



# CITY OF FOLLY BEACH

Introduced by: Mayor Goodwin  
Date: October 13, 2015

## RESOLUTION NO. R57-15

### A RESOLUTION BY THE FOLLY BEACH CITY COUNCIL ADOPTING THE 2015 LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN FOR THE CITY OF FOLLY BEACH

WHEREAS, the City of Folly Beach is required to periodically update its Local Comprehensive Beach Management Plan;

WHEREAS, the City of Folly Beach has updated its plan and made the plan available for public review;

WHEREAS, the State of South Carolina requires that the plan be adopted in order to initiate formal review; and

WHEREAS, an approved plan will make the City eligible for State grants and other benefits.

**NOW, THEREFORE, BE IT RESOLVED**, by the City Council of Folly Beach, that the 2015 Local Comprehensive Beach Management Plan for the City of Folly Beach is hereby adopted.

**RATIFIED** this 13th day of October 2015 at Folly Beach, South Carolina, in City Council duly assigned.

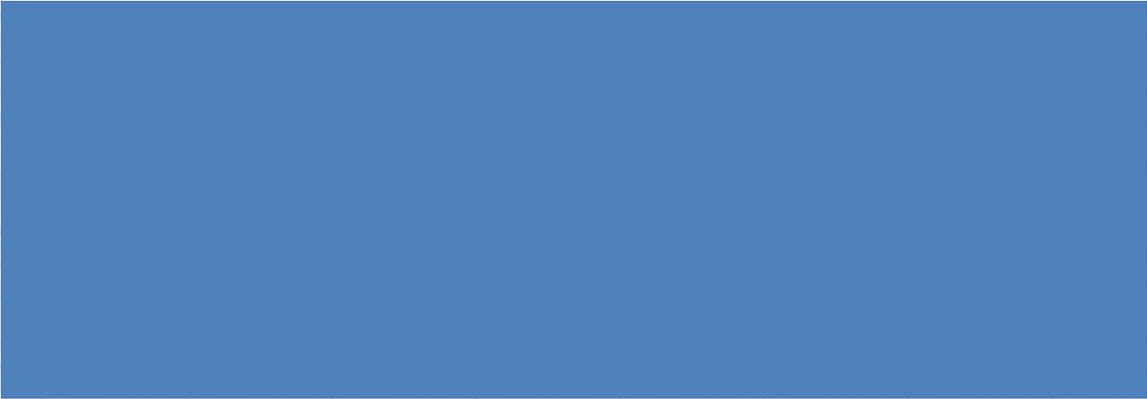
**ATTEST:**

A blue ink signature of the Municipal Clerk, written over a horizontal line.

**Municipal Clerk**  
**Mayor**

A blue ink signature of Mayor Tim Goodwin, written over a horizontal line.

**Tim Goodwin,**



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# CITY OF FOLLY BEACH

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## 2015 LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

In accordance with the State Beachfront Management Act, the City of Folly Beach has prepared this updated Local Comprehensive Beachfront Management Plan in coordination with the SC DHEC OCRM.

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# 1. INTRODUCTION

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In accordance with the State Beachfront Management Act, the City of Folly Beach has prepared this 2015 Local Comprehensive Beach Management Plan in coordination with the South Carolina Department of Health and Environmental Control's Office of Ocean and Coastal Resource Management (SCDHEC-OCRM). This document will help the City to become a more resilient coastal community. This Plan replaces the 1992 Beach Management Plan.

## 1.1 PURPOSE

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The purposes of this Plan are to:

- fulfill the requirements of the Beachfront Management Act for a local beach management plan,
- inventory existing beach conditions and summarize current issues,
- maintain eligibility for State beach renourishment funding,
- serve as an important planning and decision-making tool for future ordinances and policies that preserve, manage or regulate the beach and dune system on Folly Beach; and
- develop a long-term beach preservation strategy such that the restored beach and dune system is not lost between periodic renourishments.

Rather than be reactive, relying on the federal renourishment projects to restore the beach when erosion becomes an emergency situation, the City desires to proactively manage the beach in an effort to mitigate severe erosion in the future. By monitoring beach performance, and managing erosion issues between federal renourishment projects, the City aims to use this plan as a long-term beach preservation strategy with a goal to address chronic erosion issues to avoid emergency situations and the use of more aggressive coastal management tools. In the long-term the City's goal is to avoid total loss of the restored beach and dune system between periodic renourishments.

## 1.2 HISTORY OF THE 1992 BEACH MANAGEMENT PLAN

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The City of Folly Beach through Edge & Associates, Inc., submitted a Local Comprehensive Beach Management Plan to the state on December 18, 1991. The plan was approved in 1992. This was an important and proactive era in the history of the coastal management of Folly Beach. Following publication of the 1987 USACE Section 111 report that found the majority of the erosion on Folly Beach was attributable to the Charleston Harbor jetties, Folly Beach became exempt from portions of the state Beach Management Act and the City signed a Local Cooperation Agreement with the USACE for periodic renourishment. Both are discussed in more detail later in the plan. During the decades that followed, the City became somewhat less proactive and more dependent on the federal renourishment project to address beach erosion issues.

Due to a problematic federal renourishment effort in 2013, the City of Folly Beach has recognized the need to once again become proactive and take the lead in long-term beach preservation planning. In 2015, the City finished this complete revision of the Local Comprehensive Beach Management Plan. Significant changes have been captured in this document including physical changes to the development of the island, ordinance, zoning, and comprehensive plan updates, and erosion mitigation efforts, such as beach renourishment. In addition, the City's proactive approach to beach preservation has been captured in this long-term plan that leverages many coastal management tools available to address erosion issues. Recently, the City has formed new beach management committees, hired a coastal management consultant, developed a beach monitoring plan, proposed a long-term beach preservation budget, applied for and received coastal access grants, conducted a drainage study on the east side with a grant from the County, and created the Folly Beach Nature Conservancy to acquire vulnerable beachfront lots. This plan is a significant improvement over the 1992 plan and is intended to serve as a planning tool for future beach preservation efforts.

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### 1.2.1 CITY OF FOLLY BEACH EXEMPTION, BEACH MANAGEMENT ACT

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Another important update since the last Beach Management Plan is the City's exemption from portions of the Beach Management Act. This exemption, which is unique to the City of Folly Beach, is described here because it affects many beach management concepts discussed in subsequent portions of this plan.

In accordance with S. C. Code of Law Sec. 48-39-290(E), the City of Folly Beach is exempt from portions of the Beach Management Act. The basis of this exemption is the Section 111 study conducted by the Corps that demonstrated that beach erosion on Folly Beach was attributable, in large part, to the construction of the Charleston Harbor jetties, rather than the natural process of erosion. The jetties, constructed in 1898, and subsequent deepening of the shipping channel, have significantly reduced sand transport to Folly Beach.

A baseline at Folly Beach was established by agreement between the City and the former S. C. Coastal Council (now S. C. Department of Health and Environmental Control ("SCDHEC")) in 1994 along the exposed beachfront rock revetments. Other SC communities have both a setback line and a baseline, but there is no setback line on Folly Beach. SCDHEC's beachfront permitting jurisdiction is limited to areas seaward of the baseline. Unlike other coastal communities where lines are updated every 8 to 10 years, the baseline on Folly Beach is fixed and not subject to periodic readjustment.

A recent ruling by the SCDHEC Board clarified SCDHEC's permitting jurisdiction on Folly Beach. The Board concluded that the SCDHEC has no jurisdiction landward of the baseline on Folly Beach.<sup>1</sup>

Another element of the Folly Beach exemption is that existing armoring structures (i.e., seawalls, bulkheads and revetments) can be rebuilt even if damaged more than 50%. The State code specifically states that erosion control devices exempt must not be constructed

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<sup>1</sup> Herbert and Stacey Weiss, Requestors v. SCDHEC, Final Review Conference 7/11/13.

seaward of their existing location, increased in dimension, or rebuilt out of materials different from that of the original structure.<sup>2</sup> As described in Section 4.2.5, the City has a strictly enforced seawall ordinance to ensure properly engineered erosion control device installation when approved behind the baseline. Along the rest of the SC coast, armoring structures cannot be rebuilt if damaged more than 50%.

The City is required and desires to comply with S. C. Code Ann. Sec. 48-39-320 and develop and update a Beach Management Plan. Although the City of Folly Beach is exempt from portions of the Beachfront Management Act, the City wants to proactively protect their most important asset and coordinate its efforts with the state. The City recognizes the importance of the beach from environmental, economic, and storm protection perspectives. Further, the City believes the plan to be an important tool for meeting the needs of Folly Beach for many generations to come.

### 1.3 OVERVIEW OF MUNICIPALITY/HISTORY OF BEACH MANAGEMENT APPROACHES

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The City of Folly Beach, SC, is located 4 miles south of the entrance to Charleston Harbor and south of the Charleston Harbor jetties. The island is approximately 6 miles in length and runs in a general northeast/southwest direction. It is bordered on the northeast by Lighthouse Inlet and Morris Island and on the southwest by the Stono River Inlet and Kiawah Island, as shown in Figure 1. The Folly River runs along the landward side of the island.

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#### 1.3.1 OVERVIEW OF MUNICIPALITY

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Folly Beach is a small island community within Charleston County, SC. The town has a modest permanent residency of 2,617 persons that has been growing steadily (nearly 25% increase in population since 2000). Despite the small permanent residency, Folly Beach is the community of choice for many residents of the Charleston area for enjoying marine recreation. Folly Beach is the closest and most publicly accessible beach for the City of Charleston and the Tri-County area of Berkeley, Dorchester, and Charleston counties. The Berkeley-Charleston-Dorchester Council of Governments reports that, the daily average of vehicles that pass the traffic station at Sol Legare and Folly Road is 10,600.

In the 1930s construction of hotels and boardwalks were completed to accommodate the visitors and more than 15,000 people reportedly attended the 1937 fireworks show on the island. Of the 18.6 sq. miles of area associated with the City, 6.4 sq miles (>1/3) is considered waterfront making Folly Beach an excellent location for a wide variety of waterfront activities. Like many other beachfront communities adjacent to large cities, property in the communities comes at a premium and tourism drives the health of the local economy. The

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<sup>2</sup> S.C. Code Ann. § 48-39-300

median home value has soared with an over 70% increase in valuation from \$270,800 in 2000 to \$467,730 in 2014 (US Gazetteer, 2014).

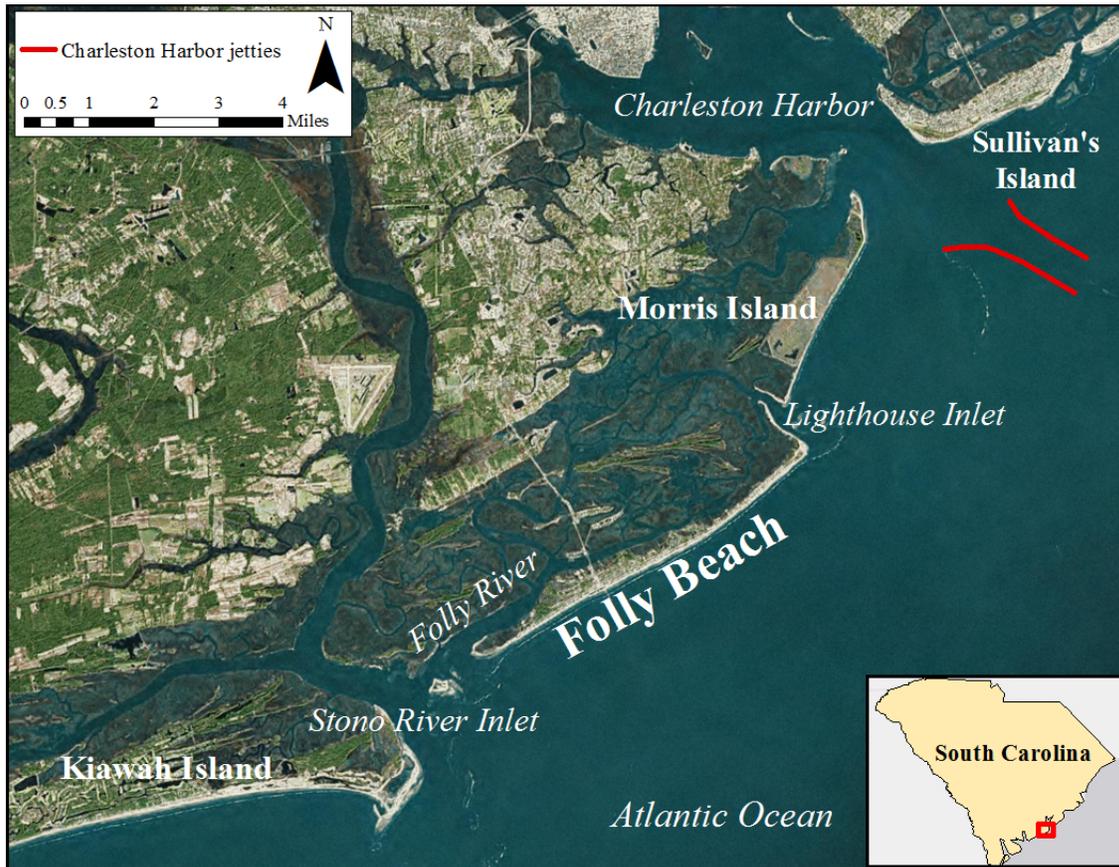


FIGURE 1. MAP OF THE CITY OF FOLLY BEACH AND SURROUNDING COASTAL REGION

Charleston County Park and Recreation Commission (CCPRC) operates three properties on Folly Beach: the Folly Beach County Park (FBCP) on the west end of the island, the Edwin S. Taylor Folly Beach Fishing Pier in the center, two beachfront lots on the 2<sup>nd</sup> block east, and is in the process of developing a master plan for the 27 acres that comprise the old Coast Guard Property on the east end. For all intents and purposes, Folly is a community park. With 53 public accesses, ample public parking within 1,000 feet of the beach and a county park on each end and the middle, the island is extremely publicly accessible.

### 1.3.2 HISTORY OF BEACH MANAGEMENT APPROACHES

Erosion management is the City's primary beach management objective. The City of Folly Beach has historically relied on federal beach renourishment and erosion control structures as the primary beach management approaches. Both the City and the federal government have made a 50-year commitment to beach nourishment as the primary erosion management tool through a 1992 Local Cooperation Agreement (LCA). The 50-year commitment expires in 2042. The 2014 Water Resources & Reform Development Act (WRRDA 2014) addressed beach communities whose 50-year projects are expiring soon (2018) by granting a 15-year

extension to the projects. The City of Folly Beach expects, and will advocate for, a similar extension upon expiration of the existing LCA.

Since the 3-mile long Charleston Harbor jetties were built in the late 1800's, Morris and Folly Islands, located downdrift, have experienced severe erosion due to the elimination of sediment bypassing around the harbor's previously expansive ebb tidal delta.

Sand that formerly bypassed Charleston Harbor and was transported to Folly Beach now either accumulates on the north side of the jetties or is dredged from the entrance channel and disposed offshore, which has led to a slow erosion of the island. This erosion led to the loss of some beachfront homes and coastal roads throughout the 1940s and 1950s (Levine et. al., 2009). In an attempt at erosion management, the South Carolina State Highway Department installed 48 timber and rock groins along Folly Beach. Private armoring structures have been constructed along nearly all the beachfront. Pursuant to Folly's exemption from portions of the Beachfront Management Act, property owners are still permitted to build seawalls on properties landward of the baseline according to the City's regulations in ordinance 151.23.

The first federal beach nourishment project was constructed on Folly Beach in 1993. Section 5.2.1 provides a history of the federal project authorization and subsequent renourishment projects.

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### 1.3.3 DEVELOPMENT OF SUPER-BEACHFRONT LOTS

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During the late 1970's and into the 80's, the beachfront lots on the northeast end of Folly Beach were completely underwater, but had been platted and deeded to individual owners circa 1950. In 1992, surveys acquired during the federal Shore Protection Project revealed significant accretion on the north end.

The accretion meant that twenty-eight (28) "super-beachfront" lots were now available to be sold or developed by current owners. Folly Beach City Council hoped to prevent the development, and began looking for money to purchase the lots to do so. The City approached a number of state and federal agencies seeking financial assistance. There was agreement that the lots shouldn't be developed, but funding to purchase the lots was not available.

The City resisted issuing permits. This was around the time of the *Lucas* decision, and there was a real threat that preventing development would be construed as a regulatory taking, for which the City would then have to pay compensation.<sup>3</sup> The first building permit was issued in 1997.

These super-beachfront lots have become a concern for the City for a number of reasons. On a national scale, the development of these lots has been blamed on beach nourishment with the argument that nourishment encourages unsound beachfront development. For the federal beach project, these properties have been subject to severe erosion and storm damage leading up to the most recent renourishment (see Section 5.2.3). At the local level, some

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<sup>3</sup> *Lucas v. S.C. Coastal Council*, 505 U.S. 103 (1992).

property owners behind the super-beachfront lots are disgruntled that construction was permitted in front of their (previously) beachfront homes.

In an effort to avoid future development of this nature, the City has taken several proactive steps including donation of super-beachfront lots to the Folly Land Trust. In addition, Chapter 168 of the City Ordinances requires nonconforming lots of the same ownership that are adjacent to be developed as one parcel. Finally, the City requires that new construction meet current setbacks and obtain a permit for on-site septic system, which in some cases is not possible on the remaining lots.

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## 1.4 CURRENT BEACH MANAGEMENT ISSUES

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The greatest challenge affecting beach management for the City of Folly Beach is chronic beach erosion and the preservation of the beach system for storm protection, economic, and ecosystem benefits. The entire island is subject to chronic erosion with the northeast end as the most critical present hot spot.

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### 1.4.1 FOLLY BEACH FEDERAL SHORE PROTECTION PROJECT

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As mentioned in Section 1.3, the City's primary erosion mitigation tool is the Federal Shore Protection Project that provides periodic renourishment at an 85% federal cost. Beach nourishment addresses the lack of sand causing chronic beach erosion; thus, it serves as the foundation of beach preservation planning. A detailed history of the Folly Beach federal Shore Protection Project is provided in Section 5.2.1. The City's plan to sustain the federal program into the future is detailed in Section 6.1.1.

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### 1.4.2 OTHER BEACH MANAGEMENT ISSUES

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Dilapidated timber-pile groins, many of which were installed by SC DOT in the mid-1900's, have been identified as a local beach management issue. These structures have become relatively ineffective at their original intent, which was to trap sand and stabilize the beach. In addition, they pose a safety hazard to humans, may interfere with turtle nesting and hatchlings, and they unnecessarily interfere with beach construction work. Rehabilitation of nine dilapidated groins along the central portion of the island has contributed to a reduction in erosion rates. This is discussed in more detail in Sections 5.1.1 and 5.2.

All of the properties on Folly Beach with the exception of the commercial district and certain planned residential developments (e.g., Sunset Point), are on septic sewage. Consequently, every developed beachfront property contains a septic tank. Exposed septic tanks on the beach could pose a beach management issue in the case of extreme erosion in the wake of a major disaster like Hurricane Sandy.

Vehicular traffic is a concern on the approach to Folly Beach, particularly on holidays and summer weekends. Folly Road is the only route for traffic to enter and leave the island.

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### 1.4.3 OTHER EROSION MANAGEMENT OPTIONS

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Due to the erosional nature of Folly Beach, and the delay in appropriated federal renourishment funds, property owners have been compelled to construct erosion control structures on private lands. Between 2010 and 2013, a number of seawalls were built landward of the state jurisdictional baseline on the northeast end of Folly Beach to halt erosion of their private property and protect residential structures. The majority of the Folly Beach shoreline is armored with seawalls that have been in place for decades. Most of the seawalls (with the exception of those along the northeast end) act as a buried, redundant level of storm protection, only to be exposed under unusual and severely-erosional circumstances when the entire beach and dune system is lost.

While the federal government agrees that the jetties cause more than half of the erosion,<sup>4</sup> the City also wishes to consider other erosion control alternatives that could extend the life of the sand on the beach between periodic renourishments. Because most erosion control approaches manage the flow of sand and much of the sand Folly would normally receive is trapped by the Harbor, Folly must be prepared to manage the sand placed by renourishment in a way that preserves the beach for shore protection, recreation, and natural habitats. To this end, this plan considers a spectrum of erosion control possibilities and identifies several approaches that the City would like to study more closely and consider adopting.

The City of Folly Beach has and/or will consider the following approaches to erosion control: rehabilitation of existing groins, other erosion control devices once a demonstrated history of utility has been demonstrated elsewhere, large-scale beach nourishment, filling erosional hot spots between periodic renourishment events (small scale), dune restoration including planting native vegetation and installing sand fencing, and property acquisition if necessary.

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### 1.4.4 HAZARD MITIGATION AND RESILIENCE

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The City of Folly Beach must also address the issue of flood and hazard mitigation, which has become an even more acute concern due to the risk of future erosion and sea level rise.

The first step towards this goal will be a comprehensive risk assessment over the next two years to identify the most high-risk structures and infrastructure. Based on the results of this assessment, the City hopes to take steps in partnership with local, State, and Federal agencies as appropriate to mitigate that risk. As one of the largest obstacles will be funding, the City intends to use this plan as groundwork for future financial planning and grant applications. Possible grant sources include FEMA Pre Disaster Mitigation Grants and the Hazard Mitigation Grant Program. These grants would allow the City to pursue a wide range of options ranging from strengthening our existing infrastructure and public facilities to the outright purchase of vulnerable properties. Other partnerships, such as with the South Carolina Sea Grant Consortium and the Berkeley Charleston Dorchester Council of Governments could lead to the identification of other funding sources.

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<sup>4</sup> See discussion, Section 5.2.1

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### 1.4.5 ENVIRONMENTAL PROTECTION

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The final major goal of the beachfront management plan is the protection of natural habitats and the sand dune system. In addition to providing storm and erosion protection, the beach and sand dune system provide important habitats including loggerhead and leatherback turtle and piping plover nesting grounds. The City has recently been designated as a critical loggerhead sea turtle habitat and intends to continue protecting this species and their offspring. A 2015 Economic Analysis (Rhodes and Pan, 2015) concluded that Charleston area households would collectively place an annual **\$2 million value** on protecting the marine turtle species that depend upon Folly Island’s front beach area as nesting habitat.

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## 2. INVENTORY OF EXISTING CONDITIONS

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### 2.1 GENERAL CHARACTERISTICS OF THE BEACH

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Folly Beach is a barrier island, approximately 6 miles long, extending from Lighthouse Inlet to the entrance to the Folly River. With the exception of large properties on each end of the island managed by the Charleston County Parks and Recreation Commission, the island is developed with mostly single family homes. The Center St./downtown beachfront area contains commercial buildings and a fishing pier. Few vacant lots remain along the beachfront, but thanks to robust zoning, redevelopment has not changed the character of the island. With the exception of super-beachfront lots that were developed on the northeast end of the island, reduced sediment supply rather than development, is the primary cause of beach and dune system loss. A detailed discussion of the local beach morphology, including short- and long-term beach and dune changes is provided in Section 5.

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#### 2.1.1 GENERAL LAND USE PATTERNS

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The primary land use classification in the City of Folly Beach is low density residential. The largest zoning district is Residential Single Family (RSF) which covers approximately 85 percent of the island (Table 1). Although there are scattered properties containing more than one residential unit that have been grandfathered, there are no commercial or high density residential uses located in the RSF district. The standard lot size in this district is 10,500 square feet and the average density is 4 units per acre.

Higher density residential uses are clustered in the center of the island and along the causeway leading from the mainland. Historically, each wave of multifamily housing led to greater restrictions on the allowable density of future projects. The first condominium project in the City was constructed in 1996 with an allowable density of 32 units per acre. The current maximum density is 12 units per acre. The area available for future multifamily construction has also been gradually reduced over time. Currently no future multifamily construction is allowed on Folly Island and is limited to properties on the causeway.

The commercial core of the island is roughly 2 blocks wide and 6 blocks long. Commercial uses include retail, lodging, bars, and restaurants. The largest physical and most intense commercial use is the Tides Hotel which is located on the beach at the end of Center Street. Growth of the commercial district is extremely restricted. Steady reductions in lot coverage allowances combined with increased parking requirements and a commitment to prevent the expansion of commercial zoning districts have all served to limit actual and potential expansion of the business district.

TABLE 1. LAND USE TRENDS FOR THE CITY OF FOLLY BEACH ACCORDING TO THE 2010 COMPREHENSIVE PLAN UPDATE

Land Use	2007 Parcel Numbers	2002 Parcel Numbers
<b>Single-family detached residential</b>	1257	1075
<b>Townhouse/rowhouse</b>	102	21
<b>Multi-family residential</b>	n/a	n/a
<b>Duplex</b>	65	76
<b>Three or more units/structure</b>	740	517
<b>Commercial/residential mixed use</b>	6	13
<b>Commercial/office</b>	45	30
<b>Institutional</b>	n/a	13
<b>Infrastructure</b>	n/a	10
<b>Special Use</b>	5	n/a
<b>Recreational</b>	216	12
<b>Agriculture</b>	15	14
<b>Undeveloped/vacant land</b>	220	558
<b>No data available</b>	7	80

*Source: BCD Council of Governments*

### 2.1.2 BEACHFRONT LAND USE PATTERNS

Land fronting the beach on Folly Island falls into three zoning districts. At each end of the island are large parcels zoned Conservation (CN). The CN zoning allows for very limited development of boardwalks and other structures and is intended to maintain property in an undeveloped state. The CN properties are currently owned and operated by Charleston County Parks and Recreation and account for approximately 20% of the total shoreline of the island.

Property between each end of the island and the central commercial district is exclusively zoned RSF and consists of only single family housing. Home sizes on the front beach range from small cottages to large estate sized houses. The current maximum allowable square footage is 3,600 heated square feet. A handful of homes are built to the prior maximum allowable size of 4,500 square feet, but the majority of the houses on front beach are still 3,000 square feet or less. The RSF properties account for approximately 70% of the beachfront.

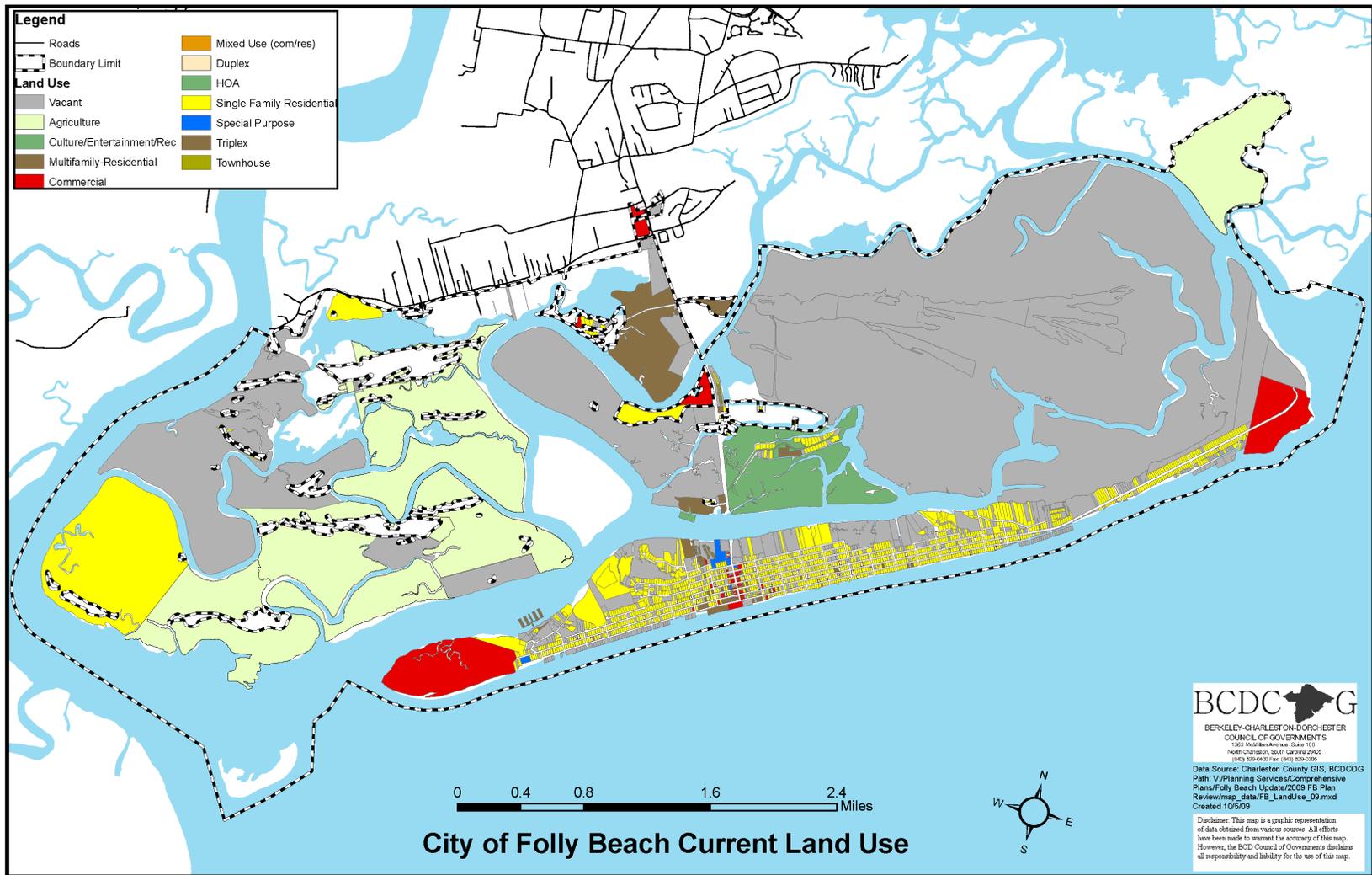


FIGURE 2. CITY OF FOLLY BEACH CURRENT LAND USE MAP.

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

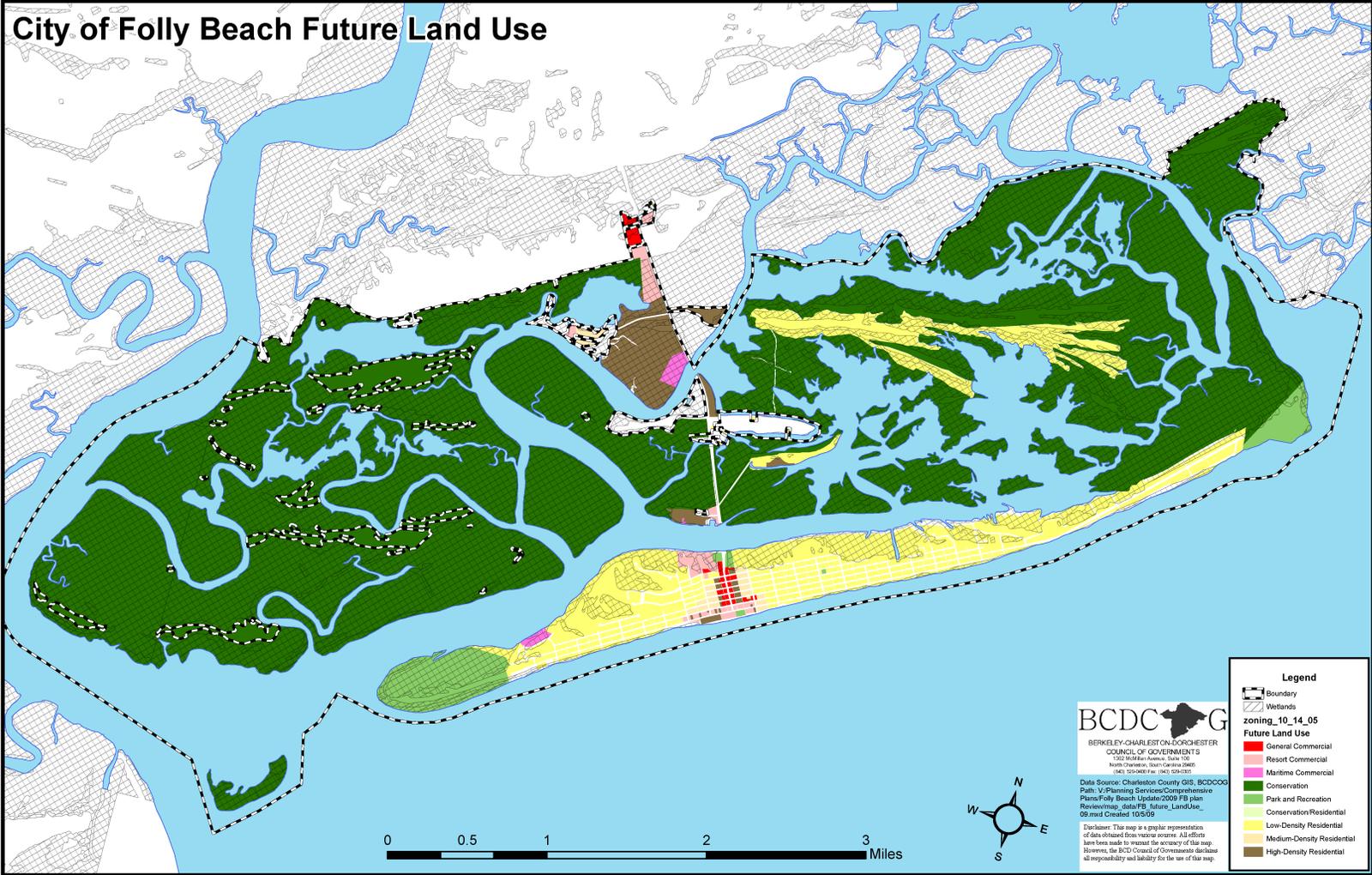


FIGURE 3. CITY OF FOLLY BEACH FUTURE LAND USE.

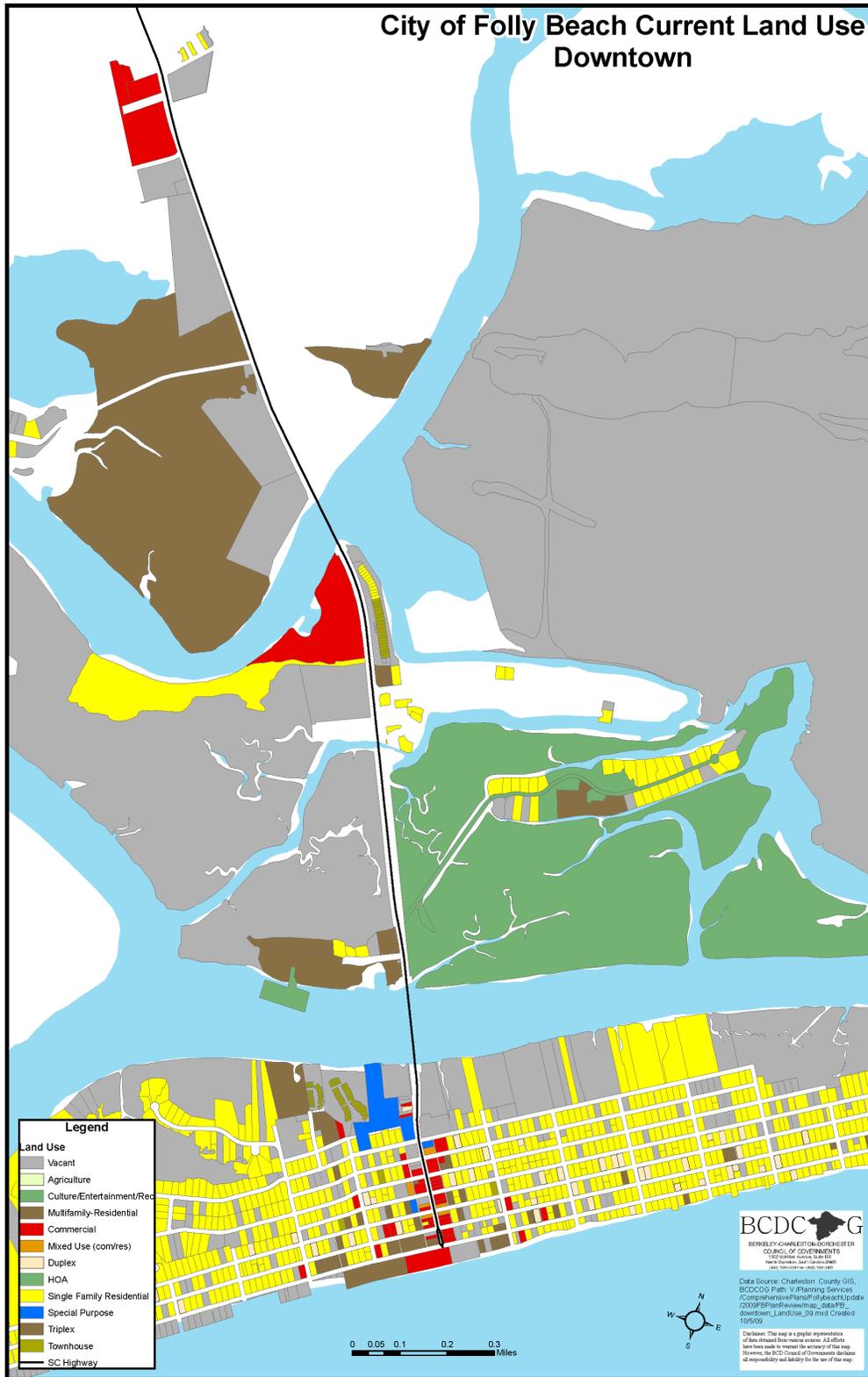


FIGURE 4. CITY OF FOLLY BEACH DOWNTOWN LAND USE MAP.

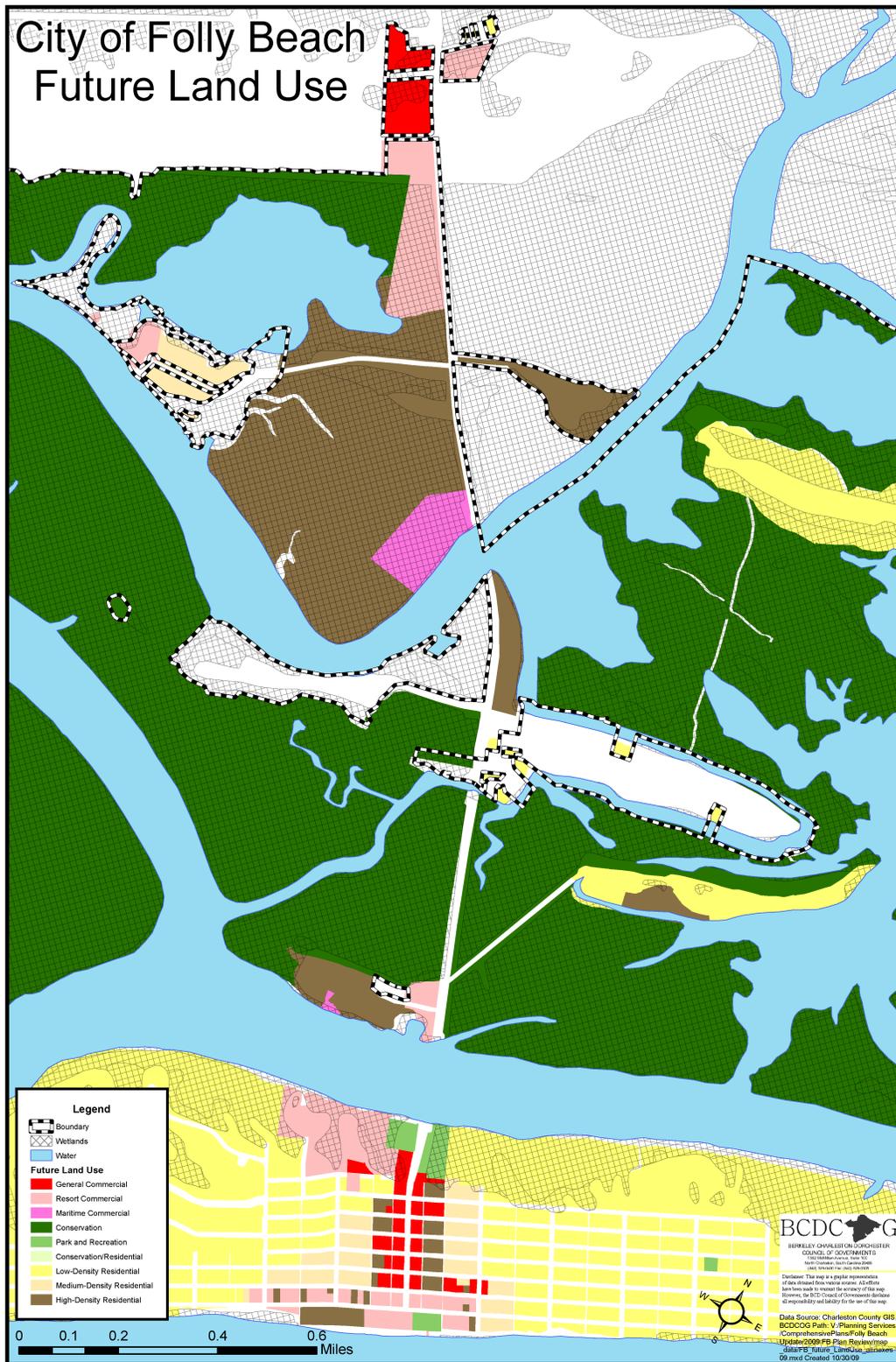


FIGURE 5. CITY OF FOLLY BEACH DOWNTOWN FUTURE LAND USE.

