Town of Hilton Head Island

COMMUNITY SERVICES AND PUBLIC SAFETY COMMITTEE MEETING

Monday, October 24, 2022, 10:00 AM

AGENDA

The Community Services and Public Safety Committee meeting will be held in-person at Town Hall in the Benjamin M. Racusin Council Chambers. The meeting can be viewed on the Town's Public Meetings Facebook Page, the Beaufort County Channel and Spectrum Channel 1304.

1. **Call to Order**

2. **FOIA Compliance** Public notification of this meeting has been published, posted, and distributed in compliance with the South Carolina Freedom of Information Act and the requirements of the Town of Hilton Head Island.

3. **Roll Call**

4. **Approval of the Minutes**

   a. Regular Meeting - September 26, 2022

5. **Appearance by Citizens** Citizens who wish to address the Committee may do so by contacting the Town Clerk at 843.341.4701, no later than 4:30 p.m., Friday, October 21, 2022. Citizens may also submit comments on the agenda items via the eComment portal at Community Services & Public Safety Committee Meeting Information.

6. **New Business**

   a. Consideration of a Proposed Ordinance Updating the Local Comprehensive Beach Management Plan for the Town of Hilton Head Island to Submit to the SC Department of Health and Environmental Control's Office of Ocean and Resource Management

7. **Adjournment**

Please note, a quorum of Town Council may result if four (4) or more of their members attend this meeting.

Town of Hilton Head Island
COMMUNITY SERVICES & PUBLIC SAFETY COMMITTEE
Monday, September 26, 2022, 10:00 a.m.
MINUTES

Present from Committee: Bill Harkins, *Chairman;* David Ames, Tom Lennox, Glenn Stanford, *Committee Members*

Absent from Committee: Tamara Becker, *Committee Member*

Present from Town Staff: Josh Gruber, *Deputy Town Manager;* Chris Blankenship, *Fire Chief;* Joheida Fister, *Deputy Fire Chief;* Tom Dunn, *Emergency Manager;* Krista Wiedmeyer, *Town Clerk*

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1. **Call to Order**

Mr. Harkins called the meeting to order at 10:00 a.m.

2. **FOIA Compliance**

Ms. Wiedmeyer confirmed compliance with the SC Freedom of Information Act.

3. **Roll Call**

Ms. Wiedmeyer called the roll, confirming the attendance of the members present.

4. **Approval of the Minutes**

   a. Regular Meeting – July 25, 2022

   b. Special Meeting – August 16, 2022

Mr. Ames moved to approve. Mr. Lennox seconded. Motion carried 4-0.

5. **Appearance by Citizens**

None

6. **New Business**

   a. Fire Rescue Mid-Year Report – Chris Blankenship, Fire Chief

Chief Blankenship delivered a presentation to the Committee reviewing the last six months of activity. Throughout the presentation, he answered questions posed to him from the Committee.

   b. Consideration of a Resolution of the Town of Hilton Head Island Approving the Administrative Processes for the Town Council Appointed Boards and Commissions and for Elected Public Officials

Ms. Wiedmeyer reviewed the recommendation before the Committee, answering questions posed about the same. Mr. Lennox moved to forward the resolution to full Town Council for consideration and approval. Mr. Ames seconded. Motion carried 4-0.

7. **Adjournment**

The Committee returned with no action to be taken, adjourning at 11:16 a.m.

Approved:
Drafted and Submitted by:
Krista M. Wiedmeyer, Town Clerk

The recording of this meeting can be found on the Town's website at www.hiltonheadislandsc.gov

TOWN OF HILTON HEAD ISLAND

Community Services & Public Safety Committee

TO:	Community Services & Public Safety Committee
FROM:	Jeff Buckalew, PE, Town Engineer
VIA:	Shawn Colin, AICP, *Assistant Town Manager – Community Development*
CC:	Marc Orlando, *Town Manager*
DATE:	October 24, 2022
SUBJECT:	Adoption of the updated Local Comprehensive Beach Management Plan

RECOMMENDATION:

Planning Commission recommends the Community Service and Public Safety Committee approve and recommend the Town Council adoption of the updated Local Comprehensive Beach Management Plan

BACKGROUND:

The South Carolina Department of Health and Environmental Control Office of Ocean and Coastal Resource Management (SCDHEC-OCRM) is responsible for the management of the state's beachfront. The state Beachfront Management Act (S.C. Code Ann. § 48-39-250 et seq.) establishes statutory guidance and state policies for the beachfront, including a requirement that ocean beachfront counties and municipalities prepare local comprehensive beach management plans in coordination with DHEC OCRM. Once adopted by the community, local comprehensive beach management plans are then submitted to DHEC OCRM for review and state approval every ten years, however DHEC OCRM recommends the local communities update their plans every five years, and the Town's last official plan was updated in 2017.

The Town's first Beach Management Plan was approved by the South Carolina Coastal Council (SCCC); now known as SCDHEC OCRM and was adopted by Town Council on June 17, 1991. Since initial adoption, updates and amendments to the Plan have been reviewed by DHEC OCRM in 1992, 1995, 1998, 2001, 2009, 2011, and 2017.

Local comprehensive beach management plans are required, at a minimum, to include the following ten elements:

1. an inventory of beach profile and historic erosion rate data for each standard and inlet erosion zone under the local jurisdiction
2. an inventory of public beach accesses along with a plan for enhancing public access and parking

3. an inventory of all structures located in the area seaward of the setback line
4. an inventory of turtle nesting and important habitats of the beach/dune system and a protection and restoration plan if necessary
5. a conventional zoning and land use plan consistent with the purposes of the Act for the area seaward of the setback line
6. an analysis of beach erosion control alternatives, including renourishment of the beach under the local government's jurisdiction
7. a drainage plan for the area seaward of the setback line
8. a post disaster plan including plans for cleanup, maintaining essential services, protecting public health, emergency building ordinances, and the establishment of priorities, all of which must be consistent with the Act
9. a detailed strategy that highlights both short- and long-term planning objectives to protect, preserve, restore, and enhance the beach/dune system.
10. a detailed strategy for achieving the goals of preservation of existing public access and the enhancement of public access to assure full enjoyment of the beach by all residents of this state.

SUMMARY:

Local comprehensive beach management plans are an important and effective management tool for local governments. These plans provide guidance to state and federal agencies on local policies, regulations, and procedures related to beachfront management. These plans are also an important resource for beachfront emergency response and damage assessment programs.

Staff has worked closely with SCDHEC in developing these updates to the plan. Local comprehensive beach management plans are required to be reviewed by the local government every five years (2022). Additionally, updated revisions are required to be submitted for state approval every ten years (2027).

On August 17, 2022; the Planning Commission reviewed the proposed updates to the Local Comprehensive Beach Management Plan, and after consideration, unanimously voted to approve and recommend adoption by the Town Council of the Town of Hilton Head Island.

ATTACHMENTS:

1. 2022 updated Hilton Head Island Local Comprehensive Beach Management Plan
2. Ordinance to adopt the updated Local Comprehensive Beach Management Plan

PROPOSED ORDINANCE NUMBER 2023-__ ORDINANCE NUMBER 2023-___

AN ORDINANCE OF THE TOWN OF HILTON HEAD ISLAND, SOUTH CAROLINA, AUTHORIZING AN ORDINANCE TO PROVIDE FOR THE ADOPTION OF UPDATES TO THE LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN; AND TO PROVIDE FOR SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, in August of 2017, Town Council adopted the most recent version of the Town's Local Comprehensive Beach Management Plan; and

WHEREAS, in August of 2017, the South Carolina Department of Health and Environmental Control – Ocean and Coastal Resource Management (SCDHEC-OCRM) approved the Town's Local Comprehensive Beach Management Plan; and

WHEREAS, the Town of Hilton Head Island Local Comprehensive Beach Management Plan is required to be updated in accordance with the Beachfront Management Act (S.C. Code Ann. § 48-39-250 et seq), which establishes a requirement that ocean beachfront counties and municipalities prepare local comprehensive beach management plans in coordination with SCDHEC-OCRM; and

WHEREAS, SCDHEC-OCRM recommends that beachfront counties and municipalities update their local Comprehensive Beach Management Plans every five years; and,

WHEREAS, on August 17, 2022; the Planning Commission reviewed the proposed updates to the Local Comprehensive Beach Management Plan, and after consideration, unanimously voted to approve and recommend adoption by the Town Council of the Town of Hilton Head Island; and

WHEREAS, on October 24, 2022; the Community Service and Public Safety Committee reviewed the proposed updated Local Comprehensive Beach Management Plan and voted to approve and recommend adoption by the Town Council of the Town of Hilton Head Island; and

WHEREAS, Town Council now desires to adopt the updated Local Comprehensive Beach Management Plan; and

NOW THEREFORE, BE IT ORDERED AND ORDAINED BY THE TOWN COUNCIL FOR THE TOWN OF HILTON HEAD ISLAND, SOUTH CAROLINA, AND IT IS ORDAINED BY THE AUTHORITY OF THE SAID COUNCIL, AS FOLLOWS:

Section 1. Adoption.

The updates to the Local Comprehensive Beach Management Plan, attached hereto as Exhibit A are hereby adopted and shall supersede all past versions of the Plan.

Section 2. Severability.

If any section, phrase, sentence or portion of this Ordinance is, for any reason, held or deemed to be invalid or unconstitutional by any court of competent jurisdiction, then such section, phrase, sentence or portion shall be deemed a separate, distinct and independent provision and shall not affect the remaining portion thereof.

Section 3. Effective Date.

This Ordinance shall become effective upon adoption thereof by the Town Council for the Town of Hilton Head Island, South Carolina.

(SIGNATURE PAGE FOLLOWS)

PASSED, APPROVED AND ADOPTED BY THE TOWN COUNCIL FOR THE TOWN OF HILTON HEAD ISLAND, SOUTH CAROLINA, ON THIS ___ DAY OF _____, 2023.

_____

_____, Mayor

ATTEST:

_____
Krista Wiedmeyer, Town Clerk

Planning Commission Public Hearing: August 17, 2022
Community Service and Public Safety Public Hearing: October 24, 2022
Town Council First Reading: _____
Town Council Second Reading: _____

Approved as to form: _____
Curtis L. Coltrane, Town Attorney

Introduced by Council Member: _____

2022
LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

The Town of Hilton Head Island

Beaufort County, South Carolina

2022 TOWN OF HILTON HEAD ISLAND LOCAL COMPREHENSIVE BEACH MANAGEMENT PLAN

5-Year Update

Prepared by the Town of Hilton Head Island
in consultation with Olsen and Associates, Inc.

August, 2022

dhec
Healthy People. Healthy Communities.

August 30, 2017

Mayor David Bennett
One Town Center Court
Hilton Head Island, South Carolina 29928

RE: State Approval of the Local Comprehensive Beach Management Plan for the Town of Hilton Head Island

Dear Mayor Bennett,

In accordance with the Beachfront Management Act, S.C. Code Ann. § 48-39-250 *et seq.*, South Carolina Department of Health and Environmental Control's Office of Ocean and Coastal Resource Management (DHEC-OCRM) has reviewed and hereby approves the locally adopted Comprehensive Beach Management Plan for the Town of Hilton Head Island. Congratulations on your achievement and thank you for your commitment to effective collaborative management of our state's coastal resources.

Implementation of your state-approved local plan begins immediately and DHEC-OCRM published a public notice to that effect on Wednesday, August 30, 2017. As you are aware, the Town's Local Comprehensive Beach Management Plan must be updated at least every five years in coordination with DHEC-OCRM. Prior to your next scheduled plan update, we welcome your input as we work to streamline the plan development process, improve coordination and enhance the value of your plan as a meaningful resource for the Town and its residents and visitors.

Congratulations again on the approval of the Local Comprehensive Beach Management Plan for the Town of Hilton Head Island. We look forward to working with you on this and other efforts to promote and protect our coastal environment.

Sincerely,

Elizabeth Bevon Kolnitz
Chief, Ocean and Coastal Resource Management

cc: Stephen Riley, Town Administrator, Town of Hilton Head Island
Dan Burger, Director, Coastal Services Division, DHEC-OCRM
Will Salters, Planner, Coastal Services Division, DHEC-OCRM

S.C. Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201 (803) 898-3432 www.scdhec.gov

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EXECUTIVE SUMMARY

The United States Congress recognized the importance of meeting the challenge of continued growth in coastal areas by passing the Coastal Zone Management Act (CZMA) in 1972. This law established the guidelines of a state-federal partnership program to comprehensively manage coastal resources and was authorized in South Carolina in 1977 under South Carolina's Coastal Tidelands and Wetlands Act (CTWA) with the goal of achieving a balance between the appropriate use, development, and conservation of coastal resources in the best interest of all citizens of the state. The South Carolina Department of Health and Environmental Control's Office of Ocean and Coastal Resource Management (SCDHEC OCRM) is the designated coastal management agency for the State of South Carolina and is responsible for the implementation of the Coastal Management Program in conjunction with the National Oceanic Atmospheric Administration (NOAA) and coastal communities. SCDHEC OCRM has authority over the direct regulation of impacts to coastal resources within the critical areas of South Carolina's coastal waters, tidelands, beaches, and beach dune systems and has indirect certification authority over federal actions and state permit decisions within the eight coastal counties.

In 1988, the State of South Carolina adopted the South Carolina Beachfront Management Act, which is a complex law that requires the use of scientific studies of coastal processes to establish precise building setback lines along the coast based on historic erosion rates. The Act was amended in 2018 to adopt a policy of beach preservation and requires oceanfront counties and municipalities to prepare local comprehensive beach management plans in coordination with SCDHEC OCRM that become part of the State's management plan upon approval. These plans must be updated every 5 years.

This Beach Management Plan was prepared in compliance with the South Carolina Beachfront Management Act and was adopted as part of the Town's Comprehensive Plan It contains all the following:

- ✓ an inventory of beach profile data and historic erosion rate data for each standard erosion zone and inlet erosion zone;
- ✓ an inventory of public beach access and attendant parking along with a plan for enhancing public access and parking;
- ✓ an inventory of all structures located in the areas seaward of the setback line;
- ✓ an inventory of turtle nesting and important habitats of the beach/dune system and a protection and restoration plan if necessary;
- ✓ a conventional zoning and land use plan for the area seaward of the setback line;
- ✓ an analysis of beach erosion control alternatives, including renourishment;
- ✓ a drainage plan for the area seaward of the setback;
- ✓ a post disaster plan including provisions for cleanup, maintaining essential services, protecting public health, emergency building ordinances, and the establishment of priorities;
- ✓ a comprehensive strategy for beach and dune restoration and preservation;

- ✓ a detailed strategy for achieving the goals of preserving existing public access and the enhancement of public access to assure full enjoyment of the beach by all residents of the State of South Carolina.

Through this plan the following beach preservation policies and beach management needs, goals and implementation strategies as recommended by SCDHEC-OCRM are adopted:

Beach Management Needs, Goals and Implementation Strategies

1. Beach Preservation

Need 1: *The Town should continue to maintain and protect existing beach/dune features and those features resulting from renourishment projects from development and redevelopment pressures.*

Goal 1.1: Have a well-maintained beach and dunes system that helps to preserve and protect the Island's manmade and natural resources and provides for a sound economic base.

Goal 1.2: Continue to Maintain and Protect the Beach/Dune System through the regulation of beachfront development.

Implementation Strategies:

A. Continue to implement its Capital Improvement Program and Land Acquisition Program to develop, renovate, or expand its beach parks.

B. Continue to hold densities along the beachfront to their current levels or below.

C. Continue to amend and enforce the LMO and Municipal Code to protect the established beach and dune systems, to provide for re-establishment of the dunes systems during redevelopment, and to provide for redevelopment scenarios after a natural disaster.

D. Continue to work with SCDHEC-OCRM during the update of the Town's Local Comprehensive Beach Management Plan.

E. Continue to promote environmental education programs and standards that stress protection of fragile areas and wildlife.

F. Continue to coordinate with the Chamber of Commerce in tourism efforts to promote our beach.

G. Continue to support state legislation for enhanced protection of the beach and dunes system which should include an effective beach preservation policy in addition to considering renourishment efforts.

H. Continue to provide input to SCDHEC-OCRM during the update of the State's Beach Management Plan.

I. Continue to work with the State to receive beach renourishment funds in the event the Town does not have local funding to renourish qualifying areas.

2. Beach Access

Need 2: *With most of the oceanfront land under private ownership, the Town should seek ways to work with developers to incorporate public beach access in redeveloped sites, and to work with Property Owners Associations to protect accesses that currently exist.*

Goal 2.1: Have adequate public beach access at Town-owned sites and seek innovative solutions to provide additional beach access for the public in privately owned neighborhoods and commercial areas.

Implementation Strategies:

A. The Town should continue to implement its Capital Improvement Program and Land Acquisition Program to develop, renovate, or expand its beach parks.

B. Continue to work with oceanfront developments to provide public access to the beach during redevelopment. Also work with neighborhood associations to protect neighborhood access points.

C. Develop methods of increasing public awareness concerning beach access points through better access signage, informational kiosks, directional signage and brochures.

Town of Hilton Head Island's Beach Preservation Policy

The State's Beach Management Act requires local plans to include a beach preservation policy. The Town's original Beach Management Plan was first adopted in 1991. Today, the Town's Beach Management Plan is predicated on a comprehensive beach and dune restoration and preservation policy. This includes comprehensive beach restoration, maintenance, and monitoring as well as controls on the location of beachfront development and the activities that can occur near the beach and dune along the 14.8 miles of beach and dune area along the island.

Beginning in 1990, the Town embarked on an ambitious renourishment program with an ongoing maintenance program of sand fencing and native plantings. Since 1990, six additional beach restoration and maintenance projects have been completed. As a result, of these beach renourishment and maintenance projects, 13.7 miles of the beach and dunes system have been enhanced (also known as the "engineered beach"), thereby resulting in expanded areas that are subject to development pressures by construction that is not in the public interest and would not be in accordance with preservation policies and goals of the State of South Carolina and the Town of Hilton Head Island. In a few instances, the SCDHEC OCRM designated a newly formed embryonic dune as the new primary dune, which allowed development on the landward, and sometimes larger, dunes. However, legislation passed in 2016 by the State now prohibits the movement of the baseline seaward after December 31, 2017.

It is not and has not been the intent of the Town to encourage or permit development to move seaward as a result of the Town's beach renourishment projects and efforts. The Town's intent in pursuing the renourishment program is:

- ✓ To protect, preserve, restore, stabilize and enhance the beach/dune system through beach renourishment and other appropriate means, to provide for the protection of life and property, and to act as a buffer from high tides, storm surge, hurricanes, and erosion;
- ✓ To prohibit development from moving seaward onto new dunes or beach areas formed as a result of the Town's beach renourishment projects and efforts;
- ✓ To provide an important basis for a tourism industry that generates annual revenue for the State of South Carolina and the Town;
- ✓ To provide habitat for numerous species of plants and animals which are threatened or endangered, or which may become threatened or endangered as a result of the loss of the beach/dune system
- ✓ To provide habitat for beach/dune system vegetation that is unique and extremely important to the vitality and preservation of the system; and
- ✓ To provide a recreational beach at high tide.

1 – INTRODUCTION

1.1 PURPOSE

Local comprehensive beach management plans are an important and effective management tool for local governments to develop strategies for managing and protecting coastal resources. In South Carolina, if a local government wishes to participate in the state funding programs available for beach renourishment or other grant programs, the governing body must adopt and enforce a Local Comprehensive Beachfront Management Plan that is consistent with the South Carolina Beachfront Management Act. Section 48-39-350 of the South Carolina Code of Laws required local governments to prepare a local comprehensive beach management plan by July 1, 1991. This plan is to be updated at least every five years following its approval by the State of South Carolina.

The purpose of the Town of Hilton Head Island's Beach Management Plan is to:

- ✓ Provide guidance for ordinances and actions that protect and preserve the beach and dunes;
- ✓ Provide guidance for local ordinances and actions that regulate development near the beach and dunes;
- ✓ Provide guidance and goals for future beach access;
- ✓ Provide guidance for beach management and maintenance; and
- ✓ Provide goals for future protection, preservation and regulation of the beach and dunes system.

1.2 HISTORY OF PLAN APPROVALS AND REVISIONS

The Town's first Beach Management Plan was approved by the South Carolina Coastal Council (SCCC; now known as South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management – SCDHEC-OCRM) and was adopted by Town Council on June 17,1991. Over time, the Plan has been amended by Town Council including amendments to the public access improvement section, changing the number of beach access parking spaces and the implementation schedule of the Plan. The Beach Management Plan was also adopted as part of the Town's Comprehensive Plan in 2004, 2010 and 2020. Since initial adoption, the Plan has been reviewed by the State in 1992, 1995, 1998 and 2001. In 2009 a complete update of the plan was approved by SCDHEC-OCRM, and then minor modifications to beach parking were approved in 2011, which were also adopted as an appendix to the Town's Comprehensive Plan. The plan was then updated and approved again by SCDHEC-OCRM in 2017. This is the five-year update to the plan as recommended by SCDHEC-OCRM.

1.3 OVERVIEW OF HILTON HEAD ISLAND

Hilton Head Island is located along the Atlantic Coast in Beaufort County, South Carolina. The Island is located about 22 miles northeast of Savannah, Georgia, and 15 miles south of Beaufort, South Carolina. It occupies a land area of approximately 23,000 acres (54 square miles), with approximately 34.4 square miles of high ground, and is approximately 12 miles long and 5 miles wide, making it the largest oceanfront island on the Atlantic seaboard between New York and Florida. It is bounded on the northeast by Port Royal Sound, Calibogue Sound to the southwest, and Skull Creek, part of the Atlantic Intracoastal Waterway, to the north.

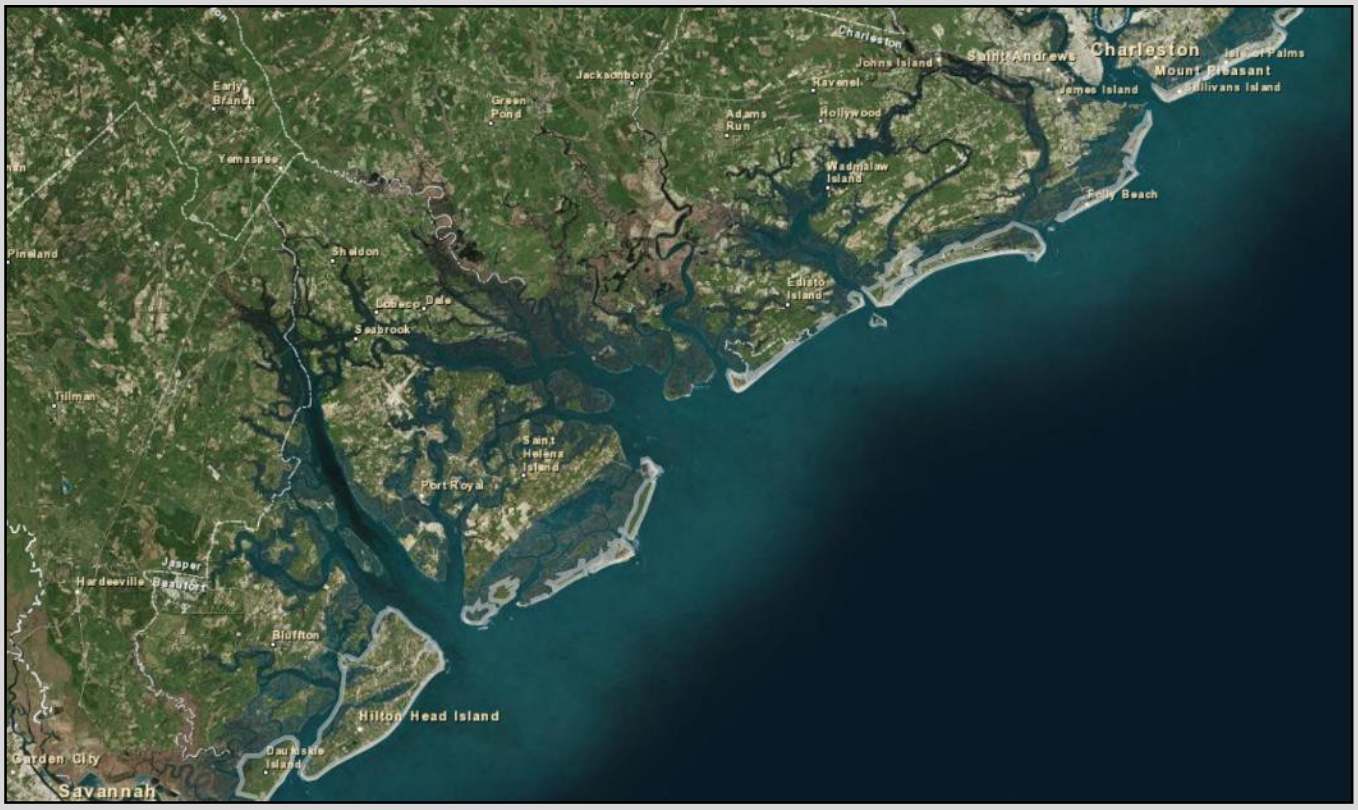


Figure 1 – Hilton Head Coastal Vicinity Map
Source: SCDHEC OCRM (

The Island's southeast shoreline faces the Atlantic Ocean and has a beach that stretches 14.8 miles from Braddock Cove in the south to Fish Haul Creek in the north. That beach segment runs uninterrupted except for a small tidal inlet located mid-island, called The Folly. Historically, the Island has had a wide, sandy beach along the northern and southern shorelines and a narrow, recreational beach mid-island at low tide. A seven-mile tidal inlet, Broad Creek, runs diagonally across the Island and opens into Calibogue Sound. The island is relatively flat with a maximum elevation of twenty-four feet in limited places. The average tidal range along the island can be between six and thirteen feet.

