199.50

Table B: Ground Water Usage for Georgetown and Neighboring Counties (Million Gallons for 2005)

COUNTY	PUBLIC SUPPLY	INDUSTRY	IRRIGATION	GOLF COURSE
GEORGETOWN	853.25	112.98	21.80	0.00
HORRY	782.16	160.116	145.60	587.00
WILLIAMSBURG	551.86	902.648	NR	NR
BERKELEY	195.05	1200.791	0.24	19.20
CHARLESTON	2398.08	42.456	0.25	648.03

NR-None Reported

Source: http://www.scdhec.gov/environment/water/docs/wtruse2005.pdf

Water Quality

Water quality has become a significant physical factor in the environment of Georgetown County. The various water systems that will be looked at in this section are: Winyah Bay, Sampit River, Waccamaw River, Pee Dee River, Black River, Santee River and North Inlet.

The Clean Water Act that created a national goal of "fishable-swimmable waters" in the United States. One of the strategies to achieve the goal is Section 208 of the Act that encourages and facilitates the development and implementation of areawide waste treatment management plans. It requires state governors to identify areas with water quality problems and designate an entity to develop areawide waste treatment management plans. The 208 plan for Georgetown County is currently in the process of being revised

Source: http://www.scdhec.gov/environment/water/docs/208plan.pdf

The lower Black River has some of the best quality water in the county and the Waccamaw Region, however the water suffers from low dissolved oxygen levels and organic enrichment on occasion. This is believed to be due to the flushing of swamps and marsh with low dissolved oxygen levels and stormwater runoff from agriculture areas upstream. Similar problems also exist for the Waccamaw River.

The Pee Dee River has generally good quality water, with all uses associated with its "Freshwater" classification fully supported i.e. suitable for primary and secondary recreation; a source of drinking water after conventional treatment in accordance with DHEC requirements; for fishing and support of aquatic life; and for agricultural and industrial uses.

The North Inlet was reclassified by DHEC as "ORW" or "Outstanding Resource Waters" because of its significance as an outstanding ecological resource. This represents the highest classification, which may be assigned to surface waters. Ocean waters adjoining the Waccamaw Neck are good with the exception of several areas where the shellfish harvesting is conditionally prohibited after excessive rains. It is through that non-point source pollution associated with stormwater run-off from this rapidly expanding area is partly responsible for current water quality problems.

Development generally brings several changes to the quality of water unless steps are taken to protect it. First of all, paving and building construction decrease surface area for water absorption, and the compaction of soil during construction decreases permeability, resulting increased run-off. Greatly increased sediment loads are characteristic during construction activities without mandatory controls. Nutrients, oxygen-demanding materials and coliform levels in stormwater runoff from urbanized areas are greatly increased during development. These are all major problems, which should be considered before development is begun.

State Level Recommendations for Groundwater Resources

On the State level, the South Carolina Department of Natural Resources (DNR) considers aquifers important water sources for the various activities and communities in the State. Groundwater withdrawal is considered to be a contributing factor increasing the cost for groundwater pumping and decreasing available sources. Urban development and the use of agriculture irrigation ponds are also considered to place additional stress upon groundwater resources. The Department of Natural Resources recommends the following regarding proper management of these valuable resources:

1. Local governments should evaluate their planning policies and zoning ordinances with regard to groundwater. Land uses should be evaluated and planned to prevent excessive groundwater withdrawals. Housing densities, and some land uses, should be restricted in areas where shallow aquifers are the only source for water supply.

2. On a regional level, county local governments should consider implementing or modifying ordinances regarding the location of wells, irrigations ponds, and other water impoundments. This should be done to prevent or minimize adverse effects of ground water withdrawals on the water resource and on other water users. Local governments should also encourage water conservation practices.

3. Local governments should adopt water management and conservation plans that address the issue of competing water uses in the event of water shortages or adverse environmental effects of groundwater withdrawals.

Georgetown County's underground resources are subjects to threats, just as other counties in the region if not addressed adequately. These threats could be septic tank failures that could leak waste material, polluted runoff, petroleum contaminants, solid waste collection sites, wastewater treatment plant spills and industrial sources. Prudent and pro-active initiatives are needed to ensure that the condition of the County's groundwater resources is not allowed to deteriorate.