The remaining 10% percent of the beachfront area is zoned Island Commercial (IC). The IC district consists primarily of multifamily developments. Individual properties range from 96 to 4 units. This area is also the location of the largest structure on Folly Beach, the 9 story Tides Hotel.

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### 2.1.3 POPULATION

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#### **GROWTH TRENDS (SOURCE/DATE: US CENSUS BUREAU, 2010; SC BUDGET AND CONTROL BOARD, 2010)**

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Population data have been obtained from the Population Division, U.S. Census Bureau and the South Carolina Budget and Control and is used to illustrate past growth trends in the City and depict projected future growth. Between the U.S Census Report in 2000 and 2008, Folly Beach had steady positive growth. With the exception for one year, 2007, Folly Beach has averaged at least 1% growth annually. Taking into account the final two year period between 2000 and 2010, Folly Beach had an overall population increase of 23.7%. A spate of annexations in 2005 and 2006 contributed to the spike in growth percentages and is why Folly Beach had a higher rate than the surrounding island communities.

While the overall trend in population growth on Folly Beach appeared to be briefly consistent with the greater Charleston area, the high level of growth is not sustainable due to the limited land and restrictive regulations on housing density.

#### **GENERAL DATA (SOURCE/DATE: US CENSUS BUREAU, 2010)**

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POPULATION:	2,617
POPULATION PERCENTAGE CHANGE 2000-2010:	23.7%
RACIAL/ETHNIC POPULATION BREAKDOWN:	
White	95.1%
Hispanic or Latino (of any race)	1.7%
Black or African American	1.5%
Asian	0.5%
American Indian and Alaska Native (AIAN)	0.3%
Mixed Race	0.8%
Other	0.1%
MEDIAN FAMILY INCOME:	\$57,734
% OF FAMILIES BELOW POVERTY LEVEL:	8.8 %
UNEMPLOYMENT RATE:	9.14%

POPULATION BREAKDOWN BY AGE GROUP (percentages, if available):

19 years old and under	11.35%
20-24	5.35%
25-44	29.46%
45-64	35.73%
65 and over	18.11%

PERCENTAGE OF HOME OWNERSHIP: 33.02%

WORKFORCE DISTRIBUTION:

Retail/Trade	18.60%
Educational Services, Health Care, Social Assistance	15.39%
Professional, Scientific, Management	14.37%

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## 2.2 BEACH USES

Users enjoy Folly’s recreational beach much in the same way as other public beaches in South Carolina, for sunbathing, swimming, surfing, kite boarding, surf fishing, dog walking, bicycling, walking and running. Since the 2014 renourishment, users have been combing the beach for shark’s teeth and shells pumped in by the dredge. The Pier at Center Street is used for fishing, thus swimming is prohibited within 500 ft. Surfing and boating are prohibited within 3 blocks of the center street pier to promote a safe swim zone. Beach chairs and umbrellas are offered along this central commercial district. Bonfires, alcohol, storage of boats, driving and camping are prohibited on the beach. The preserved lands on either end of the island are popular with naturalists. The City must be notified of all gatherings of 25 persons or more on the beach.

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### 2.2.1 ECONOMIC BENEFITS AND VALUES OF THE BEACH

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The City of Folly Beach contributes tax revenue in the form of property, income, sales, accommodation, and hospitality taxes. Further, the City’s beach and accompanying rental properties create a number of jobs in fields like hospitality, retail, property management, property service (cleaning, landscaping), and City government. More indirectly, the beach is one of the most publicly accessible beach recreation areas in South Carolina and further provides valuable habitat area for endangered species.

The following economic information was collected and analyzed by the Office of Tourism Analysis (OTA) at the College of Charleston (Rhodes and Pan, 2015). The estimated jobs, income, and sales generated include both direct and secondary effects in the Tri-County area, not Folly Beach alone.

Visitor survey data indicates that about 60% of all Charleston area visitors rated beaches as an important factor in deciding to visit the Charleston area. Nearly **1 million** non-residents visited Folly Beach at least once while in the Charleston area during 2014. Of the visitors coming from outside Charleston, Berkeley, and Dorchester Counties, 92%, resided in other states or countries (mainly Canada) with about 27% coming from South Atlantic states such as North Carolina (8%), Florida (7%) and Georgia (4%)

The City's front beach area, like other natural amenities or resources in the Charleston area, is especially important because of its ability to attract non-resident visitors to the area. These non-resident visitors inject new money into the local and state economy through their spending on goods and trip related services (e.g. hotel lodging, restaurant meals). Moreover, these new dollars subsequently ripple through the local and state economy producing secondary economic benefits that increase jobs and income for residents.

The average trip spending for non-resident Folly Beach visitors in the Charleston area that used paid accommodations (e.g. hotels, beach rental) was \$1,160 per person. The 2014 total economic impacts including multiplier effects, estimated spending by Charleston visitors attributable to the Folly Island beach area generated approximately **\$117 million** in sales, which generated over **1,100 jobs** and nearly \$39 million in income.

Since 2009 total annual gross sales by Folly Beach's various businesses (e.g. restaurants, retail stores, beach house rental) which annually averaged about \$66 million during the past three years have increased at an annual average rate of **11%**. This sales growth rate has remained substantially higher than any other beach community in the Charleston area.

It was also estimated that Charleston area visitor spending attributable to the City including its beach areas generated approximately **\$22 million** in annual tax revenues for the federal, state, and local governments during 2014. Also, these tax revenues not only include the usual tourist type taxes (e.g. accommodation taxes, etc.) but include various property taxes and other indirect taxes paid by tourism oriented businesses.

Folly Beach's accommodations revenues generated approximately \$626,000 in state accommodation taxes (A-taxes) and \$300,000 in local A-taxes in FY2013-14, expected to double this year due to an increase in local Accommodations Taxes. The SC Department of Revenue annually distributes about \$100,000 of the state A-tax revenues to support tourism related economic development in other, mainly rural, counties that do not have a significant tourist-based economy.

The City has \$11.6 million in property taxes assessed annually.

The recreational opportunities offered by Folly Beach's front beach also provide substantial non-market oriented economic benefits at both the regional and state level. For example, the annual economic value, not the economic impact, of the front beach for recreational beach users was nearly **\$4.5 million** in 2014.

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### 2.3. BEACHFRONT DEVELOPMENTS AND ZONING

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As noted above, the City of Folly Beach is exempt from the state beachfront setback area restrictions, but carefully regulates beachfront development with zoning and land use regulations. The beachfront is primarily zoned for Single Family Residential with very limited commercial and multifamily uses. There are 6 multifamily developments totaling approximately 4.25 acres and 132 units. The largest oceanfront multifamily development is Charleston Oceanfront Villas (built in 1995) with approximately 94 units on roughly 3 acres. The remaining 5 multifamily properties were constructed between 1995 and 2005 and consist of small buildings ranging from 4 to 12 units each on .25 acre lots. There are 2 commercial developments totaling approximately 3.8 acres: the Tides Hotel (a 132 room full service hotel built in the late 1980s), and the Folly Beach Fishing Pier and Tackle shop which was built in 1995.

Because current land use restrictions prohibit multifamily or commercial development beyond 2<sup>nd</sup> Street East and 3<sup>rd</sup> Street West and there are currently no vacant properties with commercial or multifamily zoning, the City does not anticipate further commercial or multifamily development.

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#### 2.3.1 BEACHFRONT STRUCTURAL INVENTORY

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Appendix 7.1 inventories the number of beachfront lots located seaward of the ocean front road (either Ashley or Arctic, whichever is more seaward) on Folly Beach (Table 9). They are based on certain classifications and include 321 Single Family; 124 Condominium Units; 1 Governmental Building; 1 Hotel; 3 Recreational; 2 Religious; 13 Residential Duplex/Triplex; 4 Small Apartments; 2 Vacant Commercial Lots; and 4 Vacant Residential Lots, as well as 7 pools, and 179 erosion control structures. Lacking a setback line, the most seaward oceanfront road was selected as a starting point for this inventory. Maps of the structural inventory are also included in Appendix 7.1.

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### 2.4. NATURAL RESOURCE AND ECOLOGICAL HABITATS

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The beach and dune system along Folly Beach provides important habitat for benthic organisms in the surf zone, for nesting sea turtles and shorebirds on the beach, and for native dune vegetation, such as sea oats and panic grass, and other coastal fauna. The U.S. Fish and Wildlife Service designated loggerhead critical habitat on Folly Beach in 2014 and have also proposed critical habitat for the red knot.

Following the 2005 and 2014 federal renourishment projects, as well as the 2013 CCPRC project at FBCP, dune vegetation and sand fencing were installed (see Section 1.3) with goals of restoring a robust vegetated dune system to provide storm protection with “green infrastructure,” retain sand in the beach/dune system, reduce road maintenance, and attract native flora and fauna (Elko, 2013).

2.4.1 THREATENED AND ENDANGERED SPECIES

Threatened and endangered species in South Carolina that have been listed by the US Fish and Wildlife Service are shown in Table 2. The Shortnose and Atlantic sturgeon are endangered species listed by NOAA National Marine Fisheries Service and are not shown on this list. Any beach nourishment activity requires consultation with these federal agencies to ensure no adverse effects on these listed species or their listed or proposed critical habitat. In fact, beach nourishment has restored approximately 23 acres of critical loggerhead sea turtle and red knot habitat on Folly Beach since 1992.

TABLE 2. US FISH AND WILDLIFE SERVICE THREATENED AND ENDANGERED SPECIES (FROM USACE/BOEM, 2014)

CATEGORY	COMMON NAME	SCIENTIFIC NAME	STATUS
Amphibian	Frosted flatwoods salamander	<i>Ambystoma cingulatum</i>	T, CH
Bird	Bachman's warbler	<i>Vermivora bachmanii</i>	E
Bird	Bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA
Bird	Piping plover	<i>Charadrius melodus</i>	T, CH
Bird	Red-cockaded woodpecker	<i>Picoides borealis</i>	E
Bird	Wood stork	<i>Mycteria americana</i>	E
Bird	Red knot	<i>Calidris canutus rufa</i>	P
Fish	Atlantic Sturgeon*	<i>Acipenser oxyrinchus*</i>	E
Fish	Shortnose sturgeon*	<i>Acipenser brevirostrum*</i>	E
Mammal	Finback whale*	<i>Balaenoptera physalus*</i>	E
Mammal	Humpback whale*	<i>Megaptera novaengliae*</i>	E
Mammal	Right whale*	<i>Balaena glacialis*</i>	E
Mammal	West Indian manatee	<i>Trichechus manatus</i>	E
Plant	American chaffseed	<i>Schwalbea americana</i>	E
Plant	Canby's dropwort	<i>Oxypolis canbyi</i>	E
Plant	Pondberry	<i>Lindera melissifolia</i>	E
Plant	Seabeach amaranth	<i>Amaranthus pumilus</i>	T
Reptile	Green sea turtle**	<i>Chelonia mydas**</i>	T
Reptile	Kemp's ridley sea turtle**	<i>Lepidochelys kempii**</i>	E
Reptile	Leatherback sea turtle**	<i>Dermochelys coriacea**</i>	E
Reptile	Loggerhead sea turtle**	<i>Caretta caretta**</i>	T, PCH,
Plant	Bog asphodel	<i>Narthecium americanum</i>	C

NOTES:  
 \* Contact NOAA Fisheries for more information on this species  
 \*\* The U.S. Fish and Wildlife Service (FWS) and NOAA Fisheries share jurisdiction of this species  
 E - Federally Endangered      T - Federally Threatened      P - Proposed      CH - Critical Habitat      PCH - Proposed Critical Habitat  
 BGEPA - Federally protected under the Bald and Golden Eagle Protection Act  
 C - Candidate Species. FWS has sufficient information on biological vulnerability and threat(s) to support proposals to list these species.

2.4.2 TURTLE NESTING

Folly Beach is designated by the United States Fish and Wildlife Service as critical nesting habitat for federally protected endangered and threatened sea turtles. Sporadic nest protection efforts existed prior to 1997, but consistent, long-term data was not collected until the Folly Beach Turtle Watch (FBTW) Program was organized.

Since 1997, loggerhead (*Caretta caretta*) and leatherback (*Dermochelys coriacea*) sea turtles nesting on Folly Beach have been protected by a dedicated group of volunteers who are trained and permitted by the South Carolina Department of Natural Resources (SCDNR)

Endangered Marine Turtle Conservation Program to identify, access, relocate, monitor, inventory and report data for nests laid on its ocean and inlet beaches. During this time, Folly Beach has been home to over eight hundred loggerhead nests and three leatherback nests.

Usually in mid-May, 3-foot long female sea turtles weighing about 250-300 pounds crawl ashore during the night on Folly Beach to begin the ancient ritual of nesting in the dry sand margin above the high tide line. With rear flippers, they dig a chamber about 6" in diameter and 18" deep, then deposit an average of 120 eggs, cover them with sand, and crawl back to the water. The process takes approximately an hour and a half, and is repeated at two week intervals until mid-August, resulting in an individual turtle laying between 4 and 7 nests during one season. The females will then typically take 2-3 years off before returning, usually to the same general area, to begin a new nesting season. About 55 days after a nest is laid, hatchlings will emerge during the night and quickly find their way across the beach to the water where they begin their long swim to the floating sargassum seaweed in the Gulf Stream.

Nest success is highly dependent on site selection. Tidal flooding and erosion have a negative effect on nest success. The Folly Beach Turtle Watch volunteers are trained and licensed to assess nest sites and relocate eggs if necessary to ensure successful development. Nest relocation involves selecting an appropriate site, digging a new egg chamber, then carefully transferring the clutch to the new nest. All nests, *in situ* or relocated, are staked, taped, and marked with an orange SCDNR "Protected Nest" sign so that the location can be monitored until after the nest has hatched.

Since 1998, volunteers have assessed over 1300 sea turtle crawls, found over 800 nests, and relocated over 500 of those nests. The lowest number of nests (20) were laid in 2007, and the highest number (108) in 2013 (Figure 6). Additional data is presented in Table 3 and Table 4 that show comparisons of total nests to total false crawls, and *in situ* nests to relocated nests. Both of these comparisons are indicators of the condition of the nesting habitat.

The condition of sea turtle nesting habitat on Folly Beach changes rapidly and significantly with continuous tidal erosion, the construction of sea walls and granite rip-rap by front beach property owners, periodic beach nourishment projects to protect public and private investments, increased vehicle traffic by beach management patrols and permitted vendors, foot traffic through developing dune lines, artificial lighting from beach front homes and public utilities, litter, personal paraphernalia, and large open holes left on the beach overnight.

The City of Folly Beach has enacted several long-standing ordinances that help to reduce negative impact on nesting habitat (see paragraphs on "Protection of Loggerhead Sea Turtles", Folly Beach Code, Chapter 151: "Beach Preservation and Construction Provisions"). These include regulations pertaining to the destruction of sea oats, storage of watercraft on the beach, dune protection during construction, maintenance of public walkovers, artificial light associated with pre-existing and new construction, the planting of invasive beach vitex, construction and maintenance of seawalls, and vehicular traffic on the beach. Folly Beach Code, Chapter 117 ("Short Term Rentals") ensures that a summary of pertinent local ordinances are included in rental agreements and posted in rental units, and Folly Beach Code, Chapter 166 ("Development Standards") reinforces the City's support for reducing illumination of the beach front.

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

TABLE 3. SEA TURTLE NESTING AND RELOCATION DATA FOR THE CITY OF FOLLY BEACH FROM 1998 TO 2014

	<b>Total Nests</b>	<b>Total Nests In Situ</b>	<b>Total Nests Relocated</b>	<b>% Relocated</b>
<b>1998</b>	38			
<b>1999</b>	60	31	29	48.3%
<b>2000</b>	51	29	22	43.1%
<b>2001</b>	51	29	22	43.1%
<b>2002</b>	44	11	33	75.0%
<b>2003</b>	50	13	37	74.0%
<b>2004</b>	22	10	12	54.5%
<b>2005</b>	37	6	31	83.8%
<b>2006</b>	55	25	30	54.5%
<b>2007</b>	20	5	15	75.0%
<b>2008</b>	63	12	51	81.0%
<b>2009</b>	35	14	21	60.0%
<b>2010</b>	54	13	41	75.9%
<b>2011</b>	82	33	49	59.8%
<b>2012</b>	74	16	58	78.4%
<b>2013</b>	108	22	86	79.6%
<b>2014</b>	22	2	20	90.9%
<b>Totals</b>	<b>866</b>	<b>309</b>	<b>557</b>	<b>64.3%</b>

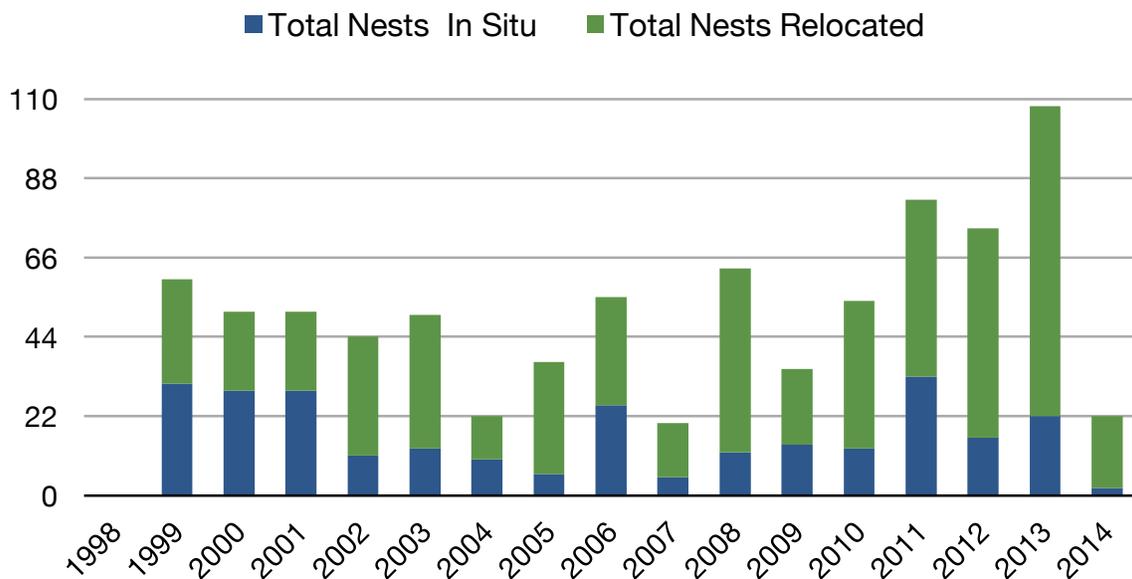


FIGURE 6. IN SITU AND RELOCATED TURTLE NESTS ON FOLLY BEACH SINCE 1998.

TABLE 4. SEA TURTLE CRAWL DATA FOR THE CITY OF FOLLY BEACH FROM 1998 TO 2014.

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

	Total Nests	Total False Crawls	Total Crawls	% False Crawls
<b>1998</b>	38			
<b>1999</b>	60	34	94	36.2%
<b>2000</b>	51	29	80	36.3%
<b>2001</b>	51	11	62	17.7%
<b>2002</b>	44	13	57	22.8%
<b>2003</b>	50	55	105	52.4%
<b>2004</b>	22	19	41	46.3%
<b>2005</b>	37	29	66	43.9%
<b>2006</b>	55	24	79	30.4%
<b>2007</b>	20	21	41	51.2%
<b>2008</b>	63	26	89	29.2%
<b>2009</b>	35	19	54	35.2%
<b>2010</b>	54	16	70	22.9%
<b>2011</b>	82	46	128	35.9%
<b>2012</b>	74	62	136	45.6%
<b>2013</b>	108	71	179	39.7%
<b>2014</b>	22	24	46	52.2%
<b>Totals</b>	<b>866</b>	<b>499</b>	<b>1327</b>	<b>37.6%</b>

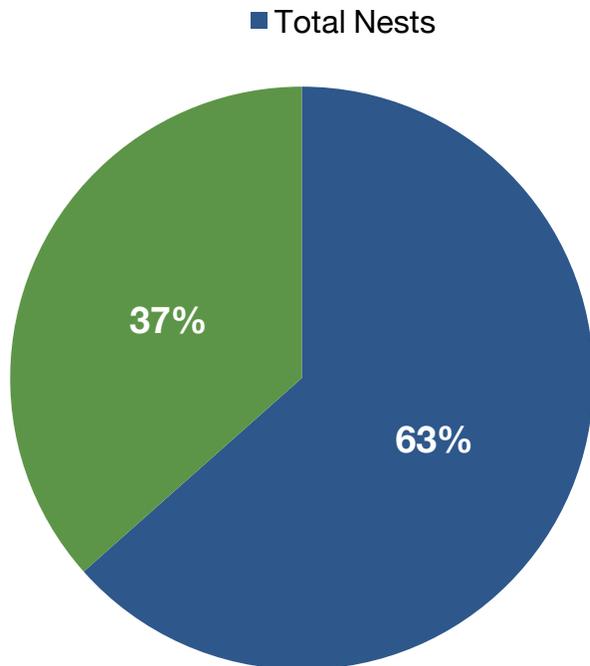


FIGURE 7. AVERAGE OF THE TOTAL NESTS AND FALSE CRAWLS FOR THE CITY OF FOLLY BEACH FROM 1998 TO 2014.

Other negative impacts on nesting habitat and nest success on Folly Beach include natural predation by ghost crabs and fire ants. Raccoons are often a problem on more remote beaches where sea turtle nests must be screened to prevent egg loss, but Folly Beach has not had to adopt that method of protection.

Most other nest protection concerns on Folly Beach are associated with humans. Visitors come to Folly Beach hoping to see sea turtles nest and hatch. Their quests often involve night-time beach walking and “nest sitting” accompanied by flashlights, cellphones, flash cameras, food, beach chairs, and dogs. These human practices have the negative effect of causing sea turtles to leave the beach before nesting or abandon nest digging, and causing the disorientation of hatchlings. All turtles need a quiet, dark, unobstructed beach to emerge from the ocean, nest, and find the ocean successfully. Humans, unfortunately, too often intervene in an effort to provide unnecessary, and sometimes harmful, “help.”

Folly Beach Turtle Watch Program has published a brochure on “Folly’s Turtles” to help educate beach goers about how to help sea turtles by respecting their needs for a dark, quiet, unobstructed beach. FBTW volunteers also conduct educational sessions for all ages -- in schools and assisted living facilities, at library story times, during community festivals and civic organization meetings, and daily on the beach during regular patrols and at nest inventories. At the start of each turtle season, FBTW volunteers, along with partners from the City of Folly Beach, Surfrider and Tideline Tours, host an annual “Folly Turtles Homecoming” educational event for children to experience through various activities what it’s like to be a sea turtle on Folly Beach, the importance of a healthy beach habitat and what humans can do to help.

In 2010, with additional training and management from SCDNR Endangered Marine Turtle Conservation Program, Folly Beach nest protection volunteers, along with other South Carolina and North Carolina groups, began participation in a sea turtle genetics study conducted by the University of Georgia (UGa). The now 5-year study involves the sacrifice of one egg from each loggerhead nest. The shell is placed in a preservative-filled vial and sent to the UGa lab for maternal DNA analysis. The results have enabled researchers to track the nesting behavior of individual female turtles and to learn more precisely than tagging studies where the turtles are nesting, how many nests each turtle lays and, when linked to egg count data, the success of the nests over time, place and environmental events. The DNA tracking data is providing important answers to the size, health and distribution of the loggerhead sea turtle nesting population in SC.

Other species of sea turtles, all of which are endangered and federally protected, are present along South Carolina’s coast: green (*Chelonia mydas*), Kemps ridley (*Lepidochelys kempii*) and hawksbill (*Eretmochelys imbricata*). While green and Kemps nests have been laid on other South Carolina beaches, none have yet been recorded on Folly Beach. Green and Kemps ridley turtles have, however, been caught by fishermen on the Pier or stranded on Folly Beach. FBTW volunteers also participate in the Sea Turtle Salvage and Stranding Network to document all stranded (alive and dead) sea turtles. Data collected is added to the international database maintained by seaturtle.org.

Although Folly has experienced a high level of turtle nesting, increased efforts could attract even more nests. The first priority is one of education, including actively educating visitors and residents regarding sea turtle protection and beach habitat. The goal is to promote Folly Beach as a coastal community that works to conserve and protect the natural environment.

The City will also actively enforce all existing ordinances and building codes that protect the dunes and vegetation, that regulate seawalls, revetments, and bulkheads, that prevent artificial lighting, and that eliminate litter and private property being left on the beach overnight. To further aid turtle nesting and as mentioned in Section 1.3, the City and the Army of Corps of Engineers have installed native dune vegetation and sand fencing to stabilize and restore the dune system, which will block lighting glare to some extent and provide additional nesting habitat.

The City will also consider turtle nesting when reviewing erosion control methods, with a preference for soft erosion control. We will also continue to review building codes and zoning ordinances for possible additional restrictions on beachfront lots.

## 2.5. EXISTING PUBLIC ACCESS

Folly Beach contains a total of 52 public beach accesses with at least 1,628 public parking spaces along the beachfront (Table 5). In addition, free onstreet parking is available along most non-beachfront streets on the island, providing for additional parking when needed. The access locations are essentially evenly spaced along the island (Figure 8 and Figure 9). The majority of these access locations are street ends. Other beach access locations include Folly Beach County Park, Folly Beach Fishing Pier, and Heritage Preserve at the northeast end of the island, also often referred to as the old Coast Guard Station. The City of Folly Beach has been recognized by SC DHEC OCRM as providing Full and Complete Public Access for the entirety of the island.

This Beach Access Inventory will serve to assist the City in management of existing facilities and future improvements. The City prides itself on being one of the most accessible beaches in the state with as many parking spaces available as possible, but ADA access and restroom facility improvement continues along the access points.

TABLE 5. BEACH ACCESS POINTS, PARKING, FACILITIES ON FOLLY BEACH

<b>Location</b>	<b>Unpaid Parking</b>	<b>Paid Parking</b>	<b>Total Parking</b>	<b>Restrooms</b>	<b>Showers</b>	<b>Pathway Type &amp; Notes</b>
<b>Folly Beach County Park</b>	0	225 (8 ADA)	225	Yes	Yes	Sand Path, rubber mat
<b>10 W</b>	10	15	25	No	No	Boardwalk/Ramp and Stairs
<b>910 W</b>	5	0	5	No	No	Sand Path
<b>9 W</b>	11	8 (3 ADA)	19	No	No	Boardwalk and Stairs; ADA walkover
<b>810 W</b>	11	0	11	No	No	Boardwalk and Stairs
<b>8 W</b>	6	16	22	No	Yes	Boardwalk and Stairs
<b>7 W</b>	6	13	19	No	No	Boardwalk and Stairs
<b>610 W</b>	13	0	13	No	No	Sand Path and Stairs
<b>6 W</b>	18	19	37	No	No	Boardwalk and Stairs
<b>510 W</b>	9	0	9	No	No	Sand Path and Stairs
<b>5 W</b>	10	20	30	No	No	Boardwalk and Stairs; Wave Watch

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						playground w/in 500 feet
<b>4 W</b>	10	18	28	No	No	Boardwalk and Stairs
<b>310 W</b>	8	0	8	No	No	Rubber Mat and Boardwalk/Ramp
<b>3 W</b>	3	49	52	Yes	Yes	Boardwalk and Stairs
<b>210 W</b>	31	0	31	No	No	Boardwalk and Stairs
<b>110 W</b>	43	0	43	No	No	Paved
<b>Charleston County Pier</b>	0	83 (4 ADA)	83	Yes	Yes	Boardwalk and Stairs
<b>110 E</b>	25	0	25	No	No	Sand Path
<b>2 E</b>	10	10	20	No	No	Sand Path
<b>210 E</b>	29	0	29	No	No	Boardwalk and Stairs
<b>3 E</b>	15	10	25	No	No	Boardwalk and Stairs
<b>4 E</b>	22	17	39	No	No	Boardwalk and Stairs
<b>410 E</b>	40	0	40	No	No	Sand Path and Stairs
<b>5 E</b>	12	14	26	No	No	Boardwalk and Stairs; Pirate's Cove Playground 0.2 mi away by the street
<b>510 E</b>	25	0	25	No	No	Boardwalk and Stairs
<b>6 E</b>	13	5	18	No	No	Boardwalk and Stairs
<b>610 E</b>	25	0	25	No	No	Sand Path
<b>7 E</b>	20	0	20	No	No	Boardwalk and Stairs
<b>710 E</b>	25	0	25	No	No	Boardwalk and Stairs
<b>8 E</b>	27	0	27	No	No	Boardwalk and Stairs
<b>810 E</b>	30	0	30	No	No	Sand Path
<b>9 E</b>	16	10	26	No	No	Boardwalk and Stairs
<b>10 E</b>	51	6	57	No	No	Boardwalk and Stairs
<b>1010 E</b>	35	0	35	No	No	Sand Path
<b>11 E</b>	24	4	28	No	No	Boardwalk and Stairs
<b>1110 E</b>	30	0	30	No	No	Sand Path
<b>12 E</b>	17	3	20	No	No	Boardwalk and Stairs
<b>1210 E</b>	20	0	20	No	No	Sand Path and Stairs
<b>13 E</b>	23	0	23	No	No	Boardwalk and Stairs
<b>14 E</b>	20	0	20	No	No	Sand Path
<b>15 E</b>	11	20	31	No	No	Boardwalk and Stairs
<b>1510 E</b>	0	20	20	No	No	Boardwalk and Stairs
<b>1522 E</b>	0	20	20	No	No	Boardwalk and Stairs
<b>W04</b>	0	60	60	No	No	Boardwalk and Stairs
<b>1560 E</b>	0	20	20	No	No	Boardwalk and Stairs
<b>1561/1563 E</b>	4 (ADA)	0	4	Yes	Yes	ADA ramp
<b>1587 E</b>	28	8	36	No	No	Boardwalk and Stairs
<b>1640 E</b>	39	0	39	No	No	Boardwalk and Stairs

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

<b>1670 E</b>	14	26 (3 ADA)	40	No	No	Boardwalk; Ramp	ADA
<b>1690 E</b>	25	0	25	No	No	Boardwalk and Stairs	
<b>Summer Place</b>	25	15	40	No	No	Boardwalk and Stairs	
<b>TOTAL</b>	890	738	1628				

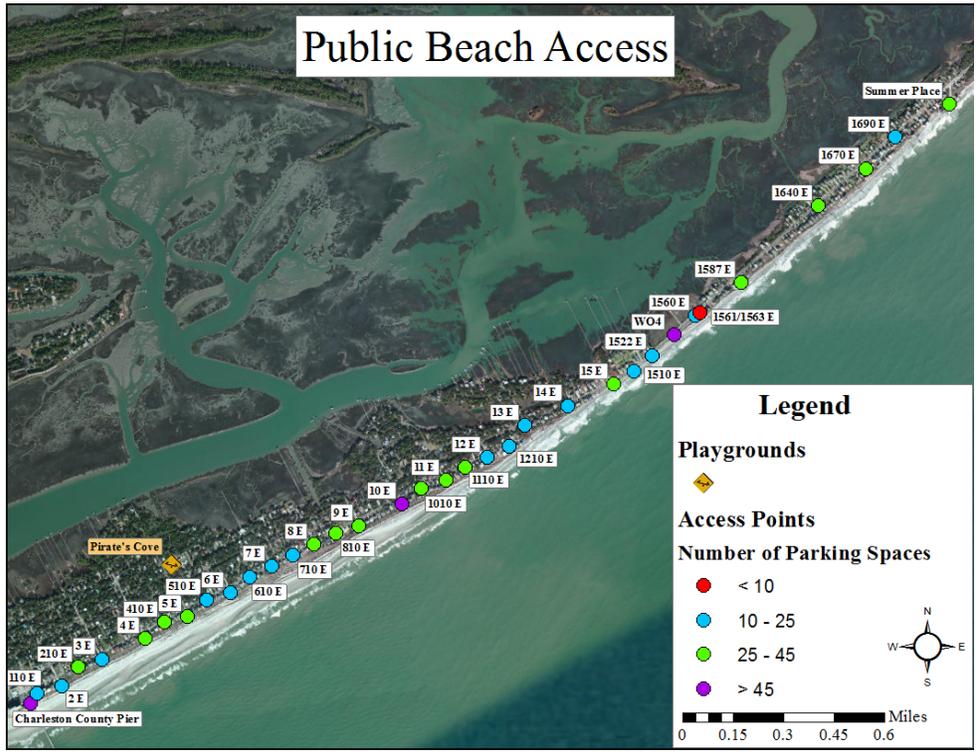


FIGURE 8. MAP OF PUBLIC BEACH ACCESS LOCATIONS ALONG THE NORTHEASTERN HALF OF FOLLY BEACH.

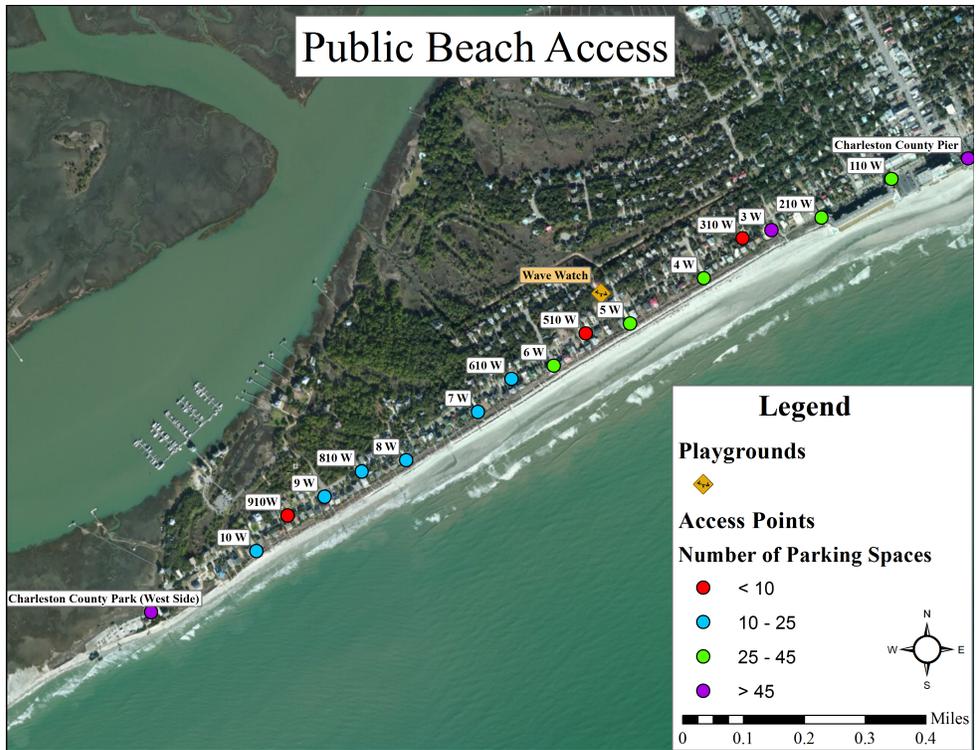


FIGURE 9. MAP OF PUBLIC BEACH ACCESS LOCATIONS ALONG THE SOUTHWEST HALF OF FOLLY BEACH.

### 3. BEACHFRONT DRAINAGE PLAN

The City of Folly Beach encourages residents and developers to adhere to the guidelines and best management practices (BMP) described in the Charleston County Stormwater Program. This program of permitting standards and procedures has been adopted to address regulations pertaining to the Clean Water Act and specifically the National Pollutant Discharge Elimination System (NPDES).

An increased interest in the water quality of South Carolina’s beaches in 1996 spawned the South Carolina Department of Health and Environmental Control (DHEC) to begin coliform testing. The water quality from Folly’s beaches is monitored on an ongoing basis. This monitoring system tests for Enterococcus (Federal standard for water quality at public salt water beaches) levels at eight (8) sites semimonthly at the following locations within the City limits:

1. 1690 E Ashley Ave.
2. 1561 E Ashley Ave.
3. 11<sup>th</sup> St E
4. 5<sup>th</sup> St E
5. Tides Hotel
6. 3<sup>rd</sup> St W
7. 8<sup>th</sup> St W

## 8. Folly Beach Park

The City of Folly Beach has employed the Storm Water Management Program since October 2007 with the assistance and guidance of Charleston County Public Works Department. These BMP implement stormwater management by utilizing simple, structural and nonstructural methods along with or in place of traditional stormwater management structures when applicable. Folly currently has no stormwater outfalls and, as part of this plan, a policy is proposed to prohibit future outfalls or other means of direct discharge to the beach. Also, the City has reviewed its site development requirements and adopted building codes that minimize the amount of impervious cover to 35% of the high ground, regulating the amount of runoff produced.

Folly Beach will also work with all interested parties to maintain and restore sand dunes along the shoreline as a means of reducing or eliminating the potential for direct discharge to the beach. Property owners must contain and/or direct discharges such as septic tank and pool overflows away from the beachfront and into a pervious area.

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## 4. BEACH MANAGEMENT AND AUTHORITIES

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### 4.1 STATE AUTHORITIES

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A summary of federal and state agencies with regulatory or management authority over the beach and their role in management of local beaches is included in Appendix 7.3.

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### 4.1.2 BEACHFRONT SETBACK AREA

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Due to limited state jurisdiction and the absence of a setback area, the City of Folly Beach does not incorporate the forty year retreat policy into land use regulations. Instead, the City requires new structures to be setback in relation to the OCRM baseline. On Folly Beach this line is generally concurrent with the Perpetual Easement Line (PEL; see Section 5) which demarcates the limits of the Federal Shore Protection project on Folly Beach. The current setback from the baseline is a percentage of the length of the lot between the baseline and the landward property line. The minimum setback is 5 feet and the maximum setback is 10 feet. It is important to note that the City required no setback from the baseline prior to 2006. All existing structures built closer than the current required setback are considered to be legally nonconforming. This means that upon their destruction or abandonment they must be made to conform and honor the setback. See Section 4.2.6 for City regulations.

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### 4.2. LOCAL GOVERNMENT AND AUTHORITIES

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The City of Folly has jurisdiction over lands within its boundaries and is responsible for planning, zoning, building regulation, code enforcement, floodplain management, emergency services, etc. According to Title 5, Chapter 7 of the South Carolina Code of Laws, the municipal jurisdiction extends one-mile seaward of the high tide line.

4.2.1 MUNICIPALITY’S COMPREHENSIVE PLAN

The Planning Commission and City Council will update the Comprehensive Plan in late 2015 based on this LCBMP, both of which are required to be updated every 5 years. This LCBMP will provide important Natural Resources planning guidance and the City considers it an advantage that the plans are scheduled to be updated in the same year with the LCBMP leading the Comprehensive Plan. The 2010 update to the Comprehensive Plan identified several goals that focus either directly or indirectly on the preservation and protection of the beach.

TABLE 6. GOALS FOR NATURAL RESOURCES PER THE 2010 COMPREHENSIVE PLAN OF THE CITY OF FOLLY BEACH.

