# Horry County Beach Management Plan



HORRY COUNTY PLANNING & ZONING DEPARTMENT
ADOPTED BY HORRY COUNTY COUNCIL 2/5/13



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#### 1. INTRODUCTION

#### 1.1 Purpose

In accordance with the State Beachfront Management Act, Horry County has prepared this local beach management plan in coordination with the South Carolina Department of Health and Environmental Control's Office of Ocean and Coastal Resource Management (DHEC OCRM). The County's local beach management plan represents considerable effort, inventory, and deliberation on the part of the County, and establishes a strategy for the management of Horry County's beachfront for the sustainable enjoyment by residents and visitors. This local beach management plan is intended for incorporation into the State Beachfront Management Plan in accordance with the provisions of the State Beachfront Management Act.

The State Beachfront Management Act became law in 1988 with revisions in 1990 and is intended to protect both life and property, protect unique ecological habitats, and preserve the beach for future use by all citizens of South Carolina. The Act addresses preservation of a drysand beach, public access opportunities, measures for renourishment on eroding beaches, and the protection of natural vegetation within the beach and dune system. The Act rejects the construction of new erosion control devices and adopts retreat and renourishment as the basic state policy for preserving and restoring oceanfront beaches in South Carolina. The Act also directs DHEC OCRM to implement the forty-year retreat policy by designating a baseline and setback line on all oceanfront properties, and develop a long-range comprehensive State plan for management of the beach and dune resources.

One of the most important provisions of the Act requires local beachfront counties and municipalities to develop and adopt local comprehensive beach management plans which refine the State's beach management strategy to address local conditions and issues. The Act requires that these local plans be long-range, comprehensive, and consistent with the State Beachfront Management Act. Once adopted locally, DHEC OCRM reviews the plan for approval, and approved local plans become part of the State Beachfront Management Plan. Once approved, the local plan is required to be updated every five years in coordination with DHEC OCRM.

Local beach management plans are required to include a minimum of ten elements:

- 1. An inventory of beach profile data and historic erosion rate data;
- 2. An inventory of public beach access points and parking and a plan for enhancing public access and parking;

- 3. An inventory of all structures located in the area seaward of the setback line;
- 4. An inventory of turtle nesting and important habitats of the beach/dune system and a protection and restoration plan if necessary;
- 5. A conventional zoning and land use plan consistent with the Act for the area seaward of the setback line:
- 6. An analysis of beach erosion control alternatives, including renourishment for the beach under the local government's jurisdiction;
- 7. A drainage plan for the area seaward of the setback zone;
- 8. A post disaster plan including plans for cleanup, maintaining essential services, protecting public health, emergency building ordinances, and the establishment of priorities, all of which must be consistent with the Act;
- 9. A detailed strategy for achieving the goals of this chapter by the end of the forty-year retreat period. Consideration must be given to relocating buildings, removal of erosion control structures, and relocation of utilities; and,
- 10. A detailed strategy for achieving the goals of preservation of existing public access and the enhancement of public access to assure full enjoyment of the beach by all residents of this State.

Horry County has coordinated with DHEC OCRM to fully inventory, analyze, and document each of the ten required elements for an approvable local comprehensive beach management plan. The plan also identifies and discusses the economic and social benefits, issues and opportunities, and local, state and federal policies and authorities related to the management and protection of the Horry County beachfront. This local beach management plan represents the foundation for a comprehensive, long-range, and enforceable local management strategy for the beachfront area of Horry County.

#### 1.2 HISTORY OF PLAN APPROVALS AND REVISIONS

Horry County's first Comprehensive Beach Management Plan (BMP) was adopted in June of 1991. This plan and the Beachfront Management Act in general were largely a reaction to the devastation of Hurricane Hugo in 1989, and as such sought to prevent the widespread destruction that resulted from that storm.

The Horry County BMP was updated in June of 2002. This plan included six items aimed at maintaining a workable and current Beach Management Plan and remain in full compliance with the requirements of the Beach Management Act.

a) It detailed additional Public Accesses and improvements to existing access. This update also included the detailing of agreements entered into between the County and Ocean

- Lakes Campground, Lakewood Campground, and Apache Campground to provide for public access and parking within their facilities.
- b) The 2002 Update also included several new ordinances aimed at protecting endangered species and critical habitats by limiting motor vehicles on the beach and horses and other animals during the peak summer months. The update further detailed the funding and implementation of a grassing and fencing project for the South Strand aimed at protecting recently renourished beachfront areas.
- c) The update to the 1981 Plan also included references to a revised inventory of all structures encroaching on the OCRM delineated baseline and set-back line. Due in part to the flooding caused by Hurricane Floyd in 1989, the 2002 Update also included the updated Flood Damage Prevention and Control Ordinance.
- d) At the time of the 2002 Update, Horry County's Beach Access Strategy did not include the providing of any public restroom or other facilities at its public beach accesses. It did however detail the newly created partnership with the Boy Scouts of America "Lost Child Identification" signage program. It also detailed the prohibition on overnight parking within the Public Beach Accesses.
- e) To comply with the OCRM guidelines on Stormwater and Drainage, Horry County posted notices at all stormwater swashes/outfalls and culverts on the beach. The County also maintained a system to fund an ocean testing program and temporarily close portions of the beach if surf water quality results warrant closing for safety concerns.
- f) Finally, the County requested continuing funding of beach renourishment efforts along the Grand Strand and specifically requested funding for the Arcadian Shores area.

#### 1.3 OVERVIEW OF HORRY COUNTY BEACH MANAGEMENT APPROACHES

Separated by rivers and swamps, the beachfront area, now known as the Grand Strand, was largely inaccessible until the turn of the century. In 1900, the Burroughs and Collins Company finished a railroad line to what is now Myrtle Beach. In 1901, the first beachfront hotel, the Seaside Inn, opened. Burroughs and Collins then began selling beachfront lots in 1905 for only \$25, though a free lot was offered to anyone willing to erect a \$500 home. Thus began the development of coastal Horry County.

Access to the beach was further simplified in the following three decades with the erection of several bridges over the Waccamaw River and eventually the Intracoastal Waterway. With the increasing accessibility also came an increase in activity at the beach. In 1914, the original Pavilion was built adjacent to the Seaside Inn. This structure was used primarily for social gatherings and dances. This structure burned to the ground and was replaced in 1925 with a two story Pavilion. It was in this Pavilion where "shagging" became the new popular dance at the beach. In 1944, this building burned to the ground and was replaced in 1948, with the

Pavilion that would become the centerpiece of tourist-driven development in the Myrtle Beach area. The population of the coastal areas of Horry County doubled from 1940 to 1950, resulting in a total population of 3,345 people, due in part to the government's increasing the military presence along the Nation's coasts during and after WWII, as well as to the general convenience and increasing popularity of traveling to the coast in that period of time.

The 1950's saw the coastal areas continue to add new amenities and attract additional visitors and residents. A new U.S. 501 Bypass was built, diverting traffic around the City of Conway, easing the congestion that formerly clogged beach traffic. The regions nearest to the beach saw an increase in motels, campgrounds, fishing piers and golf courses.

The single event with the most impact to the developing Grand Strand was that of Hurricane Hazel in 1954, devastating the Horry County coastline. Although only one person was killed during this storm, a great majority of the structures built closest to the beachfront were destroyed. Much of the modern-era layout, buildings and accreditation as favorite beach destination is directly based on the reconstruction efforts after Hurricane Hazel. Prior to this time, agriculture, and especially tobacco farming drove the economy of Horry County. The 1960's saw tourism catch up with tobacco and eventually surpass all previous industries in revenue; leading to even more rapid growth. The incorporation of Cherry Grove Beach, Surfside Beach, Windy Hill Beach, Atlantic Beach, and eventually, the founding of the City of North Myrtle Beach by consolidation of the previously independent areas of Crescent Beach, Windy Hill Beach, Cherry Grove Beach and Ocean Drive Beach, further contributed to the permanent establishment of Horry County's coastline as not only a popular place to visit, but also to live. The tourism industry continued to boom and by the 1968-69 tourism season, Horry County had 2,700 hotel and motel rooms, the most in South Carolina.

By 1971, tourism in the coastal areas of Horry County accounted for twenty-two percent of the county's total income, far exceeding farming as its primary source of income. The presence of the following three conditions favored the rapid expansion of tourism and beachfront development:

- The Housing and Urban Development Act of 1968, which made flood insurance available for residences and commercial businesses near the beach;
- The end of blue laws in 1973, allowing alcohol sales in bars and restaurants; and,
- The rationing of gasoline in 1974 which made the Grand Strand a nearer alternative to Florida in attracting the mass of vacationing travelers from the north.

Beginning in the latter part of the 1970's and continuing throughout the 1980's, high rise condominiums and resort hotels began being built along the beachfront. As the demands of tourism continued to increase, development of the coastline did its best to keep up with this

demand. With the development came an increased need for infrastructure such as roads, water and sewer systems, which struggled to keep pace. By 1996, the coastal tourism industry accounted for forty percent (40%) of the state's total tourism revenues.

As of the 2006-2007 tourism season, Horry County hosts more than 14 million visitors each year and nearly 35% of the total tourism revenues for the state of South Carolina. The tourism driven development along the coastal areas has begun to spread inland to and across the Intracoastal Waterway. While 2005 witnessed the closing of the popular Pavilion Amusement Park, additional amenities continued to be added to keep up with demand. Shopping venues have become a large draw for tourism related economy with developments such as Barefoot Landing, Broadway at the Beach, two Tanger Outlet Malls, Coastal Grand Mall, Inlet Square Mall and Myrtle Beach Mall. In the spring of 2008, a new amusement park in the Fantasy Harbor Area west of the Intracoastal Waterway had opened, adding yet another attraction to the area.

Despite having more than forty miles of sandy beachfront coastline, Horry County has been spared by many large storms. Since 1851, only twenty-eight Tropical Storms or Hurricanes have passed within twenty-five nautical miles of the Myrtle Beach area. Of these, the aforementioned Hazel, was by far the most devastating.

Despite the fact that so few large storms have struck the Horry County coastline, the impact of storms has been felt from sometimes-large distances. In 1989 Hurricane Hugo made landfall nearly 90 miles south of the Myrtle Beach area, yet it caused approximately \$460 million in damage to Horry County, primarily in proximity to the southern portion of the coast.

With much of the coastal areas of Horry County built-out, new hotels are replacing already existing structures of lower density, height and the number of rooms. Recently, several new resort towers have been completed and are redefining the character of Myrtle Beach and the entire Grand Strand. The following content of this beach management plan will help ensure that the beach, as the most popular natural commodity that Horry County offers, will remain an outstanding value to the local and state economy as well as to the people and wildlife that depend on it.

In developing and implementing its Local Comprehensive Beach Management Plan, Horry County will:

- a) Adopt and implement policies and procedures to protect and improve those lands, structures and facilities along the oceanfront that contribute to the economic well being of Horry County.
- b) Work closely with property owners and Government Agencies to maintain the protective, ecological and recreational functions of the beach/dune system.

- c) Adopt and implement policies, procedures and ordinances to preserve existing public access and provide for increased public access to County beaches.
- d) Develop strategies for erosion control and beach/dune restoration that will protect, preserve, restore and enhance the natural character of Horry County's beach/dune system while minimizing potential adverse environmental impacts.
- e) Pursue available state and federal funding for erosion control and beach/dune restoration along County beaches.
- f) Develop strategies and pursue funding assistance to reduce future losses from flood and storm hazards.
- g) Develop strategies for working with natural resource agencies to protect critical habitats and threatened or endangered species.
- h) Periodically revise this Plan to take into consideration changes in shoreline conditions and oceanfront development.

The Beachfront Management Act states very clearly that the policy of South Carolina is to protect, preserve, restore and enhance the beach/dune system. As such, the State seeks to encourage wise development of the shoreline, including the adoption of appropriate management strategies to deal with existing and future development. These strategies shall include, where necessary, selective beach/dune restoration and/or relocation of oceanfront structures and facilities. Horry County shares the objectives of the State and will accomplish those objectives through its Beach Management Plan. The County will rely in large part on existing ordinances and revisions to those ordinances to implement its Plan.

#### 1.4 CURRENT BEACH MANAGEMENT ISSUES

Front row development along the unincorporated Horry County shoreline varies greatly in character, density and location. Of all the developed portions of the coastline, the Garden City shoreline between the Georgetown County line and Surfside Beach is most vulnerable to flooding and other natural disaster. This is particularly true in the one mile reach north of Atlantic Avenue. Structures in this area tend to be large, and many encroach onto the active beach.

The one-half mile reach north of Singleton Swash (the Shore Drive area) is also characterized by large structures lying seaward of the OCRM setback line. However, beach widths there are greater than in Garden City, long-term erosion rates are less than in Garden City, and the potential for storm damage is somewhat less.

The undeveloped Waites Island has been partly set aside as conserved land in the ownership of Coastal Carolina University. However, a larger portion of this pristine nature area remains in private ownership and thus under danger of development.

In recent years, there has been a marked increase in the use of tents and large umbrellas on the beach. These temporary structures have created a safety concern in that the tents and umbrellas can block lifeguard views of the ocean, obstruct the pathways used by emergency vehicles and make it more difficult for the public to see lifeguard towers.

Stormwater drainage pipes that drain onto the beach have long been an issue addressed by Horry County's Engineering and Stormwater Department. However, these drainage outfalls remain problematic, especially during heavy rain events. The pipes that remain are inventoried in Appendix E. Additionally, a number of the swimming pools servicing the hotels and multi-unit rental condominiums discharge the back water from their swimming pool pumps directly onto the beach, dumping dirty water and untreated chemicals into heavily trafficked tourism areas. This creates both an unaesthetic result and a safety concern.

With the volume of peak season tourists visiting the beach, a very high demand for commercial activity on the beachfront exists, ranging from watercraft rentals to food and beverages. However, such activity is heavily regulated and prohibited to a great degree.

As a result the Coastal Alliance, a cooperation of governing officials of Horry County, the Cities of Myrtle Beach, Surfside Beach, Atlantic Beach, Briarcliffe Acres and North Myrtle Beach, a more uniform set of beach ordinances has been adopted throughout the Grand Strand. Although city and county territorial limits are often clear to the local governments, they are rarely clear to the visitors to the beach. This made simple acts like walking a dog potentially illegal. In Myrtle Beach, during the summer season, dogs were prohibited on the beach after 9:00 AM. In Horry County, they were not prohibited until 10:00 AM. So a law abiding tourist could be walking their dog in the Springmaid Pier section of the beach at 9:30 and unbeknownst to her, cross into Myrtle Beach and violate this law. As of May of 2011, nearly all of the participants in this process have adopted some or all of the uniform rules as recommended by the Alliance.

#### 1.5 PLAN DEVELOPMENT AND APPROVAL PROCESS

The State review and approval procedure for a local comprehensive beach management plan is divided into three phases: initial coordination, preliminary review, and state review and approval. Each phase includes a series of individual steps designed to ensure that the minimum

requirements established by the State Beachfront Management Act in section 48-39-350 have been met.

#### **Initial Coordination**

In the first step, the Horry County held an initial coordination meeting with the DHEC-OCRM Community Liaison to discuss the project schedule, local beach management issues, review criteria, State and County expectations, and the approval process. Working with the DHEC-OCRM Community Liaison, the Horry County prepared and developed a preliminary draft of the local beach management plan. Horry County submitted the local comprehensive Beach Management Plan to DHEC-OCRM for preliminary review on August 8<sup>th</sup>, 2011.

#### **Preliminary Review**

DHEC-OCRM staff reviewed the preliminary draft document and provided comments to Horry County. Horry County made recommended revisions of the preliminary draft document to reflect the comments received from DHEC-OCRM. The plan was then submitted to Horry County Planning Commission on December 5<sup>th</sup>, 2012, which advertised the plan for public hearing and review. The Plan was submitted to Horry County Council on (\*\*\*insert date\*\*\*) and approved after three readings and a second Public Hearing on (\*\*\*insert date\*\*\*), formally adopting the Beach Management Plan as an element of Horry County's Comprehensive Plan.

#### **State Review and Approval**

After adoption by Horry County Council, the Beach Management Plan was submitted to DHEC-OCRM for State Approval. Upon receipt of the adopted plan, DHEC-OCRM initiated a 30-day public comment period. DHEC-OCRM hosted a public hearing in the Horry County and discussed how the locally adopted beach management plan meets the ten requirements established by the state Beachfront Management Act in section 48-39-350. DHEC-OCRM also addressed any comments received at the public hearing as part of the state review and approval process.

DHEC-OCRM prepared a summary of the final document and recommended state approval. The plan was formally adopted by the State of South Carolina on (\*\*\*insert date\*\*\*), at which time, DHEC-OCRM issued a public notice that included the implementation date of the Horry County Beach Management Plan.

#### 2. INVENTORY OF EXISTING CONDITIONS

#### 2.1 GENERAL CHARACTERISTICS OF HORRY COUNTY

Horry County, South Carolina is a place of rich cultural heritage, distinct natural landscapes, and a growing and diverse population. A thriving and rapidly expanding local economy based primarily on tourism and entertainment has made Horry County an attractive location to live and work, and is equally attractive to many people that choose to retire here.

#### 2.1.1 Population and Demographics

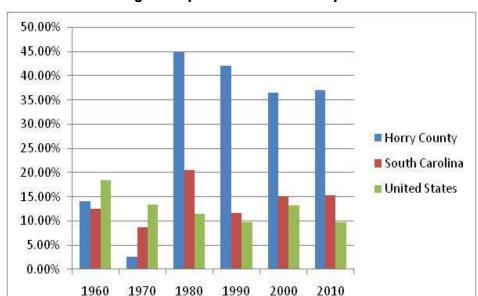
1960

Source: United States Census

1970

1980

The surge in the economy of Horry County is greatly due to the overall population increase that has occurred over the past thirty years. Since 1980, the population of Horry County has nearly



1990

Table 1: Percentage of Population Increase - Population Trend Data

tripled and reached 269,291 according to the 2010 Census. miles Forty of beaches and the temperate climate have been the main draw to Horry County, which contains the major share of hotel and motel rooms as well as second homes in the State of South Carolina.

Throughout the United States, South Carolina ranks high for the number of people older than age 60 moving into the State and is ranked among the top five regions in the State where retirees are locating. The amenities found in Horry County have made it the fifth most populated county in South Carolina and the fastest growing county, as well. Table 1 shows the population growth of Horry County compared to the rest of the state and the country over the last five decades.

#### 2.1.2 Major Roads and Bridges

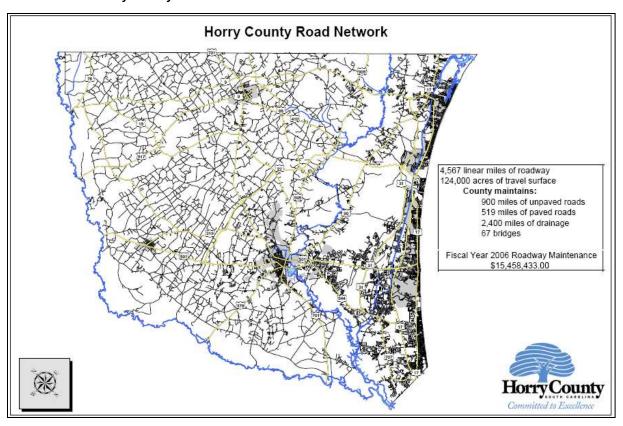
In 1998, County Council approved the Horry County Local Road Improvement Program. Since that time, 153 miles of unpaved or dirt roads have been improved to a paved condition. Additionally, 20 bridges have been repaired/replaced utilizing this plan.

In November 2006 the citizens of Horry County approved the One-Cent Capital Projects Sales Tax referendum, "Riding on a Penny". As part of this program, the following improvement projects have been chosen and accepted through a specially appointed committee:

- Paving of an additional 100 miles of county roads;
- Resurfacing of 67 miles of county roads;
- Construction of a grade separated interchange at the intersection of US Hwy. 17 Bypass and SC Hwy. 707 at the Back gate of the former Myrtle Beach Air Force Base;
- Widening of SC Hwy. 707 from Enterprise Road to the county line, including intersection improvements at SC Hwy. 544;
- Construction of the Aynor overpass;
- Widening of Glenns Bay Road to three lanes and construction of a grade separated interchange at US Hwy. 17 Bypass; and
- Paving of two lanes of International Drive from Carolina Forest to SC Hwy. 90 within the next seven years.

Horry County has expended a great deal of time, money and effort on improving the road network available to its residents and tourists. Perhaps with the exception of the paving of dirt roads, each of the above referenced projects has a direct tie to tourism related travel to and from the Grand Strand area of Horry County's coastline. Illustration 1 below details the extensive internal road network of Horry County.

**Illustration 1: Horry County Road Network** 



**Source: Horry County Planning & Zoning Department** 

As discussed earlier, Horry County was somewhat slow to develop because of its relative seclusion from the rest of South Carolina caused by rivers, swamps and the ocean. Even

Table 2: Roadways that provide access to Horry County from South Carolina

Hwy 9	Hwy 17	Hwy 707	Hwy 701
Hwy 917	Hwy 501	Hwy 378	

Source: Horry County Planning & Zoning Department

today, only a handful of roadways provide access to Horry County from the west and south, and the ocean provides the eastern boundary of the County. The limited number of roadways that connect Horry County forces beach related traffic to follow only a few routes to reach their destination. This same limitation could prove problematic in the case of a hurricane or other large-scale catastrophe that would mandate an evacuation of the population.

Nearly ten percent (10%) of the entire county is water: in the form of rivers, wetlands, lakes, or other water-bodies. Structure elevations range from approximately 30 feet above sea level to approximately 100 feet above sea level, demonstrating Horry County's geographical affiliation with South Carolina's Low Country region. On a watershed basis, Horry County is home to several watersheds and sub-basins, primarily defined by the Little Pee Dee, Lumber, and Waccamaw Rivers, as well as the Intracoastal Waterway and the Atlantic Ocean. This

proliferation of water bodies has created the need for a multitude of bridges, including three bridges that have been designated as Historic: the Little River Swing Bridge, The Socastee Swing Bridge, and the Waccamaw Memorial Bridge. In addition to the historic bridges, some 278 other bridges are currently in use in Horry County.

#### 2.1.3 GENERAL LAND USE PATTERNS

The residential development along the Horry County oceanfront consists mainly of single-family structures and multi-family condo style development. Some are located within the setback line delineated by OCRM and discussed later in this plan, whereas others are located in the baseline and have been constructed on top of the natural dune system. In the past there has been no uniformity in the placement of structures or mitigation of structures placed on the natural dune system. Typically the commercial development has located at or adjacent to the piers or has located on the west side of Ocean Boulevard. Surrounding municipalities have influenced the types and location of development along these and over sections of the beachfront.

Road access during severe weather may not be adequate for moving the masses out of harm's way in a timely and safe manner. With the lack of adequate evacuation route alternatives, most traffic will have to vacate the county either via U.S. 501 or S.C. 9. All the smaller access, collector, and minor arterial roads pour out onto one of four Major Arterial roads (Hwy 544, Hwy 501, Hwy 22 – all of which combine on Hwy 501 toward the west side of the county near Aynor, and Hwy 9 which handles all traffic from the north end of the Grand Strand). The street capacities along the oceanfront may be inadequate during an emergency event such as a hurricane and would make for a very chaotic evacuation process from the beach.

Parking for beach access in the unincorporated areas of Horry County is somewhat limited by development; there are 26 public beach access points with a total of 1241 parking spaces located at the beachfront. Of the total parking spaces, 30 are designated as handicapped. There are a number of Campgrounds on the beachfront in Horry County and although access to these areas is limited, the Campgrounds allow public access for a fee, providing a number of additional parking facilities. Hotel, condo, and rental home properties provide private parking for their visitors, allowing for access the beach without having to find additional parking spaces. However, a local resident or visitor must locate parking when they drive to the beach. Often the shoulder along Ocean Boulevard is congested with vehicles that are legally parked along the side of the street. In some cases, additional parking may be found within close proximity to the beach at metered parking lots. Great amounts of auto-vehicular effluence can contribute to unhealthy and unsafe water quality conditions in the ocean, especially after heavy rain events.

Currently there are few options for public transportation for local beach access. Public transportation measures could improve beach accessibility, water quality, and provide mobile access for both local residents and visitors. Public transportation would also decrease parking demand, water pollution, and improve public health and safety.

Currently there are 2,936 residential housing units in 141 structures, located along the beachfront, some of which are located within the setback and/or base lines designated by South Carolina Department of Health and Environmental Control's Office of Ocean and Coastal Resource Management (DHEC OCRM). See Appendix E for a full inventory of these structures. The setback lines and baselines are determined by DHEC OCRM using the forty (40) year erosion line, which may be updated every 8 to 10 years. A good portion of existing structures have been built within the setback line and on the natural dune system without mitigation, destroying the natural dunes in those areas. However, for future development a permit must be obtained from DHEC OCRM and Horry County Code Enforcement to construct anything along the oceanfront and within the Setback line.

#### **2.2 HORRY COUNTY BEACHES**

Horry County boasts more beach frontage than any other county in South Carolina some forty miles. Within this frontage, though, four municipalities contain the majority of the coastal areas:

North Myrtle Beach, Atlantic Beach, Myrtle Beach and Surfside Beach. In addition to the cities, Myrtle Beach State Park, owned and operated by the State of South Carolina also is located on the oceanfront between Myrtle Beach and Surfside Beach. Table 3 illustrates the amount the coastal region of Horry County that is under the jurisdiction of a municipality.

**Table 3: Coastal Areas Not Under Control of Horry** 

9.5 miles – City of Myrtle Beach

2.0 miles - City of Surfside Beach

0.3 miles - Town of Atlantic Beach

8.4 miles – City of North Myrtle Beach

0.5 miles - Town of Briarcliffe Acres

1.1 miles – Myrtle Beach State Park

21.8 miles Total

**Source: Horry County Planning & Zoning Department** 

This Beach Management Plan will only evaluate those areas not within an incorporated municipality or under the control of another governmental entity.

#### 2.2.1 BEACH USES

The unincorporated coastal areas of Horry County each have their own unique identities. Table 4, below, describes the different sections of the beachfront within the unincorporated areas of Horry County.

**Table 4: Unincorporated Beachfront Sections** 

Beach Section	Location	Approximate		
		Size		
Garden City	Extends from Georgetown County in the South to the	1.5 miles		
	City limits of Surfside Beach in the North			
Campgrounds/Long Bay	Extends from Surfside Beach in the South to Myrtle	2 miles		
Estates	Beach State Park in the North			
Lake Arrowhead	Extends from Myrtle Beach in the South to Briarcliffe Acres in the North	3.5 miles		
Waites Island	Extends from Cherry Grove in the South to the North	3 miles		
	Carolina Border to the North			

**Source: Horry County Planning & Zoning Department** 

Two tidal inlets and four swashes divide the unincorporated Horry County shoreline. Little River Inlet, at the northeast end of Waites Island, is the largest of the inlets; it was stabilized by the construction of jetties between 1981 and 1983. Hog Inlet, between Waites Island and the Cherry Grove area of North Myrtle Beach, has not been stabilized, although rock revetments have been constructed along the Cherry Grove side of the inlet, limiting the ability of the inlet to migrate further to the South. Each section of beachfront in Horry County offers a distinctive and varying atmosphere. The Garden City section is a mix of single-family vacation rental homes, medium sized condominium buildings, several hotels, restaurants and a pier. Nearly all of the homes, condominiums, resorts, hotels and restaurants are built directly upon or abutting the dunes, offering virtually no protection to the natural areas of the beachfront, nor gaining the protection of the dunes from high water. With only a handful of exceptions, all development in the Garden City area encroaches upon the OCRM defined setback line, a discussion of which occurs later in this document.

Illustration 2: Garden City development on the dunes



**Source: Horry County Planning & Zoning Department** 

Ocean Lakes Campground, Lakewood Camparound, and Pirateland Campground offer minimal impact upon the beachfront, with all land uses near the beachfront being RV or tent camping and parking. No substantial building occurred in has the campgrounds the on beachfront, leaving the dunes and natural areas, well preserved. Within the campground section is Myrtle Beach Resort, which occupies more than

700 feet of the coastline. Myrtle Beach Resort preserved the dunes located along this stretch of beach, with their buildings located well behind the setback line. Long Bay Estates is located immediately to the north of Pirateland Campground and is bordered to the north by Myrtle Beach State Park. Long Bay Estates is a private beachfront area, with no public access and is primarily developed with single-family residential homes. The beach itself is fairly narrow at high tide and the dunes are well maintained.

The Lake Arrowhead section of the coast is distinguishable from other portions of the coast in that the large resorts, hotels and condominiums outnumber the individual vacation rental type

home. The dunes in this section of the beach are mostly intact, with the main encroachment being other swimming pools and amenities from the resorts. within the Lake Arrowhead section is a large campground and the Meher Spiritual Center. The Meher Center is 500 acres of oceanfrontage located adjacent to the Town of Briarcliffe Acres. property is a state designated

Illustration 3: Ocean Lakes Campground - Beachfront Parking

**Source: Horry County Planning & Zoning Department** 

wildlife sanctuary with more than 200 species of plants and nearly 150 species of birds and animals. The beachfront is undeveloped, leaving the dunes and beach undisturbed.

The final portion of the beachfront that lies within unincorporated Horry County is Waites Island. Waites Island is the only barrier island in Horry County and is at this time virtually undeveloped leaving a pristine natural environment. More than 1,000 acres of the three-mile long island have been placed in a perpetual conservation easement.

#### 2.2.2 BENEFITS AND VALUES OF THE BEACH

In Horry County there exists a direct association between the economy and the natural environment. The ocean and beaches; an abundance of tree, plant and animal species; a moderate climate year round; the black waters of the Waccamaw and Pee Dee Rivers; the Intracoastal Waterway; numerous wetlands, swamps and Carolina Bays all attract visitors, businesses and residents from the world. Economic and recreational opportunities abound for those seeking a life-style found in few places. In fact, the population continues to grow at a rate placing the County in 67<sup>th</sup> place of the top 100 fastest growing counties in the nation.

The Myrtle Beach Area Chamber of Commerce reported a total of 14.7 million visitors to the County in 2008. In 2008, Horry County led the state in Admissions Taxes collected, \$9,924,873, and Accommodations Taxes collected, \$15,405,603; both tourism related taxes. Further, Horry County leads the state in all tourism related statistics.

- \$3,119,000,000 Domestic travel expenditures received (31.6% of the state total)
- 38,600 tourism related jobs
- \$628,400,000 in tourism related payroll income
- \$1,915,000 in tourism related State Sales Tax Receipts
- \$128,500,000 in tourism related Local Sales Tax Receipts

Source: South Carolina Parks, Recreation and Tourism 2008

People are drawn to the County because of the environment, and that also affects the economy. Horry County's economy has traditionally been divided between agriculture in the western part of the County and tourism in the areas adjacent to the beach. In recent years, the role of agriculture in the overall economy has declined. Employment is highest in the service, retail, FIRE (finance, insurance & real estate) and construction sectors, and totaling 91.63% of the local employment. Retail and shopping opportunities are concentrated in the eastern part of the County where they can serve the population center and the tourism industry. The Coastal Grand Mall draws customers from throughout the region, while Barefoot Landing and Broadway at the Beach cater to both the tourist trade as well as local customers. Employment in the

service sector is also centered east of the Intracoastal Waterway with tourism as its major driver. Businesses including hotels, restaurants, gift shops and amusement parks all provide support for the tourist industry. Normally, the "basic" sectors are mining, agriculture, manufacturing, and the Federal government. In Horry County, the largest "basic" industry is tourism, one not usually recognized as such because it is based on assets that are physically immobile (the natural environment). Adding to the dilemma is the fact that tourism crosses industrial classifications categorized by the North American Industrial Classification System (NAICS), meaning there is no single occupational category that fully captures the economics of the industry. However, the output of tourism is exported by importing those who consume (vacationers and tourists), and their dollars, and therefore it must be labeled as "basic".

In contrast to the "basic" tourism industry, the "non-basic" sectors are those such as retail trade, financial institutions, healthcare, and construction, the output of which is usually consumed locally. The growth of the "non-basic" sectors depends largely on the growth of the "basic" sectors that form the basis of the region's economy. In Horry County, tourism has certainly had an impact on some if not all of the "non-basic" industries. For instance, retail services are greatly influenced by visitor dollars. Construction is also influenced by tourism, as a growing population of vacationers requires more hotel rooms, retail services, restaurants and other recreational and leisure businesses, not to mention those who return as full time residents in search of housing and other services that require buildings. A growing population requires more houses, healthcare support, financial institutions, educational facilities, and commercial and retail services. In short, "non-basic" industry is that which a greater percentage of local consumption has compared to exported consumption.

#### 2.3 BEACHFRONT DEVELOPMENTS AND ZONING

Zoning, as a planning tool to secure healthy and safe accommodation of land uses next to each other, was first introduced along the Horry County oceanfront in the late 1980's Residential uses became the predominant land use along the oceanfront that are represented in the form of eight different zoning designations. The northern section of Horry County coastline consists of two unique and largely undeveloped land parcels, namely Waites Island and the Meher Spiritual Center, zoned CP and CFA respectively.

Parcels located within the southern section of Horry County coastline between Garden City and Myrtle Beach are mostly zoned as Destination Park (DP). This includes the major campgrounds and resorts of Myrtle Beach Resort, Lakewood, Pirate Land, and Ocean Lakes. The predominant land uses further south between Garden City and the county line is mostly Resort Recreation (RR) and Single-Family Residential (SF 6) with minimum lot sizes for single-family

no less than 6,000 square feet and duplex development no less than 8,000 square foot lot minimums.

Described below is an overview of the eight zoning districts that make up the Land Use designations along the beachfront in Horry County (excerpts from the Horry County Code of Ordinances, Appendix B Zoning):

**Section 700.** Conservation Preservation District (CP) Horry County, as a costal county, possesses a vast amount of low-lying areas containing salt, brackish or freshwater. These areas possess great natural beauty and serve as breeding grounds and refuges for marine life, birds, and land animals whose survival is economically important to sport and commercial fishing, hunting, and natural study by our citizens and visitors to the area. Development is not precluded from this district if the adverse environmental impacts of such development can be substantially mitigated and permitted.

**Section 703. Commercial Forest Agriculture (CFA)** is a district reserved and utilized for agriculture, forestry, residential, commercial, social, cultural, recreational and religious uses. Commercial and Residential uses are allowed on a minimum of 1 acre and ½ acre lots, respectively.

**Section 706. SF 10 Residential District (SF 10)** is a district intended to provide areas for single-family residential development, low to moderate density, to discourage the encroachment of commercial, industrial, or other uses capable of adversely affecting the residential character and to preserve the architectural character of established neighborhoods. Single-family development on a minimum 10,000 square foot lot is allowed under this zoning designation.

**Section 707. SF** 6 **Residential District (SF 6)** is a district intended to provide areas for medium density, one and two family residential purposes. Encroachment by high-density multifamily residential, commercial, industrial, or other uses incompatible with or capable of adversely affecting the residential character of this district shall be discouraged. A minimum residential lot of 6,000 square feet for single-family and 8,000 square feet lots for duplex development are allowed under this zoning district.

**Section 710. Resort Residential District (RR)** is a district reserved for medium to high-density resort residential purposes. Regulations within this district encourage the formation and continuance of a stable, healthy environment for single and multi-family dwellings in areas having unique aesthetic, environmental and recreation characteristics conducive to resort living; and to discourage any encroachment by residential, commercial, industrial or other use incompatible with or capable of adversely affecting the resort residential character of the district.

**Section 711. Resort Commercial District (RC)** is a district to create and protect areas wherein incompatible residential, recreation, and commercial uses, may be established and maintained on a sound basis. Standards are designed to encourage both seasonal and permanent occupancy of dwellings within this district; to permit commercial activities, such as marinas, boat service station restaurants, and other selected retail establishments which are compatible with resort-oriented residential and recreation development.

**Section 720. Destination Park District (DP)** is a district that provides sound and healthy recreational sites in Horry County in which campers can be located, is intended for short term occupancy, and is to be used primarily for leisure time activities at or near natural attractions in Horry County.

Section 721. Planned Development District (PDD) is intended to allow flexibility in development and encourage the use of innovative site planning techniques resulting in developments with improved design, character, and quality which preserve natural and scenic open spaces. A PDD is characterized by a plan that incorporates housing of different types and densities and compatible commercial, institutional, and industrial developments. A PDD allows for the establishment of dimensional and land use requirements unique to the property to accommodate flexibility in the arrangement of uses within the project for the general purpose of promoting and protecting the public health, safety, and general welfare. At this time there is only one PDD located along the oceanfront.

A complete zoning map of Horry County can be found on the County's website, <a href="https://www.horrycounty.org">www.horrycounty.org</a>. For a detailed description of permitted uses within each of the aforementioned zoning districts, see Appendix B of the Horry County Code of Ordinances which is available online at: <a href="http://tinyurl.com/7wgll9x">http://tinyurl.com/7wgll9x</a>.

The visual character along Horry County's oceanfront has developed in an inconsistent pattern. Construction of residential units began prior to the adoption of the Zoning Ordinance and the 1988 Beach Management Plan. As a result, the majority of residential parcels are much smaller than what would currently be encouraged. Clear guidelines were not in place for beachfront development and thus a large amount of mixed development has occurred. These older land uses are considered legal non-conforming and can sometimes add to the visual clutter located along Horry County's oceanfront. Today there is not a cohesive pattern in density, height or visual character. One story single-family structures may be adjacent to multi-family structures that contain over three or more stories.

#### 2.3.1 BEACHFRONT STRUCTURAL INVENTORY

Appendix E contains a detailed listing of all structures and residential units that encroach or abut the OCRM delineated setback lines or baselines. The Horry County coastline was divided into twenty-four sections and within each section a variety of data was collected. Foremost, all structures and accessories were measured against the baselines and setback lines for encroachments into the OCRM 40 Year Retreat Lines.

All methods of erosion control or structural protection devices and their conditions were also inventoried and are shown in Appendix E. Rock revetments, sea walls and bulk heads were all

found in Horry County, with most being in good condition.

Also within this inventory is a detailed analysis of the Beach Accesses. This includes private and public accesses, the facilities present at each, location and the number of parking spaces at each access. As detailed later in this Plan, drainage is a major issue along the beachfront. Appendix E also includes a detailed inventory of drainage pipes on or along the beach. Where possible, the size and condition of these pipes are noted.

## 2.4 NATURAL RESOURCES AND ECOLOGICAL HABITATS

Although most of Horry County's shoreline and especially its beaches are mainly developed in a tourism-

Table 5: Appendix E – Beachfront Structural Inventory Index



Source: Horry County Planning & Zoning Department

friendly manner, remnants of the following three main terrestrial and ecological habitats can still be found along Horry County's shore:

The Beach Community:

The beach community generally includes the open beach and dune habitats, as well as the foreshore zone that is frequently inundated by the tides; Maritime Shrub Thicket: Maritime shrub thicket communities commonly grow in

older dunes, behind the primary dunes, and include salt tolerant shrubs such as wax myrtle, yaupon holly, and red

cedar;

Maritime Forest: Maritime forests are upland communities typified by live

oak, cabbage palmetto, and loblolly pine.

The Beach Community is the most occurring habitat along Horry County's shoreline. However, beaches along Horry County vary considerably from one end of the shoreline to the other. Beaches near the south end of the County tend to be narrow and steep, whereas beaches near the north end of the shoreline tend to be wider and flatter. Furthermore, beaches in the south part of the County tend to face southeast, while beaches in the north part tend to face south-southeast.

Both the ecological habitats of Maritime Shrub Thickets and Maritime Forests can only be found in small contiguous pockets in three main areas of the Horry County shore, namely at Myrtle Beach State Park, the undeveloped and spiritually-dedicated, Meher Spiritual Center between Arcadian Shores and Briarcliffe Acres, and especially on Waites Island on the far north end of Horry County.

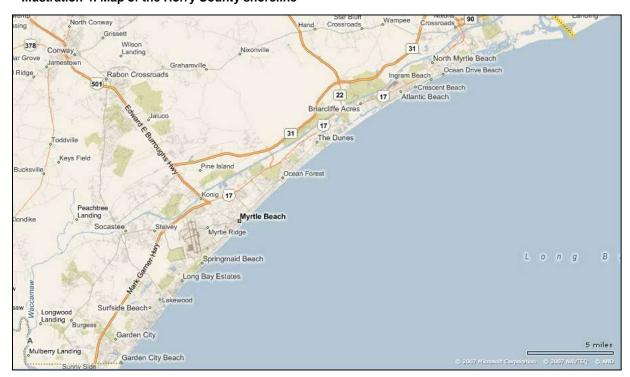


Illustration 4: Map of the Horry County shoreline

Source: Microsoft Virtual Earth

The Horry County shoreline includes the two main tidal inlets of Little River Inlet and Hog Inlet, both located at the northeast end of the shoreline on either side of Waites Island. The shoreline also includes several swashes, such prominent ones as Singleton Swash, Midway Swash and Withers Swash. The term "swash" is mainly used in the Southeast of the U.S. to call an area where a natural outlet of freshwater meets the ocean to form a tidal influenced meandering channel of brackish water that flows through or behind a sandbank.

The ecological state and protection of species that depend on above mentioned habitats are of great concern to the residents and visitors of Horry County. In this especially tourism-driven economy, the maintenance of a healthy and attractive shoreline is paramount to the wellbeing of Horry County. This also is represented in the latest Natural Resources element of the latest version of the County's Comprehensive Plan "Envision 2025".

The South Carolina Beachfront Management Act also requires all local jurisdictions to include an inventory of sea turtle nesting as well as important habitats of the beach/dune system and a protection plan. Therefore, the following chapter will elaborate on all naturally occurring species of fauna and flora along Horry County's shoreline, including their current protection title in relation to federal and state endangered species acts, as well as data referring to sea turtle nesting and strandings, and mentions some invasive species that are threatening our coastline.