Drainage in Georgetown County for the most part is poor due to its low elevation, soil composition and high water table. The region receives an average 51 inches of rainfall annually. Rainfall that is not absorbed by earth and vegetation is drained by extensive system of natural and manmade streams and canals. Most of Georgetown County is in the Pee Dee River Basin, with only the extreme southwest portion of the County located in the Santee River Basin. Drainage in the Pee Dee River Basin is southeastward from sections of North Carolina and the eastern portion of South Carolina. Principal drainage within the county (Waccamaw, Pee Dee, Black, Sampit and Santee Rivers and their tributaries, the Intracoastal Waterway, and Winyah Bay). Georgetown County is also in the Santee, Waccamaw, Pee Dee and Black River sub-basins. The County also contains a number of fresh swamps, which accept surface drainage. Extensive areas of tidal marshland occur along the coast and extend about twenty miles up the large rivers. As a result of the low topography and poor drainage, large land areas are unsuitable for urban development. There are few openings in the coastline because the Waccamaw, Pee Dee, Black, and Sampit Rivers combine in Winyah Bay forming a single outlet to the Atlantic Ocean.

Studies of flood-prone areas in the County have been made by the Federal Emergency Management Agency. A reevaluation of the County was conducted to determine the impacts of flooding generated by waves. Flood Insurance Rate Maps (Firms) are available which show various flood zones and base flood elevation data.

Air Quality

Maintaining good air quality is crucial to every aspect of community and commercial life in Georgetown County. The nature of our atmosphere, including air currents, cloud movement and the various forms in which water falls back to land surface, make air quality and decisions affecting air quality issues that are broader in scope than the local government level. However, there are actions and policies that the County can incorporate which would ensure air quality responsibility at the local level and may serve as example in encouraging other jurisdictions to cooperate in evaluating and protecting the air quality.

U.S. Environmental Protection Agency

The mission of the U.S. Environmental Protection Agency is to protect human health and to safeguard the natural environment - air, water, and land - upon which life depends.

Georgetown County is in Region 4 of the U.S. Environmental Protection Agency (EPA) that includes Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. The headquarter office is located in Atlanta, Georgia. According to the EPA, the Air quality in Georgetown, SC is 41 on a scale to 100 (higher is better). This is based on ozone alert days and number of pollutants in the air.

Clean Air Act

The Clean Air Act is the law that defines EPA's responsibilities for protecting and improving the nation's air quality and the stratospheric ozone layer. The last major change in the law, the Clean Air Act Amendments of 1990, was enacted by Congress in 1990. The Clean Air Act requires EPA to set National Ambient Air Quality Standards for six common air pollutants. These commonly found air pollutants (also known as "criteria pollutants") are found all over the United States. They are particle pollution (often referred to as particulate matter), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead.

Particle pollution and ground-level ozone are the most widespread health threats. Some of these pollutants (CO, SO2, and lead) are emitted directly from a variety of sources. Although some industrial sources release ozone directly into the environment, most ground-level ozone forms in the air from chemical reactions involving nitrogen oxides), volatile organic compounds, and sunlight. NO2 is formed in the air through the oxidation of nitric oxide. Particle pollution can be directly emitted, or it can be formed when emissions of sulfur oxides, ammonia, organic compounds, and other gases react in the atmosphere. Each year EPA looks at the levels of these pollutants in the air and the emissions from various sources to see how both have changed over time and to summarize the current status of air quality. Chart A: Air Pollutants in Georgetown County, is a comparison of Georgetown County and South Carolina pollutants.

Chart A: Air Pollutants in Georgetown County

Pollutant	Georgetown County	South Carolina
Air Pollution Index	*102*	*86*
Ozone Index	110	105
Carbon Monoxide Index	102	94
Lead Index	44	43
NO2 Index	56	79

Particulate Matter Index	197	111

Source: www.epa.gov/

South Carolina Department of Health and Environmental Control

Georgetown County is in Region 6 of the South Carolina Department of Health and Environmental Control (SCDHEC) Environmental Quality Control (EQC) Office which includes Georgetown, Horry, and Williamsburg counties. See Figure 1: SCDHEC Regions. The headquarter office is located in Myrtle Beach, South Carolina.

The Division of Air Quality Analysis (DAQA) is a technical division of the Environmental Quality Control (EQC) Laboratories. This Division is divided into four sections: Analytical Laboratory, Data Management, Audit and Calibration, and Technical Support for Sites. DAQA has played the primary role in gathering ambient data from throughout South Carolina in order to determine if the state meets the quality of air standards set in the Clean Air Act (CAA) and the SC Pollution Control Act (SCPCA). Data collected answers the questions, "How good is the air in SC?" and "How good is the air quality where I live?"

Source: www.scdhec.gov/

Georgetown County Environmental Education Center

The Georgetown County Environmental Education Center (EEC) promotes environmental issues. The Center is next to a five acre lake on the landfill property and includes two classrooms, a laboratory, and ten hands-on display areas. Display topics include: recycling, post consumer products, household hazardous waste, wetlands, wildlife, oil recycling, forestry, mosquito control, compost/soil quality, and water quality. The Center offers an air quality and pollution course which teaches kids about the effects of ozone and global warming. The Center also provides free sources specific to environmental education. Students can participate in hands-on learning activities focusing on various environmental topics. Lessons are developed the state science and math curriculum standards. The EEC utilizes a hands-on approach for learning.