<b>Objective</b>	<b>Implementation</b>	<b>Priority/Status</b>
NR1) Ensure the beach is wide, open, accessible, and usable to the public.	Continue work with the US Army Corps of Engineers for re-nourishment; maintain, improve, and open new beach access points and dunes crossovers.	<i>Essential, ongoing</i>
NR2) Reduce septic leakage and failure through education of owners and enforcement of maintenance.	Work with SCDHEC to develop educational materials for distribution to property owners and enforcement remedies to ensure adherence to recommended maintenance.	<i>Essential, ongoing</i>
NR3) Protect the integrity, quality, and appearance of water bodies from the adverse impact of polluted storm water runoff, localized flooding and ponding of streets through the preservation, construction, and maintenance of natural and constructed buffers, drainage structures, and retention/ sedimentation control devices.	Work with SC DHEC and Department of Public Works to develop and implement a comprehensive plan in conformance with NPDES standards to mitigate the adverse affects of storm water runoff and flooding that cause degradation to our marshes, creeks, tidal estuaries, rivers, and flooding of our streets and neighborhoods. Develop, codify, and enforce limits to impervious surfaces on each lot to limit the runoff of pollutants.	<i>Valuable, to be completed within 4 years</i>
NR4) Conserve remaining natural areas and wildlife habitat in the city.	Work with landowners and SC DNR to identify habitat, negotiate for conservation easements or outright purchase by the Folly Land Trust.	<i>Valuable, to be completed within 7 years</i>
NR5) Evaluate local Loggerhead turtle spawning grounds for protection their habitat and all essential species habitat.	Work with SC DNR to identify and quantify, if possible, the habitats for all critical species and to determine their value to the city and the state.	<i>Worthwhile, to be completed within 3 years</i>

*Source: Folly Beach Planning Commission.*

**NR1:** The quality and the accessibility of the beach are two of its biggest assets. The City has made it an essential goal to ensure the beach is wide, open, accessible, and usable to the public. They have worked with the Army Corps of Engineers on the beach re-nourishment program which was completed in 2005. Prior to the completion, the re-nourishment was supplemented in 1993 and once again after the completion in 2008. Periodic re-nourishments are required due to storms and strong currents. To ensure the beach is accessible and open for the public to use, the City has chosen to focus on two priority strategies:

- A) Open mid-block easements to public for beach access and to diffuse parking.
- B) Build and maintain boardwalks over dunes for beach access.

**NR2:** It has been implemented into local law to require the septic systems to be pumped each time a house is sold. The City is still educating its residents about the correct safety practices that they should follow to maintain their septic tanks to minimize leakage. This goal is important because all of the single family homes that front the beach are served by septic systems.

**NR3:** Identify and map all natural and manmade drainage ways and low lying areas on Folly Beach. Implement a scheduled program that will maintain existing drainage ways so that they will function properly as designed to allow the overall system of buffers, retention basins, and control structures to effectively mitigate the runoff of pollutants and reduce the flooding of streets and neighborhoods. Also identify areas where additional remediation is necessary to control surface and storm water runoff, and develop a schedule of priority projects in cooperation with SC DHEC to address these problem areas.

**NR4:** Continue the public awareness program through the 2009 ISO/CRS Community Outreach program to inform the public that all areas of Folly Beach are subject to ocean flooding from high tides and storm events and that it takes participation of all citizens to mitigate the adverse effects of flooding and pollution. Enforcement of the County's Construction Activity Management Requirements of Single Family Residential Structures is an essential tool in controlling construction activity that can result in pollution and or flooding events. The City should encourage all property owners to consider the use of pervious surfacing materials as an alternative to concrete or asphalt driveways and walkways.

**NR5:** Folly Beach is home to several nesting grounds for Loggerhead Turtles. These endangered species are protected under the Federal Endangered Species Act. It is essential for the City to work closely with the South Carolina Department of Natural Resources to locate, evaluate, and monitor these grounds and other habitats for endangered or threatened species that may inhabit parts of Folly Beach. To reduce disturbances to turtle nests, dogs have been prohibited from Bird Key. Elsewhere, tree planting has been encouraged to increase bird habitat.

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#### 4.2.2 MUNICIPALITY'S HAZARD MITIGATION PLAN

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The City of Folly Beach has adopted Charleston County's Regional Hazard Mitigation Plan. The City shares the goal of minimizing future losses of life and property associated with

hazard events. The plan identifies several mitigation goals and plans including continued enforcement of the International building codes, fire codes, and international floodplain regulations, coordination of Charleston County's stormwater management program, enforcement of existing zoning codes, prohibition of manufactured homes and strictly enforced building codes in the "V" flood zone. In addition, the City of Folly Beach promotes citizen education and information relating to floods and other hazards, and continued emergency response training.

To further expand the hazard mitigation efforts, the City of Folly Beach plans to supplement the regional plan with a more localized hazard assessment. The City will work with the South Carolina Sea Grant Consortium over the coming years to assess the vulnerability of infrastructure and municipal codes and policies as they relate to natural hazards, with the goal of taking steps to either reduce or eliminate some of the highest risks.

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#### 4.2.3 MUNICIPALITY'S DISASTER PREPAREDNESS AND EVACUATION PLAN

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The City of Folly Beach has a detailed Emergency Preparedness Plan that outlines the steps required by each department in the City annually, within 48 hours of a predicted emergency event, 24 hours of a predicted event, during an emergency, and after an emergency. Annually, each department is required to review supplies, aid agreements, applicable contracts, emergency contact information, FEMA employee training certifications, and operational plans.

In the event of a predicted emergency (hurricane, tornado, flood), the Mayor and Emergency Management Team will assess the projected severity level to determine whether an evacuation of citizens and staff is necessary. Because Folly is a barrier island, it may be necessary to evacuate all staff and equipment, even emergency responders in the event of a significant emergency. In this event, citizens will be required to evacuate from the City for their own safety.

Prior to an emergency (if possible), emergency responders will be notified of the increased mobilization schedule. Staff will also begin notifying citizens of necessary public precautionary measures. Departments will begin mobilizing equipment, setting up housing and aid stations, and debris collection sites at that time, depending on the severity determinations made. During this time, all employees will begin to log and detail work performed to prepare for an emergency, in accordance with FEMA regulations.

After an emergency, staff will follow procedures outlined for resuming City operations. If the City has been evacuated or citizens ordered to seek shelter, first responders and public works employees, the Mayor, and the Emergency Management Team will make the determination as to when it is safe for staff, citizens, and business owners to return or emerge. The administration will rely on pre-assembled emergency kits to reestablish business operations, depending on existing conditions at the time. All electronic systems are backed up and all employees have manual options and cash available should electronic systems be unavailable. Citizens will be notified via emergency callout systems, the City website, and local media of when the City is considered safe and/or operational after an emergency event.

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#### 4.2.4 BEACHFRONT DEVELOPMENT REGULATIONS

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While there is no setback line on Folly Beach, there have been some substantial improvements to zoning regulations to better control beachfront development. Since the last Beach Management Plan, the City has enacted the following new regulations:

- Lot coverage limited to 35% of high ground, exclusive of critical area (165.01-02 Table 165.01)
- Maximum house size of 3,600 heated square feet (166.05-03(C)(1))
- Variable setback of 5 to 10 ft from baseline (166.04-04)
- All nonconforming and noncompliant structures limited to less than 50% improvement in 10 years (168.02-07, 168.03-07 respectively)
- Marsh setback has been increased to 10 ft (166.04-03)
- Multifamily development is no longer an allowable use on beachfront properties (164.01 Table of Allowable Uses)
- The minimum lot size has doubled to 10,500 sq feet of contiguous high ground (165.01-02, Table 165.01)
- The Seawall ordinance enumerates specific requirements for building seawalls and revetments, and requires permitting from the City if landward of the baseline.
- All private dune walkovers must not exceed three feet in height or six feet in width (151.25). For a property owner to apply for a private dune walkover permit, they must apply for a building permit with a site plan illustrating the walkover.

These revised regulations would preclude existing vulnerable development from being rebuilt in the same way if it were destroyed. For example, if Folly Beach were significantly impacted by a major hurricane, the rebuilding process would result in smaller, elevated homes with larger setbacks, which will benefit the City's ranking in FEMA's Community Rating System (CRS).

In another display of proactive beach management, the City created the Folly Beach Nature Conservancy in 2001 as a land-holding agency to accept donations of threatened or fragile property, primarily in beachfront areas. To date, the Nature Conservancy acquired seven undeveloped beachfront lots, most of which are partially submerged. This action will help prevent unwise beachfront development in the future, mitigating for the example described in Section 1.3.3, Development of Super Beachfront Lots.

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#### 4.2.5 REGULATIONS ON BEACH AND SHORELINE PROTECTION

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Because the baseline on Folly Beach is essentially an armored wall necessitated by erosion from the jetties, the City of Folly Beach does not have a 40-year retreat setback area. While these policies have been mentioned in sections above, the City of Folly Beach has beach management ordinances specific to erosion control. Please find copies of the ordinances in Appendix 7.2.

- Seawalls and revetments: Section 151.23 regulating bulkheads, seawalls, and revetments. Enumerates specific requirements for building seawalls and revetments, and requires permitting from the City if landward of the baseline.

- Dunes and other Protection: section 151.02 prohibiting access to the dunes, and section 151.03 protecting sea oats by prohibiting access to the dunes or destruction of the vegetation

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#### 4.2.6 OTHER REGULATIONS ON BEACH MANAGEMENT

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While many of these policies have been discussed in sections above, the City of Folly Beach has a number of beach management ordinances that affect the use of the beach (Appendix 7.2).

- Vehicles: sections 71.02 and 151.01 prohibit vehicle access to the beach
- Sea Turtle Protection: section 151.47, 48, and 49 restrict beachfront lighting
- Dog Management: sections 95.08 and 95.18 set out rules for dog management including leash requirements, and preventing animals on the dunes, picking up after dogs, and limiting the times that dogs can be on the beach from May 1 through September 30 each year.
- Swimming and Surfing: section 151.04 establishing a swimming zone free of surfers and watercraft in the first three blocks east and west of the pier, section 151.05 implements surfing restrictions in certain areas, and 151.04 also authorizes lifeguards to enforce beach safety rules
- Watercraft: section 151.05 regulates the launching of jet skis and other watercraft
- Fire: section 90.03 prohibits fires on the beach other than gas grills, and open fires for cooking if approved as part of a special event.
- Alcohol: section 111.04 prohibits the consumption of alcohol on the beach or other public place
- Glass: section 151.08 prohibits glass containers on the beach
- Waste and Litter: City operating procedure provides garbage pickup twice a week, collection of yard trash and man-made items twice a week, and recycling pick-up every other Monday; the City also provides extra runs after holidays and in public parking areas during the high season
- Vendors and Franchise Agreements: section 151.60 prohibits sales or vending on the beach other than operators with a special franchise from the City to rent beach chairs, umbrellas, and motorized watercraft.

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### 5. EROSION CONTROL MANAGEMENT

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Prior to completion of the Charleston Harbor jetties, the massive shoals at the harbor entrance likely functioned as a natural mixed-energy ebb tidal delta. The channel paralleled the Morris Island shoreline, but likely migrated to some extent, thereby breaching the shoals and allowing for periodic sediment bypassing downdrift. Average longshore sediment transport rates for this region ranges from 122,000 to 200,000 cy/yr (Brunn, 1995; USACE, 1987; Edge et al, 1994). Folly Beach has been deprived of between 14 and 23 million cubic yards of sediment since jetty completion in 1896.

Edge (1992) states that the loss of the ebb shoal from Charleston Harbor increased wave energy to Folly Beach by approximately 100%. The result of this increased wave energy and aforementioned reduced sediment supply has been chronic shoreline erosion.

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## 5.1. SHORELINE CHANGE ANALYSIS

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The Beachfront Management Act defines three shoreline zones. A standard zone is a segment of shoreline which is not directly influenced by an inlet or associated shoals. An unstabilized inlet zone is a segment of shoreline along or adjacent to a tidal inlet which is directly influenced by an inlet and its associated shoals and which is not stabilized by jetties, terminal groins, or other structures. A stabilized inlet erosion zone is a segment of shoreline along or adjacent to a tidal inlet which is directly influenced by the inlet and its associated shoals and which is stabilized by jetties, terminal groins, or other structures.

All of the developed beachfront on Folly Beach is classified as a standard erosion zone. The northeast end of the island adjacent to Lighthouse Inlet is classified as a stabilized inlet zone. At the time of publication, the southwest end of the island at Folly Beach County Park was classified as an unstabilized inlet zone, however this area may stabilize due to the 2013 construction of a terminal groin in this location.

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### 5.1.1 BEACH PROFILES

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Thirty-one permanent beach profile monuments have been installed by SCDHEC OCRM along Folly Beach (dots on Figure 10). The monuments are survey benchmarks, which are permanent metal disks in the ground with information stamped on the face that mark a specific point that can be consistently reoccupied. On Folly Beach, these survey benchmarks begin with monument 2801 at the southwest end of the island at Folly Beach County Park and adjacent to the Folly River and end at monument 2895 at Lighthouse Inlet. The lines illustrated in Figure 6 extending offshore from the monuments are the profile line along which surveyors collect elevation measurements. These measured beach profiles describe a cross-section of the topography and bathymetry of the land surface along the dry beach and nearshore/sand bar regions (e.g., Figure 7). By surveying the same line routinely, scientists can measure the change in sand volume or shoreline position, for example.

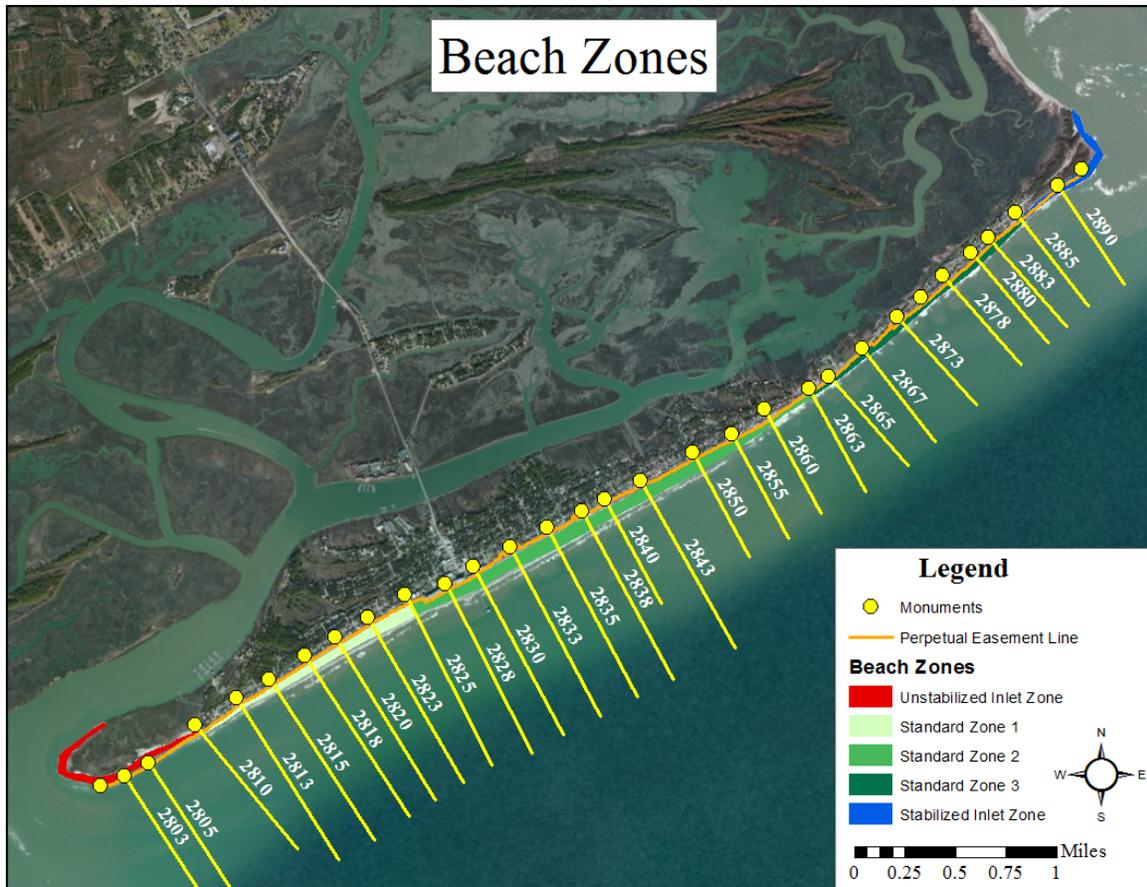


FIGURE 10. AERIAL PHOTO OF FOLLY BEACH ILLUSTRATING THE PERPETUAL EASEMENT LINE (PEL), MONUMENT LOCATIONS, AND STATE BEACH MANAGEMENT ZONES.

Monuments 2890 to 2828 (Figure 10. Aerial photo of Folly Beach illustrating the Perpetual Easement Line (PEL), monument locations, and state beach management zones. Figure 10) from just south of Center Street and the pier to the northeast end have been surveyed routinely between 1988 and 2012, and monuments 2825 to 2803 along the southwest end have been surveyed since 1998 by Coastal Carolina University (<http://gis.coastal.edu>). The monuments on the far ends of the island, 2895 and 2801 are not included in the analysis.

For purposes of this plan, representative beach profiles from the following SCDHEC-OCRM Beach Zones (Figure 10) from south to north are discussed:

- 1) Unstabilized Inlet Zone (Folly Beach County Park): Benchmark 2805
- 2) Standard Zone 1 (Southwest portion): Benchmark 2815
- 3) Standard Zone 2 (Center St./Pier vicinity): Benchmark 2828
- 4) Standard Zone 3 (Northeast portion): Benchmark 2865
- 5) Stabilized Inlet Zone: Benchmark 2890

Beach profile data and plots presented herein were created with the Coastal Carolina University Profile Management and Analysis System (PMAS) are credited to the Coastal Carolina University with collection of the data and the USGS, USACE, and SC DHEC-OCRM for funding the data collection as described in Harris et al. (2007).

The following figures that accompany the beach profile plots show the volumes of sand that were measured above roughly the -5 ft. contour (NAVD88) and seaward of the SCDHEC-OCRM baseline for the years 1988-2012 or 1999-2012, whichever was available. Figure 10 depicts the 5 zones and the representative benchmark locations.

**UNSTABILIZED INLET ZONE (FOLLY BEACH COUNTY PARK): BENCHMARK 2805**

Beach profile data from benchmark 2805 (Figure 11) characterize the southwest end of Folly Beach where dredged material from the Folly River was placed beneficially in 2003 and 2006 (USACE, 2014). After 2006, this region was characterized by uninhibited shoreline recession. There were no revetments, seawalls, groins, or terminal structures in the County Park, allowing erosion to engulf park facilities and roads. Prior to the 2013 project described in Section 5.2.1, this region was overwashing into the marsh leaving peat exposed on the shoreface (Figure 12). Unit volumes had dropped below 20 cy/ft (Figure 13) and the region was characterized by severe erosion.

The terminal groin and commitment to beach nourishment by the Charleston County Park and Recreation Commission should help to reduce erosion in this zone in the coming years.

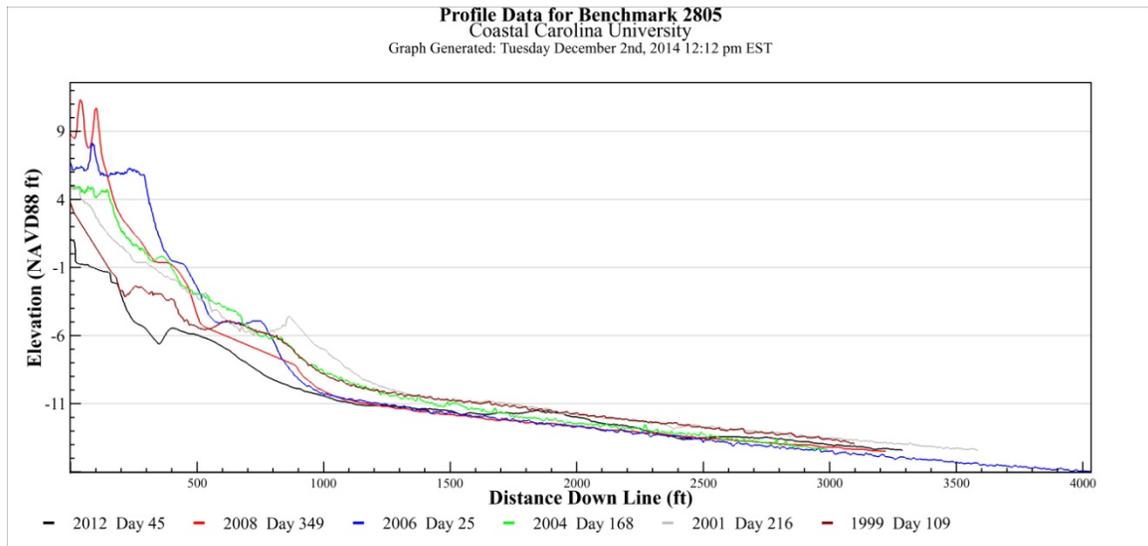


FIGURE 11. BEACH PROFILES FOR BENCHMARK 2805 FROM SELECTED SURVEY DATES BETWEEN 1999 AND 2012.



FIGURE 12. EROSIONAL CONDITIONS IN APRIL 2013 PRIOR TO NOURISHMENT AT THE FOLLY BEACH COUNTY PARK.

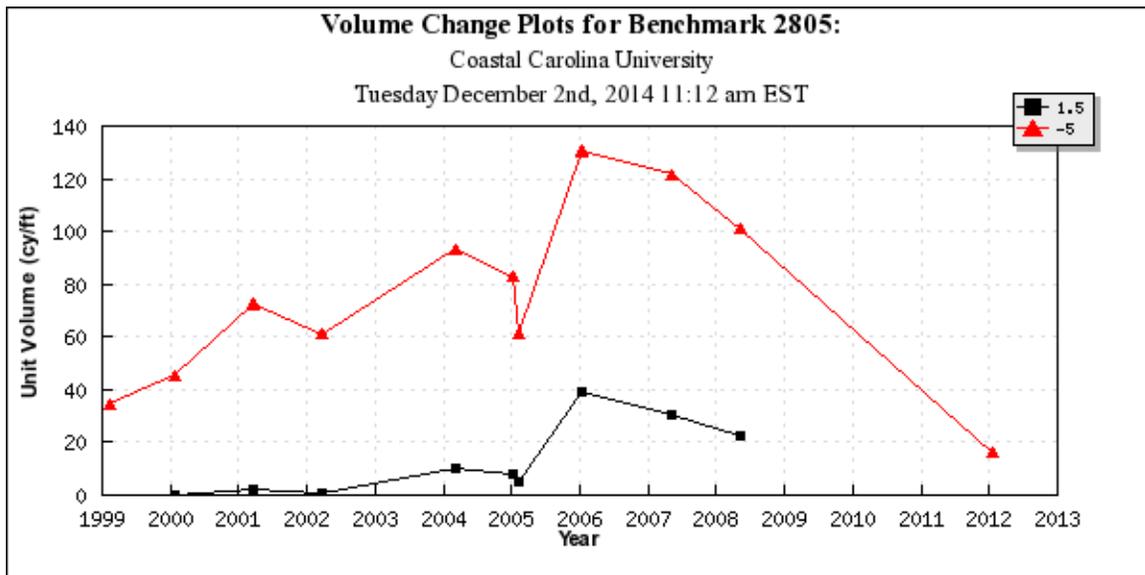


FIGURE 13. VOLUME CHANGE DATA MEASURED ABOVE MHW AND ABOVE -5 FT NAVD88 FOR BENCHMARK 2805 FROM 1999 TO 2012.

STANDARD ZONE 1 (SOUTHWEST PORTION): BENCHMARK 2815

Despite a history of past erosion as described in the next section, southwestern Folly Beach has been stable to accretional as a result of the federal nourishment project since 1999. Beach profiles indicate a well-developed beach and dune system with robust offshore sand bars (Figure 14). Unit volumes in this healthy zone are around 100 cy/ft (Figure 15).

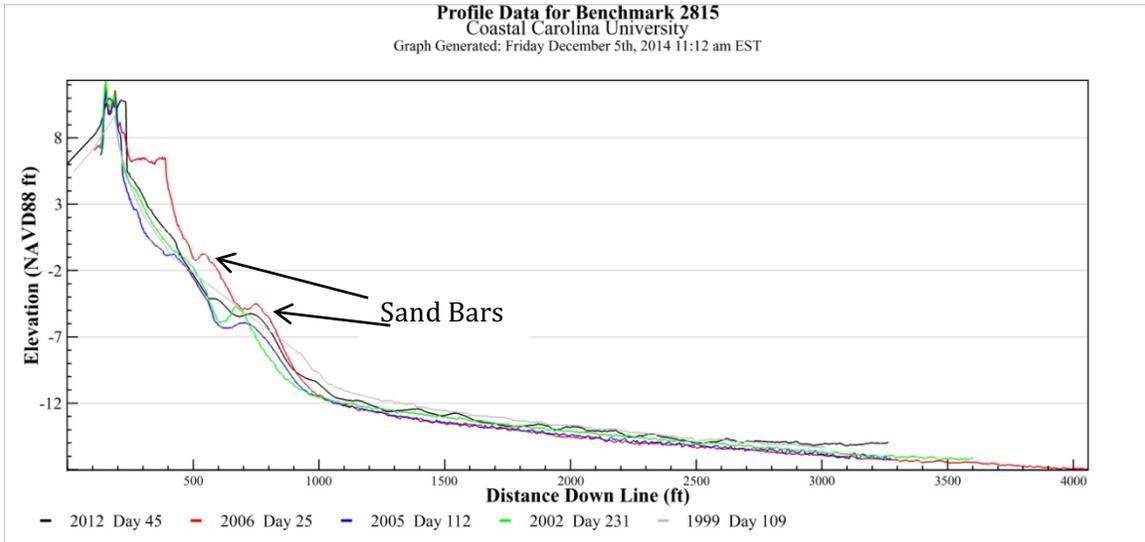


FIGURE 14. BEACH PROFILES FOR BENCHMARK 2815 FROM SELECTED SURVEY DATES BETWEEN 1999 AND 2012.

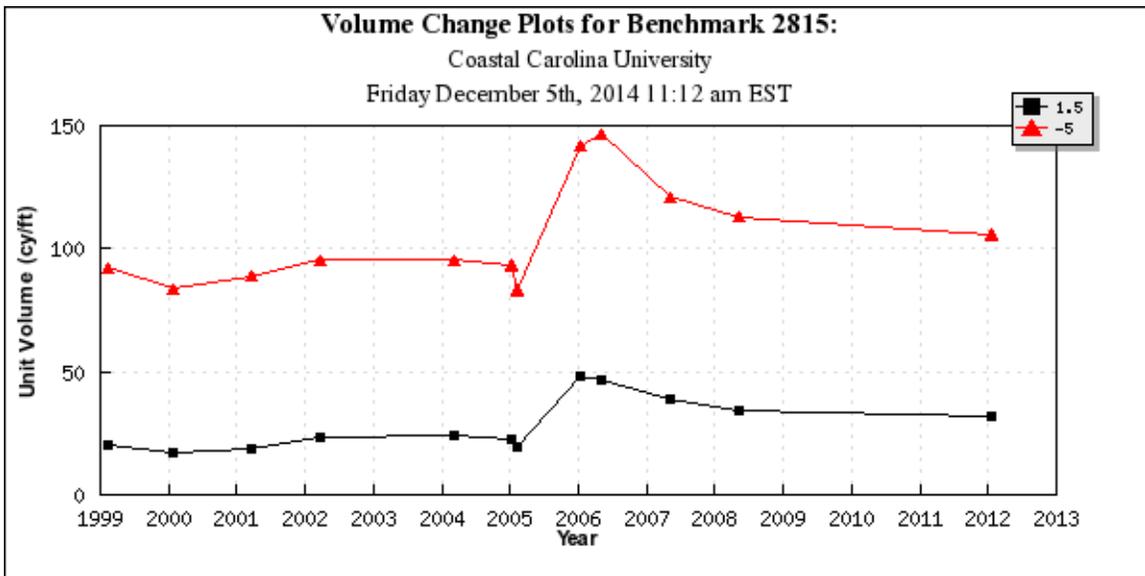


FIGURE 15. VOLUME CHANGE DATA MEASURED ABOVE MHW AND ABOVE -5 FT NAVD88 FOR BENCHMARK 2815 FROM 1999 TO 2012.

STANDARD ZONE 2 (CENTER ST./PIER VICINITY): BENCHMARK 2828

Beach profile data from benchmark 2828 characterizes the relatively stable nature of the central portion of the island, where nine dilapidated groins, located north of the present day Tides property, were rehabilitated as part of the 1993 federal beach nourishment project. The seaward deteriorated portions were removed and replaced with steel sheet pile and a concrete cap. Beach profile data indicate that the rehabilitated groins have retained nourished sand as designed (Figure 16).

The unit volume example figure for this segment displays a different response to nourishment than other segments. In each of the other segments, nourishment is followed by nearly exponential decrease in beach volume (see Standard Zone 3). In this segment, unit volumes have increased since the initial nourishment in 1993 (Figure 17) when the dilapidated groins in this region were rehabilitated. Nourished material does not erode rapidly after placement. Rather, unit volumes were stable to slightly accretional after nourishment events in 1993, 2005, and 2007. As of 2012, this healthy region was characterized by a unit volume of roughly 100 cy/ft and dune elevations of up to 15 ft (Figure 18). This provides quantitative evidence of the effectiveness of the rehabilitated structures in stabilizing the beach and extending the life of the nourished sand.

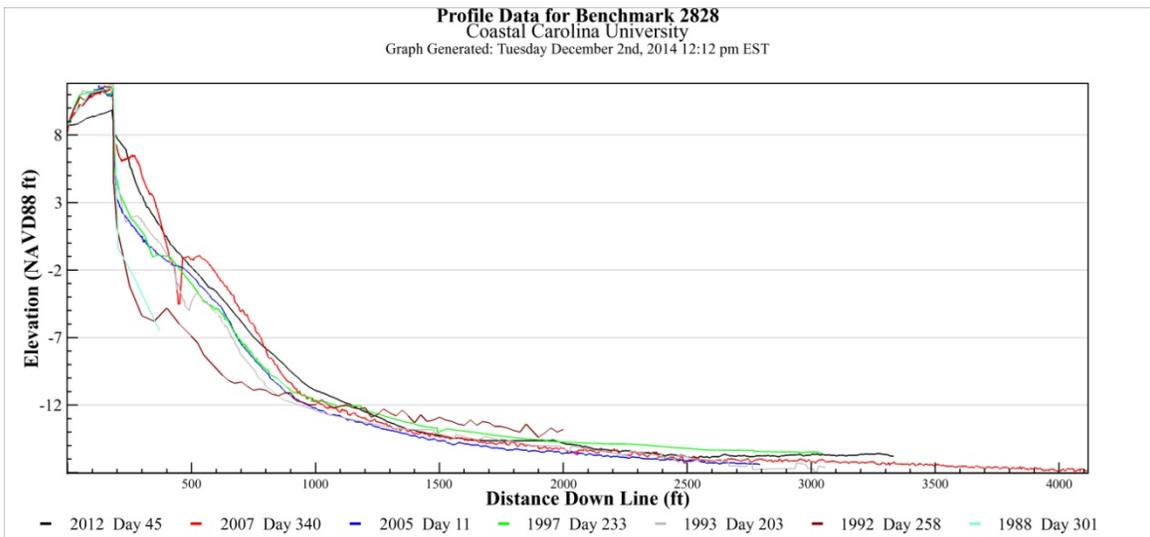


FIGURE 16. BEACH PROFILES FOR BENCHMARK 2828 FROM SELECTED SURVEY DATES BETWEEN 1988 AND 2012.

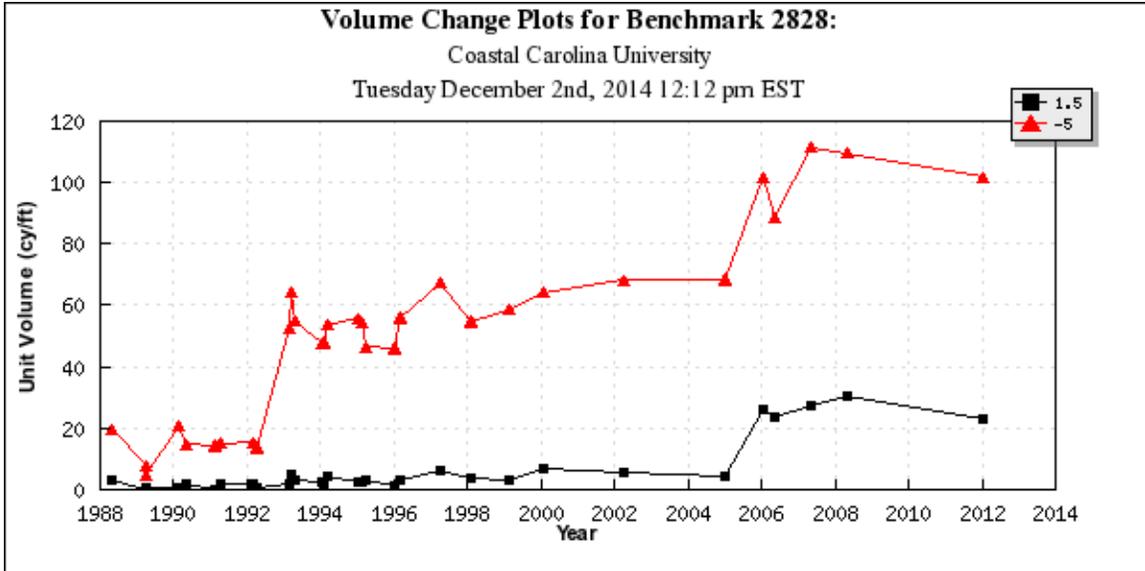


FIGURE 17. VOLUME CHANGE DATA MEASURED ABOVE MHW AND ABOVE -4.9 FT NAVD88 FOR BENCHMARK 2828 FROM 1988 TO 2012.



FIGURE 18. VIEW OF THE CENTRAL PORTION OF FOLLY BEACH LOOKING NORTHEAST FROM THE PIER AFTER NOURISHMENT IN THE SUMMER OF 2014.

STANDARD ZONE 3 (NORTHEAST PORTION): BENCHMARK 2865

The northeast portion of Folly Beach has a history of past erosion, except for a few years of stable to accretional conditions around 1990. Here, this area is defined between 12<sup>th</sup> St. E., where Artic Ave. ends, and Ashley becomes the beachfront road to the northeast, and the stabilized inlet zone at Lighthouse Inlet. This area includes the “Washout” which extends from 1409 E. Ashley to 1569 E. Ashley, and is the only part of Folly Beach with no development on the beachfront side of the beachfront road. The Washout was reportedly overwashed and open as an inlet during Civil War times.

Beach profile data from benchmark 2865 characterize the erosional nature of this standard zone along the northeast portion of Folly Beach (Figure 19). Here, beach nourishment and dilapidated erosion control structures alleviate severe shoreline retreat. Prior to the initiation of the federal nourishment project, unit volumes hovered around 30 cy/ft. Injections of sediment from federal renourishment events in 1993, 2005, and 2007 are obvious on Figure 20. Based on the available data, unit volumes have been stabilized by nourishment and structures between 40 and 60 cy/ft.

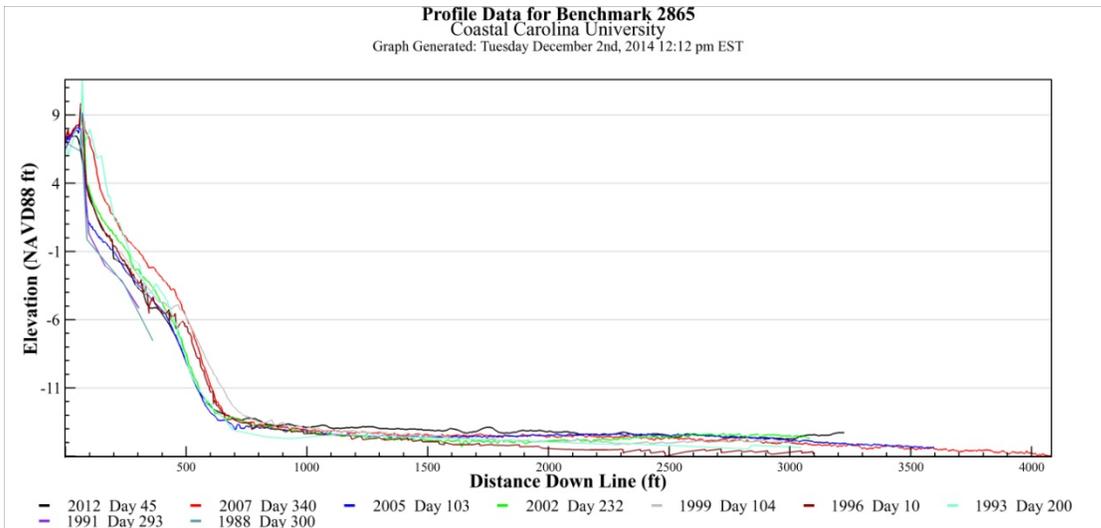


FIGURE 19. BEACH PROFILES FOR BENCHMARK 2865 FROM SELECTED SURVEY DATES BETWEEN 1988 AND 2012.

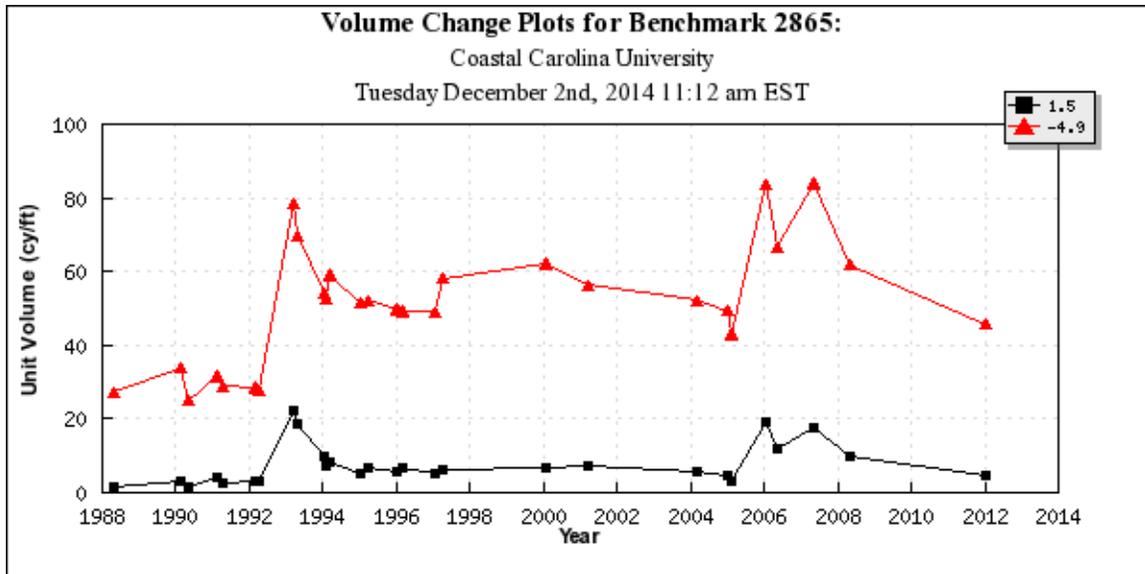


FIGURE 20. VOLUME CHANGE DATA MEASURED ABOVE MHW AND ABOVE -4.9 FT NAVD88 FOR BENCHMARK 2865 FROM 1988 TO 2012.

This northeast area contains a number of erosion control structures including timber and rubble-mound groins along the ocean and Lighthouse Inlet shorelines, and a terminal structure at the northeast end installed by the U.S. Coast Guard (Edge & Assoc., 1991).

Three months after completion of the 2013-14 federal nourishment project, the average mean high water (MHW) beach width in this section was 92.5 ft. Dunes are absent near the northernmost developed properties at Sumter Drive, where exposed seawalls dominate the backbeach (Figure 21).

Excepting the bypassing of a sand bar from Lighthouse Inlet, high rates of shoreline erosion will likely persist in this area, resulting in an erosional hot spot where beach nourishment sands will rapidly erode. As a result, dune stabilization will be difficult until a sandy beach can be established and preserved. Critical erosion is expected to continue in this area due to the lack of sediment supply entering from the northeast.



FIGURE 21. EXPOSED SEAWALL AT SUMTER AVE. ALONG THE NORTHEASTERN PORTION OF FOLLY BEACH PRIOR TO THE FEDERAL RENOURISHMENT PROJECT IN 2014.

#### STABILIZED INLET ZONE: BENCHMARK 2890

Beach profile data from benchmark 2890 confirm a shoal attachment event between 1992 and 1994 that supplied considerable sediment to northeastern Folly Beach (Figure 22). Unit volumes measured to -4.8 ft NAVD 88 exceeded 250 cy/ft from 1992 to 1996 (Figure 23), after which erosion began to dominate this region. A lesser, yet still significant, increase in volume was measured in 2007-2008. Unit volumes approached 100 cy/ft, likely due to longshore spreading of nourished sediment from the federal project. The beach profile data indicate that in the absence of shoal bypassing or renourishment, this zone exhibits erosional tendencies.

Dune crests in this zone are as high as 20 ft (NAVD88).