#### 2.4.1 THREATENED AND ENDANGERED SPECIES

Horry County's shoreline provides an important habitat for a diverse population of shorebirds. Based on management plans from Huntington State Park, it can be safely assumed that all of Horry County's shoreline supports significant numbers of migratory shorebirds, including dunlins, short-billed dowitchers, sanderlings, ruddy turnstones, piping plovers and many others during the winter months. Some species, such as willets and Wilson's plovers nest here, while others like the whimbrel stop off briefly during migration. Myrtle Beach State Park assists with the annual winter survey of piping plovers.

The main threat to nesting, resting or foraging shorebirds, such as Least Terns, are unleashed dogs and even people running through their flock. In recent years the number of locally occurring Least Terns has declined. Interpretative Ranger Ann Wilson from Myrtle Beach State Park mentioned that these shore birds used to nest on top of the building at Springmaid Pier and the adjacent Myrtle Beach State Park. She would observe the terns feeding and foraging within park boundaries guite often.

Illustration 5: Examples of occurring shorebirds along Horry County's coast

"Dowitcher"



"Dunlin"



"Piping Plover"



"Sanderling"



"Ruddy Turnstone"



"Whimbrel"



"Wilson's Plover"



Source: Wikipedia Encyclopedia

Least Terns can be found locally and are recognized as a threatened species under State law. These terns are shorebirds which rest and forage on the beach during the summer months. Historically, the Least Tern arrives at its breeding grounds in South Carolina in April. The breeding colonies are not dense and may appear along either marine or estuarine shores, or on sand bar islands in large rivers, in areas free from humans or predators.

Illustration 6: The Least Tern



Source: Wikipedia Encyclopedia

Within the Maritime Shrub Thicket and Forest areas of the Horry County shore, there also are reports of occurring state-endangered bald eagles as well as federal-endangered red-cockaded woodpeckers.

#### 2.4.2 TURTLE NESTING

All marine turtles that are found on the Horry County coast carry either endangered or threatened protection status under the U.S. Endangered Species Act. Sea turtles that have been reported to nest or strand on or in close proximity to Horry County's shoreline include: the Loggerhead (*Caretta caretta*), Kemp Ridley (*Lepidochelys kempi*), Leatherback (*Dermochelys coriacea*) and Green (*Chelonia mydas*) sea turtles. In May of 2000, staff recorded and observed the first Leatherback nesting within the boundary of Huntington State Park. This nest produced the first recorded Leatherback hatchlings to enter the Atlantic Ocean from a South Carolina beach.

Green, Leatherback and Kemp's Ridley turtles can nest on South Carolina beaches, but nesting along Horry County's beaches is rare.

The federally threatened loggerhead turtle is the only marine turtle that regularly nests on South Carolina and Horry County beaches. As the following table indicates, nesting attempts on the beaches of Horry County have been occurring sporadic and in varying numbers, generally with decreasing numbers in more recent years.

Table 6: Tables of reported sea turtle nesting from 1990-2006

Beach	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Waites Island					5	3	13	14	14	9	6
North Myrtle Beach	0	0	1	0	0	1	1	2	2	0	0
Arcadian Shores/ Briarcliffe Acres	2	2	8	0	0	5	2	1	2	8	6
City of Myrtle Beach	8	0	0	2	6	18	5	1	5	7	0
Myrtle Beach State Park	0	0	7	0	7	3	5	0	2	4	3
Long Bay Estates	0	0	4	0	5	0	2	0	1	1	1
Surfside Beach	0	1	3	1	0	3	1	0	1	1	0
Garden City	1	2	0	0	1	2	0	1	5	2	0
<b>Total for Horry County</b>	11	5	23	3	19	32	16	5	18	23	10

Beach	2001	2002	2003	2004	2005	2006	Total
Waites Island							64
North Myrtle Beach	0	0	0	0	1	0	13
Arcadian Shores/ Briarcliffe Acres	0	0	0	0	0	0	30
City of Myrtle Beach	1	5	10	0	8	0	52
Myrtle Beach State Park	0	0	5	2	3	0	31
Long Bay Estates	0	0	4	0	0	0	14
Surfside Beach	0	0	0	0	1	1	11
Garden City	0	0	0	0	1	0	14
<b>Total for Horry County</b>	1	5	19	2	14	1	165

**Source: South Carolina Marine Turtle Conservation Program** 

The above sea turtle nesting tables indicate that most sea turtle nests have been occurring in less developed beach areas, such as Waites Island, Arcadian Shores/Briarcliffe Acres and Myrtle Beach State Park. However, the fact that a total of 52 nests have been reported within the city limits of Myrtle Beach indicates that sea turtles' nest all along the coastline of Horry County.

There is a long list of positive actions that can be taken to help South Carolina's state reptile, the loggerhead sea turtles. Currently, most nests in Horry County are relocated to Myrtle Beach State Park. This is mainly done due to the beach raking and light disturbances that occur. All nests are marked with orange signs and covered with plastic mesh screens. The beach at Myrtle Beach State Park and Long Bay Estates is patrolled daily for sea turtle activity from mid May to mid August. The park conducts educational programs about sea turtles and ways to have a positive impact while at the beach.

The Loggerhead Sea Turtle (*Caretta caretta*) is the only member of the genus *Caretta*. The genus name "Caretta" is a Latinization of the French "caret", meaning turtle, tortoise, or sea turtle. A loggerhead sea turtle reportedly grows up to 800 lbs (364 kg) and 3.5 feet long.

The species feeds on mollusks, crustaceans, fish, jellyfish, and other small to medium-size marine animals, which they crush with their large and powerful jaws. As with other sea turtles, the female Loggerhead turtles return to lay their eggs on or near the same beach where they hatched from. Unlike other sea turtles, courtship and mating usually do not take place near the nesting beach, but rather along the migration routes between feeding and breeding grounds.

Illustration 7: Loggerhead Sea Turtle



Source: Wikipedia Encyclopedia

Adult loggerheads enter waters offshore to mate in April and will remain until October. From mid-May through August, females come ashore to lay eggs, usually near the base of the primary dune line. On average, 132 eggs are deposited. In some areas, turtle nests suffer heavily from egg predation mainly by raccoons, foxes and ghost crabs. Other potential threats include human disturbance to nesting females at night and hatchling disorientation caused by artificial lights.

The South Carolina Department of Natural Resources (SCDNR) issues permits for activities involving marine turtles in South Carolina under the authority granted through a cooperative agreement with the US Fish and Wildlife Service under Section 6 of the Endangered Species Act. Activities covered under this jurisdiction include nest monitoring and the handling of stranded turtles.

The number one concern all along the Horry County shoreline regarding sea turtles is nighttime beach raking. Beach raking is done at night in order to avoid the beach-going crowds, but it can severely impact nesting sea turtles in a number of ways. Since it is dark, the driver of the tractor may not see a sea turtle nest or crawl and completely rake it over leaving absolutely no evidence of a nest and possibly damaging eggs. Even when the entire nest is not raked over, it is extremely difficult to find the eggs since many of the clues have been obliterated by the raker.

Furthermore, the beach raker also scares off nesting females due to the light and noise from the tractor. The tractor could also run over hatchlings as they are coming out of their nest. Another major concern is that beach rakers sometimes get too close to the sand dunes and create more erosion. The beach rakers should always stay at least 10 feet away from the base of the sand dune.

Besides the Department of Natural Resource's Sea Turtle Conservation Program, several small-scale volunteer organizations and even under corporate support of Santee Cooper, have joined forces to establish SCUTE, or South Carolina United Turtle Enthusiasts, to not only preserve and monitor sea turtle nesting habitats, but to further raise awareness about sea turtles and the hazards that could disrupt their nesting behavior. Therefore, SCUTE focuses on their "lights out" campaign and distributes bumper stickers to remind property owners and visitors to turn off beachfront lights after 10 p.m. during nesting season, as this will unnecessarily disrupt sea turtles.

Last but not least, both Huntington and Myrtle Beach State Parks have Sea Turtle Management Plans in place to specifically organize protection efforts within their boundaries. These plans include such measures as nest monitoring, nest protection, hatchling assistance, public education, and amongst others data collection.

#### 2.4.3 COASTAL PLANTS

A number of plants grow on the beaches and dune zones of Horry County, including the Carolina Lilaeopsis (Carolina Grasswort), Godfrey's Stitchwort, Salt-marsh False-foxglove and Climbing Fern, only one is listed as threatened under the federal Endangered Species Act, namely the Seabeach Amaranth.

Seabeach amaranth is an annual plant found on the dunes of Atlantic Ocean beaches. Seabeach amaranth occurs on barrier island beaches, where its primary habitat consists of overwash flats at accreting ends of islands and lower foredunes and upper strands of non-eroding beaches. It occasionally establishes small temporary populations in other habitats, including sound-side beaches, blowouts in foredunes, and sand and shell material placed as

beach replenishment or dredge spoil. Seabeach amaranth appears to be intolerant of competition and does not occur on well-vegetated sites. The species appears to need extensive areas of barrier island beaches and inlets, functioning in a relatively natural and dynamic manner. These characteristics allow it to move around in the landscape as a fugitive species, occupying suitable habitat as it becomes available.

Historically, Seabeach amaranth occurred in 31 counties in nine states from Massachusetts to South Carolina. The species is currently found in New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, and South Carolina.

The most serious threats to the continued existence of Seabeach amaranth include the construction of beach stabilization structures, beach erosion and tidal inundation, beach grooming, herbivory by insects and feral animals and, in certain circumstances, by off-road vehicles.

**Illustration 8: Seabeach Amaranth** 



Source: U.S. Fish & Wildlife Service, North Carolina Ecological Services

Invasive plant species, such as the Beach Vitex represent the biggest threat to local flora along Horry County's beaches. Beach Vitex (*Vitex rotundifolia*) is a woody shrub native to the Pacific Rim. In the 1980s, Beach Vitex was imported by the North Carolina University Arboretum for use as a beach stabilization plant in the southeastern US, and it was planted for erosion control on South Carolina beaches in the early 1990s. By the mid-1990s, plant specialists began to notice Beach Vitex spreading on state beaches where it was crowding out native species like Sea Oats. Beach Vitex does not appear to trap windblown sand as efficiently as these native species. Volunteers have observed lower dune profiles on sections of dune where Beach Vitex has crowded out native vegetation.

Illustration 9: Beach Vitex



Source: North Inlet-Winyah Bay National Estuarine Research Reserve (NERR)

In 2003, after discovering thick mats of Beach Vitex descending down the base of sand dunes, volunteers with the South Carolina United Turtle Enthusiasts (SCUTE) expressed concerns about the possible impacts of the plant on loggerhead sea turtle nesting habitat and behavior.

Beach Vitex is now spreading rapidly and poses a threat to native plants and animals. Beach Vitex appears to be spreading from original plantings on or near North and South Carolina beaches by both vegetative growth and by seeds. *The Carolinas Beach Vitex Task Force* is leading an interagency effort to eradicate the species. Many jurisdictions have created ordinances prohibiting the ownership or planting of Vitex due to the extreme potential for spreading and the negative effectives thereof.

#### 2.5 EXISTING PUBLIC ACCESS AND MAP

A very thorough and aggressive effort to provide adequate access and parking throughout both the incorporated and unincorporated portions of Horry County has been implemented as the tourism industry continues to grow. Currently, on the beachfront, there are more than 250 public parking spaces in nineteen (19) parking areas under the control and ownership of Horry County. In addition, Horry County has entered into agreements with Ocean Lakes Campground, Lakewood Campground, and Apache Campground that provide for access by the public to designated public parking spaces at oceanfront sites within the campgrounds. The public is charged a fee commensurate with the fees charged at the nearby Myrtle Beach State Park for use of the parking.

The number and distribution of public access points provide sufficient access facilities and parking to classify 100% of unincorporated Horry County as having full and complete public access per the State guidelines (SCCC, 1995; see Table 3).

Despite efforts to provide parking access for the public, the large number of tourists visiting the beach often exceeds the number of parking spaces available resulting in congestion and onstreet parking. This has especially affected the area of Garden City in recent years. Efforts to

Illustration 10: On-street Parking in Garden City



**Source: Horry County Planning & Zoning Department** 

remedy the parking issue are often difficult due to the high cost of land near the ocean that could be converted into parking facilities.

Horry County does not typically provide public restroom or other facilities at beach access points. other than portable toilet facilities. The primary exception is the Hibben Memorial Beach Access, which will be discussed later in this document. The County maintains beach access

identification markers at each public and emergency access location. In 2001, Horry County provided funding for a Boy Scouts of America project that placed "lost child identification" signage at the beachfront accesses.

The County prohibits overnight parking at all beach access and street ends, thereby restricting adjacent private property owners from utilizing public parking areas for personal and long term usages. Additionally, Horry County does not permit vehicles to be driven on the beach except for emergency or cleanup projects.

An initial inventory of each beach access was completed in 2008 as part of the update to the Beach Management Plan. This inventory is attached as Exhibit A. An updated and more detailed inventory of the beach accesses is attached to this document in Appendix E.

The Grand Strand beaches are a large draw for families and other individuals as a tourist destination. However, many improvements at the public beach accesses had outlived their usefulness or purpose. Although many of the beach access points had handicapped parking, many of the ramps were inaccessible for the handicapped. Thus, there were limited choices for anyone with a physical disability to access the beaches safely and easily.

In 2010, Horry County began reinvigorating the beach accesses, starting with Hibben Park, situated between Apache Campground and the Shore Drive section of the Horry County beachfront. This access contains permanent restroom facilities, a landscaped walkway, bench seating and a new wooden walkway over the dune system. In 2011, additional accesses were improved, adding shower facilities and improved parking for both golf carts and automobiles. A new numbering system for the Beach Accesses was also launched. These Access Points can be found on Exhibit I at the conclusion of this document.

**Illustration 11: Horry County Beach Access** 





**Source: Horry County Planning & Zoning Department** 

Official vehicles, "Beach Service" or golf cart type vehicles have been authorized to access the beach to transport handicapped persons. All other vehicles are prohibited from driving or parking on the beach. Parking areas are provided at each beach access point as well as signage regarding beach ordinance information and other necessary safety precautions.

### Illustration 12: Existing Beach Signage



Source: Horry County Planning & Zoning Department The Horry County Beach accesses are opportunities for the county to make improved positive impressions about the Myrtle Beach area. The county should consider upgrading each site making them more inviting to tourist and native citizens.

Illustration 13: Hibben Memorial Beach Access - Prior to Renovations





**Source: Horry County Planning & Zoning Department** 

Illustration 14: Hibben Memorial Beach Access - After Improvements



**Source: Horry County Planning & Zoning Department** 

Illustration 15: Public Beach Access



**Source: Horry County Planning & Zoning Department** 

circumventing their intended utility.

As previously stated, many of the beach accesses contain walkways that are outdated, in disrepair and dangerous. The most typical of these walkways consists of a ramp or several steps to a wooden platform with two benches and a set of stairs or a ramp back down to the beach. These platforms were likely erected over the dunes when built; however, the dunes have eroded and all but disappeared. Pedestrians have worn paths around the walkways,

Each beach access also is posted with multiple signs detailing parking prohibitions, beach ordinances, emergency access points, dog waste removal, dune protection, lost child services, and parking fee information. The sign clutter detracts from the natural beauty of the sites. Contributing to the clutter are garbage receptacles and portable toilet facilities.

Illustration 16: Beach Access Improvement Rendering



**Source: Horry County Planning & Zoning Department** 

The negatives of the existing accesses provide numerous opportunities for improvement. Using Hibben Memorial Access as a model, the same accesses can be drastically improved with little expense. By renovating the accesses, improved stormwater techniques can be included at the same time, effectively accomplishing multiple tasks at one time. Illustration 16 shows the same access as Illustration 15, but with possible improvements. Palmetto trees, mulch beds, native plant species, controlled pedestrian access, consolidated sign kiosks, and garbage receptacle upgrades serve to beautify and improve the access points to the most visited park sites in the County - the beach. Additionally, evaluating the layout of each parking area, may allow for additional parking if reconfigured. Finally, where possible, resurfacing the parking accesses with pervious pavers, replacing the concrete, will improve both the functionality and the efficiency of drainage that has been an issue throughout the beachfront.

## 3. BEACHFRONT DRAINAGE PLAN

Horry County is a regional stormwater leader that recognizes stormwater management as a community-wide issue that requires a community-wide solution. Stormwater refers to the precipitation that drains off the land. The amount of impervious surface (i.e. streets, roofs, and parking lots) is the most significant factor affecting the amount of runoff from an area. As Horry County continues to develop from rural to urban; runoff volumes and rates will continue to increase. The Stormwater Management Program has a staff of 17 full time employees assisting in providing services, conducting programs, and keeping the County aware of the important issues concerning stormwater.

Daily operations of this department include: review, issuance, and inspection of stormwater permits, excavation and cleaning of ditches and canals, installation and repair of storm drainage systems, beaver control, etc. The goals of this program, as outlined in the Stormwater

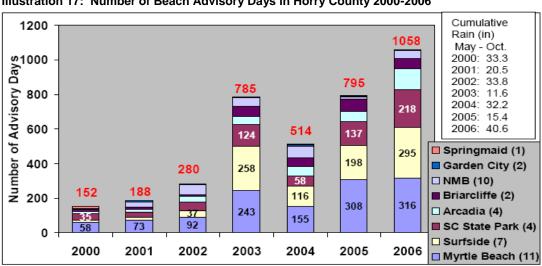


Illustration 17: Number of Beach Advisory Days in Horry County 2000-2006

Source: Envision 2025 – Horry County Comprehensive Plan

Management Program Strategic Plan, are to preserve and enhance the quality of the water systems of Horry County; to reduce the impact of flooding in the County; to create public support for the importance of stormwater management; and, to manage stormwater program funds to maximize benefits to the citizens of Horry County.

The beaches are the lifeblood of Horry County tourism, industry and economic well-being. As such, it is vitally important that the beaches and the beachfront be clean and unpolluted. However, many beaches in Horry County have been routinely closed due to pollution, largely stemming from polluted Stormwater Runoff.

The Stormwater Management Department has been monitoring Horry County beaches since 1996. They have performed two research studies, funded by Section 319 Grants, to identify sources of bacteria and measures to minimize impacts. The first two-year project studied surface water runoff and discharge to the coastal zone. The second further investigated the bacteria contamination present in the Atlantic Intracoastal Waterway and the Atlantic Ocean surf

Illustration 18: Pervious Pavers Used as Golf Cart Parking on beachfront



Source: Horry County Planning Department

zone. Stormwater staff members are currently working with SCDHEC to improve the program for the future.

Horry County's Stormwater Department is also utilizing cutting edge technology and common sense methods to attempt to mitigate Stormwater Runoff into the ocean. One method is utilizing pervious surface pavers for public beach access points and where necessary, pervious concrete for the paving of parking lots; the more pervious surfaces that are installed, the less runoff that is created. Pervious surfaces allow stormwater to infiltrate

naturally into the ground and biologically filter, thereby reducing or eliminating polluted runoff.

Drift fencing has also been installed along many areas of the coast in conjunction with Beach Services. This fencing will protect the existing sand dune system and allow for the dunes to be replenished. Sand dunes play a vital role in separating the beachfronts from development and non-point source pollutants, like stormwater runoff. In many sections of the beach, development has occurred directly on the beachfront, destroying the dune system and allowing runoff to expel directly onto the beach. Drift fencing may provide a mechanism to restore the dunes and provide that needed separation on the beachfronts.

Multiple campgrounds are located on the beachfront throughout Horry County. These campgrounds are quite often located on swashes, or tidal inlets that are unique natural habitats. These swashes tend to gather a great deal of stormwater runoff and as such often become



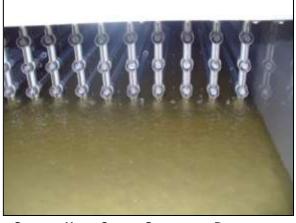


Source: Horry County Planning & Zoning Department

heavily polluted. The pollutants are then washed into the ocean with the tides, where the pollutants are distributed along the The beachfront. campgrounds have provided an opportunity for the Stormwater Department to implement unique measures aimed at reducing non-point source pollutants.

The Stormwater Department has installed ultraviolet filter treatment systems at the Pirateland Campground. These filters treat

Illustration 20: Ultraviolet Light Filtration System



**Source: Horry County Stormwater Department** 

bacteria infested water in the swash with ultraviolet light, killing the bacteria. The water is then expelled into the ocean without the harmful pollutants.

Illustration 21: Ocean Lakes Rain Tank Infiltration System



**Source: Horry County Stormwater Department** 

Stormwater has also installed a Rain Tank Infiltration System under the road along the oceanfront at Ocean Lakes Campground. This system will funnel and store all runoff destined for the ocean through a series of filters that are under the road before being channeled through the dune system clearing the water of most harmful pollutants.

The Horry County Stormwater Department's goal is to minimize direct

discharges to the beach. They have completed a feasibility study of all beach outfalls which are posted on their website: <a href="http://www.horrycounty.org/stormwater/">http://www.horrycounty.org/stormwater/</a>. Stormwater is also looking at ways to eliminate as many piped discharges as possible using infiltration systems. There will still be occasional overflow discharges from these systems during large rain events but the annual volume of discharge is expected to be reduced by 80-90%. Funding is the only thing preventing the County from implementation at all locations.

Non-point source pollution through stormwater runoff will continue to be a problem along Horry County's beaches. However, through aggressive treatment, education and filtering, the County has taken steps to reduce the amount of harmful pollutants that may affect the beachfront. The County will continue to work closely with property owners to control drainage and stormwater discharges by enforcement of the County Storm Water Management Ordinance and the County Floodplain Management Ordinance.

## **4. BEACH MANAGEMENT AND AUTHORITIES**

Appendix G details all Federal, State and Local agencies with regulatory or management authority over the beachfront and their roles in the management of Horry County beaches.

## **4.1 STATE AUTHORITIES**

## 4.1.1 Overview of State Policies (Beachfront Management Act)

The South Carolina Beachfront Management Act was passed by the General Assembly to protect and preserve the state's beach and dune system for the protection of life and property, habitat protection for fauna and flora, and an attractive environment for residents and visitors alike. By adopting the Beachfront Management Act, the General Assembly also acknowledges that a "long-range comprehensive beach management plan is needed for the entire coast of South Carolina to protect and manage effectively the beach/dune system (...)" S.C. Code of Laws, Section 48-39-250 (11).

The policies of the S.C. Beachfront Management Act are codified in Section 48-39-260. The Act states the following polices, to:

- (1) Protect, preserve, restore and enhance the beach/dune system;
- (2) Protect life and property by acting as a buffer from high tides, storm surge, hurricanes, and normal erosion;
- (3) Provide a source for the preservation of dry sand beaches which provide recreation and a major source for state and local business revenue;
- (4) Provide an environment which harbors natural beauty and enhances the well-being of the citizens of this State and its visitors;
- (5) Provide natural habitat for indigenous flora and fauna including endangered species;
- (6) Create a comprehensive, long-range beach management plan and require local comprehensive beach management plans for the protection, preservation, restoration, and enhancement of the beach/dune system;
- (7) Restrict the use of hard erosion control devices to armor the beach/dune system and to encourage the replacement of hard erosion control devices with soft technologies;
- (8) Encourage the use of erosion-inhibiting techniques which do not adversely impact the long-term well-being of the beach/dune system;
- (9) Promote carefully planned nourishment as a means of beach preservation and restoration where economically feasible;
- (10) Preserve existing public access and promote the enhancement of public access to assure full enjoyment of the beach by all our citizens including the handicapped and encourage the purchase of lands adjacent to the Atlantic Ocean to enhance public access;
- (11) Involve local governments in long-ranging comprehensive planning and management of the beach/dune system in which they have a vested interest;
- (12) Establish procedures and guidelines for the emergency management of the beach/dune system following a significant storm event.

## 4.1.2 BEACHFRONT SETBACK AREA

The Beachfront Management Act defines a forty-year retreat policy as a very important part of this law in Section 48-39-280. The Department of Health and Environmental Control, specifically the Office of Ocean and Coastal Resource Management (OCRM) must establish a baseline which parallels the shoreline for each standard erosion zone and each inlet erosion zone. The baseline for each standard erosion zone is established at the location of the crest of the primary oceanfront sand dune. In standard erosion zones in which the shoreline has been altered naturally or artificially by the construction of erosion control devices, groins, or other manmade alterations, the baseline must be established by the department using the best scientific and historical data, as where the crest of the primary oceanfront sand dunes for that zone would be located if the shoreline had not been altered." DHEC-OCRM must determine the baseline for inlet erosion zones that are not stabilized by jetties, terminal groins, or other structures as the most landward point of erosion at any time during the past forty years, unless the best available scientific and historical data of the inlet and adjacent beaches indicate that the shoreline is unlikely to return to its former position.

The Act also requires the establishment of a setback line to fully implement the forty-year retreat policy. The setback line must be established landward of the baseline at a distance which is forty times the average annual erosion rate or not less than twenty feet from the baseline for each erosion zone based upon the best historical and scientific data adopted by DHEC-OCRM as part of the State Comprehensive Beach Management Plan. Both the baseline and setback line must be revised not less than every eight years but not more than every ten years after each preceding revision.

## 4.2. LOCAL GOVERNMENT AND AUTHORITIES

Horry County Government has jurisdiction over unincorporated areas within its county boundaries, and is responsible for planning, zoning, building regulation, code enforcement, floodplain management, emergency services, etc. In some fashion, the following Horry County departments have authority over the beach and nearby areas:

- Police and fire (public safety, emergency operations, evacuations, etc.)
- Building and planning (regulation of new and existing construction, land use and development, code enforcement)
- Public works (collection of garbage and debris; beach maintenance; street signs;
   ditch maintenance and overall right-of-way grooming of public property)
- Recreation (management of beach events)
- Judicial (adjudication of beach-related violations of the County Code).

### **Local Regulation and Management**

The Horry County Council adopted an updated version of Chapter 5 pertaining to the County Code of Ordinances on June 19, 2007. This update established procedures and responsibilities relating to specific activities that encourage and maximize safe recreational activities along the beachfront.

To enforce the newly adopted ordinance a beach patrol was formed and funded through the accommodations tax to help manage and enforce the County's beach regulations. The beach patrol consists of the following:

- A Lieutenant
- Two Sergeants
- Two Corporals
- Eight Officers
- Four Beach clean-up workers
- Three Vehicles

In 2011, Horry County again updated its Beach Ordinances as part of its cooperation with the Coastal Alliance. The aim of this update was to make the Beach Ordinances more uniform throughout the County and municipalities. A copy of the updated ordinances is attached as Appendix F.

# 4.2.1 HORRY COUNTY'S COMPREHENSIVE PLAN - ENVISION 2025

Horry County Council adopted Envision 2025 in the spring of 2008. This Comprehensive Plan is intended to document the history of development in Horry County, to identify the community's problems and needs, and to articulate a vision for its future. The Plan is also intended to help guide future decision-making in matters affecting the physical, social, and economic growth, development and redevelopment of the community. The plan is not a final product; it is part of a continuing planning process and is updated and revised as new information becomes available or as new problems and needs arise.

The Natural Resources chapter within Horry County's Comprehensive Plan emphasizes that "recognizing the equal value of built infrastructure and green infrastructure to the economic prosperity of Horry County, is paramount to promote the management of the County's natural environment in a manner that ensures a balanced and sustainable growth as well as the conservation of environmental resources and open spaces in order to provide for the health,

safety and enjoyment of current and future residents." This includes all beachfront management as well.

The Comprehensive Plan also identifies the areas closest to the beachfront as urban areas with higher densities of development.

### 4.2.2 HORRY COUNTY'S COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

The Horry County Comprehensive Emergency Management Plan (CEMP) results from county emergency management staff recognizing that a comprehensive plan is needed to enhance Horry County's ability to manage emergency and disaster situations. Through the implementation of measures aimed at the four phases of emergency management; preparedness, response, recovery and mitigation, lives can be saved and property damage minimized. This ongoing operation is called comprehensive emergency management and it emphasizes the interrelationship of activities, functions, and expertise necessary to deal with disasters. The CEMP was created by the county emergency management staff working cooperatively with the state and local governments and non-profit organizations that has a role in the emergency management program in Horry County.

In detail the CEMP is structured as follows:

- I. Introduction (currently under revision)
- II. Section I Preparedness (under revision)
- III. Section II Response
  - a. Emergency Operations Plan
  - b. Emergency Support Function (ESF) 1 Transportation (Annex 1)
  - c. ESF 2 Information Technology / Communications (Annex 2)
  - d. ESF 3 Public Works and Engineering (Annex 3)
  - e. ESF 4 Firefighting (Annex 4)
  - f. ESF 5 Information and Planning (Annex 5)
  - g. ESF 6 Mass Care, Housing & Human Services (Annex 6)
  - h. ESF 7 Resource Support (Annex 7)
  - i. ESF 8 Public Health (Annex 8)
  - j. ESF 9 Search & Rescue (Annex 9)
  - k. ESF 10 Hazardous Materials (Annex 10)
  - I. ESF 11 Food & Agriculture (Annex 11)
  - m. ESF 12 Energy (Annex 12)
  - n. ESF 13 Law Enforcement (Annex 13)
  - o. ESF 16 Evacuation Traffic Management (Annex 14)
  - p. ESF 17 Animal Emergency Response (Annex 15)
  - q. ESF 18 Donated Goods & Volunteer Services (Annex 16)
  - r. ESF 19 Military Support (Annex 17)
  - s. ESF 22 Air Operations (Annex 18)
  - t. ESF 23 Damage Assessment (Annex 19)
  - u. ESF 24 Business and Industry (Annex 20)

- IV. Section III Recovery (currently under revision)
- V. Section IV Mitigation
  - a. Prerequisites
  - b. Planning Process
  - c. Risk Assessment
  - d. Mitigation Strategy
  - e. Plan Maintenance
- VI. Section V Continuity of Operations (currently being compiled)
- VII. Section VI Hazard / Function Specific Plan
  - a. Horry County Hurricane Plan (Appendix 6-1)
  - b. Horry County Terrorism Plan (Appendix 6-2)
  - c. Horry County Re-Entry Plan (Appendix 6-3)
  - d. Horry County Earthquake Plan (Appendix 6-4)
  - e. Horry County Logistics Plan (Appendix 6-5)
  - f. Horry County Tsunami Plan (Appendix 6-6)
  - g. Waccamaw HRSA Hospital Region Mass Casualty Response Plan (SCDHEC; Appendix 6-7)
  - h. Horry County Operational Areas Plan (Appendix 6-8)
  - i. Horry County Solid Waste Authority Storm Debris Management Plan (SWA Appendix 6-9)
  - j. Horry County Communications Plan (Appendix 6-10)
  - k. Horry County Mass Fatality Plan (Appendix 6-11)
  - I. Horry County Evacuation Plan (Appendix 6-12)
  - m. Coastal Hazardous Materials Response Plan (Appendix 6-13)
  - n. Horry County Mass Evacuation Transportation Transfer Station (METTS) Plan (Appendix 6-14)
  - o. Horry County Volunteer Reception Center (VRC) Plan (Appendix 6-15)
  - p. Horry County Public Information Officer Plan (Appendix 6-16)
  - q. Horry County Pandemic Influenza Plan (Appendix 6-17)
  - r. Horry County Road Debris Clearing Plan (Appendix 6-18)

Many sections of the CEMP are accessible via Horry County's webpage at http://www.horrycounty.org/depts/humanserv/epd/index.asp

#### Response

The largest threat to the Horry County coastline is that posed by hurricanes. Horry has a five-stage response approach to Hurricane season. Stage One is named "OPCON 5" and is the default operating condition status beginning on June 1<sup>st</sup> with the beginning of Hurricane Season. During OPCON 5 status, the EMD monitors weather systems and continues to update and review emergency plans.

"OPCON 4" begins when the Director of EMD determines that a storm could potentially threaten Horry County. During this status, various emergency response teams are notified of the potential for a storm's impact, emergency facilities and systems are verified for readiness, and continue to monitor the storm activity.

"OPCON 3" is declared when a storm reaches likelihood to cause a significant threat to Horry County. Again, various emergency response teams are notified of the increase threat to the county. In addition, the projected evacuation timelines, including voluntary and mandatory relocation schedules are determined. Traffic and communications plans are coordinated. Evacuation shelters are established and proper signage is placed. Hospitals, schools and businesses are notified of the likelihood of the storm and appropriate preparations are considered. Pre-disaster plans concerning declaration of "State of Emergency", documentation for federal relief, coordination with staff and personnel are commenced.

"OPCON 2" is reached when either a voluntary or mandatory evacuation is recommended. All shelters will be prepared for opening, public notification will be coordinated and all emergency responders and team members are prepared to face the oncoming storm.

"OPCON 1" is automatically triggered when either a voluntary or mandatory evacuation is announced to the public. The primary activity at this level is the evacuation of all residents and visitors.

In addition to the threat of hurricanes, the coast is at a very slight risk for tsunamis. Tsunamis are sea waves produced by an undersea earthquake, below or above water landslide causing





Source: morry County Emergency Management Plan

water disruption, or volcanic activity in or around the Atlantic Basin. The best information available indicates Horry County's greatest risk is from a magnitude 9.0 earthquake along the Puerto Rico Trench. The tsunami could have a wave height of 1.4 meters (4-5 feet) and reach the Horry County coast in about 4-5 hours.

Horry County's greatest risk during a tsunami is the immediate coastline. During the summer months, over 100,000 people may be on the beach any time during daylight hours. During the off-season, there could be several thousand people on the beach. People within the risk area of the coastline will need to evacuate at least 300 feet inland

and/or 15 feet vertically prior to the arrival of tsunami waves. The prompt and effective evacuation of high-risk areas requires the cooperation and coordination of Horry County and local jurisdiction Public Safety Departments. Horry County Emergency Management Department will assist in coordinating this effort.

Blue hurricane evacuation signs are posted along roads to guide residents and visitors inland to safety in the event of an evacuation of the beachfront. Although accidents or traffic conditions could cause detours, the designated routes are described below.



Illustration 23: Evacuation Routes

Source: South Carolina Department of Public Safety

**Table 7: Hurricane Evacuation Routes** 

**North Myrtle Beach and northward:** Evacuees from Briarcliff Acres and northward will take SC 9 north to I-95 and beyond

Briarcliff Acres south to Myrtle Beach 10<sup>th</sup> Avenue North: Evacuees from Briarcliff Acres south to 10<sup>th</sup> Avenue North will take SC 22 (Conway Bypass) to US 501 to Marion. In Marion, they may then take US 76 to Florence to access I-95 southbound or they may stay on US 501 to SC 38 to access I-95 northbound.

Myrtle Beach, from 10<sup>th</sup> Avenue North south to the Myrtle Beach Airport: Evacuees from the Myrtle Beach area south of 10<sup>th</sup> Avenue North and north of the Myrtle Beach Airport will take US 501 to Conway. They may then take US 378 to Columbia or continue on US 501 to Marion. In Marion, they may then take US 76 to Florence to access I-95 southbound or they may stay on US 501 to SC 38 to access I-95 northbound.

Myrtle Beach Airport southward through Surfside Beach: Evacuees from the Myrtle Beach area from the Myrtle Beach Airport southward through Surfside Beach will take SC 544 to US 501 to Conway. They may then take US 378 to Columbia or continue on US 501 to Marion. In Marion, they may then take US 76 to Florence to access I-95 southbound or they may stay on US 501 to SC 38 to access I-95 northbound.

Garden City Beach south to Winyah Bay: Evacuees from Garden City Beach southward to Winyah Bay will take US 17 south through Georgetown. They will then take US 521 to SC 261 to US 378 to Columbia. Alternatively, they may take US 17 south to US 701 in Georgetown to SC 51 to US 378 at Kingsburg.

Source: South Carolina Department of Public Safety

#### Recovery

The Horry County Hurricane Re-Entry Plan is designed to promote and facilitate the timely reentry of government officials, property owners, business owners, residents, essential personnel, contractors, insurance claim adjusters, media, etc. to speed the recovery of the local community and its economy prior to and after any tropic cyclone related incident. Re-Entry will only be allowed after public officials determine that a certain level of safety has been achieved. The following groups are afforded immediate and unimpeded re-entry to allow them to accomplish their jobs:

- Government officials/employees city, county, state, federal.
- Special Purpose District employees Grand Strand Water and Sewer Authority,
   Coast RTA, etc.
- Mutual Aid Personnel responding from other jurisdictions.

Residents and business owners will be allowed immediate access into the area once it is deemed safe. Law enforcement officers will establish and staff checkpoints during re-entry. Returning residents, workers and business owners will be required to show proper identification, including driver's license, company ID cards, or documents showing ownership/rental of business.

In cases where an address on a driver's license does not correspond to the area being entered, other documents such as utility bills, mortgage deeds, property tax documents, and car registrations will be accepted at established checkpoints.

### Mitigation

Horry County Emergency Management staff and the County Mitigation Task Force developed eight, long-term mitigation goals, representing the overall vision of the Horry County Hazard Mitigation Plan. The following goals were determined to have the greatest benefit in hazard reduction in Horry County.

- Goal 1: Minimize loss of life and property from natural hazard events.
- Goal 2: Protect public health and safety.
- Goal 3: Increase public awareness of risk from natural hazards.
- Goal 4: Improve government and public response to natural hazard disasters.
- Goal 5: Reduce risk and effects of natural hazards.
- Goal 6: Increase the technical capabilities to reduce potential losses.
- Goal 7: Enhance existing or develop new policies/regulations that will reduce the
  - potential damaging effects of hazards.
- Goal 8: Protect the most vulnerable populations, buildings and critical facilities.

To accomplish these goals, Horry County has adopted as part of the All Hazards Mitigation Plan, an Action Plan that incorporates individual responsibilities to county departments and entities. Those actions dealing directly with the coastline are detailed below; a more detailed description can be found in Appendix C. Hazard Mitigation represents the best efforts of the

County to avoid physical and property damage in the event of a natural or man-made disaster by installing or retrofitting safety features, eliminating existing conditions that are known problem areas, and increasing efforts to educate and notify the public of potential hazards in advance of their arrival.

**Table 8: Mitigation Action Plan** 

Description	Category
Education of residents living in the identified Storm	Public Information & Awareness
Surge area.	and Property Protection
Purchase additional emergency generators for new	Emergency Services
and existing critical facilities	
Hold a hazard mitigation seminar for the	Public Awareness
community residents, including information on	
preparedness for all hazards significant to Horry	
County	
Compile tsunami hazard information	Prevention
Extend water lines to install 4" water meter on	Property Protection
GSWS water line to provide alternative water	
source in the event of emergencies	
Install water tight manhole covers	Prevention
Install Hurricane Shutters for Wind Protection	Emergency Services

Source: Horry County Emergency Management Plan

## 4.2.3 BEACHFRONT DEVELOPMENT REGULATIONS

The majority of oceanfront parcels have been built out. Land uses located near and along the beach consist of a combination of residential and commercial uses. There are eight different zoning designations currently found along the oceanfront parcels as described and defined under the Land Use Patterns section. Those districts are: CP, CFA, SF 10, SF 6, RR, RC, and DPD. Beachfront development may require increased setbacks from the ocean depending on the location of the established OCRM delineated setback and baselines. All oceanfront areas are subject to periodic inundation, which presents potential safety concerns; DHEC-OCRM may make suggestions to minimize potential damage and improve public safety.

### **Zoning**

#### District Regulations

The zoning ordinance only addresses oceanfront and second row development when pertaining to the General Residential (GR) district. However, this district can no longer be requested as part of a rezoning action. The MRD zoning district has replaced this older designation and it does not specify restrictions for development of oceanfront parcels.

### Non-Conforming Structures

Due to the timing and adoption of the original zoning ordinance, many lots had already been created in the Garden City area. This resulted in many legal non-conforming lots and structures. Lots may be smaller than allowed by the zoning district or structures may encroach into dimensional setbacks. Some oceanfront lots may encroach into the setback and on occasion the baselines established by OCRM in the early 1990's.

Proper permits must be obtained through DHEC-OCRM prior to the county granting approval for any construction on undeveloped lots. The same permits are required for reconstruction of damaged property or any other improvements made on any lot fronting the ocean. The county shares the objectives of the State Beachfront Management Act and will not allow any structures to be built without the permit from DHEC-OCRM.

#### Setback Assessment

Setback and baselines are determined and defined by DHEC-OCRM. The lines were first determined in 1990 and are evaluated approximately every ten (10) years. The baseline is established first and is located at the crest of the primary oceanfront sand dune. Where the dunes do not exist, a scientific method is used to determine where the natural dune would have occurred if man-made actions had not interrupted their development. The setback line is the most landward boundary and is measured from the baseline. The depth of the setback line is determined by the average annual erosion rate for the past forty years then multiplied by forty; the result is the distance from the baseline to the setback line. For example, if the erosion rate is one foot per year, the results will be a setback zone that stretches forty feet from the baseline.

Horry County realizes the importance of managing and protecting recreational, ecological and protective functions along the beachfront and how these all work together to create a healthy beach/dune system. Specific policies and guidelines have been put in place to protect dune alteration, destruction, restoration and re-vegetation. In the recently adopted beach ordinance it states that "any construction or alteration of beach or sand dune areas seaward of the South

Carolina Office of Ocean Coastal Resource Management (DHEC-OCRM) forty-year setback line must be approved, in advance, by the Coastal Council and the County" (DHEC). To minimize the impact on coastal resources a permit must be obtained from OCRM. That permit must be presented to the Horry County Code Enforcement Flood Plain Manager to gain approval to proceed with any development.