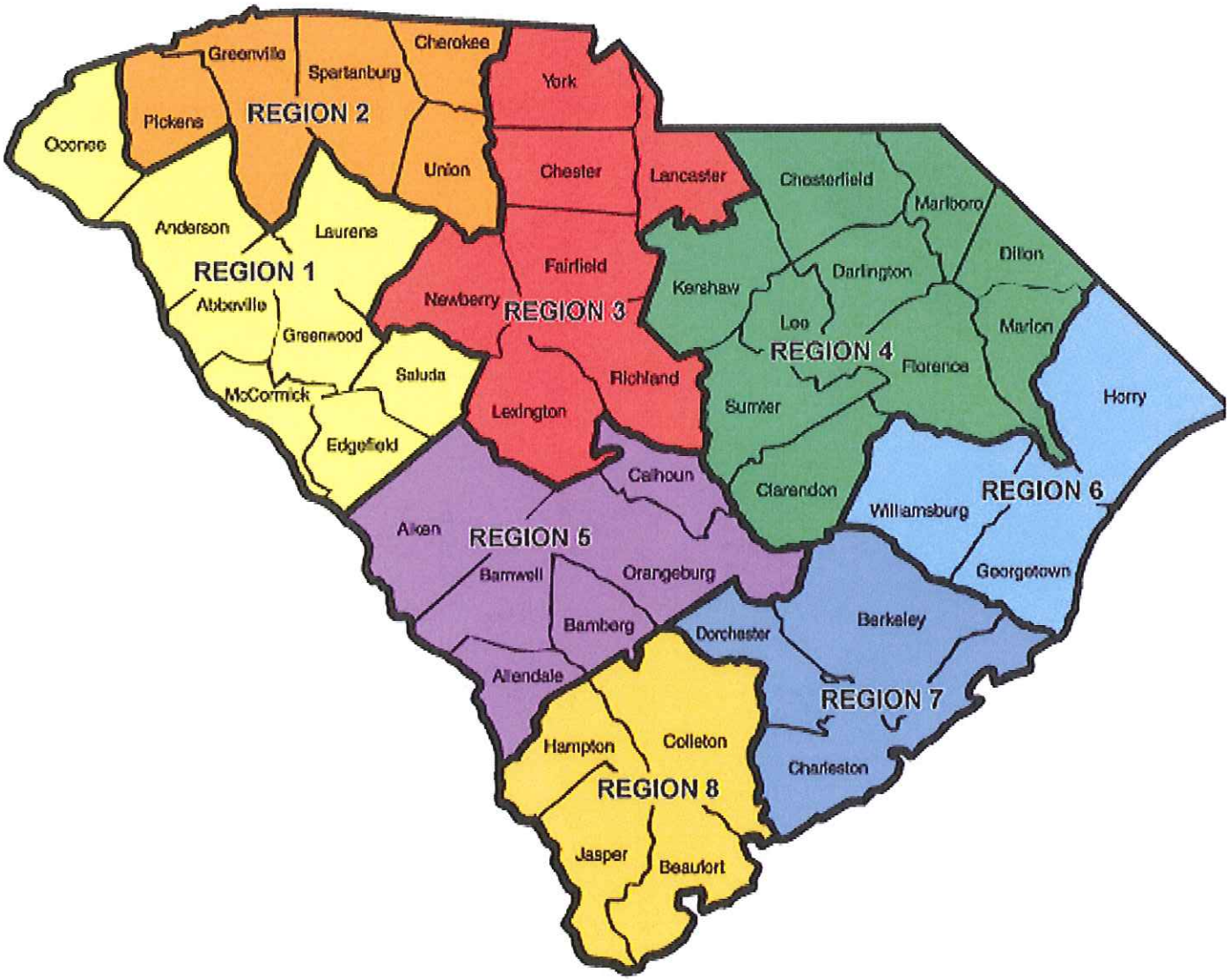
Source: www.georgetowncountysc.org/

Fuel and Energy Savings Committee

The Georgetown County Public Services Department has a "Fuel and Energy Savings" Committee that meets monthly to address air issues. The purpose is to increase Ozone Awareness and report efforts to DHEC. The efforts are periodically reviewed to ensure they are continuing countywide.

Source: Georgetown County Public Works

Figure 1: SCDHEC Regions



Rare, Threatened and Endangered Species

U.S. Fish & Wildlife Service Endangered Species Program

South Carolina is part of the Southeast Region (Region 4) of the U.S. Fish & Wildlife Service Program. The Southeast Regional headquarters is located in Atlanta, Georgia. The Endangered Species Program works to conserve and restore endangered and threatened species and the ecosystems upon which they depend. See Figure 1 for locations.