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

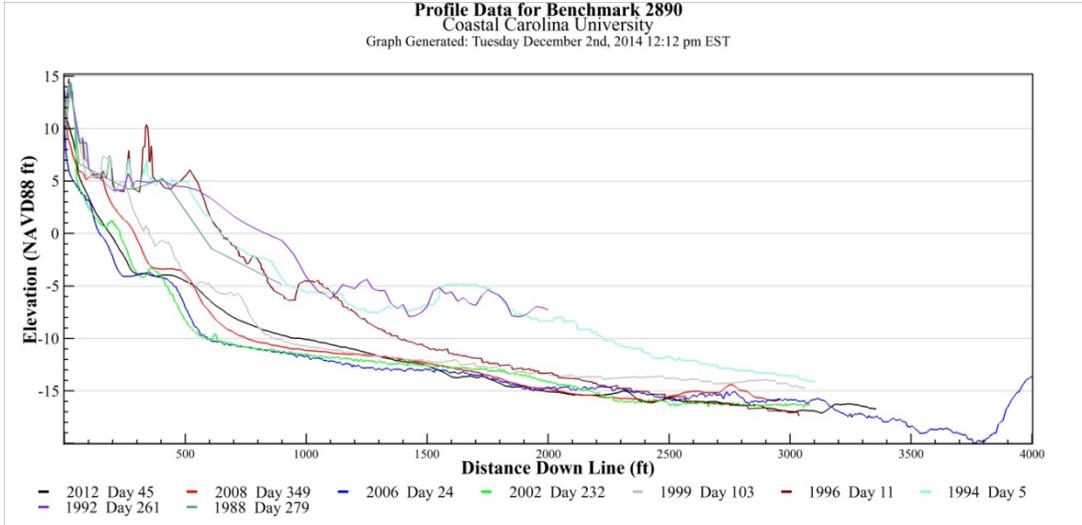


FIGURE 22. BEACH PROFILES FOR BENCHMARK 2890 FROM SELECTED SURVEY DATES BETWEEN 1988 AND 2012.

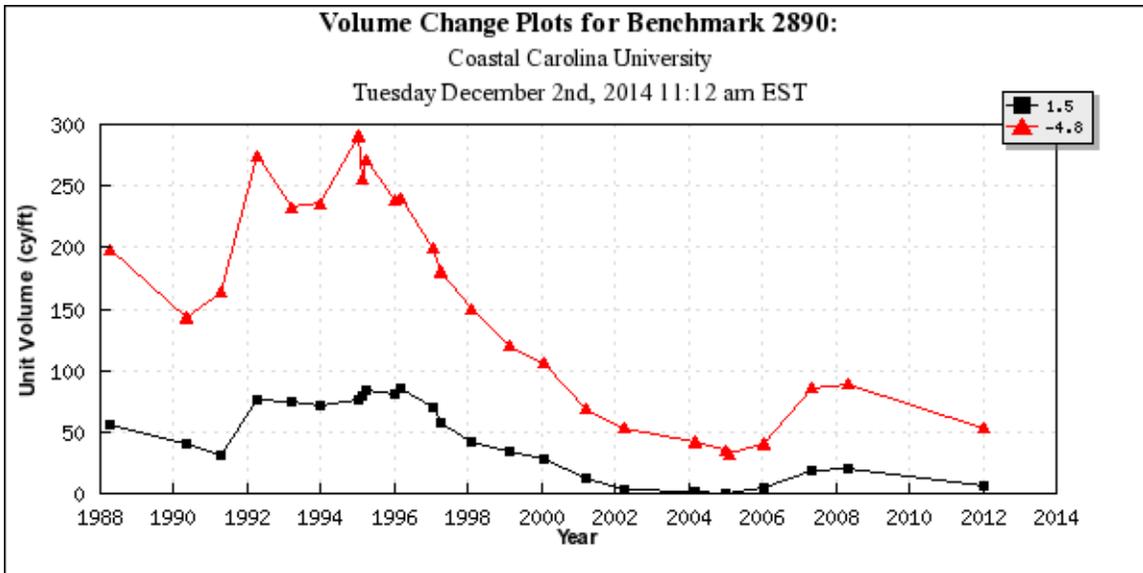


FIGURE 23. VOLUME CHANGE DATA MEASURED ABOVE MHW AND ABOVE -4.8 FT NAVD88 FOR BENCHMARK 2890 FROM 1988 TO 2012.

5.1.2 LONG-TERM SHORELINE CHANGE RATES

SCDHEC-OCRM has conducted studies of long-term shoreline change rates along the SC coast, which show the average annual erosion or accretion that has occurred since 1873. For Folly Beach, the shoreline change rates were updated in May 2010. In other parts of the state, the updated long-term erosion rates are used to adjust the position of the baseline periodically. The baseline on Folly Beach is fixed. Long-term shoreline change rates for all survey

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

monuments, given in feet per year, are listed in Table 7. These average shoreline change rates represent the number of feet the shoreline moves each year, with negative numbers indicating erosion or shoreline retreat.

TABLE 7. LONG-TERM EROSION RATES FOR ALL SURVEY MONUMENTS ON FOLLY BEACH, LISTED FROM SOUTHWEST TO NORTHEAST (SEE FIGURE 6 FOR BENCHMARK LOCATIONS).

	<b>Benchmark</b>	<b>Beach Classification Zone</b>	<b>Shoreline Change Rate (ft/yr)</b>	<b>Avg. Shoreline Change Rate by Zone (ft/yr)</b>
	2801	Unstabilized Inlet	-1.02	
<b>Folly Beach County Park</b>	2803	Unstabilized Inlet	0.75	
	2805	Unstabilized Inlet*	-9.25	-3.17
<b>Southwest end (Standard 1)</b>	2810	Standard	-8.04	
	2813	Standard	-7.81	
	2815	Standard	-7.05	
	2818	Standard	-7.05	
	2820B	Standard	-6.50	
	2823	Standard	-6.50	
	2825B	Standard	-5.81	-6.97
<b>Center St. (Standard 2)</b>	2828	Standard	-3.74	
	2830	Standard	-3.74	
	2833B	Standard	-2.89	
	2835	Standard	-2.49	
	2838	Standard	-2.20	
	2840B	Standard	-2.13	
	2843B	Standard	-1.97	
	2850B	Standard	-2.30	
	2855	Standard	-2.43	
	2860B	Standard	-2.62	-2.65
<b>Northeast Portion (Standard 3)</b>	2863B	Standard	-3.51	
	2865B	Standard	-3.35	
<b>The Washout</b>	2867	Standard	-2.66	

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

	2873	Standard	-1.15	
	2875	Standard	-0.46	
	2878	Standard	-0.33	
	2880B	Standard	0.52	
	2883B	Standard	1.38	
<b>Sumter Ave.</b>	2885	Standard	2.17	-0.82
<b>Coast Guard Property</b>	2890B	Stabilized Inlet	2.72	
	2895	Stabilized Inlet	3.38	2.41

\*Terminal groin installed here in 2013.

UNSTABILIZED INLET ZONE & STANDARD ZONE 1

The highest long-term erosion rates on the island are along the southwest portion of the island and include the county park as well as the developed shoreline south of the present-day Tides property. Although Standard Zone 1 has been relatively stable in the last several decades (see Figure 10) as a result of the federal nourishment project, the area experienced significant shoreline retreat from the late 1800s to the early 1900s likely as a result of jetty construction. This highly erosional region extended roughly from southwest of the seawall fronting the present-day Tides property between 2<sup>nd</sup> and 3<sup>rd</sup> St. W. (2825) and Folly Beach County Park (2805). The average long-term shoreline change rates for these zones are -3.17 ft/yr for the unstabilized inlet zone and -6.97 ft/yr for Standard Zone 1 (Table 7). Since 1854, the shoreline in this region has migrated over 1,000 ft landward (Figure 24 & Figure 25). These are the most rapid long-term shoreline erosion rates on the island.

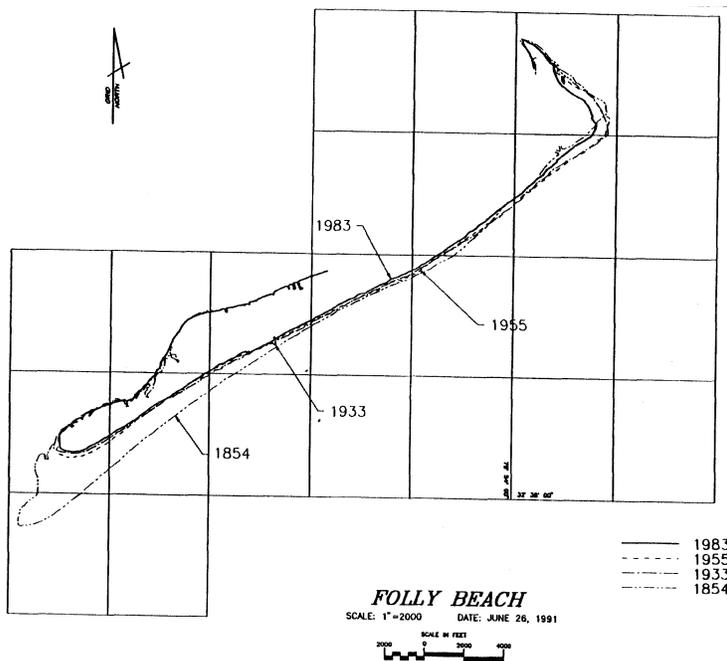


FIGURE 24. HISTORIC SHORELINE POSITIONS ON FOLLY BEACH (FROM EDGE & ASSOC, 1991).

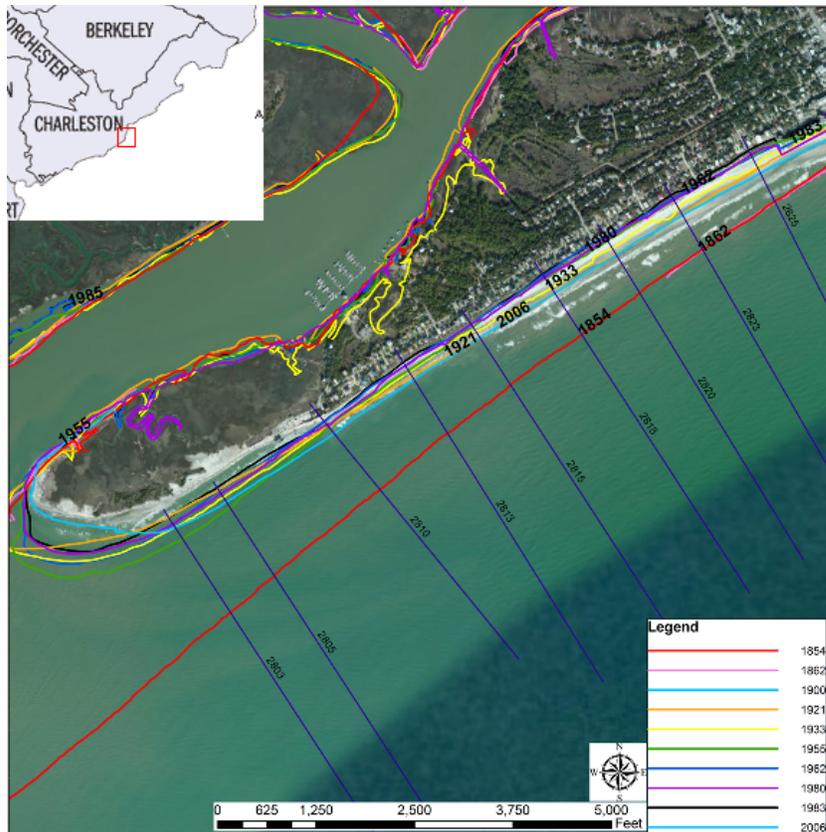


FIGURE 25. HISTORIC SHORELINES FOR THE UNSTABILIZED INLET ZONE AND STANDARD ZONE 1 ALONG THE SOUTHWESTERN PORTION OF FOLLY BEACH.

### STANDARD ZONE 2 (CENTER ST./PIER VICINITY)

This zone extends from Center St. (2828) to the change in shoreline orientation at 12<sup>th</sup> St. E., where Artic Ave. ends, and Ashley becomes the beachfront road to the northeast (2860). Although short-term erosion rates have been reduced by rehabilitated groins and periodic nourishment, long-term shoreline change rates in this region average -2.65 ft/yr (Table 7). This trend is illustrated by the 1854 and 1862 shorelines, which are generally the seaward most shorelines on Figure 26. Relative to the rest of Folly Beach, long-term erosion rates here are moderate.

The 2006 shoreline is farther seaward than most of the shorelines from the 1900's. Although this shoreline represents a post-nourishment condition, it is also attributable to the rehabilitated structures in this region, which have helped stabilize the nourished material, resulting in a wide beach.

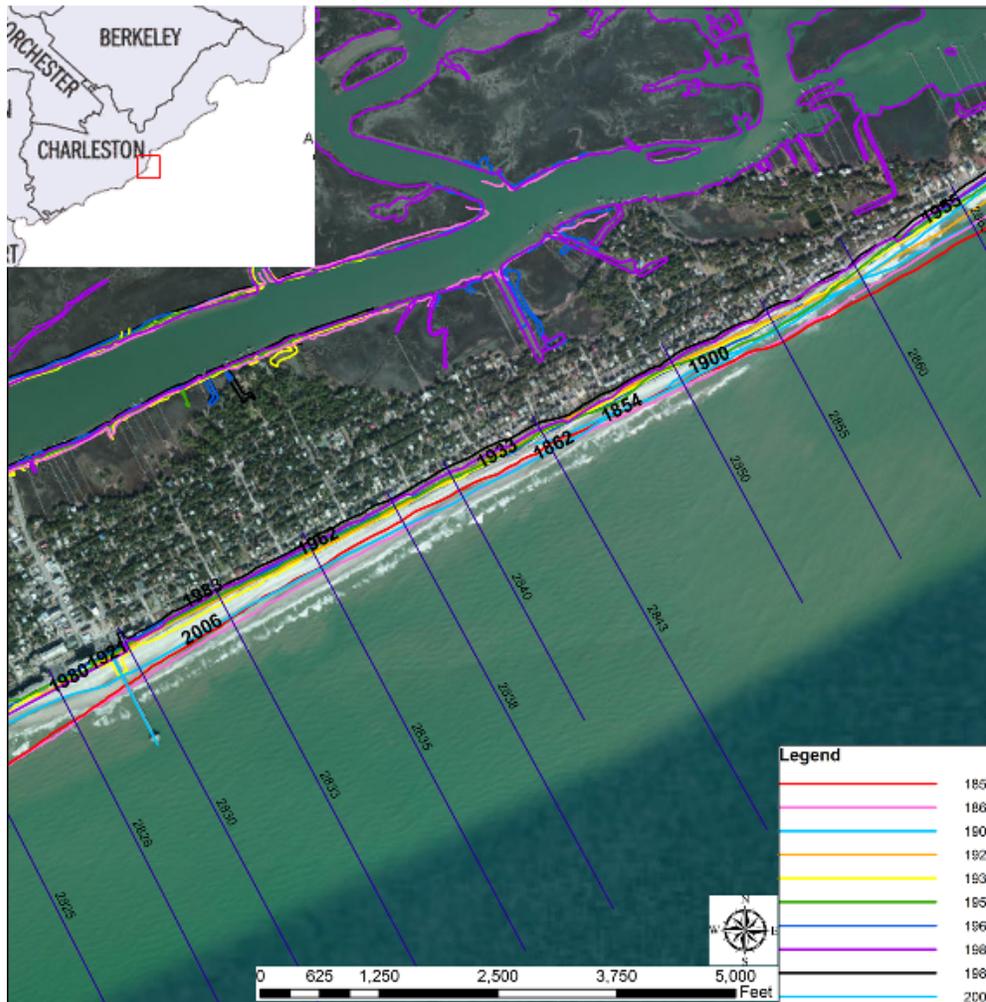


FIGURE 26. HISTORIC SHORELINES FOR STANDARD ZONE 2 ALONG THE CENTER PORTION OF FOLLY BEACH.

### STANDARD ZONE 3 (NORTHEAST PORTION)

This area is defined between the southwest end of the Washout (2863) and Sumter Ave. (2885). The shoreline orientation of the northeast portion of the island has always been slightly different from the rest of the island (Figure 24).

Despite high rates of short-term erosion, the average long-term shoreline change rate in this zone is only -0.82 ft/yr (Table 7). The northernmost development on the island near Sumter Ave and benchmark 2885 is the area of the most significant present-day erosional hot spot; however, the long-term shoreline change rate for that area is actually 2.17 indicating historic accretion (Figure 27), likely associated with ebb shoal bypassing from Lighthouse Inlet.

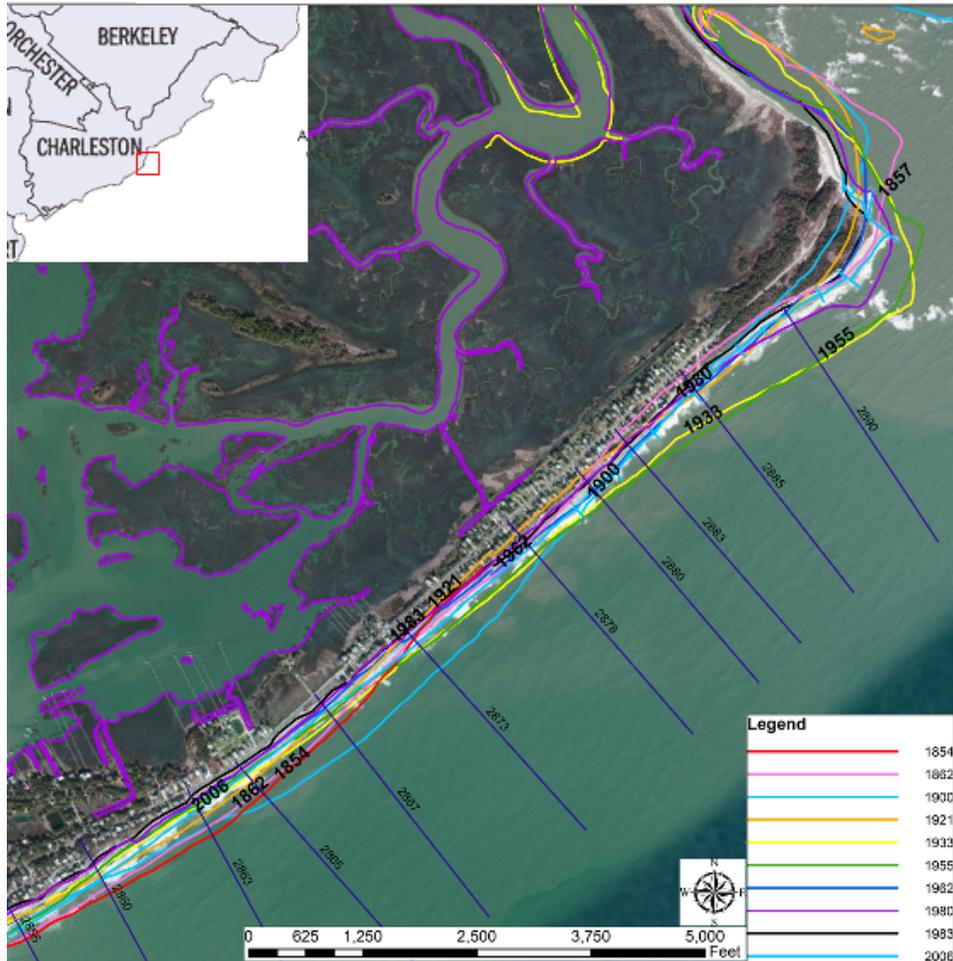


FIGURE 27. HISTORIC SHORELINES FOR STANDARD ZONE 3 AND THE STABILIZED INLET ZONE ALONG THE NORTHEASTERN PORTION OF FOLLY BEACH.

### STABILIZED INLET ZONE

This zone has been historically accretional and exhibits multiple dune lines in an accreting beach ridge pattern (Figure 23). This morphology is typical of shorelines adjacent to tidal inlets that receive periodic inputs of sediment via shoal bypassing. The effect of erosion control structures and periodic bypassing have combined for an average long-term shoreline change rate for this zone of 2.41 ft/yr (Table 7).

It is important to consider that this zone is no longer exhibiting the same erosion trends as it did in the long-term. Today, this zone exhibits significant erosion (see Figure 18).

## 5.2. BEACH ALTERATION INVENTORY

Most of the Folly Beach beachfront is lined with seawalls that were constructed to protect private property. Many of these seawalls are now buried. There are presently 50 groins along Folly Beach in various conditions. Please see Appendix 7.1 for the structural and beach alteration inventory maps and tables.

The newest groin is the terminal structure at Folly Beach County Park. The nine groins in the vicinity of Center Street were rehabilitated in 1993 and are in fairly good condition. The remaining 40 groins on the island are in poor to non-functional condition (Figure 28).



FIGURE 28. PHOTO OF A DILAPIDATED TIMBER-PILE GROIN ON FOLLY BEACH.

Prior to the initial federal nourishment, the native mean grain size on Folly Beach was characterized as 0.17 mm. This estimate was based on analyses of 14 beach profiles. The sand was characterized as well-sorted with a maximum carbonate content of 5% (Hales et al., 1991).

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### 5.2.1 BEACH RENOURISHMENT

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Due to the severe erosion issues described in Section 1.3, the USACE completed a feasibility study in 1985 that recommended restoration and periodic renourishment of 16,860 ft (3.2 mi) of the central section of Folly Beach. Borrow areas were identified in Lighthouse and Stono Inlets (USACE, 1985). The Folly Beach Shore Protection project was authorized by Section 501 of Public Law 99-662 (WRDA86) in which the original authorizing language read as follows:

*SEC. 501(a). The project for shoreline protection, Folly Beach, South Carolina: Report of the Chief of Engineers, dated March 17, 1981, at a total cost of \$7,040,000, with an estimated first Federal cost of \$3,870,000 and an estimated first non-Federal cost of \$3,170,000.*

Section 111 of the 1968 River and Harbor Act provides authority for the Corps of Engineers to develop and construct projects for prevention or mitigation of damages caused by Federal navigation work. In 1987, Section 111 study determined that approximately 57 percent of the erosion of Folly Beach was due to the construction and continued operation of the Charleston Harbor Federal navigation project (USACE, 1987). As a result of this determination, the cost sharing percentages were adjusted to 85 percent federal versus 15 percent non-federal (City of Folly Beach). In addition, 57 percent of the federal cost for periodic renourishment is provided by the Navigation business line, while the remaining 43 percent of the Federal cost is provided by the Flood Risk Management business line. The separation of federal funding sources often makes it difficult to obtain enough Congressionally- or Administratively-appropriated federal funding to construct the project during a fiscal year.

The 1986 authorization was modified by Public Law 102-104 (WRDA92). The authorized project provides for restoration of approximately 5.34 linear miles of beach on Folly Island (USACE, 1991). The amended authorizing language reads as follows:

*SEC. 105. The project for shoreline protection for Folly Beach, South Carolina, authorized by section 501(a) of the Water Resources Development Act of 1986 (Public Law 99-662; 100 Stat.4136), is modified to authorize the Secretary to construct hurricane and storm protection measures based on the Charleston District Engineer's Post Authorization Change Report dated May 1991, at an estimated total initial cost of \$15,283,000, with an estimated Federal cost of \$12,990,000 and an estimated non-Federal cost of \$2,293,000, and an annual cost of \$647,000 for periodic beach nourishment over the life of the project, with an estimated annual Federal cost of \$550,000 and an estimated non-Federal annual cost of \$97,000.*

### 1993 FEDERAL NOURISHMENT PROJECT

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The Local Cooperation Agreement (LCA) between the USACE and the City was executed on September 14, 1992 which allowed for the initial construction of the 5.34 mile-long federal shore protection project in 1993. The project extended from just southwest of the Coast Guard station on the northeast end of the island to the County Park on the southwest end. The project provided a protective berm with a top width of 15 ft and elevation of 9.0 ft NGVD. Nine of the original groins, along the central portion of the island, were authorized for rehabilitation during the 1993 project. These groins are inventoried in Section 2.3

The 2.7 million cubic yard 1993 project was constructed by T.L. James and Co. from January to May 1993 at a cost of approximately \$11.7 million. Included in the cost of the 1993 nourishment project was an additional 35 cubic yards per linear foot of material placed between the groins after a nor'easter storm in March (O&M Manual, 1993).

Sand for this initial renourishment was removed from the lower Folly River landward of Stono Inlet and Folly Beach County Park. This area had been previously dredged through the Corps navigation channel maintenance program with the material placed on the County Park

as a beach disposal project. Much smaller volumes of material were removed during those efforts. This area has always been within the Coastal Barrier Resource Act (CBRA) System Unit M07, but Fish and Wildlife Service had granted a public interest exemption for the first projects that was later rescinded. The City hopes to be able to seek an exemption again for this area using a more precise scope of sand and by better factoring in natural resource impacts.

Prior to construction of this initial nourishment, a Perpetual Easement Line (PEL) was established along the landward edge of the project at this time. The line was established along seawalls or the eroded dune/edge of vegetation marking the line between the publicly funded renourished beach and the upland private property. Where needed, two types of easements were acquired from property owners: 1) quit claim deeds for the “wet” beach from Mean High Water (MHW) to low water, and 2) easements for the land from the MHW line to the PEL (B. Peeples, personal communication, February 2015).

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### 2005 FEDERAL RENOURISHMENT PROJECT

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The Corps constructed the first renourishment of Folly Beach in 2005 after the project was approved for PL 84-99 (FCCE) assistance beach rehabilitation due to damages during the 2004 hurricane season. The City requested that the project be fully renourished in conjunction with the emergency rehabilitation. A dredging contract was awarded to Weeks Marine for \$12,115,200 for placement of 2.3 million cubic yards of sand from offshore Borrow Area A over 5.34 miles of shoreline. Construction was completed in December 2005 (USACE, 2006).

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### 2007 FEDERAL RENOURISHMENT PROJECT

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As a result of damages from Hurricane Ophelia in 2005, during construction of the above project, the Folly Beach Shore Protection Project again received FCCE funds to repair storm damages. The City elected only to restore the northern 1.9 miles of the project, which were eligible to be repaired at 100% federal cost. The federal storm damage repair project was built in 2007 with 490,000 cubic yards of sand. Great Lakes Dredge and Dock was awarded the contract for \$6.7 million (USACE, 2014).

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### 2014 FEDERAL RENOURISHMENT PROJECT

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The 2014 renourishment was constructed by Great Lakes Dredge and Dock Company at a cost of \$30.7 million with the cutterhead dredge “The Alaska”. The placement of 1.4 million cubic yards of sediment was completed in June 2014.

The borrow area for the 2014 project was located 3 miles offshore in federal waters, which is considered outer-continental shelf (OCS) sand resources. Thus, a three-party agreement between the USACE, the Bureau of Ocean Energy Management (BOEM), and the City of Folly Beach was required for use of these OCS resources (USACE/BOEM, 2014).

Dune vegetation and sand fencing installation were included in the 2005 and 2014 projects. Sea oats (*Uniola paniculata*) and bitter panicum/panic grass (*Panicum amarum*) were

installed along most of the project area. Sand fence was installed in individual V-shaped sections open to the shoreline, with 8 ft spacing between Vs. Much of the fencing and vegetation eroded before the 2014 project began.

### 2013 FOLLY BEACH COUNTY PARK RENOURISHMENT PROJECT & TERMINAL GROIN

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In addition to the federal project, the CCPRC constructed a renourishment of Folly Beach County Park which was completed in late June 2013. The dry beach width was increased by as much as 500 ft with 415,000 cubic yards of sand, which was hydraulically pumped from the Folly River by Marinex Construction. A 745 ft terminal groin, located approximately 1,850 ft southwest of the southernmost timber-pile groin on Folly Beach, was constructed by TIC at the southwest end of the project to limit sand losses. In addition, the park road was rebuilt with small limestone pebbles. Total project cost was \$3.46 million (65% sand, 35% structure) (CSE, 2013). Vegetation and sand fencing were also installed after construction of this project (Elko, 2013). Mitigation will be required if monitoring surveys show a direct negative impact of the terminal groin on Skimmer Flats or if erosion rates on Folly Beach spit exceed the historic rate of 15 cubic yards per foot per year.

### BEACH PERFORMANCE MONITORING

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According to the 1993 federal Operations and Maintenance (O&M) Manual, which is a part of the City's long-term agreement with the USACE, the City is responsible for post-nourishment monitoring. The City is committed to maintaining the 9 groins near the center of the island, conducting visual inspections, and collecting annual surveys at existing state benchmarks to monitor the performance of the 2014 federal nourishment project.

Collection of this information will provide the City with the tools to mitigate severe erosion and total loss of the public restored beach in the future. Based on monitoring data and anticipated erosion trends, the City and the Corps intend to plan for the next federal renourishment project, including obtaining federal funds and required state/federal permits, in advance of the erosion of private lands. The City is aware that the long term renourishment agreement with the Corps of Engineers expires in approximately 25 years. The City begun early stages of planning for the pursuit of an extension of the agreement. Additionally, preliminary contacts have been made with outside agencies, including the SC Sea Grant Consortium, to research and present alternatives to beach renourishment.

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### 5.2.2 EMERGENCY ORDERS AND SANDBAGS

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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. 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. Past known emergency orders on Folly Beach are summarized in Table 8.

TABLE 8. CITY OF FOLLY BEACH EMERGENCY ORDERS

Date	Type	Location
<b>1/97</b>	Sand Scraping, Renourishment	Folly Beach County Park
<b>5/99</b>	Sand Scraping, Renourishment	Folly Beach County Park
<b>12/02</b>	Sandbags, Sand Scraping, Renourishment	#2 Summer Place Lane
<b>3/04</b>	Sandbags, Sand Scraping, Renourishment	#2 Summer Place Lane
<b>8/11</b>	Sand Scraping, Renourishment	1709B East Ashley
<b>1/13</b>	Sandbags, Sand Scraping, Renourishment	1 Dreamchaser Lane
<b>4/13</b>	Renourishment	1319 East Ashley

The temporal extent of emergency orders reflects times when the federal renourishment project was needed. The spatial extent reflects the erosional hot spots on the northeast and southwest ends of the island. These orders provide good evidence that the federal nourishment alone has not achieved the goals of a comprehensive beach management plan, and a proactive, long-term beach preservation strategy is needed on Folly Beach.

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### 5.2.3 PREVIOUS HURRICANE OR STORM EVENTS

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Hurricane Hugo is the storm of record along the Charleston County coast. According to a post-storm assessment of the South Carolina developed coast following the impact of Hurricane Hugo, fifty percent of all the buildings destroyed were fronted by dry beaches less than 3 m wide and dune fields less than 15 m wide (Thieler and Young, 1991). Dune fields greater than 30 m wide protected beachfront property. 85% of Folly Beach washed over during Hugo.

More recently, federal rehabilitation efforts have been funded through the Flood Control and Coastal Emergency Act (FCCE) (PL 84-99), which gives the USACE authority to conduct emergency management activities. The renourishment projects that received PL 84-99 assistance shed light on significant storm events that have altered Folly Beach.

A series of winter storms in January and February 1998 resulted in severe erosion of Folly Beach County Park, located at the southwestern end of the island. PL 84-99 assistance funded the placement of 55,000 cubic yards of material at the County Park at a cost of \$315,100.

During the 2004 hurricane season Folly Beach was impacted by a series of five tropical storms and a strong northeaster with offshore wave heights ranging up to 25 feet with the passage of Hurricane Charlie. Storm damages to the shore protection project resulted in the loss of 552,000 cubic yards of material from the project reach, 100,000 cubic yards of which were lost from the protective berm (USACE, 2006). This led to the first federal renourishment of Folly Beach in 2005.

Hurricane Ophelia was a Category 1 storm that sat offshore of Charleston, SC from September 10-13, 2005. This was during construction of the federal renourishment project and subjected the project to several days of high wave energy resulting in shoreline retreat of 150 ft. Approximately 470,000 cubic yards of freshly placed beach sand was eroded by the storm. The USACE published a Project Impact Report (USACE, 2005) making the project eligible for FCCE funds to repair the damage to the eastern 1.9 miles of the project.

More recently, erosion caused by Hurricane Irene in August 2011 (Figure 29 and Figure 30) and Hurricane Sandy in October 2012 (Figure 31 and Figure 32) resulted in critical conditions along the northeastern portion of the island and at the County Park on the southwest end. Unfortunately, the USACE did not receive FCCE funds to repair damages caused by these storm events.



FIGURE 29. FOLLY BEACH COUNTY PARK DURING HURRICANE IRENE IN 2011.



FIGURE 30. NORTHEAST PORTION OF FOLLY BEACH DURING HURRICANE IRENE IN 2011.



FIGURE 31. FOLLY BEACH COUNTY PARK AFTER HURRICANE SANDY IN DECEMBER 2012.



FIGURE 32. PROPERTY DAMAGE ON THE NORTHEAST PORTION OF FOLLY BEACH DUE TO EROSION CAUSED BY HURRICANE SANDY IN 2012.

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### 5.3. DISCUSSION OF EROSION CONTROL ALTERNATIVES

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The City of Folly Beach has relied on the federal nourishment project to mitigate chronic erosion, but has experienced private property loss and damage due to delayed federal funding from Congress. The following elements are either being implemented or are under consideration as erosion control alternatives on Folly Beach.

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#### 5.3.1 BEACH RENOURISHMENT

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Beach nourishment is the City's primary tool to address severe erosion per Section 5.2.1. As was noted, the repeated beach renourishments on Folly Beach have grown increasingly expensive while sand supplies have decreased. As a result, the City faces the possibility of paying more and paying more often for renourishment. The next federal project is scheduled for 2020, but the City and the USACE have already begun the planning phase through a Limited Reevaluation Review (LRR) of the existing federal project. The LRR seeks to identify new borrow areas that have the potential to lower costs of the next renourishment. Nearshore shoals and channels will be considered along with offshore borrow areas.

The City is also interested in exploring regional sediment management options to reduce downdrift impacts from Charleston Harbor. Potential options include the beneficial placement of both new work and maintenance dredged material from the planned Charleston

Harbor Deepening Project in the downdrift littoral system, jetty modifications, and sand sharing or bypassing from the updrift side of the harbor downdrift.

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### 5.3.2 OTHER MEASURES

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In December 2014, Folly Beach residents voted to pass a referendum to add 1% to the local accommodations tax. The additional tax was authorized by the South Carolina Beach Preservation Act and revenues collected are for the purpose of (re)nourishment, maintenance, erosion mitigation, and monitoring of beaches, dune restoration and maintenance, including planting of grass, sea oats or other vegetation useful in preserving the dune system, and maintenance of public beach accesses.

In addition to funding the local share of ongoing federal renourishment projects and studies, this beach preservation fund will be reserved for the following measures:

- Dune restoration (vegetation, sand fencing)
- Repair and maintenance of eroded hot spots
- Groin repair and rehabilitation
- Other erosion mitigation technologies
- Property acquisition
- Consultants to assist with beach preservation planning
- Beach Access Improvements

A small percentage of the beach preservation fund may be to be used to obtain properties that may become uninhabitable and/or located on the active beach due to severe erosion. These funds are not intended for active property acquisition, but for emergency situations where the property owner is not responsive in removing the building and public ownership is the most reasonable solution to avoid future rebuilding on vulnerable parcels. This strategy could help the city mitigate for the situation described in Section 1.3.3 (Development of Super-Beachfront Lots).

If property acquisition becomes necessary, the City will be eligible to apply for pre-disaster hazard mitigation grant funding from FEMA through the state EMD office. A FEMA grant could be leveraged with beach preservation funds.

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### 5.3.3 PUBLIC WORKSHOP

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A public workshop was held on January 27, 2015 at the City of Folly Beach to accept public comments on a draft version of this beach management plan. Approximately 30 people were in attendance with affiliations ranging from government agencies (USACE, SC DNR, SC Sea Grant), City Council members, City staff, residents, and business owners. Many comments were received and discussed during the 2 hour workshop. Other erosion control measures discussed were the rehabilitation off existing groins, innovative erosion control devices, dune restoration and management, property acquisition, and retreat. The workshop participants were informed and engaged. The level of local public interest in the plan was evident by the lively discussion and good comments. Public comments were also submitted via email. Editorial comments were incorporated into the document and discussion items are summarized here.

The rehabilitated groins in the center of the island were noted to have retained nourished sand. Public comments ranged from noting that the groins were effective at stabilization, and “just right” – not too long, not too far apart. It was noted that new groins are permitted through DHEC OCRM, and existing groins may be rehabilitated. Innovative devices were discussed, including the permeable, low-profile design of the terminal groin at Folly Beach County Park.

Property acquisition was discussed with some support and some words of caution that the federal shore protection project is based on economics of the values of the protected properties, and that a property acquisition method could potentially reduce the cost benefit ratio. Planning for future removal of the super beachfront houses was recommended by several residents. City staff noted that the beach preservation fund is not equipped to make large scale property purchases of that sort. It was also noted that the City could request a change to the PEL to add acquired properties to the federal project, but the USACE would have to request funding to make the change through an LRR study.

Retreat was discussed with some residents noting that sea level rise was an inevitable truth for which the City should plan, and others noting the associated economic devaluation. Outside the box ideas such as “unexempting” the City from portions of the Beach Management Act to disallow rebuilding of seawalls were discussed. There were a range of opinions on property acquisition and retreat, with general approval of the approach outlined in the plan.

The meeting concluded with a long and passionate discussion on the importance of a continuous, robust dune system maintained through an improved management program. There was broad consensus on this topic. Suggestions included better enforcement of existing ordinances, more community involvement, and increased education. The residents encouraged the City to develop a dune management plan with the belief that front beach owners and the community would be supportive.

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## 6. NEEDS, GOALS AND IMPLEMENTATION STRATEGIES

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### 6.1. RETREAT STRATEGY

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This plan outlines a long-term beach preservation strategy for the City of Folly Beach that complements the State’s retreat policy without directly endorsing retreat. One reason retreat is not feasible is because of the terms of the ongoing agreement with the Army Corps that requires the City to actively maintain and replenish eroded areas behind the renourishment boundaries. The City is forced to plan for the protection of the existing shoreline in order to guarantee future projects. The plan includes beach nourishment, dune creation/stabilization through the use of fencing and vegetation, regional sediment management approaches, maintenance of existing groins, implementation of proven erosion mitigation techniques where applicable, property acquisition if needed, and conservation of publicly-owned shorelines. The goals of this program are to preserve the City’s #1 economic engine, to provide a recreational beach, to discourage development from encroaching on the beach/dune system, to restore habitat, and to improve storm protection leading to coastal resilience. This strategy is consistent with the recommendations of the DHEC OCRM Blue Ribbon Committee on Shoreline Management.

The City of Folly Beach has adopted development regulations which complement the State's retreat policy as outlined in Section 4.2.4, as well as the use of beach preservation funds for property acquisition when needed. However, due to limited state jurisdiction and the absence of a setback area, the City of Folly Beach does not directly incorporate a forty year retreat policy into City regulations.

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### 6.1.1 FEDERAL SHORE PROTECTION PROJECT STRATEGY

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As detailed in Section 5.2.1, the City completed a periodic renourishment in 2014, and anticipates three primary needs for renourishment planning going forward

First, the immediate identification of a new sand source closer to shore is critical to providing an adequate supply of sand at the lowest possible cost to the federal and City governments. The USACE and the City agree that \$30 million renourishment projects are not economically sustainable. The USACE is working toward this goal through a Limited Reevaluation Review sand search study. Several meetings between the City and the Corps occurred in 2014 and early 2015 and planning continues.

The next step is to identify funding for the increased local cost share (\$5 million in 2014) by working with State and other local governments who share an interest in continued beach preservation. The City has created a beach nourishment funding committee and is active in the new South Carolina Beach Advocates organization to assist with this goal. In addition, the residents of Folly Beach voted to approve a 1% increase to the local accommodations tax in December 2014 to create a beach preservation fund. The primary use of these funds will be for the local share of future federal renourishment projects.

Finally, the City of Folly Beach is surveying the beach annually to provide more accurate and updated data on the state of the beach and the need for renourishment. Beach monitoring was discussed in Section 5.2.1.

Although the Folly Beach Shore Protection Project has been authorized by Congress, federal appropriations are not guaranteed. With an 85% cost share, the City intends to continue to advocate for federal funding but recognizes the risk. If federal funding were to become unavailable, the City would assess their present erosion mitigation needs using the best available science and engineering. Project funding would be obtained through a creative local financing model, similar to other communities in South Carolina that do not have an authorized federal project. Options include special tax assessments and fees related to renourishment, dedicated funding from increased property taxes, and contributions from the State.