The construction of wooden dune walkovers less than six feet wide, are not subject to permitting by DHEC-OCRM. However, any other construction would require a permit from DHEC-OCRM

**Table 9: Permitted Reconstruction of Damaged Buildings** 

Damaged or destroyed buildings may be rebuilt provided:

- All necessary permits are obtained
- New construction square footage may not exceed the original square footage seaward of the baseline
- Linear footage parallel to the coast of the new structure may not exceed the linear footage of the original
- The new structure may not be seaward of the original
- The new structure may be required to be elevated depending upon flood plan restrictions.

Source: SC Department of Health and Environmental Control

prior to any development or placement of structures in the setback and baseline areas.

**OCRM** Under the current regulations, new buildings, additions, and damaged buildings constructed may be reconstructed along the coast, subject to certain restrictions. Additions to existing structures may be approved as long as the total square footage of the entire heated structure does not exceed 5,000 square feet. Damaged structures may be reconstructed subject the to regulations

contained in Table 9. There may be other requirements deemed necessary by the flood plain manager and through the designated zoning district however, it is possible to reconstruct a damaged structure so long as the requirements to do so are met. Further standards are detailed below.

Illustration 24: Setback and Baseline in Garden City

Source: Horry County Planning & Zoning Department

### **Building Regulations and Code Enforcement**

Building and Code Enforcement coordinates with OCRM in working with the development of oceanfront parcels. Once the required permits are obtained from DHEC-OCRM and the Horry County Flood Plain Manager, the owner may proceed forward with development. The Federal Emergency Management Agency (FEMA) indicates from the Flood Insurance Rate Maps (FIRM) that the entire Horry County beachfront is located in flood zone "VE". FEMA has defined the VE, V1-V30 flood zone designation as "areas along coasts subject to a one percent or greater annual chance of flooding in any given year with additional hazards associated with velocity wave action. Base flood elevations are shown as derived from detailed hydraulic analyses". For clarification, zone "VE" is now used on revised maps in place of zones V1 –V30.

In Horry County there are Non-Tidal and Tidal Floodplains, Coastal High Hazard Areas as well as Coastal Barrier Resource Areas. These are all found mapped on the Flood Insurance Rate

Maps (FIRM). An example of a FIRM map for southeastern Horry County is shown in 25. Illustration Tidal floodplains. Coastal High Hazard Areas and Coastal Barrier Resource Areas are defined in the Horry County Envision 2025 Comprehensive Plan all of which are a concern along the Grand Strand. They are defined as follows:

TOWN OF SUPERING STATE AND STATE AND

Illustration 25: FIRM Map for Southeastern Horry County

Source: FEMA

<u>Non-tidal floodplains</u> – Areas consisting of the floodway and the floodway fringe along rivers and streams. The floodway carries the high velocity water, while the floodway fringe is subject to shallow flooding from the low velocity water. These areas are designated as AE or A1-30 zones on the Flood Insurance Rate Map (FIRM).

<u>Tidal floodplains</u> – Areas subject to coastal tidal flooding by high tides, hurricanes, tropical storms and steady onshore winds. Tidal floodplains are also designated as AE of A-30 zones on the FIRM.

<u>Coastal high hazard areas</u> – Areas consisting of coastal shorelines subject to high velocity wind and wave action in addition to tidal flooding. They are designated as VE or V1-30 zones on the FIRM. Buildings in these zones must meet stringent standards because of forces they must withstand.

<u>Coastal Barrier Resource Areas</u> – Areas situated along environmentally sensitive coastal barriers. Federal flood insurance is not available for structures in these areas (Horry County Comprehensive Plan, 1999 & The Envision 2025 Comprehensive Plan).

## **Flood Damage Prevention**

Effects of long term stormwater runoff and tides can cause severe deterioration along the beaches of Horry County. Managing these areas and the use of erosion control measures are a key component in making the beachfront successful. The natural dune system is one erosion

method that keeps sand in place during heavy rains, floods, and storms. However, there are many types of erosion control measures that may be used along the Grand Strand. Some beach alteration measures providing erosion control may require a permit from DHEC-ORCM prior to placement of these devices.

#### **Debris Removal**

In storm events high winds or high tides result in debris littered along the beachfront. It is the responsibility of the private property owner to have all debris removed from their portion of property. The private property owner must also make the public aware of the potential hazards from any debris in such an event. If the property owner does not remove the debris within this timeframe a fine will be assessed to the property owner. In the event of a hurricane the property owner would first, contact DHEC-ORCM to obtain the required permit and provide a copy of that permit to the Horry County Flood Plain Manager to repair or redevelop a structure that was damaged at the site.

### **Height & Wind**

Building heights of 35 feet to unlimited are allowed along oceanfront parcels depending upon the specific zoning district. Of course there are many risks when building along the oceanfront, including possible wind damage. DHEC-OCRM may have some building suggestions that can protect physical property during a storm event. Structures located on the oceanfront must now be built in accordance with the 2003 Building Officials and Code Administrator's International (BOCA) building codes.

## 4.2.4 REGULATIONS ON BEACH AND SHORELINE PROTECTION

## **Beach and Dune System**

Protecting, maintaining and managing the dune system are of great concern. Dunes are highly sensitive and an important natural and ecological resource found on the oceanfront. Pedestrian, vehicle and other traffic in these critical habitat areas designated along the ocean shoreline are subject to certain restrictions put in place by South Carolina Department of Natural Resources (SCDNR). The county is required to post appropriate signage and enforce traffic restrictions. Any construction or alteration of the beach or sand dune areas lying seaward of the DHEC-OCRM forty-year setback line requires prior approval.

Illustration 26: Garden City Beach Dune Encroachment





**Source: Horry County Planning & Zoning Department** 

Beginning in 2008, the Horry County Stormwater Department in conjunction with Beach Services and Patrol began installation of an extensive system of dune fencing throughout the beachfront of Horry County. This dune fencing is an attempt to rebuild and regain the dune systems in areas of the County where it has been lost. Not only does this fencing discourage beach goers from walking on or through areas of the dunes where they are prohibited, it also, overtime, can help increase the height and width of the dunes by trapping windblown sand. An extensive inventory of the location of dune fencing can be found in Appendix E.

## 4.2.5 OTHER REGULATIONS ON BEACH MANAGEMENT

## Surfing, Swimming, and Wading

Safe swimming conditions are an important concern; water quality is tested weekly from May 15 through October 15 and is performed by SCDHEC. Maintaining and improving water quality in the coastal zone is a continued need and goal listed in the Envision 2025 Comprehensive Plan for Horry County. Decreasing water pollution is one strategy that will be used to help maintain healthy and safe swimming conditions. Many aspects of surfing, swimming, and wading were addressed and updated in Chapter 5 of the Horry County Code of Ordinances. The distance at which swimmers may swim is set as "a swimmer shall not be in the water farther than the distance of 50 yards from where the ocean meets the shore to the point of where they are swimming." The depth at which a swimmer may swim is defined, as "a swimmer shall not exceed a depth greater than chest height. Any person shall also maintain a distance of 150

yards from any pier." In the case where a swimmer is found to exceed these guidelines they will be guilty of a misdemeanor. Voluntarily jumping or diving from any bridge or pier is prohibited. It is also unlawful to push, shove, or cause another person to fall, dive or jump from any portion of a bridge or pier. In the event of adverse weather conditions the lifeguard may exercise his/her discretion to decrease and of these distances. No person shall be allowed to Jet Ski, or ride on any object being towed by a motorized watercraft unless that person is wearing a United States Coast Guard approved personal flotation devise as described further in Chapter 5.

#### **Boats and other Motorcraft**

Motorboats may not be operated, except for jet-skis or similar vessels, in the Atlantic Ocean within 400-yards of shore or anywhere in any manner as to create a hazard to the public. Jet-skis (including wave riders and similar vehicles) may not be operated in the ocean within 100-yards of shore from May 1st up to and including Labor Day, except that jet-skis can be launched from and returned to the beach on a course approximately perpendicular to the beach. When launching or returning, the jet-ski must be operated as slowly as surf conditions permit and must avoid all swimmers or anyone in the water.

### **Bicycles**

Although many types of recreation are encouraged along the beach, some activities are restricted or prohibited during certain times to ensure the safety of others. Bicycling is one such activity. The use of bicycles is prohibited between the hours of 10:00 a.m. to 5:00 p.m. from May 1<sup>st</sup> through Labor Day.

#### **Animals on the Beach**

#### **Horses**

Horseback riding is permitted on Horry County beaches from November 1<sup>st</sup> through February 28<sup>th</sup>. Horseback riders may only access the beach through designated beach access sites. All animals, riders, and other pedestrians are prohibited from walking on the dune system or causing damage to access points.

#### **Other Animals**

For safety purposes all animals on the beach must be on a hand-held leash not to exceed seven (7) feet in length and under the control of the person having custody of the animal. Animal owners are responsible for cleanup of any refuse left by any animal in their care. Small animals such as dogs are not allowed on the beach between the hours of 10:00 am to 5:00 pm,

from May 1<sup>st</sup> to Labor Day. Other small animals such as a reptile are not allowed on the beach or at beach access points at any time.

## **Sea Turtles and Outdoor Lighting**

Where access to the beach by pedestrian, vehicle or other traffic is allowed, restrictions have been set forth by the South Carolina Department of Natural Resources (SCDNR) to protect critical habitat areas. The county has placed appropriate signs and enforces traffic restrictions in those habitat areas. preservation for Sea Turtles has been actively pursued by the S.C. Heritage Trust Program, the U.S. Fish and Wildlife Services, Waccamaw National Wildlife Refuge, and the South Carolina United Turtle Enthusiasts (SCUTE). Currently the County does not have lighting regulations prohibiting activities that may confuse newly hatched sea turtles, however, programs such as Lights Out promoted through South Carolina United Turtle Enthusiasts (SCUTE) who also work in cooperation with SCDNR have been successful in educating the public to monitor, promote the protection of sea turtles, and when needed relocating turtle nesting areas along the Grand Strand. Horry County is

Illustration 27: Young Loggerhead Turtle



Source: Florida Fish and Wildlife Conservation Commission

compliant with State regulations to protect wildlife along the shores of our beaches.

#### Fire on the Beach and Fireworks

Fires are prohibited on the beach; it is unlawful to build, light, or maintain a fire on any portion of the Horry County beachfront during any time of the year or any time during the day; this includes all types of cooking grills and bonfires. Fireworks are strictly prohibited on all County beach locations that have been designated a fireworks free zone by Horry County Council

The beach regulations have been put in place for the safety and welfare of the general public and may be updated from time to time. Maintaining a beachfront where families, nature and wildlife can co-exist is challenging. Adherence to the beach regulations and consideration of setback lines with new and existing development, or reconstruction in the event of a disaster, will help to promote safety and cohesive development along the oceanfront.

### 5. EROSION CONTROL MANAGEMENT

## **5.1 SHORELINE CHANGE ANALYSIS**

Section 48-39-280 of the Beachfront Management Act, as amended, requires DHEC-OCRM to establish and periodically review (once every eight to ten years) the position of the two lines of beachfront jurisdiction, the baseline and the setback line, as well as the average annual erosion rate for all oceanfront land that is developed or potentially could be developed. The purpose of these jurisdictional lines is to implement Section 48-39-280(A) of the statute, which reads as follows:

"A forty-year policy of retreat from the shoreline is established. The department must implement this policy and must utilize the best available scientific and historical data in the implementation. The department must establish a baseline which parallels the shoreline for each standard erosion zone and each inlet erosion zone."

The baseline is the more seaward line of jurisdiction and is typically located at the crest of the primary sand dune. The setback line is the landward line of jurisdiction, and is established landward of the baseline at a distance equal to 40 times the average annual erosion rate, as calculated from the best historical and scientific data, or at a minimum distance of 20 feet landward of the baseline for stable or accretional beaches.

To establish the baseline position, the shoreline must first be classified as an inlet zone or a standard zone. Areas that are close to inlets and have non-parallel offshore bathymetric contours and non-parallel historical shoreline positions are classified as inlet zones, while all other areas are classified as standard zones. Inlet zones are further classified as stabilized if jetties, groins, or seawalls are present, or as unstabilized. In unstabilized inlet zones, the baseline is located at the most landward shoreline position at any time during the past 40 years, unless the best available data indicates the shoreline is unlikely to return to its former position. This baseline position is established by reviewing historical aerial photographs and selecting the most landward shoreline position.

In stabilized inlet zones and standard zones, the baseline is located at the crest of the primary oceanfront sand dune using beach survey data or dune field topographic data such as LiDAR (Light Detection and Ranging). If the shoreline is armored with a seawall or bulkhead and no sand dune exists, then a theoretical dune crest position is calculated from beach survey data.

All of the unincorporated beaches of Horry County are classified as standard zones except for Waites Island. The southern end of Waites Island adjacent to Hog Inlet (south of OCRM monument 5905) is an unstabilized inlet zone. The northern end of the island adjacent to Little River Inlet (north of OCRM monument 5930) is a stabilized inlet zone. The middle part of the island (between OCRM monuments 5905 and 5930) is classified as a standard zone.

## **5.1.1 BEACH PROFILES**

Representative beach profiles measured from fixed starting points provide the best means of quantifying short-term beach changes. These data allow changes in beach width (in feet) and beach volume (expressed in cubic yards per foot of shore length) to be assessed.

Thirty-four permanent beach profile monuments have been installed by DHEC-OCRM along Horry County's unincorporated beaches. These monuments have been surveyed routinely between 1987 and the present and provide the best basis for monitoring short-term beach changes.

The following beach profile figures and tables of sand volume data are separated based on beach section: Garden City, Campgrounds/Long Bay Estates, Lake Arrowhead, and Waites Island.

#### Garden City Beach Monuments:

4999, 5000, 5005, 5010, 5015, 5020, 5025, 5030, 5035

#### Campgrounds/Long Bay Estates Beach Monuments:

5200, 5210, 5220, 5230, 5240

#### **Lake Arrowhead Beach Monuments:**

5510, 5513, 5515, 5518, 5520, 5530, 5535, 5540, 5550, 5560, 5570, 5580

#### Waites Island Beach Monuments:

5900, 5905, 5915, 5930, 5945, 5960, 5975, 5995

The "0" position on the x-axis of the profile figures marks the location of the beach profile monuments whereas the vertical red line marks the location of the DHEC-OCRM baseline. The figures and tables show the volumes of sand that were measured above the -5 ft contour (NAVD88) and seaward of the DHEC-OCRM baseline for the years 1989, 1995, 2000, 2007, 2008, and 2009.

It is important to note that the beach profile volume changes presented in this section are based on data from 1989 to 2009 whereas the shoreline change rates in Section 5.1.2 are based on historical shoreline positions from 1872 to 2006. The beach profiles show recent, annual changes whereas the long-term shoreline change rates show the annual erosion or accretion that has occurred since 1872.

Profile Data for Benchmark 4999 15 10 Day 253 2007 Feet (NAVD88) 2000 Day 92 1995 Day 315 5 1989 Day 97 -5 -10 200 400 550 Distance Down Line (ft)

Illustration 28: Profile data for monument 4999 (Garden City)

Table 10: Beach Profiles at OCRM Monument 4999: Garden City, Horry County

Survey Date	Profile Volume (yd³/ft)	Volume Change from Previous Profile (yd³/ft)
June 2009	78.5	+ 1.8
September 2008	76.6	+ 6.6
September 2007	70.1	+ 1.8
April 2000	68.3	+ 16.0
November 1995	52.3	- 10.8
April 1989	63.1	

Note: All profile volumes calculated seaward of the OCRM baseline, above the -5 ft contour.

Source: SCDHEC - OCRM

#### Monument 4999:

At monument 4999, the average beach profile volume is 68 yd³/ft, but the volume at this station has varied from 52 yd³/ft to 79 yd³/ft. From April 1989 to June 2009, this station gained about 15 yd³/ft of sand. The most recent measurements, between September 2008 and June 2009, indicate that this profile gained about 1.8 yd³/ft of sand during this time.

Illustration 29: Profile data for monument 5015 (Garden City)

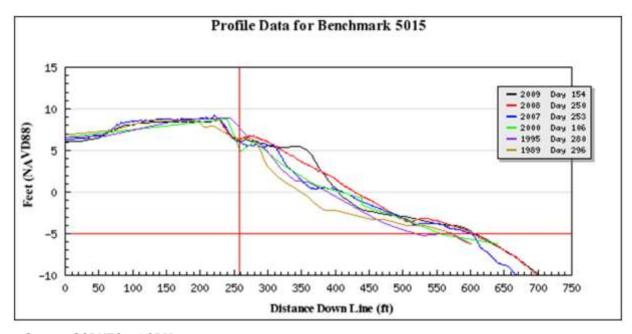


Table 11: Beach Profiles at OCRM Monument 5015: Garden City, Horry County

Survey Date	Profile Volume (yd³/ft)	Volume Change from Previous Profile (yd³/ft)
June 2009	67.5	- 2.5
September 2008	70.0	+ 10.3
September 2007	59.7	+ 3.0
April 2000	56.6	+ 6.3
October 1995	50.4	+ 6.6
October 1989	43.8	

Note: All profile volumes calculated seaward of the OCRM baseline, above the -5 ft contour.

Source: SCDHEC - OCRM

#### Monument 5015:

At monument 5015, the average beach profile volume is 58 yd³/ft, but the volume at this station has varied from 43 yd³/ft to 70 yd³/ft. From October 1989 to June 2009, this station gained about 24 yd³/ft of sand. The most recent measurements, between September 2008 and June 2009, indicate that this profile lost about 2.5 yd³/ft of sand during this time.

Illustration 30: Profile data for monument 5035 (Garden City)

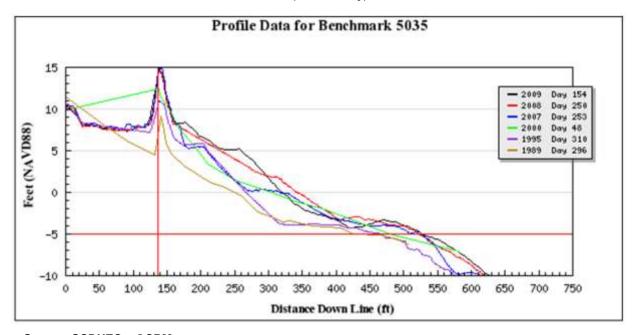


Table 12: Beach Profiles at OCRM Monument 5035: Garden City, Horry County

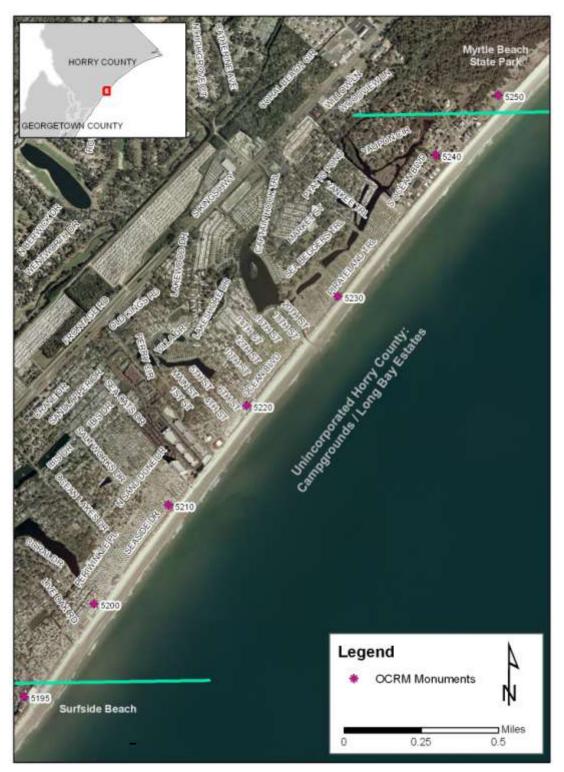
Survey Date	Profile Volume (yd³/ft)	Volume Change from Previous Profile (yd³/ft)
June 2009	87.7	- 1.6
September 2008	89.3	+ 13.9
September 2007	75.4	+ 2.1
February 2000	73.3	+ 14.8
November 1995	58.5	+ 14.1
October 1989	44.4	

Note: All profile volumes calculated seaward of the OCRM baseline, above the -5 ft contour.

Source: SCDHEC - OCRM

#### Monument 5035:

At monument 5035, the average beach profile volume is 71yd³/ft, but the volume at this station has varied from 44 yd³/ft to 89 yd³/ft. From October 1989 to June 2009, this station gained about 43 yd³/ft of sand. The most recent measurements, between September 2008 and June 2009, indicate that this profile lost about 1.6 yd³/ft of sand during this time.



Sources: SCDHEC - OCRM; Horry County Planning & Zoning

Profile Data for Benchmark 5200 15 10 Day 254 Feet (NAVD88) Day 268 Day 325 1995 5 1989 Day 90 -5 -10 100 400 550 600 650 700 750 200 Distance Down Line (ft)

Illustration 32: Profile data for monument 5200 (Campgrounds/Long Bay Estates)

Source: SCDHEC - OCRM

Table 13: Beach Profiles at OCRM Monument 5200: Campgrounds/ Long Bay Estates, Horry County

Survey Date	Profile Volume (yd³/ft)	Volume Change from Previous Profile (yd³/ft)
June 2009	84.0	+ 3.2
September 2008	80.8	+ 4.6
September 2007	76.1	+ 20.7
September 1998	55.5	+ 12.4
November 1995	43.0	- 19.0
March 1989	62.0	

Notes: All profile volumes calculated seaward of the OCRM baseline, above the -5 ft contour.

Source: SCDHEC - OCRM

#### Monument 5200:

At monument 5200, the average beach profile volume is 67 yd<sup>3</sup>/ft, but the volume at this station has varied from 43 yd<sup>3</sup>/ft to 84 yd<sup>3</sup>/ft. From March 1989 to June 2009, this station gained about

22 yd³/ft of sand. The most recent measurements, between September 2008 and June 2009, indicate that this profile gained about 3.2 yd³/ft of sand during this time.

Profile Data for Benchmark 5220 15 Day 250 10 Day 57 Feet (NAVD88) 1999 Day 309 1995 Day 325 5 Day 296 0 -5 -10 200 400 550 600 700 300 350 650 Distance Down Line (ft)

Illustration 33: Profile data for monument 5220 (Campgrounds/Long Bay Estates)

Source: SCDHEC - OCRM

Table 14: Beach Profiles at OCRM Monument 5220: Campgrounds/ Long Bay Estates, Horry County

Survey Date	Profile Volume (yd³/ft)	Volume Change from Previous Profile (yd³/ft)
June 2009	77.1	+ 3.2
September 2008	73.9	+ 7.8
February 2007	66.1	- 3.2
November 1999	69.3	+ 31.2
November 1995	38.1	- 3.4
October 1989	41.5	

Note: All profile volumes calculated seaward of the OCRM baseline, above the -5 ft contour.

#### Monument 5220:

At monument 5220, the average beach profile volume is 61 yd³/ft, but the volume at this station has varied from 38 yd³/ft to 77 yd³/ft. From October 1989 to June 2009, this station gained about 36 yd³/ft of sand. The most recent measurements, between September 2008 and June 2009, indicate that this profile gained about 3.2 yd³/ft of sand during this time.

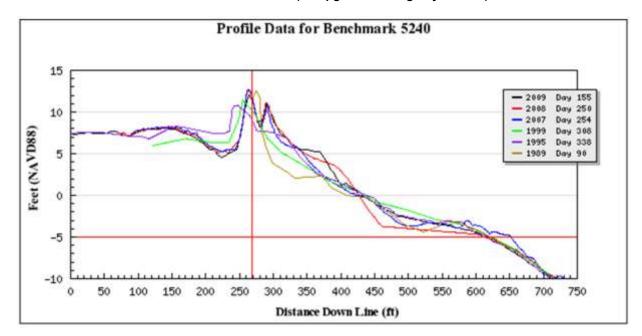


Illustration 34: Profile data for monument 5240 (Campgrounds/Long Bay Estates)

Source: SCDHEC - OCRM

Table 15: Beach Profiles at OCRM Monument 5240: Campgrounds/ Long Bay Estates, Horry County

Survey Date	Profile Volume (yd³/ft)	Volume Change from Previous Profile (yd³/ft)
June 2009	76.9	+ 7.0
September 2008	69.9	- 1.4
September 2007	71.3	+ 0.6
November 1999	70.7	- 0.9
December 1995	71.6	+ 10.9
March 1989	60.7	

Note: All profile volumes calculated seaward of the OCRM baseline, above the -5 ft contour.

#### Monument 5240:

At monument 5240, the average beach profile volume is 70 yd³/ft, and the volume at this station has remained relatively consistent between 61 yd³/ft and 77 yd³/ft. From March 1989 to June 2009, this station gained about 16 yd³/ft of sand. The most recent measurements, between September 2008 and June 2009, indicate that this profile gained about 7 yd³/ft of sand during this time.

HORRY COUNTY

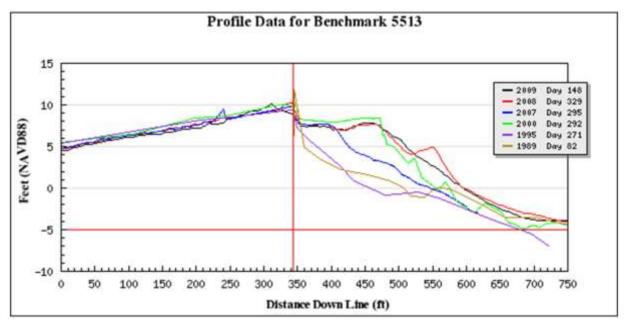
SECRETORY COUNTY

SS20

Illustration 35: Map of Lake Arrowhead Beach Monuments

Sources: SCDHEC - OCRM; Horry County Planning & Zoning

Illustration 36: Profile data for monument 5513 (Lake Arrowhead)



Source: SCDHEC - OCRM

Table 16: Beach Profiles at OCRM Monument 5513: Lake Arrowhead, Horry County

Survey Date	Profile Volume (yd³/ft)	Volume Change from Previous Profile (yd³/ft)
May 2009	113.0	- 4.4
November 2008	117.4	+ 28.9
October 2007	88.5	- 15.1
October 1999	103.6	+ 42.8
September 1995	60.8	- 11.8
March 1989	72.7	

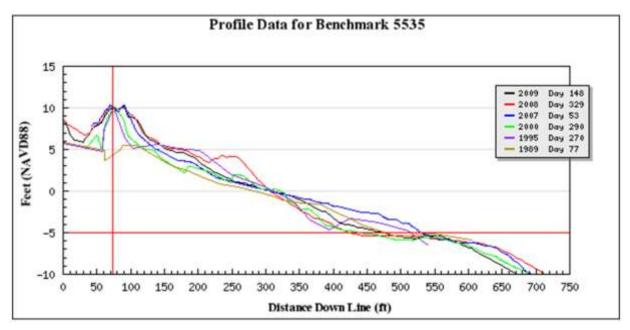
Note: All profile volumes calculated seaward of the OCRM baseline, above the -5 ft contour.

Source: SCDHEC - OCRM

#### Monument 5513:

At monument 5513, the average beach profile volume is 93 yd³/ft, but the volume at this station has varied from 61 yd³/ft to 117 yd³/ft. From March 1989 to May 2009, this station gained about 40 yd³/ft of sand. The most recent measurements, between November 2008 and May 2009, indicate that this profile lost about 4.4 yd³/ft of sand during this time.

Illustration 37: Profile data for monument 5535 (Lake Arrowhead)



Source: SCDHEC - OCRM

Table 17: Beach Profiles at OCRM Monument 5535: Lake Arrowhead, Horry County

Survey Date	Profile Volume (yd³/ft)	Volume Change from Previous Profile (yd³/ft)
May 2009	94.5	- 2.2
November 2008	96.7	- 2.5
February 2007	99.2	+ 16.2
October 2000	83.0	- 9.5
September 1995	92.5	+ 12.3
March 1989	80.2	

Note: All profile volumes calculated seaward of the OCRM baseline, above the -5 ft contour.

Source: SCDHEC - OCRM

#### Monument 5535:

At monument 5535, the average beach profile volume is 91 yd³/ft, but the volume at this station has varied from 80 yd³/ft to 99 yd³/ft. From March 1989 to May 2009, this station gained about 14 yd³/ft of sand. The most recent measurements, between November 2008 and May 2009, indicate that this profile lost about 2.2 yd³/ft of sand during this time.

Profile Data for Benchmark 5570 15 2008 10 2007 Day 53 Feet (NAVD88) Day 287 1995 Day 270 Day 77 1989 -5 -10 650 700

Distance Down Line (ft)

Illustration 38: Profile data for monument 5570 (Lake Arrowhead)

Source: SCDHEC - OCRM

Table 18: Beach Profiles at OCRM Monument 5570: Lake Arrowhead, Horry County

Survey Date	Profile Volume (yd³/ft)	Volume Change from Previous Profile (yd³/ft)
May 2009	88.5	+ 0.4
November 2008	88.1	- 7.5
February 2007	95.6	+ 14.8
October 2000	80.7	- 3.9
September 1995	84.6	- 0.5
March 1989	85.2	

Note: All profile volumes calculated seaward of the OCRM baseline, above the -5 ft contour.

Source: SCDHEC - OCRM

#### Monument 5570:

At monument 5570, the average beach profile volume is 87 yd $^3$ /ft, but the volume at this station has varied from 81 yd $^3$ /ft to 96 yd $^3$ /ft. From March 1989 to May 2009, this station gained about 3 yd $^3$ /ft of sand. The most recent measurements, between November 2008 and May 2009, indicate that this profile gained about 0.4 yd $^3$ /ft of sand during this time.

Illustration 39: Map of Waites Island Beach Monuments



Sources: SCDHEC - OCRM; Horry County Planning & Zoning

Illustration 40: Profile data for monument 5905 (Waites Island)

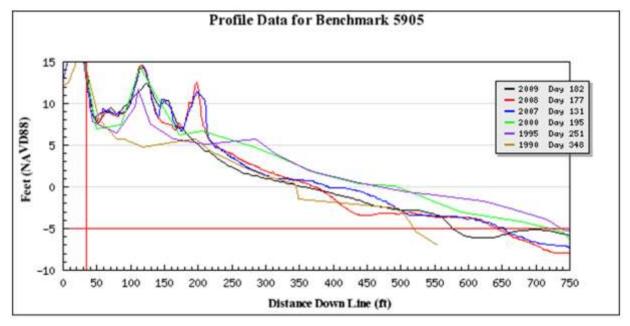


Table 19: Beach Profiles at OCRM Monument 5905: Waites Island, Horry County

Survey Date	Profile Volume (yd³/ft)	Volume Change from Previous Profile (yd³/ft)
June 2009	150.8	- 7.2
June 2008	158.0	- 9.7
May 2007	167.7	- 21.9
July 2000	189.6	+ 1.6
September 1995	188.0	+ 61.7
December 1990	126.3	

Note: All profile volumes calculated seaward of the OCRM baseline, above the -5 ft contour.

Source: SCDHEC - OCRM

#### Monument 5905:

At monument 5905, the average beach profile volume is 163 yd³/ft, but the volume at this station has varied from 126 yd³/ft to 190 yd³/ft. From December 1990 to June 2009, this station gained about 25 yd³/ft of sand. The most recent measurements, between June 2008 and June 2009, indicate that this profile lost about 7.2 yd³/ft of sand during this time.

Illustration 41: Profile data for monument 5930 (Waites Island)

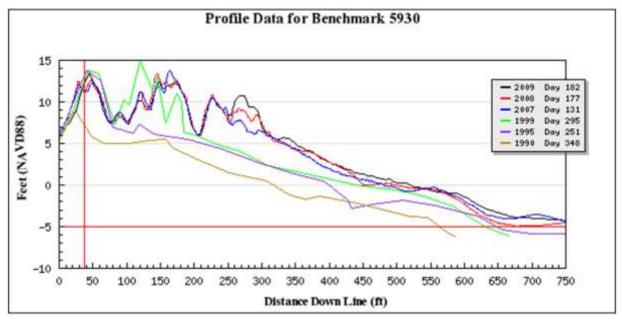


Table 20: Beach Profiles at OCRM Monument 5930: Waites Island, Horry County

Survey Date	Profile Volume (yd³/ft)	Volume Change from Previous Profile (yd³/ft)
June 2009	229.2	+ 11.2
June 2008	217.9	+ 0.5
May 2007	217.4	+ 32.6
October 1999	184.8	+ 29.4
September 1995	155.4	+ 43.2
December 1990	112.3	

Notes: All profile volumes calculated seaward of the OCRM baseline, above the -5 ft contour.

Source: SCDHEC - OCRM

#### Monument 5930:

At monument 5930, the average beach profile volume is 186 yd³/ft, but the volume at this station has varied from 112 yd³/ft to 229 yd³/ft. From December 1990 to June 2009, this station gained about 117 yd³/ft of sand. The most recent measurements, between June 2008 and June 2009, indicate that this profile gained about 11.2 yd³/ft of sand during this time.

Illustration 42: Profile data for monument 5995 (Waites Island)

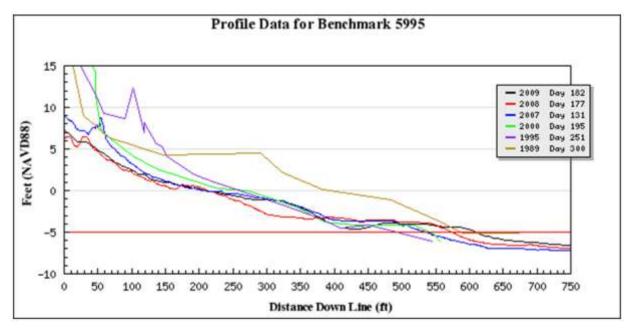


Table 21: Beach Profiles at OCRM Monument 5930: Waites Island, Horry County

Survey Date	Profile Volume (yd³/ft)	Volume Change from Previous Profile (yd³/ft)
June 2009	91.1	+ 5.0
June 2008	86.1	- 13.1
May 2007	99.1	- 21.1
July 2000	120.2	- 12.6
September 1995	132.8	- 33.5
October 1989	166.4	

Note: All profile volumes calculated seaward of the OCRM baseline, above the -5 ft contour.

Source: SCDHEC - OCRM

#### Monument 5995:

At monument 5995, the average beach profile volume is 116 yd³/ft, but the volume at this station has varied from 86 yd³/ft to 166 yd³/ft. From October 1989 to June 2009, this station lost about 75 yd³/ft of sand. The most recent measurements, between June 2008 and June 2009, indicate that this profile gained about 5 yd³/ft of sand during this time.

### 5.1.2 LONG-TERM EROSION RATES AND SHORELINE CHANGE

The setback line position depends upon the baseline position and the local long-term annual erosion rate. The erosion rates at all DHEC-OCRM beach monitoring stations statewide have been recalculated using the best available historical shoreline data. In most cases, the best available data included historical shoreline positions from as early as the 1850s. These older shoreline positions have also been used by the federal government to analyze shoreline change, and are considered to be accurate. The long-term erosion or accretion rate at each station was calculated by using a least-squares best fit regression through all data points. The resulting erosion rates are the official long-term rates used by DHEC-OCRM to update the beachfront setback line position. A variety of factors can cause short-term rates of change to be significantly different from the long-term erosion rates, but the setback line is based on a long-term trend. The adopted erosion rate at each station, expressed in feet per year, is then multiplied by 40 to obtain a 40-year setback distance. The setback line is drawn this distance landward of the baseline. For stable or accretional beaches, the setback line is located a minimum of 20 feet landward of the baseline.

All original baselines and setback lines became final on July 3, 1991. The jurisdictional lines for the unincorporated beaches of Horry County were next revised in April 2000, and most recently in February 2010.

In general, most of the Horry County beaches are slightly erosional over the long-term. The erosion rates in the Garden City and Campgrounds/Long Bay Estates sections are less than 1 ft/yr. These sections of beach have been renourished twice in the past: once in 1996-1998 and again in 2008. The erosion rates in the Lake Arrowhead section are slightly greater at a rate of 1 to 2 ft/yr. Over the long-term, Waites Island is practically stable but it did experience shoreline migration at its northern end prior to construction of the Little River Inlet jetty. The portion of Lake Arrowhead north of Apach pier and Waites Island have not been renourished.

The official DHEC-OCRM long-term erosion rates for the unincorporated beaches of Horry County are listed on the below:

Table 22: Long-Term Erosion Rates in Horry County

	Monument	Beach Zone Classification	Long-Term Erosion Rate (ft/yr)
GARDEN CITY	4999	Standard	-0.82
	5000	Standard	-0.43
	5005	Standard	-0.46
	5010	Standard	-0.26
	5015	Standard	-0.52
	5020	Standard	-0.46
	5025	Standard	-0.43
	5030	Standard	-0.72
	5035	Standard	-0.66
CAMPGROUNDS / LONG BAY			
ESTATES	5200	Standard	-0.20
	5210	Standard	-0.46
	5220	Standard	-0.26
	5230	Standard	-0.10
	5240	Standard	-0.16
LAKE ARROWHEAD	5510	Standard	-2.20
	5513	Standard	-1.74
	5515	Standard	-1.10
	5518	Standard	-0.46
	5520	Standard	-0.95
	5530	Standard	-1.54
	5535	Standard	-1.21
	5540	Standard	-0.85
	5550	Standard	-0.62
	5560	Standard	-0.62
	5570	Standard	-0.72
	5580	Standard	-0.39
WAITES ISLAND	5900	Unstabilized Inlet Unstabilized	+0.30
	5905	Inlet/Standard	+0.07
	5915	Standard	-0.10
	5930	Standard/Stabilized Inlet	+0.26
	5945	Stabilized Inlet	+0.10
	5960	Stabilized Inlet	+1.57
	5975	Stabilized Inlet	+18.04
	5995	Stabilized Inlet	+1.15



Illustration 43: Historical Shorelines of Garden Citv. Horry County

Illustration 44: Long-Term Erosion Rates for Garden City, Horry County



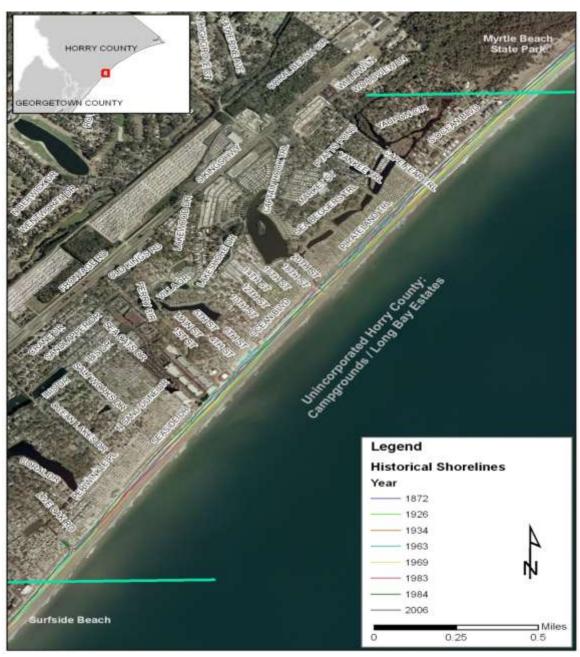


Illustration 46: Long-Term Erosion Rates for Campgrounds/ Long Bay Estates, Horry County

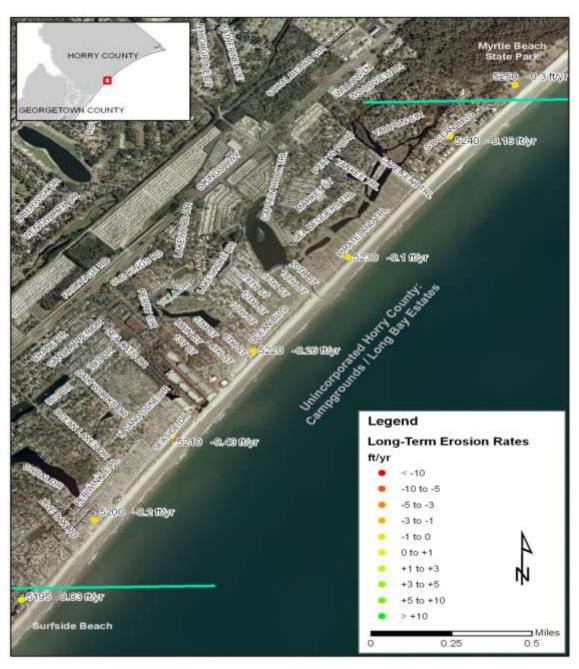


Illustration 47: Historical Shorelines of Lake Arrowhead, Horry County



Illustration 48: Long-Term Erosion Rates for Lake Arrowhead, Horry County



Illustration 49: Historical Shorelines of Waites Island, Horry County

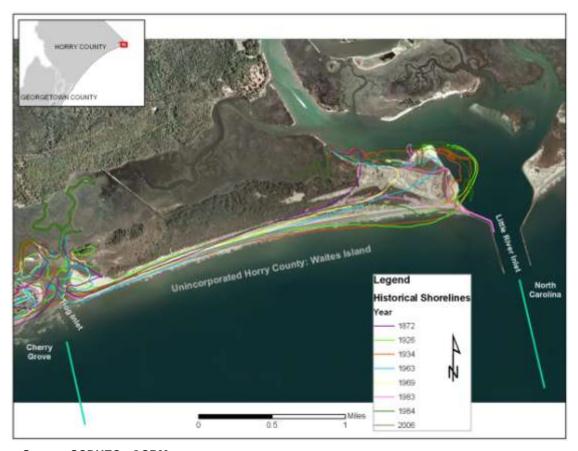


Illustration 50: Long-Term Erosion Rates for Waites Island, Horry County

Illustration 51 below shows the shoreline of Garden City at the pier in 1959. Although it is impossible to know the tidal schedules at the time this aerial photograph was taken, it is likely that this old aerial photograph differs little from an aerial taken in the same location in 2005 (Illustration 52) or in 2008 (Illustration 53).