Before a plant or animal species can receive protection under the Endangered Species Act, it must first be placed on the Federal list of endangered and threatened wildlife and plants. An "endangered" species is one that is in danger of extinction throughout all or a significant portion of its range. A "threatened" species is one that is likely to become endangered in the foreseeable future. The Service also maintains a list of plant and animals native to the United States that are candidates or proposed for possible addition to the Federal list. All of the Service's actions, from proposals to listings to removals, are announced through the Federal Register.

Ecological Services

The mission of the Ecological Services of the Southeast Region of the U.S. Fish & Wildlife Endangered Species Program is to conserve, protect, and enhance fish and wildlife and their habitats through consultation, cooperation and communication for the continuing benefit of the American people.

The program is responsible for the administration of the Endangered Species Act of 1973, as amended (ESA). The Act is regarded as one of the most comprehensive wildlife conservation laws in the world.

Coastal Program

The mission of the Coastal Program of the U.S. Fish and Wildlife Services is to protect and recover Federal Trust Species (threatened and endangered species, migratory birds, marine mammals, and inter-jurisdictional fish) by supporting voluntary restoration, enhancement and protection of high-priority coastal habitats.

The Coastal Program provides financial and technical assistance to on-the-ground habitat restoration and protection projects through locally-based field coordinators. There are six field offices within the Southeast Region. The local headquarters is in Charleston. The Coastal Program works with Federal, State, local and non-governmental partners to identify geographic focus areas and develop targets to support conservation plans to implement habitat improvement projects that benefit Federal Trust Species and other species of concern, including a goal to recover threatened and endangered species, support sustainable populations of candidate species, and preclude new listings. See Figure 2 for locations.

Source: www.fws.gov/southeast/

Comprehensive Wildlife Conservation Strategy

The South Carolina Department of Natural Resources has partnered with the U.S. Fish & Wildlife Service to form a Comprehensive Wildlife Conservation Strategy for the citizens of South Carolina. This project is funded by the State Wildlife Grants (SWG) program. The goal of the Strategy is to emphasize a cooperative, proactive approach to conservation while working with federal, state and local governments; local businesses; and conservation-minded individuals to join in the effort of maintaining the fish and wildlife resources of South Carolina.

Source: www.dnr.sc.gov/cwcs/

State Wildlife Grants

In 2001, Congress created a federal grant called the State Wildlife Grants (SWG) program, as part of the Conservation Trust Fund, to help biologists and citizens protect and manage species and habitats of special concern. The program provides federal dollars to every state and territory to support cost-effective conservation aimed at preventing wildlife from becoming endangered. Projects supported by SWG restore degraded habitat, reintroduce native wildlife, develop partnerships with private landowners, educate the public, and collect data to find out more about declining species.

Source: www.dnr.sc.gov/cwcs/

The Nature Conservancy

The mission of the Nature Conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.

The Nature Conservancy (TNC) was established in 1951 as a conservation organization working around the world to protect ecologically important lands and waters. The Winyah Bay and Pee Dee River Basin Project Area is one of the projects in Georgetown County. The Waccamaw National Wildlife Refuge in conjunction with TNC, is protecting the Swallow-tailed Kite whose nesting habitat can be found along the Pee Dee and Waccamaw River systems in the Winyah Bay and Pee Dee River Basin.

Source: www.nature.org/

Sandy Island

Sandy Island is a 9,000 acre island that has been preserved as a refuge and nature center. The island is bound east and west by the Pee Dee and Waccamaw Rivers north by Bull Creek, and on the south by Thoroughfare Creek. The northern part of the island is higher and is mostly a longleaf pine forest, which provides a refuge for rare and endangered species of plants and animals including the red-cockaded woodpecker. Sandy Island was purchased by TNC for permanent protection from development. See Figure 3 for reserve locations.

Source: www.nature.org/

Waccamaw National Wildlife Refuge

Waccamaw National Wildlife Refuge is a 50,000 acre refuge established in 1997 as part of the United States National Wildlife Refuge system to protect and manage diverse habitat components within the coastal river ecosystem for the benefit of endangered and threatened species, freshwater and anadromous fish, migratory birds, and forest wildlife, including a wide array of plants and animals associated with bottomland hardwood habitats. The refuge also provides compatible wildlife-dependent recreational activities including hunting, fishing, wildlife observation, photography, and environmental education and interpretation for present and future generations. The Refuge is located in parts of northeastern Georgetown County, South Carolina, southern Horry, and southeastern Marion counties, and contains lands adjacent to the Pee Dee River, the Little Pee Dee River, and the Waccamaw River near their confluence. The reserve will preserve valuable undeveloped coastal wetland and adjacent uplands that provide habitats for many species of wildlife. One endangered species that is given a home, primarily on longleaf pine forest on Sandy Island, is the red-cockaded woodpecker. It is also a nesting area for Swallow-tailed Kites and bald eagles.