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### 6.1.2 OTHER BEACH MANAGEMENT STRATEGIES

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Section 5.3.2 addressed a broad range of beach management strategies. This section describes how some of those strategies will be implemented.

Based on the results of Section 5.1, which indicate that the rehabilitated groins in the central portion of the island have been effective at retaining nourished sand, the city plans to identify which of the 40 dilapidated groins would be most effective at stabilizing future

renourishment material if rehabilitated. Select rehabilitation projects can help to retain nourished material on the beach and extend the life of the federal nourishment projects. The City plans to apply for permits and set aside a portion of the beach preservation funds to rehabilitate select groins in the near future.

The City plans to consider other erosion control options such as innovative erosion control devices once a demonstrated history of utility has been demonstrated elsewhere. Specifically, the City is looking towards methods that would retain nourished sand in the system, slowing alongshore loss of nourished sand while allowing cross-shore exchange. Other strategies include filling erosional hot spots between periodic renourishment events (small scale), dune restoration including planting native vegetation and installing sand fencing, and potential property acquisition. The City has begun funding a Beach Preservation Account to meet a number of these goals. In the next five-year plan revision, the City will reassess the goal of property acquisition depending on the state of the beach and funds available. The City believes this expansion from beach renourishment as the sole strategy to beach preservation is an important step forward from complete reliance on renourishment. We will continue to assess other preservation strategies in the next five-year revision. All of these options would require close coordination with and permitting from SC DHEC OCRM.

The City plans to work towards a more comprehensive dune management strategy going forward. The City hopes to better preserve existing dunes, build up new ones where feasible, and better manage beach access across the dunes for both City access points and private property access. This will require some funding, but also public education and City research into best practices for our own public access points. The City will also strictly enforce ordinances regarding dune protection.

Other beach management issues mentioned in Section 1.4 included septic sewage and traffic. The City plans to increase education about the importance of proper septic tank maintenance. To address vehicular traffic issues, future considerations may include a redesign of Center Street to include turning lanes, which could improve traffic flow.

## 6.2. STRATEGY FOR PRESERVING AND ENHANCING PUBLIC BEACH ACCESS

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- identifying maintenance and improvement needs;
- developing funding sources to supplement maintenance activities;
- monitoring access volumes and developing methods to disseminate information on Town laws and policies;
- addressing concerns of property owners adjacent to beach access points;
- guarding against encroachments through use of setbacks and other zoning techniques; and
- continuing efforts to ensure beach renourishment and groin-field maintenance.

The Beach Preservation Fund and the City budget provide a source of funding to implement these recommendations.

7. APPENDICES

7.1. STRUCTURAL AND BEACH ALTERATION INVENTORY

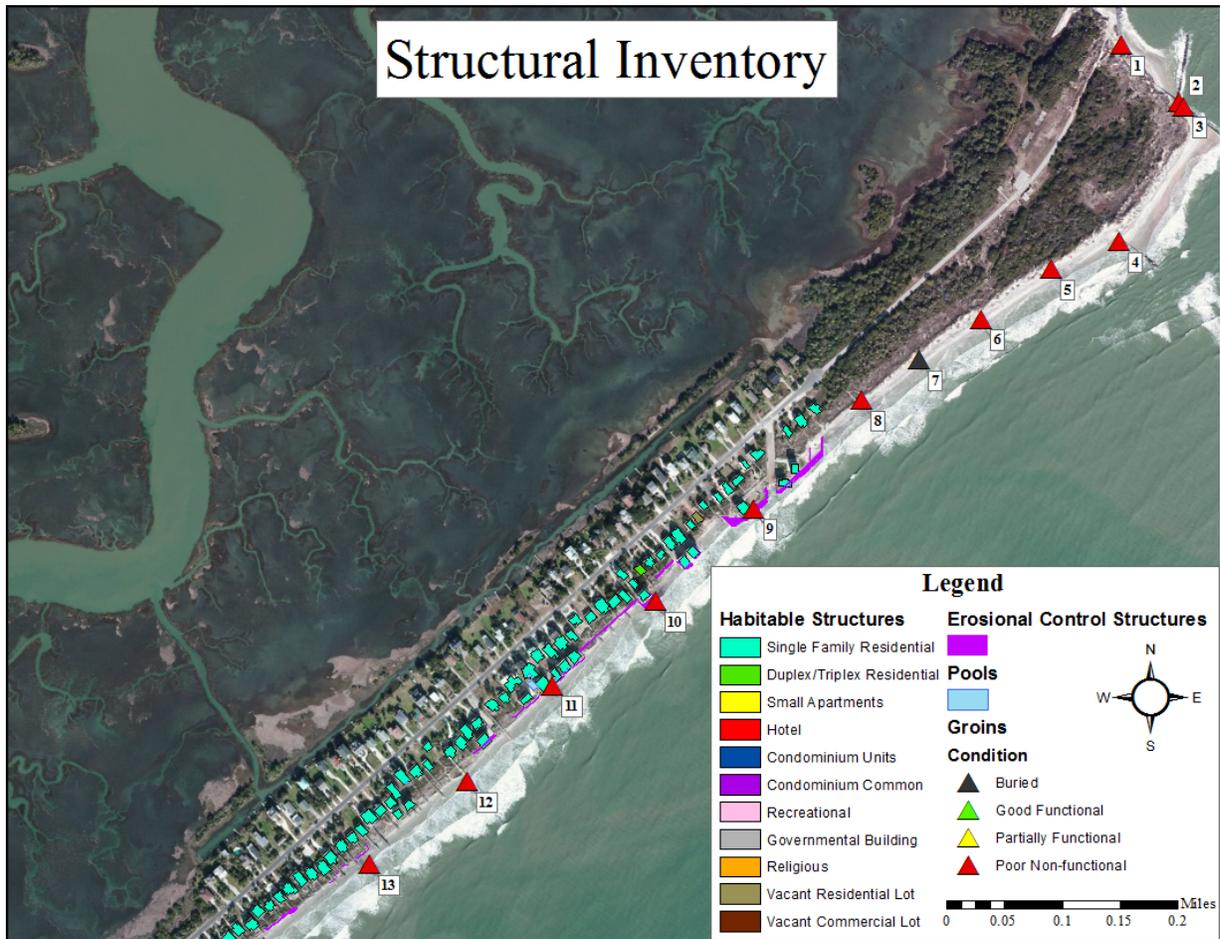


FIGURE 33. ONE OF FIVE STRUCTURAL INVENTORY MAPS ILLUSTRATING THE HABITABLE STRUCTURES, POOLS, EROSION CONTROL STRUCTURES AND GROINS DETAILED IN TABLE 9 AND TABLE 10 .

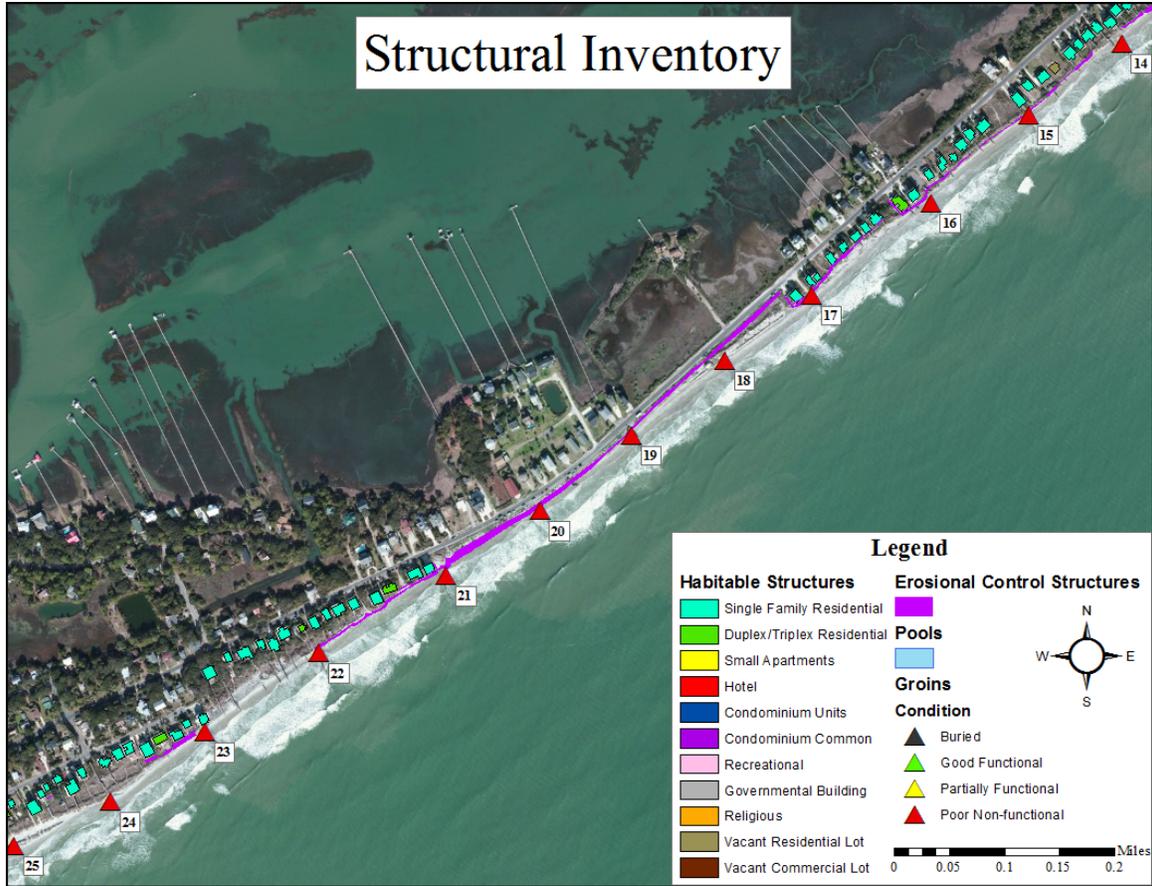


FIGURE 34. TWO OF FIVE STRUCTURAL INVENTORY MAPS ILLUSTRATING THE HABITABLE STRUCTURES, POOLS, EROSION CONTROL STRUCTURES AND GROINS DETAILED IN TABLE 9 AND TABLE 10.

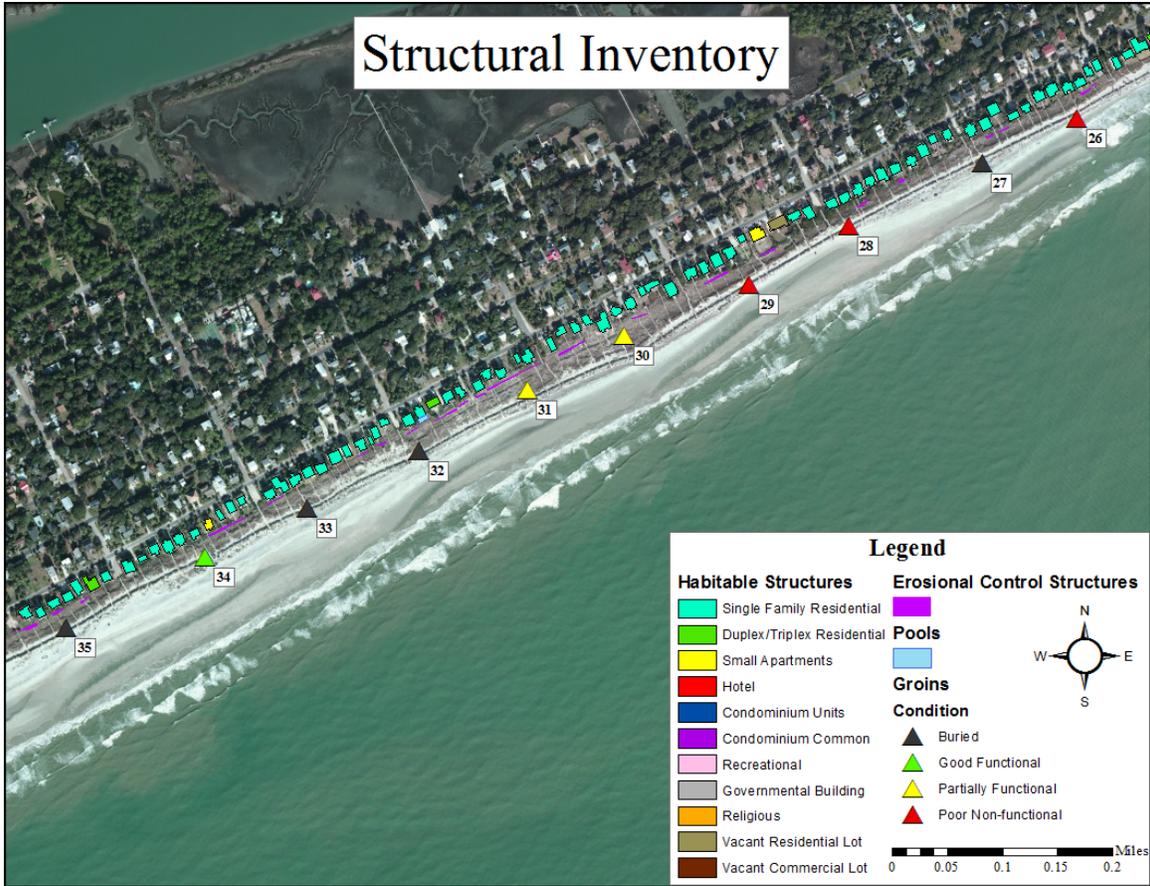


FIGURE 35. THREE OF FIVE STRUCTURAL INVENTORY MAPS ILLUSTRATING THE HABITABLE STRUCTURES, POOLS, EROSION CONTROL STRUCTURES AND GROINS DETAILED IN TABLE 9 AND TABLE 10.

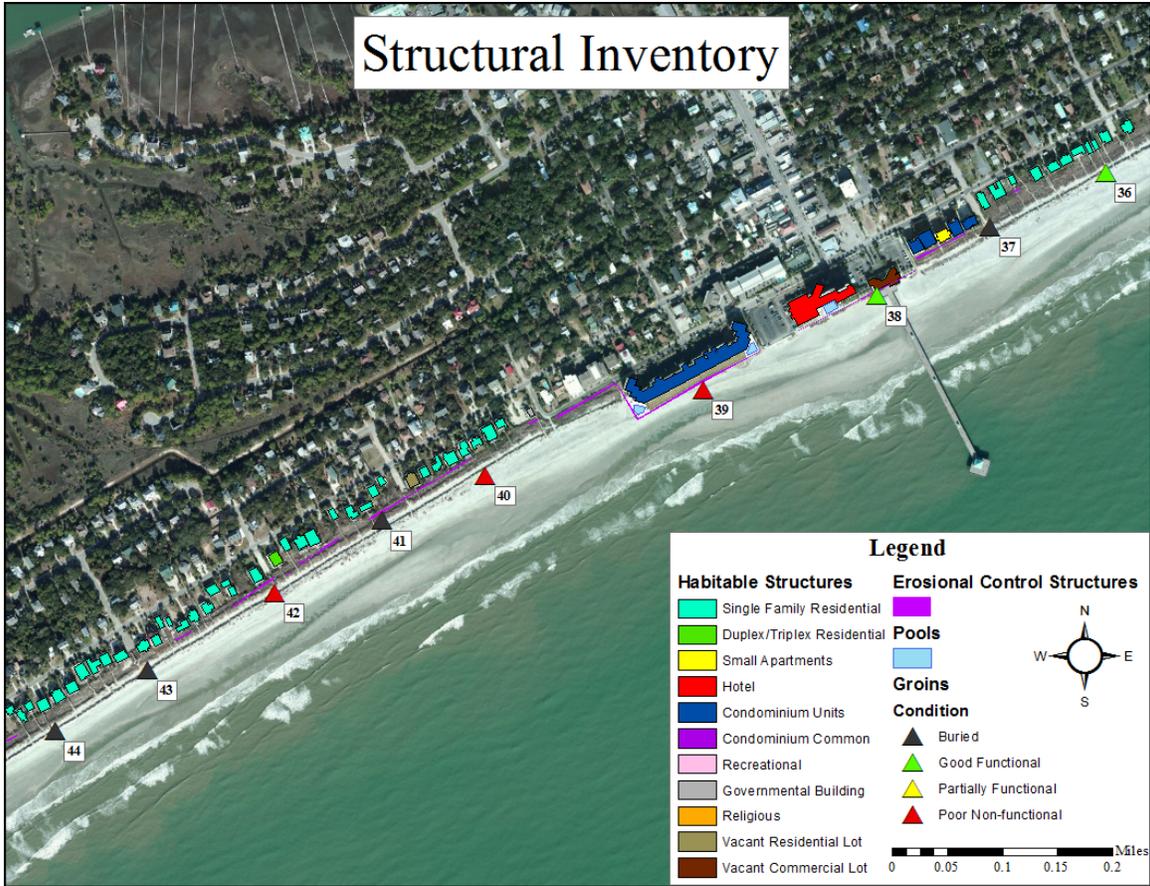


FIGURE 36. FOUR OF FIVE STRUCTURAL INVENTORY MAPS ILLUSTRATING THE HABITABLE STRUCTURES, POOLS, EROSION CONTROL STRUCTURES AND GROINS DETAILED IN TABLE 9 AND TABLE 10.

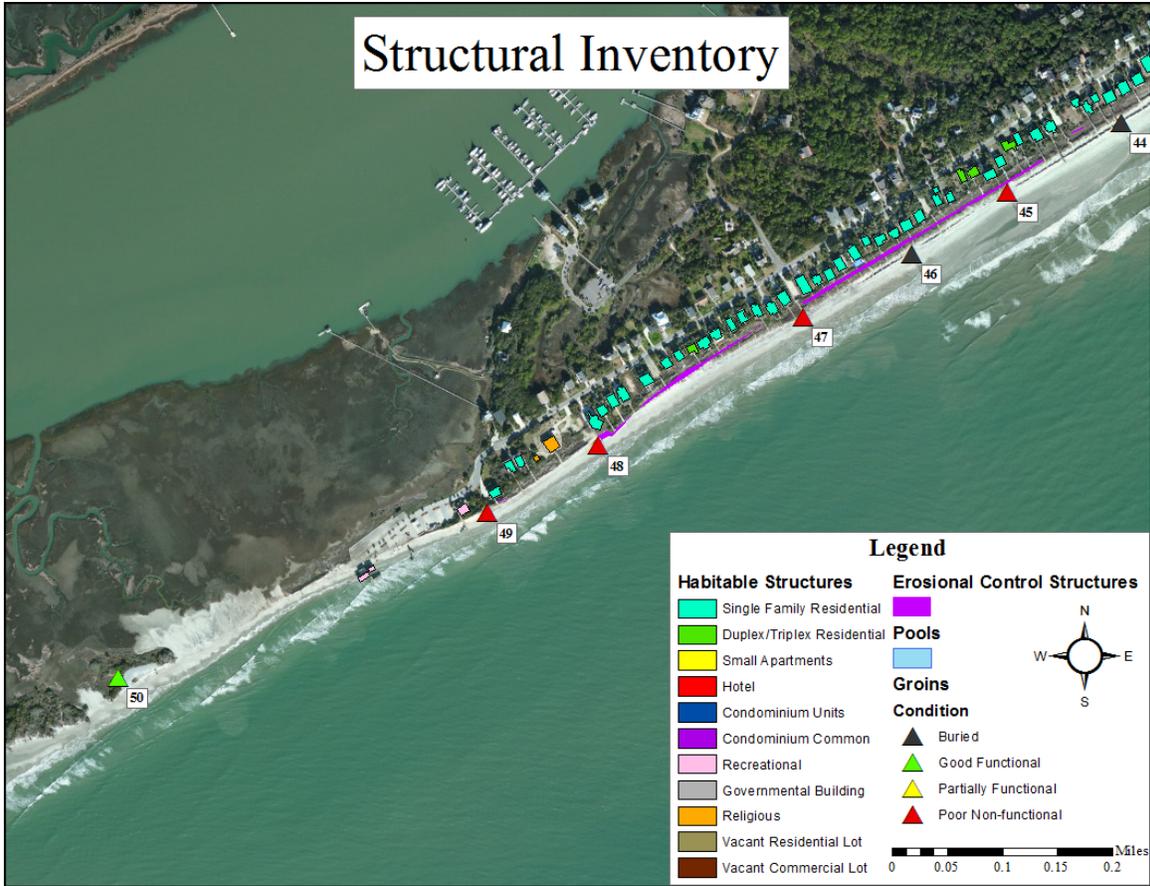


FIGURE 37. FIVE OF FIVE STRUCTURAL INVENTORY MAPS ILLUSTRATING THE HABITABLE STRUCTURES, POOLS, EROSION CONTROL STRUCTURES AND GROINS DETAILED IN TABLE 9 AND TABLE 10.

TABLE 9. STRUCTURAL INVENTORY THAT LINKS POOLS AND EROSION CONTROL STRUCTURES TO THEIR HABITABLE STRUCTURE (HERE, THE TERM “BASELINE” REFERS TO THE STRUCTURAL INVENTORY BASELINE OF THE SEAWARD MOST ROAD).

Address	Class Code	Parcel	Distance to Baseline (ft)	Erosional Control Structures (S = Seawall; R = Revetment; B = Wooden Bulkhead)	Seawall Distance to Seaward Road (ft)	Pool Distance to Baseline (ft)
1679 E ASHLEY AVE	Single Family	4391600037	82.08		N/A	119.77
1 SUMTER DR	Single Family	4391600060	189.01	R	212.04	N/A
1 SUMTER DR	Single Family	4391600060	189.01	R	173.12	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

1 SUMTER DR	Single Family	4391600060	189.01	R	177.7	N/A
1 SUMTER DR	Single Family	4391600060	189.01	S	210.43	N/A
1 SUMTER DR	Single Family	4391600060	189.01	S	210.43	N/A
1713 E ASHLEY AVE	Vacant Residential Lot	4391600054	81.53		N/A	N/A
1711 E ASHLEY AVE	Single Family	4391600053	89.42		N/A	N/A
1709 E ASHLEY AVE	Single Family	4391600052	78.89		N/A	N/A
1707 E ASHLEY AVE	Single Family	4391600051	80.31		N/A	N/A
1737 E ASHLEY AVE	Single Family	4391600091	60.87		N/A	N/A
1733 E ASHLEY AVE	Single Family	4391600097	66.93		N/A	N/A
1731 E ASHLEY AVE	Single Family	4391600096	63.87		N/A	N/A
1727 E ASHLEY AVE	Single Family	4391600099	51.88		N/A	N/A
1723 E ASHLEY AVE	Single Family	4391600059	50.92		N/A	N/A
1721 E ASHLEY AVE	Single Family	4391600058	86.72		N/A	N/A
2 SUMTER DR	Single Family	4391600100	231.49	R	235.7	N/A
2 SUMTER DR	Single Family	4391600100	231.49	R	255.03	N/A
2 SUMTER DR	Single Family	4391600100	231.49	S	238.19	N/A
2 SUMTER DR	Single Family	4391600100	231.49	B	264.33	N/A
1719 E ASHLEY AVE	Single Family	4391600057	72.14		N/A	N/A
1717 E ASHLEY AVE	Single Family	4391600056	78.63		N/A	N/A
1715 E ASHLEY AVE	Single Family	4391600055	62.41		N/A	N/A
1705 E ASHLEY AVE	Single Family	4391600050	103.84	R	176.22	N/A
1703 E ASHLEY AVE	Single Family	4391600049	87.95	R	179.05	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

1701 E ASHLEY AVE	Residential Duplex/Triplex	4391600048	87.55		N/A	N/A
1699 E ASHLEY AVE	Single Family	4391600047	115.04		N/A	N/A
1697 E ASHLEY AVE	Single Family	4391600046	120.5	R	196.6	N/A
1695 E ASHLEY AVE	Single Family	4391600045	117.02	R	196.13	N/A
1693 E ASHLEY AVE	Single Family	4391600044	84.92	R	195.65	N/A
2176 ASHLEY E AVE	Single Family	4391600043	96.44	R	195.16	N/A
1689 E ASHLEY AVE	Single Family	4391600042	57.84	R	194.66	N/A
1687 E ASHLEY AVE	Single Family	4391600041	99.11	R	194.11	N/A
1687 E ASHLEY AVE	Single Family	4391600041	99.11	R	194.07	N/A
1685 E ASHLEY AVE	Single Family	4391600040	84.46		N/A	N/A
1683 E ASHLEY AVE	Single Family	4391600039	76.75		N/A	N/A
1681 E ASHLEY AVE	Single Family	4391600038	59.38		N/A	N/A
1677 E ASHLEY AVE	Single Family	4391600036	71.78		N/A	N/A
1675 E ASHLEY AVE	Single Family	4391600035	108.19		N/A	N/A
1673 E ASHLEY AVE	Single Family	4391600034	88.49	R	193.15	N/A
1669 E ASHLEY AVE	Single Family	4391500040	111.75		N/A	N/A
1 DREAMCHASER LN	Single Family	4391500041	188.42	R	221.93	N/A
1 DREAMCHASER LN	Single Family	4391500041	188.42	B	200.2	N/A
1 DREAMCHASER LN	Single Family	4391500041	188.42	R	210.91	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

1 DREAMCHASER LN	Single Family	4391500041	188.42	S	206.9	N/A
1665 E ASHLEY AVE	Single Family	4391500038	121.31		N/A	N/A
1661 E ASHLEY AVE	Single Family	4391500036	41.45		N/A	N/A
1663 E ASHLEY AVE	Single Family	4391500037	120.26		N/A	N/A
1659 E ASHLEY AVE	Single Family	4391500035	98.77		N/A	N/A
1657 E ASHLEY AVE	Single Family	4391500034	81.99		N/A	N/A
1653 E ASHLEY AVE	Single Family	4391500032	66.23		N/A	N/A
1651 E ASHLEY AVE	Single Family	4391500031	111.38		N/A	N/A
1649 E ASHLEY AVE	Single Family	4391500030	109.64		N/A	N/A
1647 E ASHLEY AVE	Single Family	4391500029	86.29		N/A	N/A
1645 E ASHLEY AVE	Single Family	4391500028	114.85		N/A	N/A
1643 E ASHLEY AVE	Single Family	4391500092	118.19	R	207.09	N/A
1641 E ASHLEY AVE	Single Family	4391500027	105	R	216.65	N/A
1639 E ASHLEY AVE	Single Family	4391500026	112.37	R	201.16	N/A
1639 E ASHLEY AVE	Single Family	4391500026	112.37	R	203.56	N/A
1635 ASHLEY E AVE	Single Family	4391500025	113.63	R	210.87	N/A
1633 E ASHLEY AVE	Single Family	4391500024	102.63		N/A	N/A
1631 E ASHLEY AVE	Single Family	4391500023	81.03		N/A	N/A
1629 E ASHLEY AVE	Single Family	4391500022	86.95		N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

1627 E ASHLEY AVE	Single Family	4391500021	93.98	R	190.71	N/A
1625 E ASHLEY AVE	Single Family	4391500020	89.24	R	181.9	N/A
1623 E ASHLEY AVE	Single Family	4391500019	73.22	R	169.11	N/A
1621 E ASHLEY AVE	Single Family	4391500018	102.92		N/A	N/A
1619 E ASHLEY AVE	Single Family	4391500017	64.78		N/A	N/A
1617 E ASHLEY AVE	Single Family	4391500016	73.77		N/A	N/A
0 ASHLEY E AVE	Single Family	4391500094	76.34	R	157.57	N/A
1613 E ASHLEY AVE	Single Family	4391500015	76.4	R	174.25	N/A
1611 E ASHLEY AVE	Vacant Residential Lot	4391500013	85.78	R	174.37	N/A
1607 E ASHLEY AVE	Single Family	4391500011	77.57	Wood/Concrete S	170.92	N/A
1605 E ASHLEY AVE	Single Family	4391500010	57.2	R	176.59	N/A
1603 E ASHLEY AVE	Single Family	4391500009	59.12	R	170.71	N/A
1597 E ASHLEY AVE	Single Family	4391500007	55.27	R	144.55	N/A
1595 E ASHLEY AVE	Single Family	4391500006	41	R	141.2	N/A
1593 E ASHLEY AVE	Single Family	4391500005	57.32	R	137.87	N/A
811 E ARCTIC AVE	Small Apartments	3281600016	25.77	Rock R	153.78	N/A
811 E ARCTIC AVE	Small Apartments	3281600016	25.77	Rock R	151.4	N/A
809 E ARCTIC AVE	Single Family	3281600015	23.99		N/A	N/A
717 E ARCTIC AVE	Single Family	3281600009	26.95		N/A	N/A
719 E ARCTIC AVE	Single Family	3281600010	70.68		N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

708	ARCTIC E	Single Family	3281600008	17.56		145.24	N/A
713	E ARCTIC	Single Family	3281600007	43.89		140.74	N/A
419	E ARCTIC	Single Family	3281500020	23.83		N/A	N/A
417	E ARCTIC	Single Family	3281500019	18.82		119.89	N/A
415	E ARCTIC	Single Family	3281500018	31.03		119.85	N/A
223	E ARCTIC	Single Family	3281400020	54.93		N/A	N/A
221	E ARCTIC	Single Family	3281400019	44.73		N/A	N/A
219	E ARCTIC	Single Family	3281400018	48.08		N/A	N/A
215	E ARCTIC	Single Family	3281400016	53.85		N/A	N/A
617	W ASHLEY	Single Family	3281300049	51.1		N/A	N/A
621	W ASHLEY	Single Family	3281300047	23.93		N/A	N/A
619	W ASHLEY	Single Family	3281300048	60.6		N/A	N/A
701	W ASHLEY	Single Family	3251600042	49.19		N/A	N/A
703	W ASHLEY	Single Family	3251600041	46.35		N/A	N/A
709	W ASHLEY	Single Family	3251600039	17.07		189.42	N/A
1591	E ASHLEY	Single Family	4391500004	76.22	R	136.63	N/A
1589	E ASHLEY	Single Family	4391500003	55.42	R	135.54	N/A
1587	E ASHLEY	Single Family	4391500002	58.74	R	124.56	N/A
1587	E ASHLEY	Single Family	4391500002	58.74	Concrete Bulkhead	117.13	N/A
1583	E ASHLEY	Single Family	4391400047	80.79	R	142.87	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

1581 E ASHLEY AVE	Residential Duplex/Triplex	4391400046	47.32	R	43.95	N/A
1577 E ASHLEY AVE	Single Family	4391400044	39.17	R	91.07	N/A
1577 E ASHLEY AVE	Single Family	4391400044	39.17	B	85.74	N/A
1575 E ASHLEY AVE	Single Family	4391400043	42.56	R/B	90.79	N/A
1573 E ASHLEY AVE	Single Family	4391400042	50.61	R/B	89.1	N/A
1571 E ASHLEY AVE	Single Family	4391400041	44.14	R	89.4	N/A
1569 E ASHLEY AVE	Single Family	4391400040	38.24	R	88.4	N/A
1565 E ASHLEY AVE	Single Family	4391400038	70.89	R	106.67	N/A
1563 E ASHLEY AVE	Single Family	4391400037	52.77	R	116.24	N/A
1563 E ASHLEY AVE	Single Family	4391400037	52.77	R	114.52	N/A
1563 E ASHLEY AVE	Single Family	4391400037	52.77	B	100.84	N/A
1561 E ASHLEY AVE	Single Family	4391400036	58.67	R	56.87	N/A
1561 E ASHLEY AVE	Single Family	4391400036	58.67	Concrete Bulkhead	95.88	N/A
1409 E ASHLEY AVE	Single Family	4391300036	47.84	R	53.86	N/A
1409 E ASHLEY AVE	Single Family	4391300036	47.84	B	80.49	N/A
1407 E ASHLEY AVE	Single Family	4391300037	38.47	R	94.02	N/A
1407 E ASHLEY AVE	Single Family	4391300037	38.47	B	91.82	N/A
1403 E ASHLEY AVE	Residential Duplex/Triplex	4391300039	52.76	R	110.44	N/A
1319 E ASHLEY AVE	Single Family	4391300041	43.32	R	133.83	N/A
1319 E ASHLEY AVE	Single Family	4391300041	43.32	R	134	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

1317 E ASHLEY AVE	Single Family	4391300042	42.79	R	152.68	N/A
1315 E ASHLEY AVE	Single Family	4391300043	31.26	R	163.01	N/A
1313 E ASHLEY AVE	Single Family	4391300044	44.49	R	174.27	N/A
1311 E ASHLEY AVE	Residential Duplex/Triplex	4391300045	52.67	R	175.22	N/A
1309 E ASHLEY AVE	Single Family	4391300046	24.77		N/A	N/A
1307 E ASHLEY AVE	Single Family	4391300047	54.9		N/A	N/A
1305 ASHLEY E AVE	Single Family	4391300048	33.64		N/A	N/A
1303 E ASHLEY AVE	Single Family	4391300171	31.77		N/A	N/A
1301 E ASHLEY AVE	Single Family	4391300050	20.61		N/A	N/A
1219 E ASHLEY AVE	Single Family	4391300051	45.64		N/A	N/A
1215 E ARCTIC AVE	Single Family	4391300019	47.72	B	95.62	N/A
1213 E ARCTIC AVE	Single Family	4391300018	26.57	B	85.16	N/A
1213 E ARCTIC AVE	Single Family	4391300018	26.57	R	93.16	N/A
1211 E ARCTIC AVE	Single Family	4391300017	55.85	R	103.95	N/A
1211 E ARCTIC AVE	Single Family	4391300017	55.85	S	101.27	N/A
1209 E ARCTIC AVE	Residential Duplex/Triplex	4391300016	45.88	R/B	126.59	N/A
1205 E ARCTIC AVE	Single Family	4391300014	18.09		N/A	N/A
1203 E ARCTIC AVE	Single Family	4391300013	24.16		N/A	N/A
807 E ARCTIC AVE	Single Family	3281600014	48.09		N/A	N/A
805 ARCTIC E AVE	Single Family	3281600013	49.27		148.9	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

803 E ARCTIC AVE	Single Family	3281600012	54.87		150.31	N/A
801 E ARCTIC AVE	Single Family	3281600011	49.92		N/A	N/A
1201 E ARCTIC AVE	Single Family	4391300012	31.93		N/A	N/A
1110 ARCTIC E AVE	Single Family	4391300011	32		N/A	N/A
1119 ARCTIC E AVE	Single Family	4391300009	15.26		N/A	N/A
1115 ARCTIC E AVE	Single Family	4391300008	30.4	Concrete S	93.75	N/A
1113 E ARCTIC AVE	Single Family	4391300007	44.63		N/A	N/A
1109 ARCTIC E AVE	Single Family	4391300005	28.85		N/A	N/A
603 E ARCTIC AVE	Single Family	3281500033	33.13		N/A	93.23
1 CENTER ST	Hotel	3281400231	45.21	S	204.72	155.13
0 W ARCTIC AVE	Condominium Unit	3281400262	20.86		N/A	154.49
1107 E ARCTIC AVE	Residential Duplex/Triplex	4391300004	55.97		N/A	N/A
1105 E ARCTIC AVE	Single Family	4391300003	47.52		N/A	N/A
1103 E ARCTIC AVE	Single Family	4391300002	86.31		N/A	N/A
1101 E ARCTIC AVE	Single Family	4391300001	91.82		N/A	N/A
1021 E ARCTIC AVE	Single Family	3281600209	61.86		N/A	N/A
1019 E ARCTIC AVE	Single Family	3281600038	70.21		N/A	N/A
1017 E ARCTIC AVE	Single Family	3281600037	99.57	R	172.88	N/A
1017 E ARCTIC AVE	Single Family	3281600037	99.57	R	163.61	N/A
1015 E ARCTIC AVE	Single Family	3281600036	92.84		N/A	N/A

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1013 E ARCTIC AVE	Single Family	3281600035	65.39		N/A	N/A
1011 ARCTIC E AVE	Single Family	3281600034	60.73		N/A	N/A
1009 E ARCTIC AVE	Single Family	3281600033	95.73		N/A	N/A
1005 E ARCTIC AVE	Single Family	3281600031	20.71	B Questionable	152.68	N/A
1007 E ARCTIC AVE	Single Family	3281600032	102.25		N/A	N/A
1003 E ARCTIC AVE	Single Family	3281600030	65.13	R	149.93	N/A
1001 E ARCTIC AVE	Single Family	3281600029	54.53		N/A	N/A
921 E ARCTIC AVE	Single Family	3281600028	29.83		N/A	N/A
919 E ARCTIC AVE	Single Family	3281600027	20.22		N/A	N/A
917 E ARCTIC AVE	Single Family	3281600026	35.32		N/A	N/A
915 E ARCTIC AVE	Single Family	3281600025	61.74		N/A	N/A
913 E ARCTIC AVE	Single Family	3281600024	60.62	B Questionable	143.18	N/A
911 E ARCTIC AVE	Single Family	3281600023	47.6		N/A	N/A
909 E ARCTIC AVE	Single Family	3281600022	58.95		N/A	N/A
907 E ARCTIC AVE	Single Family	3281600021	58.77	B	156.63	N/A
817 E ARCTIC AVE	Single Family	3281600017	39.6		N/A	N/A
815 E ARCTIC AVE	Vacant Residential Lot	3281600189	31.77		N/A	N/A
711 E ARCTIC AVE	Single Family	3281600006	41.26		N/A	N/A
709 E ARCTIC AVE	Single Family	3281600005	47.04		N/A	N/A
707 E ARCTIC AVE	Single Family	3281600004	20.63		N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

705	E	ARCTIC	Single Family	3281600003	23.64		124.66	N/A
702	ARCTIC	E	Single Family	3281600002	11.98		126.73	N/A
701	E	ARCTIC	Single Family	3281600001	35.31		129.24	N/A
621	E	ARCTIC	Single Family	3281500218	35.41	R	119.19	N/A
619	E	ARCTIC	Single Family	3281500041	31.29	R	119.85	N/A
615	E	ARCTIC	Single Family	3281500217	51.69	R	119.46	N/A
613	E	ARCTIC	Single Family	3281500038	30.79	R	118.42	N/A
611	E	ARCTIC	Single Family	3281500037	59.09	B	123.54	N/A
609	E	ARCTIC	Single Family	3281500036	38.49		N/A	N/A
607	E	ARCTIC	Single Family	3281500035	36.6	Concrete S and R	130.52	N/A
607	E	ARCTIC	Single Family	3281500035	36.6	B	119.17	N/A
605	E	ARCTIC	Residential Duplex/Triplex	3281500034	35.94		132.45	N/A
601	E	ARCTIC	Single Family	3281500032	49.08	R	122.78	N/A
523	E	ARCTIC	Single Family	3281500031	10.1		N/A	N/A
521	E	ARCTIC	Single Family	3281500030	27.3	B	111.68	N/A
519	E	ARCTIC	Single Family	3281500029	53.42		N/A	N/A
517	E	ARCTIC	Single Family	3281500028	47.5	B	112.94	N/A
513	E	ARCTIC	Single Family	3281500026	40.51		N/A	N/A
505	E	ARCTIC	Single Family	3281500023	42.24		N/A	N/A
501	E	ARCTIC	Single Family	3281500021	59.87		114.64	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

413	E	ARCTIC	Small Apartments	3281500017	46.69		119.81	N/A
406	ARCTIC	E	Single Family	3281500016	60.58		N/A	N/A
409	E	ARCTIC	Single Family	3281500015	40.71		N/A	N/A
407	E	ARCTIC	Single Family	3281500014	42.65		N/A	N/A
405	E	ARCTIC	Single Family	3281500013	35.2		N/A	N/A
403	E	ARCTIC	Single Family	3281500012	55.63		N/A	N/A
317	E	ARCTIC	Residential Duplex/Triplex	3281500009	19.07		N/A	N/A
315	E	ARCTIC	Single Family	3281500008	12.85		113.29	N/A
313	E	ARCTIC	Single Family	3281500007	46.89		N/A	N/A
311	E	ARCTIC	Single Family	3281500006	47.04	B and Rock R	104.67	N/A
307	E	ARCTIC	Single Family	3281500004	15.66		110.65	N/A
301	E	ARCTIC	Single Family	3281500001	45.9		N/A	N/A
225	E	ARCTIC	Single Family	3281400021	38.53		N/A	N/A
213	E	ARCTIC	Single Family	3281400015	55.36		N/A	N/A
207	E	ARCTIC	Single Family	3281400012	18.54		N/A	N/A
201	E	ARCTIC	Single Family	3281400009	16.47		N/A	N/A
201	E	ARCTIC	Single Family	3281400009	16.47		N/A	N/A
201	E	ARCTIC	Single Family	3281400009	16.47		N/A	N/A
201	E	ARCTIC	Single Family	3281400009	16.47		N/A	N/A
201	E	ARCTIC	Single Family	3281400009	19.31		N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