Illustration 51: Shoreline Change - January 12<sup>th</sup>, 1959 Aerial Photograph – Garden City Pier



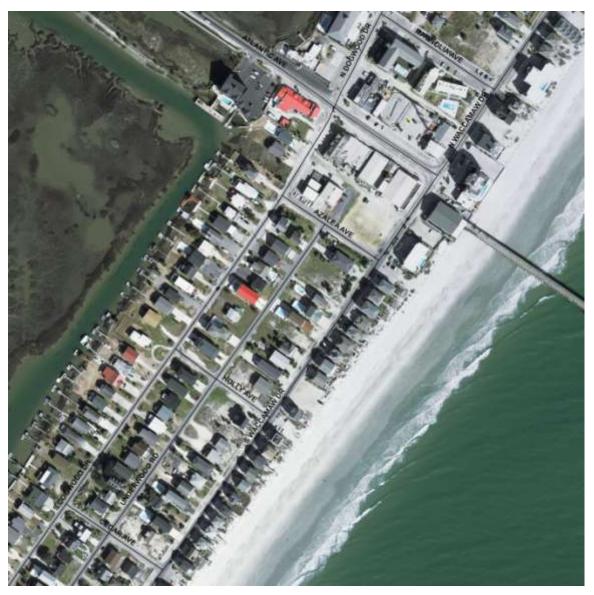
**Source: Horry County Museum** 

Illustration 52: Shoreline Change – 2005 Aerial Photograph – Garden City Pier



**Source: Horry County Planning & Zoning Department** 

Illustration 53: Shoreline Change - 2010 Aerial Photograph - Garden City Pier



**Source: Horry County Planning & Zoning Department** 

Although the number of buildings and the density of development have greatly changed, the actual shoreline looks largely the same as it did fifty (50) years ago.

### **5.2 BEACH ALTERATION INVENTORY**

The oceanfront, and specifically the width and shape of the beach are vitally important to Horry County. The wind, rain, rising sea levels, stormwater runoff, tides and occasionally development all act to erode the very beaches that are held so valuable.

Occasionally, the erosion of one section of beach results in the accretion, or enlarging, of another section, however a stable beachfront is the most ideal beachfront.

Throughout the years, numerous techniques and practices have been employed to create this consistency. Many of these techniques are or have been employed on the Horry County coastline.

<u>Sea Walls</u> – Accumulations or walls of wood, concrete or rock that are used to break the effect of the ocean by diverting the water away from a structure or elevated land site. Sea walls are no longer permitted on the Horry County coast as they may lead to increased erosion of the beachfront.

Revetments – Similar to a sea wall, revetments are typically wooden slat frames that act to hold higher elevations of the beach and

Illustration 54: Sea Walls installed to protect oceanfront development



**Source: Horry County Planning & Zoning Department** 

are then filled with rock. The purpose of the revetment is to dissipate the energy of the waves to stabilize high ground. Currently, revetments are installed at the north end of Cherry Grove Beach to preserve Hog Inlet.

<u>Groins</u> – Groins are perpendicular barricades extended into the ocean which act to prevent eroding sand from drifting away with the tides. The Groins serve to break the energy of the waves and trap the sand material. However, they also prevent sand material from moving past them which may cause a loss of sand material at adjacent or nearby beaches. Currently groins are not used in Horry County.

The location and condition of the Sea Walls and Revetments along the Horry County Coastline can be found in Exhibit F.

### **5.2.1 BEACH RENOURISHMENT**

The most used and acceptable approach to shoreline stabilization is beach renourishment. Suitable sand material is dredged from the ocean, sometimes miles into the sea. Large vacuum like devices pump the material from offshore onto the beaches where awaiting heavy equipment levels and smoothes the renourished beaches.

Renourishment serves to raise the elevation of the beach and replenishes sand that has eroded over time.

A major nourishment effort was undertaken during the mid-1980s covering an 8.6-mile

stretch of beach. At the time, the project was the second largest nourishment ever performed in the U.S. using an inland source of sand. Over 853,000 cubic vards of sand were hauled 24 hours a day, seven days per week. It took 59,539 truckloads of sand and the cost totaled \$4.7 million. In 1989, Hurricane Hugo took a toll on the Grand Strand. The following spring more sand was added to the beach in an emergency renourishment effort.

Illustration 55: Beach Renourishment Efforts

Source: Coastal Carolina University

In 1996, a second major nourishment project for the North Myrtle Beach area began in September and was completed in the fall of 1998. Several offshore sandbars served as the sediment sources and sand was hydraulically pumped onshore where it was spread with bulldozers. Total project length was about 25 miles and the cost was \$54 million.

In the late summer of 2008, another renourishment project was completed along a majority of the coast of Horry County from Garden City to Cherry Grove. The project lasted just over a year and resulted in more than 3 million cubic yards of sand being dredged from the ocean floor and disbursed along the shore. This most recent renourishment project was the largest such project in South Carolina. The total cost exceeded \$29 million. The renourishment is hoped to last for ten (10) years.

Horry County's primary source of beach stabilization is renourishment. Funds are allocated each year to prepare for future renourishment needs.

### **5.2.2 EMERGENCY ORDERS AND SANDBAGS**

The term "emergency" is defined by the SC Coastal Tidelands and Wetlands Act as "any unusual incident resulting from natural or unnatural causes which endanger the health, safety, or resources of the residents of the State, including damages or erosion to any beach or shore resulting from a hurricane, storm, or other such violent disturbance."[1] DHEC-OCRM does not consider long-term, chronic erosion as an "emergency." Emergency situations before or after a storm event often prompt local governments to issue Emergency Orders, which allow property owners to construct temporary barriers against wave uprush through one or a combination of the following erosion mitigation techniques: sandbagging, sand scraping, or minor renourishment.[2] Property owners being protected by sandbags are responsible for the maintenance of the bags to insure that they remain in place and in good repair, and they are also responsible for the complete removal of the bags.[3] There have been four past Emergency Orders issued in Horry County.

## **5.2.3 Previous Hurricane or Storm Events**

The first known records of hurricanes and other major storm events along the coastline of Horry County date back to 1852 (see table 23). The last big hurricane that affected the Myrtle Beach area was "Charley" in 2004 with wind speeds of up to 65 knots (or around 75 mph).

Table 23: Tropical Storms and Hurricanes within 25 nautical miles of Myrtle Beach since 1851

Rec	YEAR			STORM NAME	WIND SPEED(KTS)	-	CATEGORY
1	1852	8	28	NOTNAMED	40	0	<u>TS</u>
2	1874	9	28	NOTNAMED	80	981	<u>H1</u>
3	1883	9	11	NOTNAMED	90	0	<u>H2</u>
4	1885	8	25	NOTNAMED	90	0	<u>H2</u>
5	1893	6	16	NOTNAMED	50	0	<u>TS</u>
6	1893	10	13	NOTNAMED	105	955	<u>H3</u>
7	1894	9	27	NOTNAMED	65	0	<u>H1</u>
8	1894	10	9	NOTNAMED	60	0	<u>TS</u>
9	1899	10	31	NOTNAMED	95	0	<u>H2</u>
10	1901	9	18	NOTNAMED	35	0	<u>TS</u>
11	1904	9	14	NOTNAMED	70	0	<u>H1</u>
12	1907	6	29	NOTNAMED	55	0	<u>TS</u>
13	1910	10	20	NOTNAMED	60	0	<u>TS</u>
14	1916	5	16	NOTNAMED	35	0	<u>TS</u>
15	1928	9	18	NOTNAMED	60	0	<u>TS</u>
16	1946	7	5	NOTNAMED	40	0	<u>TS</u>
17	1954	10	15	HAZEL	110	937	<u>H3</u>
18	1960	7	29	BRENDA	45	0	<u>TS</u>
19	1964	9	13	DORA	45	0	<u>TS</u>
20	1981	8	19	DENNIS	45	1001	<u>TS</u>
21	1985	11	22	KATE	50	990	<u>TS</u>
22	2002	10	11	KYLE	35	1011	<u>TS</u>
23	2004	8	14	CHARLEY	65	988	<u>H1</u>

**Source: NOAA Coastal Services Center** 

Illustration 56 shows the paths of historical hurricanes and major storm events.

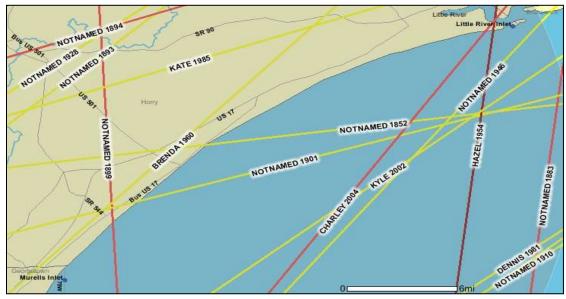


Illustration 56: Tropical Storms and Hurricanes within 25 nautical miles of Myrtle Beach, SC since 1851

Source: NOAA

### 5.3 DISCUSSION OF EROSION CONTROL ALTERNATIVES

Alternative beach erosion alternatives, other than those referenced in section 5.2, such as sea walls, revetments and groins, have only been rarely implemented along Horry County's coastline.

Little River Inlet was stabilized by the construction of jetties between 1981 and 1983. Hog Inlet, between Waites Island and Cherry Grove, has not been stabilized although the construction of rock revetments along the Cherry Grove side has limited the ability of the inlet to migrate farther west.

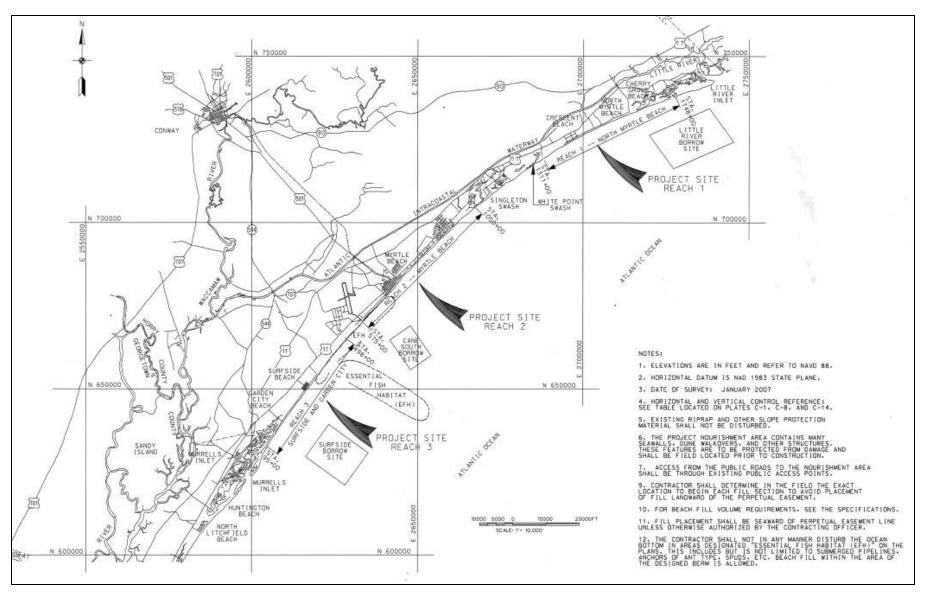
Prior erosion control efforts along the Horry County Coastline have included: the construction of bulkheads, seawalls and revetments; the construction of rip-rap structures along the banks of swashes to control the point of discharge; and, post-storm dune and beach restoration. However, many of these implementations were destroyed or destroyed in Hurricanes Hugo and Floyd and subsequent storms, and have not been replaced due in large part to restrictions imposed by the Beachfront Management Act.

The remaining alternative erosion control methods are inventoried and reflected in Appendix E.

### **5.3.1 BEACH RENOURISHMENT**

As previously mentioned in this plan, Beach Renourishment efforts are the preferred beach erosion control method in Horry County. Three such efforts have been completed with the latest in 2008. Illustration 57 details the shoreline of Horry County, three borrow sites for renourishment sand, protected and essential fish habitat and other various features.

Illustration 57: 2007-2008 Beach Renourishment Survey



Source: U.S. Army Corps of Engineering

Locating and transporting beach compatible sand for beach nourishment in the region is challenging because there is no riverine source of sediment and hard bottoms account for approximately 50% of Horry County's near shore seafloor. The 2007 – 2009 Grand Strand Nourishment Project began November 2007 and was completed in January 2009. The project was divided into three reaches, Reach 1: North Myrtle Beach, Reach 2: Myrtle Beach, and Reach 3: Garden City-Surfside. An additional nourishment project was conducted at Arcadian Shores during this time. Approximately 750,000 cubic yards of sand was placed on Grand Strand beaches in Reach 1 and Reach 3, and 1.5 million cubic yards in Reach 2.

In September of 2010, a Final Report detailing the methods and implementation of the 2007-2009 Grand Strand Nourishment Project was released. Included in this report were the following objectives:

- To document and quantify physical changes throughout the beach and nearshore regions of the Grand Strand associated with beach nourishment,
- To document and quantify physical changes at the three borrow sites associated with nourishment, and
- To document impacts to nearshore index reefs associated with beach nourishment

As a result of the most recent renourishment activities and the extensive studies that followed, the following conclusions were reached:

- 40% of beach fill was removed from above MLW 15 months after nourishment;
- The renourished beaches likely became stable throughout 2010;
- The initial data indicates minor infilling of borrow sites:
- Mainland attached beaches are accretional over past 20 years through beach nourishment;
- Effective monitoring and research is necessary to maintain resources and minimize impacts; and,
- Maintaining current shoreline will become more challenging and expensive with time.

The Final Report Cover Page is included in this Plan as Appendix H and can be found in its entirety with Appendices found at:

http://bcmw.coastal.edu/sites/default/files/docfiles/GSR Final Report.pdf.

### 6. NEEDS, GOALS AND IMPLEMENTATION STRATEGIES

Horry County depends upon its coastal areas and beaches for the majority of its economic and social well being. Although a large portion of the beach-frontage of Horry County is within the municipalities of Myrtle Beach, North Myrtle Beach, Atlantic Beach, Briarcliffe Acres and Surfside Beach, segments of unincorporated areas still exist. This plan must provide for those segments and integrate this plan with each of the aforementioned cities. Horry County hopes to attain the following goals as it moves forward:

- A dry sand beach at all stages of the tide, capable of providing recreational opportunities for residents and visitors, protecting upland development and sustaining our natural resources;
  - Coordinate with OCRM delineated base and setback lines to assure that buildings are built far enough away from the ocean to allow for dry sandy beaches at higher than average tides.
  - Coordinate with OCRM to develop a system for measuring the efficiency and longevity of renourishment activities.
  - Coordinate with private property owners to assure that new building does not encroach into the OCRM delineated base and setback lines, assuring that buildings are safely constructed and that sufficient beachfront area is available to be enjoyed by residents and visitors to Horry County.
  - Locate and prepare offshore borrow sources for Beach Renourishment purposes whose use will not adversely affect the shoreline by exposing it to increased wave energy.
- Continue to work with OCRM to enhance the 40 year retreat policy.
  - Discourage new construction within proximity of the OCRM delineated base and setback lines.
  - Encourage the gradual retreat from the OCRM delineated setback lines for those structures already encroaching upon those lines.
  - Continue renourishment efforts as needed in conjunction with the retreat policy.
  - Where practical, consider the acquisition of beachfront parcels or easements, necessary to protect the shoreline.
  - Continue to prohibit the construction of hard erosion control structures.
  - Coordinate with Horry County Stormwater to remove and/or relocate stormwater discharge onto beachfront, as shown in Appendix E.
- A reduction in the need for emergency protection of upland structures and development;
  - Coordinate with OCRM's enforcement of delineated Setback lines to assure that buildings are built at a safe distance from oceanic tides.

- Consideration should be given to relocating buildings, removal of erosion control structures, and relocation of utilities.
- Develop a funding mechanism for the purchase of beachfront lots unsuitable for development or redevelopment.
- Limit the ability to construct new, repair or replace homes, and destroyed swimming pools within the setback lines.
- Coordinate with OCRM to develop a system for measuring the success of the 40-year-retreat policy.
- Encourage property owners to site oceanfront buildings and structures as far landward as possible.
- Where structures are vulnerable to flooding or other disaster due to their beachfront encroachments into OCRM delineated setback or baseline, work with the property owners to mitigate said vulnerabilities.
- Encourage new and replacement structures from locating within OCRM setback or baseline delineations.
- Minimize unsafe stormwater discharge onto the beach and into the ocean;
  - Continue to limit the amount of impervious surfaces along the beachfront.
  - Install pervious paving surfaces at all County owned public beach accesses.
  - Continue installation of innovative stormwater approaches to reduce stormwater discharge.
  - Remove or relocate stormwater discharge pipes from beaches.
- Protect undeveloped natural areas along the coast and provide for natural habitats and unspoiled scenic areas;
  - Incorporate consideration of ecological data and preservation of the oceanfront into land-use decisions.
  - Restore all primary and secondary dune systems where possible.
  - Rebuild dune systems during renourishment activities.
  - Narrow and consolidate walkway features at public beach accesses.
  - Continue to support Myrtle Beach State Park in their Turtle Habitat Program.
  - Reduce light pollution along the beachfront.
  - Restrict discharge of pool back water and other "dirty" water from discharging directly onto the beach or beach accesses.
  - Work with property owners and other governmental agencies to protect, enhance and restore the dune system.
  - All dunes seaward of the OCRM 40-year setback lines must not be altered unless there is no feasible alternative. Permanent alterations must be carried out in such a way that the disturbance to the dune system

- is minimized. In the case of temporary alterations, the dune system must be restored to its pre-existing condition.
- Consider the requirement of dune mitigation for permitting within the OCRM 40-year setback or baseline. Such mitigation could include the creation of new dune habitat, enhancement of existing dune habitat, installation of protective, fencing or walkover structures, of dedication of land or easements for public access to the beach.
- Assist the SCDNR and other agencies with the identification, mapping and delisting of critical habitat areas.
- Consider the adopting of ordinances to prohibit the planting of Beach
   Vitex along the Horry County coastline.
- Provide a safe and enjoyable beach for local residents and tourists.
  - Promote and protect accessibility, visual character, and natural resources along the beachfront areas in Horry County.
  - Promote public transportation along the beachfront.
  - Develop golf car(t) parking areas at public beach accesses.
  - Install bicycle racks at public beach accesses.
  - Redevelop beach accesses with the sense that our Public Beach Accesses are miniature parks and should welcome residents and tourists.
  - Remove outdated, unsightly and unsafe wooden walkways currently installed at public beach accesses.
  - Improve traffic flow in public parking at beach accesses.
  - Consider the installation of parking meters to fund improvements at beach accesses.
  - Coordinate with Beach Patrol to reduce the number of emergency vehicle access points to reflect the number actually needed.
  - Improve public beach access for persons with disabilities.
  - Reduce sign clutter at beach accesses.
- Restore a habitable beachfront quickly and effectively following any disaster;
  - Develop and continue to refine plans for cleanup, maintenance of essential services, and protection of public health, emergency building procedures, and the establishment of priorities.
  - Develop an ordinance by which the County may remove debris from public property in the event of an emergency.
  - Develop an ordinance by which the County may mitigate hazardous conditions from private property post disaster.
  - In event of a catastrophic event the Horry County Recovery Plan should be consulted in the reconstruction of the oceanfront parcels.
  - Develop policies to mitigate future losses during reconstruction.

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	Non-Legal Site	Amount Parking Spaces	# Handicap Parking Spaces	for Handicap Access			Walkover (Dunes)	Decks	Sandy	Good	Fair		Restrooms (R) / Showers (S)	Trash Rec	Drainage Pipes / Swash	
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Buildin	ngs and	Erosion	Control	Visible	Signs of	Beach Du	ne System	Signage a	t Location	Type of	Land Use		No	tes		
	SEA WALL			N	N			KING, HC H ORD		& MULTI MILY	WALKWA	ANDICAP A Y PROVIDE OF THE WA	D HAS ST	EP AT THE		
Beach Acce											Site No./ Lo		N WACCAM	IAW & SEAE	BREEZE	
GPS	33.35.06.69		78.59.26.46	8							PICUTRES					
	Non-Legal Site	Amount Parking Spaces	# Handicap Parking Spaces	for Handicap	Location of Nearby Parking (in feet)		Surface of B Walkover (Dunes)			Parkii Good	ng Surface (		Restrooms (R) / Showers (S)		Drainage Pipes / Swash	
		7	1	N	N	Y		Y				Х	N	N	N	
Buildin	ngs and	Erosion	Control	Visible	Signs of	Beach Du	ne System	Signage a	t Location	Type of	Land Use		No	tes	•	
GARDEN	CITY INN		N		N	1	N	NO PARI BEACI	KING, HC H ORD.		FAMILY, CIAL, CFA	IMPR	OVED ACC	ESS AMEN	NITIES	

Beach Acce	ace Survey										Site No./ Lo	ncation	N WACCAN	1AW & RAIN	ROW/	
	33.35.04.15		78.59.29.03								PICTURES		IN WACCAIN	IAW & IXAIIN	BOW	
01 0	33.33.04.13		70.53.23.05				Surface of B	each Acces	<u> </u>	Parki	ng Surface (					
Legal Site	Non-Legal Site	Parking	Handicap Parking		Location of Nearby Parking (in feet)		Walkover	Decks			Fair		Restrooms (R) / Showers (S)	Trash Rec	Drainage Pipes / Swash	
D !!!!		5		N	N	Υ		Y	Y	-		х	N		N	
Buildin	igs and	Erosion	Control	Visible	Signs of	Beach Du	ne System	Signage a	t Location	Type of	Land Use		No	tes		
		Y, RO	OCKS	ı	N		Y	O PARKIN	G, PET WA	MULTI-	FAMILY	ROM PAVE	MENT TO	BEACH. S	OME MINIM	
Beach Acce	ess Survey										Site No./ Lo	ocation	N WACCAN	IAW & SUN	SET	
GPS	33.35.00.77		78.59.30.52								PICTURES	3788-3794				
							Surface of B	each Acces	s	Parki	ng Surface (	Quality				
	Non-Legal Site	Parking	Handicap Parking	for Handicap	Location of Nearby Parking (in feet)	Walkway	Walkover (Dunes)	Decks	Sandy	Good	Fair		Restrooms (R) / Showers (S)	Trash Rec	Drainage Pipes / Swash	
		8	1	Y	N	Y		Y				Y	CAMAW &	1	N	
Buildin	ngs and	Erosion	Control	Visible	Signs of	Beach Du	ne System	Signage a	t Location	Type of	Land Use		No	tes		
SEAS	SIDER		N		N		N		KING, HC H ORD	MULTI-	-FAMILY	PAI PROPERT	HES BUILT RKING TO I TIES ARE A THIS PUBL	NEIGHBOR CCESSED	RING THROUGH	

Beach Acc	ess Survey									Site No./ Location			N WACCAMAW & HOLIDAY			
	33.34.58.62		78.59.33.88								PICTURES	3795-3800				
						Surface of Beach Access				Parking Surface Quality						
	Non-Legal	Amount Parking Spaces		Suitable for Handicap Access	Location of Nearby Parking (in feet)	Walkway	Walkover (Dunes)	Decks	Sandy	Good	Fair	Poor	Restrooms (R) / Showers (S)		Drainage Pipes / Swash	
		9	1	Y	N	Y		Y				Х	N	1	N	
Buildings and		Erosion Control		Visible Signs of		Beach Dune System		Signage at Location		Type of Land Use			Notes			
		ROCKS		N		N		NO PARKING, HC BEACH ORD		MULTI-FAMILY						
Beach Access Survey											Site No./ Lo	l	NI VALA CO A N	 IAW & ANGI	FDC	
GPS 33.34.55.81			78.59.36.15							-		3801-3805	N WACCAN	I	I	
GF 3	33.34.33.81		70.59.50.15	1		Surface of Beach		each Acces	S	Parking Surface Quality						
	Non-Legal	Amount Parking Spaces	Parking	Suitable for Handicap Access	Location of Nearby Parking (in feet)		Walkover		Sandy	Good	Fair	Poor	Restrooms (R) / Showers (S)		Drainage Pipes / Swash	
		9	0	Y	N	Y		Y	Y			Y	N	1	N	
Buildings and		<b>Erosion Control</b>		Visible Signs of		<b>Beach Dune System</b>		Signage at Location		Type of Land Use		Notes				
		N		N		SOME SMALL GRASS		NO PARKING, HC BEACH ORD					NO FREE HORRY COUNTY PARKING, INLY PAY LOT. BENCHES BUILT INTO THE WALKWAY			

Beach Acc	ess Survev										Site No./ Lo	ocation	N WACCAM	1AW & CYPF	RESS	
GPS	33.34.50.17		78.59.40.76	6							PICTURES	3806-3808				
						,	Surface of B	each Acces	S	Parki	ng Surface (	Quality				
Legal Site	Non-Legal Site		Handicap	for	Location of Nearby Parking (in feet)	Walkway	Walkover (Dunes)	Decks	Sandy	Good	Fair		Restrooms (R) / Showers (S)		Drainage Pipes / Swash	
		0	0	N	N	Y	Y	Y	N	N/A	N/A	N/A	N	1	N	
Buildir	ngs and	Erosion	Control	Visible	Signs of	Beach Du	ne System	Signage a	t Location	Type of	Land Use		No	tes	•	
		PROV	URE HAS IDED A WALL		N		N	NO LIFE	GUARD	MULTI-	-FAMILY	NARR	OW, BOAR	DWALK AC	CCESS	
Beach Acc											Site No./ Lo	ocation	N WACCAM	IAW & OAK		
GPS	33.34.48.24		78.59.43.45	5								3809-3812				
						,	Surface of B	each Acces	s	Parki	ng Surface (	Quality				
	Non-Legal Site		Handicap		Location of Nearby Parking (in feet)		Walkover (Dunes)	Decks	Sandy	Good	Fair		Restrooms (R) / Showers (S)		Drainage Pipes / Swash	
		6	1	POSSIBLY	N	Υ		N	TO ONE SIDE		Х		N	1	N	
Buildir	ngs and	Erosion	Control	Visible	Signs of	Beach Du	ne System	Signage a	t Location	Type of Land Use			No	tes		
			N		N	_	L TO SIDE CESS	NO PA	RKING		& MULTI- MILY		RGENCY ACTAINED FOIL			

Beach Acce	ess Survey										Site No./ Lo	cation	N WACCAN	1AW & PINE		
	33.34.45.81		78.59.46.59								PICTURES	3813				
						,	Surface of B	each Acces	S	Parkir	ng Surface C	Quality				
	Non-Legal	Parking	Handicap Parking	Handicap	Location of Nearby Parking (in feet)		Walkover (Dunes)	Decks	Sandy	Good	Fair		Restrooms (R) / Showers (S)		Drainage Pipes / Swash	
		8	1	Y	N	Y			Y		Х		N	1	N	
Buildin	igs and	Erosion	Control	Visible	Signs of	Beach Du	ne System	Signage a	t Location	Type of I	Land Use		No	tes		
		1	N		V	•	N	HC BEA	CH ORD	MULTI-	FAMILY					
Beach Acce	ess Survey										Site No./ Lo	cation	N WACCAM	1AW & YAUF	PON	
GPS	33.34.42.63		78.59.48.65								PICTURES	3814-3816				
						,	Surface of B	each Acces	s	Parkir	ng Surface C	Quality				
	Non-Legal	Parking	Handicap Parking		Location of Nearby Parking (in feet)		Walkover (Dunes)	Decks	Sandy	Good	Fair		Restrooms (R) / Showers (S)		Drainage Pipes / Swash	
		3	1	Y	N	N			Υ			Х	N	1	N	
Buildin	gs and	Erosion	Control	Visible	Signs of	Beach Du	ne System	Signage a	t Location	Type of I	Land Use		No	tes		
			N		N		TIAL	NO PARI	KING, HC H ORD				S BUILT IN N PAVED C		,	

Beach Acce	ess Survey										Site No./ Lo	ocation	N WACCAM	1AW & MAGI	NOLIA	
	33.34.39.62		78.59.50.39								PICTURES	3817-3820				
							Surface of B	each Acces	S	Parki	ng Surface (	Quality				
	Non-Legal Site		Handicap Parking	Handicap	Location of Nearby Parking (in feet)		Walkover (Dunes)	Decks	Sandy	Good	Fair		Restrooms (R) / Showers (S)	Trash Rec	Drainage Pipes / Swash	
		18	0	N	18, WITHIN 50 FT	Y		Y			Х		N	1	N	
Buildir	igs and	Erosion	Control	Visible	Signs of	Beach Du	ne System	Signage a	t Location	Type of	Land Use		No	tes		
			N	1	N	,	Y	LOST	CHILD		& MUILTI- MILY		HES BUILT BOARDWA			
Beach Acce	ess Survey										Site No./ Lo	ocation	S WACCAM	IAW & AZAL	.EA	
GPS	33.34.33.90		78.59.56.73								PICTURES	3821-3827				
						;	Surface of B	each Acces	s	Parki	ng Surface (	Quality				
	Non-Legal Site		Handicap Parking		Location of Nearby Parking (in feet)		Walkover (Dunes)	Decks	Sandy	Good	Fair		Restrooms (R) / Showers (S)		Drainage Pipes / Swash	
		14	0	Y	ILLEGAL	Y	N	Y	Y		Х		N	1	N	
Buildir	igs and	Erosion	Control	Visible	Signs of	Beach Du	ne System	Signage a	t Location	Type of	Land Use		No	tes		
		Y, D	UNES		N	PAR	RTIAL		NG, DUNE TION, HC H ORD		-FAMILY	BUILT INT	RIAL AT SIT O THE WA ACHING ON WALF	LKWAY, DI	UNES ARE	

		1				T	1	1	1	1	1		1			
Beach Acc											Site No./ Lo		S WACCAM	IAW & HOLL	Υ	
GPS	33.34.28.36		79.00.00.91								PICTURES	3828-3829				
							Surface of B	each Acces	s	Parki	ng Surface (	Quality				
	Non-Legal Site			Suitable for Handicap Access	Location of Nearby Parking (in feet)		Walkover (Dunes)	Decks	Sandy	Good	Fair		Restrooms (R) / Showers (S)		Drainage Pipes / Swash	
		5	2	N	ILLEGAL	Y		Υ	Υ			Х	N	1	N	
Buildir	ngs and	Erosior	Control	Visible	Signs of	Beach Du	ne System	Signage a	t Location	Type of	Land Use		No	tes		
		DU	NES		N	PARTI	ATS ARE ALLY IN ACE		KING, HC H ORD	MULTI-	-FAMILY					
Beach Acc	ess Survey										Site No./ Lo	ocation	S WACCAM	AW & CEDA	AR .	
GPS	33.34.23.38		79.00.05.75	5							PICTURES	3830-3832				
							Surface of B	each Acces	s	Parki	ng Surface (	Quality				
Legal Site	Non-Legal Site			Suitable for Handicap Access	Location of Nearby Parking (in feet)	Walkway	Walkover (Dunes)	Decks	Sandy	Good	Fair		Restrooms (R) / Showers (S)		Drainage Pipes / Swash	
		4	2	N	ILLEGAL	Y		Y	Y			Х	N	1	N	
Buildir	ngs and	Erosion	Control	Visible	Signs of	Beach Du	ne System	Signage a	t Location	Type of	Land Use		No	tes		
RENTAL	CONDOS		N		N		ATS ARE ' IN PLACE	NO PA	RKING	MUILTI	-FAMILY	VEF	RY POORLY	Y MAINTAIN	NED!	

## **4.5 HORRY COUNTY MITIGATION ACTIONS ACTION 1**

Improve Storm water management and computer modeling capabilities

Category: Natural Resource Protection

**Hazard:** Flooding

**Goal(s) Addressed:** 1, 2, 5, 6, 7, & 8

**Priority:** High

Funding Sources: SCEMD, HMGP, FEMA, SW Utility

Fee

Responsibility Assigned to:

Horry County Storm Water

Target Completion Date:

July 2006

Horry County

#### **ACTION 2**

Develop a capital improvement plan to resolve major drainage basin problems

Category: Prevention
Hazard: Flooding
Goal(s) Addressed: 1, 2, 4, 5, & 7

**Priority:** High

**Funding Sources:** SCEMD, HMGP, FEMA, SW Utility

Fee

**Responsibility Assigned to:** Horry County Storm Water Management

**Target Completion Date:** July 2006 **Jurisdiction:** Horry County

#### **ACTION 4**

Acquire and preserve properties subject to repetitive flooding from willing and voluntary property owners

Category: Property Protection

**Hazard:** Flooding

**Goal(s) Addressed:** 1, 2, 4, 5, 7, & 8

**Priority:** High

**Funding Sources:** SCEMD, HMGP, FEMA, PDM, FMA

Responsibility Assigned to:EMDTarget Completion Date:ContinuousJurisdiction:Horry County

#### **ACTION 8**

Continue to promote the use of NOAA weather radios as a primary notification system to forward weather advisories to the general public and special locations. The county will continue to evaluate the different types of notification systems currently being used along with new types of notification technology.

**Category:** Public Information & Awareness

Thunderstorms Hazard: 1, 2, 3, 4, & 8 Goal(s) Addressed:

**Priority:** High **Funding Sources: HMGP Responsibility Assigned to: EMD** 

**Target Completion Date:** Continuous **Jurisdiction: Horry County** 

#### **ACTION 16**

Education residents living in the identified Storm Surge area.

Public Information & Awareness and Category:

**Property Protection** 

Hazard: Storm Surge 1, 2, & 3 Goal(s) Addressed: **Priority:** Moderate **Funding Sources:** HMGP, **EMD Responsibility Assigned to:** 

**Target Completion Date:** Continuous **Jurisdiction: Horry County** 

#### **ACTION 27**

**Compile Tsunami Hazard Information.** Prevention

Category: Tsunami Hazard: Goal(s) Addressed: 4, 5, 7, & 8

**Priority:** Low **Funding Sources: HMGP** 

Responsibility Assigned

**EMD** to:

**Target Completion Date:** Continuous

**Jurisdiction: Horry County** 

## 4.6 TOWN OF ATLANTIC BEACH MITIGATION ACTIONS ACTION 1

Provide Emergence sandbags for the most vulnerable buildings and critical facilities in the Atlantic Beach area.

Category: Property Protection
Emergency Services

Hazard: Storm Surge & Flooding

Goal(s) Addressed: 1, 5, & 8
Priority: High

**Funding Sources:** SCEMD, FEMA, HMGP

**Responsibility Assigned to:** Atlantic Beach Police Department

**Target Completion Date:** Continuous

**Jurisdiction:** Town of Atlantic Beach

#### 4.8 TOWN OF BRIARCLIFFE ACRES MITIGATION ACTIONS

#### **ACTION 1**

Education of residents living in the identified storm surge area.

**Category:** Property Protection

**Hazard:** Storm Surge & Flooding

**Goal(s) Addressed:** 1, 2, & 3 **Priority:** High

Funding Sources: HMGP & General Funds

**Responsibility Assigned to:** Town Council **Target Completion Date:** Continuous

**Jurisdiction:** Town of Briarcliffe Acres

#### **ACTION 2**

Decrease flooding and pollution potential in the low lying flood plain area. Study underway to convert individual septic tanks into sanitary sewers.

Category: Natural Resources Protection

Hazard:FloodingGoal(s) Addressed:2, 5, & 8Priority:High

**Funding Sources:** SCEMD, FEMA, HMGP

**Responsibility Assigned to:** Mayor

**Target Completion Date:** December 31, 2006

**Jurisdiction:** Town of Briarcliffe Acres

## **4.11 TOWN OF SURFSIDE BEACH MITIGATION ACTIONS ACTION 1**

Acquire and preserve properties subject to repetitive flooding from willing and voluntary property owners.

Category: Property Protection

**Hazard:** Flooding

**Goal(s) Addressed:** 1, 2, 4, 5, 7, & 8

**Priority:** High

**Potential Funding Sources:** HMGP, FEMA, PDM **Responsibility Assigned to:** Emergency Management

**Target Completion Date:** Continuous

**Jurisdiction:** Town of Surfside Beach

#### **ACTION 2**

**Acquire a Weather Monitoring System** 

Category: Property Protection

**Hazard:** All Hazards

**Goal(s) Addressed:** 1, 2, 4, 5, 7, & 8

**Priority:** High

**Potential Funding Sources:** HMGP, FEMA, PDM **Responsibility Assigned to:** Town of Surfside Beach

**Target Completion Date:** August 2007

**Jurisdiction:** Town of Surfside Beach

## 4.16 HORRY TELEPHONE COOPERATIVE MITIGATION GOALS ACTION 1

Raise USAM at 1601 Yaupon Drive S. Myrtle Beach to an adequate height for minimizing impact from storm surges.

**Category:** Property Protection

Hazard: Hurricane, Storm Surge, Flooding,

Lightning

Goal(s) Addressed: 1,5,8
Priority: High

**Potential Funding Sources:** SCEMD, FEMA, HMGP Funds

**Responsibility Assigned to:**HTC - Plant Operations & Network

Engineering

**Target Completion Date:** December 2005 **Jurisdiction:** Horry County

#### **ACTION 2**

th

Raise USAM at 403 Unit 2, 19 Avenue N. Myrtle Beach to an adequate height for minimizing impact from storm surges.

Category: Property Protection

**Hazard:** Hurricane, Storm Surge, Flooding, Lightning

Goal(s) Addressed: 1,5, & 8
Priority: High

Potential Funding Sources: SCEMD, FEMA, HMGP Funds
HTC - Plant Operations & Network

Responsibility Assigned to:

Engineering

**Target Completion Date:** December 2005 **Jurisdiction:** Horry County

## 4.17 LITTLE RIVER WATER & SEWERAGE MITIGATION GOALS ACTION 1

Install riser extensions to raise lift stations electrified panels.

Category: Property Protection

**Hazard:** Flooding, Hurricane, Storm Surge

**Goal(s) Addressed:** 1, 2, 5, & 8

**Priority:** High

**Funding Sources:** SCEMD, HMGP, FEMA

Responsibility Assigned to:

Little River Water & Sewerage Company,

Inc.

**Target Completion Date:** Fall 2006

Jurisdiction: Little River Water & Sewerage Company

Inc.

#### **ACTION 2**

Install watertight manhole covers.

Category: Prevention

**Hazard:** Flooding, Hurricane, Storm Surge

Goal(s) Addressed: 1, 2, & 5
Priority: High

**Funding Sources:** FEMA, HMGP

Responsibility Assigned to: Little River Water & Sewerage Company

Inc.

**Target Completion Date:** 2007

Jurisdiction: Little River Water & Sewerage Company

Inc.

#### **ACTION 3**

Provide emergency pump by-pass connection for water booster pump station.

Category: Property Protection

Hazard: Hurricane, Tornado, Earthquake, Wildfire,

Lightning

Goal(s) Addressed: 2 & 5
Priority: High

**Funding Sources:** SCEMD, HMGP

Responsibility Assigned to:

Little River Water & Sewerage Company,

Inc.

**Target Completion Date:** Fall 2006

Jurisdiction: Little River Water & Sewerage Company,

Inc.

#### **ACTION 4**

Provide auxiliary power supply at important sewer lift station sites.

**Category:** Property Protection

Hazard: Hurricane, Tornado, Earthquake, Wildfire,

Lightning, Severe Thunderstorm & Wind

Goal(s) Addressed: 2 & 5
Priority: High

**Funding Sources:** SCEMD, HMGP

**Responsibility Assigned to:** Little River Water & Sewerage Company, Inc.

**Target Completion Date:** Fall 2007

**Jurisdiction:** Little River Water & Sewerage Company, Inc.

#### **ACTION 6**

Wind proofing of critical water, sewer, and administrative facilities.

**Category:** Property Protection

Hazard: Hurricane, Severe Thunderstorm & Wind

Goal(s) Addressed: 1, 2, 5, & 8

Priority: Moderate

**Funding Sources:** SCEMD, HMGP,

Responsibility Assigned to: Little River Water & Sewerage Company,

Inc.

**Target Completion Date:** Fall 2006

Jurisdiction: Little River Water & Sewerage Company,

Inc.