Access to the Island is provided by U.S. 278 over two, toll-free bridges, the Graves Bridge and Karl Bowers Bridge. William Hilton Parkway (US 278 Business) and the Cross Island Parkway (US 278) serve as the Island's primary roadways. The Fraser Bridge spans across Broad Creek to connect the Cross Island

Parkway with William Hilton Parkway on the south end of the Island. All other roads connect to these roads, making them the major thoroughfares that connect area residents and visitors to local residential, business, and recreational areas. From its beginnings as a rich and abundant agrarian community to its current status as a distinguished resort and retirement community, Hilton Head Island has become known for its unique island character which integrates high quality design in the built environment blended with the superior natural beauty of the Island's maritime forests, beaches, estuaries, wetlands, and diverse wildlife. Currently, approximately 70% of the Island has been developed as master planned communities, also referred to as Planned Unit Developments (PUDs), which contribute significantly to the unique character and demographics composition of the Island. These PUDs reflect a tradition of planned street patterns, dwelling sites, and locations for public and institutional activities adapted to a modern resort concept that is uniquely Hilton Head Island.

Figure 2: Aerial Photograph of Hilton Head Island

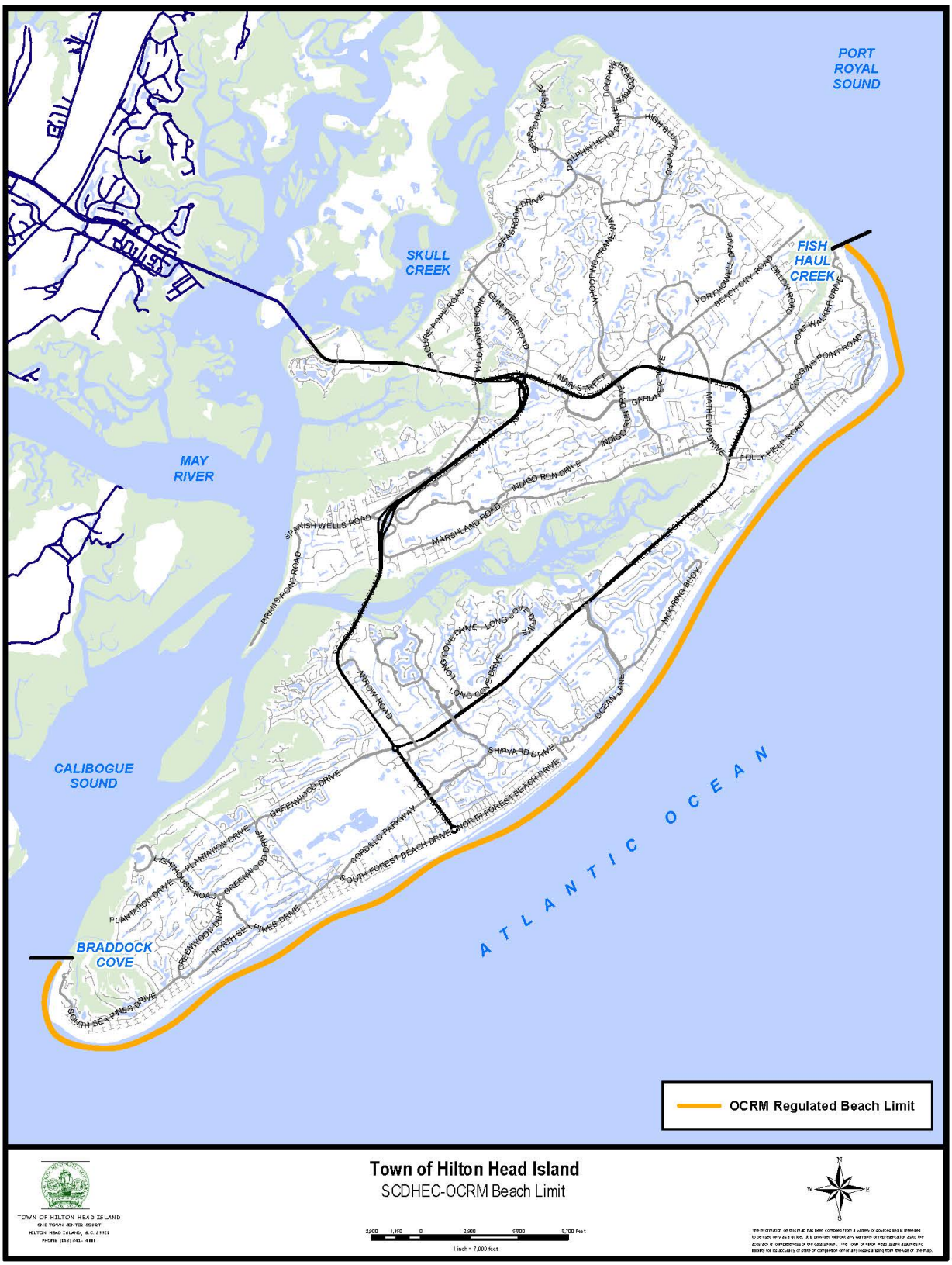


Figure 3 - Overview of Hilton Head Island and Limits of the OCRM Regulated Beach.

1.4 CURRENT BEACH MANAGEMENT ISSUES

Development Issues

One of the most significant threats to the shoreline of Hilton Head Island is from continuous development pressure to construct as closely to the dunes system as possible. With the Island approaching build-out, older developments are renovating or redeveloping with larger building footprints that push ever closer to the dunes system and beach. There are still several vacant parcels of land seaward of existing developments that usually encompass the dunes system, known as strand blocks. Most of these are owned by property owners' associations.

Environmental Issues

The Town also faces various environmental concerns in relationship to the management of its shoreline. Erosion of the beach is ongoing at some locations and has prompted the ambitious and expensive comprehensive beach renourishment and restoration program by the Town. The Town of Hilton Head Island has spent roughly $84 million in beach renourishment projects from 1990-2021, resulting in a wider, higher and more robust beach configuration suitable for both active and passive use opportunities at all stages of the tide. Annual monitoring of beach conditions is undertaken, and a sustainable and continuous local funding source has been established for the beach renourishment program. The potential for negative impacts from climate change and sea level rise will require the Town to continue to evaluate the long-term viability of renourishment as its primary shoreline management technique and plan accordingly.

In addition to beach renourishment, strategic shoreline stabilization has also been performed through the use of hard structures, such as groins and breakwaters at seven locations along the island's shoreline.

The protection and enhancement of the dunes system and its vegetation, as a part of an overall approach to beach management, is an extremely important issue for the Town. This area of the beach helps to protect life and property by serving as a storm barrier and habitat for several species of plants and animals, some of which are listed as threatened or endangered under the Endangered Species Act. As the number of beachgoers and activities on the beach increases, more demand will be placed on these important resources. Additionally, the protection of critical habitats, such as tidal inlets and creeks, like The Folly, as well as Fish Haul Creek, is also a concern.

Beach Access

There are very few undeveloped beachfront parcels remaining on the Island whereby public beach access could be expanded. This makes preservation, enhancement, and expansion where practical, of any current beach parking and access location critical to the Town's beach management. Redevelopment projects may offer the opportunity to secure additional easements open to the general public. Prior to the incorporation of the Town in 1983, public access to the beach was provided by more informal access areas. People often parked along the sides of roadways or on undeveloped properties to access the beach. As the Island has continued to develop, additional parking and access areas have been developed by the Town, as well as other beachfront developments, for visitors and residents of the Island. The Town has constructed eight public

beach parks. Other private developments contain a total of eight beach parks that serve thousands of visitors and residents of the Island.

Water Quality

It is important to maintain a high level of beach water quality to protect the natural functions (i.e., chemical, biological, and physical) and recreational opportunities (e.g., swimming, fishing, wading, boating). To support this, the Town of Hilton Head Island directs all storm water runoff and drainage away from the beach area, however there is a natural tidal inlet known as the Folly that does convey runoff from a very small area of developed land. Moreover, storm water quality is monitored monthly on Hilton Head Island at 18 watershed outfalls. SCDHEC OCRM monitors locations throughout the recreational swimming season, designated as April 15 through October
15. The Town of Hilton Head Island has not had a beach closure since 2014. The last time an advisory was issued was 2018, but it did not warrant a closure. Overall, beach water quality is very good to excellent. To ensure that this does not change, the Town must continue to monitor water quality and make any necessary changes as a result of test indications.

Hurricane and Storm Damage

As a coastal community, the potential for hurricanes and the associated impacts must be considered. In addition to the Town's efforts to maintain adequate storm protection through the continuation of beach renourishment, dune restoration and maintenance, maintenance of strategic shore stabilizing groins and breakwaters, as well as improvements in disaster response and recovery are being addressed. Since 2003, the Town has an adopted and updated a post-disaster recovery plan that will be implemented after experiencing the effects of a major storm event, as in Hurricanes Matthew (2016) and Irma (2017). In relationship to beach management recovery efforts, issues for the Town include the recovery and disposition of overwash sand, damage assessment of structures, and the permitting process for oceanfront properties. A later chapter will discuss planning efforts currently underway in regard to these issues.

Climate Adaption and Sea Level Rise

As Hilton Head Island is a barrier island subject to the impacts of sea level rise and other climate related affects, it is vital that a plan be developed to enhance resiliency of the island's infrastructure and developed areas against future storm events and potential sea level rise. In order to improve the resiliency of the island, the prudent application of climate change science and data to inform our administrative decisions, public policy, and infrastructure investments is critical. This year, the Town shall conduct a SWOT analysis, identifying the Strengths, Weaknesses, Opportunities and Threats of Hilton Head Island resiliency with respect to climate change and sea level rise. By using the most up to date models and sound information on future projections, the Town shall assess vulnerabilities and enhance our adaptive capacity with tools and actions designed to protect the short and long-term interests of our residents and businesses and public infrastructure by developing and implementing a climate adaption and sea level rise plan.

The Town's beach renourishment program, beginning with the project currently under design will include provisions for increased storm and sea level rise protections over the life of the project to enhance climate change resiliency.

Social Issues

The increasing popularity of the beach with a fast growing regional population and free or inexpensive beach parking has resulted in more intense use of the beach for recreational and commercial purposes. In addition to the increasing numbers of beachgoers, commercial companies are marketing the beach as a location for special events, such as weddings, parties, fitness programs, animal training, sporting events, religious services. The Town must ensure that these events do not interfere with any other franchise agreements that currently exist for beach areas and that other codes are not violated. This requires increased efforts by Town staff and other enforcement agencies.

Figure 4: Hilton Head Island recreational beach (in-season).

2 - INVENTORY OF EXISTING CONDITIONS

2.1 GENERAL CHARACTERISTICS OF THE BEACH

Hilton Head Island is a compound barrier island formed by the advancing and falling sea during which sediment was deposited and leveled a number of times. The northern portion is a core of marine sediments deposited during periods of higher sea level caused by melting of continental ice sheets in the early Pleistocene epoch (1 million- 10,000 years ago). This area generally extends from Skull Creek, east to Port Royal Sound and Fish Haul Creek, and west to Brams Point following the western bank of Broad Creek. Much of the land area east and southeast of Broad Creek is a "fringe" of marine sediments. Fine sand was pushed inland by the rising sea level, caused by another time of warming and thawing of ice during the Holocene Period of the Pleistocene Epoch. The approximate "foot" shape of Hilton Head Island is typical of barrier islands on the "mesotidal" shoreline, in the interior of the Georgia Bight. Islands in this area are wider than other barriers, strongly influenced by tides (2-4 meters in range), shaped by waves and currents, and develop ebb-tidal deltas such as Joiner Bank (Port Royal Sound) and Barrett Shoals (Calibogue Sound).

The existing conditions along the sand beach shoreline of Hilton Head Island are the result of natural erosion patterns and various shoreline stabilization efforts. Historically, wide, sandy beach areas generally occur along portions of the Island's shoreline, indicating areas of accretion. Accretion is the gradual buildup of sediment that results in an increase in the size (i.e., width) of the beach. Other areas of the Island's shoreline have been more vulnerable to erosion and have a narrower beach area. Typically, a wide, sandy beach occurs on the northern and southern ends of the Island, with a narrower beach occurring mid-island. Ongoing erosion has been continually mitigated by beach renourishment projects.

The limits of the SCDHEC-OCRM regulated beach run from Braddock Cove to Fish Haul Creek. In February of 2022, Section 8-1-112 of the Town's Municipal Code was amended to extend the limits of the Town regulated beach from Braddock Cove to Park Creek, from the first property line into the water 75 yards from the low water mark. The surface material of the beach contains a mix of silica sand, or quartz sand and shell fragments, which is typical of other shorelines along this area of the coast and has a light brown appearance. The native sand is approximately 0.18 to 0.22 mm in average grain size.

Along the shoreline, the existing dunes system varies in width and height. This system is defined by the Town of Hilton Head Island's Municipal Code as "one or a series of hills or ridges of wind-blown sand or one or a series of hills or ridges of sand resulting directly or indirectly from restoration or beach renourishment, all of which may or may not be anchored by vegetation and is in the vicinity of the beach." The average dune height is approximately six feet, with height ranging from three to twelve feet.

2.2 GENERAL LAND USE PATTERNS

Hilton Head Island is known for its natural beauty and a sense of harmony between the natural and built environment. Over 70% of Hilton Head Island has been developed with master planned communities, which occupy the majority of the Island's shoreline. These beachfront planned developments include Sea Pines, Palmetto Dunes, Shipyard, and Port Royal. In general, these developments are largely single-family developments with some multi-family and resort areas along the beach. Other beachfront areas include South and North Forest Beach, Folly Field, Singleton, Bradley/Burkes Beach, and Fish Haul/Mitchelville Neighborhoods.

According to the 2020 Census, there are approximately 37,661 permanent residents on the Island. Census data also indicate that the Island's population consists of a higher percentage of older adults and retirees with a median age of 57.9 and median household income of $86,171 and an average household size of 2.2 people. The beach and associated amenities drive the Island's economy and contribute significantly to the economic vitality of the region, supported by the Island's tourism industry.

2.2.1 Beach Uses

In the past 30 years, the beach at Hilton Head Island has gone from an area with low volumes of beach walkers, sunbathers, and swimmers to an area with more frequent and dense volumes of daily beach users. The primary uses of the beach include the traditional uses of walking, biking, wading, swimming, and sunbathing. The Town contracts with a private company, Shore Beach Services, to provide lifeguard services during certain times of the year. This service also includes litter patrol and collection, including recycling, and beach rental items. Other popular activities are fishing, surfing, kiting, volleyball, sailing, bocce ball, and other beach games. The beach is also used for special events such as weddings, parties, fitness program, animal training locations, racing events, and religious services.

2.2.2 Benefits and Values of the Beach

Natural habitats and resources are also recognized for the economic benefits that they provide. Protection of natural resources is identified in the Town's Comprehensive Plan as essential to maintaining the high quality of life on Hilton Head Island. Many residents have indicated that the attributes of coastal ecosystems, including marshes, mature trees, marine waters, and sandy beaches influenced their decision to purchase property on Hilton Head Island. In addition, the accessible ocean beach is a predominant factor in the local tourism and vacation rental economy. Eco-tourism has also increased as a strong economic market on Hilton Head Island and the surrounding area.

Hilton Head Island's shoreline is a diverse and productive ecosystem that serves as a critical link between the water and the land. The sandy beach and dunes system serves as the Island's first line of protection from the high winds and waves associated with storm activities and turbulent seas. This area also supports a rich web of life including animals like marine worms, clams, shrimp, and crabs that in turn attract predators such as seabirds, which depend on sandy beaches for their foraging activities. The beach provides critical nesting and foraging habitat for several species of marine turtles, shorebirds, and other animals.

Recreational opportunities such as fishing, swimming, beachcombing, bird-watching, and sunbathing are also provided by the beach and contribute significantly to the success of the multi-million dollar tourism industry on the island.

According to a recent College of Charleston study on the economic impact of tourism on Hilton Head Island, the Island hosted 3,126,856 visitors in 2021. The beach and its associated amenities were cited as the most important reason for choosing Hilton Head Island, according to the (Hilton Head Island Visitor Profile and Conversion Study, 2010. According to this same study, travel parties reported spending an estimated $2,726 per trip during week-long trips to the Island. In order to help maintain the recreational quality of the beach associated with this industry, the Town of Hilton Head Island utilizes recurring beach nourishment projects as its primary means of beach management, which is anticipated to be needed every seven to nine years.

The primary source of funding for these renourishments is a 2% local Accommodations Tax levied on short term rentals, hotels, and motel accommodations, which provided $1,959,607 last year and $10,010,412 over the last five years (2016-2021) in funding dedicated to beach renourishment and related monitoring, dune refurbishment, maintenance and operations, and new beach parks and beach access facilities. It is desired and anticipated that this source of funding will remain a viable resource in future years. The beach management program will also benefit from additional revenues derived from a new beach parking master plan. This document contemplates this and other issues surrounding the continuation of the Town's Beach Management Program and other alternatives for beach preservation. The Town adopted special zoning districts along the beachfront to prevent development from moving further seaward, which is discussed in more detail in the Land Use Development and Zoning section.

The economic impact of South Carolina's eight coastal counties was assessed in a 2020 report prepared by the S.C. Sea Grant Consortium (Gorstein, 2020). It reported that in 2017 the eight coastal counties produced 28% ($66.58B) of the State's total GDP. Within the ocean economy subset of the total economy (consisting of marine construction, living resources, offshore mineral extraction, ship and boat building, tourism and recreation, and marine transportation), tourism and recreation accounted 87% and 80.7% of the ocean economy work force and GDP, respectively. While population growth among the coastal counties increased by 51% over the 19 years from 2000-2019, Beaufort County exceeded this percentage, growing by 59% over the same period. Findings of the report indicate continued growth of the coastal population and ocean economy, and furthermore highlights the importance of sustainable use of the natural resources that support the ocean economy (Gorstein, 2020).

The economic impact of the coastal areas has also been recognized by DHEC OCRM in a report that was issued in October of 2002. According to this report, 22% of the state's economy is a result of the output of revenues from coastal areas. This report also indicated that a quarter of the state's population growth in the last 10 years has occurred in the eight coastal counties. One in every three new private jobs during the past decade has been created along the coast and when compared to other areas of the State the average income in coastal areas is higher (Henry, M.S. & Barkley, D.L. 2002. The Contribution of the Coast to

the South Carolina Economy. Clemson University Regional Economic Development Research Laboratory). https://www.scseagrant.org/assessing-south-carolinas-ocean-economy/

2.3 BEACHFRONT DEVELOPMENTS AND ZONING

The Town's Land Management Ordinance, in Chapter 3 (Zoning Districts) provides for the establishment of certain base and overlay districts for the purpose of guiding development in accordance with existing and future needs and to protect, promote and improve the public health, safety, morals, convenience, order, appearance, prosperity, and general welfare. Of these zones, a large portion of the beachfront area is zoned PD-1 (Planned Development Mixed-Use District). Sea Pines and Port Royal Master Plans specifically identify much of their beachfront area as 'open space.' To change this land use, it typically would require a vote of the majority of property owners as this property is typically owned by the POA. Such a change would then require a rezoning by Town Council. Other areas along the beach are classified into different zones. The designation of 'open space' along the beach is not specifically identified in these other zones as it is in the PD-1 zone.

Density in the beachfront zoning districts is limited, in part to protect and preserve the beach and dunes system. The PD-1 zoning districts are typically 2 or fewer units/acre. The beachfront zone which allows the most density is the Coligny Resort District, for which the allowable density is undefined; it is limited by applicable design and performance standards such as height and parking. The Resort Development District allows 16 dwelling units per acre.

The following is a listing and brief description of the character and purpose of each of the beachfront zoning districts (see Figure 5).

- PD-1 (Planned Development Mixed-Use District):
  The purpose of the Planned Development Mixed-Use (PD-1) District is to recognize the existence within the Town of certain unique Planned Unit Developments (PUDs) that are greater than 250 acres in size. Generally, these PUDs have served to establish the special character of Hilton Head Island as a high-quality resort and residential community. It is the intent in establishing this district to allow the continuation of well-planned development within these areas. In limited situations, some commercially planned portions of PUDs are placed within other base districts to more specifically define the types of commercial uses allowed.
- RSF-6 (Residential Single-Family-6 District):
  The purpose of the Residential Single-Family-6 (RSF-6) District is to primarily accommodate single-family dwellings at densities ranging up to six units per acre. It is intended to discourage any use that would substantially interfere with the development of single-family dwellings or would be detrimental to the quiet residential nature of single-family neighborhoods. The district also accommodates agricultural uses and parks as permitted uses.

- RM-8 (Moderate Density Residential District):
  The purpose of the Moderate Density Residential (RM-8) District is to allow the development of residential uses at densities up to eight dwelling units per net acre. The district allows a variety of residential uses, along with uses that support neighborhoods. The district is intended to discourage development that would substantially interfere with, or be detrimental to, moderate residential character.
- Coligny Resort District:
  The purpose of the Coligny Resort (CR) District is to recognize and promote further investment in the area near Coligny Circle as an activity center and a core high-energy and visitor-oriented resort destination that encourages people to live, work, and recreate within the district. The district is intended to accommodate relatively high-intensity commercial, office, residential, and mixed-use development that is pedestrian oriented and human-scale. It is also intended to promote development that integrates civic and public gathering spaces and connects to such places in nearby developments and public places.
- RD (Resort Development District):
  It is the purpose of the Resort Development (RD) District to provide for resort development in the form of multifamily development, bed and breakfasts, and resort hotels. It is also the purpose of this district to provide for commercial development aimed at serving the island visitor.
- PR (Parks and Recreation District):
  The purpose of the Parks and Recreation (PR) District is to accommodate and manage the land uses allowed on publicly held land used for active or passive recreation purposes, or publicly owned land preserved in its natural state for public enjoyment. Development in this district shall be allowed and designed to minimize, as much as possible, its impact on both the natural environment and the community.
- CON (Conservation District):
  The purpose of the Conservation (CON) District is to preserve and protect environmentally sensitive tidal wetland and beachfront lands subject to natural hazards by ensuring these areas only accommodate very low intensity development that minimally disrupts natural features or systems (either temporarily or permanently). The upland boundary of this district corresponds to the OCRM Critical Line and therefore is approximately coterminous with all tidal wetlands and the upland boundary of the beach, as defined in Section 8-1-112 of the Municipal Code, and extends outward to the Town jurisdictional boundary, as identified in Section 2-1-20 of the Municipal Code.
- FF-NC-O (Folly Field Neighborhood Character Overlay District):
  The purpose of the Folly Field Neighborhood Character Overlay (FF-NC-O) District is to protect the single-family residential character of the district and in particular the development and redevelopment of lots within the district. All new development and changes to existing development in the district are subject to the overlay district regulations in addition to those listed in Sec. 16-3-104.C, Residential Single-Family-5 (RSF-5) District.
- FB-NC-O (Forest Beach Neighborhood Character Overlay District):

The purpose of the Forest Beach Neighborhood Character Overlay (FB-NC-O) District is to protect the single-family residential character of the district and in particular the development and redevelopment of lots within the district. All new development and changes to existing development in the district are subject to the overlay district regulations in addition to those listed in Sec. 16-3-104.C, Residential Single-Family-5 (RSF-5) District.

- HH-NC-O (Holiday Homes Neighborhood Character Overlay District):
  The purpose of the Holiday Homes Neighborhood Character Overlay (HH-NC-O) District is to protect the single-family residential character of the district and in particular the development and redevelopment of lots within the district. All new development and changes to existing development are subject to the overlay district regulations, in addition to those listed in Sec. 16-3-104.D, Residential Single-Family-6 (RSF-6) District. Existing nonconforming structures and site features may be expanded as long as the site complies with certain standards for the required floor area ratio (FAR) and maximum impervious cover.