201	E	ARCTIC	Single Family	3281400009	19.31	N/A	N/A
201	E	ARCTIC	Single Family	3281400009	19.31	N/A	N/A
201	E	ARCTIC	Single Family	3281400009	19.31	N/A	N/A
121	E	ARCTIC	Condominium Unit	3281400340	96.59	N/A	N/A
121	E	ARCTIC	Condominium Unit	3281400341	96.59	N/A	N/A
121	E	ARCTIC	Condominium Unit	3281400342	96.59	N/A	N/A
121	E	ARCTIC	Condominium Unit	3281400343	96.59	N/A	N/A
121	E	ARCTIC	Condominium Unit	3281400344	96.59	N/A	N/A
121	E	ARCTIC	Condominium Unit	3281400347	96.59	N/A	N/A
121	E	ARCTIC	Condominium Unit	3281400348	96.59	N/A	N/A
121	E	ARCTIC	Condominium Unit	3281400349	96.59	N/A	N/A
121	E	ARCTIC	Condominium Unit	3281400350	96.59	N/A	N/A
121	E	ARCTIC	Condominium Unit	3281400351	96.59	N/A	N/A
121	E	ARCTIC	Condominium Common	3281400008	96.59	N/A	N/A
121	E	ARCTIC	Condominium Unit	3281400345	96.59	N/A	N/A
121	E	ARCTIC	Condominium Unit	3281400346	96.59	N/A	N/A
117	E	ARCTIC	Condominium Unit	3281400379	67.91	152.54	N/A
117	E	ARCTIC	Condominium Unit	3281400380	67.91	N/A	N/A
117	E	ARCTIC	Condominium Unit	3281400381	67.91	N/A	N/A
117	E	ARCTIC	Condominium Unit	3281400384	67.91	N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

117	E	ARCTIC	Condominium Unit	3281400382	67.91		N/A	N/A
117	E	ARCTIC	Condominium Common	3281400006	67.91		N/A	N/A
117	E	ARCTIC	Condominium Unit	3281400383	67.91		N/A	N/A
115	E	ARCTIC	Small Apartments	3281400005	92.7		153.51	N/A
111	E	ARCTIC	Condominium Unit	3281400373	64.38		152.86	N/A
111	E	ARCTIC	Condominium Unit	3281400374	64.38		N/A	N/A
111	E	ARCTIC	Condominium Unit	3281400375	64.38		N/A	N/A
111	E	ARCTIC	Condominium Unit	3281400378	64.38		N/A	N/A
111	E	ARCTIC	Condominium Common	3281400003	64.38		N/A	N/A
111	E	ARCTIC	Condominium Unit	3281400376	64.38		N/A	N/A
111	E	ARCTIC	Condominium Unit	3281400377	64.38		N/A	N/A
101	W	ARCTIC	Vacant Commercial Lot	3281400232	146.52		203.69	N/A
101	W	ARCTIC	Vacant Commercial Lot	3281400232	146.52	Concrete S	203.19	N/A
201	W	ARCTIC	Condominium Unit	3281400263	20.86		N/A	N/A
0	W	ARCTIC	Condominium Unit	3281400264	20.86		N/A	N/A
0	W	ARCTIC	Condominium Unit	3281400265	20.86		N/A	N/A
0	W	ARCTIC	Condominium Unit	3281400267	20.86		N/A	N/A
0	W	ARCTIC	Condominium Unit	3281400245	20.86		N/A	N/A
0	W	ARCTIC	Condominium Unit	3281400247	20.86		N/A	N/A
0	W	ARCTIC	Condominium Unit	3281400249	20.86		N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

0 W AVE	ARCTIC	Condominium Unit	3281400242	20.86	N/A	N/A
0 W AVE	ARCTIC	Condominium Unit	3281400243	20.86	N/A	N/A
0 W AVE	ARCTIC	Condominium Unit	3281400250	20.86	N/A	N/A
201 W AVE	ARCTIC	Condominium Unit	3281400251	20.86	N/A	N/A
0 W AVE	ARCTIC	Condominium Unit	3281400295	20.86	N/A	N/A
0 W AVE	ARCTIC	Condominium Unit	3281400296	20.86	N/A	N/A
0 W AVE	ARCTIC	Condominium Unit	3281400298	20.86	N/A	N/A
0 W AVE	ARCTIC	Condominium Unit	3281400299	20.86	N/A	N/A
201 W AVE	ARCTIC	Condominium Unit	3281400300	20.86	N/A	N/A
0 W AVE	ARCTIC	Condominium Unit	3281400302	20.86	N/A	N/A
0 W AVE	ARCTIC	Condominium Unit	3281400307	20.86	N/A	N/A
201 W AVE	ARCTIC	Condominium Unit	3281400308	20.86	N/A	N/A
201 W AVE	ARCTIC	Condominium Unit	3281400309	20.86	N/A	N/A
201 W AVE	ARCTIC	Condominium Unit	3281400324	20.86	N/A	N/A
0 W AVE	ARCTIC	Condominium Unit	3281400326	20.86	N/A	N/A
0 W AVE	ARCTIC	Condominium Unit	3281400336	20.86	N/A	N/A
0 W AVE	ARCTIC	Condominium Unit	3281400337	20.86	N/A	N/A
0 W AVE	ARCTIC	Condominium Unit	3281400252	20.86	N/A	N/A
201 W AVE	ARCTIC	Condominium Unit	3281400253	20.86	N/A	N/A
201 W AVE	ARCTIC	Condominium Unit	3281400255	20.86	N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

0 W ARCTIC AVE	Condominium Unit	3281400256	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400258	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400268	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400271	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400272	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400273	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400274	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400269	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400276	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400277	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400278	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400304	20.86	N/A	N/A
108 W ARCTIC AVE	Condominium Unit	3281400305	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400319	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400320	20.86	N/A	N/A
304 W ARCTIC AVE	Condominium Unit	3281400321	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400322	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400323	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400316	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400317	20.86	N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

0 W ARCTIC AVE	Condominium Unit	3281400318	20.86		N/A	N/A
0 WEST ARCTIC AVE	Condominium Unit	3281400328	20.86		N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400330	20.86		N/A	N/A
0 BENKET DR	Single Family	4391600080	173.44	R	226.44	148.99
0 BENKET DR	Single Family	4391600080	173.44	B	214.44	148.99
1655 E ASHLEY AVE	Single Family	4391500033	48.58		N/A	113.19
811 W ASHLEY AVE	Single Family	3251600027	63.14		173.47	139.17
0 W ARCTIC AVE	Condominium Unit	3281400332	20.86		N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400333	20.86		N/A	N/A
201 ARCTIC W AVE	Condominium Common	3281400001	20.86		N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400287	20.86		N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400288	20.86		N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400279	20.86		N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400280	20.86		N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400281	20.86		N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400289	20.86		N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400290	20.86		N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400291	20.86		N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400292	20.86		N/A	N/A
420 W ARCTIC AVE	Condominium Unit	3281400293	20.86		N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

421 W ARCTIC AVE	Condominium Unit	3281400294	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400284	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400285	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400286	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400311	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400312	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400315	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400260	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400266	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400244	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400325	20.86	N/A	N/A
408 W ARCTIC AVE	Condominium Unit	3281400335	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400303	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400306	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400327	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400329	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400331	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400334	20.86	N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400283	20.86	N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400313	20.86	N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

201 W ARCTIC AVE	Condominium Unit	3281400314	20.86		N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400261	20.86		N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400246	20.86		N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400248	20.86		N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400297	20.86		N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400301	20.86		N/A	N/A
201 W ARCTIC AVE	Condominium Unit	3281400310	20.86	S	19.89	N/A
0 W ARCTIC AVE	Condominium Unit	3281400254	20.86		N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400257	20.86		N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400259	20.86		N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400270	20.86		N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400275	20.86		N/A	N/A
0 W ARCTIC AVE	Condominium Unit	3281400282	20.86		N/A	N/A
605 W ASHLEY AVE	Single Family	3281300055	49.63		N/A	N/A
607 W ASHLEY AVE	Single Family	3281300054	26.25		N/A	N/A
609 W ASHLEY AVE	Single Family	3281300053	26.34		N/A	N/A
611 W ASHLEY AVE	Single Family	3281300052	75.15		N/A	N/A
613 W ASHLEY AVE	Single Family	3281300051	71.08		N/A	N/A
301 W ASHLEY AVE	Governmental Building	3281300086	25.8		22.95	N/A
307 W ASHLEY AVE	Single Family	3281300084	72.63		N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

309 W ASHLEY AVE	Single Family	3281300083	68.51	N/A	N/A
311 W ASHLEY AVE	Single Family	3281300129	87.42	N/A	N/A
313 W ASHLEY AVE	Single Family	3281300082	74.09	163.72	N/A
315 W ASHLEY AVE	Single Family	3281300081	78.2	163.73	N/A
321 W ASHLEY AVE	Single Family	3281300078	80.2	162.2	N/A
323 W ASHLEY AVE	Vacant Residential Lot	3281300077	75.88	161.93	N/A
401 ASHLEY W AVE	Single Family	3281300076	16.55	161.84	N/A
403 ASHLEY W AVE	Single Family	3281300075	32.59	161.25	N/A
405 W ASHLEY AVE	Single Family	3281300074	90.85	160.79	N/A
407 W ASHLEY AVE	Single Family	3281300073	60.01	N/A	N/A
409 W ASHLEY AVE	Single Family	3281300072	27.37	N/A	N/A
415 W ASHLEY AVE	Single Family	3281300070	50.98	167.88	N/A
419 W ASHLEY AVE	Single Family	3281300069	24.59	180.21	N/A
419 W ASHLEY AVE	Single Family	3281300069	24.59	168.28	N/A
421 W ASHLEY AVE	Residential Duplex/Triplex	3281300068	63.8	N/A	N/A
501 W ASHLEY AVE	Single Family	3281300067	75.5	163.85	N/A
507 W ASHLEY AVE	Single Family	3281300064	36.83	N/A	N/A
505 W ASHLEY AVE	Single Family	3281300065	92.77	170.84	N/A
509 W ASHLEY AVE	Single Family	3281300063	93.38	N/A	N/A
511 W ASHLEY AVE	Single Family	3281300062	87.66	N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

517 W ASHLEY AVE	Single Family	3281300059	30.65		N/A	N/A
515 W ASHLEY AVE	Single Family	3281300060	59.52	R	171.75	N/A
515 W ASHLEY AVE	Single Family	3281300060	59.52	R	169.85	N/A
513 W ASHLEY AVE	Single Family	3281300061	111.25		N/A	N/A
519 W ASHLEY AVE	Single Family	3281300058	97.74		N/A	N/A
521 W ASHLEY AVE	Single Family	3281300057	87.14		N/A	N/A
711 ASHLEY W AVE	Residential Duplex/Triplex	3251600038	19.91		188.96	N/A
713 W ASHLEY AVE	Single Family	3251600037	67.5		188.35	N/A
717 W ASHLEY AVE	Residential Duplex/Triplex	3251600035	48.46		186.09	N/A
719 W ASHLEY AVE	Residential Duplex/Triplex	3251600034	21.37		184.98	N/A
723 W ASHLEY AVE	Single Family	3251600032	39.5		182.73	N/A
721 W ASHLEY AVE	Single Family	3251600033	88.31		183.83	N/A
723 W ASHLEY AVE	Single Family	3251600032	62.54		182.73	N/A
801 W ASHLEY AVE	Single Family	3251600031	88.09		180.95	N/A
805 W ASHLEY AVE	Single Family	3251600030	102.71		177.95	N/A
807 W ASHLEY AVE	Single Family	3251600029	88.3		176.15	N/A
813 W ASHLEY AVE	Single Family	3251600026	75.93		172.02	N/A
815 W ASHLEY AVE	Single Family	3251600025	99.5		171.01	N/A
817 W ASHLEY AVE	Single Family	3251600060	93.24		170.17	N/A
903 W ASHLEY AVE	Single Family	3251500023	86.16		N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

905 W ASHLEY AVE	Single Family	3251500060	53.23		N/A	N/A
907 W ASHLEY AVE	Single Family	3251500059	54.34		158.16	N/A
907 W ASHLEY AVE	Single Family	3251500059	54.34		164.17	N/A
909 ASHLEY W AVE	Single Family	3251500022	52.85		163.24	N/A
911 W ASHLEY AVE	Single Family	3251500021	57.68		163.03	N/A
913 W ASHLEY AVE	Single Family	3251500020	63.75		163.67	N/A
915 W ASHLEY AVE	Residential Duplex/Triplex	3251500019	64.52		157.91	N/A
917 W ASHLEY AVE	Single Family	3251500018	54.23		155.57	N/A
919 W ASHLEY AVE	Single Family	3251500017	54.49		160.92	N/A
1005 W ASHLEY AVE	Single Family	3251500034	54.86	R	199.53	N/A
1007 W ASHLEY AVE	Single Family	3251500033	64.16	R	202.83	N/A
1009 W ASHLEY AVE	Single Family	3251500032	81.78	R	199.7	N/A
1017 W ASHLEY AVE	Religious	3251500014	89.91		N/A	N/A
1017 W ASHLEY AVE	Religious	3251500014	124.63		N/A	N/A
1025 W ASHLEY AVE	Single Family	3251500062	75.54		N/A	N/A
1100 W ASHLEY AVE	Single Family	3251500058	64.18		N/A	N/A
1031 W ASHLEY AVE	Single Family	3251500051	54		N/A	N/A
0 W ASHLEY AVE	Recreational	3250000001	79.31		N/A	N/A
0 W ASHLEY AVE	Recreational	3250000001	607.29		N/A	N/A
0 W ASHLEY AVE	Recreational	3250000001	645.79		N/A	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

0 SUMTER DR	Single Family	4391600101	211.56	R	276.78	N/A
0 SUMTER DR	Single Family	4391600101	211.56	R	256.41	N/A
0 SUMTER DR	Single Family	4391600101	211.56	R	212.81	N/A
0 SUMTER DR	Single Family	4391600101	211.56	R	267.59	N/A
0 SUMTER DR	Single Family	4391600101	211.56	S	274.69	N/A
0 SUMTER DR	Single Family	4391600101	211.56	S	266.38	N/A
0 SUMTER DR	Single Family	4391600101	211.56	B	258.14	N/A
0 SUMTER DR	Single Family	4391600101	211.56	B	261.65	N/A
1709 E ASHLEY AVE	Single Family	4391600065	188.38	R	191.92	N/A
1709 E ASHLEY AVE	Single Family	4391600065	188.38	B/Foundation	236.27	N/A
0 BENKET DR	Single Family	4391600066	190.96	R	192.89	N/A
0 BENKET DR	Single Family	4391600066	190.96	B/Foundation Questionable	239.79	N/A
0 BENKET DR	Single Family	4391600066	190.96	R	245.93	N/A
0 BENKET DR	Single Family	4391600070	186.49	R/S Foundation Questionable	220	N/A
0 BENKET DR	Single Family	4391600070	186.49	R	212.78	N/A
0 BENKET DR	Single Family	4391600070	186.49	R	220.18	N/A
1699 E ASHLEY AVE	Single Family	4391600047	43.83		N/A	N/A
0 BENKET DR	Single Family	4391600077	179.46	R	230.06	N/A
0 BENKET DR	Single Family	4391600078	181.84	R	227.63	N/A
0 BENKET DR	Single Family	4391600079	178.14	R	230.51	N/A
0 BENKET DR	Single Family	4391600082	182.72	R	221.64	N/A
1667 E ASHLEY AVE	Single Family	4391500039	94.42		N/A	N/A
0 E ASHLEY AVE	Single Family	4391500096	179.31		N/A	N/A
1651 E ASHLEY AVE	Single Family	4391500095	178.79		N/A	N/A
1401 E ASHLEY AVE	Single Family	4391300040	60.31	R	117.15	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

1207 E ARCTIC AVE	Single Family	4391300015	56.71	B	129.36	N/A
1207 E ARCTIC AVE	Single Family	4391300015	56.71	R	133.85	N/A
1121 E ARCTIC AVE	Single Family	4391300010	67.07		N/A	N/A
1111 E ARCTIC AVE	Single Family	4391300006	76.3		N/A	N/A
905 E ARCTIC AVE	Single Family	3281600020	75.53		N/A	N/A
901 ASHLEY E AVE	Single Family	3281600019	68.86		N/A	N/A
819 E ARCTIC AVE	Single Family	3281600018	52.8		N/A	N/A
515 E ARCTIC AVE	Single Family	3281500027	38.48		N/A	N/A
0 E ARCTIC AVE	Single Family	3281500025	57.94		N/A	N/A
507 E ARCTIC AVE	Single Family	3281500024	47.24		N/A	N/A
401 E ARCTIC AVE	Single Family	3281500011	40.31		N/A	N/A
319 E ARCTIC AVE	Single Family	3281500010	42.99		N/A	N/A
309 E ARCTIC AVE	Single Family	3281500005	50.77		N/A	N/A
211 E ARCTIC AVE	Single Family	3281400014	41.95		N/A	N/A
113 E ARCTIC AVE	Condominium Common	3281400004	61.2		154.62	N/A
113 E ARCTIC AVE	Condominium Unit	3281400455	61.2		N/A	N/A
113 E ARCTIC AVE	Condominium Unit	3281400456	61.2		N/A	N/A
113 E ARCTIC AVE	Condominium Unit	3281400453	61.2		N/A	N/A
113 E ARCTIC AVE	Condominium Unit	3281400454	61.2		N/A	N/A
319 W ASHLEY AVE	Single Family	3281300079	66.91		162.99	N/A

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

413 W ASHLEY AVE	Single Family	3281300218	61.9		167.5	N/A
505 W ASHLEY AVE	Single Family	3281300065	51.77		170.84	N/A
601 W ASHLEY AVE	Single Family	3281300056	78.4		N/A	N/A
615 W ASHLEY AVE	Single Family	3281300050	73.89		N/A	N/A
715 W ASHLEY AVE	Single Family	3251600036	99.6		187.22	N/A
803 W ASHLEY AVE	Single Family	3251600080	92.61		179.79	N/A
809 W ASHLEY AVE	Single Family	3251600028	55.4		174.41	N/A
819 W ASHLEY AVE	Single Family	3251600024	56.08		169.23	N/A
901 W ASHLEY AVE	Single Family	3251500035	76.84		N/A	N/A
1001 W ASHLEY AVE	Single Family	3251500016	65.89		173.95	N/A
1011 W ASHLEY AVE	Single Family	3251500029	76.83	R	199.29	N/A
503 E ARCTIC AVE	Single Family	3281500022	23.27		113.2	N/A

TABLE 10. INVENTORY OF GROINS ON FOLLY BEACH. THE GROINS ARE ILLUSTRATED IN FIGURE 33 THROUGH FIGURE 37.

Groin	Length (ft)	Build date	Built by	Rebuild date	Rebuilt by	Material	Condition
1	230	1962	US Coast Guard	none	none	riprap	Poor Non-functional
2	315	1962	US Coast Guard	none	none	riprap	Poor Non-functional
3	400	1976	US Coast Guard	none	none	riprap	Poor Non-functional
4	300	1970	US Coast Guard	none	none	riprap	Poor Non-functional
5	180	1970	US Coast Guard	none	none	riprap	Poor Non-functional
6	150	1970	US Coast Guard	none	none	riprap/wood	Poor Non-functional
7	130	1973	US Coast Guard	none	none	riprap/wood	Buried

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

<b>8</b>	180	1973	US Coast Guard	none	none	riprap/ wood	Poor	Non-functional
<b>9</b>	160	1950's- 1960's	SCDOT	none	none	riprap	Poor	Non-functional
<b>10</b>	190	1950's- 1960's	SCDOT	none	none	riprap	Poor	Non-functional
<b>11</b>	240	1950's- 1960's	SCDOT	none	none	riprap	Poor	Non-functional
<b>12</b>	215	1950's- 1960's	SCDOT	none	none	riprap	Poor	Non-functional
<b>13</b>	215	1950's- 1960's	SCDOT	none	none	riprap	Poor	Non-functional
<b>14</b>	250	1950's- 1960's	SCDOT	none	none	riprap/ wood	Poor	Non-functional
<b>15</b>	200	1950's- 1960's	SCDOT	none	none	riprap	Poor	Non-functional
<b>16</b>	135	1950's- 1960's	SCDOT	none	none	riprap	Poor	Non-functional
<b>17</b>	230	1950's- 1960's	SCDOT	none	none	riprap	Poor	Non-functional
<b>18</b>	270	1950's- 1960's	SCDOT	none	none	riprap	Poor	Non-functional
<b>19</b>	275	1950's- 1960's	SCDOT	none	none	riprap	Poor	Non-functional
<b>20</b>	230	1950's- 1960's	SCDOT	none	none	riprap	Poor	Non-functional
<b>21</b>	255	1947	City of Folly Beach	none	none	riprap	Poor	Non-functional
<b>22</b>	285	1947	City of Folly Beach	none	none	riprap	Poor	Non-functional
<b>23</b>	190	1947	City of Folly Beach	none	none	riprap	Poor	Non-functional
<b>24</b>	170	1949	SCDOT	none	none	riprap	Poor	Non-functional
<b>25</b>	140	1947	City of Folly Beach	none	none	riprap	Poor	Non-functional
<b>26</b>	145	1947	City of Folly Beach	none	none	riprap/ wood	Poor	Non-functional
<b>27</b>	105	1947	City of Folly Beach	none	none	riprap	Buried	
<b>28</b>	170	1950's- 1960's	SCDOT	none	none	riprap	Poor	Non-functional
<b>29</b>	215	1950's- 1960's	SCDOT	none	none	riprap	Poor	Non-functional
<b>30</b>	250	1950's- 1960's	SCDOT	1993	Corps	sheetpile	Partially Functional	
<b>31</b>	250	1950	A J Peloquin	1993	Corps	sheetpile	Partially Functional	
<b>32</b>	245	1950's- 1960's	SCDOT	1993	Corps	sheetpile	Buried	
<b>33</b>	240	1950's- 1960's	SCDOT	1993	Corps	sheetpile	Buried	
<b>34</b>	235	1950's- 1960's	SCDOT	1993	Corps	sheetpile	Good Functional	

FOLLY BEACH LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

35	235	1950's-1960's	SCDOT	1993	Corps	sheetpile	Buried
36	215	1950's-1960's	SCDOT	1993	Corps	sheetpile	Good Functional
37	200	1950's-1960's	SCDOT	1993	Corps	sheetpile	Buried
38	120	1950's-1960's	SCDOT	1993	Corps	sheetpile	Good Functional
39	175	1950's-1960's	SCDOT	none	none	riprap	Poor Non-functional
40	235	1950's-1960's	SCDOT	none	none	riprap	Poor Non-functional
41	240	1950's-1960's	SCDOT	none	none	riprap	Buried
42	245	1950's-1960's	SCDOT	none	none	riprap	Poor Non-functional
43	190	1950's-1960's	SCDOT	none	none	riprap	Buried
44	210	1950's-1960's	SCDOT	none	none	riprap	Buried
45	160	1950's-1960's	SCDOT	none	none	riprap	Poor Non-functional
46	165	1950's-1960's	SCDOT	none	none	riprap	Buried
47	200	1950's-1960's	SCDOT	none	none	riprap	Poor Non-functional
48	225	1950's-1960's	SCDOT	none	none	riprap	Poor Non-functional
49	220	1950's-1960's	SCDOT	none	none	riprap	Poor Non-functional
50	740	2013	Chas Co PRC	none	none	Sheetpile-riprap	Good Functional

7.2. COPIES OF LOCAL LAWS AND ORDINANCES

Folly Beach Code of Ordinances

2015 S-19 Supplement contains:  
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**§ 71.02 DRIVING ON THE BEACH.**

It shall be unlawful to operate a motor vehicle on the beach, dunes, or vehicle accesses

to the beach unless authorized by the Department of Public Safety or City Council.  
(Ord. 27-12, passed 10-23-12)

**§ 90.03 GRILLS, FIRE PITS, OYSTER ROASTS AND OTHER OUTDOOR BURNING.**

(A) *Burning on public property.* Any form of burning is prohibited on public property, including the beach, beach accesses, parking areas, and protected lands (e.g., dunes and wetlands), except as follows:

(1) Gas grills may be used on the beach and in any areas designated by the Department of Public Safety for gas grills in the Folly River Park and other parks and playgrounds;

(2) Permanently mounted grills maybe used if they are provided in a city or county park; and

(3) Special events on public property may use outdoor fires for cooking in other than designated areas if permits are issued by the Resident Fire Marshal or Building Official.

(B) *Burning on private property.*

(1) Portable gas and charcoal grills, and portable outdoor fireplaces and devices, such as chimeneas, fire pits, fire rings, fire bowls, fire tables, gel burners and propane patio heaters, shall be used in accordance with the manufacturers' instructions. Property owners and residents are encouraged to have portable custom-made grills, smokers and other portable outdoor fire devices inspected by the Department of Public Safety.

(a) In buildings with three or more family dwellings, portable outdoor fireplaces shall not be operated within 15 feet of a structure or combustible material.

(b) In buildings with three or more family dwellings, charcoal burners and other open-flame cooking devices shall not be operated on combustible balconies or within ten feet of combustible construction, unless the building, balconies and decks are protected by an automatic sprinkler system.

(2) Property owners and residents are encouraged to have permanently constructed outdoor grills, fireplaces, ovens, barbeque pits and fire pits inspected by the Department of Public Safety.

(3) Small open fires like camp fires and oyster roast fires are permitted when used for the preparation of food for immediate consumption, but open fires where the pile size is more than three feet in diameter and more than two feet in height are prohibited.

(4) The placement and use of permanently constructed outdoor fireplaces, ovens, barbeque pits and fire pits, as well as camp fires and oyster roast fires, shall comply with the following criteria:

(a) If wood is used, it shall be clean untreated wood that is free of paint, stain, glue or other coating.

(b) Fires in approved containers shall be located more than 15 feet from any structure of combustible material, and camp fires and oyster roast fires shall be located at least 25 feet from any structure of combustible material.

(c) A fire shall not be located inside of a structure, tent, canopy, carport, gazebo or shed, or under or on a structure constructed of wood or other combustible material, such as a deck or a dock, except for a fire in a fireplace or oven that is built within a permitted construction project.

(5) On commercial properties, outdoor cooking with grills or other outdoor fires is prohibited unless a permit is issued by the Resident Fire Marshal and the Building

Official.

(C) *Burning of trash, waste and debris.* Open burning of construction debris, garbage, hazardous waste, man-made trash and natural trash is prohibited.

(D) *Burning for land clearing.* Open burning for the purpose of land clearing, cleaning or right-of-way maintenance shall only be undertaken pursuant to a burn plan that complies with all applicable laws, and after a permit is issued by the Resident Fire Marshal or the Building Official. The permit shall be on site and accessible.

(E) *Fire monitoring.* All fires shall be constantly attended until extinguished, and fire prevention equipment, such as a fire extinguisher or a water hose connected to a water supply, shall be easily accessible.

(F) *Sky lanterns, floating lanterns and similar devices.* The release of sky lanterns, floating lanterns and similar devices is prohibited.

(Ord. 09-14, passed 11-11-14)

***Cross-reference:***

*For definitions of construction debris, garbage, hazardous waste, man-made waste and natural trash, see § 50.01*

*Similar regulations, see International Fire Code §§ 307.4, exceptions 1 and 2, 307.4.3, 307.5, 308.1.4*

***Statutory reference:***

*Similar state law, see S.C. Code § 61-62.2(I)(B), (C) and (E)*

**§ 95.08 DOGS, CATS AND OTHER DOMESTIC ANIMALS.**

(A) An owner or person having control of any dog, cat, or other domestic animal shall not permit the animal to be upon the public beach at any time between the hours of 10:00 a.m. and 6:00 p.m. from May 1 through September 30 of each year.

(B) It shall be unlawful for any dog, cat or other domestic animal to be at large in the city unless it has a chain, substantial rope, leash or leather thong securely attached to its collar or harness, with the exception of individuals who are members in good standing of the Folly Island Dog Owners (FIDO) Club along with special tags, training, and additional requirements as assigned by Folly Public Safety, who may allow their dogs off leash on the beach from sunrise until sunset between October 1 and April 30 and on the beach between 7:00 a.m. and 9:00 a.m. during the months of September and May.

(C) It shall be the duty of any owner, possessor or person who harbors or keeps any animal to confine the animal within the limits of his or her premises, except as above stated.

(D) (1) The city is a bird sanctuary; and sometimes certain areas have to be specifically designated as protected areas for many reasons. The property located behind the gate on the east end of Folly Beach and better known as the Old Coast Guard Base is presently zoned N-1, Nature Conservancy. As of the date of the adoption of this section, the property is also designated a protected area for birdlife in general and particularly for all shorebirds.

(2) Therefore, there shall be no domestic animals whatsoever allowed to trespass on any dunes and/or vegetation beyond the last eastern most point of the island on which is located a constructed barrier, as well as a manmade rock revetment barrier.

(3) However, domestic animals, subject to all existing ordinances, shall be allowed on the active beach, between the high and low water line up to but not beyond the point of the last easternmost part of the island on which is located a constructive barrier and a

manmade rock revetment.

(E) The minimum fine upon violation and conviction of this section shall be not less than \$25.

( '95 Code, § 6-3-10) (Ord. 89-2, passed 11-17-89; Am. Ord. 07-99, passed 2-16-99; Am. Ord. 16-11, passed 5-24-11; Am. Ord. 20-11, passed 6-14-11; Am. Ord. 19-12, passed 7-10-12) Penalty, see § 10.99

**§ 95.18 REMOVAL OF WASTE.**

The owner or person responsible for any animal on the streets, the beach or any public property shall be responsible for removing any waste deposited.

( '95 Code, § 6-3-27) (Ord. 5-93, passed 6-1-93)

***Cross-reference:***

*Beach Preservation and Construction Provisions, see Chapter 151*

**§ 111.04 POSSESSION AND CONSUMPTION.**

(A) (1) No shopkeeper, storekeeper, soda fountain operator, restaurant operator, grocery store keeper or any person licensed to sell alcoholic beverages shall allow removal of open containers of alcoholic beverages from the premises.

(2) No described operator shall allow open containers on premises, except an operator who has a consumption on premises license.

(B) (1) No person shall purchase alcoholic beverages from any place licensed to sell alcoholic beverages in open containers except if the establishment has a consumption on premises license.

(2) Any alcoholic beverages purchased on the premises must be consumed on the premises.

(C) No person shall possess an open container of beer or an alcoholic beverage on the streets, beach or other public property. Non-alcoholic beverages are allowed on the beach in paper or plastic cups. Any cans or bottles must remain in the cooler at all times provided they may be removed briefly for the purpose of transferring the contents to a paper or plastic cup. Kegs, small or large, are considered cans and shall not be allowed on the beach.

(D) This section shall not apply to activities that have been reviewed by the staff Special Event Committee and approved by City Council or activities held at Folly River Park.

( '95 Code, § 7-2-4) (Am. Ord. 23-11, passed 7-12-11; Am. Ord. 24-12, passed 9-11-12) Penalty, see § 10.99

**CHAPTER 117: SHORT TERM RENTALS**

Section

- 117.01 Registration of short term rentals required
- 117.02 Records required for short term rentals
- 117.03 Definitions

**§ 117.01 REGISTRATION OF SHORT TERM RENTALS REQUIRED.**

In order to receive a business license for the rental of residential property all owners of rental dwellings shall register the rental property with the city on an application in a form provided by the city. At the time an application is filed a registration fee in an amount established from time to time by City Council shall be paid in full.

(A) *Annual registration.* The annual registration date shall be January 1 of each year and all fees required by this chapter shall be paid on or before February 15 of each year.

(B) *Registry of new rental dwellings.* The owner of a new rental dwelling or of any dwelling newly converted to a rental dwelling shall register the rental dwelling prior to obtaining a business license to rent the property.

(C) *Change in registered information.* The owner of a rental dwellings already registered with the city shall re-register within 60 days after any change occurs in the registration information. A new owner of a registered dwelling shall re-register the dwelling within 60 days of assuming ownership.

(D) *Information required.* Application for rental registration shall contain the following information:

- (1) The address of the rental dwelling;
- (2) The number or rental dwelling units;
- (3) The name, residence address, business phone, personal phone, and business address or the owner and local agent;
- (4) The address where the owner and/or local agent will accept notices and orders from the city;
- (5) Acknowledgment that the owner has read applicable Folly Beach Codes including, but not limited to, regulations regarding trash, parking, alcohol, animal, litter, surfing, dune protection, sea turtle and golf carts;
- (6) Acknowledgment that the owner has prominently posted within the property a summary of applicable Folly Beach Codes including, but not limited to, regulations regarding trash, parking, alcohol, animal, litter, surfing, dune protection, sea turtle and golf carts;

(7) Acknowledgment that tenants listed on any rental agreements will receive a summary of Folly Beach Codes including, but not limited to, regulations regarding trash, parking, alcohol, animal, litter, surfing, dune protection, sea turtle and golf carts.

(a) The summary of applicable codes shall be in a form determined by the city and made available to all owners of rental property.

(E) *Inaccurate or incomplete register information.* It shall be a violation of this article for an owner to provide inaccurate information for the register of rental dwellings or to fail to provide information required by the application.

(F) *Designation of local agent.* The owner of a rental dwelling shall designate a responsible agent who shall be legally responsible for operating such rental dwelling in compliance with the law. Official notices may be served on the responsible local agent and/or the owner and any notice served on the agent shall be deemed to have been served upon the owner of record.

(1) Nothing shall prevent the owner of rental property from designating himself or herself as the agent.

(2) The agent shall be required to be able to physically respond to the site within 30 minutes in case of emergency or need by the city for entry into the property.

(G) *More than one owner or ownership by entity.* Where more than one person has an ownership interest, the required information shall be provided for each owner. In those cases in which the owner is not a person, the information required for the register shall be provided for the organization owning the rental dwelling and for the president, general manager, or other chief executive officer of the organization.

(Ord. 19-10, passed 9-28-10)

**§ 117.02 RECORDS REQUIRED FOR SHORT TERM RENTALS.**

(A) All owners and/or agents responsible for the leasing of short term rentals shall be required to keep for the purpose of city inspection and copying for a period of one year the following:

(1) The name, address, and other contact information of each signatory on the rental agreement;

(2) A document signed by the person responsible for renting the dwelling certifying the number of persons intended to occupy the dwelling.

(B) The information required by this section shall be updated by the owner and/or agent for each rental to different tenants or occupants.

(C) Compliance with this section may be achieved through the inclusion of the required information into a rental agreement or lease signed by each occupant.

(Ord. 19-10, passed 9-28-10)

### **§ 117.03 DEFINITIONS.**

For purposes of this chapter the following definitions shall apply unless the context clearly indicates or requires a different meaning.

**OCCUPANT.** Any person, other than a legal or equitable title holder, occupying or possessing all or part of a short term rental property.

**RENTAL DWELLING or RENTAL PROPERTY.** Any residential dwelling which is in whole or in part occupied by one or more person(s) pursuant to an oral or written agreement for monetary or any other consideration, but which person(s) is not acquiring an ownership interest in the dwelling. This shall include single-family, two-family, and multi-family properties and short term rentals.

**SHORT TERM RENTALS.** Any residential property providing transient accommodations for periods of less than one month.

**TENANT.** Any person, other than a legal or equitable title holder, occupying or possessing all or part of a rental dwelling.

(Ord. 19-10, passed 9-28-10)

## **CHAPTER 151: BEACH PRESERVATION AND CONSTRUCTION PROVISIONS**

Section

### *Beaches Generally*

- 151.01 Operation on beaches
- 151.02 Sand dunes; protection and preservation
- 151.03 Destruction of sea oats prohibited
- 151.04 Congested areas; endangering crowds; swimming zone
- 151.05 Surfboards, skimboards, personal watercraft, and other watercraft
- 151.06 Renting rafts, floats and the like; prohibited sizes
- 151.07 Groin areas; prohibited activities
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- 151.10 Reserved
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***Beach Preservation***

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***Beachfront Vending***

151.60 Public beach vending; franchise agreements

151.61 Appeal process

151.99 Penalty

***Cross-reference:***

*Removal of waste, see § 95.18*

**GENERAL PROVISIONS**

**§ 151.01 OPERATION ON BEACHES.**

No motor vehicle shall be operated on the beach. This section shall not apply to authorized emergency vehicles. The beach shall be defined as being any area south of the last paved street adjacent to the Atlantic Ocean.

(95 Code, § 8-2-2) Penalty, see § 151.99

**§ 151.02 SAND DUNES; PROTECTION AND PRESERVATION.**

It shall be unlawful to damage, destroy, alter, level or remove any sand dune or any part thereof within the city, or any vegetation, shrubbery, trees on the sand dune or beaches within the city without having first obtained a written permit from the city in accordance with the guideline and requirements of the City Council. The presence of any person, vehicle, cart or watercraft, on the sand dunes without permit shall be unlawful.

('95 Code, § 9-3-6) Penalty, see § 151.99

**§ 151.03 DESTRUCTION OF SEA OATS PROHIBITED.**

It shall be unlawful for any person to cut, break or otherwise destroy sea oat plants or any part thereof on public or private property within the city. Any person violating the provision of this section shall be guilty of a misdemeanor and, upon conviction, shall be punished. Each violation shall constitute a separate offense.

('95 Code, § 9-3-7) (Am. Ord. passed 11-2-79) Penalty, see § 151.99

***Statutory reference:***

*Similar state law, see S.C. Code § 16-11-590*

**§ 151.04 CONGESTED AREAS; ENDANGERING CROWDS; SWIMMING ZONE.**

(A) Any activity in a congested area on the front beach or other public area that endangers the safety of the crowd is prohibited, including surfing among swimmers and various ball games on the beach.

(B) There is hereby created a "swimming zone" which shall extend in the water area of the Atlantic Ocean from 2nd Street East to 3rd Street West. This zone is designated for the enjoyment and safety of individuals who want to swim, play, or just stand in the ocean. No other activity shall be allowed in said zone. Said zone shall be hereinafter referred to as the swimming zone.

(C) Swimming must be within 50 yards of shore and no more than chest deep. This limitation does not apply to surfing. Swimmers and waders must be at least 200 feet from the pier or a distance set at the discretion of the lifeguards to ensure swimmers' and waders' safety.

(D) There shall be no surf fishing in the designated swimming zone.

(E) There shall be persons duly appointed as ocean rescue lifeguards, or deputies or public safety officers who shall have the power and authority to supervise and regulate surf fishing, physical activities and swimming on front beach, strand and the Atlantic Ocean within the jurisdiction of the city, and in such areas shall have the responsibility to maintain peace and order. Such ocean rescue lifeguards, deputies or public safety officers 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 waters adjoin the strand, or who shall be more than chest deep at any time, or when such 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 such deputies, police officers or ocean rescue lifeguards authorized by them.

(F) Such personnel shall have the authority to recall from the ocean waters any person who shall be in the ocean waters at any distance at any time when the condition of the wind, water, weather or any hazard, including the physical or mental condition of the person in the ocean waters, shall be such, in the discretion of such personnel as described in this section, as to constitute a danger to the health, life, or safety of such person or other persons within such ocean waters.

(G) It shall be unlawful for any person to disobey the instructions of any ocean rescue lifeguard, deputy, or public safety officer authorized by the city with regard to activities on the beach and in the ocean.

(H) No unauthorized person shall climb, sit, stand or cause someone else to climb, sit or stand on any ocean rescue lifeguard station or ladder unless told to do so by an ocean

rescue lifeguard or other city authorized personnel.

(I) No person shall tamper with lifesaving equipment, structures, signs or buoys on the beach or in the ocean.

(J) No person shall cause a false rescue or call for help when it is not needed, or to cause an ocean rescue lifeguard to enter the water upon a false rescue, or to leave his or her tower or to have his or her attention drawn to a false alarm.

(K) No person shall willfully resist, delay or obstruct any ocean rescue lifeguard in the discharge or attempt to discharge any duty of his or her position.

(L) Beach umbrellas and other beach paraphernalia which might obstruct the view of the ocean rescue lifeguard will be placed at a distance of at least ten feet to the rear (inland side) of the ocean rescue lifeguard stands. No obstruction shall be placed in such a position that it interferes with an ocean rescue lifeguard's ability to see the water and the ocean rescue lifeguard stands on either side of him or her. The ocean rescue lifeguard shall locate the ocean rescue lifeguard stand according to the tides to insure public safety for sun bathers and beach walkers and has the authority to direct any person to move any beach equipment if the ocean rescue lifeguard stand has to be moved because of the tide, so as to not violate this section.