## 4.18 MURRELLS INLET – GARDEN CITY DISTRICT MITIGATION GOALS ACTION 1

**Install Hurricane Shutters for Wind Protection.** 

Category: Emergency Services

Hazard: Hurricane

Goal(s) Addressed: 8
Priority: High

Funding Sources: Local Government, HMGP

**Responsibility Assigned to:** Murrells Inlet – Garden City Fire District

**Target Completion Date:** 2006

**Jurisdiction:** Murrells Inlet – Garden City Fire District

### Appendix C

### **ACRONYMS**

BERM – Beach Erosion Research and Monitoring

BOCA – Building Officials and Code Administrator's International Building Codes

CBRA – Coastal Barrier Resources Act

CBRS – Coastal Barrier Resources System

CCU – Coastal Carolina University

DHEC - Department of Health and Environmental Control

EFH - Essential Fish Habitat

EMD – Emergency Management Division

EQC – Environmental Quality Control (under DHEC)

FEMA – Federal Emergency Management Agency

FIRM – Flood Insurance Rate Maps

GP – General Permit

NFIP - National Flood insurance Program

NMFS – National Marine Fisheries Service

NOAA – National Oceanic and Atmospheric Administration

OCRM – Office of Ocean and Coastal Resource Management

OPA'S - Otherwise Protected Areas

SCDHEC – South Carolina Department of Health and Environmental Control

SCDNR – South Carolina Department of Natural Resources

SCDOT – South Carolina Department of Transportation

SCUTE – South Carolina United Turtle Enthusiasts

USACE – US Army Corps of Engineers

USCG – United States Coast Guard

USFWS – US Fish and Wildlife Service

#### Appendix D

### SOURCES

- Coastal Carolina University, CCU BERM Project; URL; <a href="http://gis.coastal.edu/opm">http://gis.coastal.edu/opm</a>
- South Carolina Emergency Management Division (EMD);
   <a href="http://www.scemd.org/who/county\_orgs.html">http://www.scemd.org/who/county\_orgs.html</a>
- Envision 2025 Horry County Comprehensive Plan
- Federal Emergency Management Agency (FEMA); http://www.fema.gov/
- Florida Fish and Wildlife Conservation Commission; http://myfwc.com/
- Horry County Emergency Management Plan;
   <a href="http://www.horrycounty.org/depts/humanserv/epd/index.asp">http://www.horrycounty.org/depts/humanserv/epd/index.asp</a>
- Horry County Museum; <a href="http://www.horrycountymuseum.org/">http://www.horrycountymuseum.org/</a>
- Horry County Planning and Zoning Department;
- Horry County Stormwater Department
- Microsoft Virtual Earth; http://www.viawindowslive.com/VirtualEarth.aspx
- National Oceanic and Atmospheric Administration (NOAA)
- NOAA Coastal Services Center; http://www.noaa.gov/
- North Inlet-Winyah Bay National Estuarine Research Reserve (NERR);
   http://www.northinlet.sc.edu/
- Office of Ocean and Costal Resource Management (OCRM); http://coastalmanagement.noaa.gov/
- South Carolina Department of Health and Environmental Control (SCDHEC); <a href="http://www.scdhec.gov/">http://www.scdhec.gov/</a>
- South Carolina Department of Natural Resources (SCDNR); http://www.dnr.sc.gov/
- South Carolina Department of Public Safety; <a href="http://www.scdps.org/">http://www.scdps.org/</a>
- South Carolina Department of Transportation(SCDOT);
   <a href="http://www.dot.state.sc.us/">http://www.dot.state.sc.us/</a>

### Appendix D

- South Carolina Marine Turtle Conservation Program; http://www.dnr.sc.gov/seaturtle/
- United States Census Bureau; <a href="http://www.census.gov/">http://www.census.gov/</a>
- U.S. Army Corps of Engineers (USACE);
   <a href="http://www.sac.usace.army.mil/?action=programs.myrtle\_beach">http://www.sac.usace.army.mil/?action=programs.myrtle\_beach</a>
- U.S. Fish & Wildlife Service, North Carolina Ecological Services; <a href="http://www.fws.gov/nc-es/">http://www.fws.gov/nc-es/</a>
- U.S. Fish and Wildlife Service (USFWS); <a href="http://www.fws.gov/">http://www.fws.gov/</a>
- United States Coast Guard (USCG); <a href="http://www.uscg.mil/">http://www.uscg.mil/</a>
- Wikipedia Encyclopedia; <a href="http://en.wikipedia.org/wiki/Main\_Page">http://en.wikipedia.org/wiki/Main\_Page</a>

### Beachfront Structural Inventory Index

<u>A</u>	Habitable Structure with less than	<u>wo</u>	Walk ove
	5,000 square feet		

- Habitable Structure with more than <u>B</u>
- R <u>C</u> **Ancillary Building**
- D Deck

5,000 square feet

- E Recreational Amenity other than Pool
- PRAP Private Access Point
- PAP Public Access Point, minimum of 6 parking spaces
- LPAP Local Public Access Point, minimum of 10 parking spaces
- NPAP Neighborhood Public Access Point, minimum of 25 parking spaces
- CPAP Community Public Access Point, minimum of 75 parking spaces
- RPAP Regional Public Access Point, minimum of 150 parking spaces

WW Walkway er

Unimproved Access UAP

Handicapped Access Point HAP

Restrooms

<u>s</u> Showers

LG Lifeguard

TR Trash Receptacle

SY Stairway

F Fence

P Pool

VΡ Vehicle Parking

Vehicle Access VA

вн Bulk Head

PR Pier

RR Rock Revetment

<u>SW</u> Seawall

# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #1

**Covered area:** Horry County line – Holly Ave. (Garden City)

Inventory map:



Structural Inventory:

	ciurai inventory.	7D 0	T	
<u>No.</u>	TMS#	Type of Structure(s)	Distance from OCRM Lines	Erosion Control Structure(s)
1	198-01-04-003	A	Baseline: +19.0ft. Setback Line: - 32.0ft.	Natural dune w/ dune protection fencing in place;
2	198-01-04-002	A	Baseline: +18.0ft. Setback Line: - 35.0ft.	Natural dune w/ dune protection fencing in place;
3	198-01-04-001	A; D	Baseline: +25.0ft. Setback Line: - 27.0ft.	Natural dune w/ dune protection fencing in place;
4	198-02-03-001	A; P	Baseline: +11.0ft. Setback Line: - 40.0ft.	Natural dune w/ dune protection fencing in place;
5	198-02-03-002	A; D	Baseline: +16.5ft. Setback Line: - 40.0ft.	Natural dune w/ dune protection fencing in place;
6	198-02-03-003	A; D	Baseline: +28.0ft. Setback Line: - 22.0ft.	Natural dune w/ dune protection fencing in place;

7	198-02-03-004	A	Baseline: +22.0ft. Setback Line: - 29.0ft.	Natural dune w/ dune protection fencing in place;
8	198-02-03-005	A	Baseline: +21.0ft. Setback Line: - 30.0ft.	Natural dune w/ dune protection fencing in place;
9	198-02-03-006	A	Baseline: +21.0ft. Setback Line: - 29.5ft.	Natural dune w/ dune protection fencing in place;
10	198-02-03-007	A	Baseline: +21.0ft. Setback Line: - 30.0ft.	Natural dune w/ dune protection fencing in place;
11	198-02-03-008	A; D	Baseline: 23.5ft. Setback Line: - 29.0ft.	Natural dune w/ dune protection fencing in place;
12	198-02-03-009	A	Baseline: +22.0ft. Setback Line: - 29.0ft.	Natural dune w/ dune protection fencing in place;
13	198-02-03-010	A	Baseline: +24.0ft. Setback Line: - 27.5ft.	Natural dune w/ dune protection fencing in place;
14	198-02-03-011	A	Baseline: 14.0ft. Setback Line: - 37.0ft.	Natural dune w/ dune protection fencing in place;
15	198-02-03-012	A	Baseline: +24.0ft. Setback Line: - 26.5ft.	Natural dune w/ dune protection fencing in place;

### Beach Access Inventory:

Location	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
Cedar Ave. (end)	N/A	NPAP/HAP	WW; D; TR	Off-street / On-street (within 500ft. of access)	Standard: 2 / 23 Handicapped: 2 Grand Total: 27
S. Waccamaw Dr.	198-01-04- 003	UAP		private	private
S. Waccamaw Dr.	198-01-04- 002	UAP	SY	private	private
S. Waccamaw Dr.	198-01-04- 001	UAP	SY; D; WO	private	private
S. Waccamaw Dr.	198-02-03- 001	UAP		private	private
S. Waccamaw Dr.	198-02-03- 002	PRAP	WO; D	private	private
S. Waccamaw Dr.	198-02-03- 003	PRAP	WO; D	private	private
S. Waccamaw Dr.	198-02-03- 004	PRAP	WO; D	private	private

S. Waccamaw Dr.	198-02-03- 005	UAP	D	private	private
S. Waccamaw Dr.	198-02-03- 006	UAP	D	private	private
S. Waccamaw Dr.	198-02-03- 007	PRAP	WO	private	private
S. Waccamaw Dr.	198-02-03- 008	PRAP	WO	private	private
S. Waccamaw Dr.	198-02-03- 009	PRAP	WO	private	private
S. Waccamaw Dr.	198-02-03- 010	PRAP	WO	private	private
S. Waccamaw Dr.	198-02-03- 011	PRAP	WO	private	private
S. Waccamaw Dr.	198-02-03- 012	PRAP	WO	private	private
Holly Ave.	N/A	NPAP/HAP	WW; D; TR; VA	Off-street / On-street (within 500ft. of access)	Standard: 7 / 25; Handicapped: 2 Grand Total: 34

### Drainage Structure Inventory:

<b>Location of Discharge Structure</b>	Type	Distance from OCRM Lines
None in this section.		

# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #2

**Covered area:** Holly Ave. – Azalea Ave. (Garden City)

Inventory map:



#### Structural Inventory:

Siru	Structural Inventory:									
No.	TMS#	Type of Structure(s)	Distance from OCRM Lines	Erosion Control Structure(s)						
1	195-14-12-001	A; D	Baseline: +20.0ft. Setback Line: - 31.5ft.	Natural dune w/ dune protection fencing in place;						
2	195-14-12-004	A; D	Baseline: +16.0ft. Setback Line: - 36.5ft.	Natural dune w/ dune protection fencing in place;						
3	195-14-12-015	A; D	Baseline: +16.0ft. Setback Line: - 35.5ft.	Natural dune w/ dune protection fencing in place;						
4	195-14-12-006	A; D	Baseline: +16.5ft. Setback Line: - 36.0ft.	Natural dune w/ dune protection fencing in place;						

5	195-14-12-007	A	Baseline: +13.0ft. Setback Line: - 38.0ft.	Natural dune w/ dune protection fencing in place;
6	195-14-12-008	A; D	Baseline: +14.0ft. Setback Line: - 37.0ft.	Natural dune w/ dune protection fencing in place;
7	195-14-12-009	A	Baseline: +9.5ft. Setback Line: - 41.0ft.	Natural dune w/ dune protection fencing in place;
8	195-14-12-010	A	Baseline: +14.5ft. Setback Line: - 36.0ft.	Natural dune w/ dune protection fencing in place;
9	195-14-12-011	A; D	Baseline: +29.0ft. Setback Line: - 22.0ft.	Natural dune w/ dune protection fencing in place;
10	195-14-12-012	A	Baseline: +16.0ft. Setback Line: - 36.0ft.	Natural dune w/ dune protection fencing in place;

Beach Access Inventory:

<b>Location</b>	TMS#	Type of Access	<u>Facilities</u>	Type of	No. of Parking
S. Waccamaw	195-14-12-	PRAP	WO; D; SY	Parking private	private
Dr.	001	IKAI	WO, D, 31	private	private
S. Waccamaw Dr.	195-14-12- 004	PRAP	WO; D; SY	private	private
S. Waccamaw Dr.	195-14-12- 015	PRAP	D; SY	private	private
S. Waccamaw Dr.	195-14-12- 006	PRAP	WO; SY	private	private
S. Waccamaw Dr.	195-14-12- 007	PRAP	D; SY	private	private
S. Waccamaw Dr.	195-14-12- 008	PRAP	WW; D; SY	private	private
S. Waccamaw Dr.	195-14-12- 009	PRAP	WW; D	private	private
S. Waccamaw Dr.	195-14-12- 010	PRAP	WO; SY	private	private
S. Waccamaw Dr.	195-14-12- 011	PRAP	WO; SY	private	private
S. Waccamaw Dr.	195-14-12- 012	PRAP	WO; SY	private	private
Azalea Ave.	N/A	NPAP/HAP	WW; D; TR; VA; Memorial	Off-street / On-street (within 500ft. of access)	Standard: 13 / 23 Handicapped: 1 Grand Total: 37

### Drainage Structure Inventory:

<b>Location of Discharge Structure</b>	Type	Distance from OCRM Lines
None in this section.		

# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #3

**Covered area:** Azalea Ave. – Magnolia Ave. (Garden City)

Inventory map:



### Structural Inventory:

Dura	ciurai inveniory:			
No.	TMS#	Type of	<u>Distance</u>	Erosion
		Structure(s)	from OCRM	<u>Control</u>
			<b>Lines</b>	Structure(s)
1	195-14-13-010	B; D; P; F;	Baseline: -	Natural dune
		WW	24.0ft.	w/ dune
			Setback Line:	protection
			-77.0ft.	fencing in
				place;
2	Garden City Pier - 195-14-13-005	PR; C; E;	Baseline: -	RR (Fair
		VP	55.0ft.	condition);
			(structure)/ -	(see Photo 3-1)
			580.0ft.(pier)	
			Setback Line:	
			-107.0ft.	
			(structure)/ -	
			638.0ft. (pier)	
			4 ,	

3	Commercial Structure (Part of the Kingfisher – TMS# see No. 4);	C; D; SY	Baseline: - 60.2ft. Setback Line: -111.8ft.	Combination of RR & SW (Poor condition); (see Photo 3-2)
4	195-14-13-082; 195-14-13-076; 195-14-13-044; 195-14-13-066; 195-14-13-068; 195-14-13-047; 195-14-13-069; 195-14-13-085; 195-14-13-050; 195-14-13-077; 195-14-13-065; 195-14-13-083; 195-14-13-086; 195-14-13-049; 195-14-13-052; 195-14-13-046; 195-14-13-057; 195-14-13-040; 195-14-13-051; 195-14-13-045; 195-14-13-059; 195-14-13-064; 195-14-13-078; 195-14-13-072; 195-14-13-079; 195-14-13-054; 195-14-13-081; 195-14-13-053; 195-14-13-058; 195-14-13-062; 195-14-13-071; 195-14-13-063; 195-14-13-075; 195-14-13-074; 195-14-13-060; 195-14-13-041; 195-14-13-048; 195-14-13-061; 195-14-13-070; 195-14-13-080; 195-14-13-073; 195-14-13-055;	B; D; P; VP	Baseline: - 57.0ft. Setback Line: -111.5ft.	SW (Good condition); (see Photo 3-3)
5	195-14-13-037; 195-14-13-035; 195-14-13-039; 195-14-13-031; 195-14-13-036; 195-14-13-032; 195-14-13-033; 195-14-13-038; 195-14-13-034;	B; D	Baseline: - 20.0ft. Setback Line: -72.0ft.	Remnants of natural dune w/ dune protection fencing in place; SW (Good condition);
6	195-14-13-008	A; D; F	Baseline: -7ft. Setback Line: -59.0ft.	Natural dune w/ dune protection fencing in
7	195-14-13-084	A; D; WW	Baseline: - 11.0ft. Setback Line: -66.5ft.	Natural dune w/ dune protection fencing in

### Beach Access Inventory:

Location	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
S. Waccamaw Dr.	195-14-13-010	PRAP	WO	private	private
S. Waccamaw Dr.	195-14-13-005	PRAP (part of PR)	WO	Off-street (private) / On- street (within 500ft. of	Standard: 11 / 62 Handicapped: 2 <b>Grand Total: 75</b>

N. Waccamaw Dr.	See Structure #4 (above)	PRAP	D; SY	private	private
N. Waccamaw Dr.	195-14-13-084	PRAP	WO	private	private
Magnolia Ave. (end)	N/A	NPAP	WW; D; TR; VA	Off-street / On-street (within 500ft. of access)	Standard: 18 / 42 Handicapped: 0 <b>Grand Total: 60</b>

### Drainage Structure Inventory:

<b>Location of Discharge Structure</b>	Type	<b>Distance from OCRM Lines</b>
None in this section.		





Photo 3-3



# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #4

**Covered area:** Magnolia Ave. – Pine Ave. (Garden City)

Inventory map:



### Structural Inventory:

No.	TMS#	Type of Structure(s)	Distance from OCRM Lines	Erosion Control Structure(s)
1	195-14-14-049; 195-14-14-054; 195-14-14-045; 195-14-14-056; 195-14-14-058; 195-14-14-044; 195-14-14-051; 195-14-14-048; 195-14-14-055; 195-14-14-043; 195-14-14-046; 195-14-14-052; 195-14-14-047; 195-14-14-050; 195-14-14-057; 195-14-14-059; 195-14-14-060; 195-14-14-053;	B; P; VP	Baseline: - 20.0ft. Setback Line: - 71.5ft.	Natural dune w/ dune protection fencing in place;
2	195-14-14-004	A	Baseline: +36.0ft. Setback Line: - 45.5.0ft.	Natural dune w/ dune protection fencing in place;

3	195-14-14-005	A	Baseline: +39.0ft. Setback Line: - 11.0ft.	Natural dune w/ dune protection fencing in place;
4	195-14-14-035; 195-14-14-034; 195-14-14-033; 195-14-14-032; 195-14-14-031;	B; D	Baseline: - 16.5ft. Setback Line: - 67.5ft.	Natural dune w/ dune protection fencing in place;
5	195-14-15-001	A; F	Baseline: +39.0ft. Setback Line: - 18.5ft.	Natural dune w/ dune protection fencing in place;
6	195-14-15-002	A;	Baseline: +36.0ft. Setback Line: -	Natural dune w/ dune protection fencing in
7	195-14-15-003	A; D; P	Baseline: +7.5ft. Setback Line: -	Natural dune w/ dune protection fencing in
8	195-14-15-013; 195-14-15-018; 195-14-15-015; 195-14-15-024; 195-14-15-021; 195-14-15-020; 195-14-15-022; 195-14-15-016; 195-14-15-017; 195-14-15-023; 195-14-15-014; 195-14-15-019;	B; P; VP	Baseline: - 16.0ft. Setback Line: - 74.0ft.	Natural dune w/ dune protection fencing in place; SW
9	195-14-15-008; 195-14-15-011; 195-14-15-012; 195-14-15-009; 195-14-15-010; 195-14-15-007;	B; D; VP	Baseline: - 3.5ft. Setback Line: -	Natural dune w/ dune protection fencing in

Beach Access Inventory:

<u>Location</u>	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
N. Waccamaw Dr.	See Structure #1 (above)	PRAP	WO	Off-street (private)	private
N. Waccamaw Dr.	195-14-14-004	PRAP	WW; D; SY	private	private
N. Waccamaw Dr.	195-14-14-005	PRAP	WW; D; SY	private	private
N. Waccamaw Dr.	See Structure #4 (above)	PRAP	SY	private	private
Yaupon Ave. (end)	N/A	СРАР/НАР	WW; D; TR; VA	Off-street / On-street (within 500ft. of access)	Standard: 75 / 59 Handicapped: 1 Grand Total:

N. Waccamaw Dr.	195-14-15-001	PRAP	WO; SY	private	private
N. Waccamaw Dr.	195-14-15-002	PRAP	WO; SY	private	private
N. Waccamaw Dr.	195-14-15-003	PRAP	WO	private	private
N. Waccamaw Dr.	See Structure #8 (above)	UAP		private	private
Pine Ave. (end)	N/A	СРАР/НАР	WW; D; TR; VA	Off-street / On-street (within 500ft. of access)	Standard: 19 / 79 Handicapped: 1 Grand Total: 99

Drainage Structure Inventory:

<b>Location of Discharge Structure</b>	Type	Distance from OCRM Lines
None in this section.		

# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #5

**Covered area:** Pine Ave. – Cypress Ave. (Garden City)

Inventory map:



### Structural Inventory:

No.	TMS#	Type of	Distance from	<b>Erosion Control</b>
110.	<u> IIIII</u>	Structure(s)	OCRM Lines	Structure(s)
1	195-14-16-012; 195-14-16-010; 195-14-16-007; 195-14-16-009; 195-14-16-011; 195-14-16-008;	B; D; VP	Baseline: +9.0ft. Setback Line: - 42.0ft.	Natural dune w/ dune protection fencing in place;
2	195-14-16-022; 195-14-16-027; 195-14-16-020; 195-14-16-031; 195-14-16-016; 195-14-16-034; 195-14-16-024; 195-14-16-026; 195-14-16-036; 195-14-16-015; 195-14-16-035; 195-14-16-017; 195-14-16-028; 195-14-16-023; 195-14-16-032; 195-14-16-018; 195-14-16-033; 195-14-16-025; 195-14-16-029; 195-14-16-014; 195-14-16-021; 195-14-16-030; 195-14-16-013; 195-14-16-019;	B; D; P; SY	Baseline: +18.0ft. Setback Line: - 33.0ft.	Natural dune w/ dune protection fencing in place;

3	195-14-16-006	A; WO	Baseline: +43.0ft. Setback Line: - 8.5ft.	Natural dune w/ dune protection fencing in place;
4	195-14-17-076; 195-14-17-084; 195-14-17-078; 195-14-17-070; 195-14-17-073; 195-14-17-082; 195-14-17-068; 195-14-17-085; 195-14-17-081; 195-14-17-079; 195-14-17-080; 195-14-17-083; 195-14-17-071; 195-14-17-069; 195-14-17-077; 195-14-17-075; 195-14-17-074; 195-14-17-072;	B; VP; WW	Baseline: +6.0ft. Setback Line: - 46.0ft.	Remnants of natural dune system w/ protective fencing in place;
5	195-14-17-002	A; D; WO	Baseline: +36.5ft. Setback Line: - 14.5ft.	Natural dune w/ dune protection fencing in place;
6	195-14-17-003	A; D	Baseline: +43.5ft. Setback Line: - 8.0ft.	Natural dune w/ dune protection fencing in place;
7	195-14-17-004	A; D	Baseline: +13.0ft. Setback Line: - 40.0ft.	Remnants of natural dune system w/ protective fencing in place; SW (Good condition); (see Photo 5-1)
8	195-14-17-107; 195-14-17-113; 195-14-17-112; 195-14-17-110; 195-14-17-108; 195-14-17-114; 195-14-17-115; 195-14-17-109; 195-14-17-111;	B; SY; VP	Baseline: - 4.0ft. Setback Line: - 52.0ft.	Remnants of natural dune system w/ protective fencing in place; SW (Fair condition); (see

Beach Access Inventory:

Location	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
N. Waccamaw Dr.	See Structure #2 (above)	PRAP	WO	private	private
N. Waccamaw Dr.	195-14-16- 006	PRAP	WO	private	private
Oak Ave. (end)	N/A	NPAP/HAP	WW; TR; VA	Off-street / On-street (within 500ft. of access)	Standard: 5 / 32 Handicapped: 1 Grand Total: 38
N. Waccamaw Dr.	See Structure #4 (above)	PRAP	SY	private	private
N. Waccamaw Dr.	195-14-17- 002	PRAP	WO	private	private
N. Waccamaw Dr.	195-14-17- 003	PRAP	WW	private	private

N. Waccamaw Dr.	195-14-17- 004	PRAP	WW	private	private
Cypress Ave. (end)	N/A	PAP	WW; TR	Off-street / On-street (within 500ft. of access)	Standard: 6 / 0 Handicapped: 0 <b>Grand Total: 6</b>

Drainage Structure Inventory:

<b>Location of Discharge Structure</b>	Type	Distance from OCRM Lines
None in this section.		

# Photos: Photo 5-1



### Photo 5-2



### HORRY COUNTY COMPREHENSIVE BEACH INVENTORY

SHEET #6

**Covered area:** Cypress Ave. – Anglers Dr. (Garden City)

Inventory map:



Structural Inventory:

20100	ciurai inveniory.			
No.	TMS#	Type of Structure(s)	Distance from OCRM Lines	Erosion Control Structure(s)
1	195-14-17-006	A	Baseline: +62.0ft. Setback Line: - 3.5ft.	Natural dune w/ dune protection fencing in place
2	195-14-17-097; 195-14-17-098; 195-14-17-101; 195-14-17-099; 195-14-17-086; 195-14-17-090; 195-14-17-102; 195-14-17-094; 195-14-17-088; 195-14-17-091; 195-14-17-100; 195-14-17-095; 195-14-17-087; 195-14-17-106; 195-14-17-103; 195-14-17-096; 195-14-17-089; 195-14-17-093; 195-14-17-092;	B; D; P; VP; WO	Baseline: - 18.0ft. Setback Line: - 80.0ft.	Dune protection/(re -) establishment fencing in place; RR

3	195-14-17-124; 195-14-17-120; 195-14-17-123;	B; D; P; VP;	Baseline: -	Dune
	195-14-17-117; 195-14-17-122; 195-14-17-118;	WO	13.0ft.	protection/(re
	195-14-17-116; 195-14-17-121; 195-14-17-119;		Setback Line: -	-)
			74.5ft.	establishment
				fencing in
4	195-14-17-029; 195-14-17-030; 195-14-17-022;	B; P; VP	Baseline: +4.0	Dune
	195-14-17-031; 195-14-17-042; 195-14-17-049;		ft.	protection/(re
	195-14-17-045; 195-14-17-035; 195-14-17-047;		Setback Line: -	-)
	195-14-17-064; 195-14-17-019; 195-14-17-036;		48.0ft.	establishment
	195-14-17-012; 195-14-17-028; 195-14-17-060;			fencing in
	195-14-17-067; 195-14-17-013; 195-14-17-037;			place; RR
	195-14-17-055; 195-14-17-041; 195-14-17-066;			
	195-14-17-046; 195-14-17-061; 195-14-17-016;			
	195-14-17-025; 195-14-17-023; 195-14-17-027;			
	195-14-17-057; 195-14-17-018; 195-14-17-054;			
	195-14-17-010; 195-14-17-034; 195-14-17-043;			
	195-14-17-044; 195-14-17-048; 195-14-17-052;			
	195-14-17-059; 195-14-17-056; 195-14-17-053;			
	195-14-17-021; 195-14-17-020; 195-14-17-038;			
	195-14-17-015; 195-14-17-032; 195-14-17-024;			
	195-14-17-026; 195-14-17-040; 195-14-17-033;			
	195-14-17-062; 195-14-17-063; 195-14-17-017;			
	195-14-17-050; 195-14-17-051; 195-14-17-065;			
	195-14-17-039; 195-14-17-014; 195-14-17-058;			
5	Shares same Horizontal Property Regime with	B; D; WO;	Baseline:	Dune fencing
	Structure #4 (see above)	WW (in	+3.0ft.	in place; RR
		between No.	Setback Line: -	-
		4 & No. 5)	55.0ft.	

### Beach Access Inventory:

Location	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
N. Waccamaw Dr.	See Structure #2 (above)	PRAP	WO	private	private
N. Waccamaw Dr.	See Structure #3 (above)	PRAP	WO	private	private
N. Waccamaw Dr.	See Structures #4 & 5 (above)	PRAP	WW; WO	private	private
Anglers Dr. (end)	N/A	LPAP/HAP	WW; TR; VA	Off-street / On-street (within 500ft. of access)	Standard: 9 / 0 Handicapped: 1 Grand Total: 10

### Drainage Structure Inventory:

<b>Location of Discharge Structure</b>	Type	<b>Distance from OCRM Lines</b>
None in this section.		

# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #7

**Covered area:** Anglers Dr. – Sunset Dr. (Garden City)

Inventory map:



### Structural Inventory:

No.	TMS#	Type of Structure(s)	Distance from OCRM Lines	Erosion Control
				Structure(s)
1	195-14-19-045; 195-14-19-053; 195-14-19-038; 195-14-19-044; 195-14-19-039; 195-14-19-043; 195-14-19-050; 195-14-19-042; 195-14-19-037; 195-14-19-041; 195-14-19-036; 195-14-19-051; 195-14-19-040; 195-14-19-047; 195-14-19-049; 195-14-19-052; 195-14-19-048; 195-14-19-046;	B; D; P; VP	Baseline:- 30.0ft. Setback Line: - 81.5.0ft.	SW (Poor condition); (see Photo 7-1)

2	195-14-19-002; 195-14-19-026; 195-14-19-008; 195-14-19-033; 195-14-19-019; 195-14-19-029; 195-14-19-012; 195-14-19-031; 195-14-19-014; 195-14-19-020; 195-14-19-007; 195-14-19-003; 195-14-19-016; 195-14-19-022; 195-14-19-005; 195-14-19-018; 195-14-19-024; 195-14-19-010; 195-14-19-034; 195-14-19-006; 195-14-19-023; 195-14-19-021; 195-14-19-032; 195-14-19-028; 195-14-19-025; 195-14-19-027; 195-14-19-028; 195-14-19-013; 195-14-19-035; 195-14-19-015; 195-14-19-011; 195-14-19-035; 195-14-19-017;	B; D; P; SY; VP	Baseline: - 32.0ft. Setback Line: - 80.0ft.	SW (Fair condition; sand accumulating below); (see Photo 7-2)
3	195-14-19-054; 195-14-19-069; 195-14-19-063; 195-14-19-070; 195-14-19-067; 195-14-19-058; 195-14-19-060; 195-14-19-071; 195-14-19-056; 195-14-19-059; 195-14-19-055; 195-14-19-066; 195-14-19-061; 195-14-19-068; 195-14-19-062; 195-14-19-064; 195-14-19-065; 195-14-19-062;	B; P; VP	Baseline: - 29.5ft. Setback Line: - 79.5ft.	SW (Good condition)
4	195-10-28-014; 195-10-28-011; 195-10-28-017; 195-10-28-020; 195-10-28-013; 195-10-28-006; 195-10-28-009; 195-10-28-016; 195-10-28-012; 195-10-28-019; 195-10-28-021; 195-10-28-007; 195-10-28-022; 195-10-28-018; 195-10-28-015; 195-10-28-010; 195-10-28-005; 195-10-28-008;	B; VP	Baseline: +6.0ft. Setback Line: - 46.0ft.	RR (half buried by dune); (see Photo 7-3)

5	105 10 20 065, 105 10 20 101, 105 10 20 126	D. D. E. D.	Dogoline	DD (Co. J
5	195-10-28-065; 195-10-28-101; 195-10-28-126;	B; D; F; P;	Baseline: -	RR (Good
	195-10-28-108; 195-10-28-088; 195-10-28-128;	VP	17.0ft.	condition);
	195-10-28-143; 195-10-28-141; 195-10-28-139;		Setback Line: -	(see Photo 7-4)
	195-10-28-098; 195-10-28-095; 195-10-28-068;		64.0ft.	
	195-10-28-142; 195-10-28-117; 195-10-28-106;			
	195-10-28-135; 195-10-28-124; 195-10-28-072;			
	195-10-28-144; 195-10-28-120; 195-10-28-116;			
	195-10-28-087; 195-10-28-122; 195-10-28-103;			
	195-10-28-075; 195-10-28-110; 195-10-28-099;			
	195-10-28-107; 195-10-28-121; 195-10-28-119;			
	195-10-28-083; 195-10-28-085; 195-10-28-070;			
	195-10-28-118; 195-10-28-089; 195-10-28-131;			
	195-10-28-111; 195-10-28-081; 195-10-28-080;			
	195-10-28-093; 195-10-28-125; 195-10-28-104;			
	195-10-28-067; 195-10-28-074; 195-10-28-109;			
	195-10-28-132; 195-10-28-105; 195-10-28-066;			
	195-10-28-084; 195-10-28-073; 195-10-28-140;			
	195-10-28-090; 195-10-28-077; 195-10-28-115;			
	195-10-28-133; 195-10-28-078; 195-10-28-079;			
	195-10-28-096; 195-10-28-130; 195-10-28-114;			
	195-10-28-138; 195-10-28-123; 195-10-28-100;			
	195-10-28-134; 195-10-28-091; 195-10-28-082;			
	195-10-28-092; 195-10-28-076; 195-10-28-086;			
	195-10-28-102; 195-10-28-112; 195-10-28-094;			
	195-10-28-136; 195-10-28-071; 195-10-28-069;			
	195-10-28-137; 195-10-28-097; 195-10-28-127;			
	195-10-28-113; 195-10-28-129			
6	195-10-28-031; 195-10-28-051; 195-10-28-036;	B; F; P	Baseline: -	SW (Good
	195-10-28-047; 195-10-28-039; 195-10-28-061;	_,-,-	35.0ft.	condition);
	195-10-28-055; 195-10-28-059; 195-10-28-050;		Setback Line: -	(see Photo 7-5)
	195-10-28-046; 195-10-28-042; 195-10-28-034;		83.0ft.	
	195-10-28-040; 195-10-28-060; 195-10-28-056;		22.020	
	195-10-28-028; 195-10-28-027; 195-10-28-037;			
	195-10-28-054; 195-10-28-045; 195-10-28-035;			
	195-10-28-041; 195-10-28-033; 195-10-28-057;			
	195-10-28-038; 195-10-28-024; 195-10-28-025;			
	195-10-28-038, 195-10-28-024, 195-10-28-026;			
	195-10-28-023, 195-10-28-044, 195-10-28-026, 195-10-28-043; 195-10-28-052; 195-10-28-053;			
	195-10-28-043; 195-10-28-032; 195-10-28-049;			
	195-10-28-062; 195-10-28-049; 195-10-28-030;			
	175 10 20 002, 175 10 20-0-0, 175-10-20-050,			

#### Beach Access Inventory:

Location	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
N. Waccamaw Dr.	See Structure #2 (above)	PRAP	SY	private	private

Holiday Dr. (end)	N/A	LPAP/HAP	WW; D; TR; RR; SW	Off-street / On-street (within 500ft. of access)	Standard: 8 / 8 Handicapped: 1 Grand Total: 17
N. Waccamaw Dr.	See Structure #5 (above)	PRAP	SY	private	private
Sunset Dr. (end)	N/A	LPAP/HAP	WO; D; TR; VA	Off-street / On-street (within 500ft. of access)	Standard: 7 / 10 Handicapped: 1 Grand Total: 18

#### Drainage Structure Inventory:

<b>Location of Discharge Structure</b>	Type	Distance from OCRM Lines
None in this section.		

## Photos: Photo 7-1



**Photo 7-3** 



**Photo 7-2** 



**Photo 7-4** 



**Photo 7-5** 



# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #8

**Covered area:** Sunset Dr. – Seabreeze Dr. (Garden City)

Inventory map:

No.	TMS#	Type of Structure(s)	Distance from OCRM Lines	Erosion Control
1	195-10-29-005; 195-10-29-009; 195-10-29-015; 195-10-29-007; 195-10-29-023; 195-10-29-011; 195-10-29-010; 195-10-29-012; 195-10-29-022; 195-10-29-017; 195-10-29-006; 195-10-29-016; 195-10-29-020; 195-10-29-014; 195-10-29-008; 195-10-29-024; 195-10-29-018; 195-10-29-013; 195-10-29-019;	B; VP	Baseline:+15.0 ft. Setback Line: - 34.0ft.	None.

	107 10 20 077 107 10 20 107 10 20 170	D D D 011	D 11	GYYY / G
2	195-10-29-057; 195-10-29-133; 195-10-29-178;	B; D; P; SY;	Baseline: -	SW (Good
	195-10-29-102; 195-10-29-173; 195-10-29-182;	VP	20.5ft.	condition)
	195-10-29-189; 195-10-29-040; 195-10-29-053;		Setback Line: -	
	195-10-29-140; 195-10-29-142; 195-10-29-159;		73.5ft.	
	195-10-29-060; 195-10-29-186; 195-10-29-169;			
	195-10-29-045; 195-10-29-025; 195-10-29-080;			
	195-10-29-114; 195-10-29-084; 195-10-29-151;			
	195-10-29-150; 195-10-29-200; 195-10-29-044;			
	195-10-29-058; 195-10-29-190; 195-10-29-188;			
	195-10-29-042; 195-10-29-185; 195-10-29-187;			
	195-10-29-032; 195-10-29-062; 195-10-29-064;			
	195-10-29-050; 195-10-29-191; 195-10-29-035;			
	195-10-29-033; 195-10-29-135; 195-10-29-126;			
	195-10-29-101; 195-10-29-099; 195-10-29-156;			
	195-10-29-027; 195-10-29-175; 195-10-29-057;			
	195-10-29-179; 195-10-29-194; 195-10-29-041;			
	195-10-29-043; 195-10-29-104; 195-10-29-121;			
1	195-10-29-123; 195-10-29-086; 195-10-29-109;			
1	195-10-29-096; 195-10-29-127; 195-10-29-107;			
1	195-10-29-088; 195-10-29-059; 195-10-29-196;			
1	195-10-29-088; 195-10-29-059; 195-10-29-190; 195-10-29-081; 195-10-29-095; 195-10-29-048;			
1	195-10-29-081; 195-10-29-093; 195-10-29-048; 195-10-29-144; 195-10-29-176; 195-10-29-120;			
1	195-10-29-144; 195-10-29-170; 195-10-29-120; 195-10-29-149; 195-10-29-034; 195-10-29-052;			
	195-10-29-198; 195-10-29-153; 195-10-29-094; 195-10-29-093; 195-10-29-112; 195-10-29-131;			
	195-10-29-130; 195-10-29-089; 195-10-29-193;			
	195-10-29-092; 195-10-29-073; 195-10-29-119;			
	195-10-29-111; 195-10-29-166; 195-10-29-115;			
	195-10-29-106; 195-10-29-136; 195-10-29-078;			
	195-10-29-072; 195-10-29-090; 195-10-29-068;			
	195-10-29-163; 195-10-29-165; 195-10-29-075;			
	195-10-29-128; 195-10-29-129; 195-10-29-137;			
	195-10-29-098; 195-10-29-113; 195-10-29-167;			
	195-10-29-138; 195-10-29-108; 195-10-29-103;			
	195-10-29-105; 195-10-29-055; 195-10-29-122;			
	195-10-29-139; 195-10-29-067; 195-10-29-031;			
	195-10-29-181; 195-10-29-038; 195-10-29-199;			
	195-10-29-192; 195-10-29-146; 195-10-29-170;			
	195-10-29-155; 195-10-29-047; 195-10-29-077;			
	195-10-29-063; 195-10-29-076; 195-10-29-087;			
	195-10-29-097; 195-10-29-079; 195-10-29-065;			
	195-10-29-157; 195-10-29-082; 195-10-29-083;			
1	195-10-29-184; 195-10-29-183; 195-10-29-134;			
1	195-10-29-116; 195-10-29-145; 195-10-29-070;			
	195-10-29-125; 195-10-29-118; 195-10-29-147;			
1	195-10-29-148; 195-10-29-085; 195-10-29-117;			
1	195-10-29-071;			
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2	195-10-29-164; 195-10-29-066; 195-10-29-110; 195-10-29-180; 195-10-29-091; 195-10-29-100; 195-10-29-074; 195-10-29-162; 195-10-29-036; 195-10-29-054; 195-10-29-037; 195-10-29-051; 195-10-29-160; 195-10-29-197; 195-10-29-158; 195-10-29-168; 195-10-29-046; 195-10-29-177; 195-10-29-195; 195-10-29-171; 195-10-29-061; 195-10-29-124; 195-10-29-143; 195-10-29-039; 195-10-29-161; 195-10-29-049; 195-10-29-056; 195-10-29-141; 195-10-29-152; 195-10-29-174; 195-10-29-154; 195-10-29-172; 195-10-29-132;	B; D; P; SY; VP	Baseline: - 47.5ft. Setback Line: - 108.0ft.	None.
3	195-10-30-043; 195-10-30-030; 195-10-30-005; 195-10-30-050; 195-10-30-029; 195-10-30-044; 195-10-30-010; 195-10-30-032; 195-10-30-006; 195-10-30-034; 195-10-30-040; 195-10-30-051; 195-10-30-037; 195-10-30-048; 195-10-30-052; 195-10-30-012; 195-10-30-024; 195-10-30-049; 195-10-30-011; 195-10-30-007; 195-10-30-018; 195-10-30-019; 195-10-30-042; 195-10-30-031; 195-10-30-021; 195-10-30-016; 195-10-30-031; 195-10-30-046; 195-10-30-004; 195-10-30-041; 195-10-30-046; 195-10-30-027; 195-10-30-041; 195-10-30-014; 195-10-30-028; 195-10-30-014; 195-10-30-020; 195-10-30-028; 195-10-30-026; 195-10-30-038; 195-10-30-025; 195-10-30-036; 195-10-30-045; 195-10-30-013; 195-10-30-022; 195-10-30-036; 195-10-30-023; 195-10-30-017; 195-10-30-015;	B; D; P; SY; VP	Baseline: +1.0ft. Setback Line: - 47.5 ft.	RR
4	195-10-30-003	B; D; P; SY; VP	Baseline: - 23.0ft. Setback Line: - 69.0ft.	SW

#### Beach Access Inventory:

Location	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
N. Waccamaw Dr.	See Structure #2 (above)	PRAP	WO	private	private
Rainbow Dr. (end)	N/A	LPAP	WW; D; TR; Lost Child Identification Sign	Off-street / On-street (within 500ft. of access)	Standard: 6 / 8 Handicapped: 0 Grand Total: 14
N. Waccamaw Dr.	See Structure #3 (above)	PRAP	SY	private	private
Seabreeze Dr. (end)	N/A	NPAP/HAP	WW; D; TR; VA	Off-street / On-street (within 500ft. of access)	Standard: 6 / 20 Handicapped: 1 <b>Grand Total:</b> 27

<b>Location of Discharge Structure</b>	Type	Distance from OCRM Lines
None in this section.		

## HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #9

**Covered area:** Seabreeze Dr. – Calhoun Dr. (Garden City)

Inventory map:



No.	TMS#	Type of Structure( s)	Distance from OCRM	Erosion Control Structure(s)
1	195-10-31-199; 195-10-31-170; 195-10-31-272; 195-10-31-087; 195-10-31-180; 195-10-31-247; 195-10-31-076; 195-10-31-145; 195-10-31-257; 195-10-31-235; 195-10-31-210; 195-10-31-198; 195-10-31-132; 195-10-31-209; 195-10-31-121; 195-10-31-143; 195-10-31-094; 195-10-31-178; 195-10-31-157; 195-10-31-091; 195-10-31-179; 195-10-31-208; 195-10-31-095; 195-10-31-167; 195-10-31-221; 195-10-31-245; 195-10-31-271; 195-10-31-186; 195-10-31-245; 195-10-31-104; 195-10-31-186; 195-10-31-219; 195-10-31-109; 195-10-31-128; 195-10-31-102; 195-10-31-155; 195-10-31-207; 195-10-31-12; 195-10-31-214; 195-10-31-164; 195-10-31-250; 195-10-31-152; 195-10-31-258; 195-10-31-250; 195-10-31-212; 195-10-31-258; 195-10-31-201; 195-10-31-090; 195-10-31-085; 195-10-31-141; 195-10-31-069; 195-10-31-081; 195-10-31-185; 195-10-31-190; 195-10-31-270; 195-10-31-181; 195-10-31-185; 195-10-31-190; 195-10-31-270; 195-10-31-185; 195-10-31-190;	B; D; P; SY	Lines  Baseline: -29.0ft. Setback Line: - 80.0ft.	SW (Good condition); (see Photo 9-1)

1		B; D; P;	Baseline:	SW (Good
1	195-10-31-116; 195-10-31-193; 195-10-31-067;	SY	-29.0ft.	condition); (see
	195-10-31-099; 195-10-31-229; 195-10-31-268;	31		7 1 1
	195-10-31-191; 195-10-31-114; 195-10-31-217;		Setback	Photo 9-1)
	195-10-31-108; 195-10-31-267; 195-10-31-070;		Line: -	
	195-10-31-172; 195-10-31-192; 195-10-31-115;		80.0ft.	
	195-10-31-149; 195-10-31-173; 195-10-31-079;			
	195-10-31-203; 195-10-31-125; 195-10-31-275;			
	195-10-31-171; 195-10-31-225; 195-10-31-212;			
	195-10-31-258; 195-10-31-201; 195-10-31-090;			
	195-10-31-181; 195-10-31-188; 195-10-31-075;			
	195-10-31-085; 195-10-31-141; 195-10-31-069;			
	195-10-31-081; 195-10-31-135; 195-10-31-190;			
	195-10-31-270; 195-10-31-185; 195-10-31-127;			
	195-10-31-259; 195-10-31-142; 195-10-31-158;			
	195-10-31-262; 195-10-31-239; 195-10-31-126;			
	195-10-31-151; 195-10-31-213; 195-10-31-251;			
	195-10-31-269; 195-10-31-218; 195-10-31-124;			
	195-10-31-098; 195-10-31-211; 195-10-31-086;			
	195-10-31-084; 195-10-31-234; 195-10-31-144;			
	195-10-31-236; 195-10-31-169; 195-10-31-140;			
	195-10-31-083; 195-10-31-165; 195-10-31-139;			
	195-10-31-117; 195-10-31-240; 195-10-31-204;			
	195-10-31-162; 195-10-31-148; 195-10-31-274;			
	195-10-31-249; 195-10-31-194; 195-10-31-184;			
	195-10-31-154; 195-10-31-103; 195-10-31-068;			
	195-10-31-089; 195-10-31-238; 195-10-31-237;			
	195-10-31-241; 195-10-31-273; 195-10-31-233;			
	195-10-31-226; 195-10-31-220; 195-10-31-216;			
	195-10-31-168; 195-10-31-187; 195-10-31-246;			
	195-10-31-138; 195-10-31-183; 195-10-31-223;			
	195-10-31-222; 195-10-31-133; 195-10-31-130;			
	195-10-31-252; 195-10-31-243; 195-10-31-093;			
	195-10-31-082; 195-10-31-231; 195-10-31-261;			
	195-10-31-107; 195-10-31-266; 195-10-31-101;			
	195-10-31-100; 195-10-31-228; 195-10-31-113;			
	195-10-31-147; 195-10-31-256; 195-10-31-166;			
	195-10-31-088; 195-10-31-074; 195-10-31-242;			
	195-10-31-224; 195-10-31-123; 195-10-31-146;			
	195-10-31-097; 195-10-31-120; 195-10-31-215;			
	195-10-31-197; 195-10-31-253; 195-10-31-206;			
1	195-10-31-156; 195-10-31-110; 195-10-31-072;			
1	195-10-31-122; 195-10-31-200; 195-10-31-134;			
1	195-10-31-096; 195-10-31-073; 195-10-31-244;			
1	195-10-31-254; 195-10-31-160; 195-10-31-119;			
1	195-10-31-118; 195-10-31-071; 195-10-31-263;			
1	195-10-31-232; 195-10-31-163; 195-10-31-066;			
1	195-10-31-174; 195-10-31-202; 195-10-31-105;			
1	195-10-31-264; 195-10-31-092; 195-10-31-205;			
1	195-10-31-265; 195-10-31-137; 195-10-31-106;			
1	195-10-31-161; 195-10-31-153; 195-10-31-227;			
1	195-10-31-080; 195-10-31-136; 195-10-31-078;			
	195-10-31-260; 195-10-31-077; 195-10-31-248;			
	195-10-31-189; 195-10-31-159; 195-10-31-182;			
	195-10-31-195; 195-10-31-175; 195-10-31-150;			
1	195-10-31-255; 195-10-31-129;			
<u> </u>	, ,		<u> </u>	<u> </u>

2	195-10-31-049; 195-10-31-024; 195-10-31-034; 195-10-31-017; 195-10-31-046; 195-10-31-037; 195-10-31-020; 195-10-31-032; 195-10-31-057; 195-10-31-043; 195-10-31-025; 195-10-31-011; 195-10-31-054; 195-10-31-053; 195-10-31-051; 195-10-31-056; 195-10-31-058; 195-10-31-062; 195-10-31-013; 195-10-31-038; 195-10-31-019; 195-10-31-039; 195-10-31-016; 195-10-31-064; 195-10-31-052; 195-10-31-044; 195-10-31-006; 195-10-31-059; 195-10-31-044; 195-10-31-010; 195-10-31-009; 195-10-31-045; 195-10-31-055; 195-10-31-007; 195-10-31-031; 195-10-31-023; 195-10-31-050; 195-10-31-060; 195-10-31-026; 195-10-31-041; 195-10-31-021; 195-10-31-022; 195-10-31-041; 195-10-31-042; 195-10-31-040; 195-10-31-041; 195-10-31-042; 195-10-31-040; 195-10-31-041; 195-10-31-042; 195-10-31-040; 195-10-31-041; 195-10-31-048; 195-10-31-036; 195-10-31-028; 195-10-31-047; 195-10-31-015; 195-10-31-063; 195-10-31-047; 195-10-31-015; 195-10-31-063; 195-10-31-047; 195-10-31-015; 195-10-31-063; 195-10-31-029;	B; D; P; VP; WW	Baseline: -31.5ft. Setback Line: - 86.5ft	SW; RR; (Fair condition); (see Photos 9-2 and 9-3)
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Beach Access Inventory:

<b>Location</b>	TMS# / PIN	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
N. Waccamaw Dr.	See Structure #1 (above)	PRAP	SY	private	private
N. Waccamaw Dr.	See Structure #2 (above)	PAP	WO	private	private
Calhoun Dr. (end)	N/A	NPAP/HAP	WW; D; S; TR; VA	Off-street / On-street (within 500ft. of access)	Golf carts: 10 Standard: 16 / 33 Handicapped: 2 Grand Total:

<b>Location of Discharge Structure</b>	Type / Condition	<b>Distance from OCRM Lines</b>
Royal Garden Resort: 1210 N.	12" Stormwater Discharge Pipe	Baseline: -69.0ft.
Waccamaw Dr.	(see Photo 9-4)	Setback Line: -129.0ft

Photos:
Photo 9-1

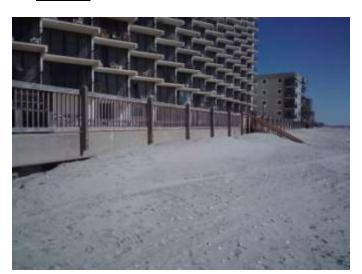


Photo 9-2



Photo 9-3



Photo 9-4



## HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #10

**Covered area:** Calhoun Dr. – Woodland Dr. (Garden City)

Inventory map:



No.	TMS#	Type of Structure(s)	Distance from OCRM Lines	Erosion Control Structure(s)
1	195-10-32-044	A; SY;	Baseline: +52.8ft. Setback Line: - 6.0ft.	Natural dune w/ dune protection fencing in place;
2	195-10-32-045	A; SY; WO (Communal)	Baseline: +88.2ft. Setback Line: +19.3ft	Natural dune w/ dune protection fencing in place;
3	195-10-32-047	A; SY; WO (Communal)	Baseline: +64.8ft. Setback Line: +64.6ft	Natural dune w/ dune protection fencing in place;

4	195-10-32-046	A; SY	Baseline: +50.3ft. Setback Line: - .6ft	Natural dune w/ dune protection fencing in place;
5	195-10-32-048	A; SY; P (Communal)	Baseline: +46.1ft. Setback Line: - 3.4ft	Natural dune w/ dune protection fencing in place;
6	195-10-32-049	A; SY; P (Communal)	Baseline: +78.6ft. Setback Line: +27.8ft	Natural dune w/ dune protection fencing in place;
7	195-10-32-051	A; SY; P (Communal)	Baseline: +80.5ft. Setback Line: +30.6ft	Natural dune w/ dune protection fencing in place;
8	195-10-32-050	A; P; SY; WO (Communal)	Baseline: +40.4ft. Setback Line: - 10.3ft	Natural dune w/ dune protection fencing in place;
9	195-10-32-052	A; SY; WO	Baseline: +39.9ft. Setback Line: - 12.4ft	Natural dune w/ dune protection fencing in place;
10	195-10-32-053	A; SY	Baseline: +78.5ft. Setback Line: +20.0ft	Natural dune w/ dune protection fencing in place;

#### Beach Access Inventory:

Location	TMS# / PIN	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
N. Waccamaw Dr.	See Structures #2, #3 (above)	PRAP	WO	private	private
N. Waccamaw Dr.	See Structure #8, #9 (above)	PRAP	WO	private	private
Woodland Dr. (end)	N/A	PAP	D; TR; WO; Lost Child Identification Sign	Off-street / On-street (within 500ft. of access)	Standard: 5 / 1 Handicapped: 0 Grand Total: 6

<b>Location of Discharge Structure</b>	Type	<b>Distance from OCRM Lines</b>
None in this section.		

## HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #11

**Covered area:** Woodland Dr. – Hawes Ave. (Garden City)

Inventory map:



No.	TMS#	Type of Struct ure(s)	<u>Distance from</u> <u>OCRM Lines</u>	Erosion Control Structure(s)
1	195-11-02-010	A; D; VP; WO	Baseline: +47.4ft. Setback Line: - 3.4ft.	Natural dune
2	195-11-02-070; 195-11-02-069; 195-11-02-068; 195-11-02-067; 195-11-02-066;195-11-02-073; 195-11-02-074; 195-11-02-072;195-11-02-071;	B; D; P; SY; VP	Baseline: -25.9ft. Setback Line: - 78.0ft	SW (sand accumulating below)
3	195-11-02-021; 195-11-02-020;195-11-02-013; 195-11-02-016; 195-11-02-018;195-11-02-027; 195-11-02-025; 195-11-02-022;195-11-02-019; 195-11-02-014; 195-11-02-024;195-11-02-017; 195-11-02-026; 195-11-02-023;195-11-02-015;	B; D; P; WO; VP	Baseline: -6.5ft. Setback Line: - 56.5ft	SW

4	195-11-02-092; 195-11-02-096;195-11-02-100; 195-11-02-095; 195-11-02-088;195-11-02-091; 195-11-02-093; 195-11-02-083;195-11-02-086; 195-11-02-098; 195-11-02-090;195-11-02-097; 195-11-02-099; 195-11-02-085;195-11-02-087; 195-11-02-084; 195-11-02-089;195-11-02-094;	B; P; VP; WO	Baseline: -25.3ft. Setback Line: - 71.3ft	Remnants of natural dune (no fencing); RR
5	195-11-02-078; 195-11-02-075; 195-11-02-081; 195-11-02-077; 195-11-02-080;195-11-02-079; 195-11-02-082; 195-11-02-076;	B; VP	Baseline: -26.6ft. Setback Line: - 76.2ft	Remnants of natural dune (no fencing);

Beach Access Inventory:

<b>Location</b>	TMS# / PIN	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
N. Waccamaw Dr.	195-11-02- 010	PRAP	WO	private	private
N. Waccamaw Dr.	See Structure #2 (above)	PRAP	SY	private	private
N. Waccamaw Dr.	See Structure #4 (above)	PRAP	WW	private	private
Hawes Ave. (end)	N/A	LPAP/HAP	S; TR; VA; WW; Lost Child Identification Sign	Off-street / On-street (within 500ft. of access)	Golf carts: 3 Standard: 11 / 0 Handicapped: 1 Grand Total: 14

2. uniuge zu wetur e zier eiter je					
<b>Location of Discharge Structure</b>	Type	<b>Distance from OCRM Lines</b>			
None in this section.					

## HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #12

**Covered area:** Hawes Ave. – Dixon Dr. (Garden City)

Inventory map:



No.	TMS#	Type of Structure(s)	Distance from OCRM Lines	Erosion Control Structure(s)
1	195-11-03-129; 195-11-03-099;195-11-03-133; 195-11-03-126; 195-11-03-131;195-11-03-087; 195-11-03-085; 195-11-03-145;195-11-03-107; 195-11-03-106; 195-11-03-098;195-11-03-143; 195-11-03-138; 195-11-03-140;195-11-03-073; 195-11-03-117; 195-11-03-110;195-11-03-096; 195-11-03-108; 195-11-03-084;195-11-03-088; 195-11-03-108; 195-11-03-082;195-11-03-130; 195-11-03-089; 195-11-03-103;195-11-03-144; 195-11-03-088; 195-11-03-105;195-11-03-095; 195-11-03-088; 195-11-03-102;195-11-03-077; 195-11-03-076; 195-11-03-094;195-11-03-142; 195-11-03-076; 195-11-03-104;195-11-03-120; 195-11-03-125; 195-11-03-116;195-11-03-086; 195-11-03-135; 195-11-03-116;195-11-03-080; 195-11-03-111; 195-11-03-102;195-11-03-081; 195-11-03-074; 195-11-03-101;195-11-03-082; 195-11-03-075; 195-11-03-141;195-11-03-092; 195-11-03-075; 195-11-03-144;195-11-03-112; 195-11-03-091; 195-11-03-109; 195-11-03-100; 195-11-03-109; 195-11-03-100; 195-11-03-109; 195-11-03-121; 195-11-03-123; 195-11-03-121; 195-11-03-093;195-11-03-078; 195-11-03-121; 195-11-03-093;195-11-03-123;	B; D; F; P; SY	Baseline: -29.4ft. Setback Line: -81.8ft.	Remnants of natural dune; SW (Good condition); (see Photo 12-1)
2	195-11-03-090; 195-11-03-011; 195-11-03-029; 195-11-03-012; 195-11-03-051; 195-11-03-010; 195-11-03-016; 195-11-03-047; 195-11-03-009; 195-11-03-048; 195-11-03-039; 195-11-03-055; 195-11-03-054; 195-11-03-065; 195-11-03-028; 195-11-03-060; 195-11-03-042; 195-11-03-070; 195-11-03-049; 195-11-03-046; 195-11-03-044; 195-11-03-035; 195-11-03-019; 195-11-03-020; 195-11-03-071; 195-11-03-025; 195-11-03-069; 195-11-03-005; 195-11-03-058; 195-11-03-069; 195-11-03-067; 195-11-03-053; 195-11-03-004; 195-11-03-067; 195-11-03-059; 195-11-03-004; 195-11-03-062; 195-11-03-059; 195-11-03-050; 195-11-03-037; 195-11-03-012; 195-11-03-057; 195-11-03-013; 195-11-03-023; 195-11-03-057; 195-11-03-045; 195-11-03-026; 195-11-03-068; 195-11-03-045; 195-11-03-041; 195-11-03-068; 195-11-03-033; 195-11-03-041; 195-11-03-056; 195-11-03-040; 195-11-03-066; 195-11-03-072; 195-11-03-040; 195-11-03-066; 195-11-03-072; 195-11-03-046; 195-11-03-066; 195-11-03-072; 195-11-03-046; 195-11-03-066; 195-11-03-018; 195-11-03-064; 195-11-03-063; 195-11-03-018; 195-11-03-064; 195-11-03-063; 195-11-03-061; 195-11-03-052;	B; D; VP; SY	Baseline: -21.9ft. Setback Line: -76.2ft.	Remnants of natural dune; SW (Good condition); (see Photos 12-2 and 12-3)

#### Beach Access Inventory:

Location	TMS#/PIN	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
N. Waccamaw Dr.	See Structure #1 (above)	PRAP	SY	private	private
N. Waccamaw Dr.	See Structure #1 (above)	PRAP	SY	private	private

#### Drainage Structure Inventory:

<b>Location of Discharge Structure</b>	Type	<b>Distance from OCRM Lines</b>
None in this section.		

## Photos: Photo 12-1



#### Photo 12-2



Photo 12-3



## HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #13

**Covered area:** Dixon Dr. – Oceanside Dr. (Garden City)

Inventory map:



Siru	cturai Inventory:			•
No.	<u>TMS#</u>	Type of	Distance from	Erosion Control
		<u>Structur</u>	OCRM Lines	Structure(s)
		<u>e(s)</u>		
1	195-00-01-013	A; D;	Baseline:	Natural dune w/
		WO	+36.2ft.	dune protection
			Setback Line: -	fencing in place;
			13.8ft.	
2	195-11-02-038; 195-11-02-046;195-11-02-052;	B; D; P;	Baseline:	Natural dune w/
	195-11-02-065; 195-11-02-049;195-11-02-047;	VP; WO	+36.3ft.	dune protection
	195-11-02-060; 195-11-02-032;195-11-02-057;		Setback Line: -	fencing in place;
	195-11-02-040; 195-11-02-058;195-11-02-053;		11.8ft.	
	195-11-02-051; 195-11-02-030;195-11-02-041;			
	195-11-02-050; 195-11-02-036;195-11-02-061;			
	195-11-02-043; 195-11-02-056;195-11-02-055;			
	195-11-02-037; 195-11-02-044;195-11-02-033;			
	195-11-02-062; 195-11-02-048;195-11-02-042;			
	195-11-02-035; 195-11-02-063;195-11-02-034;			
	195-11-02-031; 195-11-02-064;195-11-02-059;			
	195-11-02-054; 195-11-02-039;195-11-02-045;			

3	Under same Horizontal Property Regime as above.	В	Baseline: -6.4ft. Setback Line: - 55.6ft.	Natural dune w/ dune protection fencing in place;
4	195-11-02-102	A; D; SY	Baseline: +16.2ft. Setback Line: - 28.0ft.	Natural dune w/ dune protection fencing in place;
5	195-20-15-061; 195-00-01-023	C; TR; VP; WO	Baseline: + 2.4ft. Setback Line: - 41.4ft.	Natural dune w/ dune protection fencing in place;

Beach Access Inventory:

Location	TMS# / PIN	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
N. Waccamaw Dr.	195-00-01-013	PRAP	WW	private	private
N. Waccamaw Dr.	See Structure #2 ( see above)	PRAP	WO	private	private
N. Waccamaw Dr.	195-11-02-102	PRAP	WO	private	private
N. Waccamaw Dr.	195-20-15-061; 195-00-01-023	PRAP	WO	private	private
Oceanside Dr. (end)	Same as above	PRAP	R; S; TR; VP; WO	private	private

<b>Location of Discharge Structure</b>	Type	Distance from OCRM Lines
None in this section.		

## HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #14

**Covered area:** Oceanside to Melody (Garden City Beach)

Inventory map:



Dua	ciurai inveniory.			
No.	TMS#	Type of	<b>Distance</b>	<b>Erosion</b>
		Structure(s)	from OCRM	Control
			Lines	Structure(s)
1	195-07-32-032; 195-07-32-014; 195-07-32-029;	B; D; P; SY	Baseline: -	Natural dune
	195-07-32-008; 195-07-32-012; 195-07-32-044;		3.5 ft	w/ dune
	195-07-32-010; 195-07-32-031; 195-07-32-021;		Setback: -	protection
	195-07-32-019; 195-07-32-054; 195-07-32-005;		32.6 ft	fencing in
	195-07-32-007; 195-07-32-018; 195-07-32-025;			place; SW
	195-07-32-036; 195-07-32-004; 195-07-32-006;			
	195-07-32-046; 195-07-32-039; 195-07-32-056;			
	195-07-32-040; 195-07-32-022; 195-07-32-024;			
	195-07-32-057; 195-07-32-011; 195-07-32-051;			
	195-07-32-055; 195-07-32-013; 195-07-32-048;			
	195-07-32-023; 195-07-32-041; 195-07-32-043;			
	195-07-32-037; 195-07-32-047; 195-07-32-050;			
	195-07-32-003; 195-07-32-001; 195-07-32-027;			
	195-07-32-045; 195-07-32-020; 195-07-32-034;			
	195-07-32-016; 195-07-32-002; 195-07-32-009;			
	195-07-32-026; 195-07-32-033; 195-07-32-038;			
	195-07-32-052; 195-07-32-015; 195-07-32-017;			
	195-07-32-053; 195-07-32-030; 195-07-32-049;			

	105 07 22 042, 105 07 22 020, 105 07 22 025			1
	195-07-32-042; 195-07-32-028; 195-07-32-035			
2	105 07 22 006, 105 07 22 040, 105 07 22 017.	B; D; P	Baseline: -3.4	Natural dune
2	195-07-33-006; 195-07-33-049; 195-07-33-017;	D; D; P	ft Baseline: -3.4	
	195-07-33-028; 195-07-33-055; 195-07-33-040; 195-07-33-003; 195-07-33-027; 195-07-33-038;		Setback: -	w/ dune protection
	195-07-33-052; 195-07-33-050; 195-07-33-048;		30.4 ft	fencing in
	195-07-33-046; 195-07-33-021; 195-07-33-016;		30.4 11	place; SW
	195-07-33-039; 195-07-33-004; 195-07-33-011;			prace, 5 w
	195-07-33-012; 195-07-33-005; 195-07-33-053;			
	195-07-33-041; 195-07-33-001; 195-07-33-008;			
	195-07-33-042; 195-07-33-010; 195-07-33-044;			
	195-07-33-033; 195-07-33-023; 195-07-33-002;			
	195-07-33-025; 195-07-33-020; 195-07-33-036;			
	195-07-33-013; 195-07-33-024; 195-07-33-015;			
	195-07-33-054; 195-07-33-029; 195-07-33-018;			
	195-07-33-043; 195-07-33-009; 195-07-33-037;			
	195-07-33-014; 195-07-33-034; 195-07-33-019;			
	195-07-33-026; 195-07-33-030; 195-07-33-057;			
	195-07-33-035; 195-07-33-045; 195-07-33-032;			
	195-07-33-007; 195-07-33-056; 195-07-33-022;			
	195-07-33-031; 195-07-33-047; 195-07-33-051			
3	195-07-33-069	A; SY	Baseline:	Natural dune
			29.0 ft	w/ dune
			Setback: +3.3	protection
			ft	fencing in
4	105.07.22.060	A CXZ	D 1:	place;
4	195-07-33-068	A; SY	Baseline: 27.8 ft	Natural dune
			27.8 π Setback: +2.0	w/ dune
			ft	protection fencing in
			11	place;
5	195-07-33-067	A; SY	Baseline:	Natural dune
		,	27.1 ft	w/ dune
			Setback: -0.2	protection
			ft	fencing in
				place;
6	195-07-33-066	A; SY	Baseline:	Natural dune
			27.1 ft	w/ dune
			Setback: 0.0	protection
			ft	fencing in
	107.07.00.007	1		place;
7	195-07-33-065	A; SY	Baseline:	Natural dune
			27.7 ft	w/ dune
			Setback: +0.5	protection
			ft	fencing in
8	105 07 22 064	A. CV	Baseline:	place; Natural dune
Ŏ	195-07-33-064	A; SY	Baseline: 27.0 ft	w/ dune
			27.0 π Setback: +0.5	protection
			ft	fencing in
			11	place;
				prace,

9	195-07-33-070	A; SY	Baseline: 44.9 ft Setback: 19.8 ft	Natural dune w/ dune protection fencing in
10	195-07-33-063	A; SY	Baseline: 24.5 ft	place; Natural dune w/ dune
			Setback: -0.8 ft	protection fencing in place;
11	195-07-33-062	A; SY	Baseline: 25.1 ft Setback: -1.1 ft	Natural dune w/ dune protection fencing in place;
12	195-07-33-061	A; SY	Baseline: 23.9 ft Setback: -1.0 ft	Natural dune w/ dune protection fencing in place;
13	195-07-33-060	A; SY	Baseline: 24.1 ft Setback: +0.5 ft	Natural dune w/ dune protection fencing in place;
14	195-07-33-059	A; SY	Baseline: 24.3 ft Setback: -1.1 ft	Natural dune w/ dune protection fencing in place;
15	195-07-33-058	A; SY	Baseline: 22.0 ft Setback: -1.7 ft	Natural dune w/ dune protection fencing in place;

#### Beach Access Inventory:

Location	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
Ocean Place	See #1 and #2 above	PRAP	WO	Private	None
Portofino IV Lot 12	See #3 above	PRAP	WO	Private	None
Portofino IV Lot 11	See #4 above	PRAP	WO	Private	None
Portofino IV Lot 10	See #5 above	PRAP	WO	Private	None
Portofino IV Lot 9	See #6 above	PRAP	WO	Private	None
Portofino IV Lot 8	See #7 above	PRAP	WO	Private	None

Portofino IV Lot 7	See #8 above	PRAP	WO	Private	None
Portofino IV Amenity	See #9 above	PRAP	WO	Private	None
Portofino IV Lot 6	See #10 above	PRAP	WO	Private	None
Portofino IV Lot 5	See #11 above	PRAP	WO	Private	None
Portofino IV Lot 4	See #12 above	PRAP	WO	Private	None
Portofino IV Lot 3	See #13 above	PRAP	WO	Private	None
Portofino IV Lot 2	See #14 above	PRAP	WO	Private	None
Portofino IV Lot 1	See #15 above	PRAP	WO	Private	None
Melody Dr. (end) Town Limit of Surfside Beach	N/A	NPAP/HAP	VA; TR	Off-street / On-street (within 500ft. of access)	Golf carts: 8 Standard: 5 / 26 Handicapped: 1 Grand Total: 40

<b>Location of Discharge Structure</b>	Type	Distance from OCRM Lines
None in this section.		

## HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #15

**Covered area:** Springmaid Resort (Springmaid Beach)

Inventory map:



Stru	Structural Inventory.						
<u>No.</u>	TMS#	Type of Structure(s)	Distance from OCRM Lines	Erosion Control Structure(s)			
1	186-81-01-005	D	Baseline: -7.3 ft Setback: -26.8 ft	Natural dune w/ dune protection fencing in place;			
2	186-81-01-004	A; D	Baseline: -13.2 ft Setback: -20.7 ft	Natural dune w/ dune protection fencing in place;			
3	186-81-01-003	A	Baseline: -21.1 ft Setback: -29.5 ft	Natural dune w/ dune protection fencing in place;			
4	186-81-01-002	A; D	Baseline: -21.1 ft Setback: -29.5 ft	Natural dune w/ dune protection fencing in place;			
5	186-81-01-001	A; D	Baseline: -21.1 ft Setback: -29.5 ft	Natural dune w/ dune protection fencing in place;			

6	Springmaid Pier – No TMS#	C; PR; VP	Baseline: -32.8 ft	Natural dune w/
			Setback: -29.5 ft	dune protection
				fencing in place;

Beach Access Inventory:

<b>Location</b>	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
Nash Street	N/A	СРАР/НАР	TR; VA; WO	Off-street / On-street (within 500ft. of access)	Standard: 36 / 91 Handicapped: 1 Grand Total: 128
Springmaid Beach Resort	186-12-01- 008	PRAP	TR; WO	Private	None
Springmaid Beach Resort	186-12-01- 008	PRAP	TR; WO	Private	None
Springmaid Beach Resort	186-12-01- 008	PRAP	TR; WO	Private	None
Springmaid Beach Resort	186-12-01- 008	PRAP	TR; WO	Private	None
Springmaid Beach Resort	186-12-01- 008	PRAP	TR; WO	Private	None
Springmaid Beach Resort	186-12-01- 008	PRAP	TR; WO	Private	None
Springmaid Pier	N/A	RPAP/HAP	PR	Private; Public Parking deck within 500ft./ On-street within 500ft.	Parking deck Standard: 142 Handicapped: 2 On-street: 15 Grand Total: 159

Drainage Structure Inventory:

Location of Discharge Structure	Type	Distance from OCRM Lines
Nash Street	18" Stormwater Drainage Pipe	Baseline: -19.0 ft
	(drainage basin >1 foot in depth);	Setback: -35.5 ft
	(see Photo 15-1)	

## **Photos:** Photo 15-1



## HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #16

**Covered area:** Sands Beach Club to Sands Ocean Club (Arcadian Shores) **Inventory map:** 



Structure at 2107 cittor y						_
Ī	No.	TMS#	Type of	Distance from	Erosion	
			Structure(s)	OCRM Lines	Control	
					Structure(s)	

1	166-00-10-010; 166-00-10-003; 166-00-10-115;	B; D; F; VP;	Baseline: -3.0	None
1	166-00-10-137; 166-00-10-156; 166-00-10-009;	SY SY	ft	Trone
	166-00-10-125; 166-00-10-136; 166-00-10-100;		Setback: -42.5	
	166-00-10-017; 166-00-10-019; 166-00-10-131;		ft	
	166-00-10-146; 166-00-10-026; 166-00-10-164;		10	
	166-00-10-149; 166-00-10-037; 166-00-10-005;			
	166-00-10-109; 166-00-10-126; 166-00-10-092;			
	166-00-10-013; 166-00-10-114; 166-00-10-135;			
	166-00-10-068; 166-00-10-077; 166-00-10-018;			
	166-00-10-078; 166-00-10-074; 166-00-10-107;			
	166-00-10-085; 166-00-10-099; 166-00-10-161;			
	166-00-10-159; 166-00-10-015; 166-00-10-120;			
	166-00-10-079; 166-00-10-148; 166-00-10-165;			
	166-00-10-020; 166-00-10-038; 166-00-10-080;			
	166-00-10-108; 166-00-10-081; 166-00-10-095;			
	166-00-10-110; 166-00-10-112; 166-00-10-166;			
	166-00-10-065; 166-00-10-067; 166-00-10-111;			
	166-00-10-129; 166-00-10-139; 166-00-10-118;			
	166-00-10-123; 166-00-10-135; 166-00-10-118;			
	166-00-10-008; 166-00-10-014; 166-00-10-123;			
	166-00-10-145; 166-00-10-122; 166-00-10-042;			
	166-00-10-070; 166-00-10-039; 166-00-10-053;			
	166-00-10-152; 166-00-10-087; 166-00-10-089;			
	166-00-10-082; 166-00-10-047; 166-00-10-094;			
	166-00-10-084; 166-00-10-098; 166-00-10-028;			
	166-00-10-045; 166-00-10-143; 166-00-10-154;			
	166-00-10-150; 166-00-10-040; 166-00-10-096;			
	166-00-10-050; 166-00-10-058; 166-00-10-142;			
	166-00-10-155; 166-00-10-073; 166-00-10-088;			
	166-00-10-062; 166-00-10-036; 166-00-10-049;			
	166-00-10-140; 166-00-10-001; 166-00-10-119;			
	166-00-10-071; 166-00-10-032; 166-00-10-043;			
	166-00-10-075; 166-00-10-031; 166-00-10-035;			
	166-00-10-052; 166-00-10-072; 166-00-10-091;			
	166-00-10-093; 166-00-10-044; 166-00-10-046;			
	166-00-10-066; 166-00-10-151; 166-00-10-102;			
	166-00-10-022; 166-00-10-051; 166-00-10-059;			
	166-00-10-063; 166-00-10-128; 166-00-10-138;			
	166-00-10-157; 166-00-10-162; 166-00-10-083;			
	166-00-10-029; 166-00-10-055; 166-00-10-147;			
	166-00-10-132; 166-00-10-064; 166-00-10-113;			
	166-00-10-034; 166-00-10-144; 166-00-10-160;			
	166-00-10-116; 166-00-10-124; 166-00-10-133;			
	166-00-10-104; 166-00-10-076; 166-00-10-007;			
	166-00-10-023; 166-00-10-041; 166-00-10-086;			
	166-00-10-048; 166-00-10-069; 166-00-10-012;			
	166-00-10-004; 166-00-10-127; 166-00-10-006;			
	166-00-10-141; 166-00-10-002; 166-00-10-158;			
	166-00-10-016; 166-00-10-134; 166-00-10-101;			
	166-00-10-130; 166-00-10-090; 166-00-10-030;			
	166-00-10-024; 166-00-10-163; 166-00-10-033;			
	166-00-10-056; 166-00-10-021; 166-00-10-057;			
	166-00-10-121; 166-00-10-106; 166-00-10-025;			
	166-00-10-054; 166-00-10-027; 166-00-10-061;			
	166-00-10-117; 166-00-10-153; 166-00-10-097;			
	166-00-10-06			

2	166 00 05 005, 166 00 04 000, 166 00 07 007.	D. D. E. CV.	Danalina, 12.2	No dunes
2	166-00-05-005; 166-00-04-002; 166-00-07-007;	B; P; F; SY;	Baseline: -12.2	No dunes
	166-00-03-013; 166-00-06-014; 166-00-05-012;	VP	ft	
	166-00-02-003; 166-00-04-014; 166-00-03-014;		Setback: -52.5	
	166-00-02-010; 166-00-03-016; 166-00-05-014;		ft	
	166-00-04-001; 166-00-06-010; 166-00-05-011;			
	166-00-06-015; 166-00-07-009; 166-00-07-006;			
	166-00-06-012; 166-00-06-003; 166-00-07-014;			
	166-00-04-006; 166-00-03-002; 166-00-02-014;			
	166-00-07-002; 166-00-04-008; 166-00-04-016;			
	166-00-06-013; 166-00-07-003; 166-00-06-007;			
	166-00-07-012; 166-00-03-006; 166-00-04-009;			
	166-00-06-004; 166-00-05-010; 166-00-06-009;			
	166-00-07-010; 166-00-05-001; 166-00-04-010;			
	166-00-06-006; 166-00-03-015; 166-00-03-001;			
	166-00-05-004; 166-00-05-009; 166-00-03-007;			
	166-00-02-004; 166-00-02-008; 166-00-02-001;			
	166-00-06-001; 166-00-03-012; 166-00-07-005;			
	166-00-05-003; 166-00-07-013; 166-00-05-002;			
	166-00-04-005; 166-00-03-011; 166-00-03-004;			
	166-00-02-012; 166-00-07-011; 166-00-05-015;			
	166-00-02-013; 166-00-04-007; 166-00-06-008;			
	166-00-03-005; 166-00-02-011; 166-00-04-013;			
	166-00-07-008; 166-00-05-007; 166-00-02-006;			
	166-00-01-004; 166-00-02-007; 166-00-06-002;			
	166-00-05-016; 166-00-07-004; 166-00-04-012;			
	166-00-03-009; 166-00-03-003; 166-00-02-009;			
	166-00-03-008; 166-00-07-015; 166-00-05-008;			
	166-00-07-001; 166-00-04-003; 166-00-02-015;			
	166-00-06-005; 166-00-06-011; 166-00-01-001;			
	166-00-04-011; 166-00-03-010; 166-00-02-016;			
	166-00-01-002; 166-00-05-006; 166-00-04-004;			
	166-00-01-003; 166-00-02-002; 166-00-02-005;			
	166-00-04-015; 166-00-05-013			
3	166-06-29-136; 166-06-29-010; 166-06-29-116;	B; F; P; SY	Baseline: -20.1	SW
	166-06-29-067; 166-06-29-124; 166-06-29-011;		ft	
	166-06-29-134; 166-06-29-024; 166-06-29-078;		Setback: -61.0	
	166-06-29-009; 166-06-29-085; 166-06-29-126;		ft	
	166-06-29-004; 166-06-29-127; 166-06-29-069;			
	166-06-29-086; 166-06-29-107; 166-06-29-103;			
	166-06-29-115; 166-06-29-101; 166-06-29-001;			
	166-06-29-057; 166-06-29-105; 166-06-29-092;			
	166-06-29-023; 166-06-29-090; 166-06-29-014;			
	166-06-29-006; 166-06-29-066; 166-06-29-138;			
	166-06-29-129; 166-06-29-047; 166-06-29-106;			
	166-06-29-068; 166-06-29-030; 166-06-29-026;			
	166-06-29-070; 166-06-29-096; 166-06-29-099;			
	166-06-29-059; 166-06-29-044; 166-06-29-111;			
	166-06-29-048; 166-06-29-081; 166-06-29-055;			
	166-06-29-091; 166-06-29-123; 166-06-29-095;			
	166-06-29-003; 166-06-29-005; 166-06-29-131;			
	166-06-29-135; 166-06-29-008; 166-06-29-119;			
	166-06-29-100; 166-06-29-022; 166-06-29-052;			
	166-06-29-112; 166-06-29-045; 166-06-29-075;			
	166-06-29-120; 166-06-29-079; 166-06-29-109;			
	166-06-29-038; 166-06-29-108; 166-06-29-013;			
	166-06-29-076; 166-06-29-033; 166-06-29-073;			

166-06-29-065; 166-06-29-037; 166-06-29-040;	
166-06-29-118; 166-06-29-056; 166-06-29-020;	
166-06-29-046; 166-06-29-029; 166-06-29-088;	
166-06-29-053; 166-06-29-083; 166-06-29-102;	
166-06-29-017; 166-06-29-054; 166-06-29-060;	
166-06-29-063; 166-06-29-093; 166-06-29-035;	
166-06-29-027; 166-06-29-021; 166-06-29-121;	
166-06-29-043; 166-06-29-015; 166-06-29-137;	
166-06-29-071; 166-06-29-084; 166-06-29-133;	
166-06-29-016; 166-06-29-089; 166-06-29-117;	
166-06-29-002; 166-06-29-110; 166-06-29-122;	
166-06-29-041; 166-06-29-072; 166-06-29-039;	
166-06-29-034; 166-06-29-012; 166-06-29-074;	
166-06-29-036; 166-06-29-097; 166-06-29-098;	
166-06-29-087; 166-06-29-061; 166-06-29-031;	
166-06-29-077; 166-06-29-032; 166-06-29-050;	
166-06-29-064; 166-06-29-028; 166-06-29-025;	
166-06-29-049; 166-06-29-132; 166-06-29-114;	
166-06-29-094; 166-06-29-019; 166-06-29-042;	
166-06-29-128; 166-06-29-104; 166-06-29-125;	
166-06-29-080; 166-06-29-058; 166-06-29-007;	
166-06-29-130; 166-06-29-113; 166-06-29-082;	
166-06-29-018; 166-06-29-062; 166-06-29-051	

Beach Access Inventory:

Deach Access			1		
<b>Location</b>	TMS#	Type of	<b>Facilities</b>	Type of	No. of Parking
		Access		<b>Parking</b>	
Sands Beach Club	See Structure #1 above	PRAP	SY	Private	Private
Sands Ocean Club Resort	See Structure #2 above	PRAP	SY; TR	Private	Private
9540 Shore Drive	See Structure #3 above	PRAP	SY	Private	Private
9540 Shore Drive	See Structure #3 above	PRAP	SY	Private	Private
9540 Shore Drive	See Structure #3 above	PRAP	SY	Private	Private

<b>Location of Discharge Structure</b>	Type	<b>Distance from OCRM Lines</b>
None in this section.		

## HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #17

**Covered area:** Sands Ocean Club to Maison Dr. (Arcadian Shores)

Inventory map:



No.	TMS#	Type of	Distance from	Erosion Control
		Structure(s)	OCRM Lines	Structure(s)

1	166-06-28-083; 166-06-28-100;	B; C; D; E; F;	Baseline: -39.9 ft	SW; RR (Good
1	166-06-28-018; 166-06-28-069;	P; TR	Setback: -81.4 ft	condition); (see
	166-06-28-171; 166-06-28-214;	1,11	Scioack01.4 It	Photos 17-1 and
				17-2)
	166-06-28-038; 166-06-28-142;			17-2)
	166-06-28-161; 166-06-28-078;			
	166-06-28-029; 166-06-28-037;			
	166-06-28-057; 166-06-28-195;			
	166-06-28-201; 166-06-28-049;			
	166-06-28-022; 166-06-28-050;			
	166-06-28-190; 166-06-28-180;			
	166-06-28-224; 166-06-28-032;			
	166-06-28-177; 166-06-28-199;			
	166-06-28-113; 166-06-28-131;			
	166-06-28-222; 166-06-28-019;			
	166-06-28-014; 166-06-28-203;			
	166-06-28-232; 166-06-28-080;			
	166-06-28-219; 166-06-28-223;			
	166-06-28-091; 166-06-28-099;			
	166-06-28-086; 166-06-28-027;			
	166-06-28-046; 166-06-28-067;			
	166-06-28-055; 166-06-28-059;			
	166-06-28-070; 166-06-28-216;			
	166-06-28-226; 166-06-28-198;			
	166-06-28-229; 166-06-28-074;			
	166-06-28-114; 166-06-28-132;			
	166-06-28-150; 166-06-28-103;			
	166-06-28-212; 166-06-28-218;			
	166-06-28-017; 166-06-28-176;			
	166-06-28-062; 166-06-28-172;			
	166-06-28-016; 166-06-28-094;			
	166-06-28-036; 166-06-28-237;			
	166-06-28-039; 166-06-28-165;			
	166-06-28-009; 166-06-28-020;			
	166-06-28-194; 166-06-28-207;			
	166-06-28-227; 166-06-28-076;			
	166-06-28-153; 166-06-28-097;			
	166-06-28-102; 166-06-28-200;			
	166-06-28-025; 166-06-28-054;			
	166-06-28-060; 166-06-28-174;			
	166-06-28-042; 166-06-28-077;			
	166-06-28-085; 166-06-28-058;			
	166-06-28-048; 166-06-28-136;			
	166-06-28-169; 166-06-28-004;			
	166-06-28-087; 166-06-28-197;			
	166-06-28-123; 166-06-28-166-;			
	166-06-28-125; 166-06-28-112;			
	166-06-28-115; 166-06-28-160;			
	166-06-28-156; 166-06-28-139;			
	166-06-28-236; 166-06-28-127;			
	166-06-28-010; 166-06-28-108;			
	166-06-28-111; 166-06-28-225;			
	166-06-28-145; 166-06-28-141;			
	166-06-28-118; 166-06-28-147;			
	166-06-28-008; 166-06-28-013;			
	166-06-28-093; 166-06-28-182;			
	166-06-28-129; 166-06-28-130;			
	1 .00 00 20 120, 100 00 20 100,	<u> </u>	l	<u> </u>

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166-06-28-092; 166-06-28-098;		
166-06-28-179; 166-06-28-206;		
166-06-28-175; 166-06-28-007;		
166-06-28-030; 166-06-28-184;		
166-06-28-208; 166-06-28-213;		
166-06-28-084; 166-06-28-173;		
166-06-28-230; 166-06-28-005;		
166-06-28-028; 166-06-28-228;		
166-06-28-116; 166-06-28-079;		
166-06-28-220; 166-06-28-061;		
166-06-28-189; 166-06-28-068;		
166-06-28-157; 166-06-28-135;		
166-06-28-075; 166-06-28-217;		
166-06-28-024; 166-06-28-151;		
166-06-28-031; 166-06-28-235;		
166-06-28-209; 166-06-28-015;		
166-06-28-034; 166-06-28-044;		
166-06-28-196; 166-06-28-065;		
166-06-28-066; 166-06-28-185;		
166-06-28-088; 166-06-28-041;		
166-06-28-072; 166-06-28-144;		
166-06-28-164; 166-06-28-144;		
166-06-28-033; 166-06-28-053;		
166-06-28-045; 166-06-28-064;		
166-06-28-188; 166-06-28-109;		
166-06-28-105; 166-06-28-120;		
166-06-28-149; 166-06-28-148;		
166-06-28-192; 166-06-28-162;		
166-06-28-159; 166-06-28-122;		
166-06-28-234; 166-06-28-167;		
166-06-28-101; 166-06-28-211;		
166-06-28-126; 166-06-28-193;		
166-06-28-158; 166-06-28-119;		
166-06-28-107; 166-06-28-133;		
166-06-28-106; 166-06-28-026;		
166-06-28-082; 166-06-28-221;		
166-06-28-204; 166-06-28-090;		
166-06-28-081; 166-06-28-095;		
166-06-28-104; 166-06-28-110;		
166-06-28-012; 166-06-28-043;		
166-06-28-170; 166-06-28-021;		
166-06-28-035; 166-06-28-231;		
166-06-28-146; 166-06-28-155;		
166-06-28-215; 166-06-28-063;		
166-06-28-191; 166-06-28-183;		
166-06-28-137; 166-06-28-238;		
166-06-28-117; 166-06-28-205;		
166-06-28-154; 166-06-28-202;		
166-06-28-128; 166-06-28-073;		
166-06-28-003; 166-06-28-051;		
166-06-28-002; 166-06-28-089;		
166-06-28-006; 166-06-28-143;		
166-06-28-187; 166-06-28-096;		
166-06-28-056; 166-06-28-052;		
166-06-28-178; 166-06-28-121;		
166-06-28-168; 166-06-28-163;		

	166-06-28-040; 166-06-28-210; 166-06-28-047; 166-06-28-186; 166-06-28-011; 166-06-28-138; 166-06-28-152; 166-06-28-233; 166-06-28-181; 166-06-28-134; 166-06-28-124; 166-06-28-071; 166-06-28-023			
2	166-06-27-035; 166-06-27-020; 166-06-27-032; 166-06-27-042; 166-06-27-032; 166-06-27-043; 166-06-27-006; 166-06-27-038; 166-06-27-001; 166-06-27-003; 166-06-27-004; 166-06-27-004; 166-06-27-004; 166-06-27-011; 166-06-27-022; 166-06-27-019; 166-06-27-026; 166-06-27-019; 166-06-27-016; 166-06-27-046; 166-06-27-041; 166-06-27-047; 166-06-27-041; 166-06-27-041; 166-06-27-013; 166-06-27-045; 166-06-27-015; 166-06-27-015; 166-06-27-015; 166-06-27-015; 166-06-27-019; 166-06-27-019; 166-06-27-019; 166-06-27-019; 166-06-27-019; 166-06-27-029; 166-06-27-028; 166-06-27-029; 166-06-27-028; 166-06-27-030; 166-06-27-018; 166-06-27-030; 166-06-27-018; 166-06-27-033; 166-06-27-002; 166-06-27-004; 166-06-27-030; 166-06-27-002; 166-06-27-033; 166-06-27-048; 166-06-27-033; 166-06-27-048; 166-06-27-037	B; D; E; F; P; WW	Baseline: -17.7 ft Setback: -58.2 ft	Natural dune w/ dune protection fencing in place;
3	166-06-27-067; 166-06-27-066; 166-06-27-114; 166-06-27-063; 166-06-27-070; 166-06-27-061; 166-06-27-060; 166-06-27-053; 166-06-27-079; 166-06-27-054; 166-06-27-084; 166-06-27-077; 166-06-27-109; 166-06-27-065; 166-06-27-094; 166-06-27-091; 166-06-27-089; 166-06-27-096; 166-06-27-097; 166-06-27-080; 166-06-27-098; 166-06-27-110;	B; D; F; P; WW	Baseline: -23.7 ft Setback: -64.8 ft	Natural dune w/ dune protection fencing in place;

4	166-06-27-113; 166-06-27-064; 166-06-27-050; 166-06-27-099; 166-06-27-112; 166-06-27-101; 166-06-27-076; 166-06-27-100; 166-06-27-082; 166-06-27-087; 166-06-27-069; 166-06-27-104; 166-06-27-095; 166-06-27-102; 166-06-27-051; 166-06-27-093; 166-06-27-074; 166-06-27-059; 166-06-27-072; 166-06-27-055; 166-06-27-072; 166-06-27-056; 166-06-27-088; 166-06-27-056; 166-06-27-082; 166-06-27-081; 166-06-27-082; 166-06-27-081; 166-06-27-085; 166-06-27-090; 166-06-27-086; 166-06-27-105; 166-06-27-087; 166-06-27-058; 166-06-27-087; 166-06-27-058; 166-06-27-083; 166-06-27-085; 166-06-27-082; 166-06-27-085; 166-06-27-082; 166-06-27-111	D; F; P; WW	Baseline: -13.0 ft	Natural dune w/
	166-06-35-097; 166-06-35-082; 166-06-35-063; 166-06-35-048; 166-06-35-031; 166-06-35-014; 166-06-35-009; 166-06-35-002; 166-06-35-020; 166-06-35-03; 166-06-35-03; 166-06-35-03; 166-06-35-03; 166-06-35-03; 166-06-35-047; 166-06-35-046; 166-06-35-096; 166-06-35-092; 166-06-35-092; 166-06-35-092; 166-06-35-092; 166-06-35-092; 166-06-35-092; 166-06-35-019; 166-06-35-012; 166-06-35-019; 166-06-35-083; 166-06-35-001; 166-06-35-083; 166-06-35-015; 166-06-35-029; 166-06-35-028; 166-06-35-029; 166-06-35-028; 166-06-35-024; 166-06-35-028; 166-06-35-049; 166-06-35-041; 166-06-35-049; 166-06-35-081; 166-06-35-074; 166-06-35-074; 166-06-35-074; 166-06-35-074; 166-06-35-006; 166-06-35-045; 166-06-35-045; 166-06-35-045; 166-06-35-045; 166-06-35-045; 166-06-35-045; 166-06-35-045; 166-06-35-055; 166-06-35-045; 166-06-35-055; 166-06-35-095; 166-06-35-095; 166-06-35-095; 166-06-35-095; 166-06-35-095; 166-06-35-077; 166-06-35-095; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-090; 166-06-35-072; 166-06-35-072; 166-06-35-086; 166-06-35-076; 166-06-35-086; 166-06-35-076; 166-06-35-086; 166-06-35-076; 166-06-35-076; 166-06-35-076; 166-06-35-076; 166-06-35-076; 166-06-35-076; 166-06-35-076; 166-06-35-076; 166-06-35-073;	D; F; P; WW	Baseline: -13.0 ft Setback: -53.8 ft	Natural dune w/ dune protection fencing in place;

	166-06-35-110; 166-06-35-105;			
	166-06-35-091; 166-06-35-056;			
	166-06-35-037; 166-06-35-042;			
	166-06-35-044; 166-06-35-101;			
	166-06-35-008; 166-06-35-093;			
	166-06-35-088; 166-06-35-069;			
	166-06-35-010; 166-06-35-035;			
	166-06-35-078; 166-06-35-103;			
	166-06-35-003; 166-06-35-036;			
	166-06-35-109; 166-06-35-018;			
	166-06-35-050; 166-06-35-100;			
	166-06-35-011; 166-06-35-068;			
	166-06-35-084; 166-06-35-102;			
	166-06-35-004; 166-06-35-021;			
	166-06-35-052; 166-06-35-070;			
	166-06-35-025; 166-06-35-043;			
	166-06-35-016; 166-06-35-064;			
	166-06-35-066; 166-06-35-106;			
	166-06-35-051; 166-06-35-053;			
	166-06-35-007; 166-06-35-034;			
	166-06-35-089; 166-06-35-107			
5	166-06-26-023; 166-06-26-004;	F; P	Baseline: +20.6 ft	Natural dune w/
	166-06-26-012;		Setback: -20.7 ft	dune protection
	166-06-26-034; 166-06-26-033;			fencing in place;
	166-06-26-005; 166-06-26-006;			
	166-06-26-011; 166-06-26-017;			
	166-06-26-008; 166-06-26-013;			
	166-06-26-002; 166-06-26-022;			
	166-06-26-031; 166-06-26-035;			
	166-06-26-003; 166-06-26-032;			
	166-06-26-028; 166-06-26-026;			
	166-06-26-024; 166-06-26-015;			
	166-06-26-037; 166-06-26-009;			
	166-06-26-018; 166-06-26-027;			
	166-06-26-007; 166-06-26-021;			
	166-06-26-030; 166-06-26-036;			
	166-06-26-016; 166-06-26-019;			
	166-06-26-020; 166-06-26-014;			
	166-06-26-010; 166-06-26-025;			
	166-06-26-029		l	

#### Beach Access Inventory:

<u>Location</u>	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
No Name St Access #1	None	NPAP/HAP	S; TR; VA	Off-street; Public (Paid)	Golf carts: 20 Standard: 20 Handicapped: 1 Grand Total: 41
Sands Ocean Club	See Structure #1 above	PRAP	SY; TR	Private	Private

No Name St Access #2	None	NPAP/HAP	TR; VA	Off-street; Public (Paid)	Golf carts: 3 Standard: 20 Handicapped: 6 Grand Total: 29
9530 Shore Drive	See Structure #2 above	PRAP	WO; TR	Private	Private
Pelicans Watch	See Structure #3 above	PRAP	WO	Private	Private
Cottage Beach (end)	None	LPAP	S; TR; VA	Off-street; Public (Paid)	Golf carts: 0 Standard: 16 Handicapped: 0 Grand Total: 16
9580 Shore Drive	See Structure #4 above	PRAP	WO	Private	Private
9600 Shore Drive	See Structure #5 above	PRAP	WO	Private	Private

Drainage Structure Inventory:

<b>Location of Discharge Structure</b>	Type	Distance from OCRM Lines
None in this section.		

## Photos: Photo 17-1



#### Photo 17-2



# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #18

**Covered area:** Maison Dr. to Hibben Park (Arcadian Shores)

Inventory map:



#### Structural Inventory:

No.	TMS#	Type of	Distance from	<b>Erosion Control</b>
110.	11/15#			
		Structure(s)	OCRM Lines	Structure(s)
1	166-06-26-067; 166-06-26-049;	B; F	Baseline: 0.0 ft	None- Very
	166-06-26-041; 166-06-26-061;		Setback: -38.8 ft	minimal dune
	166-06-26-066; 166-06-26-047;			system in place
	166-06-26-044; 166-06-26-039;			
	166-06-26-054; 166-06-06-058;			
	166-06-26-064; 166-06-26-040;			
	166-06-26-045; 166-06-26-062;			
	166-06-26-048; 166-06-26-060;			
	166-06-26-042; 166-06-26-046;			
	166-06-26-057; 166-06-26-065;			
	166-06-26-059; 166-06-26-056;			
	166-06-26-043; 166-06-26-053;			
	166-06-26-051; 166-06-26-052;			
	166-06-26-050; 166-06-26-063;			
	166-06-26-055; 166-06-26-038			
2	166-06-09-008; 166-06-12-006;	B; D; E; F; P;	Baseline: -62.0 ft	Dune fencing in
	166-06-19-005; 166-06-18-011;	TR; VP	Setback: -102.0 ft	place, but no dune
	<u> </u>			

	400 00 40 007: 400 00 44 000:		
	166-06-12-007; 166-06-11-002;		system has yet
	166-06-04-005; 166-06-19-003;		developed; SW
	166-06-09-010; 166-06-03-002;		(Good condition);
	166-06-10-004;166-06-15-001;		(see Photo 18-1)
	166-06-12-001; 166-06-05-003;		
	166-06-09-011; 166-06-03-007;		
	166-06-19-009; 166-06-14-002;		
	166-06-04-002; 166-06-12-003;		
	166-06-12-005; 166-06-03-004;		
	166-06-20-001; 166-06-10-008;		
	166-06-14-007; 166-06-12-004;		
	· · · · · · · · · · · · · · · · · · ·		
	166-06-05-007; 166-06-15-007;		
	166-06-03-008; 166-06-05-005;		
1	166-06-06-005; 166-06-20-002;		
1	166-06-10-010; 166-06-06-007;		
	166-06-04-004; 166-06-03-009;		
	166-06-08-011; 166-06-14-001;		
	166-06-03-005; 166-06-16-001;		
	166-06-19-001; 166-06-14-003;		
	166-06-09-004; 166-06-19-010;		
1	166-06-11-003; 166-06-10-007;		
1	166-06-04-008; 166-06-14-010;		
	166-06-11-005; 166-06-24-008;		
	166-06-07-006; 166-06-20-007;		
	· · · · · · · · · · · · · · · · · · ·		
	166-06-22-001; 166-06-02-001;		
1	166-06-07-002; 166-06-22-003;		
1	166-06-24-004; 166-06-20-003;		
1	166-06-17-011; 166-06-20-005;		
1	166-06-21-008; 166-06-04-010;		
	166-06-01-010; 166-06-17-006;		
	166-06-11-001; 166-06-15-009;		
	166-06-09-001; 166-06-14-011;		
	166-06-21-003; 166-06-23-001;		
	166-06-10-005; 166-06-15-003;		
	166-06-05-001; 166-06-17-007;		
1	166-06-08-010; 166-06-04-006;		
	166-06-03-011; 166-06-18-004;		
1	166-06-08-009; 166-06-17-001;		
	166-06-09-005; 166-06-17-005;		
1	166-06-09-009; 166-06-21-011;		
	166-06-07-010; 166-06-02-007;		
	166-06-22-002; 166-06-24-003;		
1	166-06-07-004; 166-06-02-011;		
	166-06-19-006; 166-06-22-004;		
	166-06-01-011; 166-06-07-011;		
1	166-06-01-009; 166-06-11-004;		
	166-06-11-007; 166-06-03-003;		
	166-06-11-006; 166-06-14-009;		
	166-06-11-008; 166-06-03-001;		
	166-06-06-002; 166-06-04-011;		
	166-06-06-009; 166-06-12-009;		
	166-06-08-002; 166-06-10-009;		
	166-06-15-006; 166-06-16-004;		
	166-06-21-001; 166-06-22-011;		
	· · · · · · · · · · · · · · · · · · ·		
	166-06-10-003; 166-06-12-008;		
	166-06-02-003; 166-06-05-004;		

	166-06-06-004; 166-06-02-010;		
	166-06-18-001; 166-06-07-009;		
	166-06-22-005; 166-06-23-005;		
	166-06-22-007; 166-06-15-004;		
	166-06-04-009; 166-06-15-011;		
	166-06-16-002; 166-06-08-007;		
	166-06-11-011; 166-06-19-008;		
	166-06-14-005; 166-06-18-007;		
	166-06-18-009; 166-06-23-010;		
	166-06-08-005; 166-06-01-005;		
	166-06-01-008; 166-06-14-008;		
	166-06-05-008; 166-06-16-008;		
	166-06-21-006; 166-06-22-010;		
	166-06-22-009; 166-06-19-007;		
	166-06-23-002; 166-06-15-010;		
	166-06-16-003; 166-06-12-011;		
	166-06-05-010; 166-06-16-005;		
	166-06-19-002; 166-06-10-001;		
	166-06-12-010; 166-06-05-011;		
	166-06-08-006; 166-06-04-007;		
	166-06-06-003; 166-06-20-011;		
	166-06-22-006; 166-06-24-009;		
	166-06-17-003; 166-06-18-006;		
	166-06-21-009; 166-06-02-008;		
	166-06-14-006; 166-06-08-008;		
	166-06-09-006; 166-06-06-011;		
	166-06-05-006; 166-06-04-001;		
	166-06-01-004; 166-06-12-002;		
	166-06-15-005; 166-06-23-008;		
	166-06-20-009; 166-06-20-010;		
	166-06-16-006; 166-06-18-005;		
	166-06-24-002; 166-06-18-002;		
	166-06-16-007; 166-06-23-007;		
	166-06-07-001; 166-06-17-010;		
	166-06-16-011; 166-06-07-008;		
	166-06-16-009; 166-06-20-008;		
	166-06-07-005; 166-06-02-009;		
	166-06-08-004; 166-06-17-009;		
	166-06-23-009; 166-06-18-003;		
	166-06-20-004; 166-06-21-002;		
	166-06-24-011; 166-06-02-002;		
	166-06-17-008; 166-06-17-002;		
	166-06-08-001; 166-06-01-006;		
	166-06-24-010; 166-06-02-004;		
	166-06-21-004; 166-06-21-007;		
	166-06-08-003; 166-06-22-008;		
	166-06-20-006; 166-06-23-006;		
	166-06-07-003; 166-06-02-005;		
	166-06-15-008; 166-06-14-004;		
	166-06-06-006; 166-06-19-011;		
	166-06-10-011; 166-06-16-010;		
	166-06-05-002; 166-06-18-008;		
	166-06-04-003; 166-06-11-010;		
	166-06-03-010; 166-06-21-010;		
	166-06-24-007; 166-06-02-006;		
	166-06-24-001; 166-06-06-010;		
$\Box$	100 00 27 001, 100-00-00-010,		

166-06-09-007; 166-06-03-006; 166-06-19-004; 166-06-24-005;	
166-06-19-004; 166-06-24-005;	
166-06-09-002; 166-06-15-002;	
166-06-06-001; 166-06-01-002;	
166-06-11-009; 166-06-06-008;	
166-06-21-005; 166-06-10-002;	
166-06-23-011; 166-06-10-006;	
166-06-01-003; 166-06-01-001;	
166-06-07-007; 166-06-23-004;	
166-06-17-004; 166-06-18-010;	
166-06-23-003; 166-06-24-006;	
166-06-01-007; 166-06-09-003;	
166-06-05-009	
3 166-06-25-045; 166-06-25-052; B; F; WW Baseline: -59.4 ft Du	une Fencing
166-06-25-048; 166-06-25-065; B, 1, WW Baschine: 39.4 ft Baschine:	une i enemg
166-06-25-041; 166-06-25-049;	
166-06-25-050; 166-06-25-054;	
166-06-25-056; 166-06-25-039;	
166-06-25-051; 166-06-25-111;	
166-06-25-090; 166-06-25-066;	
166-06-25-126; 166-06-25-027;	
166-06-25-009; 166-06-25-010;	
166-06-25-068; 166-06-25-038;	
166-06-25-061; 166-06-25-129;	
166-06-25-112; 166-06-25-026;	
166-06-25-058; 166-06-25-062;	
166-06-25-044; 166-06-25-060;	
166-06-25-100; 166-06-25-017;	
166-06-25-130; 166-06-25-132;	
166-06-25-070; 166-06-25-107;	
166-06-25-114; 166-06-25-102;	
166-06-25-121; 166-06-25-104;	
166-06-25-022; 166-06-25-109;	
166-06-25-116; 166-06-25-019;	
166-06-25-119; 166-06-25-007;	
166-06-25-014; 166-06-25-080;	
166-06-25-005; 166-06-25-128;	
166-06-25-028; 166-06-25-110;	
166-06-25-034; 166-06-25-012;	
166-06-25-127; 166-06-25-029;	
166-06-25-084; 166-06-25-085;	
166-06-25-094; 166-06-25-082;	
166-06-25-036; 166-06-25-087;	
166-06-25-073; 166-06-25-092;	
166-06-25-011; 166-06-25-091;	
166-06-25-008; 166-06-25-023;	
166-06-25-030; 166-06-25-016;	
166-06-25-097; 166-06-25-103;	
166-06-25-071; 166-06-25-020;	
166-06-25-120; 166-06-25-081;	
166-06-25-072; 166-06-25-047;	
166-06-25-083; 166-06-25-013;	
166-06-25-018; 166-06-25-035;	
166-06-25-006; 166-06-25-118;	
166-06-25-002; 166-06-25-059;	

166-06-25-043; 166-06-25-075;		
166-06-25-089; 166-06-25-055;		
166-06-25-040; 166-06-25-098;		
166-06-25-123; 166-06-25-024;		
166-06-25-033; 166-06-25-096;		
166-06-25-113; 166-06-25-003;		
166-06-25-074; 166-06-25-108;		
166-06-25-122; 166-06-25-101;		
166-06-25-079; 166-06-25-093;		
166-06-25-053; 166-06-25-064;		
166-06-25-046; 166-06-25-106;		
166-06-25-077; 166-06-25-069;		
166-06-25-117; 166-06-25-131;		
166-06-25-004; 166-06-25-042;		
166-06-25-124; 166-06-25-025;		
166-06-25-015; 166-06-25-099;		
166-06-25-063: 166-06-25-057:		
166-06-25-067; 166-06-25-076;		
166-06-25-125; 166-06-25-105;		
166-06-25-031; 166-06-25-078;		
166-06-25-095; 166-06-25-021;		
166-06-25-115; 166-06-25-086;		
166-06-25-037; 166-06-25-032;		
166-06-25-088; 166-06-25-001		

Beach Access Inventory:

Location	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
Maison Dr. (end)	N/A	LPAP/HAP	R; TR; VA	Off-street; Public (Paid)	Golf carts: 15 Standard: 6 Handicapped: 1 Grand Total: 22
9620 Shore Drive	See Structure #1 above	PRAP	WO	private	private
Maisons-sur- Mer	See Structure #2 above	PRAP	D; SY	private	private
A Place at the Beach	See Structure #3 above	PRAP	WW	private	private
A Place at the Beach	See Structure #3 above	PRAP	WW	private	private
Hibben Park	N/A	PAP	D; R; S; TR; WO	On-street within 500ft.	Total: 6

Drainage Structure Inventory:

Location of Discharge Structure	Type	Distance from OCRM Lines
Maison Dr. (end)	18" Stormwater Drainage Pipe – elevated (see Photo 18-2)	Baseline: -250.0ft Setback: -275.0ft

Seaside of Maison-sur-Mer Resort - #1	24" Stormwater Drainage Pipe – unburied (see Photo 18-3)	Baseline: -250.0ft Setback: -275.0ft
Seaside of Maison-sur-Mer Resort - #2	18" Stormwater Drainage Pipe – buried (see Photo 18-4)	Baseline: -250.0ft Setback: -275.0ft
Seaside of Maison-sur-Mer Resort - #3	16" Stormwater Drainage Pipe – half-buried (see Photo 18-5)	Baseline: -250.0ft Setback: -275.0ft

# Photos: Photo 18-1



Photo 18-2



Photo 18-3



Photo 18-4



Photo 18-5



# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #19

**Covered area:** Margate at Kingston Plantation (Arcadian Shores) **Inventory map:** 



#### Structural Inventory:

No.	TMS#	Type of	Distance from	<b>Erosion Control</b>
		Structure(s)	OCRM Lines	Structure(s)
1	166-80-03-001	A	Baseline: +27.0 ft Setback: -13.5 ft	None - dune system in place, seaward of baseline
2	166-80-03-024	A	Baseline: +23.5 ft Setback: -16.0 ft	None - dune system in place, seaward of baseline
3	166-80-04-026	A	Baseline: +19.4 ft Setback: -21.3 ft	None - dune system in place, seaward of baseline
4	166-80-04-001	A	Baseline: +19.4 ft Setback: -20.8 ft	None - dune system in place, seaward of baseline
5	166-80-06-001	A	Baseline: +5.0 ft Setback: -19.7 ft	None - dune system in place,

				seaward of baseline
6	166-80-06-024	A	Baseline: +19.0 ft Setback: -20.0 ft	None - dune system in place, seaward of baseline
7	166-80-07-024	A	Baseline: +11.5 ft Setback: -30.0 ft	None - dune system in place, seaward of baseline
8	166-80-07-001	A	Baseline: +12.0 ft Setback: -27.0 ft	None - dune system in place, seaward of baseline
9	166-00-08-007	D; E; PR	Baseline: N/A Setback: N/A	None - dune system in place, seaward of baseline

# Beach Access Inventory:

Location	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
Apache Campground	166-00-08- 008	PRAP	WO	private	none
Apache Campground	166-00-08- 008	PRAP	WO; TR	private	none
Apache Campground	166-00-08- 008	PRAP	VA; TR	private	none
Apache Campground	166-00-08- 008	PRAP	WO; TR	private	none
Apache Pier	166-00-08- 007	NPAP/HAP	PR; SY	public	Standard: 33 Handicapped: 4 Grand Total: 37

#### Drainage Structure Inventory:

Diamage siraciare inventory.		
<b>Location of Discharge Structure</b>	Type	Distance from OCRM Lines
Apache Campground - #1	18" Stormwater Drainage Pipe	Baseline: -12.0ft
		Setback: -35.0ft
Apache Campground - #2	18" Stormwater Drainage Pipe	Baseline: -21.0ft
		Setback: -46.7ft

# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #20

**Covered area:** Margate at Kingston Plantation (Arcadian Shores)

Inventory map:



## Structural Inventory:

No.	TMS#	Type of	Distance from	<b>Erosion Control</b>
		Structure(s)	OCRM Lines	Structure(s)

#### Beach Access Inventory:

Location	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
Arcadian Shores	166-00-08-009	PRAP	none	private	none
Kingston Plantation	166-00-08-094	PRAP	WO; TR	private	none

#### Drainage Structure Inventory:

<b>Location of Discharge Structure</b>	Type	Distance from OCRM Lines
None in this section.		

# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #21

**Covered area:** Kingston Plantation (Arcadian Shores)

Inventory map:



#### Structural Inventory:

	ciurai inveniory.	_	I .	
No.	<u>TMS#</u>	Type of	<b>Distance</b>	<b>Erosion</b>
		Structure(s)	from OCRM	Control
			Lines	Structure(s)
1	166-03-48-060; 166-03-48-096; 166-03-48-056;	B; D; P; F	Baseline: +	None, dune
	166-03-48-069; 166-03-48-040; 166-03-48-047;		6.5 ft	system in place
	166-03-48-008; 166-03-48-113; 166-03-48-002;		Setback: -	
	166-03-48-033; 166-03-48-125; 166-03-48-124;		30.7 ft	
	166-03-48-095; 166-03-48-028; 166-03-48-090;			
	166-03-48-062; 166-03-48-073; 166-03-48-051;			
	166-03-48-108; 166-03-48-036; 166-03-48-065;			
	166-03-48-015; 166-03-48-024; 166-03-48-012;			
	166-03-48-068; 166-03-48-030; 166-03-48-100;			
	166-03-48-039; 166-03-48-102; 166-03-48-075;			
	166-03-48-055; 166-03-48-110; 166-03-48-017;			
	166-03-48-026; 166-03-48-032; 166-03-48-014;			
	166-03-48-018; 166-03-48-120; 166-03-48-078;			
	166-03-48-080; 166-03-48-094; 166-03-48-057;			
	166-03-48-061; 166-03-48-130; 166-03-48-132;			
	166-03-48-135; 166-03-48-142; 166-03-48-013;			
	166-03-48-143; 166-03-48-043; 166-03-48-042;			
	166-03-48-123; 166-03-48-079; 166-03-48-003;			
	<u> </u>	1	1	1

166-03-48-103; 166-03-48-104; 166-03-48-005;	
166-03-48-007; 166-03-48-122; 166-03-48-077;	
166-03-48-067; 166-03-48-105; 166-03-48-074;	
166-03-48-116; 166-03-48-063; 166-03-48-045;	
166-03-48-006; 166-03-48-112; 166-03-48-098;	
166-03-48-086; 166-03-48-035; 166-03-48-037;	
166-03-48-140; 166-03-48-023; 166-03-48-144;	
166-03-48-082; 166-03-48-084; 166-03-48-128;	
166-03-48-091; 166-03-48-052; 166-03-48-129;	
166-03-48-029; 166-03-48-099; 166-03-48-004;	
166-03-48-115; 166-03-48-048; 166-03-48-107;	
166-03-48-088; 166-03-48-111; 166-03-48-085;	
166-03-48-064; 166-03-48-089; 166-03-48-133;	
166-03-48-141; 166-03-48-139; 166-03-48-138;	
166-03-48-131; 166-03-48-027; 166-03-48-050;	
166-03-48-071; 166-03-48-127; 166-03-48-010;	
166-03-48-121; 166-03-48-021; 166-03-48-038;	
166-03-48-076; 166-03-48-031; 166-03-48-058;	
166-03-48-025; 166-03-48-126; 166-03-48-053;	
166-03-48-083; 166-03-48-054; 166-03-48-072;	
166-03-48-001; 166-03-48-016; 166-03-48-041;	
166-03-48-136; 166-03-48-092; 166-03-48-109;	
166-03-48-118; 166-03-48-070; 166-03-48-134;	
166-03-48-011; 166-03-48-022; 166-03-48-117;	
166-03-48-034; 166-03-48-046; 166-03-48-044;	
166-03-48-049; 166-03-48-114; 166-03-48-087;	
166-03-48-137; 166-03-48-019; 166-03-48-081;	
166-03-48-009; 166-03-48-106; 166-03-48-119;	
166-03-48-097; 166-03-48-020; 166-03-48-066;	
166-03-48-059; 166-03-48-093; 166-03-48-101;	
166-00-08-030	

#### Beach Access Inventory:

Beach Access Inventory.					
<b>Location</b>	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
Brighton Towers Kingston	166-00-08-094	PRAP	WO	Private	none
Kingston Plantation	166-00-08-043	PRAP	WO	private	none
Kingston Plantation	166-03-50-258	PRAP	WO	private	none
Richmond Park Kingston Plantation	166-00-08-030	PRAP	WO	private	none

#### Drainage Structure Inventory:

<b>Location of Discharge Structure</b>	Type	Distance from OCRM Lines
None in this section.		

# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #22

Covered area: Arcadian Shores Hilton (Arcadian Shores) Inventory map:



Structural Inventory:

No.	TMS#	Type of Structure(s)	Distance from OCRM Lines	Erosion Control Structure(s)
1	166-03-35-001	D; F; P; SY; E	Baseline: -33.5 ft. Setback Line: -78.3 ft.	Some development directly on dunes, some natural dune system still in place.

#### Beach Access Inventory:

Location	TMS#	Type of Access	<u>Facilities</u>	Type of Parking	No. of Parking
Kingston Plantation	166-03-49-127	PRAP	WO	Private	none
Kingston Plantation	See Structure #1 (above)	PRAP	WO	private	none
Kingston Street	None	NPAP	VA, VP	public	Total: 51

Drainage Structure Inventory:

Location of Discharge Structure	Type	Distance from OCRM Lines
Kingston Plantation	18" Stormwater Drainage Pipe (see Photo 22-1)	Baseline: -73.5ft. Setback Line: -98.8ft.

## Photos:

Photo 22-1



# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #23

**Covered area:** Kingston Street to Myrtle Beach Travel Resort (Arcadian Shores) **Inventory map:** 



#### Structural Inventory:

	Structural Inventory.						
<u>No.</u>	TMS#	Type of Structure(s)	Distance from OCRM Lines	Erosion Control Structure(s)			
1	166-03-32-005; 166-03-17-002; 166-03-29-005; 166-03-23-001; 166-03-24-002; 166-03-18-003; 166-03-24-003; 166-03-18-005; 166-03-26-004; 166-03-20-001; 166-03-21-005; 166-03-26-002; 166-03-26-005; 166-03-28-002; 166-03-22-002; 166-03-31-006; 166-03-24-005; 166-03-30-003; 166-03-21-003; 166-03-19-004; 166-03-22-004; 166-03-18-002; 166-03-19-003; 166-03-19-006; 166-03-27-006; 166-03-19-003; 166-03-19-006; 166-03-20-002; 166-03-30-001; 166-03-19-006; 166-03-32-006; 166-03-19-006; 166-03-20-002; 166-03-32-001; 166-03-21-002; 166-03-28-001; 166-03-25-006; 166-03-25-005; 166-03-29-004; 166-03-28-001; 166-03-25-006; 166-03-29-004; 166-03-28-006; 166-03-29-004; 166-03-28-006; 166-03-29-004; 166-03-28-006; 166-03-29-004; 166-03-28-006; 166-03-29-004; 166-03-28-006; 166-03-28-006; 166-03-29-004; 166-03-28-006; 166-03-28-006; 166-03-29-004; 166-03-28-006; 166-03	D; F; P; WO	Baseline: -29.5 ft. Setback Line: -69.2 ft.	Development has a fence/wall structure on dune system; SW (Good condition); (see Photo 23-1)			

_			
	17-001; 166-03-22-005; 166-03-31-		
	002; 166-03-30-002; 166-03-20-005;		
	166-03-26-006; 166-03-25-004; 166-		
	03-31-005; 166-03-18-006; 166-03-		
	19-005; 166-03-27-005; 166-03-23-		
	002; 166-03-30-004; 166-03-32-003;		
	166-03-19-001; 166-03-21-006; 166-		
	03-31-003; 166-03-27-001; 166-03-		
	23-006; 166-03-22-003; 166-03-32-		
	002; 166-03-20-003; 166-03-19-002;		
	166-03-30-006; 166-03-31-004; 166-		
	03-21-004; 166-03-22-006; 166-03-		
	24-001; 166-03-27-002; 166-03-28-		
	005; 166-03-29-002; 166-03-26-003;		
	166-03-25-002; 166-03-17-004; 166-		
	03-25-003; 166-03-29-006; 166-03-		
	20-006; 166-03-30-005; 166-03-31-		
	001; 166-03-29-003; 166-03-28-003;		
	166-03-24-006; 166-03-21-001; 166-		
	03-23-005; 166-03-23-004; 166-03-		
	32-004; 166-03-24-004; 166-03-27-		
	003; 166-03-23-003; 166-03-22-001;		
	166-03-29-001; 166-03-17-006; 166-		
	03-18-004; 166-03-26-001		

2	166-03-12-006; 166-03-13-004; 166-	D; F; P; WO	Baseline: -38.5 ft.	Development has a
	03-08-006; 166-03-10-004; 166-03-		Setback Line: -78.6	fence/wall
	07-001; 166-03-15-002; 166-03-12-		ft.	structure on dune
	003; 166-03-01-001; 166-03-08-003;			system; SW (same
	166-03-10-006; 166-03-06-006; 166-			as No. 1)
	03-13-006; 166-03-08-001; 166-03-			
	06-002; 166-03-03-005; 166-03-15-			
	005; 166-03-07-006; 166-03-14-002;			
	166-03-04-002; 166-03-12-001; 166-			
	03-06-004; 166-03-01-003; 166-03-			
	14-004; 166-03-09-003; 166-03-15-			
	001; 166-03-03-001; 166-03-16-004;			
	166-03-05-002; 166-03-04-001; 166-			
	03-15-004; 166-03-13-005; 166-03-			
	06-001; 166-03-03-004; 166-03-07-			
	002; 166-03-16-005; 166-03-13-002;			
	166-03-11-005; 166-03-06-003; 166-			
	03-11-004; 166-03-09-004; 166-03-			
	09-006; 166-03-11-002; 166-03-09-			
	001; 166-03-01-002; 166-03-14-003;			
	166-03-01-006; 166-03-15-003; 166-			
	03-05-004; 166-03-11-001; 166-03-			
	03-003; 166-03-05-001; 166-03-04-			
	006; 166-03-08-005; 166-03-10-002;			
	166-03-10-003; 166-03-16-006; 166-			
	03-16-001; 166-03-14-001; 166-03-			
	05-003; 166-03-13-001; 166-03-06-			
	005; 166-03-10-005; 166-03-09-005;			
	166-03-04-003; 166-03-08-004; 166-			
	03-05-006; 166-03-12-005; 166-03-			
	13-003; 166-03-04-005; 166-03-04-			
	004; 166-03-08-002; 166-03-11-006;			

#### Beach Access Inventory:

Location	TMS#	Type of	Facilities	Type of	No. of Parking
Location	11/15#	Access	<u>Facilities</u>	Parking	No. of 1 at King
Ocean Lake Rd (Arcadian I / II)	See Structure #1	PRAP	WW; WO	private	none
Ocean Lake Rd (Arcadian I / II)	See Structure #2	PAP	WW; WO	public	Total: 2
Ocean Lake Rd (Arcadian I / II)	See Structure #2	PRAP	WW; WO	private	none
Arcadian Drive (end)	N/A	PRAP	WO	private	none
Seawatch Drive (Seawatch Resort)	166-03-33-001	PRAP	WO	private	none
Seawatch Drive (Seawatch Resort)	166-03-33-001	PRAP	WO	private	none

Seawatch Drive   16	66-03-33-400	PRAP	WO	private	none
(Seawatch					
Resort)					

## Drainage Structure Inventory:

Location of Discharge Structure	Type	Distance from OCRM Lines
Ocean Lake Rd. at Arcadian II	18" Stormwater Drainage Pipe	Baseline: -26.9ft.
(under Seawall)		Setback Line: -51.7ft.

Photos: Photo 23-1



# HORRY COUNTY COMPREHENSIVE BEACH INVENTORY SHEET #24

**Covered area:** Myrtle Beach Travel Park (Arcadian Shores)

Inventory map:



Structural Inventory:

No.	TMS#	Type of Structur e(s)	Distance from OCRM Lines	Erosion Control Structure(s)
1	166-00-08-011	E; F; VA; WW; WO	Baseline: - 8.0ft. Setback Line: - 38.0ft.	Natural dune system, no dune fencing;
2	166-82-11-001	E; F; VA; WW; WO	Baseline: +40.0 ft Setback Line: 0.0 ft	Natural dune system, no dune fencing;
3	166-82-10-038	E; F; VA; WW; WO	Baseline: +40.8 ft Setback Line: 0.0 ft	Natural dune system, no dune fencing;

4	166-82-08-042	E; F; VA; WW; WO	Baseline: + 35.5 ft Setback Line: -5.1 ft	Natural dune system, no dune fencing;
5	166-82-08-001	E; F; VA; WW; WO	Baseline: +39.3 ft Setback Line: -1.0 ft	Natural dune system, no dune fencing;
6	166-82-07-001	E; F; VA; WW; WO	Baseline: +40.9 ft Setback Line: +1.0 ft	Natural dune system, no dune fencing;
7	166-82-06-040	E; F; VA; WW; WO	Baseline: +37.8 ft Setback Line: -2.8 ft	Natural dune system, no dune fencing;
8	166-82-06-001	E; F; VA; WW; WO	Baseline: +36.1 ft Setback Line: -3.7 ft	Natural dune system, no dune fencing;
9	166-82-05-039	E; F; VA; WW; WO	Baseline: +42.0 ft Setback Line: +2.0 ft	Natural dune system, no dune fencing;
10	166-82-05-001	E; F; VA; WW; WO	Baseline: +36.1 ft Setback Line: -4.0 ft	Natural dune system, no dune fencing;
11	166-82-03-043	E; F; VA; WW; WO	Baseline: +35.3 ft Setback Line: -6.4 ft	Natural dune system, no dune fencing;

12	155-00-02-002; 155-00-02-027; 155-00-02-028;	B, P	Baseline: + 27.3 ft.	Natural
	155-00-02-032; 155-00-02-033; 155-00-02-029;	,	Setback: -9.6 ft.	dune
	155-00-02-014; 155-00-02-048; 155-00-02-019;			system, no
	155-00-02-038; 155-00-02-009; 155-00-02-044;			dune
	155-00-02-049; 155-00-02-015; 155-00-02-020;			fencing;
	155-00-02-001; 155-00-02-024; 155-00-02-057;			<i>O</i> *
	155-00-02-056; 155-00-02-008; 155-00-02-052;			
	155-00-02-036; 155-00-02-043; 155-00-02-055;			
	155-00-02-039; 155-00-02-026; 155-00-02-016;			
	155-00-02-022; 155-00-02-012; 155-00-02-041;			
	155-00-02-011; 155-00-02-051; 155-00-02-042;			
	155-00-02-023; 155-00-02-017; 155-00-02-013;			
	155-00-02-004; 155-00-02-046; 155-00-02-007;			
	155-00-02-010; 155-00-02-025; 155-00-02-035;			
	155-00-02-045; 155-00-02-037; 155-00-02-003;			
	155-00-02-040; 155-00-02-005; 155-00-02-021;			
	155-00-02-034; 155-00-02-053; 155-00-02-018;			
	155-00-02-054; 155-00-02-030; 155-00-02-050			
13	155-00-02-031; 155-00-02-006; 155-00-02-047	B, P	Baseline: + 32.1 ft.	Natural
			Setback: -9.1 ft.	dune
				system, no
				dune
				fencing;

Beach Access Inventory:

Location	TMS#	Type of	<b>Facilities</b>	Type of	No. of Parking
		Access		<b>Parking</b>	
Key West Trail	166-00-08-011	UAP	VA,	private	none
OAS Travel Park	166-00-08-011	UAP	E, C	private	none
Florida Trail	166-00-08-011	UAP	VA	private	none
Georgia Trail	166-00-08-011	UAP	VA	private	none
South Carolina Trail	166-00-08-011	PRAP	WO	private	none
North Carolina Trail	166-00-08-011	PRAP	WO	private	none
Virginia Trail	166-00-08-011	PRAP	WO	private	none
Memphis Trail	166-00-08-011	UAP	VA	private	none
Tennessee Trail	166-00-08-011	PRAP	WO	private	none
New Jersey Trail	166-00-08-011	PRAP	WO	private	none
Delaware Trail	166-00-08-011	PRAP	WO	private	none

Ocean Park Trail	166-00-08-011	UAP	private	none
Land's End Ocean Resort	See Structure 2 (above)	UAP	private	none

Drainage Structure Inventory:

Location of Discharge	Type	Distance from OCRM Lines	
<u>Structure</u>			
End of Lakeshore Dr. (no access	20" Stormwater Drainage Pipe –	Baseline: 0ft.	
point)	half-buried	Setback: - 37.0ft.	
Ocean Park Trail	20" Stormwater Drainage Pipe –	Baseline: - 45.0ft.	
	half-buried	Setback: - 66.7ft.	