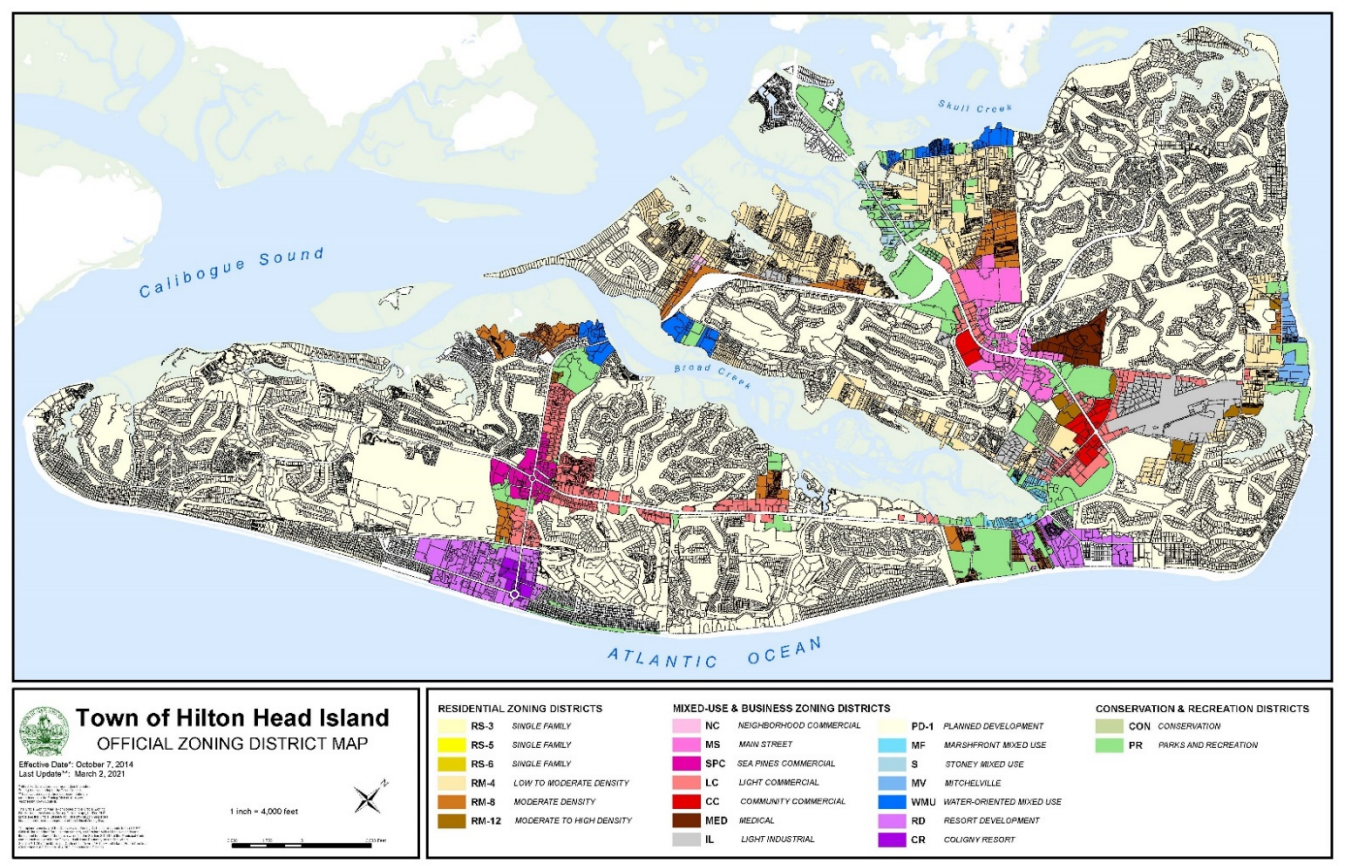


Figure 5: Hilton Head Island Zoning Map.

Zoning regulations for beachfront areas adjacent to these PUD's are based on their individual master plans as part of the Planned Development Mixed Use Zoning District (PD-1) within the Town. In addition to these regulations, the Town's Land Management Ordinance requires that developments along the beach comply with special zoning districts.

Table 1: Major Beachfront Planned Developments

Sea Pines Plantation: 4,694 acres 5,890 residential units maximum permitted (includes both single family and multi-family)
Shipyard: 726.3 acres 279 single family lots 1,588 multi-family/hotel units 1,867 units total
Palmetto Dunes: 1839 acres 1,231 single family 3,653 multi-family 4,884 total units
Port Royal: 1,254 acres 1,021 single family lots/homes 1,032 multi-family 2,053 total units

Town of Hilton Head Island, 2022

The following is a summary of the private covenants and restrictions that apply to each of the beach-front planned developments moving south to north along the Island's shore.

Sea Pines

Setbacks and other restrictions for properties in this PUD are outlined in the "Guidelines and Procedures for Design and Construction of Single-Family Residences" (November 1991). Owners of oceanfront lots are strongly encouraged to locate new homes as far from the beach as possible. As an example, the Sea Pines Architectural Review Board (ARB) has established a setback from the oceanfront property line for all vertical construction of 50 feet or 25 percent of the lot depth, whichever is greater. The ARB reserves the right, depending on special circumstances on a case-by-case basis, to approve variances from this setback guideline. The ARB also applies several aesthetic and natural setting considerations as it reviews proposed beachfront projects.

Setback requirements for pools and spas in Sea Pines are also outlined in the guidelines for beachfront lots the decks of "in-ground" and "above-ground" pool and spa units, including decking, are considered "vertical" structures and are thus subject to the minimum 50-foot setback from the beachfront property line.

Persons who believe these regulations are unfair, inconsistent with past practices, or fail to consider all relevant facts and information may formally request the matter be reviewed and reconsidered again by the ARB via an appeal or variance. The Guidelines and Procedures outline the process for such appeals or variances.

Shipyard

This development has very limited beachfront area, which is currently developed with a hotel and beach club for visitors and residents of the development. Beachfront setbacks for the development are not mentioned within the Shipyard ARB guidelines or restrictive covenants, so the Town's setbacks apply that are further described in Section 4.2.4, Beachfront Development Regulations.

Palmetto Dunes

Setback requirements for this development are outlined in its "Architectural Review Board Policies, Procedures and New Construction Guidelines" (March 2005). This outlines the beachfront setback requirements as generally being 50 feet from the beachfront. Pools and their surrounding decks have a setback of 20 feet. Variances from these setbacks may also be sought from the Architectural Review Board.

Port Royal

Setbacks in this PUD are outlined in the "Port Royal Plantation Plans Approval Board Guidelines and Procedures" (November 2005). Property line setback regulations require that no vertical construction shall be closer than 50 feet from a property line adjoining a golf course, lagoon, ocean, dune area or marsh. Variances and appeal procedures area also included.

2.3.1 Beachfront Structural Inventory

Section 48-39-350(A) (3) of the Beachfront Management Act requires all communities to include an inventory of all structures located seaward of the SCDHEC OCRM setback line as part of their local beach management plan. Structural inventory guidelines required by the state are as follows:

- If any portion of a structure is seaward of the setback line document the distance seaward the structure is located.
- Commercial structures are considered habitable structures;
- Count all detached structures as separate from the building(s) (decks, boardwalks, pools, etc.); and
- An erosion control structure which covers more than one tax parcel should be counted as a separate structure for each parcel.

This inventory was conducted in May 2022 using the Town's GIS data and can be found in Appendix 7.2. The summary of total numbers of beachfront structures seaward of the setback line is provided below:

2022 Beachfront Structure Inventory	
222	Habitable structures < 5,000 SF
18	Habitable Structures > 5,000 SF
27	Ancillary Structures
244	Swimming Pools
304	Decks/Patios/Driveways
372	Boardwalks
14	Fences
66	Rock Revetment
5	Concrete Seawalls and
5	Timber Seawalls

2.4 NATURAL RESOURCES AND ECOLOGICAL HABITATS

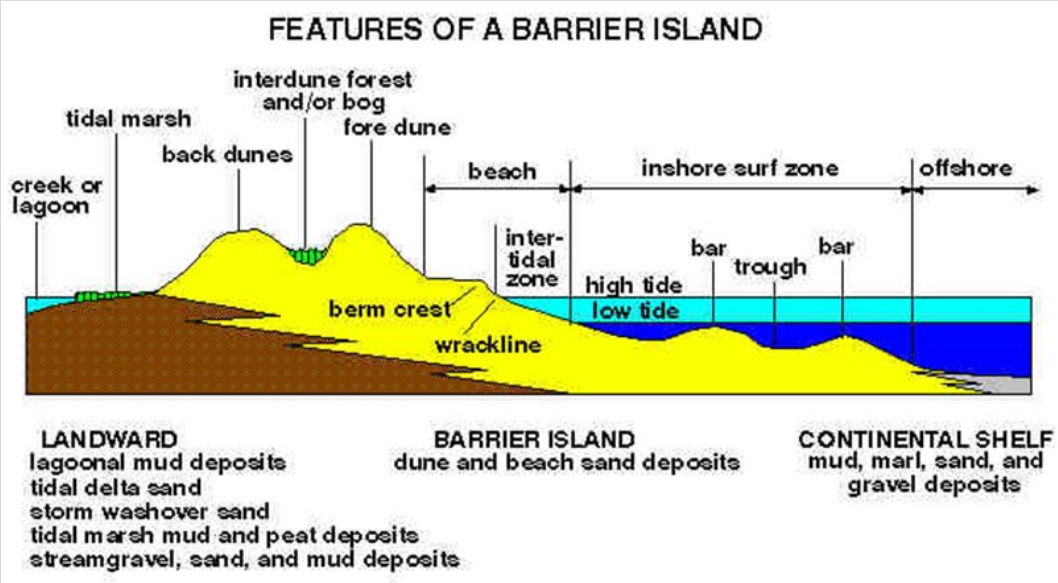


Figure 6: Typical features of a barrier island.

A main concern in managing South Carolina's oceanfront beaches is the protection and conservation of coastal natural resources and ecological habitats. As part of a coastal barrier island, the Hilton Head Island beachfront exhibits a variety of natural resources as a result of the diversity of ecotypes and habitats that occur. The interaction between shifting terrestrial sand dune and beach habitats, shallow coastal waters, and the open ocean result in a dynamic landscape that is used by various organisms.

Three terrestrial habitats are found around the Hilton Head Island beachfront, namely the beach community, maritime shrub thickets, and maritime forest. Maritime forests are upland communities typified by live oak, cabbage palmetto, and loblolly pine. Small remnant patches of this habitat are scattered throughout the island. Maritime shrub thicket communities commonly grow in older dunes, behind the primary dunes, and include salt tolerant shrubs such as wax myrtle, yaupon holly, and red cedar. Finally, the beach community generally includes the open beach and dune habitats, as well as the foreshore zone that is frequently inundated by the tides. Each ecological community provides benefits to plants and animals that use the habitat to forage, as shelter for nesting or for a combination of these uses.

The zone of dunes extends from the seaward edge of the beach berm to the seaward edge of the maritime forest tree line. Dunes on Hilton Head Island are relatively small due to the lack of strong, direct winds. Dunes form when wind-blown sand lodges against an obstacle, such as dune vegetation. Native plants, including sea rocket, seaside pennywort, morning-glory species, beach pea, dune sandbur, sea oats, seaside panicum, camphorweed, yucca species, wax myrtle and yaupon, are resistant to blowing salt and stabilize the dunes with their roots. The typical "dune field" has five zones:

- Sea wrack: Debris, primarily dead spartina grass, deposited by high tides;
- Embryo dune: Sand that collects in the sea wrack;

- Foredune: The seaward dune that is stabilized by plants;
- Interdune troughs: Low areas between dune ridges; and
- Back dunes: One or more dunes landward of the foredune populated by common seaside grasses, shrubs and stunted trees.

The importance of barrier islands as habitat for plants and animals is significant. Many animals are dependent on smaller prey available on open beach habitats as part of complex food webs. Some animals also require the sands of primary dunes on barrier islands, such as at Hilton Head Island, for nesting sites and are unable to successfully reproduce without access to this habitat. In the water, nearshore subtidal bars and sand flats can support large numbers and species of marine invertebrates and fish that cannot thrive in the open ocean. Long-term or permanent alteration to these habitats can affect the type, health, and vitality of marine plants and animals.

Natural habitats and resources are also recognized for the social and economic benefits that they provide. Protection of natural resources is identified in the Town's Comprehensive Plan as essential to maintaining the high quality of life on Hilton Head Island. Residents indicate that the attributes of coastal ecosystems, including marshes, mature trees, marine waters, and sandy beaches influenced their decision to purchase property on Hilton Head Island. In addition, the accessible ocean beach is a predominant factor in the local tourism and vacation rental economy. Eco-tourism has also increased as an economic market around Beaufort and on Hilton Head Island.

Several natural resource protection efforts have been achieved and continue for the Town of Hilton Head Island.

- **Beach nourishment:** Conducted in 1990, 1997, 1999 (emergency work at South Beach), 2006/07, 2011/12, and 2016/17, these projects have created suitable nesting habitat for sea turtles along miles of previously eroded and/or reveted beach. It protects the sand dune habitat, promotes native plant and animal species that depend upon it and protects the shoreline from destruction by erosion. Approximately 13.7 miles of beach have been nourished and renourished under these projects.
- **Dune rebuilding/revegetation:** Sand fencing and native beach plants are installed to help enhance the restoration of dune habitat previously destroyed by erosion.
- **Dune Protection Ordinance:** Prohibits the alteration, destruction, or removal of any portion of a sand dune, except by obtaining a valid permit for construction or development from all required governmental authorities, including the Town. It also prohibits the alteration, destruction, or removal of any dune vegetation, except as authorized by the Town.
- **Sea Turtle Protection Ordinance:** Adopted in 2021, this ordinance is to protect threatened and endangered sea turtles known to nest on the beaches of Hilton Head Island, including Loggerhead, Leatherback and Kemp's Ridley Sea Turtles, by limiting artificial light that is visible from the beach. Artificial light is documented to cause misorientation and disorientation of nesting females and sea turtle hatchlings, which is documented to lead to injury and death of adult sea turtles and hatchlings.

Prior to each season, the Town and the Coastal Discovery Museum and the Turtle Patrol volunteer organization use the media and informational brochures to advertise the ordinance and citizen's volunteer groups and beach front Property Owner's Associations help monitor and promote compliance. Town Code Enforcement Officers patrol the beaches regularly at night throughout the season to ensure compliance.

Sea turtle monitoring: This has been an ongoing program of Coastal Discovery Museum since 1984 (funded by the Town since 1989) that surveys and inventories sea turtle nests which provides information on nesting activity and hatchling success rate. The Town has been accurately mapping the nests since 1999 using GPS technology. Educational benefits are afforded to the public through opportunities for participation in the program, staff lectures and the distribution of a brochure written by the Town that gives information on sea turtle life history, states the regulations protecting them and gives contact numbers to report violations. (See Figure 8).

- **Tree Protection Ordinance:** Established in 1986, this ordinance protects native vegetation. Through the tree approval process, parcels are examined prior to development to ensure trees are marked for removal according to the approved site plan. Applicants are also encouraged to protect non-tree understory plants and are required to replant native trees similar to those removed if the post-development site no longer meets ordinance standards.
- **Wetland Protection Ordinance:** Established in 1986, this protects both salt and freshwater wetlands through the use of setbacks and buffers. Mitigation in-kind and on-site or - at another location on the Island is required for any wetland alteration. Monitoring the success of the mitigation is required for three years, with written reports required every six months and corrective action taken as necessary.
- **Design Review Board:** Established in 1987, this board reviews development projects along major roads, conservation districts, and waterfront areas (including beaches). It requires vegetated buffers (natural preferred) along waterfronts; reviews landscape plans to ensure that a post-development site is adequately vegetated and encourages the use of native plant materials.
- **Land Acquisition Program:** Established in 1990, this program uses funds from a Land Transfer Fee and allows the Town to purchase properties for a variety of reasons, including beachfront and environmentally sensitive lands. The Town now owns over 1,295 acres, acquired through this program. Most of the undeveloped beachfront property outside of the gated communities is now owned by the Town.
- **Town Staff:** The Town Engineer oversees the beach renourishment projects and the monitoring of the physical beach, the Environmental Planner reviews all beachfront site plans. There is a four-person Beach Operations team that, among other things, monitors the beach for litter and debris, maintains signs and beach mats, etc. The two Code Enforcement Officers are responsible for tree and wetland protection inspections and compliance, enforcement of beach related regulations and ordinances in the Town Code.
- **Water Quality Monitoring - Beachfront:** SCDHEC manages the water quality monitoring and

testing of the beachfront for enterococcus.

- **Shore Bird Protection:** The Town of Hilton Head Island monitors two federally threatened shorebirds, piping plovers and red knots, which typically occur on the north end of the island. Both species use the island during fall and spring migration and winter and may be present on the island from 15 July – 15 May. The monitoring area extends from Beach Marker 120 to Fish Haul Creek, and Mitchelville Beach to the north. Monitoring includes high tide surveys when birds are more concentrated to count and identify resting birds and low tide surveys to count and identify feeding birds and to determine where to conduct benthic sampling, which monitors food availability. To obtain local population numbers for the season, monitoring is done weekly in November; one resting survey and two feeding surveys are done monthly from December to mid-March, and two island-wide surveys are done during migration in March and September.

  Public education on these species is conducted via lectures and written articles in various media, brochures available in public areas of Town Hall, and information on these birds and their protection on the Town website and posted seasonally in the main lobby of Town Hall. Resting areas on the beach are posted with closure signs that prohibit entrance by dogs or people; these signs are relocated as the birds move their resting areas. Interpretive signs are also being designed for posting at public beach entrances.

2.4.1 Threatened and Endangered Species

Figure 7 shows a map of Piping Plover, Loggerhead Sea Turtle and proposed Rufa Red Knot Critical Habitat. Piping Plover and proposed Rufa Red Knot Critical Habitat are located on the north end of Hilton Head Island. There is no Critical Habitat for the Loggerhead Sea Turtle on Hilton Head Island. The closest Loggerhead Critical Habitat is approximately 2 miles north across the Port Royal Sound along the Bay Point Island shoreline. Nesting surveys on Hilton Head Island beaches in 2021 recorded 282 Loggerhead nests and 1 Green Sea Turtle nest (SC DNR, 2021).

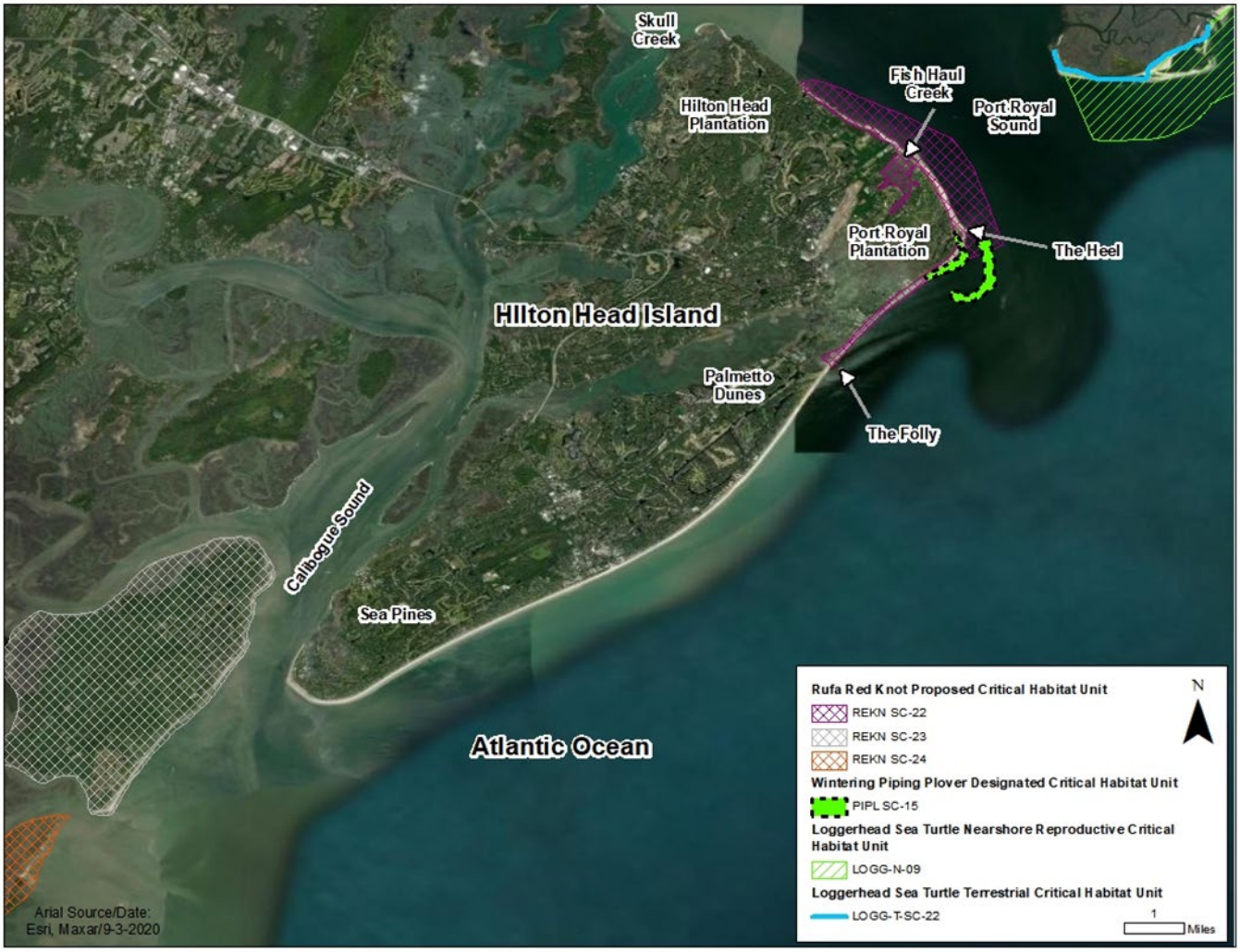


Figure 7: Designated Critical Habitat for ESA listed species on Hilton Head Island. Source: Coastal Eco-Group, Inc.

Table 2: List of Endangered and Threatened Species that use the beachfront and their associated State Wildlife Action Plan (SWAP) priority levels.

Common Name	Scientific Name	Federal	State	SWAP Priority	Habitat/Activity
Fish					
Shortnose sturgeon	*Acipenser brevirostrum*	E	E	Highest	Nearshore waters
Reptiles					
Loggerhead turtle	*Caretta caretta*	T/CH	T	Highest	Beaches (nesting)
Leatherback turtle	*Dermochelys coriacea*	E	E	Highest	Beaches (nesting)
Atlantic green turtle	*Chelonia mydas*	T	T	Highest	Beaches (nesting)
Kemp's ridley sea turtle	*Lepidochelys kempii*	E	E	Highest	Nearshore waters (foraging)
Birds					
Piping plover	*Charadrius melodus*	T/CH	n/a	Highest	Beaches, Intertidal flats (wintering)
Rufa red knot	*Calidris canutus rufa*	T	n/a	Highest	Beaches, Intertidal flats (wintering)
Bald eagle	*Haliaeetus leucocephalus*	T	T/BGEPA	High	Dunes
Brown pelican	*Pelecanus occidentalis*	n/a	n/a	High	Beaches
Least tern	*Sterna antillarum*	NL*	T	Highest	Beaches, Dunes (nesting)
Wilson’s Plover	*Charadrius wilsonia*	NL	T	Highest	Beaches, Dunes (nesting)
Wood stork	*Mycteria americana*	T	E	Highest	Dunes
Mammals					
West Indian manatee	*Trichechus manatus*	T	E	Highest	Nearshore waters (Wintering)

State listings are from the South Carolina Department of Natural Resources.
Federal listings are from the NOAA Fisheries Service and the USFWS.
SWAP priority levels are from the State Wildlife Action Plan, 2015 Supplemental Volume.
E = Endangered; T = Threatened; CH=Critical Habitat; BGEPA = federally protected under the Bald and Golden Eagle Protection Act; n/a = information not available or no designation listed.
*Denotes other portions of population are federally listed.

2.4.2 SEA TURTLE NESTING

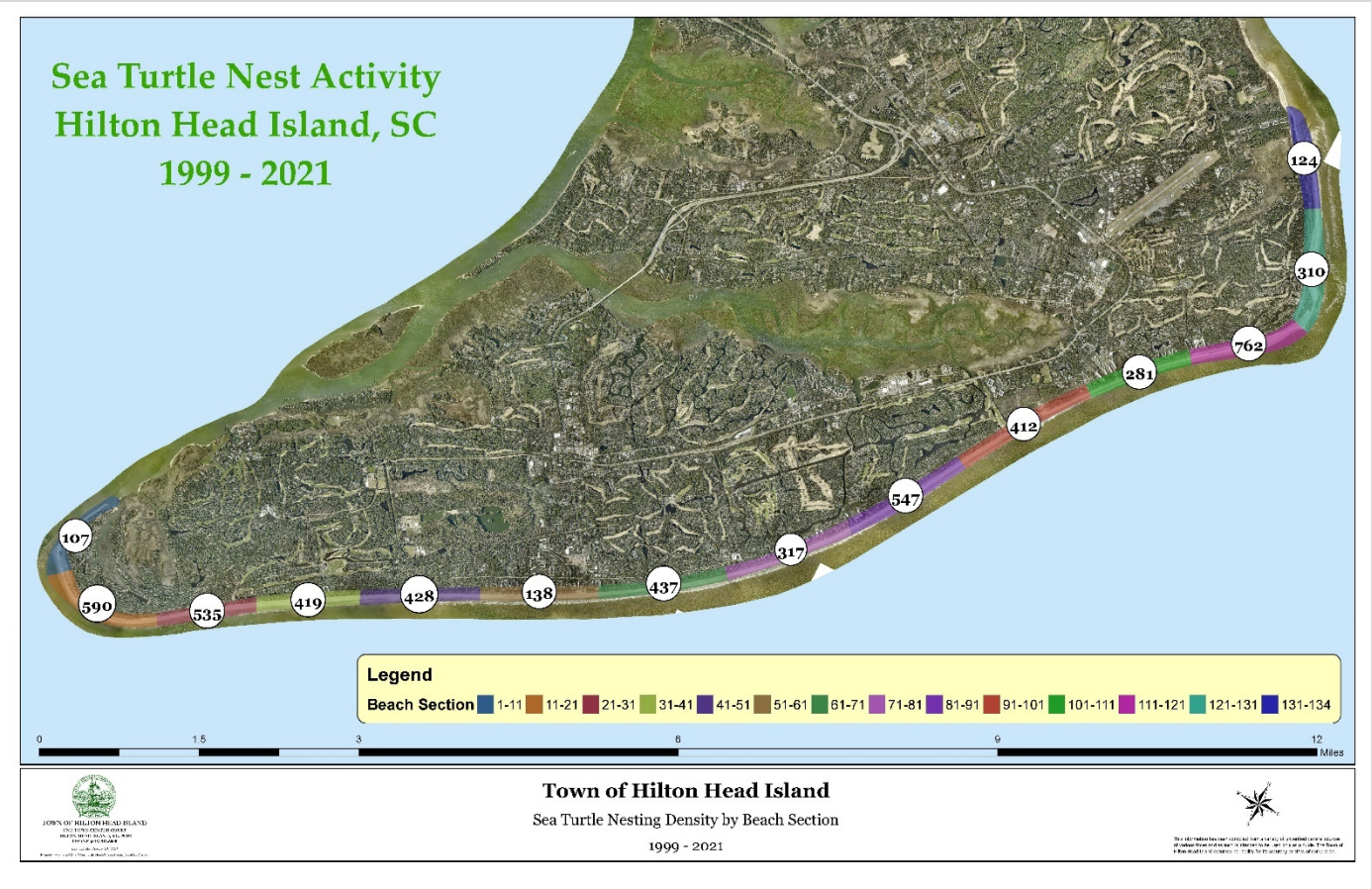


Figure 8: Sea Turtle Nesting Activity 1999-2021.