Source: www.fws.gov/refuges/

Figure 1: U. S. Fish and Wildlife Service Endangered Species Program Regions

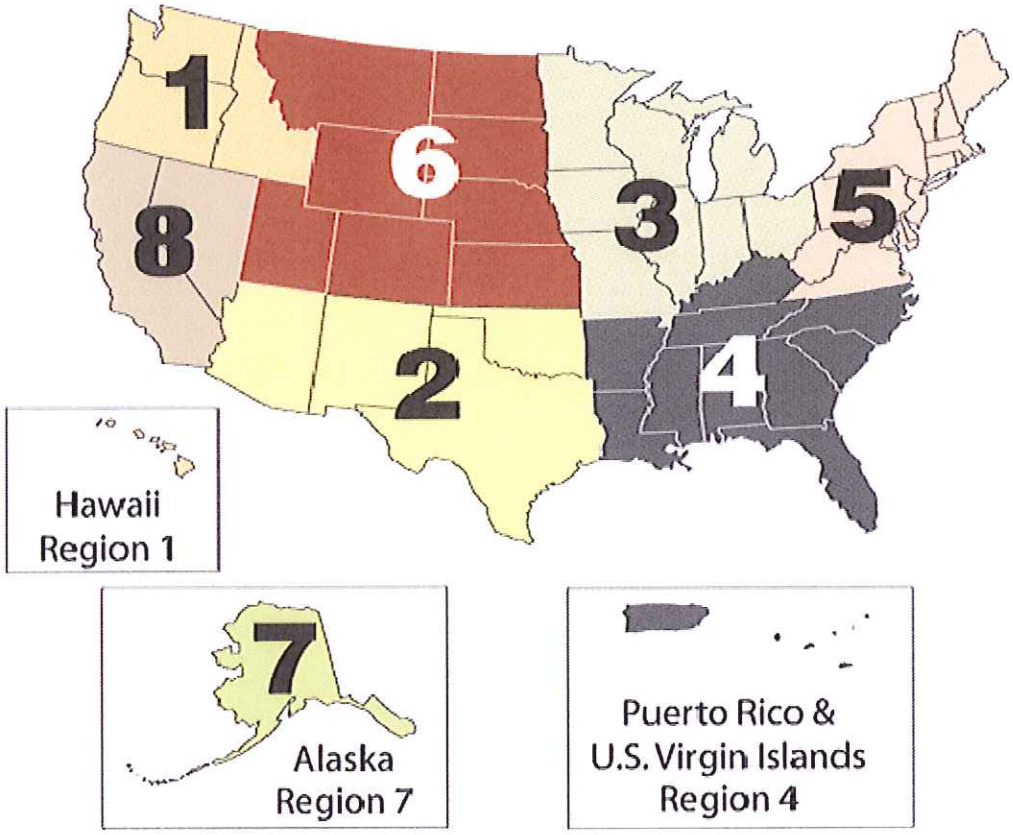
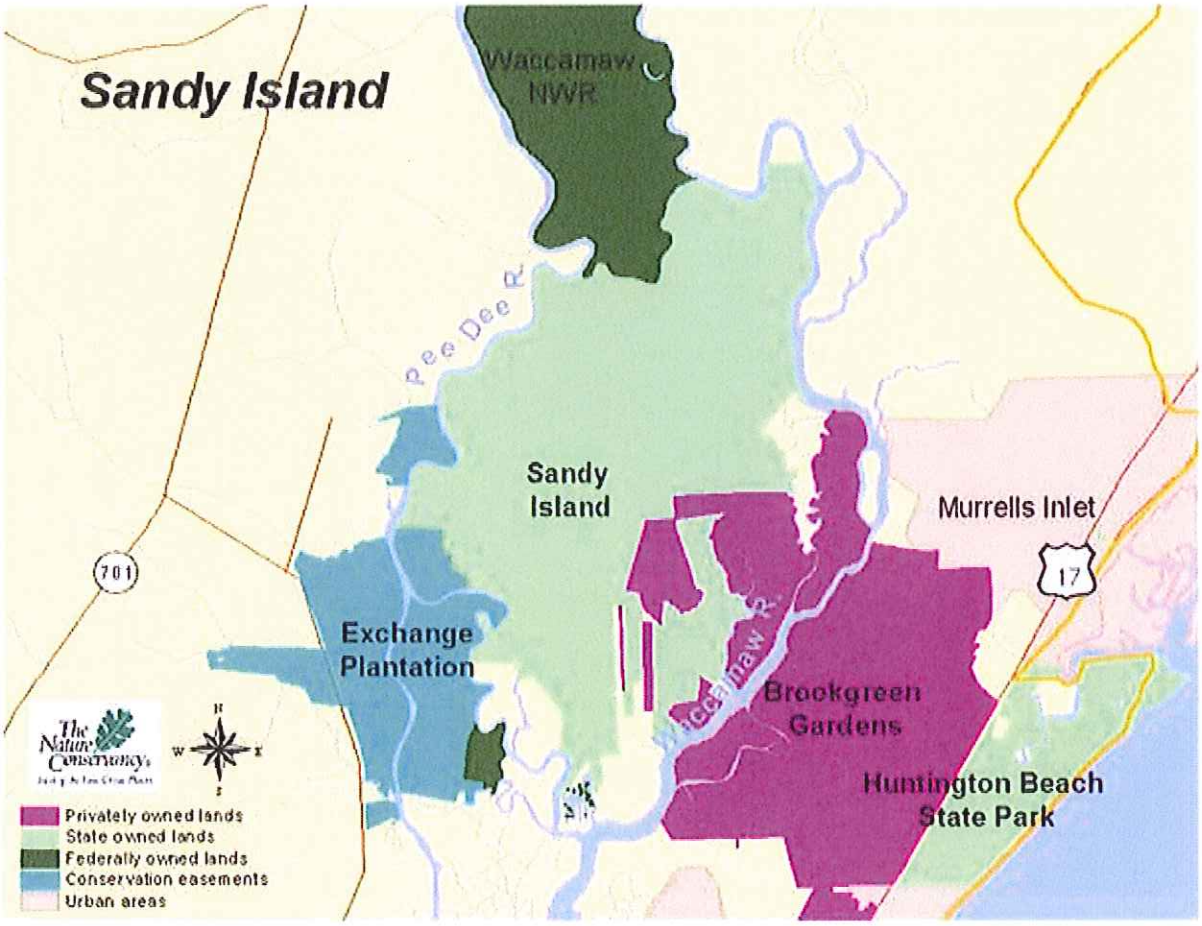