(M) No person shall ride, use or otherwise employ a surfboard in or upon the Atlantic Ocean within 200 feet of any portion of any pier; nor shall a person ride, use or otherwise employ a boat or other vessel or otherwise be in or upon the Atlantic Ocean within 300 feet of any portion of any pier. The prohibition of this section shall not apply to ocean rescue lifeguards or other emergency personnel acting in the course of official duty.

(95 Code, § 9-5-2) (Am. Ord. 14-08, passed 7-22-08) Penalty, see § 151.99

**§ 151.05 SURFBOARDS, SKIMBOARDS, PERSONAL WATERCRAFT, AND OTHER WATERCRAFT.**

(A) No person shall use or assist anyone in using any device commonly known as a "surfboard", "skimboard", "paddle board", "kayak", "kiteboard", "windsurfboard", or any other apparatus or device of a hard or solid nature similar to and used for the purposes for which the aforementioned are generally used (hereinafter collectively referred to as a surfboard) within the swimming zone from May 15 through September 15 between the hours of 10:00 a.m. and 6:00 p.m. In the event that surf conditions are deemed unsafe for swimming and posted as such by the appropriate authorities, surfboards are permitted in the swimming zone regardless of the date or time.

(1) From September 16 through May 14, there is no area where surfing is restricted on Folly Island, except surfing is always prohibited within 200 feet of any fishing pier which now exists or hereafter is erected or built.

(2) It shall be unlawful for any person to use a surfboard, sailboat, motor boat, personal watercraft (as defined below), or any other device or craft in a manner as to become or present a hazard to bathers, swimmers, surfers and other persons in the waters along the public beach or to fail, neglect, or refuse to keep his or her surfboard, sailboat, motorboat, or personal watercraft under reasonable control at all times.

(B) At all times of the year persons surfing are required to wear a surf leash attaching the surfboard to the surfer, which device is intended to prevent the surfboard from being separated from, getting away from, or out of the immediate control of the surfer.

(C) *Personal watercraft defined.* For the purpose of this section, the following definition shall apply unless the context clearly indicates or requires a different meaning.

**PERSONAL WATERCRAFT.** A boat less than 16 feet in length which:

- (a) Has an outboard motor or an inboard motor which uses an internal combustion engine powering a water jet pump as its primary source of propulsion;
- (b) Is designed with the concept that the operator and passenger ride on the outside surfaces of the vessel as opposed to riding inside the vessel;
- (c) Has the probability that the operator and passenger, in the normal course of use, may fall overboard.
- (d) A vessel commonly known as a "jet ski".

**PERSONAL WATERCRAFT** includes, without limitation, a vessel where the operator and passenger ride on the outside surfaces of the vessel, even if the primary source of motive propulsion is a propeller.

(D) Personal watercraft, whether commercial or personally owned, shall be launched and beached only at permitted sites. Permitted sites are defined as:

- (1) The boat ramp on the Folly River;
- (2) Two boat launching lanes, 50 feet wide each, shall be located, the first, east of the swimming zone directly oceanside of the 2nd Street East right-of-way and beach access, and the second, west of the swimming zone directly oceanside of the 3rd Street West right-of-way and beach access; and
- (3) Any other location approved by City Council.

(E) All personal watercraft must go straight in and straight out of the launching lane, operating at idle speed and no faster than necessary to maintain control, and not generate or cause a wake or exceed five miles per hour, whichever is less. Commercial operators (hereinafter "vendors") must provide one employee within the launching lane to catch and release incoming and outgoing personal watercraft. These employees must be in the water when personal watercraft rented by their companies are approaching or exiting.

(F) All personal watercraft must be operated ocean side of the fishing pier, but within binocular viewing range of the vendor's observation point.

(G) All state ordinances regulating personal watercraft must be followed.

(H) No person under the age of 16 years shall operate a personal watercraft, unless such person has certification of completion of a boater safety course offered by the South Carolina Department of Natural Resources, or any other similar governmental entity from the person's home state. Persons age 16 and over must have a driver's license.

(I) Before a personal watercraft may be operated within the boundaries of the City of Folly Beach, all personal watercraft owners shall first apply for a motorized watercraft license for a fee of \$25. The motorized watercraft license shall be a number assigned to all personal watercraft which shall be affixed to said personal watercraft in such a manner as to be visible from shore. In addition to the number, all vendors shall also affix the name of the business on both sides of the personal watercraft in six-inch letters of contrasting color with that of the personal watercraft. The motorized watercraft license also serves as permission for vendors to store commercial personal watercraft on the beach in an unobtrusive way during months when in business, provided permission is granted on an annual basis by the Code Enforcement Officer. Methods of storage must be approved by the Code Enforcement Officer as to location and appearance. Complaints by residents and property owners about the storage location, appearance, or maintenance may be taken into account as to whether permission is granted. All personal watercraft must be removed from the beach prior to any tropical storm or hurricane.

(J) All employees of vendors shall be certified in CPR. Vendors shall provide, maintain, and train all employees in the use of an automated external defibrillator ("AED"). CPR certification and proof of ownership of AED shall be presented when a vendor applies for a City of Folly Beach license.

(K) Vendors shall have one CPR certified employee with no additional responsibilities to watch their company's personal watercraft from shore with binoculars. Vendors shall also have one personal watercraft in reserve at all times to be used to assist, contact, or otherwise reach their company's personal watercraft.

(L) Vendors are required to enter into a contract with the City of Folly Beach (see § 151.60).

(M) Vendors shall adhere to certain requirements for renters of personal watercraft and to give minimum instruction to said renters. These requirements are more fully described in a contract between the city and the vendor.

(N) Alcohol and drug use are strictly prohibited by all employees of vendor prior to and while on duty, and all operators of personal watercraft.

(O) Insurance as set forth in the contract must be maintained by the vendor. A minimum of \$1,000,000 in liability coverage is required.

(P) Personal watercraft expressly do not have the right of way. All personal watercraft must yield to swimmers, surfers, non-motorized boats, kiteboards, or boogie boards.

(Q) Personal watercraft are not permitted to be launched or beached when the ranking officer of the Folly Beach Public Safety Department or the Chief Lifeguard for the Charleston County Parks and Recreation Commission deem their presence or operation to be unsafe. Such designation may be due to high surf, high wind, number of swimmers, or any other condition which would render the operation of personal watercraft unsafe.

(R) Commercial personal watercraft must be replaced by vendor every four years, or when such personal watercraft are deemed a threat to the environment by the Code Enforcement Officer, whichever is sooner. All commercial personal watercraft must be the most environmentally sensitive (as determined by miles per gallon of fuel, oil usage, discharge of fumes/contaminants, best engine capabilities, and any other environmental criteria in the industry at the time) available at the time of purchase by the vendor.

(S) Motorized vehicles used by vendor to transport personal watercraft or renters thereof may only be parked on the beach next to the area permitted for storage of the personal watercraft, if any, in an unobtrusive and secure manner, and as approved by the Code Enforcement Officer. Otherwise, motorized vehicles may not be parked or stored on the beach. Such vehicle must not cross any dunes and must have a low environmental impact. Use of motorized vehicles must be limited to business activities only, and routes taken must correlate closely to business need (such as transporting trailers with personal watercraft directly to the water or storage site, delivering riders to the launch lane.)

Motorized vehicles may not be used by non-vendors to transport personal watercraft.

(T) Commercial personal watercraft and any motorized vehicles owned by a vendor must be available for use in emergencies by Public Safety or other emergency personnel. ('95 Code, § 7-3-1) (Am. Ord. 2-95, passed 4-4-95; Am. Ord. 08-08, passed 8-26-08; Am. Ord. 11-12, passed 4-24-12) Penalty, see § 151.99

#### **§ 151.06 RENTING RAFTS, FLOATS AND THE LIKE; PROHIBITED SIZES.**

It shall be unlawful for any person to rent any life raft, float or other similar device which is larger than rafts known as one-man life rafts.

( '95 Code, § 7-3-2) Penalty, see § 151.99

**§ 151.07 GROIN AREAS; PROHIBITED ACTIVITIES.**

Surfing or swimming is hereby prohibited within 50 feet of any groin. Fishing from or walking on any groin is also hereby prohibited. Swimming is hereby prohibited under and within 150 feet of the fishing pier.

( '95 Code, § 7-3-3) (Am. Ord. 03-98, passed 2-17-98) Penalty, see § 151.99

**§ 151.08 GLASS CONTAINERS PROHIBITED.**

All glass containers and cans are prohibited on the beach, with the exception cans are allowed in coolers. However, all cans must remain in the cooler at all times provided cans may be removed briefly for the purpose of transferring the contents to a paper or plastic cup. Kegs, small or large, are considered cans and shall not be allowed on the beach. The minimum fine for violation of this section is \$50, plus court costs.

( '95 Code, § 7-3-4) (Ord. 84-22, passed 12-18-84; Am. Ord. 23-11, passed 7-12-11) Penalty, see § 151.99

**§ 151.09 RESERVED.**

**§ 151.10 RESERVED.**

**§ 151.11 STOWING BOATS AND WATERCRAFT ON BEACH.**

(A) The purpose of this chapter is to protect the public health, safety and welfare by:

(1) Prohibiting abusive long-term stowage of boats and other watercraft on the public beach, where their safe storage is threatened by storms, high tides and hurricanes;

(2) Prohibiting on-going destruction of the dune system from long-term boat stowage on the beach; and

(3) Providing a means of identifying boats and other watercraft stowed upon the public beach, so the craft's rightful owner can be properly identified and contacted in emergencies.

(B) For the purpose of this section, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

**BOAT** or **WATERCRAFT.** Any wooden, fiberglass, plastic or metal raft, row boat, motorboat, sailboat, mobile cat, wind surfboard, catamaran, skull, kayak, jet ski or waverunner.

**PUBLIC BEACH.** All that area seaward of the ocean baseline, roughly defined as any area seaward of existing seawalls bordering the Atlantic Ocean, including all primary and secondary sand dunes, also to include any public access or public beach walkway.

(C) No person owning, possessing or controlling a boat or other watercraft shall place or allow it to be placed on the public beach for any period in excess of 12 hours, unless the boat or watercraft is affixed with a validly issued permit.

(D) The owner of any boat or watercraft, which remains on the public beach in excess of 12 hours shall obtain from the Public Safety Department either a seasonal or annual beach boat/watercraft permit. A seasonal permit shall be valid for 6 months. The annual permit shall be valid for a period of one year. No permit shall be required for any boat or watercraft removed daily from the public beach prior to 8:00 p.m.

(E) A beach boat/watercraft permit application, which can be obtained at the Public Safety Department, shall include the following information: owner(s) name, local and, if applicable, out-of-town address(es) and phone number(s), an emergency contact phone number, the boat/watercraft type, hull identification number and/or serial number, current state or jurisdiction registration number or certificate of number (if current state or

jurisdiction registration number or certificate of number (if applicable)), boat/watercraft insurance information, title information or other proof of ownership by the applicant, and storage location of the boat/watercraft in winter and summer months.

(F) Permit fees shall be \$100 for seasonal permits and \$150 for annual permits. The permit issued shall be in the form of a numbered sticker which shall be affixed to the permitted boat or watercraft at a clearly visible location on the hull. Lost or stolen stickers shall be replaced upon reapplication without charge. Annual permits shall be valid during the calendar year it is issued and will expire annually on December 31. Seasonal permits shall be valid for a period of six consecutive months from the date the permit is issued.

(G) The fact that a watercraft is stowed on the beach for a period in excess of 12 hours and no validly issued permit is affixed to the hull thereof, shall be considered prima facie proof that the stowage is in violation of this section.

(H) Any boat or watercraft which is placed or located at any time atop any primary or secondary dunes shall be fined \$500 and may be subject to immediate impoundment at the direction of a designated city enforcement officer.

(I) The bringing onto or removal from the beach of any boat or watercraft which results in damage to primary or secondary dunes, or damage to sea oat or dune vegetation, is prohibited.

(J) The Public Safety Department is hereby authorized to remove and tow away, or have removed and towed away, any boat or watercraft in violation of this section. In addition to the penalties provided for in § 151.99, the owner shall pay all costs incurred by the city or its designee in the impoundment and storage of such boat or watercraft.

(K) Any violation of this chapter is declared to be a nuisance. In addition to any other relief provided by this section, the City Attorney may apply to a court of competent jurisdiction for an injunction to prohibit the continuation of any violation of this chapter. The application for relief may include seeking a temporary restraining order, temporary injunction and permanent injunction.

(L) After a 30-day grace period commencing on the effective date of this article, during which period the city shall make a reasonable effort to make boat and/or watercraft owners and all rental agencies aware of these requirements, boats and/or watercraft owners and all rental agencies aware of these requirements, boats and/or watercraft not displaying a permit sticker may be removed from the beach.

(Ord. 11-95, passed 11-21-95; Am. Ord. 30-06, 7-25-06; Am. Ord. 24-10, as amended, passed 10-26-10)Penalty, see § 151.99

#### **§ 151.12 PLANTING OF BEACH VITEX.**

(A) It shall be unlawful for any person to plant or cause to be planted *Vitex rotundifolia*, commonly known as Beach Vitex, on any property located in the city.

(B) If upon inspection, Beach Vitex is found to be planted or growing on any property located in the city, the city shall have the right to enter the property and remove the plant.

(C) No action shall be taken without due notification of the property owner.

(Ord. 44-05, passed 7-26-05) Penalty, see § 151.99

#### **§ 151.13 LITTERING AND ABANDONMENT OF PERSONAL PROPERTY PROHIBITED ON THE BEACH.**

(A) It shall be unlawful for any person to throw or leave any trash, rubbish or other debris of any kind whatsoever on the beaches of the city unless such trash, rubbish or

other debris is deposited in a trash receptacle placed on or near the beach for such purpose.

(B) It shall be unlawful for any person to leave or abandon any personal property of any kind whatsoever on the beaches of the city unless such property is deposited in a trash receptacle placed on or near the beach for such purpose.

(Ord. 24-08, passed 8-26-08)

#### **§ 151.14 USE OF THE BEACH.**

(A) Tents, canopies, beach chairs, kites, volleyball nets, coolers, beach umbrellas and similar property, which are left on the beach after sunset, shall be deemed abandoned and the City of Folly Beach shall have the right to take possession of the property. The property shall belong to, and be subject to disposal by, the City of Folly Beach.

(B) No personal property shall be located within 25 feet of any emergency beach access or any turtle nest.

(C) The following are excepted from § 151.14(A): "Hobie Cat" style sailboats; any wooden, fiberglass, plastic or metal rafts; row boats; motorboats; sailboats; mobile cats; wind surfboards; catamarans; skulls; kayaks; jet skis; and waverunners if they have a seasonal or annual permit prescribed under § 151.11 of the Folly Beach Code of Ordinances.

(Ord. 24-08, passed 8-26-08)

### **CONSTRUCTION PROVISIONS**

#### **§ 151.20 ACCESS TO BEACH DURING CONSTRUCTION; PROTECTION.**

(A) Any individual or contractor who desires to use an access to the beach will place in the access portable metal or wood mats for the purpose of moving equipment or material on the beach.

(B) The contractor or individual will remove the mats as soon as he or she no longer needs them to move equipment or material.

('95 Code, § 5-3-19) (Ord. 78-8, passed 7-18-78)

#### **§ 151.21 BEACH PROTECTION; EROSION CONTROL LINE.**

Upon approval of the erosion control line by the State Coastal Council, permits for erosion control structures will be provisioned so that structures will be located at the erosion control line as shown on the maps, hereby incorporated by reference and available at the Coastal Council office and at City Hall.

('95 Code, § 5-3-20) (Ord. 83-10, passed 8-2-83)

#### **§ 151.22 ALTERATIONS IN LINE.**

(A) The erosion control line may be extended or modified as conditions warrant. Any change must be approved by the city and the State Coastal Council after a public notice period of 30 days.

(B) Changes will then be recorded on the base maps.

('95 Code, § 5-3-21) (Ord. 83-10, passed 8-2-83)

#### **§ 151.23 CONSTRUCTION STANDARDS FOR BULKHEADS, SEAWALLS AND REVETMENTS.**

(A) (1) The following minimum construction standards are enacted

(2) All structures placed in the beach and sand dune critical areas must be maintained in an intact usable condition or removal may be sought at the owners expense.

(3) Bulkhead and revetments shall either be designed by a professional engineer, registered in the state or shall meet the following minimum standards:

(a) *Bulkheads.*

1. *Materials.*

i. Reinforced concrete six inches thick designed with adequate reinforcement to achieve a 3,000 psi 28-day strength.

ii. Pressure treated wood three inches by ten inches or three inches by 12 inches tongue and groove, or a double thickness of two inches sheeting with staggered joints is acceptable for walls with a standing height of under four feet.

2. *Depth of embedment.* The depth of embedment of a bulkhead shall be at least equal the height of the wall above the ground. An allowance should be made to account for erosion scour after construction.

3. *Tiebacks.* Tiebacks shall be located at a spacing of eight feet or less and attached to secure anchors capable of withstanding a 2,000- pound pull. Tiebacks may be deleted if a revetment is placed seaward of the bulkhead.

4. *Backfill.* The bulkhead will be backfilled with a compacted clean granular material to provide adequate support. "Clean" shall mean no metal, wood or glass.

5. *Protection from flanking.* Bulkheads will either tie into adjacent bulkheads or will have an adequate return wall meeting the same requirements as the seaward wall.

6. *Seawalls.* No new vertical unfaced seawall shall be allowed on the ocean front. Any new vertical seawall surface must be faced with a sloping revetment.

7. A permit from the City Building Department is required for all seawalls on the beachfront. For any activities that may fall on or seaward of the baseline, proof of coordination with SC DHEC is required.

(b) *Revetments.*

1. *Materials.* Broken pavement, blocks or bricks are not acceptable materials for the outer layer of a revetment. However, they may be used for under layers. The outside of a revetment shall consist of at least two layers of armor stones whose pieces shall range in weight from a minimum of ten pounds to a maximum of 250 pounds; at least 60% shall weigh more than 150 pounds.

2. *Construction.* Revetments shall be underlain with a commercial grade porous filter cloth designed for ocean erosion control and approved by the Building Official (i.e. Phillips 66 stock or equal), and placed on a slope no steeper than one vertical to two horizontal. The toe at the revetment shall extend at least two feet below the existing beach elevation and the ends shall be protected from flanking.

(B) (1) Adherence to these minimum standards will not guarantee that the bulkhead or revetment will withstand wave or tide forces or that it will protect against beach erosion.

(2) These standards are to prevent unsightly and inferior structures that would have little or no chance of success, and could possibly become a hazard or nuisance on the beach.

( '95 Code, § 5-3-22) (Ord. 83-10, passed 8-2-83; Am. Ord. 83-18, passed 1-3-84; Am. Ord. 84-29, passed 12-18-84; Am. Ord. 02-05, passed 1-25-05)

**§ 151.24 SPECIAL REQUIREMENTS FOR CONSTRUCTION OF FRONT BEACH LOTS.**

If an applicant requests to rebuild a structure, other than an erosion control structure or device seaward of the proposed baseline that is not allowed otherwise, the city may issue a special permit to the applicant authorizing the construction or reconstruction if the

structure is not constructed or reconstructed on a primary oceanfront sand dune or on the active beach, and, if the beach erodes to the extent the permitted structure becomes situated on the active beach, the permittee agrees to remove the structure from the active beach. However, the use of the property authorized under this provision, in the determination of the city, must not be detrimental to the public health, safety, or welfare. (Ord. 28-98, passed - - 98)

**§ 151.25 DUNE WALKOVERS.**

To protect the integrity of the front dune and to mitigate intrusion into ocean views from adjacent beachfront property, the following standards shall apply to the construction of new and replacement dune walkovers. These standards shall apply in addition to any and all regulations promulgated by the State Office of Ocean and Coastal Resources Management for dune walkovers incidental to residential uses on Folly Beach.

(A) Dune walkovers shall not be wider than six feet.

(B) Dune crossovers shall not be built more than three feet higher than required by beachfront management regulations, floodplain management standards, or other applicable requirements, or, in the absence of such requirements, no more than three feet above grade, excepting stairs and handicap access ramps leading to the first heated floor of the primary structure on the lot.

(C) Observation decks shall be limited to 35 square feet in area. These may include beaches, light storage, and other appurtenant features in accordance with OCRM and/or city floodplain management standards.

(D) Observation decks shall not be covered, roofed, or provided with any overhead structure.

(Ord. 05-06, passed 1-24-06)

**BEACH PRESERVATION**

**§ 151.35 AREAS OF PRESERVATION.**

All portions of the city extending from the mean high water line to the primary dune through or to the first manmade object, whichever comes first, on property now platted on Folly Island and controlled by the city or the state shall be retained and preserved by the city in trust as an area of conservation for the purpose of protecting the ecology of the property, the adjoining property, and of the beaches of Folly Island, for enhancing the environment, and for the health, safety and welfare of the residents of the state.

('95 Code, § 5-10-1)

**§ 151.36 MAINTENANCE AND PRESERVATION.**

(A) Any sand mined from the beach proper and placed on properties above defined shall henceforth and hereinafter be subject to the administration and police power of the City Council and shall not be subdivided into building lots.

(B) They shall be maintained and preserved for the benefit of all people in their natural state for the purpose of protecting the environment, ecology and health, safety and welfare of the city, property owners and residents of the state.

('95 Code, § 5-10-2)

**§ 151.37 CONSTRUCTION PROHIBITED IN CERTAIN AREAS.**

No structure of any kind shall be constructed in the above defined area which is hereby established for conservation and preservation without the expressed written permission of the city and, where applicable, from Coastal Council.

('95 Code, § 5-10-3) Penalty, see § 151.99

**§ 151.38 DEFINITIONS.**

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

**AREA OF CONSERVATION.** Any sand placed on the above defined properties will remain in its natural state with no manmade, artificial changes other than additional sand dunes or approved dune walkover structures. City Council will promulgate regulations defining approved dune walkovers.

**MAINTAINED AND PRESERVED.** The city will utilize its administrative powers to prevent altering of this area in any way.

**MEAN HIGH WATER.** The line established by survey on a series of plats titled *Plat Showing Perpetual Easement for Beach Renourishment*, dated June 1, 1992, and as recorded in the RMC Office.

**RETAINED AND PRESERVED.** Property subject of this chapter shall not be subdivided in any manner into lots and that the city will utilize all legal means to guarantee that this natural habitat will be undisturbed.

**TRUST.** The city shall act as custodian of the natural habitat in an effort to maintain it as protection against erosion caused by the sea, and for the health, safety and welfare of the public.

(’95 Code, § 5-10-4)

**§ 151.39 BEACH PRESERVATION FEE.**

(A) The Beach Preservation Act of 2014 authorizes qualifying coastal municipalities to impose a beach preservation fee not to exceed 1% of the gross proceeds derived from the rental or charges for accommodations furnished to transients.

(B) The City of Folly Beach is a qualifying coastal municipality with shoreline on the Atlantic Ocean, a public beach, and a local accommodations tax not exceeding 1½%.

(C) An additional 1% beach preservation fee is hereby added to the accommodations tax for the purpose of nourishment, renourishment, maintenance, erosion mitigation, monitoring of beaches, dune restoration and maintenance, including planting of sea grass, sea oats or other vegetation useful in preserving the dune system, and maintenance of public beach accesses within the corporate limits of the City of Folly Beach.

(Ord. 12-14, passed 7-8-14)

**Cross-reference:**

*Funding of Beach Preservation Fund, see §§ 38.03, 113.04 and 113.05*

*Municipal accommodations fee, see § 113.03*

**PROTECTION OF LOGGERHEAD SEA TURTLES**

**§ 151.45 DEFINITIONS.**

For the purpose of this subchapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

**ARTIFICIAL LIGHT.** Any source of light emanating from a manmade device, including but not limited to, incandescent mercury vapor, metal halide, or sodium lamps, flashlights, spotlights, street lights, vehicular lights, construction or security lights.

**BEACH.** The area of unconsolidated material that extends landward from the mean low water line to the place where there is a marked change in material or physiographic form, or to the line of permanent vegetation (usually the effective limit of storm waves).

**FLOODLIGHTS.** Reflector type light fixture, attached directly to a building and is unshielded.

**LOW PROFILE LUMINARIES.** Light fixtures set on a base which raises the source of the light no higher than 48 inches off the ground, and designed in such a way that light is directed downward from a hooded light source.

**NEW DEVELOPMENT.** New construction and remodeling of existing structures when the remodeling includes alteration of exterior lighting.

**PERSON.** Any individual, firm, association, joint venture, partnership, estate, trust, syndicate, fiduciary, corporation, group or unit or federal, state, county or municipal government.

**POLE LIGHTING.** Light fixture set on a base or pole which raises the source of the light higher than 48 inches off the ground.

**SHADING COEFFICIENT.** A coefficient expressing that percentage of the incident radiation which passes through the window as heat.

**SOLAR SCREEN.** Screens which are fixed installations and permanently project shade over the entire glass area of the window. The screens must be installed outside of the glass and must have:

- (1) A shading coefficient of .450 less;
- (2) A minimum five-year warranty; and
- (3) Performance claims supported by approved testing procedures and

documentation.

**TINTED OR FILMED GLASS.** Window glass which has been covered with window tint or film such that the material has:

- (1) A shading coefficient of .450 or less;
- (2) A minimum five-year warranty;
- (3) Adhesive as an integral part; and
- (4) Performance claims which are supported by approved testing procedures and

documentation.

(Ord. 8-92, passed 4-21-92; Am. Ord. 11-97, passed 7-1-97; Am. Ord. 18-99, passed 7-13-99)

#### **§ 151.46 PURPOSE.**

The purpose of this subchapter is to protect the threatened loggerhead sea turtles which nest along the beaches of the city, by safeguarding the hatchlings from sources of artificial light.

(Ord. 8-92, passed 4-21-92; Am. Ord. 11-97, passed 7-1-97; Am. Ord. 18-99, passed 7-13-99; Am. Ord. 31-08, passed 12-30-08)

#### **§ 151.47 NEW DEVELOPMENT.**

(A) It is the policy of the city that no artificial light illuminate any area of the beaches of the city.

(B) To meet this intent, if lighting associated with construction or development can be seen from the beach, all building and electrical plans for construction of single family or multi-family dwellings, commercial or other structures, including electrical plans for parking lots, dune walkovers or other outdoor lighting for real property shall be in compliance with the following:

(1) Floodlights shall be prohibited. Wall mounted light fixtures shall be fitted with hoods so that no light illuminates the beach.

(2) Pole lighting shall be shielded in a way that light will be contained within arc of three to 73 degrees on the seaward side of the pole. Outdoor lighting shall be held to the

minimum necessary for security and convenience.

(3) Low profile luminaries shall be used in parking lots and the lighting shall be positioned so that no light illuminates the beach.

(4) Dune crosswalks shall utilize low profile shielded luminaries. Only mushroom-type light fixtures, which direct light downward, shall be permitted. Such lighting shall also meet the following requirements:

(a) Fixtures shall be installed at least 25 feet apart and not more than one foot above the surface of the walkovers.

(b) Illumination shall be limited to 25 watts through the use of "bug" type bulbs.

(5) Lights on balconies shall be fitted with hoods so that lights will not illuminate the beach.

(6) Tinted or filmed glass shall be used in windows facing the ocean beginning at the first floor level of multi-story structures. Shade screens can be substituted for this requirement.

(7) (a) Temporary security lights at construction sites shall not be mounted more than 15 feet above the ground.

(b) Illumination from the lights shall not spread beyond the boundary of the property being developed, and in no case shall those lights illuminate the beach.

(C) The provisions of this section shall not apply to any structure for which a building permit has been issued by the Building Official, prior to the effective date of this subchapter.

(Ord. 8-92, passed 4-21-92; Am. Ord. 11-97, passed 7-1-97; Am. Ord. 18-99, passed 7-13-99; Am. Ord. 31-08, passed 12-30-08) Penalty, see § 151.99

#### **§ 151.48 EXISTING DEVELOPMENT.**

(A) It is the policy of the city that no artificial light illuminate any area of the beaches of the city.

(B) To meet this intent, lighting of existing structures which can be seen from the beach shall be in compliance with the following.

(1) Lights illuminating buildings or associated grounds for decorative, security, or recreational purposes shall be shielded or screened such that they are not visible from the beach and will be turned off after 10:00 p.m. until dawn during the period of May 1 to October 31 of each year.

(2) Lights illuminating dune crosswalks of any areas oceanward of the dune line shall be turned off from dusk to dawn during the period of May 1 to October 31 of each year.

(3) Motion detecting security lighting shall be permitted throughout the night so long as low profile luminaries are used and screened in a way that those lights do not illuminate the beach.

(4) Window treatments in windows facing the ocean at the first floor of single-story or multi-story structures are required so that interior lights do not illuminate the beach. The use of blackout draperies or shade screens are preferred. The addition of tint or film to windows or awnings is also encouraged, as is turning off unnecessary lights if the lights illuminate the beach.

(Ord. 8-92, passed 4-21-92; Am. Ord. 11-97, passed 7-1-97; Am. Ord. 18-99, passed 7-13-99; Am. Ord. 31-08, passed 12-30-08) Penalty, see § 151.99

#### **§ 151.49 PUBLICLY OWNED LIGHTING.**

Street lights and lighting at parks and other publicly owned beach access areas shall be subject to the following:

(A) Whenever possible, street lights shall be located so that the bulk of their illumination will travel away from the beach. These lights shall be equipped with shades or shields that will prevent backlighting and render them not visible from the beach.

(B) Lights at parks or other public beach access points shall be shielded or shaded or shall not be utilized during the period May to October 31 of each year.

(Ord. 8-92, passed 4-21-92; Am. Ord. 11-97, passed 7-1-97; Am. Ord. 18-99, passed 7-13-99) Penalty, see § 151.99

### **BEACHFRONT VENDING**

#### **§ 151.60 PUBLIC BEACH VENDING; FRANCHISE AGREEMENTS.**

(A) Products shall not be sold in any area of the public beach.

(B) All vending not expressly provided for herein is prohibited.

(C) City Council is authorized to enter into franchise agreements with vendors (as defined below) on the public beach pursuant to state law which allows municipalities and counties to franchise the public beach to private concerns.

(D) The minimum bid amount shall be determined by City Council prior to publication of the request for bids pursuant to division (E) below. City Council may also require vendors to pay a percentage of their gross proceeds in addition to the amounts bid.

(E) The award of a franchise to a vendor shall be determined through the competitive bid process using the criteria set forth in the Folly Beach Code of Ordinances, § 36.17, Formal Bidding Procedures. Notice of the process with types of businesses, and number of vendors allowed under each business category shall be published and posted pursuant to the formal bidding procedures. The successful bidders shall be approved by City Council.

(F) **VENDOR** is defined as a commercial provider of goods or services operating on the public beach and providing goods and services as per § 151.60(J). Such vendor operates under a franchise agreement with the City of Folly Beach.

(G) (1) Each of the approved vendors shall enter into up to a five-year franchise agreement with the city, with City Council having the option to extend the franchise for up to five years if the extension is in the best interest of the city.

(2) The franchise agreements are contracts between the city and the vendor. Once the terms and conditions have been negotiated, the agreements shall be placed on the City Council agenda for approval. Upon approval, the mayor or City Administrator shall execute the agreements on behalf of the city.

(H) All vendors shall be restricted to staying within the area of operation designated in the franchise agreement, except personal watercraft vendors who shall be allowed to leave their designated grids to launch personal watercraft in each vendor's assigned lane. In no other circumstances shall any vendor be mobile or allowed to operate outside his or her designated area. Vendors shall also be limited to the type of business set forth in the awarded bid. Vendors shall not vary or expand the services or products offered without re-negotiating the contract and without permission from City Council.

(I) There are hereby designated two sections of the public beach, as follows:

(1) Section One is the area between 3rd West and 3rd East.

(2) Section Two is the balance of the public beach.

(J) The products or services allowed to be rented within Section One are as follows:

- (1) Beach chairs;
- (2) Umbrellas; and
- (3) Personal watercraft.

(K) A business license shall be obtained before any activities listed above can be initiated.

(L) Section One of the public beach shall be gridded with numbers placed on each segment of the grid. The grid segments shall be established by the Code Enforcement Officer and ratified tri-annually by City Council. Section One shall have a maximum of two vendors renting personal watercraft and a maximum of two vendors renting beach chairs and/or umbrellas. Each vendor can then bid on the desired segment under the competitive bid process.

(M) Business types may be combined for simplification of the bidding process. Examples of this include: a request for bid for a franchise in which the vendor is permitted to rent beach chairs and/or umbrellas; as well as, permitted to rent personal watercraft.

(N) No vending or city approved activities shall be allowed in Section Two, excepting (O) and (P) below.

(O) Lessons, classes or camps, which do not require a franchise agreement, shall be allowed in Sections One or Two with permission of City Council.

(P) Weddings and photography activities, which do not require a franchise agreement, shall be allowed in Sections One and Two; however, these activities cannot interfere with the activities of the franchisees in Section One or the activities allowed in (O) above.

(Q) Vendors shall be responsible for clearing trash, debris, and any equipment from assigned areas as more fully set forth in the franchise agreement daily. Storage of equipment is permitted in unobtrusive containers approved by the Code Enforcement Officer as to location and appearance, or as negotiated in the franchise agreement. In the event of a tropical storm or hurricane, all storage boxes, equipment, or any other items used in the transaction of business must be removed 24 hours prior to forecasted landfall within 100 miles of Folly Beach. The Code Enforcement Officer has the power to require removal in his or her discretion based on other adverse weather conditions or tidal events.

(R) Franchise agreements shall not be sold or assigned to another vendor.

(S) Any violation of the above or violation of terms and conditions of the franchise agreement shall result in the revocation of the franchise agreement and vendor's business license. The City Administrator shall send a written notice of the revocation by certified — return receipt mail to the vendor. The vendor shall have ten business days from the receipt of said notice to submit a written Notice of Appeal to the Municipal Clerk of Council.

(Ord. 38-08, passed 12-30-08; Am. Ord. 07-11, passed 2-8-11; Am. Ord. 04-12, passed 4-10-12; Am. Ord. 20-12, passed 10-23-12; Am. Ord. 35-12, passed 1-8-13)

#### **§ 151.61 APPEAL PROCESS.**

(A) Upon timely receipt of a notice of appeal as provided in § 151.60(T), the Municipal Clerk of Council shall notify the City Administrator, and the City Administrator shall place the hearing of the appeal on the agenda of the next regular City Council meeting whose agenda has not already closed. The Municipal Clerk of Council shall notify the applicant of the date and time of the hearing. A special meeting of City

Council may be called in order to address the hearing of the appeal.

(B) On the date of the hearing, the City Council shall hear the appeal and shall determine whether a cause for revocation of the franchise agreement and business license exists. The Council may deny the appeal if it finds that cause for revocation exists.

(Ord. 38-08, passed 12-30-08)

**§ 151.99 PENALTY.**

(A) Any person violating any provision of this code for which no specific penalty is prescribed shall be subject to § 10.99.

(B) Any person altering the area that is the subject of §§ 151.35 through 151.38 by littering, destruction of vegetation or the artificial movement of the existing sand dunes shall subject to a \$500 fine, and each day such exists shall constitute a separate offense. Violators will be required to replace altered sand dunes and replant the natural vegetation of the area.

(‘95 Code, § 5-10-5) (Ord. 15-93, passed 9-7-93)

**§ 164.01 TABLE OF USES.**

Table 164.01, Table of Allowed Uses, sets forth the uses allowed within the base zoning districts.

(Ord. 05-10, passed 3-23-10)

(Ord. 05-10, passed 3-23-10; Am. Ord. 34-12, passed 3-12-13; Am. Ord. 03-13, passed 4-9-13)

**§ 165.01 DIMENSIONAL STANDARDS TABLE.**

**§ 165.01-01 Purpose and Intent.**

The purpose of this section is to present the density and dimensional standards for all principal and accessory uses allowed in this ZDO. These standards may be further modified by other applicable sections of this ZDO. Rules of measurement are set forth in § 165.02, Measurements and Exceptions.

(Ord. 05-10, passed 3-23-10)

**§ 165.01-02 Dimensional Standards in the Zoning Districts.**

Unless otherwise specified, all principal and accessory structures in the zoning districts are subject to the dimensional standards set forth in Table 165.01, Dimensional Standards.

<i>TABLE 165.01: DIMENSIONAL STANDARDS (1)</i>								
<i>ZONING DISTRICT/ USE</i>	<i>LOT AREA</i>				<i>SETBACKS (2)</i>			<i>MAX. HEIGHT</i>
	<i>Density (DU/Sq. Ft.)</i>	<i>Max. Lot Coverage</i>	<i>Min. Lot Area (Sq. Ft.)</i>	<i>Min. Lot Width (Ft)</i>	<i>Front (Ft)</i>	<i>Each Side (Ft)</i>	<i>Rear (Ft)</i>	
<b>RESIDENTIAL SINGLE-FAMILY (RSF)</b>								
All uses	1/10,500	35% of high ground	10,500 per dwelling	70	10	14.3% of lot width (8)	10	35' above BFE
<b>RESIDENTIAL TWO-FAMILY (RTF)</b>								
All uses	1/5,250 (up to 4 per acre)	35% of high	5,250 per dwelling	70	10	14.3% of lot width	10	35' above BFE

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	max.)	ground				(8)		
<b>RESIDENTIAL MULTI-FAMILY (RMF)</b>								
All uses	1/3,500 (up to 12 per acre max.)	35% of high ground	3,500 per multi-family dwelling unit	70	10	5	10	24' above BFE (4)
<b>DOWNTOWN COMMERCIAL (DC)</b>								
Single- and two-family uses	1/10,500 (up to 4 per acre max.)	50% of high ground (3)	10,500	35	10 (5)	5	10	35' above BFE (4)
Multi-family uses	1/3,500 (up to 12 per acre max.)		3,500 per multi-family dwelling unit		None required (5)	None required except when abutting RSF, RTF or RMF; then greater of ½ structure height or 15 feet		
Outdoor retailers			2,625 per outdoor retailer					
All other uses	N/A		5,250		40' above BFE			
<b>ISLAND COMMERCIAL (IC)</b>								
Single- and two-family uses	1/10,500 (up to 4 per acre max.)	35% (3)	10,500	70	10	5	10	35' above BFE
			3,500 per unit					
All other uses	N/A		5,250		None	None required except when abutting RSF, RTF, or RMF; then greater of ½ structure height or 15 feet		35' above BFE (4)
<b>MARINE COMMERCIAL (MC)</b>								
Single- and two-family uses	1/10,500 (up to 4 per acre max.)	35% (3)	10,500	35	10	5	10	35' above BFE
All other uses	N/A	None	(6)					35' above BFE
<b>CORRIDOR COMMERCIAL (CC)</b>								
Single- and two-family uses	1/10,500 (up to 4 per acre max.)	35% (3)	10,500	50	10	5	10	24' above BFE

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	max.)							
Multi-family uses	12		3,500 per unit					
All other uses	N/A	35% (3)	5,250	50	None	None required except when abutting RSF, RTF, or RMF; then greater of ½ structure height or 15 feet		35' above BFE (4)
<b>CONSERVATION (CN)</b>								
All uses (7)	N/A	5%	10,500	20	10	10	25	Lesser of one stor 20' above BFE
<b>PLANNED DEVELOPMENT (PD)</b>								
See § 163.05								
NOTES:								
<p>(1) Uses may also be subject to district-specific standards (Chapter 163), use-specific standards (Chapter 164), or design standards (Chapter 166) that further limit these standards.</p> <p>(2) Required setbacks may be increased in accordance with the standards in § 166.04-03, Marsh Buffers, and § 166.04-04, Beach and Dune Buffers (if applicable).</p> <p>(3) Single- and two-family structures are subject to maximum floor area ratio limitations in § 166.05-03, Single-and Two-Family Design Standards (as appropriate).</p> <p>(4) Multi-family uses are limited to a maximum of two stories (measured from BFE).</p> <p>(5) New development fronting Center Street shall be built to the edge of the street right-of-way, to the maximum extent practicable.</p> <p>(6) There is no minimum lot size except where required by DHEC for on-site wastewater facilities.</p> <p>(7) There shall also be a setback of 25 feet from the OCRM critical line in the CN district.</p> <p>(8) Setbacks in the RSF and RTF zones shall be a minimum of five and a maximum of ten feet. Eaves may extend into the required setback up to 18". HVAC platforms may extend into the required setback up to 5' on side of the structure, but cannot be located on both sides.</p>								

(Ord. 05-10, passed 3-23-10; Am. Ord. 25-12, passed 3-12-12; Am. Ord. 03-13, passed 4-9-13)

**§ 166.04-03 Marsh Buffers.**

(A) *Applicability.* Unless exempted in accordance with § 166.04-03(6), Marsh Buffer Exemptions, all development in the city shall provide and maintain marsh buffers in accordance with the standards in this section.