Sea Turtle Protections

- Hilton Head Island, South Carolina – Code of Ordinances/Title 8 – Beaches, Waterways, Recreational Areas and Arts/Chapter 5 Sea Turtle Protection (Version: December 2, 2021).
- South Carolina Coastal Zone Management Act/Title 48, Chapter 39 Section 48-39-350 Local Comprehensive Beach Management Plan
- USFWS. 2015. Statewide Programmatic Biological Opinion for the effects of U.S. Army Corps of Engineers planning and regulatory shore protection activities on the Northwest Atlantic Ocean distinct population segment (NWAO DPS) of loggerhead (Caretta caretta) and its designated terrestrial critical habitat; green (Chelonia mydas); leatherback (Dermochelys coriacea); hawksbill (Eretmochelys imbricata); and Kemp's ridley (Lepidochelys kempii); and designated Critical Habitat. South Florida Ecological Services Office. Vero Beach, FL. March 13, 2015. https://www.fws.gov/panamacity/resources/2015SPBO.pdf
- USFWS. 2013. Programmatic Piping Plover Biological Opinion for the effects of U.S. Army Corps of Engineers planning and regulatory shore protection activities on the non- breeding piping plover and its designated Critical Habitat. South Florida Ecological Services Office. Vero Beach, FL. May 22, 2013.

2.5 EXISTING PUBLIC ACCESS AND MAP

In 1989, the Town of Hilton Head Island received a $6,200,000 grant from the State of South Carolina (of which $2,500,000 was received from South Carolina Coastal Council) for a beach renourishment project. As part of this agreement, the Town committed to providing between 2,000-3,000 public beach parking spaces on the Island, with these facilities being within 1,000 feet of public beach access points.

The Town's original 1991 Beach Management Plan detailed public access parks, undesignated private parking areas, privately-owned beach access points (hotels, condominiums, and beach clubs), neighborhood access points, future public beach parks and facilities, and emergency vehicular access points. This was approved by the State and included a commitment of 2,000-2,500 parking spaces.

In 1998, the Beach Management Plan was amended by the Town and approved by South Carolina Department of Health and Environmental Control's Office of Ocean and Coastal Resource Management to include a Beach Access Plan, which outlined a plan to construct a total of 1,400 public parking spaces by December 2008, reducing the previous 2,000-2,500 parking spaces in the earlier plan. This plan also included the construction of spaces that could be reserved for Island residents and property owners; however, such spaces are not counted when the State designates "full and complete public access" areas on the beach, which can impact grant eligibility. In 2010, the Town entered into a contract with SCSCDHEC OCRM to receive $1,000,000 in grant funding for a beach nourishment project in return for establishing 25 (metered) public parking at the Islander's Beach Park located at 94 Folly Field Road. These spaces were the only available within ½ mile of that project and meet the SCSCDHEC classification requirements of a Neighborhood Public Access Park.

Currently, the Town has 1,412 beach parking spaces, of which 1,037 are open to the general public to access the SCDHEC jurisdictional beach, so they do not meet the requirements to be considered in the calculation of the areas that are considered "Full and Complete Public Access" by the State, in accordance with the State's Beachfront Management Act. However, these spaces are recognized by SCDHEC OCRM for the purpose of meeting the previous 1990 grant requirement and thus the Town meets the revised obligation of providing 1,400 public parking spaces.

Figure 9: Town-owned Beach Parks and Parking, shows the location of Town-owned beach access and parking areas. Table 3 details the existing number of public parks owned by the Town of Hilton Head Island with their facilities.

Figures 10-12: Neighborhood Beach Access and Parking, shows the location of neighborhood beach access and parking. These facilities are provided by the PUD's and neighborhood associations and are used by thousands of Island residents and visitors. There are a total of 107 neighborhood beach access locations, 8 of which have parking areas, which are used predominately by visitors and residents within the gated community in which they are located.

Figure 13: Public and Private Beach Access and Parking, shows the location of private and multifamily beach access points and parking locations. These facilities are provided by hotels and condominium complexes. There are a total of 59 private access locations with parking on the Island.

Table 3: Town-Owned Beach Parks and Parking

	Handicapped Access	Boardwalk to Beach	Restrooms	Trash receptacles	Showers	Bike Racks	Drinking Fountain	Life guards/ rentals	Picnic pavilion	Natural trails	Sitting Deck	Viewing scope	Emergency Access	Historical Marker	Public Parking Spaces	Notes
Alder Lane Beach Access	X		X	X	X	X	X	X							23*	
Burkes Beach Access at Chaplin Park	X		X	X	X	X	X	X		X			X		235*	Parking breakdown: Chaplin Park: 110 w/in 1000' Castnet Drive: 135 via shuttle or short walk (approx. 2200')
Coligny Area	X		X	X	X	X	X	X			X	X	X		512*	Parking breakdown: Coligny Beach Park: 13, Coligny big lot: 400, contiguous Lowcountry Celebration Park: 99 Also 228 at USCB Pope Avenue campus via free shuttle
Driessen Beach Park	X	X	X	X	X	X	X	X	X						178* 28	28 Spaces reserved for Island Beach Pass Holders (Residential Property Owners)
Folly Field Beach Park	X	X		X	X	X	X	X							54*	
Islanders Beach Park	X	X	X	X	X	X	X	X	X		X		X		25* 131	131 Spaces reserved for Island Beach Pass Holders (Residential Property Owners)
Fish Haul Beach Park and Barker Field Extension	X		X	X	X	X	X		X	X	X		X	X	169	97 at Fish Haul Beach Park and 72 via boardwalk from Barker Field Ext.
Historic Mitchelville Freedom Park	X	X	X	X		X	X				X	X		X	47	

**Parking contributing to full and complete public access*

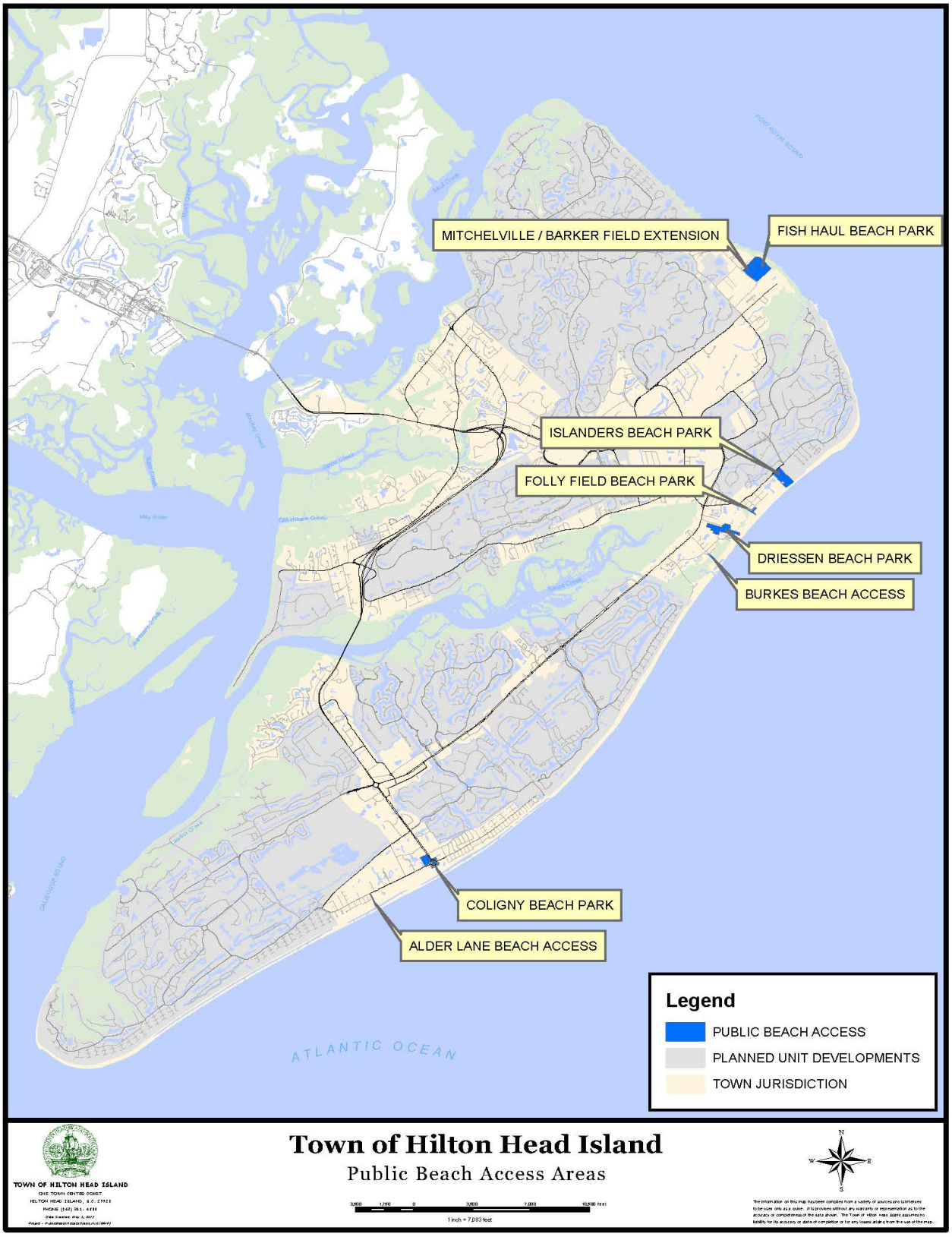


Figure 9: Overall Map of Existing Beach Parks with Public Parking.

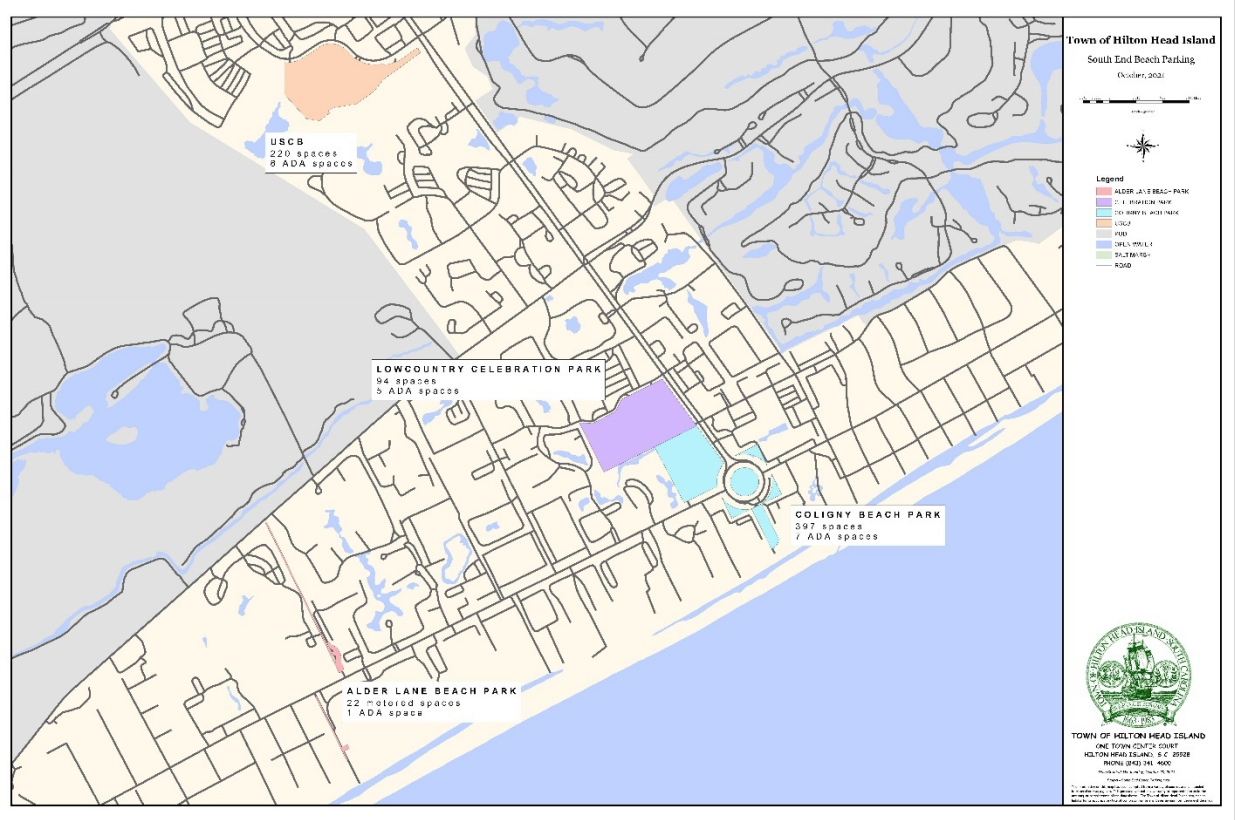


Figure 10: South Island Beach Parks with Public Parking.

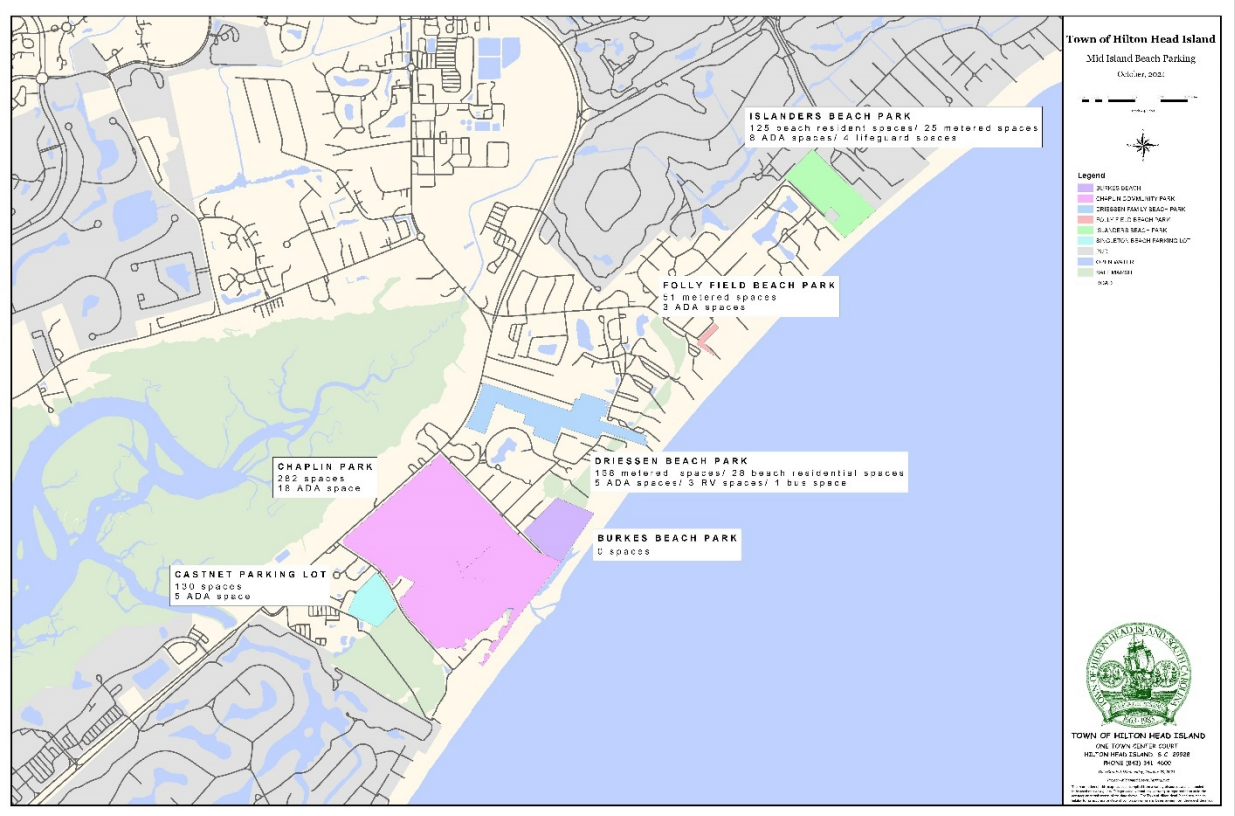


Figure 11: Central Island Beach Parks with Public Parking.

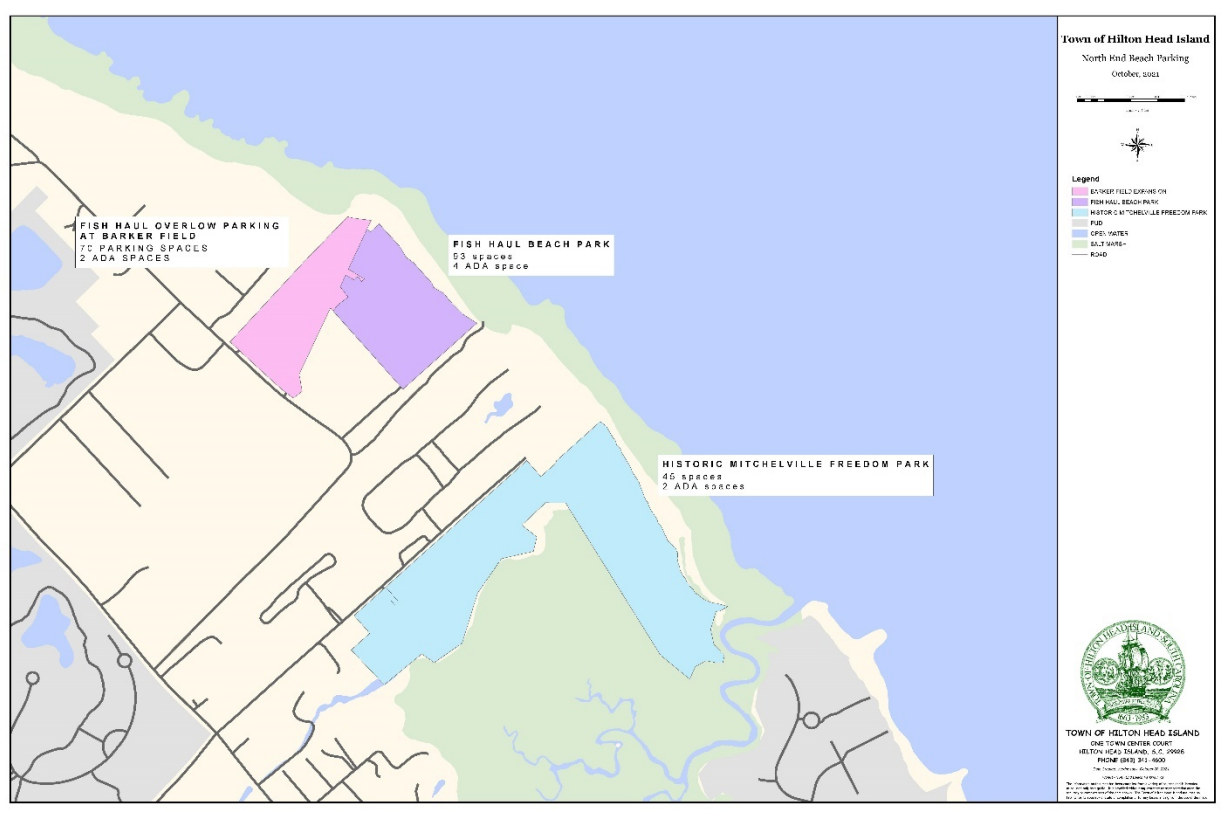


Figure 12: North Island Beach Parks with Public Parking.

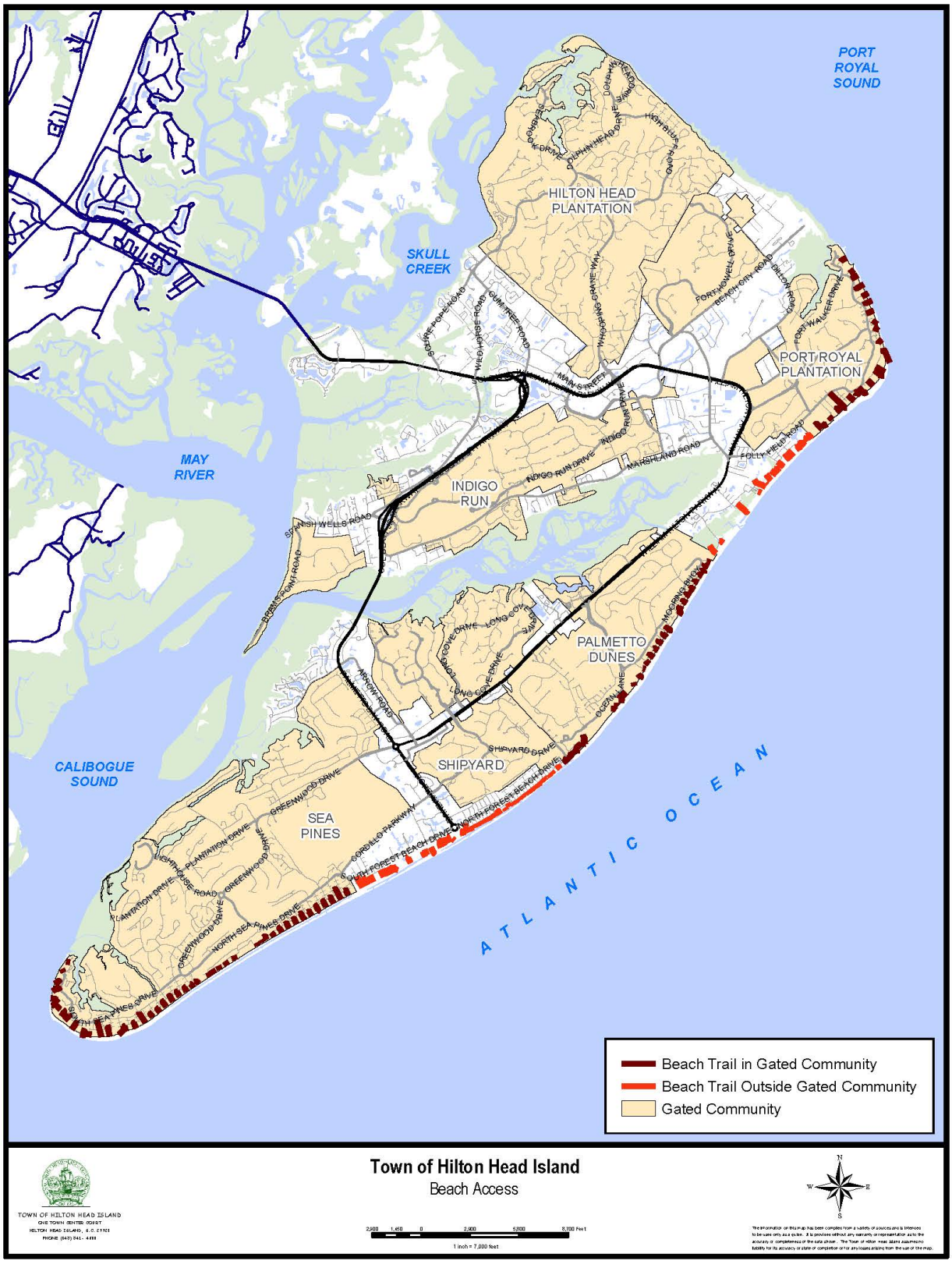


Figure 13: Beach Access Locations.

FULL AND COMPLETE PUBLIC ACCESS

SCDHEC OCRM classifies areas along the beach that are considered to offer full and complete public access, which is defined based on the criteria shown in Table 4 below. This classification is factored into the review of some State grants.

Table 4: SCDHEC OCRM Public Beach Access Facility Classification Criteria.

Type of Facility	Distance on Either Side of Access Point for Full/Complete Access Consideration	Minimum Facilities
Public Access Point	1/8 mile	Trash receptacle, walkover/improved surface access, signage, on-street parking for 6 vehicles
Local Public Access Park	¼ mile	As above, parking for 10 vehicles
Neighborhood Public Access Park	½ mile	As above, parking for 25 vehicles
Community Public Access Park	¾ mile	As above, showers, lifeguards, concession, handicapped access and parking, parking for 75 vehicles
Regional Public Access Park	1 mile	As above, parking for 150 vehicles or more

On Hilton Head Island, the number and distribution of public access points are excellent. Sufficient access points, signage, facilities and parking exist to classify approximately 20% of the Hilton Head Island beach as having full and complete access per the State guidelines (see Table 4). SCDHEC OCRM recognizes that full and complete public access is provided in two main areas along approximately 3.9 miles of the 14.8-mile beach:

1. from a point ½ mile (2,640 feet) northeast of the public beach access at Islanders Park to a point ¾ mile (3,960 feet) southwest of the public beach access at Burkes Beach / Chaplin Park; and
2. from a point 1 mile (5,280 feet) northeast of the public access point at Coligny Beach Park to a point ¼ mile (1,320 feet) southwest of the public beach access at Alder Lane.