Figure 2: U. S. Fish and Wildlife Service Coastal Program Locations

Source: www.fws.gov/southeast/es/coastal/

Figure 3: Sandy Island and National Wildlife Map



Source: www.nature.org

Georgetown County Rare, Threatened, and Endangered Species Index

Scientific Name	Common Name	Legal Status
Acipenser Brevirostrum	Shortnose Sturgeon	FE/SE
Aimophila Aestivalis	Bachman's Sparrow	SC
Amaranthus Pumilus	Seabeach Amaranth	FT/ST
Amphicarpum Muehlenbergianum	Blue Maiden-Cane	SC
Andropogon Mohrii	Broomsedge	SC
Anthaenantia Rufa	Purple Silkyscale	SC
Aristida Condensata	Piedmont Three-Awned Grass	SC
Aristida Spiciformis	Pine Barren Three-Awned Grass	SC
Asclepias Pedicellata	Savannah Milkweed	RC
Balduina Uniflora	One-Flower Balduina	SC
Calopogon Barbatus	Bearded Grass-Pink	SC
Canna Flaccida	Bandana-Of-The-Everglades	SC
Caretta Caretta	Loggerhead	FT/ST
Carex Amphibola	Narrowleaf Sedge	SC
Carex Folliculata	Long Sedge	SC
Charadrius Wilsonia	Wilson's Plover	ST
Cladium Mariscoides	Twig Rush	SC
Clemmys Guttata	Spotted Turtle	ST
Colonial Waterbird		SC
Condylura Cristata	Star-Nosed Mole	SC
Coreopsis Gladiata	Southeastern Tickseed	SC
Corynorhinus Rafinesquii	Rafinesque's Big-Eared Bat	SE
Crotonopsis Linearis	Narrowleaf Rushfoil	SC
Cyperus Lecontei	Leconte Flatsedge	SC
Dionaea Muscipula	Venus' Fly-Trap	RC
Elanoides Forficatus	American Swallow-Tailed Kite	SE
Elassoma Boehlkei	Carolina Pygmy Sunfish	ST
Eleocharis Robbinsii	Robbins Spikerush	SC
Eleocharis Rostellata	Beaked Spikerush	SC
Eleocharis Vivipara	Viviparous Spike-Rush	SC
Fundulus Diaphanus	Banded Killifish	SC
Gentiana Autumnalis	Pine Barren Gentian	SC
Haliaeetus Leucocephalus	Bald Eagle	FT/SE
Helenium Pinnatifidum	Southeastern Sneezeweed	SC
Helianthemum Georgianum	Georgia Frostweed	SC
Heterodon Simus	Southern Hognose Snake	SC