(B) *Exemptions.* The following forms of development shall be exempt from these standards:

(1) Boardwalks, piers, docks, marinas, boat ramps, erosion control devices, utilities, and sidewalks, provided such features are configured to minimize the impact on marsh areas;

(2) Mariculture uses and uses in the MC district; and

(3) Lawfully-established development or impervious surfaces in place prior to March 23, 2010. However, any subsequent development, redevelopment, or land disturbing activities shall comply with the standards in this subsection to the maximum extent practicable.

(C) *Marsh buffer standards.* Except for development identified in § 166.04-03(B),

Exemptions, all impervious surfaces shall maintain a minimum marsh buffer of ten linear feet landward from the critical area demarcation as identified or certified by the Office of Ocean and Coastal Resources Management (OCRM).

(Ord. 05-10, passed 3-23-10)

**§ 166.04-04 Beach and Dune Buffers.**

(A) *Applicability.* Unless exempted in accordance with § 166.04-04(B), Beach/Dune Buffer Exemptions, development on oceanfront lots in the city shall provide and maintain beach or dune buffers in accordance with the standards in this section.

(B) *Beach/dune buffer exemptions.* The following development shall be exempt from these standards:

- (1) Boardwalks, piers, docks, erosion control devices, utilities, and sidewalks, provided such features are configured to minimize the impact on beach and dune areas;
- (2) Temporary construction activities authorized by a building permit (See § 162.03-08); and
- (3) Lawfully-established development or impervious surfaces in place prior to March 23, 2010. (However, any subsequent development, redevelopment, or land disturbing activities shall comply with the standards in this subsection to the maximum extent practicable).

(C) *Standards.*

(1) Development shall maintain a minimum buffer from the renourishment line equal to or greater than 0.067% of the lot's street frontage distance. For the purposes of this subsection, **RENOURISHMENT LINE** shall mean the landward edge of the beach/dune system critical area beyond which structures are prohibited as identified by the Office of Ocean and Coastal Resources Management (OCRM).

(2) Regardless of an oceanfront lot's street frontage, in no instance shall the beach/dune buffer have a width less than five linear feet.

(3) Except for development or land disturbing activity exempted in accordance with § 166.04-04(B), Beach/Dune Buffer Exemptions, the beach/dune buffer shall remain undisturbed during and after the development process.

(Ord. 05-10, passed 3-23-10)

**§ 166.05-03 Single- and Two-Family Design Standards.**

(A) *Applicability.*

(1) The single- and two-family residential standards shall apply to all new single-family and two-family dwellings.

(2) These standards shall also apply to any single- or two-family dwellings existing on March 23, 2010 if any expansion or alteration exceeds 50% of the building's assessed value at the time of expansion or alteration.

(B) *Time of review.*

(1) Review of proposed development to ensure compliance with the standards of this section shall take place at the time of site plan, § 162.03-06; subdivision, § 162.03-07; planned development master plan, § 162.03-02; or zoning permit, § 162.03-13, review, whichever occurs first.

(2) Single- and two-family uses may be subject to city-imposed conditions relating to the location, configuration, and operational aspects of the use to ensure its compatibility with surrounding uses, their architectural consistency with the surrounding uses, and their compliance with the city's building codes and all relevant state laws and

regulations.

(C) *Design standards.*

(1) *Maximum square footage.* The maximum square footage for a single- or two-family dwelling shall be determined in accordance with the following formula:

$$\text{Max. Square Footage} = (\text{Buildable lot area} - 10,500) \times 10\% + 3,600.$$

See Figure 166.05, Maximum Square Footage Calculation Examples, for example calculations.

FIGURE 166.05: MAXIMUM SQUARE FOOTAGE CALCULATION EXAMPLES			
Example One	Example Two	Example Three	Example Four
For a lot with a buildable lot area of 7,500 square feet, the maximum square footage for a dwelling is 3,300 square feet:	For a lot with a buildable lot area of 10,500 square feet, the maximum square footage for a dwelling is 3,600 square feet:	For a lot with a buildable lot area of 12,500 square feet, the maximum square footage for a dwelling is 3,800 square feet:	For a lot with a buildable lot area of 19,500 square feet, the maximum square footage for a dwelling is 4,500 square feet:
$((7,500 - 10,500) \times 0.1) + 3,600 = 3,300$	$((10,500 - 10,500) \times 0.1) + 3,600 = 3,600$	$((12,500 - 10,500) \times 0.1) + 3,600 = 3,800$	$((19,500 - 10,500) \times 0.1) + 3,600 = 4,500$

(2) *Maximum dwelling size.*

(a) The total heated floor area for a single-family dwelling shall not exceed 4,500 square feet regardless of lot size.

(b) The total heated floor area for a two-family dwelling (or two detached dwellings on a single lot) shall not exceed 4,500 square feet regardless of lot size.

(3) *Maximum height.* The maximum height of a single- or two-family dwelling shall be in accordance with Table 165.01, Dimensional Standards.

(4) *Maximum lot coverage.* Impervious surfaces on lots containing single- or two-family dwellings shall be limited to a maximum of 35% of the lots high ground. For the purposes of this section, decks, porches, patios, pools, paved areas, and areas covered by gravel shall be considered as impervious.

(5) *Facade design.* Primary facades of single-family dwellings with widths of 40 feet or more shall incorporate wall offsets in the form of projections or recesses in the facade plane. Offsets shall have a minimum depth of two feet, so that no single wall plane exceeds 25 feet in width. Front porches may be used in lieu of, or in combination with, this standard.

(6) *Roof penetrations.* All roof vents, pipes, antennas, satellite dishes, and other roof penetrations and equipment (except chimneys), shall be located on the rear elevations or otherwise configured to the degree practicable to have a minimal visual impact as seen from the street.

(Ord. 05-10, passed 3-23-10)

**§ 166.10 EXTERIOR LIGHTING.**

**§ 166.10-01 Purpose.**

The purpose of this section is to control light spillage and glare so as not to adversely affect motorists, pedestrians, and land uses of adjacent properties. More specifically, this section is intended to:

(A) Control lighting to assure that excessive light spillage and glare are not directed at adjacent properties, neighboring areas, and motorists;

(B) Ensure that all site lighting is designed and installed to maintain adequate lighting

levels on site;

- (C) Provide security for persons and land; and
- (D) Avoid negative impacts to wildlife from exterior lighting.

(Ord. 05-10, passed 3-23-10)

**§ 166.10-02 Applicability.**

(A) *General.* Unless exempted in accordance with § 166.10-03, Exemptions, the provisions of this section apply to all zoning districts within the city.

(B) *Time of compliance.* A lighting plan shall be submitted with an application for a site plan, § 162.03-06; preliminary subdivision plat, § 162.03-07(D); or zoning permit, § 162.03-13, whichever is appropriate.

(Ord. 05-10, passed 3-23-10)

**§ 166.10-03 Exemptions.**

The standards of this section shall not apply to city-owned, operated, or maintained street lights located within a street right-of-way or other easement granted to the city.

(Ord. 05-10, passed 3-23-10)

**§ 166.10-04 Design Standards For Exterior Lighting.**

All exterior lighting shall conform to the following standards:

(A) *Maximum lighting height.*

(1) Except for outdoor sports fields or performance areas, outdoor lighting heights shall be no greater than:

- (a) Eighteen feet above grade for pedestrian lighting; and
- (b) Thirty feet above grade for vehicular lighting.

(2) Wherever possible, illumination of outdoor seating areas, building entrances, and walkways shall be accomplished by use of ground-mounted fixtures not more than four feet in height.

(B) *Illumination direction.*

(1) In all districts, lighting of nonresidential development shall be directed downward. In addition, upwardly-directed lighting shall not be used to illuminate structures, except for low-wattage architectural lighting.

(2) Outdoor lighting shall not shine directly into the yard or windows of adjacent residential uses.

(3) Outdoor lighting shall not shine directly onto the Folly River.

(C) *Location.* All lighting shall be located at least ten feet from side lot lines, rear lot lines, or required perimeter buffers.

(D) *Shielding.*

(1) Light fixtures in excess of 60 watts or 100 lumens shall use full cut-off lenses or hoods to prevent glare or spillover from the project site onto adjacent lands and streets.

(2) No interior light source shall be positioned, aimed, or configured so as to result in the light source being visible from land occupied by existing residential development.

(3) No light source in a canopy structure shall extend downward further than the lowest edge of the canopy ceiling.

(4) Awnings or canopies used for building accents over doors, windows, etc., shall not be internally illuminated (i.e., from underneath or behind the awning).

(E) *Maximum light levels.* All outdoor lighting shall be designed and located such that the maximum illumination measured in foot candles at the property line shall not exceed one foot candle. The average intensity illumination for outdoor lighting shall not exceed

four foot candles in intensity as measured at grade. Vehicular use area lighting shall not exceed a maintained average of two-and-one-half foot candles.

(F) *Uniformity ratios.*

(1) In order to maintain uniformity in light levels across a development, and prevent or minimize dark areas, the ratio of maximum to minimum lighting levels on a given site or parcel of land as measured in foot candles at ground level, shall not exceed 15:1 in the residential districts or 10:1 in the nonresidential districts. Parking lots shall maintain the same uniformity ratios as the principal use they serve. In the cases of mixed uses, the uniformity ratios for nonresidential districts shall apply.

(2) The quantity of fixtures to be provided shall be based upon the desired level of uniform illumination as established by the current standards of the Illuminating Engineering Society of North America (IESNA).

(G) *Hue.* All outdoor and parking lot lighting fixtures, including: metal halide, mercury vapor, fluorescent, induction, white high-pressure sodium and color-improved high-pressure sodium lamps used in non-cutoff fixtures shall be coated with an internal white frosting inside the outer lamp envelope.

(H) *Additional standards in beachfront areas.* For purposes of protecting nesting sea turtle habitat, the following standards shall apply to all uses on lots adjacent to the beachfront;

(1) The source of illumination shall not be directly visible from the beach.

(2) Exterior lighting within sight of the beach shall be a maximum of 50 watts and designed with recessed fixtures.

(3) Low-intensity lighting set on a base no higher than 48 inches off of the ground shall be utilized in parking lots.

(4) Parking lots shall be sited so as to minimize headlight glare directed on the beach, or shall incorporate ground-level barriers to mitigate the effects of headlights on beach areas.

(Ord. 05-10, passed 3-23-10)

**§ 166.10-05 Wall-Mounted Lights.**

Wall-mounted lights shall be fully shielded luminaries (such as shoebox or can style fixtures) to prevent the light source from being visible from any adjacent residential property or public street right-of-way. Nothing in this subsection shall prevent the use of sconces or other decorative lighting fixtures provided that the source of illumination is not visible from adjacent lands used or zoned for residential purposes, and provided that the maximum illumination values comply with the standards in § 166.10-04(E), Maximum Light Levels.

(Ord. 05-10, passed 3-23-10)

**§ 166.10-06 Floodlights and Spotlights.**

Floodlights and spotlights shall be selected, located, aimed, and shielded so that direct illumination is focused exclusively on a portion of the building facade or other intended site feature and away from adjoining lands or the right-of-way. On-site lighting may be used to accent architectural elements but shall not be used to illuminate entire portions of building(s). Such lighting shall be installed in a fixture that is shielded so that no portion of the light bulb extends below the bottom edge or above the top edge of the shield, and the main beam from the light source is not visible from adjacent lands of the adjacent right-of-way. Floodlights or other type of lighting attached to light poles that illuminate

the site or building(s) are prohibited.

(Ord. 05-10, passed 3-23-10)

**§ 166.10-07 Wall Pack Lights.**

Wall packs on buildings may be used at entrances to a building to light unsafe areas. They are not intended to draw attention to the building or provide general building or site lighting. Wall packs on the exterior of the building shall be fully shielded (true cut-off type bulb or light source not visible from off-site) to direct the light downward and be of low wattage (preferably 100 watts or lower). Other accent lighting projected onto buildings may be allowed provided that it is approved through the development plan process.

(Ord. 05-10, passed 3-23-10)

**§ 166.10-08 Illumination of Outdoor Sports Fields and Performance Areas.**

All lighting fixtures serving outdoor sports fields and performance areas shall be equipped with a glare control package (e.g., louvers, shields, or similar devices), and the fixtures shall be aimed so that their beams are directed and fall within the primary playing or performance area.

(Ord. 05-10, passed 3-23-10)

**§ 166.10-09 Sign Lighting.**

Lighting fixtures illuminating signs shall comply with the standards of this section, and such fixtures shall be aimed and shielded so that direct illumination is focused exclusively on the sign face.

(Ord. 05-10, passed 3-23-10)

**§ 168.02-07 Substantial Improvement.**

In the case of substantial improvement, a nonconforming use must be brought in to compliance with all current applicable zoning regulations.

(A) Substantial improvement is defined as any combination of repairs, reconstruction, alteration or improvements to a building, taking place during a ten-year period, in which the cumulative cost equals or exceeds 50% of the market value of the building prior to the first instance of repairs, reconstruction, alteration or improvements.

(B) The market value of the building must be provided by an appraiser certified by the state prior to the start of the initial repair or improvement. For improvements being made after damage, the market value shall be the value of the building prior to the damage occurring.

(C) The value of minor repairs and normal maintenance as defined in § 168.01-04, Minor Repairs and Normal Maintenance, shall not be used in a determination of substantial improvement.

(D) The ten year period shall not be waived in the event repairs, reconstruction, alteration, or improvements to a building are required as an act of God, natural disaster or other actions beyond the control of the property owner.

(Ord. 21-13, passed 1-14-14)

**§ 168.03-07 Substantial Improvement.**

In the case of substantial improvement, a nonconforming structure must be brought in to compliance with all current applicable zoning regulations.

(A) Substantial improvement is defined as any combination of repairs, reconstruction, alteration or improvements to a building, taking place during a ten-year period, in which the cumulative cost equals or exceeds 50% of the market value of the building prior to the

first instance of repairs, reconstruction, alteration or improvements.

(B) The market value of the building must be provided by an appraiser certified by the state prior to the start of the initial repair or improvement. For improvements being made after damage, the market value shall be the value of the building prior to the damage occurring.

(C) The value of minor repairs and normal maintenance as defined in § 168.01-04, Minor Repairs and Normal Maintenance, shall not be used in a determination of substantial improvement.

(D) The ten year period shall not be waived in the event repairs, reconstruction, alteration, or improvements to a building are required as an act of God, natural disaster or other actions beyond the control of the property owner.

(Ord. 21-13, passed 1-14-14)

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### 7.3. BEACH MANAGEMENT AND AUTHORITIES

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Provide a summary (preferably in a referenced appendix) of all federal, state and local agencies with regulatory or management authority over the beach and their role in management of local beaches. Your DHEC-OCRM Liaison can help prepare this discussion.

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#### FEDERAL AGENCIES

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Numerous agencies have responsibility or authority for assisting in the management of Folly Beach. This section provides a summary of agencies with regulatory or management authority and discusses their authority as relevant to beach management.

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#### THE US ARMY CORPS OF ENGINEERS (USACE)

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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 (Clean Water Act), which authorized 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, 1) the general permit (GP), 2) individual permit, and 3) nationwide permit. The Army Corps is responsible for reviewing applications and regulating beach nourishment activities under Section 10 to the Rivers and Harbors Act of 2899 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 emergency situations, the USACE is authorized to provide engineering and public works assistance to State government agencies.

Most importantly to the City of Folly Beach, 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. One such interest is the Coastal Flood Damage Reduction Project (previously known as Shore Protection Project) at Folly Beach. This project is detailed in Section 5.2.1

#### THE US FISH AND WILDLIFE SERVICE (USFWS)

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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 raise issues that are deemed important. USFWS is responsible for administering the federal Endangered Species Act (ESA), which 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. The USFWS has designated Folly Beach as critical habitat for the loggerhead sea turtle.

#### THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

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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, and communication to state agencies during federal emergencies and is involved in promoting community resiliency and post-disaster relief.

#### THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

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The National Oceanic and Atmospheric Administration (NOAA) is a federal agency housed within the Department of Commerce. The mission of the NOAA is to protect federal trust resources, provide mapping of navigation channels, monitor and forecast weather, monitor coastal dynamics and condition, and manage the nation's coast. Within NOAA are the National Ocean Service and National Marine Fisheries Service.

The National Marine Fisheries Service (NMFS) implements the Magnuson-Stevens Fishery Management Act policies, monitors and established federal catch limits, restores coastal wetlands and shellfish habitat, and assesses national resource damage to federal trust species. NMFS has coordination authority over 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 Act, and has joint responsibility with the US Fish and Wildlife Service of 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 Office of Ocean and Coastal Resource Management (OCRM), part of NOAA provides national leadership, strategic direction and guidance to state and territory coastal programs and estuarine research reserves

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### THE UNITED STATES COAST GUARD (USCG)

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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 mission includes promoting maritime safety, security and mobility, providing for national defense, and protecting natural resources. The USCG performs search and rescue operations in coastal areas for missing boaters, lost swimmers, and sinking vessels. The USCG is also involved in law enforcement on the water, particularly reckless boating, boating while intoxicated and drug interdiction. In addition the USCG has authority over the permitting of bridges. A major responsibility of the USCG is to respond to, investigate, and address oil spills in a water body. The USCG has developed an Area Contingency Plan for each section of the State for spills and response and serves as the federal On Scene Coordinator for spills.

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### THE UNITED STATES GEOLOGICAL SURVEY (USGS)

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The United States Geological Survey (USGS) is a federal agency housed within the Department of the Interior. The mission of the USGS is to serve the nation by providing reliable scientific information to describe the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy and mineral resources; and enhance and protect our quality of life. The USGS is typically known for mapping the nation's water, earth, and biological science. The USGS collects, monitors, analyzes and provides scientific understanding about natural resource conditions, issues and problems. Although this agency has no regulatory authority, it does provide research and technical assistance for coastal zone management under the Coastal Zone Management Act of 1976.

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## 7.3.1 STATE AUTHORITIES AND AGENCIES

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### STATE GENERAL ASSEMBLY

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The South Carolina General Assembly is the legal legislative body of the State and 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, 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 authority from the South Carolina General Assembly.

#### DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

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DHEC is the state's health and environmental management agency comprised of five deputy bureaus including Administration, Health Regulation, Health Services, EQC, and OCRM. The mission of DHEC is to promote and protect the health of the public and the environment in South Carolina. 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

The Department of Health and Environmental Control 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 systems, public and private wells and other inspections, manages air emissions, brownfields, 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 out to three nautical miles. Formerly known as the South Carolina Coastal Council, DHEC OCRM consists of a Regulatory Programs division and a Coastal Services division. The Regulatory Programs division reviews and permits activities within the Critical Area, including, docks, estuarine erosion control, beach renourishment, wetland impacts, and marinas within the eight coastal counties. The Coastal Services 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, administers grants and manages the preparation of local comprehensive beach management plans.

#### DEPARTMENT OF NATURAL RESOURCES

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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 through conservation, 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

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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 is responsible for hiring the 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.

Interestingly, the DOT constructed the first erosion control structures (timber-pile groins) on Folly Beach.

#### EMERGENCY MANAGEMENT DIVISION

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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.

#### 7.4. PRIOR STUDIES/REFERENCES

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Catherine E. Heigel, Director

*Promoting and protecting the health of the public and the environment*

## **Response to Comments Received Local Comprehensive Beach Management Plan for the City of Folly Beach**

DHEC-OCRM announced a 30-day public comment period and opportunity to request a public hearing on November 18, 2015 and posted the locally-adopted plan on the DHEC-OCRM website. The 30-day public comment period closed on December 18, 2015.

Public comment was received by DHEC via e-mail and at the Department's public hearing. Comments received were reviewed and considered in the development of the approval findings. This document summarizes the comments and provides response to comments received in consideration of the State Beachfront Management Act, S.C. Code Ann. § 48-39-250 *et seq.* and associated regulation.

### **Comment 1:**

*On a whole, I support Folly Beach's much needed update of their Local Comprehensive Beach Management Plan. However, as drafted, the plan would adopt several flawed regulations that Folly Beach has admitted need fixing. Most of these issues relate to the City of Folly Beach's use of the OCRM baseline as the defined line for zoning. This presents a problem because the OCRM baseline on Folly Beach is not tied to the actual beach and dune conditions but rather an arbitrary line that resulted from negotiation in the 1990s/ The reality on Folly Beach is that the beach is not like it was in the 1990s and either the OCRM baseline or the Folly zoning laws need to be updated to address this fact. Because of the highly erosional nature of the beaches as result of the influence of the jetties, Folly Beach is not a 40-year retreat beach. Seawalls are a menace, when 90% of the beachfront is armored it is both irrational and punitive not to allow the remaining properties to install seawalls that tie-in to seawalls abutting their property. The absence of this provision serves to undermine the overall goal of ensuring that all property owners on Folly receive a reprieve from the regulations that are not appropriate given Folly's unique situation. While a comprehensive solution to the influence of the jetties would be a better long-term solution, the State City of Folly Beach and the federal government have elected to use periodic beach renourishment as a remedy to the problem. That is fine. However, there are times when renourishment doesn't come as quickly as it's needed. Today is a good example. The past two months have decimated much of Folly's recent renourishment. While we hoped to wait until 2020, Folly Beach needs to add more sand to the beach now. It will likely take a year or more, however, to get that sand. In the interim, property owners should be permitted to take reasonable steps to protect their land until renourishment occurs.*

### **Department Response:**

The Department's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 have been addressed. Further, property owners can take reasonable steps to protect structures on their property in emergency situations through the emergency order process afforded through S.C. Code of Regulation 30-15(H).

### **Comment 2:**

*Folly Beach's zoning laws are enforced in OCRM critical areas even though they do not cover these areas. As one example, Folly restricts lot coverage to be 35% of the high ground exclusive of critical areas. However, if OCRM permits a home seaward of the OCRM baseline, Folly seeks to re-write their zoning to read 35% of the lot to*

## **Response to Comments Received Local Comprehensive Beach Management Plan for the City of Folly Beach**

*include critical areas. It is poorly written law and needs to be corrected at the local level. It does not need to be and should not be included by DHEC as it is flawed.*

### **Department Response:**

A county or municipality in South Carolina is authorized to exercise the powers granted under the South Carolina Local Government Comprehensive Planning and Enabling Act of 1994 (S.C. Code Ann. §6-29-310 *et seq*) in the total area within its corporate limits. The normal police power authorities, including zoning, are granted to counties and municipalities through this Act. As previously noted, the Department's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 have been addressed. If the City of Folly Beach were to amend the referenced zoning regulation, then the Local Comprehensive Beach Management Plan would also need to be updated to reflect that modification.

### **Comment 3:**

*Section 1.2.1: City of Folly Beach Exemption, paragraph 5, states that Folly Beach is exempt from the 50% rule on sea walls. As I understand this, Folly Beach owners can rebuild a seawall that is more than 50% damaged. This should not be allowed for the following reasons:*

*1. Scientific consensus supports the hypothesis that our climate is becoming warmer. With a warmer climate, sea level will rise due to a) thermal expansion of the ocean waters, and b) addition of water volume to the ocean basins due to melting continental ice sheets. With a rise in sea level, we will also see a landward shift in shoreline position. Seawalls reflect wave energy and scour (erode) the beach at the base of the seawall. They also hinder longshore drift once the seawall/bulkhead structure juts onto an active beach face, thus negatively affecting down-drift properties. Sea level rise will exacerbate this seawall-induced erosion.*

*2. Seawalls hinder endangered loggerhead turtle nesting. Once a turtle encounters a seawall on her crawl to the non-existent dune base, the turtle abandons her plans and returns to sea. I can provide photo-evidence of loggerhead turtles turning away from a seawall and heading back to sea without producing a nest.*

*3. Seawalls, that jut out onto the open beach face prevent public access to the beach at high tide. At least 14 houses on the far eastern end of Folly Beach tend to lie on the active beach face. This is because they were built seaward of the equilibrium shoreline position. Within 5 years (or less at the current rate), these properties will once again become part of the active beach face, thus preventing public access to the beach. Source: 2015 Beach monitoring report: <http://www.cityoffollybeach.com/about-folly/beach-preservation/>*

*Folly Beach should lose the exemption to rebuild seawalls if damaged more than 50%. Even if climate change were not a part of the equation, sea walls on the eastern end of the island contribute to all of the problems stated above (reasons). But scientific consensus supports the reality of climate change, and the subsequent rise in sea level. Sea walls located on Folly Beach will only present a larger problem then.*

### **Department Response:**

The State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements specified in S.C. Code Ann. §48-39-350 have been addressed.

Further, S.C. Code of Law Ann. §48-39-300 states that, "a local governing body, if it notifies the department before July 1, 1990, may exempt from the provisions of Section 48-39-290, relating to reconstruction and removal of erosion control devices, the shorelines fronting the Atlantic Ocean under its jurisdiction where coastal erosion has

## **Response to Comments Received Local Comprehensive Beach Management Plan for the City of Folly Beach**

been shown to be attributed to a federally authorized navigation project as documented by the findings of a Section 111 Study conducted under the authority of the Rivers and Harbors Act of 1968, as amended by the Water Resources Development Act of 1986 and approved by the United States Army Corp of Engineers. Erosion control devices exempt under this section must not be constructed seaward of their existing location, increased in dimension, or rebuilt out of materials different from that of the original structure."

### **Comment 4:**

*The proposed Beach Management Plan for Folly Island requires further study. DHEC-OCRM should make the needed changes, corrections, additions, and revisions, or return the Plan to the City of Folly Beach to give them a chance to submit an acceptable Plan. Granted, we need a new Plan since one is required every 5 years and the last and only one the City ever did was in 1992. But we need and deserve a Plan firmly grounded in fact because this is the only way we can achieve a realistic and useful future for our Island's beach.*

### **Department Response:**

The State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed.

### **Comment 5:**

*There are several major problem areas with this proposed Plan. First, there is the reliance by the City on the conclusion that the harbor jetties are the cause of the so-called **chronic erosion** problem on Folly Island. This ignores the historic **cycles of accretion and erosion** on Folly Island. Where does the sand come from during periods of accretion? In 1984 the normal high tide line was about the same as the normal high tide line just before the most recent renourishment project. In between these erosion cycles there was an accretion cycle with a beach several hundred feet wide. How can a beach have chronic erosion when it has accretions lasting almost two decades? A Beach Management Plan must not be based upon blaming the Corps of Engineers and then begging for state and federal dollars to pump sand onto Folly Island.*

### **Department Response:**

The State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed.

Further, please refer to S.C. Code Ann. § 48-39-290(E) for reference to the Section 111 Study that was conducted by the U.S. Army Corps of Engineers. Additional information on the Section 111 Study, in addition to subsequent renourishment documentation, is available on the Army Corps website

### **Comment 6:**

*Second, the present 1992 Plan describes a **baseline or setback line** for Folly Island that is more landward, and much more protective of the public beach, than the line being used by the City for the last 20 years or so. How did this line get changed? When was it changed? Who changed it? Is the change legal? Is the change violative of renourishment contracts with the Army Corps of Engineers and with DHEC-OCRM? All of these questions, and more, need to be answered in a new Beach Management Plan.*

### **Department Response:**

The baseline depicted in the 1992 LCBMP did change to the line as it exists today (the officially adopted baseline). This difference can be attributed to the 1990 statutory exemption; the baseline illustrated in the 1992

## **Response to Comments Received Local Comprehensive Beach Management Plan for the City of Folly Beach**

LCBMP reflects the baseline position that was being negotiated between the city and state at that time. The baseline was not made official until the 1994 adoption.

However, because Folly Beach's LCBMP has not been updated since the 1992 version, the subsequent line adoption in 1994 through today is not reflected in the 1992 LCBMP. The 1994 baseline position (officially-adopted) has not changed since and is the baseline currently reflected in Folly Beach's locally-adopted 2015 Local Comprehensive Beach Management Plan.

### **Comment 7:**

*Third, this proposed Plan does not accurately describe the content of the **beach easement deeds** acquired by the City as a condition precedent to the first renourishment project. Why were the actual wording and requirements of the easements for public beach not included? The effect of these deeds needs to be based on more than verbal recollections which are at best vague and possibly incorrect and biased.*

### **Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed. Please direct your question to the City of Folly Beach.

### **Comment 8:**

*Fourth, how is the City going to enforce its **sea oat and sand dune protection ordinances**, something it did not do when the 14 houses were built out on the public beach?*

### **Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed. Please direct your question to the City of Folly Beach.

### **Comment 9:**

*Finally, a plan for our Island's beach has to include a policy of "**retreat**". DHEC requires this: "Consideration must be given to relocating buildings, removal of erosion control structures, and relocation of utilities". The Plan does not include this and it is absolutely necessary, especially when considering what to do with the 14 houses and their seawalls out on the public beach. This is actually the most pressing current problem facing Folly Island beach beyond The Washout. The City has publicly stated that it is now seeking more state and federal funds to protect the 14 houses out on the public beach. [This is a vital current problem before the City and several relevant and recent letters to the editor at The Post and Courier are included at the end of these comments.] Attempting to protect these houses ignores any policy of retreat and ignores the need by the Army Corps of Engineers to undertake a cost benefit analysis concerning the removal of these houses before planning or undertaking any project to place more sand around them. A responsible beach management plan would call for the removal of these 14 houses, along with their rocks, seawalls, septic tanks, and other debris.*

*It is irresponsible to base a beach management plan upon false premises. Our Island and its beach deserve and are entitled to a factually correct and complete Plan.*

*By returning this Plan to the City of Folly Beach, the City would have an opportunity to get this right, to produce a factually correct Plan, and to have a Plan that realistically plans for the present and for the future of Folly Island's*

## **Response to Comments Received Local Comprehensive Beach Management Plan for the City of Folly Beach**

*beaches. If DHEC-OCRM fails to return this Plan, then DHEC-OCRM has the legal, political, and fiduciary duties to correct and revise this Plan. Either way, the future of Folly Island's beaches is now in your hands.*

### **Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed. Your question should be directed to the City of Folly Beach.

Further, please refer to S.C. Code Ann. § 48-39-290(E) and information available through the U.S. Army Corps of Engineers.

### **Comment 10:**

*Blaming the erosion on the harbor jetties ignores the accretion and erosion cycles that have existed on the Island since at least the 1950s. These cycles are common to many barrier islands. When the land beyond The Washout was platted and sold in the early 1950s the beach was about as wide as it was in the late 1990s/early 2000s. There was an intervening erosion cycle which reached its height about 1984 before the accretion cycle began.*

### **Department Response:**

Please refer to the Department's response to comment 5.

### **Comment 11:**

*Did the contract between the Corps and the City, prior to the first renourishment project, make Folly Island subject to the State Act?*

### **Department Response:**

The City of Folly Beach has been included within limited state jurisdiction since the passage of the Coastal Tidelands and Wetlands Act in 1979. However, subsequent amendments in 1988 limited state beachfront jurisdictional authority Folly Beach. Please see S.C. Code of Law Ann 48-39-10 et seq for the annotated history of the statute.

### **Comment 12:**

*When the building permits were issued for the 14 houses out on the public beach, the City did nothing to attempt the enforcement of its contractual obligations with the Corps, nothing to enforce the provisions of the deeds of easement acquired from the property owners or their predecessors in title, nothing to enforce the dune protection and sea oat protection ordinances, and nothing to apply and enforce the baseline set out in the 1992 Beach Management Plan. The present Plan should at least explain why the City is now willing to enforce its obligations and its ordinances.*

*Law suits are mentioned. How does Lucas v. S.C. Coastal Council control the facts, including deeds of easement, on Folly Island? Was the City, the Corps, or DHEC, ever a party to any law suit attempting to prevent building on the beach lots? Was there a judicial interpretation of the meaning and requirement of the deeds of easement? These are all pertinent questions in determining what the City should attempt in the future, that future being defined in large part by this proposed Plan.*

## **Response to Comments Received Local Comprehensive Beach Management Plan for the City of Folly Beach**

### **Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed. Please direct your questions to the City of Folly Beach.

### **Comment 13:**

*The introductory paragraph of Section 1.4 is misleading and inadequate. There would be no critical erosion issues on the northeast end of the Island if there were not 14 houses and 2 vacant lots sitting out on the public beach and armored with all sorts of counterproductive seawalls and revetments. There are cycles of erosion on Folly Island, but there are also cycles of accretion. Thus, there can be no chronic erosion if there are cycles of accretion. At least as important as erosion is the current beach management issue of retreat and removal. This is critically important and the removal of the 14 houses and 2 vacant lots is a "Current Beach Management Issue" that should be included in this introductory paragraph and in this section. [See, at the end of these Comments, recent Letters to the Editor at The Post and Courier.*

### **Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed.

### **Comment 14:**

*Section 1.4.3 states in part that "property owners have been compelled to construct erosion control structures on private lands." The only lots needing protection are the 14 with houses out on the beach. These houses were built somewhat seaward of the normal high tide line that existed in the 1980s and seaward of the baseline set out in the current Beach Management Plan. There should be some discussion in this proposed Plan of not allowing any more seawall construction for these 14 houses and of removing the existing seawalls at these 14 houses and 2 lots.*

### **Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed.

### **Comment 15:**

*Section 2.4.2 is an excellent section. Only a few suggestions: Paragraph 6 – This should include some mention of plans to implement the removal of the 14 houses and the 2 armored or sea walled lots. Paragraph 7 -- Since dune protection and sea oat protection ordinances were not enforced when the 14 houses were built, should not this Plan have more discussion about how this will be accomplished? Last Paragraph – How about including the banning of all future seawalls which are seaward of the 1992 Plan's baseline and the banning of any repair to any such existing seawall?*

### **Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed.

### **Comment 16:**

*Saying that Folly Beach has been recognized for providing full and complete public access for the entirety of the Island may be a true recognition but the facts do not support this. The 14 houses and 2 vacant lots which are out on the beach hinder access up and down the beach, especially at high tide.*

## **Response to Comments Received Local Comprehensive Beach Management Plan for the City of Folly Beach**

**Department Response:**

The City of Folly Beach does provide full and complete public access to the beach per S.C. Code of Regulation 30-21 E(2). Information on site amenities can be found at: <http://gis.dhec.sc.gov/beachaccess/>

**Comment 17:**

*How did the Baseline, as defined and shown in the current Beach Management Plan (1992), get changed from what is shown in that Plan to the so-called Perpetual Easement Line? Shouldn't this be explained?*

**Department Response:**

Please refer to the Department's response to comment 6.

**Comment 18:**

*In Section 4.2.1 implementation of Objective NR1 should include removing the 16 lots and 14 houses that interfere with "wide, open, accessible, and usable" beach. Interestingly, the Note for NR1 on page 29 would not really need to mention beach renourishment if the 16 lots and 14 houses were not currently on the public beach.*

**Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed. Please direct your comment to the City of Folly Beach.

**Comment 19:**

*Should there be some explanation of where the sand comes from during accretion cycles? Since Folly Island has cycles of accretion, how can there be "chronic shoreline erosion"?*

**Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed. Please direct your question to the City of Folly Beach.

**Comment 20:**

*There might be some mention that The Washout was overwashed and several hundred feet of East Ashley Avenue was destroyed by Hurricane Hugo in 1989.*

**Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed. Please direct your question to the City of Folly Beach.

**Comment 21:**

*Wouldn't it be better, more accurate, and more honest, to say "critical erosion is expected to continue" at all 16 points on the beach where lots and houses have been allowed to protrude onto the beach? Without these 16 lots with their seawalls, rocks, septic tanks, lights that shine out into the ocean and up and down the beach, and other debris, renourishment would be working quite nicely and there would be no critical erosion.*

## **Response to Comments Received Local Comprehensive Beach Management Plan for the City of Folly Beach**

### **Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed. Please direct your question to the City of Folly Beach.

### **Comment 22:**

*On page 42, the picture does show the seawall, rocks, and protruding house [this was the first house allowed by the City to be built seaward of the 1992 Beach Management Plan Baseline] prior to the 2014 renourishment. The normal high tide line then was about what it was in 1984. This picture is also a fairly accurate representation of this seawall and house in September 2015.*

### **Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed. Please direct your comment to the City of Folly Beach.

### **Comment 23:**

*Should "shoal attachment event" be explained as a naturally occurring feature during barrier island beach accretion?*

### **Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed. Please direct your comment to the City of Folly Beach.

### **Comment 24:**

*If the baseline on Folly Island is "fixed" as stated here, how did that baseline get moved from the baseline shown and depicted in the current 1992 Beach Management Plan? Also, what are the beginning year and the ending year for the Shoreline Change Rates shown in Table 7?*

### **Department Response:**

Please refer to the Department's response to comment 6.

### **Comment 25:**

*On page 47, doesn't this data undermine and obviate the argument that the Charleston Harbor jetties, constructed in the late 1800s, are the cause of chronic erosion on Folly Island? And, there would be no so-called "erosional hot spot" in this area except for the 16 protruding lots and their 14 houses.*

### **Department Response:**

Please refer to S.C. Code Ann. § 48-39-290(E).

### **Comment 26:**

*On page 51, the first full paragraph is the most important paragraph in this Plan. It attempts to explain the deeds from property owners prior to the first renourishment. However, it fails in that explanation. The purpose of the Easement was to give the City of Folly Beach the right to "operate and maintain a public beach" on the property. The Easement provided that "no existing structures may be modified nor shall any additional structure*

## **Response to Comments Received Local Comprehensive Beach Management Plan for the City of Folly Beach**

*be constructed on the land except for” a dune walkway. Simply put, the lots are to be used in perpetuity for public beach and dunes. The City of Folly Beach contracted with the Corps, as a condition of the renourishment, to enforce these Easements. This is consistent with the explanation given by the Corps of Engineers at a public meeting at the Holiday Inn on December 6, 1991, which was tape recorded. At that meeting it was promised that nothing would ever be built seaward of the then existing beach front houses on the Island. This is the reason some lot owners actually stopped paying taxes on their lots because they had no real value once the deed was given and recorded. It is critically important that the explanation of these deeds be based on research by looking at and studying the deeds themselves, by listening to the tape of the representations by the Corps, by finding out how the Corps has historically interpreted these deeds [something the Corps would not provide except with a Freedom of Information Act request and the payment of a fee], and by determining how these deeds should now and in the future be applied and enforced. This paragraph must be correct. This proposed Beach Management Plan cannot be respected and enforced and will have no efficacy if this paragraph is not based on real research and if it gives an incorrect explanation about these deeds. Whatever time and effort it takes to get this right must be taken*

### **Department Response:**

As previously noted, the State’s review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed. Please direct your comment to the City of Folly Beach.

### **Comment 27:**

*It might be stated in this Section that the federal funding was not through normal Corps ordering and prioritizing of projects [Folly Island did not meet the funding cut] but was through reprogramming of funds by the Assistant Secretary of the Army. This project was also done without an environmental impact study, although requests for such a study were directed to the Corps and to the Assistant Secretary of the Army. If a study had been done, it most likely would have revealed the presence of the rocks that were pumped onto the beach and revealed the negative impact on accretion cycles of pumping more sand from off shore.*

### **Department Response:**

As previously noted, the State’s review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed.

### **Comment 28:**

*What monitoring was done between 1993 and 2015?*

### **Department Response:**

The Department conducts annual beach profile survey data; however, due to contracting issues, data was not collected by DHEC in 2012-2013.

### **Comment 29:**

*Except for the County Park and 1319 East Ashley, all emergency orders and sandbags shown in Table 8 were for lots and houses that were allowed to be built on the public beach after the first renourishment.*

### **Department Response:**

As previously noted, the State’s review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed.

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**Comment 30:**

*In Section 7.1, the photograph clearly shows the 16 protruding lots, 14 of them with houses, that are out on the public beach and is an excellent reference when thinking about and discussing these houses and the need to remove them. Think what the beach on Folly Island would look like if these lots and houses were removed!*

**Department Response:**

As previously noted, the State's review of locally-approved Local Comprehensive Beach Management Plans is limited to determine if the ten required elements in S.C. Code Ann. §48-39-350 has been addressed. Please direct your comment to the City of Folly Beach.

**Comment 31:**

DHEC OCRM should consider lateral beach access when determining if Folly Beach provides Full and Complete Public Access.

**Department Response:**

The Department recognizes the importance of lateral beach access and considers it when determining if a community provides reasonable public access. Folly Beach has demonstrated they provide the public full and complete public access to the beach and a means and commitment to provide such access. Full and complete public access is calculated based on S.C. Code of Regulation 30-21(F)(2)(b)(iv).