While Mitchelville and Fish Haul Parks provide significant public access and parking, both parks are located outside of the extent of the state ocean beachfront jurisdiction. These parks are noted as providing

public access and parking, but are not included in quantifications related to "full and complete public access," as SCDHEC OCRM does not recognize these parks as providing "full and complete public access" in accordance with the State Beachfront Management Plan.

The majority of public parking associated with the Town-owned public beach access points is located within 1,000 feet of the accesses. Developing more public parking closer to the beach would be very difficult and expensive, virtually infeasible, due to land availability and development constraints. Based on these considerations, SCDHEC OCRM has agreed to allow public parking located greater than 500 feet away from the sand beach to be a factor in classifying these sections of Hilton Head Island's beach as achieving "full and complete" public access in accordance with the guidelines established in the State Beachfront Management Plan. However, the Town currently is developing plans to construct additional enhancements to two existing beach parks (Islanders and Chaplin) in which additional parking will be a key objective in the designs. These improvements are scheduled to be construction by the summer of 2023.

Additional public parking and beach access opportunities exist. There are also 43 on-street free public parking spaces in the Coligny area with the closest being approximately 600 feet from the beach and the furthest being approximately 1200 feet. There is a free shuttle service on the island that makes stops near Islanders, Folly Field, and Coligny Beach Parks. This shuttle also stops at the USCB campus that is advertised as satellite beach parking containing 228 parking spaces. The Sea Pines Beach Club offers 179 parking spaces available to the public that pays the entrance fee to this beachfront gated community. Later this year, the Town intends to complete and implement a beach parking master plan to better manage parking in beach access areas.

Directional signs indicating the public access points, as well as local beach regulations, are located at each of the Town's public beach access points. In addition, receptacles for recycling, general trash and dog waste are located at the public access points.

2.6 COMMUNITY RATING SYSTEM

The Town of Hilton Head Island voluntarily participates in FEMA's Community Rating System (CRS), as part of the National Flood Insurance Program (NFIP) that rewards communities for engaging in activities that reduce flood risk with discounts on flood insurance premiums. As mentioned in the 2020 Lowcountry Natural Hazard Mitigation Plan, floodplain management and development policies and procedures are in good order and contribute to the Town's commendable CRS rating of 5 (as determined by NFIP verification visit on 5 October 2020), which provides a 25% reduction in the cost of flood insurance to the more than 26,000 policyholders. This represents an approximate annual savings of $5.7 million.

Table 5: Hilton Head Island 2020 NFIP verification applicable Community Rating System (CRS) credit categories and points.

Activity No.	Description	Points	Activity No.	Description	Points
310	Elevation Certificates	83	420	Open Space Preservation	1105
320	Map Information Service	90	430	Higher Regulatory Standards	208
330	Outreach Projects	307	440	Flood Data Maintenance	183
340	Hazard Disclosure	27	450	Stormwater Management	212
350	Flood Protection Information	89	510	Floodplain Management Planning	50
360	Flood Protection Assistance	100	540	Drainage System Maintenance	230
370	Flood Insurance Promotion	15	610	Flood Warning and Response	316
				Total	**3015**

3 - BEACHFRONT DRAINAGE PLAN

The Town of Hilton Head Island does not have any existing drainage outfalls along the beachfront (either natural or anthropogenic) and Section 16-5-602 of the Town Code prohibits any future development from directly discharging storm water onto the beach. There are tidal inlets at The Folly and Fish Haul Creek, which do convey storm water runoff from upland areas.

The beachfront areas of the Island are divided into 8 major drainage basins, none of which drain to outfall structures on the beach, Figure 14 presents an overview of the Island's major drainage basins. Within these drainage basins, the typical infrastructure for storm water conveyance consists of lagoons, open ditches and channels, and closed pipe systems. In general, storm water is carried from the beachfront areas to the adjacent inland bodies of water. Primarily to very flat terrain and tidally influenced drainage outfalls, four storm water pump stations are used to help mitigate flooding potential in developed areas during heavy rain events. These pump stations are located at Lawton Creek in Sea Pines, Cordillo Parkway in Shipyard, Broad Creek in Wexford and Jarvis Park.

The southernmost portion of the Island drains into Baynard Cove and Braddock Cove which in turn drains into Calibogue Sound. The next basin to the north drains the South Forest Beach area and a portion of Sea Pines into the Lawton Canal which is then pumped into tidally-influenced Lawton Creek that drains to Calibogue Sound.

The North Forest Beach area drains into and through the lagoons and open channels of the Shipyard community. A mid-watershed pump station located at 31 Cordillo Parkway helps to convey excessive storm water runoff downstream through the lagoon system, a culvert system under William Hilton Parkway (US 278 Bus.), through a canal system in Wexford and then drains into, or is pumped during severe storm events, into the tidal waters of Broad Creek.

The Palmetto Dunes drainage basin contains approximately 11 miles of canals, which convey the storm water runoff under William Hilton Parkway through culverts and gates into Broad Creek at two locations.

Storm water runoff from the Folly Field basin is conveyed to The Folly, the Island's only tidal inlet to the Atlantic Ocean. The Folly is made up of several meandering tidal creeks which accept local runoff and convey it to the Ocean.

North of the Folly Field drainage basin is the Port Royal community. The southern portion of the Port Royal basin conveys storm water runoff under Mathews Drive through culverts and gates into Broad Creek. The northern portion of the Port Royal basin conveys storm water runoff through canals and ponds, into the tidal inlet of Fish Haul Creek and into Port Royal Sound.
Overall, the effectiveness of the beachfront drainage systems is very effective at handling and conveying

storm water runoff. An inherent problem with Hilton Head Island is the lack of elevation (See Figure 15). The majority of land being drained has an elevation of less than 10 feet (NGVD88). Therefore, a common problem is capacity of the systems to convey runoff during an intense storm of short duration.

In 1995, the Town conducted the Island Wide Drainage Study. All of the major capital improvement projects recommended in that study have been implemented (see list below). Since then, subsequent studies and projects have been completed to improve and maintain storm water conveyance systems for which the Town is responsible.

1. Palmetto Hall Outfall Improvements (partnership) 1995
2. Lawton Canal Pump Station upgrades (partnership) - 1997
3. Jarvis Creek Pump Station - 1999
4. South Forest Beach Phase I - 2000
5. William Hilton Parkway, Culvert at Wendy's - 2000
6. Gum Tree Area – 2000
7. South Forest Beach Phase II – 2001
8. Pineland Mills Shops - 2001
9. Ashmore Tract – 2003
10. North Forest Beach Phase 1 - 2003
11. North Forest Beach Wexford Pump Station - 2004
12. North Forest Beach Phase II - 2004
13. Folly Field -2004
14. Northridge – 2006
15. Beach City Road / Airport – 2006
16. Lawton Canal Pump Replacement (partnership) – 2006
17. Club Course Drainage Project (partnership) – 2007/8
18. Tanglewood/Nassau/DeAllyon Drainage Improvements - 2014
19. Lawton Woods Drainage Improvements – 2018
20. Ashmore Channel Outfall Flap Gate Replacements – 2018
21. Port Royal Trunkline Channel Rehabilitation – 2019
22. Old Fort Drive System Outfall Rehabilitation- 2019
23. Jarvis Creek Pump Station Overhaul – 2020
24. Shipyard Community Drainage System Improvements - 2021
25. Lawton Canal Pump Station Overhaul - 2021

In terms of estimated life, the existing drainage systems are expected to remain in place well beyond a 20-year horizon. Build-out is substantially complete in these beachfront areas. The drainage systems in place should adequately handle future conditions since minimal new development can occur.

Cleaning, dredging and maintaining the existing drainage system is a foremost priority. The Beaufort County Stormwater Utility collects $5.5 million dollars yearly from property owners within the Town limits. These funds are transferred to the Town, less a small administrative fee. The Town uses this money

to pay the salaries of staff, manage development per Town LMO policy, enforce federally mandated water quality laws, and fund stormwater programs including review and enforcement of development regulations, water quality, routine maintenance, corrective maintenance, and capital improvements.

The Town also monitors water quality at 18 drainage outfalls around the island. This program began in 1999 to monitor water quality trends, changes from development or drainage improvements, and to seek out pollutant sources. The Town tests for dissolved oxygen, pH, salinity, temperature, turbidity, nitrate, total phosphates, fecal coliform, Total Kjeldahl Nitrogen, and ammonia.

Comprehensive watershed studies have been and are being conducted for individual watersheds to develop and refine inventories of drainage infrastructure, asset management data, hydrologic and hydraulic flood inundation models, water quality models, and potential capital improvement needs.

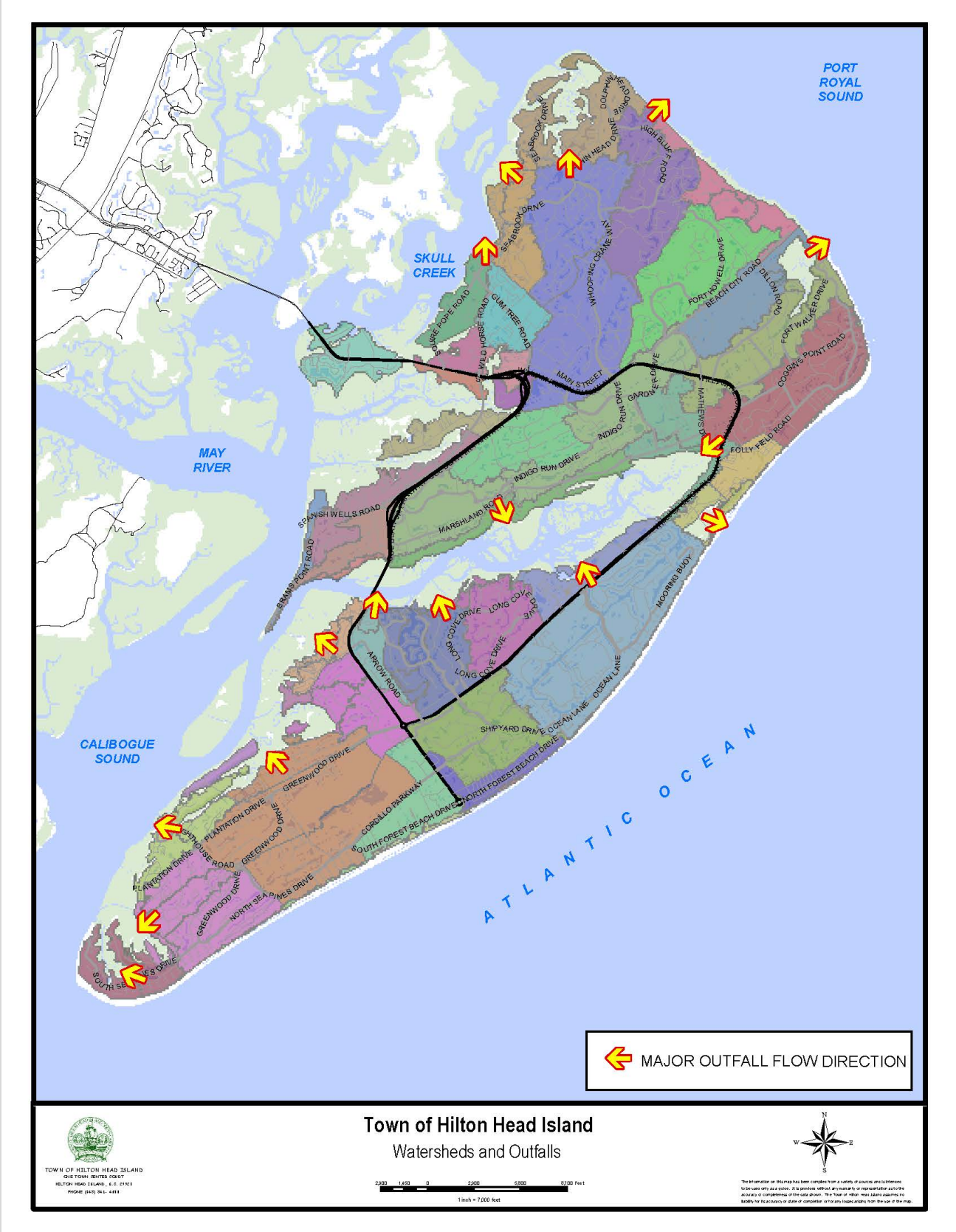


Figure 14: Drainage Watersheds and Outfalls.

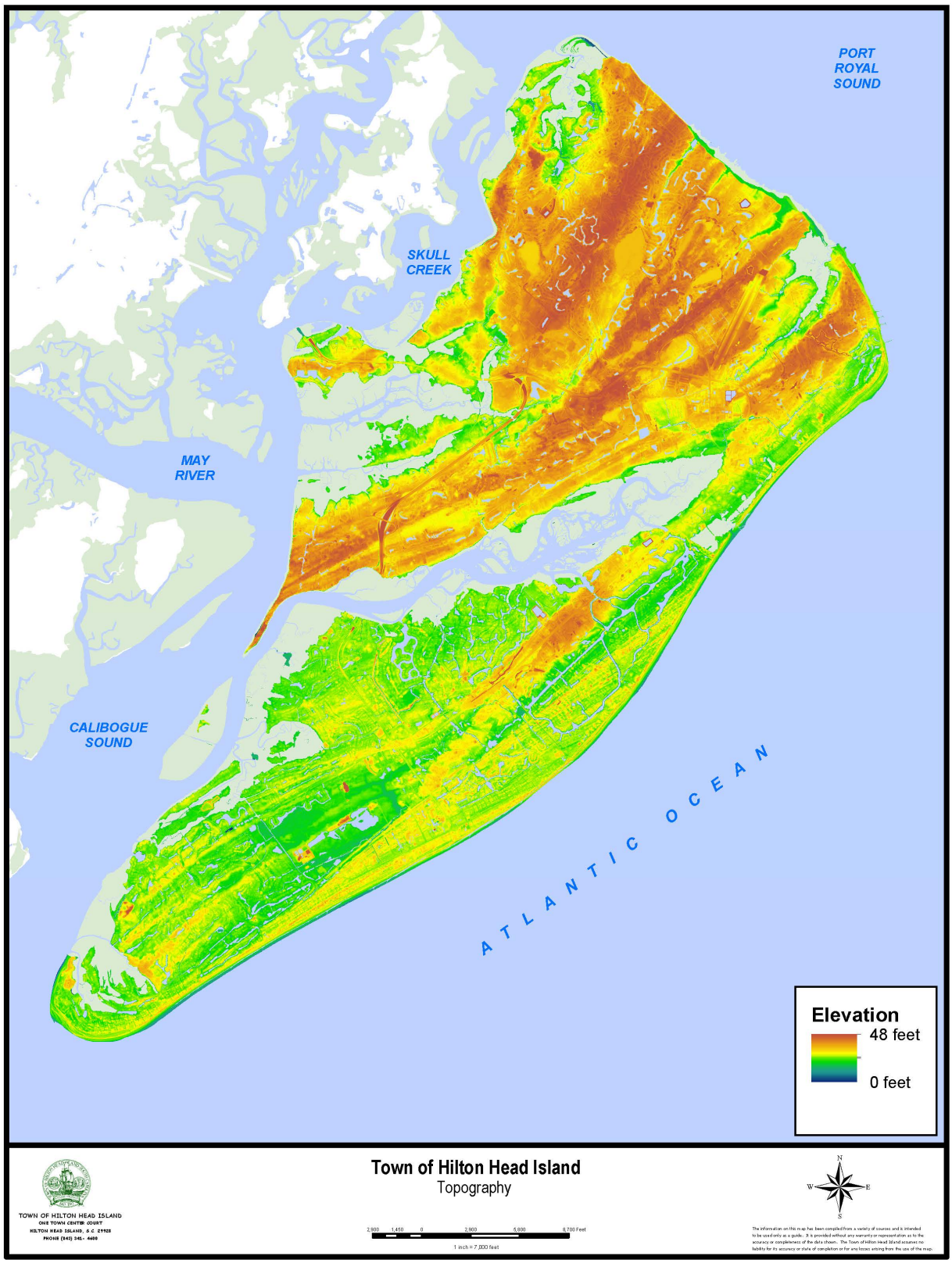


Figure 15: Hilton Head Island Topography.

4 - BEACH MANAGEMENT & AUTHORITIES

The Public Trust Doctrine provides much of the basis for the management of public lands and waters in the United States. The Public Trust Doctrine is an example of common law, meaning rules derived from the traditional laws of England in the Middle Ages that were based on custom and precedent rather than legislative action. Common law often addresses issues of access, fairness, commerce, and land uses. The Public Trust Doctrine established that public trust lands, waters, and living resources are held in trust by the State for the benefit of all citizens. It also created the non-discriminatory right of all people to fully enjoy public trust lands, waters, and living resources for a multitude of public uses. Finally, the doctrine established responsibilities for the State when managing these public trust resources, and set limitations on the ways government, public, and private owners can use public trust resources.

In the coastal zone, the Public Trust Doctrine covers navigable waters and lands that are subject to the ebb and flow of the tide, including tidal marshes and oceanfront beaches. While each state is able to implement the Public Trust Doctrine according to its own views of justice and policy, the core principles are used throughout the United States. These principles, and the responsibility they establish for the state, are at the heart of many of the state's coastal laws, regulations, and policies. In many states, including South Carolina, the jurisdiction of the Public Trust Doctrine on the beach and navigable waters of the ocean extends landward to the mean high-water line. Generally, the Public Trust Doctrine protects the right of the public to pass along the shoreline up to the mean high-water line and utilize the space for fishing, navigation, or recreation. The Public Trust Doctrine does not authorize the public to trespass on upland private property in order to access the beach. However, the doctrine does help preserve and protect the right of the public to access and utilize the beach via public lands and public access points.

In South Carolina, as with much of the United States, the Public Trust Doctrine has been at the center of numerous court cases and deliberations and will likely continue to be. This doctrine is at the core of the philosophy of coastal zone management and should be recognized and considered by the government, private landowners, and the public at large in the course of regulations and access management along the beach. Numerous federal and state agencies have responsibility or authority for assisting beach management on Hilton Head Island. A summary and description of the agencies with regulatory or management authority relevant to beach management in the Town of Hilton Head Island can be found as Appendix 7.6 to this plan.

4.1 STATE AUTHORITIES

Refer to Appendix E on regulatory agencies.

4.1.1 Overview of State Policies (Beachfront Management Act)

The following overview was obtained from http://www.scSCDHEC.gov/beach/BeachfrontManagement/.

In 1988, the South Carolina "Beachfront Management Act" (Coastal Tidelands and Wetlands Act, as amended, §48-39-250 et seq.) established a comprehensive statewide beachfront management program. The Act was first amended in 1990 and subsequently in 1993, and 2018. The Act includes several key legislative findings, including (summarized):

• the importance of the beach and dune system in protecting life and property from storms, providing significant economic revenue through tourism, providing habitat for important plants and animals, and providing a healthy environment for recreation and improved quality of life of all citizens;

• unwise development has been sited too close to and has jeopardized the stability of the beach/dune system;

• the use of armoring in the form of hard erosion control devices such as seawalls, bulkheads, and rip-rap to protect erosion-threatened structures has not proven effective, have given a false sense of security, and in many instances, have increased the vulnerability of beachfront property to damage from wind and waves while contributing to the deterioration and loss of the dry sand beach;

• inlet and harbor management practices, including the construction of jetties which have not been designed to accommodate the longshore transport of sand, may deprive down drift beach/dune systems of their natural sand supply;

• it is in the state's best interest to protect and promote increased public access to beaches for visitors and South Carolina residents alike;

• a coordinated state policy for post-storm management of the beach and dunes did not exist and that a comprehensive beach management plan was needed to prevent unwise development and minimize adverse impacts.

Section 48-39-260 of the Beachfront Management Act then established eight state policies to guide the management of ocean beaches:

1. Protect, preserve, restore, and enhance the beach/dune system;
2. Create a comprehensive, long-range beach management plan and require local beach management plans for the protection, preservation, restoration, and enhancement of the beach/dune system, each promoting wise use of the state's beachfront to include a gradual retreat from the system over a forty-year period;
3. Severely restrict the use of hard erosion control devices and encourage the replacement of hard erosion control devices with soft technologies which will provide for the protection of the shoreline without long-term adverse effects;

4. Encourage the use of erosion-inhibiting techniques which do not adversely impact the long-term well-being of the beach/dune system;
5. Promote carefully planned nourishment as a means of beach preservation and restoration where economically feasible;
6. Preserve existing public access and promote the enhancement of public access for all citizens, including the handicapped, and encourage the purchase of lands adjacent to the Atlantic Ocean to enhance public access;
7. Involve local governments in long-range comprehensive planning and management of the beach/dune system in which they have a vested interest; and
8. Establish procedures and guidelines for the emergency management of the beach/dune system following a significant storm event.

SCDHEC OCRM is responsible for implementing these policies through a comprehensive management program that includes research and policy development, state and local planning, regulation and enforcement, restoration, and extension and education activities.

4.1.2 Beachfront Setback Area

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

> "A policy of beach preservation is established. The department must implement this policy and utilize the best available scientific and historical data in the implementation. The department must establish a baseline that parallels the shoreline for each standard erosion zone and each inlet erosion zone."

The baseline is the more seaward line of jurisdiction and is typically located at the crest of the primary oceanfront sand dune. The setback line is the landward line of jurisdiction and is established landward of the baseline at a distance equal to 40 times the average 12 annual erosion rate, as calculated from the best historical and scientific data, or at a minimum distance of 20 feet landward of the baseline for stable or accretional beaches.

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

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

The SCDHEC OCRM Baseline and Setback Lines were last updated for Hilton Head Island in 2018. The 2018 lines are posted on the SCDHEC OCRM Beachfront Jurisdictional Line Viewer - https://gis.SCDHEC.sc.gov/shoreline/

Town of Hilton Head Island's Preservation Policy

The South Carolina Beachfront Management Act requires that local plans include a preservation policy that considers relocation of buildings, removal of erosion control structures and relocation of utilities. When the Town's Beach Management Plan was first adopted in 1991, the State was in the process of drafting their policy and provided little direction to the Town at that time. In 1992, the Town amended its original Beach Management Plan to include a 40 Year Retreat Policy which stated:

1. Locate development landward of the SCDHEC OCRM Setback line to the extent possible;
2. Adopt various growth management techniques and procedures to reduce development levels;
3. Retain open space seaward of the SCDHEC OCRM Setback line to the extent possible;
4. Utilize land acquisition; and
5. Address retreat during redevelopment scenarios after a disaster.

With the adoption of this 2008 Beach Management Plan, this Policy continued to be in effect. The Town's zoning, density, and design standards (mentioned previously) help fulfill this policy along with other techniques outlined in the next Section.

To accompany the current preservation policy, this Beach Management Plan details an additional Policy on beach renourishment as part of the preservation policy. Beginning in 1990, the Town embarked on an ambitious renourishment program with an ongoing maintenance program.

The Town's objectives in pursuing the renourishment program are:

1. To protect, preserve, restore, stabilize, and enhance the beach/dune system through beach renourishment and other appropriate means to provide for the protection of life and property and to act as a buffer from high tides, storm surges, hurricanes, and erosion;
2. To prohibit development from moving seaward onto new dunes or beach areas formed as a result of the Town's beach renourishment projects and efforts;
3. To provide an important basis for a tourism industry that generates annual revenue for the State of South Carolina and the Town;
4. To provide habitat for numerous species of plants and animals which are threatened or endangered,

or which may become threatened or endangered as a result of the loss of the beach/dune system;

5. To provide habitat for beach/dune system vegetation that is unique and extremely important to the vitality and preservation of the system; and
6. To create a recreational beach at high tide.

In support of this, the Town adopted two overlay zoning districts along the beachfront for the purpose of limiting the seaward migration of development as a result of renourishment.

- *CPA-O Coastal Protection Area Overlay District*
  The purpose of the Coastal Protection Area Overlay (CPA-O) District, in conjunction with the Transition Area Overlay (TA-O) District, is to eliminate the potential for seaward migration of the built environment along the Island's beachfront to the greatest extent possible. This environmentally sensitive area:
  i. Protects life and property by serving as a storm barrier;
  ii. Provides an important basis for a tourism industry that generates annual tourism industry revenue;
  iii. Provides habitat for numerous species of plants and animals that are important to the natural functioning of the beach and dune system, or that are threatened or endangered; and
  iv. Provides beach and dune system vegetation that is unique and extremely important to the vitality and preservation of the barrier island environment.

- *TA-O Transition Area Overlay District*
  The purpose of the Transition Area Overlay (TA-O) District, in conjunction with the Coastal Protection Area Overlay (CPA-O) District, is to eliminate the potential for seaward migration of the built environment along the Island's beachfront as well as protect the area between existing construction and the mean high-water mark, to the greatest extent possible. This environmentally sensitive area:
  i. Protects life and property by serving as a storm barrier;
  ii. Provides an important basis for a tourism industry that generates annual tourism industry revenue;
  iii. Provides habitat for numerous species of plants and animals that are important to the natural functioning of the beach and dune system, or that are threatened or endangered; and
  iv. Provides beach and dune system vegetation that is unique and extremely important to the vitality and preservation of the barrier island environment.