Georgetown County Rare, Threatened, and Endangered Species Index

Ilex Amelanchier	Sarvis Holly	SC
Isoetes Riparia	River Bank Quillwort	SC
Kogia Breviceps	Pygmy Sperm Whale	SC
Lachnocaulon Beyrichianum	Southern Bog-Button	SC
Lasiurus Intermedius	Northern Yellow Bat	SC
Lechea Torreyi	Piedmont Pinweed	SC
Lilaeopsis Carolinensis	Carolina Lilaeopsis	NC
Listera Australis	Southern Twayblade	SC
Litsea Aestivalis	Pondspice	SC
Melanthium Virginicum	Virginia Bunchflower	SC
Micrurus Fulvius	Eastern Coral Snake	SC
Muhlenbergia Filipes	Bentgrass; Hairgrass	SC
Mycteria Americana	Wood Stork	FE/SE
Neotoma Floridana	Eastern Woodrat	SC
Neotoma Floridana	Eastern Woodrat	SC
Oxypolis Ternata	Piedmont Cowbane	SC
Parnassia Caroliniana	Carolina Grass-Of-Parnassus	NC
Phoca Vitulina	Harbor Seal	SC
Physostegia Leptophylla	Slender-Leaved Dragon-Head	SC
Picoides Borealis	Red-Cockaded Woodpecker	FE/SE
Pituophis Melanoleucus	Pine Or Gopher Snake	SC
Pityopsis Pinifolia	Pine-Leaved Golden Aster	SC
Plantago Sparsiflora	Pineland Plantain	SC
Platanthera Integra	Yellow Fringeless Orchid	SC
Platanthera Lacera	Green-Fringe Orchis	SC
Polygala Hookeri	Milkwort	SC
Pteroglossaspis Ecristata	Crestless Plume Orchid	SC
Rhexia Aristosa	Awned Meadowbeauty	SC
Rhynchospora Breviseta	Short-Bristle Baldrush	SC
Rhynchospora Globularis Var Pinetorum	Beakrush	SC
Rhynchospora Inundata	Drowned Hornedrush	SC
Rhynchospora Oligantha	Few-Flowered Beaked-Rush	SC
Rhynchospora Tracyi	Tracy Beakrush	SC
Sagittaria Isoetiformis	Slender Arrow-Head	SC
Sarracenia Rubra	Sweet Pitcher-Plant	SC
Spiranthes Laciniata	Lace-Lip Ladies'-Tresses	SC
Sporobolus Teretifolius	Wire-Leaved Dropseed	NC

Georgetown County Rare, Threatened, and Endangered Species Index

Stachys Tenuifolia	Smooth Hedge-Nettle	SC
Sterna Antillarum	Least Tern	ST
Syngonanthus Flavidulus	Yellow Pipewort	RC
Thalictrum Subrotundum	Reclined Meadow-Rue	SC
Trichostema Sp 1	Dune Bluecurls	SC
Tridens Strictus	Long-Spike Fluff Grass	SC
Tyto Alba	Barn-Owl	SC
Xyris Difformis Var Floridana	Florida Yellow-Eyed Grass	SC
Xyris Elliottii	Elliott Yellow-Eyed Grass	SC
Xyris Flabelliformis	Savannah Yellow-Eyed Grass	SC
Xyris Serotina	Acid-Swamp Yellow-Eyed Grass	SC
Xyris Torta	Twisted Yellow-Eyed-Grass	SC

Legal Status Codes

FE *Federal Endangered*
FT *Federal Threatened*
PE *Proposed for federal listing as endangered*
PT *Proposed for federal listing as threatened*
C *Candidate for federal listing*
NC *Of Concern, national (plants only)*
RC *Of Concern, regional (plants only)*
SE *State Endangered (animals only)*
ST *State Threatened (animals only)*
SC *Of Concern, state*
SX *State Extirpated*

Source: www.dnr.sc.gov/cwcs/

NEEDS, GOALS, STRATEGIES, AND PARTICIPANTS WITH TIMEFRAMES

Goal 1: To reduce the level of community-generated stress upon public facilities that use or affect natural resources.

Objectives	Strategies	Participants	Time Frame
Encourage recycling, and reusable technologies and products.	Public information Campaign	Planning Staff County Residents Public Services	On-going
Encourage a reduction in the usage of single occupancy motor vehicle trips	Promote ridesharing And trip consolidation Strategies.	Planning Staff Local Governments County Residents RTA WRCOG	2013
Promote the use of mass transit	Expand bus routes	Planning Staff Local Governments County Residents RTA WRCOG	2011

Goal 2: To protect and preserve our natural resources making them a priority in shaping the future development of the County.