COUNTY OF HORRY	)	
	)	ORDINANCE 27-11
STATE OF SOUTH CAROLINA	)	

AN ORDINANCE AMENDING CHAPTER 5 (BEACHES) OF THE HORRY COUNTY CODE OF ORDINANCES SO AS TO PROVIDE FOR UNIFORM REGULATION OF BEACH ACTIVITIES ALONG THE GRAND STRAND

**WHEREAS**, heretofore, activities on beaches located in the unincorporated areas of Horry County have been regulated through ordinances enacted by Horry County Council, which regulations have differed from those enacted by municipalities governing activities on beaches located within those municipalities; and

**WHEREAS**, it appears desirable for the benefit of residents of and visitors to Horry County that regulations governing beaches in both the unincorporated as well as corporate limits of the County be standardized and made uniform, in an effort to minimize confusion and frustration of the beach going public; and

**WHEREAS**, in an effort to achieve such consistency and uniformity, and in concert with coastal municipalities within the County, Council desires to amend its current beach ordinance to bring it in line with a uniform ordinance being enacted county-wide, which both the County and those municipalities believe properly addresses public safety and other concerns along our beaches, and promotes the safety and enjoyment of those using our beaches.

**NOW, THEREFORE**, by the power and authority granted to the Horry County Council by the Constitution of the State of South Carolina and the powers granted to the County by the General Assembly of the State, the following hereby is ordained and enacted:

**1. CODE AMENDMENT.** Chapter 5 of the Horry County Code of Ordinances is hereby repealed, and is rewritten and replaced in its entirety. Chapter 5 shall hereafter read as follows:

#### Sec. 5-1. Definitions.

As used in this chapter, the following terms shall have the meanings ascribed to them in this section:

Animal: Any living non-human creature, not to include guide dogs or service animals.

Aquatic Activity: Any activity occurring in or on the ocean including, but not limited to, swimming, surfing, kite-boarding, wind-surfing, operation of wind-propelled vessels, operation of motor-propelled vessels, and surf-fishing. This shall not include any activities taking place on the platform of the pier.

Essential vehicles and vessels: Those vehicles and vessels whose use on public beaches and on the Atlantic Ocean are deemed essential by the local, state, and federal agencies. Essential vehicles and vessels shall include the following: law enforcement and emergency vehicles and vessels; municipal, county, state and other government vehicles and vessels; beach service vehicles and vessels, and any other vehicles or vessel deemed essential by the local, state, or federal agency.

*Public access:* The area of land extending from the public street to the public beach which has been dedicated for the purpose of providing public and emergency access to the beach.

*Public beach: That* area lying between the mean low water mark of the Atlantic Ocean and the easternmost private or public property line, bulkhead or seawall. Also those lands subject to periodic inundation by tidal and wave actions so that no non-littoral vegetation is established.

# Sec. 5-2. Possession or consumption of alcoholic liquors, beer or wine prohibited on the beach or beach accesses.

Possession or consumption of an alcoholic liquor, beer or wine is prohibited on the public beaches or public beach accesses. It shall be unlawful for any person to possess or consume any alcoholic liquors, beer, ale, porter, wine or any other similar malt or fermented beverage on the public beaches or public beach accesses.

#### Sec. 5-3. Animal restrictions on beaches.

Any animal that is permitted to be on the beach must be on a hand-held leash not to exceed seven (7) feet in length and under the direct control of the person having custody of the animal. Persons in control of the animal are responsible for the clean-up of any animal refuse. Animals are not allowed on the beach between the hours of 10:00 a.m. to 5:00 p.m., from May 1 through Labor Day. No reptiles, exotic animals, or similar type animal are allowed on the beach or beach access at any time.

#### Sec. 5-4. Fires prohibited.

It shall be unlawful for any person to build, start, ignite, or maintain any fire or open flame or use any propane fired grill, cooker, or heating device heated by fire on any public beach, public beach access, street end adjacent to the beach, or any government land immediately adjacent to the beach at any time.

#### Sec. 5-5. Carrying glass containers on beaches prohibited.

It shall be unlawful for any person to carry or possess any glass, bottle or glassware on the public beaches or public beach accesses.

#### Sec. 5-6. Discharge, use, ignition, etc., of fireworks prohibited.

It shall be unlawful for any person to use, fire, shoot, discharge, or ignite any fireworks within any city limits within Horry County and in unincorporated sections of Horry County that have been designated a fireworks free zone by Horry County Council.

*Exceptions*. Appropriate governing councils may issue special permits allowing the temporary suspension of this ordinance with the consent of council for each occurrence, or by methodology established by such council for such occurrences.

#### Sec. 5-7. Sleeping on public beach or public access after 9:00 p.m. prohibited.

It shall be unlawful for any person to sleep on the public beach or public access between the hours of 9:00 p.m. and 8:00 a.m.

#### Sec. 5-8. Diving or jumping from piers prohibited.

It shall be unlawful for any person or persons to dive or jump from any portion of a pier; or to push, shove, or cause any person to fall, dive or jump from any portion of a pier; or, climb or be

on the outside of the railing or any area not designed for public entry of any pier. No aquatic activity of any kind may occur within 75 yards of any pier. Emergency personnel, maintenance operations and other authorized persons are exempt from this section.

#### Sec. 5-9. Destruction of sea oats, beach grass, beach vegetation and sand fencing.

It shall be unlawful for any person to destroy, mutilate, break, move, tear up, carry away or alter in any manner the sea oats, beach grass, other beach vegetation, sand fencing, public access structures, public beach structures, or fixtures occurring naturally or planted or erected by the government or its agents as part of any beach renourishment or preservation. Said conduct shall constitute destruction of public property.

#### Sec. 5-10. Depositing litter on beach or in water prohibited.

It shall be unlawful for any person to throw or deposit, or cause or permit to be thrown or deposited, any glass, bottle, glassware, can or pieces thereof, cigarette or cigar butts, or any garbage, waste, litter, trash, debris, or refuse of any kind, on the public beach, public access, sand dunes or in the waters adjacent to the public beach.

#### Sec. 5-11. Fishing from shore or pier.

- (A) It shall be unlawful for any person involved in attempting to catch or take any shark or other marine animals that may endanger the public from any fishing pier, or any beach, shore or any coastal waters where one may fish. Any .person(s) who baits, fish for, or otherwise attract sharks or other marine animals that may in danger the public within one (1) mile of the beach or any coastal waters are in violation of this ordinance. All fishermen shall release at time of recognition any and all fish or other similar type animals that may pose any danger to any beach goers, sunbathers, swimmers or any other person where the fish or animal is caught.
- (1) Any person(s) who surf fishes or fishing of any type from a pier or beach, at any time of the year, shall not fish in a manner that presents an unsafe condition to any beach goers, sun bathers, swimmers, or any other person and shall keep a safe distance from them. Any person who surf fishes must obtain a valid South Carolina issued Surf Fishing License in accordance with South Carolina State Law.
- (2) Local government jurisdiction extends to one (1) mile in the Atlantic Ocean and includes all beaches, swashes and piers.
- (B) It shall be unlawful for any person to engage in commercial fishing on any public beaches.

*Exceptions*. Appropriate governing councils may issue special permits allowing the temporary suspension of this ordinance with the consent of council for each occurrence, or by methodology established by such council for such occurrences.

#### Sec. 5-12. Use of bicycles restricted.

Use of bicycles, tricycles or similar human powered wheeled vehicles will be prohibited on the beach from the hours of 10:00 a.m. to 5:00 p.m. from May 1 through Labor Day.

*Exceptions*. Appropriate governing councils may issue special permits allowing the temporary suspension of this ordinance with the consent of council for each occurrence, or by methodology established by such council for such occurrences. Appropriate governing councils may develop "Zones" allowing this activity with stated restrictions with the consent of council.

#### Sec. 5-13. Watercraft restrictions.

(A) General. It shall be unlawful to leave any sailboat, boat, jet-ski, or other watercraft on the public beach after sunset and before sunrise each day. Additionally, it shall be unlawful to leave any sailboat, boat, jet-ski, or other watercraft unattended.

*Exceptions*. Appropriate governing councils may develop a permitting process and associated regulations enabling watercraft to be stored overnight on a temporary or permanent basis.

- (B) Motorboats. It shall be unlawful for any person to operate or pilot a motor-driven boat, except for vessels commonly known as jet-skis or similar type vessels, in the waters of the Atlantic Ocean within 400 yards of the point where the Atlantic Ocean adjoins the public beach or elsewhere along the public beach in any manner as to create a hazard to the public within the waters of the Atlantic Ocean. Emergency vessels operating under official guidelines are exempt from this ordinance.
- (C) Jet-skis. It shall be unlawful to operate any jet-ski in the waters of the Atlantic Ocean within 100 yards of the point where the Atlantic Ocean adjoins the public beach during the period from May 1 up to and including Labor Day of any year, except that jet skis may be launched from and returned to the beach on a course approximately perpendicular to the beach. When launching or returning as described above, the jet-ski shall be operated as slowly as surf conditions shall permit and in such a manner as to avoid all swimmers or other persons in the water. For the purposes of this chapter, the term jet-ski shall include wave riders and any other similar vehicles by whatever name. Emergency vessels operating under official guidelines are exempt from this ordinance.
- (D) Sailboats, Sail Boards, Kite Surfing Boards, and like devices. It shall be unlawful to operate any sailboat, sail board, kite surfing boards and like devices in the waters of the Atlantic Ocean within 100 yards of the point where the Atlantic Ocean adjoins the public beach during the period from May I up to and including Labor Day of any year, except that such devices listed above may be launched from and. returned to the beach on a course approximately perpendicular to the beach. When launching or returning as described above, such devices listed above shall be operated as slowly as surf conditions shall permit and in such a manner as to avoid all swimmers or other persons in the water.

*Exceptions*. Appropriate governing councils may issue special permits allowing the temporary suspension of this ordinance with the consent of council for each occurrence, or by methodology established by such council for such occurrences. Appropriate governing councils may develop "Zones" allowing or restricting any of these activities with stated regulations with the consent of council.

#### Sec. 5-14. Reckless or intoxicated operations prohibited.

- (A) No person shall operate any motorboat, jet-ski or other vessel or manipulate any skis, surfboard or similar device in a reckless or negligent manner so as to endanger the life, limb or property of any person.
- (B) No person shall operate any motorboat, jet-ski or other vessel or manipulate any skis, surfboard or similar device when intoxicated or under the influence of any narcotic drug, barbiturate or marijuana.
- (C) No person shall engage in any aquatic activity or activities on the beach or public access while intoxicated or under the influence of any narcotic drug, barbiturate or marijuana, nor shall any person engage in reckless behavior or negligent manner so as to endanger the life, limb or property of any person while in the water, on the beach or on a public access.

#### Sec. 5-15. Horses prohibited.

It shall be unlawful for any person to ride, bring or have a horse, or any other animal that can be ridden, on the public beaches or public accesses.

*Exceptions*. Appropriate governing councils may issue special permits allowing the temporary suspension of this ordinance with the consent of council for each occurrence, or by methodology established by such council for such occurrences. Appropriate governing councils may develop "Zones" allowing this activity with stated restrictions with the consent of council.

#### Sec. 5-16. Solicitation and commercial activities prohibited.

It shall be unlawful for any person, organization, society, association or corporation, or any agent, member or representative thereof, directly or indirectly, to solicit property, business or financial assistance of any kind, to distribute free product samples, admission passes, or entry tickets, to conduct any sales or rental business, to sell or offer to sell any article, good, publication, subscription or other thing of value, in the area previously defined in this chapter as the public beach.

*Exceptions*. This section shall not apply to the commercial operations of approved beach franchises granted by the governing council for the purpose of ensuring lifeguard services on the beach nor shall it prohibit governing councils from authorizing activities of a promotional nature on public property with the consent of council for each occurrence, or by methodology established by such council for such occurrences.

#### Sec. 5-17. Authority of beach patrol officers and their agents as to swimmers.

- Those persons who shall be duly appointed as deputies or constables, who are police officers of a municipality, county, or state, their authorized agents, or have been granted lifeguard status under beach franchise agreements shall have the power and authority to supervise and regulate physical activities and swimming on the beaches, strand and the Atlantic Ocean within the jurisdiction of the municipality, county, or state and in those areas shall have the responsibility to maintain peace and order. The deputies, constables, police officers, State Park Rangers, their authorized agents, and beach franchise lifeguards shall have the power and authority to recall from the ocean waters and the surf adjoining the waters any person who shall be in the ocean waters a distance of more than 50 yards from the point where the ocean adjoins the public beach, or who shall be more than chest deep when standing flat-footed at any time, or who shall be engaging in any aquatic activity whatsoever within 150 yards of any pier; or when the person shall be in danger of drowning or becoming imperiled, or may imperil the safety of others, all of which shall be determined in the discretion of the deputies, constables, police officers, State Park Rangers, authorized agents, or beach franchise lifeguards authorized by them. Further, those personnel shall have authority to recall from the ocean waters and the surf adjoining the water any person who shall be in the ocean waters at any distance at any time when the condition of the wind, water, weather or a hazard, including the physical or mental condition of the person in the ocean waters, shall be such, in the discretion of the those personnel as hereinabove described, as to constitute a danger to the health, life or safety of that person or to other persons within the ocean waters.
- (B) Governing councils, public safety officials or their agents may create zones that restrict aquatic activities or beachfront activities in areas that may pose a danger to the health, life or safety of any person due to a hazardous condition, hazardous operation, and hazardous weather

or hazardous structure whether temporary or permanent. These zones must be marked in such a fashion to be readily identifiable with flags, buoys, signs, or the like. Beach franchise lifeguards shall have authority to close the beach or adjoining ocean for such hazards, but must immediately notify the appropriate public safety officials of any such closures.

(C) Any person who shall fail to obey the directions and instructions of the personnel with regard to any of the matters and things above set forth over which they have power and authority, shall be guilty of a misdemeanor, and shall be subject to arrest by law enforcement personnel having jurisdiction and shall be subject to punishment as provided.

*Exceptions*. Appropriate governing councils may issue special permits allowing the temporary suspension of this ordinance with the consent of council for each occurrence, or by methodology established by such council for such occurrences.

#### Sec. 5-18. Flotation devices restricted.

- (A) All flotation devices must be fabric-covered and have a 360 degree rope (three-eighths-inch minimum diameter) with a ten percent slack or must be U.S. Coast Guard approved as a flotation device. Those devices not meeting these requirements will not be permitted on the surf or in the water. This section does not apply to surfboards, paddleboards, and skim boards.
- (B) All retail outlet stores licensed by the municipality or county and which sell beach equipment such as chairs, umbrellas, floats and other personal flotation devices must display prominently a copy of subsection A. of this section relating to flotation devices in that place of business.

#### Sec. 5-19. Vehicles prohibited.

- (A) It shall be unlawful for any person to drive or operate any motorized vehicle of any kind or nature upon the public beach or within public marsh areas within the county limits. All municipal, county, and state police vehicles; municipal, county, or state vehicles operated while cleaning or working on the beach; emergency vehicles; and approved beach franchise vehicles are exempted from the application of this section.
- (B) It shall be unlawful for any person to park a vehicle in the beach access or on the beach. To include, but not limited to any motor vehicles, motor cycles, golf carts, or similar type vehicles, All municipal, county, and state police vehicles; municipal, county, and state vehicles operated while cleaning or working on the beach; emergency vehicles, and approved beach franchise vehicles are exempted from the application of this section. Pavement marking, and/or signs shall designate the no parking areas in beach accesses.

*Exceptions*. Appropriate governing councils may issue special permits allowing the temporary suspension of this ordinance with the consent of council for each occurrence, or by methodology established by such council for such occurrences. Appropriate governing councils may develop "Zones" allowing this activity with stated restrictions with the consent of council.

#### Sec. 5-20. Surfing restricted.

(A) It shall be unlawful for any person to ride a surfboard, paddleboard, kayak, skim boards, hard sided boogie boards, boogie boards with fins, or any other similar device of a hard or solid nature between the hours of 10:00 a.m. and 5:00 p.m. from May 1 through Labor Day except in designated "Surfing Zones". Surfing Zones shall be approved by the governing councils of the appropriate jurisdictions and marked in such a fashion as to be easily observed.

- (B) Surfing will be allowed anywhere along the beach before the hours of 10:00 a.m. and after 5:00 p.m. except within seventy-five (75) yards of any pier.
- (C) After Labor Day to May 1, surfing will be allowed anywhere along the beach from sunup to sundown except within seventy-five (75) yards of any pier.
- (D) All surfers shall be required to wear a surfing leash with a maximum length of 7' at all times.
- (E) Surfers must navigate the surfboard, paddleboard, kayak, or like device in such a way that it does not become a hazard to others in the ocean or on the beach. The individual will be responsible for his or her actions while navigating such devices.
- (F) Soft Sided Boogie Boards or other like padded small devices shall not be considered a surfboard, but the padded device must be secured to the person in control of the device and operated in such a way that it does not become a hazard to others in the ocean or on the beach. The individual will be responsible for his or her actions while navigating such devices.

*Exceptions*. Appropriate governing councils may issue special permits allowing the temporary suspension of this ordinance with the consent of council for each occurrence, or by methodology established by such council for such occurrences. Appropriate governing councils may develop "Zones" allowing or restricting any of these activities with stated regulations with the consent of council.

#### Sec. 5-21. Public nudity prohibited.

- (A) It shall be unlawful for any person to appear in the nude on any public beach, beach access, in the public waters, any other public property, or in view of the public.
- (B) It shall be unlawful for any person to intentionally appear on any public beach, beach access, in the public waters, any other public property, or in view of the public in such a state of dress or undress so as to expose to the view of others the human male or female genitals, pubic area, pubic hair, buttocks, anus, vulva, or any portion of the female breast at or below the areola thereof.

#### Sec. 5-22. Placing obstructions on the beach restricted.

- (A) General. Through the use of "Beach Franchise Agreements" each governing council shall establish the time and placement of lifeguard stands and umbrella lines creating an Established Umbrella Line.
- (B) Established Umbrella Lines. Any umbrellas, shading devices, or other obstructions that impede upon the franchise's established umbrella line may be moved landward of the established umbrella line. Any umbrellas, shading devices, or other obstructions cannot obstruct the view of the lifeguard's area of responsibility and may be removed. No umbrellas, shading devices, or other obstructions may be placed within 10 feet of any Established Umbrella Line. Umbrellas and Shading Devices must be placed outside of the Established Umbrella Line and shall remain in-line or landward of the Established Umbrella Line. In the absence of an Established Umbrella Line, umbrellas and shading devices must be placed above the high-tide line.
- (C) Shading devices. Shading devices shall not exceed the maximum size of twelve (12) feet by twelve (12) feet or 144 square feet and the maximum height of any shading device shall not exceed nine (9) feet installed. Shading devices, other than circular umbrellas with a diameter of 7.5' or less, shall not be placed within 10' of any other shading device. All shading devices are prohibited from being tied, bound, joined, or connected in any manner: Excluding umbrellas, all shading devices shall be secured in such fashion to restrict uncontrolled movement of the device

and secured with fasteners, stakes, weights, or the like that will not endanger beach patrons. Anchoring lines, tethers, or the like shall not extend beyond the perimeter of the shading device.

- (D) Emergency and authorized vehicle access lanes. Governing councils or law enforcement personnel may establish zones, where needed, for the creation of a predetermined emergency and authorized vehicle access lane to extend from the primary dune line seaward. Emergency vehicle access lanes may also be created as needed by governing councils or law enforcement personnel from the lifeguard stand for a width of ten (10) feet to extend landward to the primary dune line. These areas may be increased or decreased by public safety officials based upon circumstances such as geography, weather, emergency operations and the like. All emergency access lanes will be marked by the placement of pylons, signs, flags, cones, trash cans, or similar devices. No umbrellas, shading devices, or other obstructions shall be placed in the area designated as an emergency or authorized vehicle access lane.
- (E) Sand fencing, dune walkovers, public beach access structures, etc. It is prohibited to place, put, lean, chain to, lock to, or connect to, in any fashion, any item to a sand fence. It is prohibited to place, put, chained to, locked to, connected to, or stored under any dune walkover or public beach access structure located on the beach.
- (F) Other Obstructions. It shall be unlawful to build, erect, place, bury, or create any fence or other obstruction on the public beach, public beach access, or dune walkover so as to obstruct or impede the free use of the public beach or to interfere with or obstruct any maintenance operation of the beach.
- (G) Removal or disposal. It shall be unlawful between the hours of 7:00 p.m. and 8:00 a.m. for any person to leave upon, put, place, or set any equipment on the beach including, but not limited to, shading devices, umbrellas, surfboards, floats, life rafts, volleyball nets, etc. Any umbrellas, shading devices, obstructions, equipment, or other structures remaining on the beach between the hours of 7:00 p.m. and 8:00 a.m. may be removed from the beach by the governing agency. Each public safety department shall determine a process with which to deal with the release and the disposal of abandoned property.

#### Sec. 5-23. Control of hazardous activity.

Any activity on the public beach which may be deemed a hazard to patrons who are walking, sunbathing or swimming can be controlled by the police and/or beach franchise and/or the lifeguard. No activity shall block the public beach or beach access where a person(s), beach franchise service, lifeguard, police or any authorized vehicle may not pass. Any person who shall fail to obey the directions and instructions of any law enforcement officer or lifeguard authorized by a beach service franchise operator with regard to activities or ordinances on the beach and in the ocean shall be guilty of a misdemeanor.

- **2. SEVERABILITY.** If any Section, Subsection, or part of this Ordinance shall be deemed or found to conflict with a provision of South Carolina law, or other pre-emptive legal principle, then that Section, Sub-section or part of this Ordinance shall be deemed ineffective, but the remaining parts of this Ordinance shall remain in full force and effect.
- **3. CONFLICT WITH PRECEDING ORDINANCES.** If a Section, Sub-section or provision of this Ordinance shall conflict with the provisions of a Section, Sub-section or part of a preceding Ordinance of Horry County, unless expressly so providing, then the preceding Section, Sub-section or part shall be deemed repealed and no longer in effect.

**4. EFFECTIVE DATE.** This Ordinance shall become effective on Third Reading.

# AND IT IS SO ORDAINED, ENACTED AND ORDERED. Dated this \_\_\_\_\_\_ day of \_\_\_\_\_\_\_, 2011. HORRY COUNTY COUNCIL H. Tom Rice, Chairman Harold G. Worley, District 1 Brent J. Schulz, District 2 Marion D. Foxworth, III, District 3 Gary Loftus, District 4 Paul D. Price, Jr., District 5 Robert P. Grabowski, District 6 James R. Frazier, District 7 Carl H. Schwartzkopf, District 8 W. Paul Prince, District 9 Jody Prince, District 10

Patricia S. Hartley, Clerk to Council

Al Allen, District 11

Attest:

First Reading: April 19, 2011 Second Reading: May 3, 2011 Third Reading: May 17, 2011

STATE OF SOUTH CAROLINA COUNTY OF HORRY	) ) )	RESOLUTION R-51-11
A RESOLUTIO	N CREATING A GO	LF CART ZONE.
WHEREAS, Horry County's Be unincorporated portions of the beach		oits all motorized vehicles on the ones; and
WHEREAS, it is the intent of Horn unincorporated beach from Novemb		eate a Zone to allow golf carts on the $28^{th}$ each year; and
WHEREAS, all golf carts must bea	r a valid state permit an	d be operated by a licensed driver.
THEREFORE, Horry County Cou unincorporated portions of the Horry		cion to create a Golf Cart Zone on the
AND IT IS SO RESOLVED this 1 HORRY COUNTY COUNCIL	7th day of May, 2011.	
	H. Tom Rice, Chairma	<u> </u>
Harold G. Worley, District 1	Brent J	. Schulz, District 2
Marion D. Foxworth, III, District 3	Gary L	oftus, District 4
Paul D. Price, Jr., District 5	Robert	P. Grabowski, District 6
James R. Frazier, District 7	Carl H.	. Schwartzkopf, District 8

)

Jody Prince, District 10

Patricia S. Hartley, Clerk to Council STATE OF SOUTH CAROLINA

W. Paul Prince, District 9

Al Allen, District 11

Attest:

	)	<b>RESOLUTION R-52-11</b>
COUNTY OF HORRY	)	

#### A RESOLUTION CREATING AN EQUESTRIAN ZONE.

**WHEREAS**, Horry County's Beach Ordinance prohibits horses on the unincorporated portions of the beach, except in designed Zones; and

**WHEREAS**, it is the intent of Horry County Council to create a Zone to allow horses on the unincorporated beach from November 1<sup>st</sup> through February 28<sup>th</sup> each year; and

**WHEREAS**, all horses and riders will be required to enter and exit at designated beach accesses and will not walk or damage any sand dunes.

**THEREFORE**, Horry County Council adopts this Resolution to create an Equestrian Zone on the unincorporated portions of the Horry County beaches.

**AND IT IS SO RESOLVED** this 17th day of May, 2011. *HORRY COUNTY COUNCIL* 

Н. Т	om Rice, Chairman
Harold G. Worley, District 1	Brent J. Schulz, District 2
Marion D. Foxworth, III, District 3	Gary Loftus, District 4
Paul D. Price, Jr., District 5	Robert P. Grabowski, District 6
James R. Frazier, District 7	Carl H. Schwartzkopf, District 8
W. Paul Prince, District 9	Jody Prince, District 10
Al Allen, District 11 Attest:	
Patricia S. Hartley, Clerk to Council STATE OF SOUTH CAROLINA	) ) RESOLUTION R-53-11

COUNTY	OF HORRY	

#### A RESOLUTION CREATING A SURFING ZONE

- WHEREAS, Horry County's Beach Ordinance prohibits surfing between 10:00 am and 5:00 pm, May 1 through Labor Day, except in designated Zones; and
- WHEREAS, it is the intent of Horry County Council to create a Zone to allow surfing on the unincorporated areas of the beach, between the hours of 10:00 am and 5:00 pm, from May 1 through Labor Day.

THEREFORE, Horry County Council adopts this Resolution to create a Surfing Zone on the unincorporated portion of the Horry County beaches.

AND IT IS SO RESOLVED this 17<sup>th</sup> day of May, 2011. *HORRY COUNTY COUNCIL* 

	H. Tom Rice, Chairman
Harold G. Worley, District 1	Brent J. Schulz, District 2
Marion D. Foxworth, III, District 3	Gary Loftus, District 4
Paul D. Price, Jr., District 5	Robert P. Grabowski, District 6
James R. Frazier, District 7	Carl H. Schwartzkopf, District 8
W. Paul Prince, District 9	Jody Prince, District 10
Al Allen, District 11	_
Attest:	
Patricia S. Hartley, Clerk to Counci	 1

#### **Federal Agencies/Jurisdictions**

The US Army Corps of Engineers (USACE)

The US Army Corps of Engineers (USACE) is responsible for providing engineering services to the United States, including a major role in civil works projects in which there is a federal interest. The regulatory mission of the USACE is to protect federal trust resources in their authority. USACE also plays a major regulatory function through section 404 of the Federal Water Pollution Control Act of 1972 (better known as the Clean Water Act), which authorizes the Secretary of the Army to issue permits for the discharge of dredged and fill material in and around wetlands.

USACE has three main permitting mechanisms, the general permit (GP), individual permit, and nationwide permit. The Army Corps is responsible for reviewing applications and regulating beach nourishment activities under Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. The decision to issue a permit is based on evaluation of the probable impact of the project including cumulative impacts of the activity on the public interest. USACE also maintains an emergency management responsibility through its Emergency Management Division located in Charleston. During emergencies, USACE is authorized to provide engineering and public works assistance to State government agencies.

#### The US Fish and Wildlife Service (USFWS)

The US Fish and Wildlife Service (USFWS) is the federal agency responsible for the protection of federal fish and wildlife habitats and species, specifically those that are imperiled, threatened, or endangered. Much like the National Oceanic and Atmospheric Administration (NOAA), USFWS does not directly permit or authorize activities but is typically part of a consultation team and can elevate issues that are deemed important. USFWS is responsible for administering the Federal Endangered Species Act (ESA) that protects threatened and endangered species and habitats primarily on land and on the beaches in coastal areas. The USFWS has direct responsibility for protecting endangered insects, plants, and shorebirds, and shares joint responsibility with National Marine Fisheries Service (NMFS) for the protection and recovery of sea turtles.

Along the Horry County beachfront there are two areas protected by the US Fish and Wildlife Service (USFWS). In 1982 The Coastal Barrier Resources Act (CBRA) defined lands that were considered "undeveloped coastal barrier" as a depositional geologic feature that is subject to wave, tidal and wind energies; and protects landward aquatic habitats from direct wave attack. CBRA further defines a coastal barrier as all associated aquatic habitats, including the adjacent wetlands, marshes, estuaries, inlets and nearshore waters, but only if such features and

#### Appendix G

associated habitats contain few man-made structures and these structures, and people's activity associated with them, do not significantly impede geomorphic and ecological processes.

In 2000 the act was updated to clarify what is considered undeveloped. The determination was made that to be considered as undeveloped, first, the density of development must be less than one structure per five acres of land above mean high tide; and second, there may not be existing infrastructure consisting of a road with a reinforced road bed, wastewater disposal system, electric service, and fresh water supply to each lot or building site in the area.

The two locations in Horry County that have been documented as protected areas are denoted as M01 and SC-01, Waites Island and the Meher Spiritual Center, respectively. The different designations are related to the date the parcel was identified by the Coastal Barrier Resources Act. In 1982 the designation was determined alphabetically beginning in Maine and ending in Florida. During the update of the Coastal Barrier Resources Act in 2000 the states abbreviation was used to determine any new sites, resulting in different titles here in South Carolina.

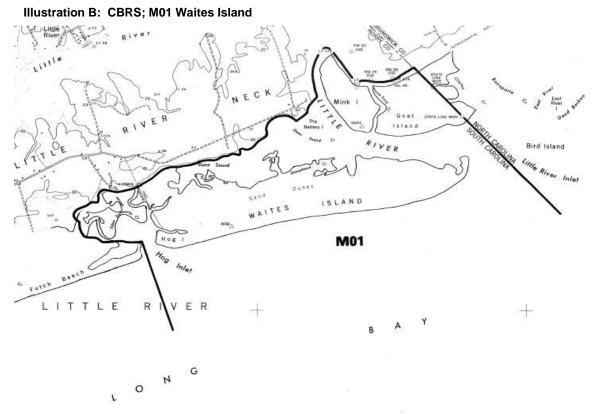
First Street Back

SC-01

Illustration A: CBRS; SC-01 Meher Spiritual Center

Source: US Fish and Wildlife Service

The Coastal Barrier Resources Act (CBRA) of 1982 designated undeveloped private coastal barrier lands and associated aquatic habitat as part of the Coastal Barrier Resources System (CBRS). These System Units carry the full spectrum of Federal funding prohibitions as specified in CBRA. The CBRS currently includes 585 System Units, which add up to approximately 1.3 million acres of land and associated aquatic habitat.



Source: US Fish and Wildlife Service

The Coastal Barrier Improvement Act of 1990 expanded the CBRS and created a new category of lands known as otherwise protected areas (OPAs). OPA designations add a layer of Federal protection to coastal barriers already held for conservation or recreation, such as national wildlife refuges, national parks and seashores, state and county parks, and lands owned by private groups for conservation or recreational purposes, and discourage development of privately owned inholdings. The only Federal funding prohibition within OPAs is Federal flood insurance. The CBRS currently includes 271 OPAs, totaling approximately 1.8 million acres of land and associated aquatic habitat.

The U.S. Fish and Wildlife Service must be consulted prior to any modification of a System Unit. Federal funds may be spent for emergency assistance, military activities essential to national security, exploration and extraction of energy resources, and maintenance of existing Federal

#### Appendix G

navigational channels. Examples of prohibited Federal assistance within System units include subsidies for road construction, channel dredging, and other coastal engineering projects.

The National Flood Insurance Program (NFIP) is managed under the Federal Emergency Management Agency (FEMA). The three-prong approach to the NFIP program involves Flood Insurance, Floodplain Management, and Flood Hazard Mapping. Federal flood insurance is not available for CBRS units, unless the subject building was constructed (or permitted and under construction) before the CBRS unit's effective date. If an existing insured structure is substantially improved or damaged, the Federal flood insurance policy will not be renewed.

Only Congress has the authority to modify the boundaries created by the Coastal Barrier Resources System (CBRS). The sole exception is a five-year review of the CBRS conducted by the U.S. Fish and Wildlife Service that modifies boundaries only to reflect changes due to natural processes (i.e., accretion and erosion).

#### The Federal Emergency Management Agency (FEMA)

The Federal Emergency Management Agency (FEMA) is part of the Department of Homeland Security and is responsible for reducing the loss of life and property and protecting the United States from hazards, including natural disasters. FEMA supports a risk-based program for a comprehensive emergency management system of preparedness, protection, response, recovery and mitigation. The Agency provides coordination, resources, and communication to state agencies during federal emergencies and is involved in promoting community resiliency and post-disaster relief.

FEMA also administers the National Flood Insurance Program, a federal program enabling property owners in participating communities to purchase insurance as protection against flood losses in exchange for State and community floodplain management.

#### The National Oceanic and Atmospheric Administration (NOAA)

The National Oceanic and Atmospheric Administration (NOAA) is a federal agency housed within the Department of Commerce. The mission of NOAA is to protect federal trust resources, provide mapping of navigation channels, monitor and forecast weather, monitor coastal dynamics and conditions, and manage the nation's coast. Within NOAA are the National Ocean Service and the National Marine Fisheries Service. The National Marine Fisheries Service (NMFS) implements the Magnuson-Stevens Fishery Management Act policies, monitors and establishes federal catch limits, restores coastal wetlands and shellfish habitat, and assesses natural resource damages to federal trust species. NMFS has coordination authority over

#### Appendix G

federal activities and permits that may adversely affect Essential Fish Habitat (EFH), and requires notification and consultation prior to federal permitting of certain activities, including beach nourishment. NMFS administers the requirements of the Marine Mammal Protection Act, and has joint responsibility with the US Fish and Wildlife Service for the protection and recovery of sea turtles.

The National Ocean Service monitors coastal processes and conditions and administers the federal Coastal Zone Management program. Section 307 of the Coastal Zone Management Act requires that an applicant for a federal permit, grant, license, or approval must certify that the proposed action is consistent to the maximum extent practicable with the policies and purposes of a federally approved State coastal management program. The state must concur with this certification prior to a federal agency undertaking the approval, authorization, licensing or funding of the proposed project.

#### The United States Coast Guard (USCG)

The United States Coast Guard (USCG) is the federal agency responsible for protecting the nation's waterways and coastline as part of the Department of Homeland Security. The Coast Guard's missions include promoting maritime safety, security and mobility, providing for national defense, and protecting natural resources. USCG performs search and rescue operations in coastal areas for missing boaters, lost swimmers, and sinking vessels. Coast Guard is also involved in law enforcement on the water, particularly reckless boating, boating while intoxicated and drug interdiction. In addition, the Coast Guard has authority over the permitting of bridges. A major responsibility of the Guard is to respond to, investigate, and address oil spills in a water body. USCG has developed an Area Contingency Plan for each section of the State for spills and response. USCG serves as the federal On Scene Coordinator for spills.

#### **State Agencies/Jurisdictions**

State General Assembly

The South Carolina General Assembly is the legal legislative body in the State and as such holds significant authority over decisions of the State. The General Assembly has the authority to control public lands, including bottomland and beaches below the mean high water mark, manage Public Trust resources, such as finfish and shellfish, and regulate the use of water bodies for various purposes including navigation. The Assembly has delegated responsibility for the management of many Public Trust resources to State agencies. All authority and jurisdiction assumed or acted upon by any State agency is through direct delegation of such authority from the South Carolina General Assembly.

#### Department of Health and Environmental Control (DHEC)

DHEC is the state's health and environmental management agency comprised of five deputy bureaus including Administration, Health Regulation, Health Services, EQC, and DHEC OCRM. The mission of DHEC is to promote and protect the health of the public in South Carolina. As the state's health agency, a considerable amount of resources are directed to the protection of human health. The DHEC Commissioner and a Board of Health and Environmental Control comprised of seven appointed members are appointed by the General Assembly.

#### Office of Environmental Quality and Control

DHEC EQC is the state's environmental management and regulatory agency and operates eight regional offices in the state. EQC manages water and community wastewater permitting, stormwater permitting, septic system, public and private wells and other inspections, manages air emissions, brown fields, solid waste and hazardous waste, mining, beach monitoring, public swimming pools, and permitting activity for numerous environmental program areas.

#### Office of Ocean and Coastal Resource Management

DHEC OCRM is the State's coastal management agency and administers the federal coastal program, as amended and refined by the state, and protects and manages coastal Public Trust resources. Formerly known as the South Carolina Coastal Council, DHEC OCRM consists of a regulatory division, a coastal planning division, a science and policy division, communications and technical resources division, and an administrative division. The regulatory program reviews and permits dock activities, beach and dune permits, beach renourishment, wetland impacts, marina applications, and coastal stormwater permitting within the eight coastal counties. The

#### Appendix G

Planning Division provides assistance to local communities in identifying and addressing coastal change, prepares guidance and policy documents to assist government agencies in understanding coastal issues, and manages the preparation of local comprehensive beach management plans.

#### Department of Natural Resources

The South Carolina Department of Natural Resources (DNR) is the principal advocate for and steward of the State's natural resources. This is accomplished through regulating hunting, fishing and boating activities and through conservation and land and water management programs. DNR administers the State's threatened and endangered species programs, including protection of shorebirds, sea turtles and marine mammals. DNR also administers most of the State's authority for the management of surface vessels and enforcing boating regulations through the DNR Law Enforcement Division.

#### Department of Transportation

The South Carolina Department of Transportation (DOT) is responsible for planning, constructing, and maintaining state roads and bridges, and providing mass transit services in the State. DOT is an Executive branch agency that is overseen by a seven-member commission. The Governor appoints the Commission chairperson and the six commission members represent the congressional districts of the State. The Commission is responsible for hiring the Executive Director who then is responsible for hiring division directors. The Department helps plan for hurricane evacuation routes and maintains and publishes the current evacuation routes. DOT also provides emergency response during hurricanes to facilitate evacuation.

#### Emergency Management Division

The South Carolina Emergency Management Division (EMD) is responsible for preparing for, responding to, and assisting in recovery after major disasters, storms, and other emergencies. EMD is comprised of six divisions under the supervision of a Division Director. The divisions include the division director's office, public information, preparedness and recovery, response and operations, critical incident management group (CIMG) and administrative services. EMD provides planning assistance for communities prone to emergencies such as storms or hazards, and also provides training to responders. A Regional Emergency Management Program is housed in EMD that provides on-the-ground assistance to communities in the six EMD districts. EMD also works directly with county and local governments following storms to help facilitate rebuilding.

#### Appendix H

http://bcmw.coastal.edu/sites/default/files/docfiles/GSR\_Final\_Report.pdf

# 2007 – 2010 Grand Strand Beach Nourishment Study Final Report

Clay McCoy<sup>1,2</sup>, Jenna Hill<sup>1</sup>, Paul Gayes<sup>1</sup>, Jeff Marshall<sup>1</sup>, Shinobu Okano<sup>1</sup>, Brian Johnson<sup>1</sup>, Matthew Howe<sup>1</sup>, Shannon Klotsko<sup>1</sup>

<sup>1</sup>Center for Marine and Wetland Studies Coastal Carolina University Conway, SC 29526

<sup>2</sup>South Carolina Sea Grant Extension Program Charleston, SC 29401

Submitted to:
United States Army Corps of Engineers
Charleston, SC District

September 2010





#### Appendix H

## **HORRY COUNTY BEACH ACCESSES**

- 1. CEDAR AVENUE GARDEN CITY
- 2. HOLLY AVENUE GARDEN CITY
- 3. AZALEA AVENUE GARDEN CITY
- 4. MAGNOLIA AVE (WALKING PATH) GARDEN CITY
- 5. YAUPON AVENUE GARDEN CITY
- 6. PINE AVENUE GARDEN CITY
- 7. OAK AVENUE GARDEN CITY
- 8. CYPRESS AVENUE (WALKING PATH) GARDEN CITY
- 9. ANGLERS DRIVE GARDEN CITY
- **10. HOLIDAY DRIVE GARDEN CITY**
- 11. SUNSET DRIVE GARDEN CITY
- 12. RAINBOW DRIVE GARDEN CITY
- 13. SEABREEZE DRIVE GARDEN CITY
- 14. CALHOUN DRIVE GARDEN CITY
- 15.WOODLAND DRIVE GARDEN CITY
- 16. HAWES AVENUE GARDEN CITY
- 17.NASH STREET SPRINGMAID BEACH
- 18. OCEAN ANNIES ARCADIAN SHORES

- 19. SANDS OCEAN CLUB ARCADIAN SHORES
- 20.COTTAGE BEACH ARCADIAN SHORES
- 21. MAISON DRIVE ARCADIAN SHORES
- 22. HIBBEN BEACH (WALKING PATH) ARCADIAN SHORES