4.2 LOCAL GOVERNMENT AND AUTHORITIES

4.2.1 Municipality's Comprehensive Plan

The Town's first Comprehensive Plan was adopted in 1985. This was revised and adopted in 1990, 1996, 2000, and 2004. The plan was rewritten and adopted in 2010 and was updated in 2012. The plan was then rewritten again and adopted as Our Plan in 2020. A Comprehensive Plan is a continuing planning program for the physical, social and economic growth, development and redevelopment of the Island. The original 1991 Town Beach Management Plan was adopted as part of the Town's Comprehensive Plan. The plan approved in 2009 was a revision and update of the previous 1991 Beach Management Plan and was adopted as an Appendix to the Town's Comprehensive Plan.

Other Elements of the Comprehensive Plan promote protection and preservation of the beach and dune systems. The Natural Resources Element describes the Island's beach systems and coastal dunes, as well as the endangered, threatened and rare plant communities and species. It also lists goals and strategies for continued research and monitoring of natural resources; improvement of water quality and reduction of pollutants; development and implementation of a wildlife protection plan; continued land acquisition to further protect sensitive and endangered environments; creation of view corridors; promotion of environmental education programs; and incorporation of environmental protection into development projects. The Land Use Element describes goals and strategies for reduction of allowable density to ensure that development does not create adverse impacts on natural resources and encourages incentives and voluntary compliance with the 40-year setback zones. The Recreation Element provides strategies for park development and guidelines for the continued creation or expansion of public beach parks and beach accesses.

Regional Planning Efforts

In 2006, the Town of Hilton Head Island adopted, by resolution, the Southern Beaufort County Regional Plan. In relationship to beach management, this plan recommended that the participating local governments adopt the same regulations, if possible. As part of the implementation of this plan, a regional Natural Assets Working Group was formed which compiled a list of baseline standards that should be adopted by the applicable participating local governments and also be made available to the region. These included such recommendations as uniform dune/dune system definition, protection of more than just the primary dune, protection of all dune plants, reasonable dune plant pruning, re-establishment of dunes systems by redevelopments, restriction of structures in dune systems and buffer areas, uniform lighting standards for protection of wildlife, and standards for violations. These recommended suggestions have been reviewed by the Regional Plan's Implementation Committee.

4.2.2 Municipality's Hazard Mitigation Plan

In 2005, the Town adopted the Beaufort County Hazard Mitigation Plan which replaced earlier mitigation plans. The plan has been subsequently re-evaluated and adopted every five years as required by the

Disaster Mitigation Act of 2000 to assess the community's vulnerabilities to natural hazards, prepare a long-term strategy to address the hazards and prevent future damage and loss of life. The most recent Plan is a regional plan that was developed by the Lowcountry Council of Governments and includes four counties. The 2020 Lowcountry Natural Hazard Mitigation Plan was adopted by the Town of Hilton Head Island in 2021. The plan identifies natural hazards to the Island, contains a vulnerability assessment, and gives goals to continue periodic beach renourishment. Here is the link to the plan: https://www.lowcountrycog.org/planning_and_transportation/natural_hazard_mitigation_planning/index.php

4.2.3 Municipality's Disaster Preparedness and Evacuation Plan

The Town has a Comprehensive Emergency Management Program (CEMP) that was updated in 2021. This program is designed to provide guidance and strategic direction to all departments and staff in order to effectively prepare for the response to and recovery from disasters of any type. This is accomplished through planning, training, and resource development efforts. Within the CEMP is the Town's Emergency Operations Plan that includes the Basic Plan and specific hazard annexes and the Disaster Recovery Plan. The Emergency Operations Plan and Recovery Plan are reviewed annually with a comprehensive review and promulgation every other year.

According to this plan, "Recovery" is defined as actions taken in the long term after the immediate impact of the disaster has passed to stabilize a community and to restore some semblance of normalcy.

The Town's Disaster Recovery Plan part of the Town's CEMP. The Recovery plan is designed to in coordination with the Town's *Emergency Operations Plan – Basic Plan (EOP – Basic Plan)* during the initiation of and during short-term recovery. Additionally, the EOP create the process to allow a smooth transition from response operations to recovery. The Recovery Play identifies agencies to provide assistance to disaster victims in conjunction with Federal, State and County governments and coordinate emergency recovery activities. This plan provides local emergency management personnel with operational guidance to effectively manage recovery activities in the aftermath of a major or catastrophic disaster or emergency. The Town works with all appropriate agencies, in advance of a disaster (if predictable) and after, to minimize potential injury and damage, and to expedite recovery and redevelopment.

The organization of the Town's recovery activities is consistent with the concepts of the National Incident Management System (NIMS). Storm recovery is divided into short-term phases, which begins during the response phase of an emergency and can last up to six months, and long-term recovery which focuses on restoring the community to pre-disaster condition or better. The Town's recovery activities and programs are grouped into 22 Recovery Functions (RF) including, Recovery and Redevelopment (RF1), Continuation of Government (RF3), Damage Assessment and Impact Analysis (RF 9), Emergency Permits and Inspections (RF 13), and Mitigation (RF 19).

In the event of a hurricane threat, the Town will take appropriate measures to activate all or part of the Town Emergency Operation Center (EOC).

Cleanup

The Town has a Debris Management Plan used to effectively manage and remove debris generated by natural and man-caused disasters and it contains the following policies:

1. Focus initial ”first push” debris removal efforts on prioritized clearing major transportation routes and roadways to access critical facilities and into damaged areas to allow for the movement of emergency vehicles, personnel, equipment and supplies.
2. Remove debris in affected areas to prevent the development and spread of vector-based epidemiological agents and general health and sanitation problems.
3. Conduct disposal activities with health and environmental concerns being the foremost consideration.

Maintaining Essential Services

The repair and restoration of public infrastructure, services, and buildings after a disaster will be completed with the intent of returning the Town’s public infrastructure to pre-event levels or better. Restoration of utility services is critical to the success of both short and long-term recovery. Initial roadway clearance will push debris to access critical facilities and allow utility service providers to make assessment and repairs. Complete utility restoration could take months. Restoration of the public utility power supply, water and sewer systems, and telecommunications will be top priorities of those service providers. The Town will clear debris from the drainageways it manages and ensure storm water pump stations are operational.

Damage to transportation systems will influence the accessibility of disaster relief services and supplies. Restoration of transportation systems is planned to make sure that the Town (service, equipment, facilities, etc.) can facilitate the movement of emergency personnel, vehicles, equipment and supplies.

Restoration of electrical services and communication systems will begin as soon as major transportation routes are cleared of debris to allow emergency vehicles and crews to enter the disaster area.

Protecting Public Health

The Town will also work to identify the threats to public health during the recovery period and to provide remedies. It is the policy of the Town that the continuation of public health functions and control of environmental factors related to public health is essential following a disaster to prevent the outbreak of disease and to monitor the spread of vectors associated with the disaster itself.

Emergency Building Ordinances

After a disaster the Town will provide an emergency permitting plan to streamline the permittingprocess on Hilton Head Island, which will include coordination with SCDHEC OCRM regarding the permitting for reconstruction of any oceanfront structures. This process will include determining whether repair

or reconstruction of damaged structures will be allowed and under what conditions, coordinating and streamlining the Town's permitting processes, and implementing a system to verify that repairs/redevelopment comply with all applicable codes and laws.

Mitigation

In 1999, the Town developed a Flood Hazard Mitigation Plan. It was one of the first mitigation plans in the nation to be officially incorporated into a Town's Comprehensive Plan—a concept now embraced by the American Planning Association through their *Planning Advisory Series*, and FEMA, through the *Disaster Mitigation Act of 2000* (*DMA) regulations*. In 2004, the County joined with its municipalities to create the *Beaufort County Hazard Mitigation Plan*, which was adopted by the Town as part of its Comprehensive Plan in 2005. The plan has been subsequently re-evaluated and adopted every five years as required by the Disaster Mitigation Act of 2000 to assess the community's vulnerabilities to natural hazards, prepare a long-term strategy to address the hazards and prevent future damage and loss of life. The most recent Plan is a regional plan that was developed by the Lowcountry Council of Governments and includes four counties. The 2020 Lowcountry Natural Hazard Mitigation Plan was adopted by the Town of Hilton Head Island in 2021. The plan outlines vulnerability assessment, community mitigation capability assessment, goals and objectives, and hazard mitigation projects and Action Plan.

The Town of Hilton Head Island voluntarily participates in FEMA's Community Rating System (CRS), as part of the National Flood Insurance Program (NFIP) that rewards communities for engaging in activities that reduce flood risk with discounts on flood insurance premiums. As mentioned in the 2020 Lowcountry Natural Hazard Mitigation Plan, floodplain management and development policies and procedures are in good order and contribute to the Town's commendable CRS rating of 5 (as determined by NFIP verification visit on 5 October 2020), which provides a 25% reduction in the cost of flood insurance to the more than 26,000 policyholders. This represents an approximate annual savings of $5.7 million.

Table 5: Hilton Head Island 2020 NFIP verification applicable Community Rating System (CRS) credit categories and points.

Activity No.	Description	Points	Activity No.	Description	Points
310	Elevation Certificates	83	420	Open Space Preservation	1105
320	Map Information Service	90	430	Higher Regulatory Standards	208
330	Outreach Projects	307	440	Flood Data Maintenance	183
340	Hazard Disclosure	27	450	Stormwater Management	212
350	Flood Protection Information	89	510	Floodplain Management Planning	50
360	Flood Protection Assistance	100	540	Drainage System Maintenance	230
370	Flood Insurance Promotion	15	610	Flood Warning and Response	316
				Total	**3015**

4.2.4 Beachfront Development Regulations

The Town's Land Management Ordinance (LMO) is a set of laws that regulate land use and development activity within the Town. It has several sections that regulate development activity on the beach and dune system.

Development review and site design standards for all development on Hilton Head Island are regulated in LMO Chapter 2, 3, 4, 5 and 6. This includes regulations on density, buffers, setbacks, aesthetics, landscaping, tree protection, wetland alteration, traffic circulation, open space standards, street and pathway standards, parking and loading standards, stormwater management standards, lighting, flood zone standards, fire protection water supply and utility standards.

Other local setbacks exist regarding adjacent use and adjacent street setbacks in LMO:

Chapter 5: Adjacent Use Setbacks (for Single family, Multifamily/Recreational, Institutional/Commercial, and Industrial/Utility) and adjacent street setbacks (Single family detached and other uses) in areas outside the beachfront PUD's are governed by Chapter 5 of the LMO. Required setbacks for development shall be determined according to the relationship of the proposed use to the existing contiguous use on each property adjacent to the development. For purposes of determining the appropriate setback distance where the adjacent property is vacant, it shall be classified as the use which would require the greatest setback allowed by right in that district. As mentioned previously, the PUD's also contain their own adjacent use and street setback requirements.

One consequence of this setback restriction may be that the buildable area of a parcel of land is diminished. The State has attempted to overcome this limitation by adopting a policy encouraging buildings to be located as far landward as practical. However, once the local setbacks required by the Town and/or a local architectural review board are included, the buildable size of the parcel may be even further diminished. A local avenue of relief for landowners who find themselves in this dilemma exists in the form of a variance required from local setback requirements. The Town's Board of Zoning Appeals determines whether to grant the variance based on those findings dictated in the State enabling legislation which requires consideration of the Town's Comprehensive Plan and therefore the Beach Management Plan.

LMO Chapter 6: (Natural Resource Protection) contains regulations designed to promote the protection and stabilization of existing beaches.

Before development plan approval is granted, it must meet the following general standards:

- Will not result in the removal or diminution of the amount of sand, silt, shell, sediment or other geologic components of any beach, or interfere with natural patterns of wind and water movement of sand, silt, shell, sediment or other beach components, except for maintenance of any structures causing these effects which were existing prior to the enactment of this Title;
- Will not result in the direct discharge of stormwater onto any beach;
- Will not result in the discharge of treated or untreated sewage or other human waste from land or

waterborne sources, with the exception of advanced treated effluent irrigation systems approved by the SCSCDHEC;

- Will not result in the direct or indirect removal, destruction, depletion or digging out of vegetation which contributes to beach stability;
- Will minimize any interference with the natural use of the beach for feeding, foraging, resting, nesting and breeding by indigenous and migratory birds, shellfish, marine fishes, sea turtles and other wildlife. Such interference shall include the destruction or diminution of organisms or material upon which wildlife feed;
- Will not interfere with the customary rights of the public for access to and use of the active beach; and
- Will not remove, alter or destroy any beach protection structure, such as walls or revetments, unless specifically authorized by an appropriate development plan approval or building permit.

4.2.5 Regulations on Beach and Shoreline Protection

The Town's Municipal Code defines a dunes system as one or a series of hills or ridges of wind-blown sand or one or a series of hills or ridges of sand resulting directly or indirectly from restoration or beach renourishment, all of which may or may not be anchored by vegetation (e.g., sea oats) and is in the vicinity of the beach. Damage to or development into this dune system is not in the public interest and would not be in accordance with preservation policies of the State of South Carolina and the Town of Hilton Head Island. Furthermore, the Town wishes to protect, preserve, restore, and enhance the beach/dune system for the protection of life and property so it acts as a buffer from high tides, sea level rise, storm surge, hurricanes, and erosion.

In 2006, Town Council adopted an amendment to the Municipal Code Title 8 which strictly regulated the South Forest Beach area by establishing a Critical Storm Protection and Dune Accretion Area along the beach between the State-mandated Setback Line and the actual line of habitable existing construction. The Town determined that dunes systems exist in this area between the OCRM Setback Line and the line of existing construction that could be developed. Therefore, in 2006, Town Council adopted a Resolution and Ordinance to create and define the Landward Barrier Line to define and designate a Critical Storm Protection and Dune Accretion Area and Transition Area and limit the type of construction activities within these areas. These provisions were expanded and ultimately incorporated into the Town's Land Management Ordinance natural resource protection requirements referenced above when it was rewritten as the CPA-O and TA-O overlay zoning districts that help to protect the dunes and oceanfront properties by protecting the dunes and limiting the intensity of uses in these areas, which are included as an appendix to this plan.

The activities and uses permitted and prohibited in the CPA-O District are as follows:

All development is *prohibited* in the CPA-O District except the following permitted uses and activities:

- Boarded pathways as perpendicular to the beach as practical and not larger than six feet in width and their associated wooden deck not larger than 144 square feet (must comply with Sec. 16-6-103, Beach and Dune Protection);
- Beach renourishment;
- Emergency vehicular beach access; and
- Permitted beach maintenance activities such as sand fencing, re-vegetation with native plant material and erosion control.
- All activities and uses in the CPA-O District must also comply with all current local, State and federal laws.

The activities and uses permitted in the TA-O District are as follows:

- In addition to the activities and uses permitted in the CPA-O District (see Sec. 16-3-106.L.3), the TA-O District may include any uses that do not require enclosed space to operate. These activities and uses include, but are not limited to, swimming pools, boardwalks, fire pits, decks, required drainage improvements, and necessary utilities.
- The activities and uses in the TA-O District shall be located as far landward as possible. Activities or uses in the TA-O District shall be accessory activities or uses to the development to which they are directly seaward.
- Development in the TA-O District shall conform to the standards for impervious cover and open space for the underlying base zoning district.
- Activities or uses in the TA-O District shall not be on or in any part of a dune or dune system.

4.2.6 Other Regulations on Beach Management

Chapter 6 of the LMO also describes general standards, beach nourishment and erosion control standards, beach access standards, and dune protection standards.

- Standards for beach nourishment and erosion control detail requirements for fill materials; the use of natural features of the beach and dune system over artificial structures; limited approval of erosion control structures; interference with existing or planned public access to the beach; and timing of beach nourishment or construction of control structures.
- Beach access standards regulate elevated walkways; vehicular access to the beach; general public interest in development applications (such as the need for land acquisition for public use); and prohibitions on development adjacent to the beach that would cause net loss of any officially designated beach access. Beach access will be discussed later in more detail.
- Dune protection standards prohibit development on dunes with certain exceptions; prohibit primary dune destruction, disturbance or alteration with exceptions; restrict elevated walkways; allow vegetation planting and construction of wood, sand and wire fences; and prohibit removal, alteration or destruction of any dune protection structure. It also outlines when restoration or stabilization of existing dunes and creation of new dunes may be required for new developments and redeveloping properties.

Title 8 of the Town of Hilton Head Island Municipal Code is the Town's Beach Ordinance. It covers activities which are prohibited or regulated on the beach, defines Designated Areas, and regulates enforcement. In 2022, the Title 8 definition of the "beach" was amended by the Town to extend the limits of the beach from Fish Haul Creek to Park Creek, which encompasses an approximate additional 2.1-miiles of shoreline. In order to ensure the public health, safety and welfare of individuals using the beach, the following activities are regulated or prohibited by the Town's Municipal Code:

- Prohibited: vehicles, parasailing, glassware, horses on the beach, interfering with marine life and wildlife, indecent exposure, disorderly conduct, unauthorized wearing of lifeguard emblems, littering, possession or consumption of alcoholic beverages, and open containers.

- Regulated: operation of motorized watercraft, sand sailing, kites, sleeping on the beach, animals, shark fishing, fires, firework discharge, disturbing the public peace, and franchising commercial activities on the beach.

A Sea Turtle Protection Ordinance was approved in 2021 that was designed to protect threatened and endangered sea turtles known to nest on the Beaches of Hilton Head Island, including Loggerhead, Leatherback and Kemp's Ridley sea turtles, by limiting artificial light that is visible from the beach. Artificial light is documented to cause misorientation and disorientation of nesting females and sea turtle hatchlings, which is documented to lead to injury and death of adult sea turtles and hatchlings.

In addition, the Town contracts with two organizations for beach safety; the Beaufort County Sheriff's Office to provide law enforcement and security on the beach and Shore Beach Services to provide a patrol boat and rescue jet skis, lifeguards (9:00 a.m.-5:00 p.m. from Memorial Day weekend through Labor Day weekend), litter patrol, and beach rental items (chairs, umbrellas, paddleboats, sailboats, fun cycles, sailboards, etc.) Beach markers were also installed as part of the Sea Turtle Program every 0.1 miles along the beachfront. These markers are used to help identify beach access points.

The Town of Hilton Head Island is proactive on educating the public on the accessibility of its beaches. This includes information on access locations, parking rules, swimming areas, beach rules, pathways, and beach renourishment. In addition, within the Town's Facilities Management Division the Town created a Beach Operations team that operates and maintains the beach parks, including overseeing contracts for lifeguards, boat rentals, and litter patrol; collecting beach parking pass fees; park security; and public relations. Kiosks have been installed at several parks, and beach rule signs have been posted at every public access point. In addition, the Town had the South Carolina Department of Transportation add destination signs on major thoroughfares to assist in directing beachgoers to the public beach parks.

Information provided or funded by the Town include:

- Island Pathways Brochure
- Island Parks Brochure
- Beach Renourishment Brochure
- Resident and Visitor Guide to Hilton Head Island's Beaches
- EcoMap (funded with Southeastern Ecological Institute)
- Sea Turtle Information Brochure
- Website *www.hiltonheadislandsc.gov*

5 - EROSION CONTROL & MANAGEMENT

When the Town was incorporated in 1983, the founders identified the need for a beach management strategy. A Shore Protection Task Group was created, along with a semi-annual beach monitoring program. The beach monitoring results revealed areas of highly erosional shoreline and sediment deficits that placed upland areas at risk along certain areas of the beach. The Town evaluated alternatives including no-action and encouraging individual property owners to protect their properties from potential beach erosion impacts. This led to the philosophy and the initiation of a program for restoring and maintaining the entire beach system as a comprehensive approach. A program was developed by the Town that included comprehensive beach restoration, comprehensive beach monitoring, strategic use of shoreline stabilization structures to improve performance/increase longevity of beach nourishment, use of near-island sand sources (as available), and attempts to control seaward advancement of development and protect beach/dune resources. The benefits of this program include:

- Recreational – Provides/maintains recreational amenity for visitors and residents of the Island.
- Storm/Erosion Protection – Provides/maintains buffer between the ocean and upland.
- Environmental – Maintains beach habitat for turtles, birds, etc.
- FEMA Benefits – Can help decrease storm damage.

The Town's beach management program has been highly successful in reducing the impacts of chronic erosion along portions of the island's shoreline. The strong performance of the nourishment projects has resulted in island-wide improvements in beach and dune conditions since initial project construction.

Figure 16: Hilton Head Island beach erosion near Port Royal Sound.

5.1 SHORELINE CHANGE ANALYSIS

The Beachfront Management Act defines three types of shoreline zones. A *standard erosion zone* is a segment of shoreline which is not directly influenced by an inlet or associated shoals. An *unstabilized 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 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.

In accordance with the Beachfront Management Act, Hilton Head Island is divided into 3 inlet erosion zones and 2 standard erosion zones. These zones are defined and described from south to north according to the numbering system of the State's beach monitoring network. The location of each monitoring monument and zone designation is shown in Figure 17.

5.1.1 Beach Profiles

The Town of Hilton Head Island's beach monitoring program is founded on the use of established survey transects located at permanent reference monuments along the island's shoreline. This system of permanent monuments is the Town's beach monitoring baseline. The Town's beach monitoring stations are separate and different from the beach monitoring stations surveyed annually by the SCSCDHEC-OCRM (there are 45 stations surveyed by the OCRM). This assessment presents findings from data acquired along the Town's baseline and relates the findings to nearby OCRM monitoring transects.

The Town's monuments are referenced to standard horizontal and vertical control systems and datums. The horizontal datum is the South Carolina State Plane coordinate system, which is relative to the North American Datum of 1983 (NAD83) in International Feet. The vertical datum for purposes of beach monitoring and beach fill construction control is the National Geodetic Vertical Datum of 1929 (NGVD29).

For purposes of beach monitoring, the Town has established 74 stations (or monuments) as permanent points of reference. Thirty-two of these monuments – whole numbers 01 through 32 – were established in 1985 and have been surveyed at least twice a year since 1986. Thirteen intermediate monuments (e.g., 01A) were established prior to the 1997 renourishment project to obtain greater detail of beach change and conditions along specific shoreline areas, particularly along South Beach and the "Heel." Seven monuments – whole numbers 33 through 39 – were established prior to the 2006/07 renourishment project and included an area along the Fish Haul/Spa shoreline. Fourteen intermediate stations were developed at the same time along the Fish Haul Shoreline (FH-01 through FH-14), three of which are located concurrently with primary stations 33, 34, and 35. The last eleven monuments were established prior to the 2011/12 renourishment project in order to obtain greater detail of beach change around the "Heel."

The Town's beach monitoring stations HI-00A through HI-32 comprise 7 primary shoreline monitoring reaches – from the Lands' End Groin at Braddock Cove Creek on Calibogue Sound to Fish Haul Creek along Port Royal Sound. These stations generally coincide with OCRM stations 1400 through 1493.

Typical beach profile, shoreline change, and volume change plots are presented in Figures 18-23. Table 6 presents the seven shoreline reaches and a summary of the shoreline and volumetric changes since 1996.

Table 6: Summary of shoreline monitoring reaches MHW position change and volumetric change as of November 2021, relative to October 1996.

		Monuments		Change as of Nov-2021 relative to Oct-1996		
Reach	**Length (ft)**	**Town**	**OCRM**	**MHW (ft)**	**Volume (cy)**	**Density (cy/ft)**
Calibogue Sound	3,685	HI-00A to HI-01	1400	-2	191,000	52
South Beach	7,260	HI-01 to HI-04	1403 & 1406	241	1,015,000	140
South Island	17,010	HI-04 to HI-11	1409 to 1430	161	1,772,000	104
Central Island	28,915	HI-11 to *The Folly*	1430 to 1469	217	3,746,000	130
North Island	10,490	*The Folly* to HI-28	1472 to 1481	208	1,511,000	144
The Heel	5,075	HI-28 to HI-29E	1481 & 1484	205	210,000	41
Port Royal Plantation	6,680	HI-29E to *Fish Haul Creek*	1487 to 1493	481	1,163,000	174

Calibogue Sound. The Calibogue Sound shoreline reach generally faces the Calibogue Sound waterbody, between the Lands' End Groin and HI-01 (OCRM 1400). This reach of shoreline is primarily influenced by inlet processes and lies within an OCRM inlet hazard zone. This reach of shoreline has not received direct sand placement during any of the Town's beach nourishment projects since it tends to benefit from the alongshore movement of sand from the South Beach shoreline reach.

As shown in Figure 18, the mean high water (MHW) shoreline position has historically fluctuated between -40 and +30 feet (ft), relative to the October 1996 condition. As of November 2021, the average MHW position is -2 feet landward of the October 1996 position. The cumulative volume along this reach has also increased over time, with a net gain of approximately +191,000 cubic yards (cy) as of November 2021 – this is equivalent to a volume density increase of +52 cubic yards per foot of shoreline (cy/ft).

South Beach. The South Beach shoreline reach faces both the entrance to Calibogue Sound and the Atlantic Ocean along the southern end of Hilton Head Island, between HI-01 and HI-04 (OCRM 1403 & 1406). This reach is generally characterized by a large dune field, with alongshore sediment transport that moves from southeast to northwest. The South Beach shoreline is influenced by both inlet and beach processes and lies within an OCRM inlet hazard zone. This reach was originally nourished in 1999 and subsequently renourished in 2006/07, 2016, and 2017.

As shown in Figure 20, the MHW shoreline position along South Beach tended to steadily increase from October 1996 to October 2017, reaching a peak average distance of +408 ft (October 2017), and has decreased to +241 ft as of November 2021. The cumulative volume along this reach followed a similar pattern, with a net gain of approximately +1,015,000 cy (140 cy/ft) as of November 2021.