Objectives	Strategies	Participants	Time Frame
Review new development proposals for impacts to natural resources	Coordinate with other agencies to ensure all permits are obtained; include environmental review during Planning project review	Planning Staff Regulatory Agencies Developers Planning Commission	On-going
Raise level of education and understanding of County officials in the protection and preservation of natural resources	County officials should take advantage of science-based natural resource training	Planning Staff Public Services Planning Commission	On-going
Increase focus of natural resources in land planning, zoning, permitting, and economic development	Considering impacts during review process	Planning Staff Development Staff Planning Commission County Council	On-going

Goal 3: To protect groundwater resources in the County and region.

Objectives	Strategies	Participants	Time Frame
Assess potential threat to groundwater resources.	Establish Groundwater Resources Evaluation Team.	Public Works Planning Staff DHEC Staff Community Groups	2012

Develop measures to mitigate or eliminate potential groundwater damage from various activities.	Adopt Wellhead and Groundwater Protection Program	Planning Staff Public Services Water/Sewer Agencies	2012

Goal 4: To preserve upland and coastal unique plant and animal habitats in the County.

Objectives	Strategies	Participants	Time Frame
Identify endangered species of plant and animals	Compile a database and correlate with the GIS system Add SCDNR link to County webpage	SCDNR Planning Staff Local Conservationist GIS	2012
Protect natural habitats	Develop or amend ordinances	Planning Staff Planning Commission County Council County Residents	2013
Strengthen tree ordinance and preserve the symbol of the Low Country	Increase enforcement and impose prohibitive fines and prohibit the removal of Live Oak species	Planning Commission County Council Planning Staff	2010
Expand Architectural Overlay Zone	Vigorously enforce the conditions of the Architectural Overlay district and explore expansion of its application to other roadsides in the county	Zoning Staff Planning Staffs Planning Commission, County Council	2011
Improve awareness of maintaining the county's unique natural vegetation	Implement public education	Planning Staff Rec/Leisure Services Public Works Outside Agencies	On-going
Establish a greater number of protected areas	The county may consider the use of land protection programs available on the SC Conservation Bank Act	Planning Staff Planning Commission County Council	2011

Goal 5: Protect Prime Agricultural and Forest Lands in the County.

Objectives	Strategies	Participants	Time Frame
Assess the need for future growth and designate areas that do not compromise the nature of the agricultural regions and provide information on conservation easements.	Designate urban growth areas; Establish specific zoning districts for agricultural and rural areas; provide link to easement information on County website	Planning Staff Developers Timber Industry Environmental Community and Agencies	2005
Encourage development around existing infrastructure	Re-examine zoning districts regarding the relationship to existing and planned infrastructure	Planning Staff Planning Commission Civic Organizations Developers Water/Sewer Agencies WRCOG	On-going

Prevent destruction of forest lands	Educate citizens on the benefits of prescribed burning of forest lands	DNR County Fire Planning Staff	On-going

Goal 6: To maintain the proper functioning of wetlands, watersheds and flood plains in the County.

Objectives	Strategies	Participants	Time Frame
Synchronize County efforts with the guidelines and requirements of existing agencies	Secure guidelines from other regulatory agencies	DHEC, DNR, FEMA, US Army Corps of Engineers Planning Staff Regulatory Agencies	On-going
Consider riparian buffers and natural vegetation buffers, swales and adequate water retention	Develop and establish best management practices for developments near wetlands through the Development Regulations; Update landscaping requirements in the Zoning Ordinance	Regulatory Agencies Planning Commission County Council Planning Staff	2012
Reduce conditions for storm water runoff	Review ordinances for elements in parking requirements, impervious surfaces, buffer requirements and tree requirements	Planning Staff Planning Commission County Council Public Services	2011
Increase percolation and filtration area directed to the wetland	Increase setbacks from wetlands to residential or commercial development or structures	Planning Staff Planning Commission County Council Public Services	2011
Promote the use of pervious surfaces and meaningful open space	Reduce the use of impervious materials and establish a meaningful ratio of impervious to pervious material of future development sites; Re-examine open space requirements in Zoning Ordinance	Planning Staff Public Works Planning Commission County Council County Stormwater	2011
Encourage density reduction.	Explore the implementation of Low Impact Development when confronted with urban development plans	Planning Staff Planning Commission	On-going
Reduce fecal coli form bacteria in the water	Encourage and educate pet owners to pick up their pet waste and dispose of properly; Update County Stormwater Ordinance	Planning Staff County Residents County Stormwater	On-going