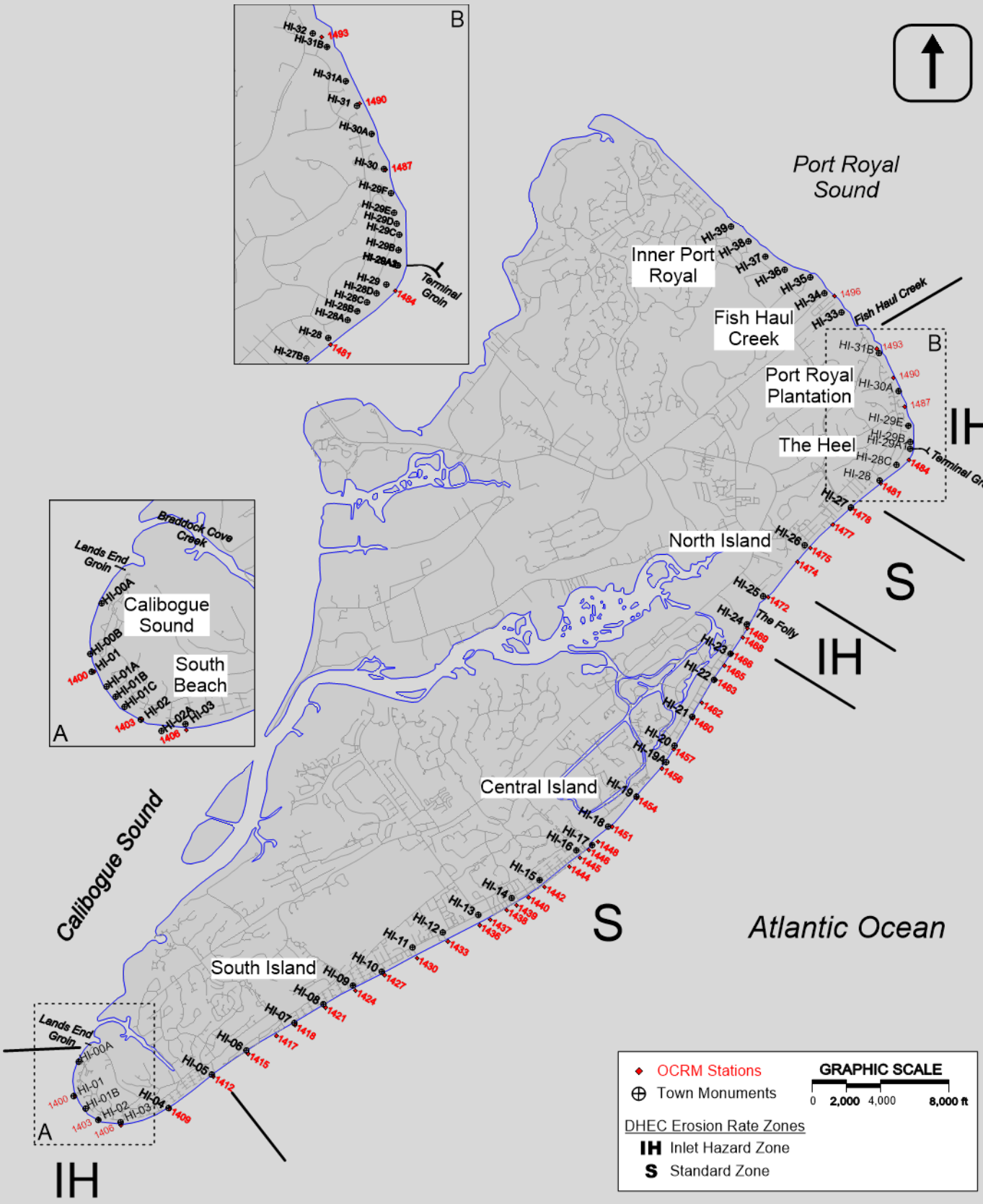


Figure 17: Beach erosion control monuments & erosion rate zones.

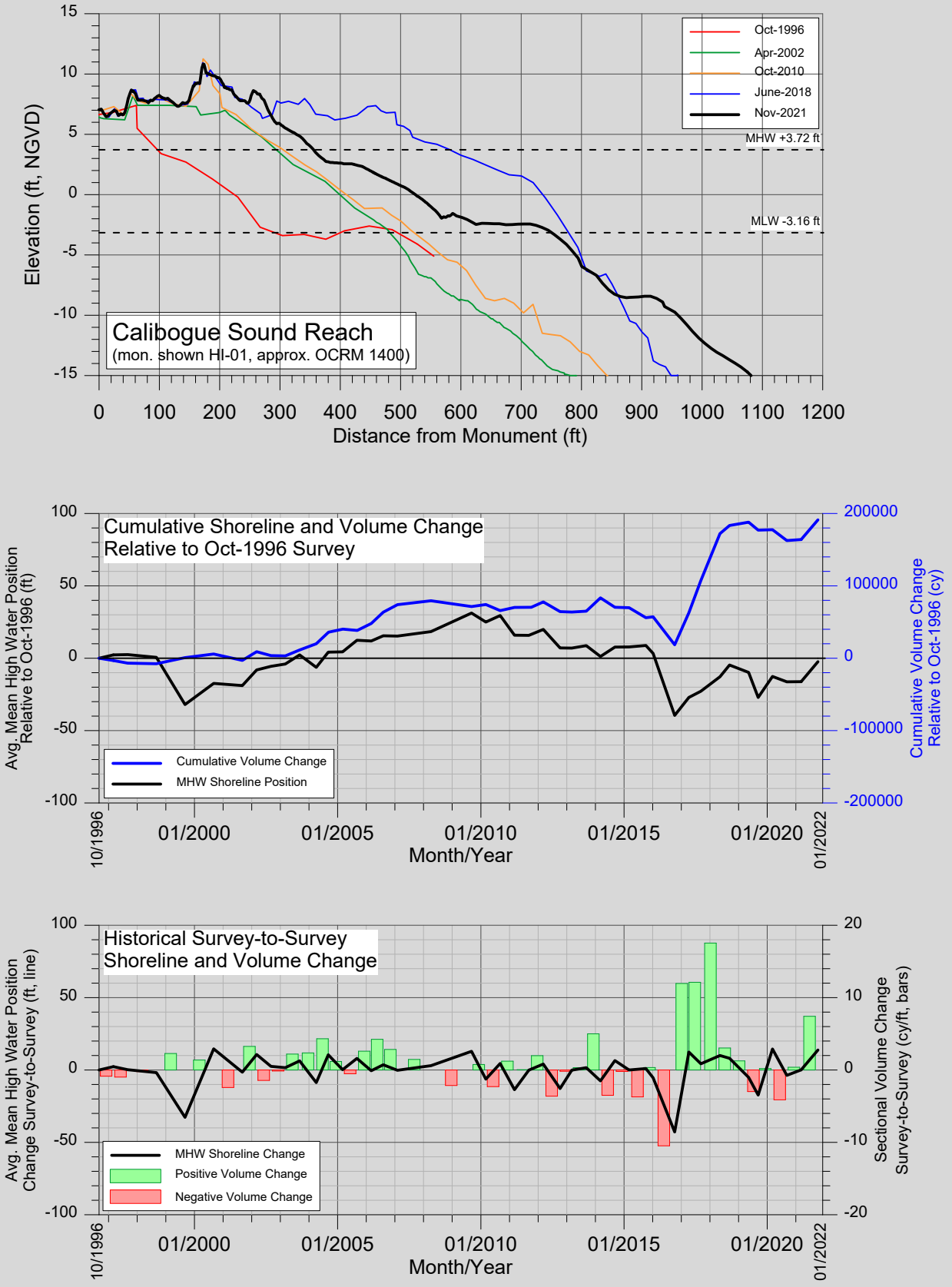


Figure 18: Calibogue sound changes (Oct-1994 to Nov-2021).

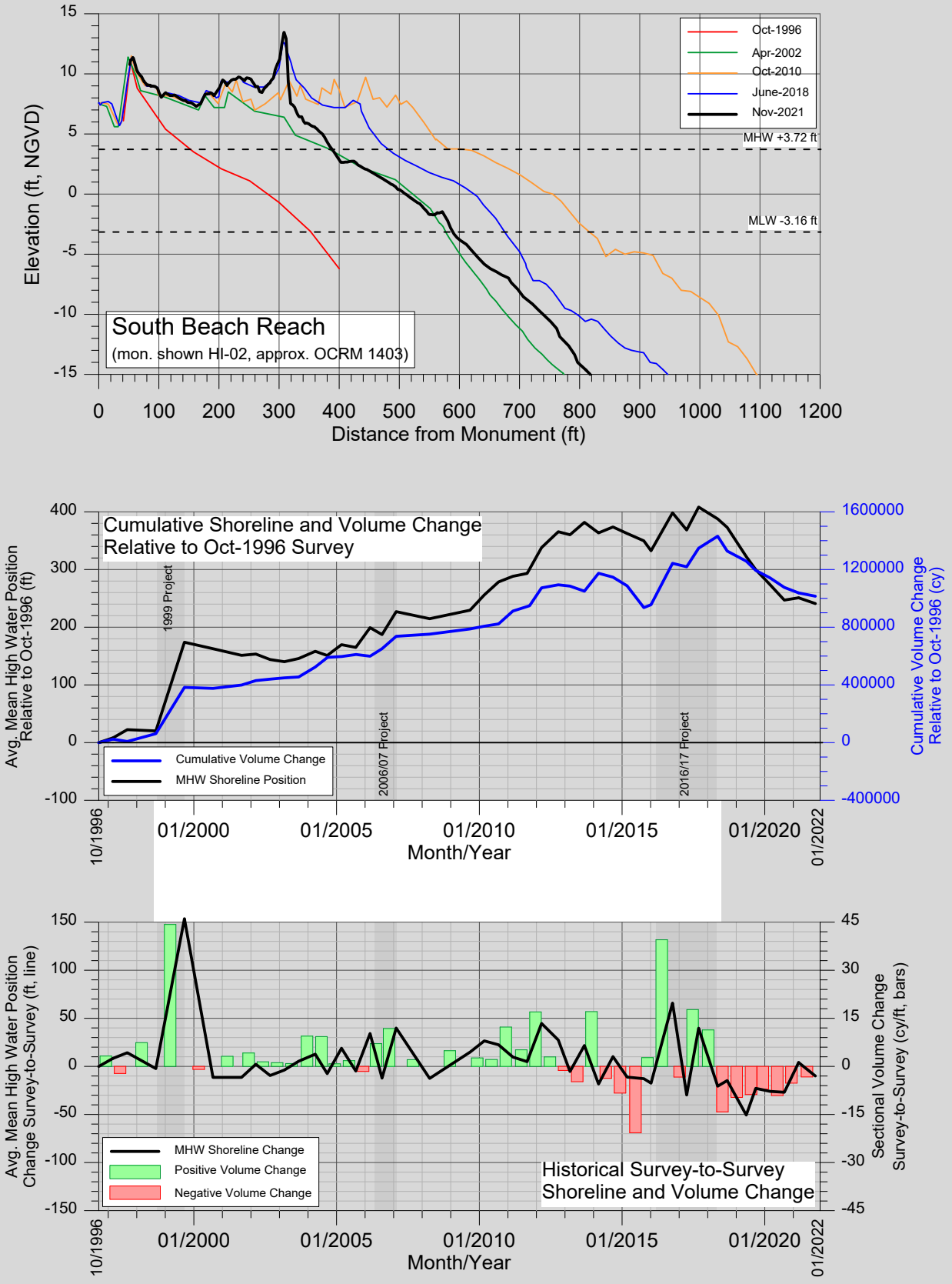


Figure 19: South Beach changes (Oct-1994 to Nov-2021).

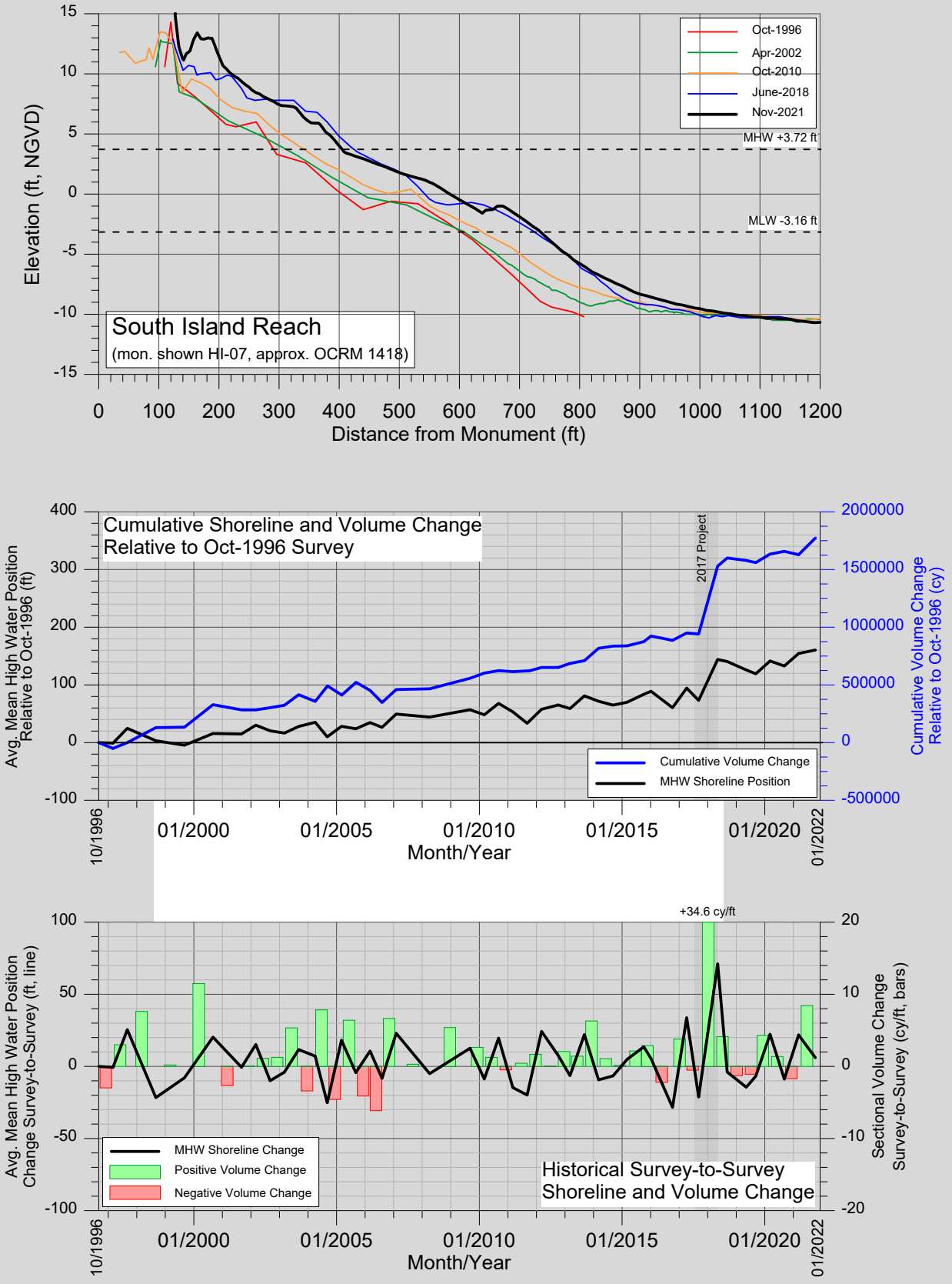


Figure 20: South Island changes (Oct-1994 to Nov-2021).

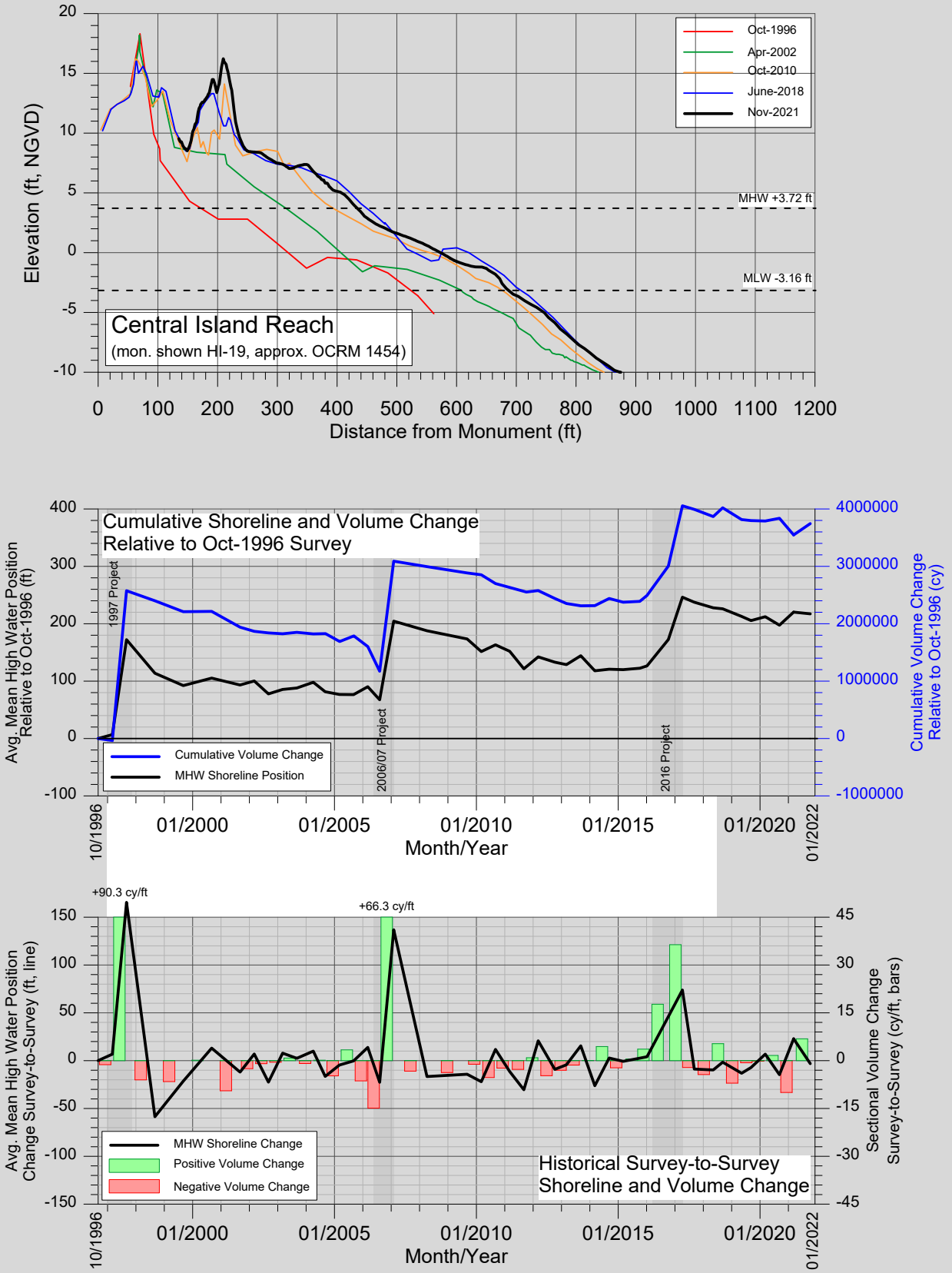


Figure 21: Central Island changes (Oct-1994 to Nov-2021).

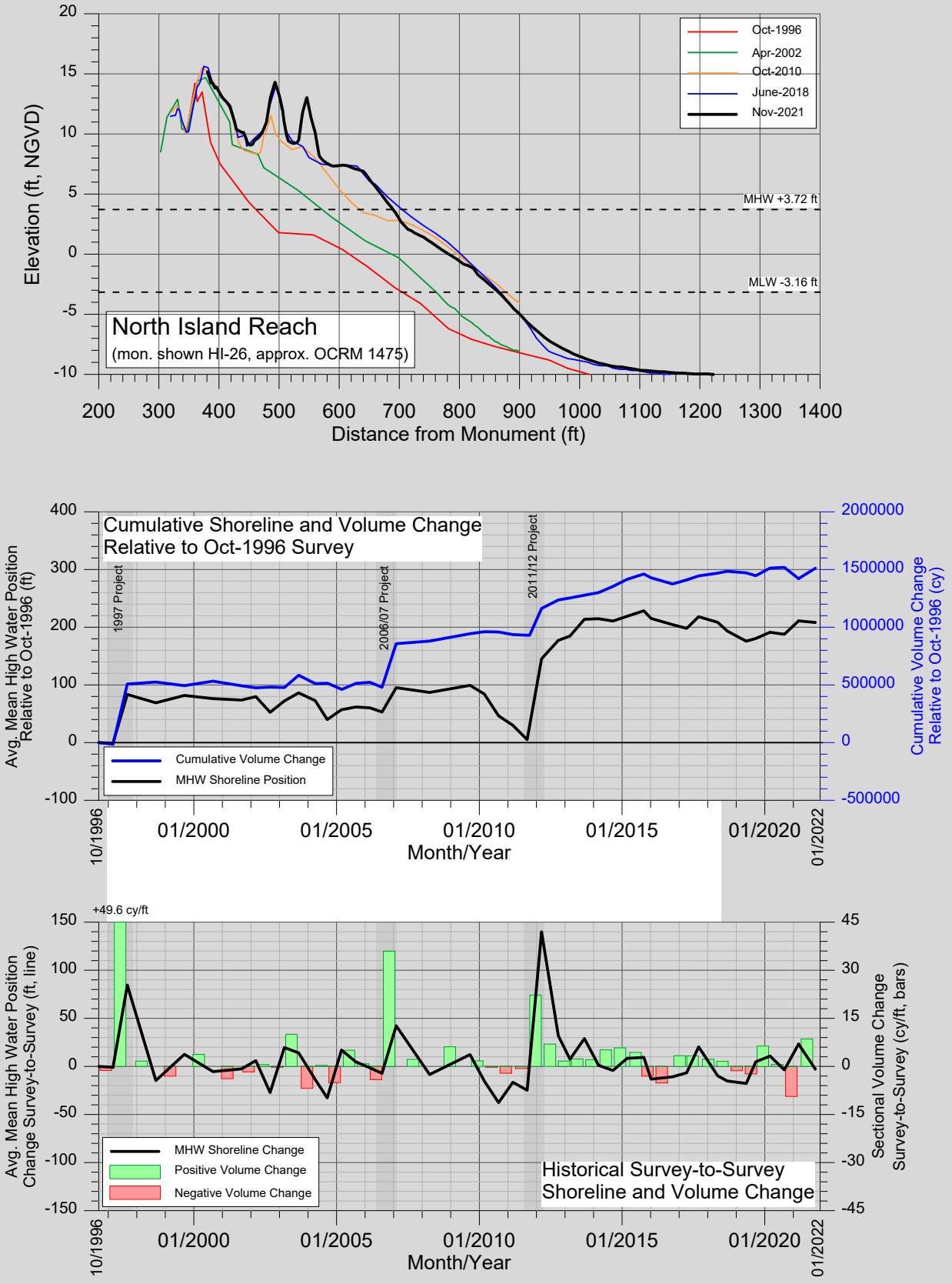
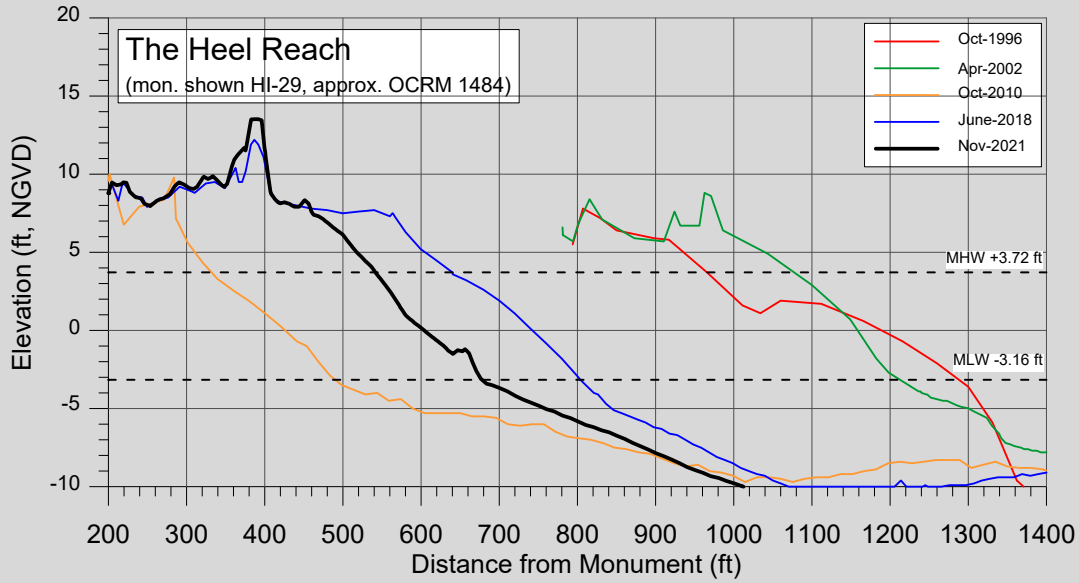


Figure 22: North Island changes (Oct-1994 to Nov-2021).



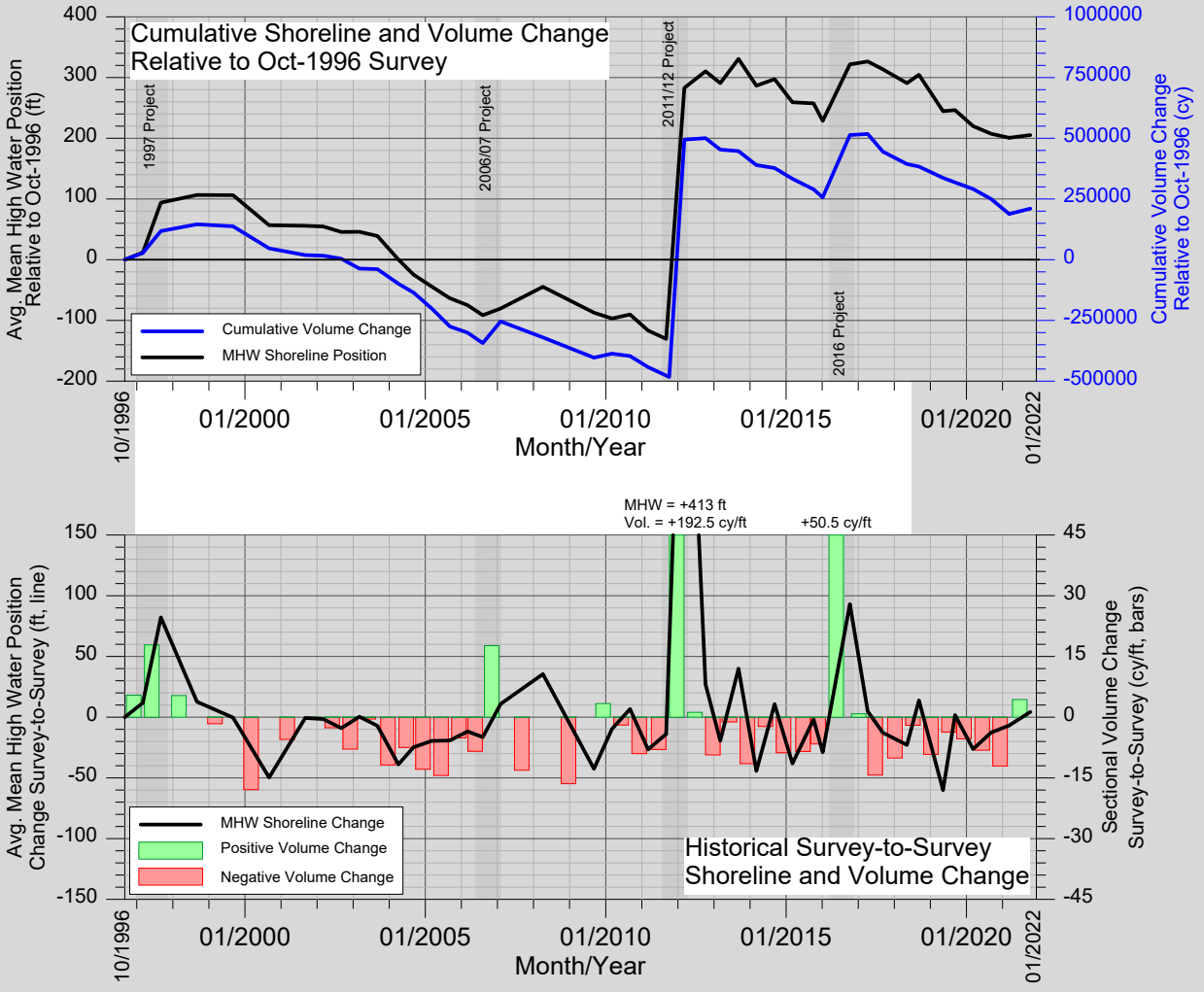


Figure 23: The Heel changes (Oct-1994 to Nov-2021).

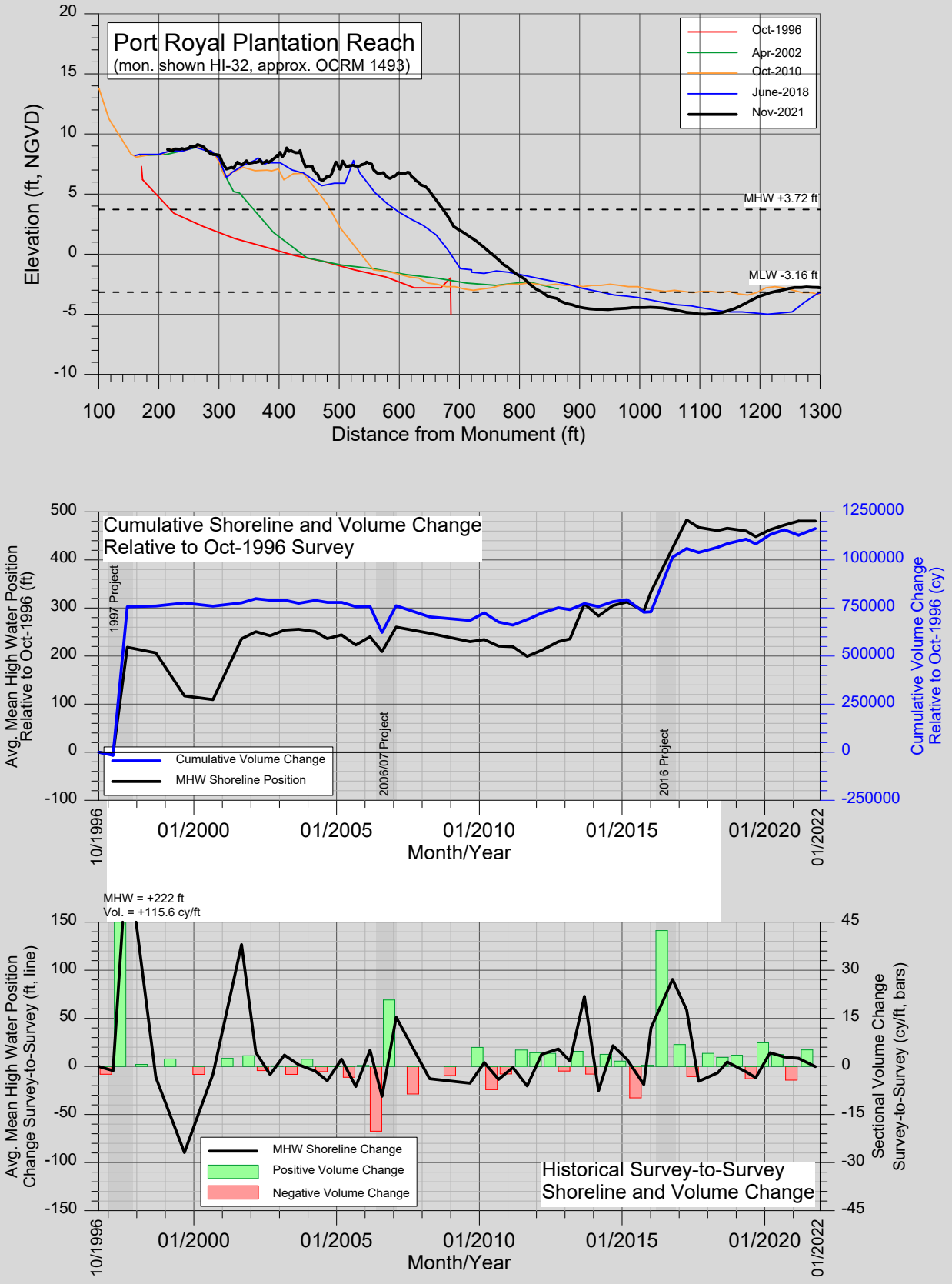


Figure 24: Port Royal Plantation changes (Oct-1994 to Nov-2021).

South Island. The South Island shoreline reach stretches along the Atlantic Ocean between HI-04 and HI-11 (OCRM 1409 to 1430). The South Beach shoreline is primarily influenced by beach processes and lies within both an OCRM inlet hazard zone (HI-04 to HI-05) and OCRM standard zone (HI-05 to HI-11). This reach is generally stable to marginally accretional and has only been nourished once, in 2017, since the inception of beach management at Hilton Head Island. It has been observed that the South Island reach tends to benefit from the north to south alongshore transport of sand from the Central Island reach.

As shown in Figure 20, the MHW shoreline position along South Island has tended to steadily increase over time and is +161 ft seaward of the October 2016 position, as of November 2021. The cumulative volume change along this reach has also steadily increased over time, increasing in 2017 (as a result of the beach fill project), with a total of +1,772,000 cy (+104 cy/ft) as of November 2021 (relative to October 1996).

Central Island. The Central Island shoreline reach is the longest of the Town's monitoring reaches and stretches along the Atlantic Ocean between HI-11 and *The Folly* (OCRM 1430 to 1469). The Central Island shoreline is primarily influenced by beach processes and lies within both an OCRM standard zone (HI-11 to ~HI-24) and an OCRM inlet hazard zone (~HI-24 to *The Folly*). The Central Island reach was originally nourished in 1990 and subsequently renourished in 1997, 2006/07, and 2016.

As shown in Figure 21, the MHW shoreline position along Central Island tends to naturally retreat between renourishment events, but has overall increased in width since October 1996. As of November 2021, the average MHW shoreline position is approximately +217 ft seaward of the October 1996 position. Similarly, the cumulative volume change over time indicates that this reach erodes between renourishment events. As of November 2021, the net cumulative beach volume increase since October 1996 is +3,746,000 cy (+130 cy/ft).

North Island. The North Island shoreline reach stretches along the Atlantic Ocean between *The Folly* and HI-28 (OCRM 1472 to 1481). This shoreline reach is primarily influenced by beach processes, to a lesser degree inlet processes (i.e., *The Folly*), and lies within both an OCRM inlet hazard zone (*The Folly* to HI-25.5) and an OCRM standard zone (HI-25.5 to HI-27.5). The North Island reach was originally nourished in 1990 and subsequently renourished in 1997, 2006/07, and 2011/12.

As shown in Figure 22, the MHW shoreline position along North Island tends to remain relatively stable through time (less the period from October 2009 to October 2011), with shoreline advance generally associated with beach nourishment events. As of November 2021, the average MHW shoreline position is +208 ft seaward of the October 1996 position. Cumulative volume changes were relatively stable between the 1997 and 2006/07 projects, but tended to show an accretional signal between the 2006/07 and 2011/12 projects and over the period following the 2011/12 project to November 2021. As of November 2021, the cumulative net beach volume increase since October 1996 is +1,511,000 cy (+144 cy/ft).

The Heel. The Heel shoreline reach faces both the Atlantic Ocean and the entrance to Port Royal Sound along the northern end of Hilton Head Island, between HI-28 and HI-29E (OCRM 1481 & 1484). This shoreline reach is primarily influenced by inlet processes and lies entirely within an OCRM inlet hazard zone. Due to its proximity to Port Royal Sound, The Heel has historically been a very dynamic region of

the island. This reach was originally nourished in 1997 and renourished in 2006/07. In 2011/12 the Heel was stabilized by the construction of a rock, rubble mound terminal groin and beach nourishment, and since then was renourished once more in 2016.

As shown in Figure 23, the MHW shoreline position along The Heel has tended to retreat through time. As of November 2021, the average MHW shoreline position is approximately +205 ft seaward of the October 1996 position. Cumulative volume changes likewise exhibit an erosional trend along The Heel. The November 2021 survey indicates that the cumulative beach volume change is a +210,000 cy (+41 cy/ft) increase, relative to the October 1996 conditions.

Port Royal Plantation. The Port Royal Plantation shoreline is the northernmost primary monitoring reach and faces Port Royal Sound, between HI-29E and *Fish Haul Creek* (OCRM 1487 to 1493). This reach is primarily influenced by inlet processes and lies entirely within an OCRM inlet hazard zone. This shoreline region has been relatively stable, and tends to benefit from south to north alongshore sediment transport from The Heel. This reach was originally nourished in 1997 and subsequently renourished in 2006/07 and 2016.

As shown in Figure 24, the MHW shoreline position along Port Royal Plantation has gone through periods of retreat (e.g., 2007 to 2012) and advance (e.g., 2012 to 2016). It has been observed that offshore sand waves periodically migrate onshore and provide input of sediment to this reach. As of November 2021, the average MHW shoreline position is approximately +481 ft seaward of the October 1996 position. Cumulative volume changes were generally stable from 1996 through 2016, with an accretional signal shown to have been occurring since completion of the 2016 project. As of November 2021, the cumulative net beach volume increase since October 2016 is +1,163,000 cy (+174 cy/ft).

5.1.2 Long Term Erosion Rates and Shoreline Volumetric Change Rates

Long-term MHW shoreline and volumetric change rates were assessed over the seven primary shoreline monitoring reaches along Hilton Head Island. MHW position and net beach volume change rates through time were computed for the period from 1996 to 2021 and remove the beneficial effects of beach fill placement in order to approximate the natural, or "background", change rates. Table 7 presents the shoreline and volumetric change rates for the Town's monitoring reaches.

Table 7: MHW Shoreline and Volumetric Change Rates (1996-2021).

	Monuments		**Annualized Volumetric and Shoreline Changes** *1996-2021, Beneficial Project Effects Removed*		
Reach	**Town**	**OCRM**	**MHW (ft/yr)**	**Total (cy/yr)**	**Sectional (cy/ft/yr)**
Calibogue Sound	HI-00A to HI-01	1400	0.1	2,000	0.6
South Beach	HI-01 to HI-04	1403 & 1406	-0.8	-200	0.0
South Island	HI-04 to HI-11	1409 to 1430	3.1	44,800	2.6
Central Island	HI-11 to *The Folly*	1430 to 1469	-7.4	-102,300	-3.5
North Island	*The Folly* to HI-28	1472 to 1481	-0.4	15,700	1.5
The Heel	HI-28 to HI-29E	1481 & 1484	-18.2	-47,500	-9.4
Port Royal Plantation	HI-29E to *Fish Haul Creek*	1487 to 1493	2.1	-3,800	-0.6

The Calibogue Sound shoreline has historically been a stable to marginally accretional reach that has tended to benefit from the south-to-north alongshore transport from South Beach. This reach lies entirely within an OCRM inlet hazard zone and is subject to the influences of inlet processes. Annualized background shoreline changes are on the order of +0.1 ft/yr and volumetric changes +2,000 cy/yr for the period from 1996-2021, with project effects accounted for.

The South Beach shoreline reach also lies entirely within an OCRM inlet hazard zone and is generally erosional. This reach receives alongshore sand input as beach sediment moves north to south along the South Island shoreline and towards Calibogue Sound. A large sand lobe also was observed to be migrating alongshore and into Calibogue Sound from the early 2000s through 2021. As this lobe moved through South Beach over the roughly 20-year period, the dune field was seen to both grow and retreat as the shoreline responded to the flux of sand. A contemporary analysis period from 2006 to 2021 was computed (in addition to the results of Table 7) and suggests that shoreline and volumetric changes were approximately -4.1 ft/yr and -30,000 cy/yr, respectively, as the lobe migrated towards the Sound and dissipated. Continued monitoring efforts will allow for a greater understanding of how shoreline and volume change rates may evolve along the South Beach reach.

The South Island reach has been historically stable to marginally accretional and has benefited from the alongshore transport of sand from the Central Island reach. Most of this shoreline lies within an OCRM standard zone, however there is a small area from HI-04 to HI-05 that is within an OCRM inlet hazard zone. The accretional nature of this reach led to the 2017 project being its only nourishment event to date, which was in response to severe erosion caused by the impacts of Hurricanes Matthew and Irma. The South Island MHW shoreline tends to advance at a rate of +3.1 cy/yr and gains sand at +44,800 cy/yr, on average.

The Central Island shoreline reach is generally erosional and lies primarily in an OCRM standard zone, with the area between HI-24 and *The Folly* as an OCRM inlet hazard zone. Due to its erosional propensity, the Central Island reach is typically considered for renourishment when planning comprehensive beach fill projects at Hilton Head Island. The average annualized MHW position change rate is about -7.4 ft/yr, and the volumetric change rate is -102,300 cy/yr.

The North Island shoreline reach is stable to very marginally accretional and lies within an OCRM inlet hazard zone and OCRM standard zone. This reach has benefited from the shoreline stabilizing effects of the terminal groin construction at The Heel in 2011/12. Since construction of the groin, the cumulative volume along this reach has increased over time. Average annual MHW shoreline position change along this reach is approximately -0.4 ft/yr, with volume changes roughly +15,700 cy/yr.

The Heel shoreline reach is the most erosional reach of the Town's monitored shoreline and lies completely within an OCRM inlet hazard zone. Morphological changes along this reach are influenced by both beach and inlet processes associated with Port Royal Sound. Chronic, long-term erosion at The Heel necessitated the design and construction of the rubble mound terminal groin in 2011/12 to stabilize the

shoreline. The annualized MHW shoreline change rate at The Heel is approximately -18.2 ft/yr, and the volumetric change rate is -47,500 cy/yr.

The Port Royal Plantation shoreline reach is the northernmost monitoring reach and lies completely within an OCRM inlet hazard zone. This reach is slightly erosional from a volume perspective, but has presented MHW advance over the long-term. Similar to South Beach, Port Royal Plantation has seen the periodic offshore-to-onshore movement of sand lobes influencing changes along this reach. The average annualized MHW shoreline position change is approximately +2.1 ft/yr, and the annualized volume change is -3,800 cy/yr.

5.2 BEACH ALTERATION INVENTORY

Although the Town's preferred approach to shoreline stabilization is periodic beach renourishment, historical efforts to stabilize the Island's shoreline have resulted in structures being installed by various entities at six locations along the Island's shoreline.

Existing Shoreline Stabilization Structures

South Beach Groins:
Seven shore-stabilizing structures presently exist along the southern extremity of the Island within Sea Pines. Six of these structures constitute the groin field found along South Beach's ocean-facing shoreline, which are presently (as of 2022) covered by sand, while the seventh structure is a terminal groin, commonly called the Land's End Groin, located immediately south of and adjacent to the Braddock Cove tidal creek. These structures were installed during the late 1960's and 1970's by Sea Pines Company.

North Forest Beach Armoring:
In conjunction with the development of this residential area in the 1960's and prior to the adoption of the SC Beachfront Management Plan and SCDHEC OCRM setback line in the 1980's, over a mile of various forms of armoring was constructed along the North Forest Beach shoreline by property owners. Typical types of armoring ranged from walls, to granite rip rap and concrete rubble, most of which were placed in an undesigned fashion on an as-needed basis. As a result of the Town's renourishment efforts, this zone of shoreline hardening has been effectively isolated from normal day to day wave and tide impacts by the beach fill projects conducted in 1990 and 1997. Since the section of central Hilton Head Island shoreline extending from North Forest Beach to the present-day Marriott Hotel naturally experiences the most erosional stress, it is deemed to be an important trigger for beach restoration activities.

Marriott Hotel Sloping Concrete Revetment with Seawall:
The existing Marriott Hotel complex (formerly the Hyatt Hotel) is an example of the placement of a major habitable shorefront structure at the natural dividing point along Hilton Head Island's littoral system. A massive, sloping concrete revetment with seawall was constructed in conjunction with and upland of the original project, clearly acknowledging that the hotel complex would be subjected to wave and tidal impacts. However, what may not have been realized was the magnitude for potential chronic shoreline recession at that location. A Littoral Transport Study of the island's oceanfront shoreline (Olsen, 1996) confirmed that the natural dividing point for littoral transport lies in the vicinity of the hotel and that phenomenon has been partially responsible for increased background erosion rates measured at that location. Although two previous beach renourishment projects have overtly sought to both reduce erosion vulnerability at the Marriott hotel site and to maximize post-construction beach widths sufficient to address high intensity recreational demand, it is recognized that a comprehensive solution is neither practical nor cost-effective seaward of the hotel complex. It is acknowledged that erosion of this area will occur faster than other areas along the shoreline; however due to the specific nature of this area, such an occurrence will not be used as the trigger for a large-scale renourishment, like erosion in the North Forest Beach area.

Folly Terminal Groin:
A rock terminal groin (approximately 430 feet long) was built along the western side of the small tidal inlet known as the Folly, as part of the 1997 renourishment project. The primary purpose of the structure was to allow beach restoration operations to occur in close proximity to the Folly (westward of the inlet only) without increasing the probability of closure due to project induced shoaling. SCDHEC OCRM permits for beach nourishment on Hilton Head Island, require that the Folly "must be kept in an open and flowing condition" since the tidal inlet is connected to a small isolated estuarine area deemed to be an important environmental resource. Accordingly, maintenance of the groin structure at its current location and approximate existing configuration is an important mechanism for minimizing fill impacts at this location of the island. Conversely, the eastern limit of the Folly has remained unstabilized and beach fill operations at that location are not allowed to encroach toward the inlet.

Port Royal Plantation Groin Field:
Along the Port Royal Shoreline, 17 shore perpendicular groins and two shore parallel rock revetments were constructed between 1969 and 1974. The 17 groins were constructed of varying mixes of small, medium and large granite stone. Some groins included concrete rubble. The two remaining groins, located at the southeasternmost section of the Port Royal Sound shoreline, were constructed of palm tree trunks combined with granite stone. It is estimated that these two structures were constructed around 1960. The groins' lengths vary from about 100 to 600 feet and the spacing between groins varies from approximately 165 to 850 feet.

Town/SPA Breakwaters:
As part of the 2006 Beach Renourishment Project, a new section of Port Royal Sound facing shorefront received limited beach fill to the northwest of Fish Haul Creek. As a complement to the small sand fill, six small rock detached breakwaters were constructed seaward of the limits of sand placement. The purpose of the rock breakwaters is to extend the life (and performance) of the very small isolated fill project. The structures are likewise intended to reduce sand migration from the fill towards Fish Haul Creek. Subsequent to rock placement, marsh vegetation was planted in the lee of each structure to further encourage long term natural stabilization along this shoreline which is at the transition point from sandy beach to an estuarine environment. It should be noted that this shore stabilization project is not located within the SCDHEC OCRM Beach/Dune Critical Area, but serves to more evenly distribute beach access points throughout the Island.

Town/Port Royal Groin:
A section of Port Royal Sound facing the Atlantic shorefront received limited beach fill and was stabilized by the construction of a 700-foot-long rubble mound terminal groin at the northeastern end of the project. This shoreline area of the island is subject to both beach and inlet sediment transport processes and was typically highly erosional prior to installation of the groin. Construction of the terminal groin was completed in 2012. The groin is low crested and mostly buried. Since completion of the project, the terminal groin has successfully reduced the extent of shoreline erosion along the northern end of Hilton Head Island.

5.2.1 Beach Renourishment Project History

In 1980, the United States Army Corps of Engineers (USACE) issued a permit for the placement of 300,000 cubic yards of sand along approximately 14,000 linear feet of the beach to Sea Pines Company. The renourishment sand was transported from the permitted dredging project of Shelter Cove Marina, located mid-island on Broad Creek, as a result of its compatibility with existing beach front sand. A Palmetto Dunes Resort project was the only renourishment project on Hilton Head Island permitted by the USACE and certified by the South Carolina Coastal Council prior to 1990, and predates the incorporation of the Town.

In 1990, the Town of Hilton Head Island undertook its first major beach nourishment project, which was jointly funded by the State and the Town. This project involved the placement and contouring of as much as 2.5 million cubic yards of beach-compatible sand along 35,000 linear feet of the shoreline. This comprehensive nourishment project covered an area of the beach from just north of the Westin Hotel to south of Coligny Circle, with a small area excluded around the Folly. The sand was excavated and placed by hydraulic cutter-suction pipeline dredge from two offshore borrow sites located at Joiner and Gaskin Banks.

In 1997, the Town performed another renourishment project located very similarly to the 1990 project; however, this project addressed an additional 1.5-mile segment along Port Royal Sound, the reconfiguration of a tidal channel, and the installation of sand fencing and native vegetation to encourage dune formation and stabilization.

In 1999, another renourishment project was permitted for emergency work to renourish along the South Beach shoreline as the preferred solution to the localized erosion problem which was occurring at that time. This fill was placed over the South Beach groin field rather than maintaining the structures themselves.

In 2007, the Town finished a $16.6 million project that was similar to the projects constructed in 1990 and 1997, with the exception of certain design refinements near the Marriott and along North Forest Beach. In addition, the Town elected to nourish an area near Fish Haul Creek, along the shoreline of Port Royal Sound, due to chronic erosion. This project placed about 2 million cubic yards of sand along 6.6 miles of Atlantic shorefront, from just south of Coligny Circle to just north of the Westin Hotel at Port Royal Plantation; 85,000 cubic yards of sand along 2,000 feet of the Port Royal Sound shoreline north of Fish Haul Creek at the Spa; and 42,000 cubic yards of sand along 1,500 feet of Atlantic Shorefront at South Beach. As with previous projects, the nourishment sand was excavated by hydraulic dredge from two offshore shoal features.

The 2011-12, beach renourishment project was a smaller scale project that built up the beach from just north of The Westin Resort to the Beach House in Port Royal Plantation. The 9.8-million-dollar project included two principal parts: the placement of about 1 million cubic yards of sand along 1 mile of Atlantic

shorefront, and the construction of a 700-foot-long rubble mound terminal groin at the northeastern end of the project to stabilize the erosional north end of Hilton Head Island. The groin is low crested and mostly buried.

The 2013 beach renourishment project was a smaller scale, truck-haul beach fill project where approximately 20,300 cubic yards (32,142 tons) of sand were placed along a 2,000-foot segment of Port Royal Sound. This segment of shoreline, just south of Fish Haul Creek, is known as Ocean Point. This project was constructed at a cost of approximately $1 million dollars.

The 2016 beach renourishment project was a scheduled renourishment of portions of the previously constructed 1990, 1997, 1999, 2006/07, and 2011/12 project segments that required sand fill at the time of construction. The purpose of this project was to reestablish the intended design conditions of Hilton Head Island's engineered beaches, defined as those reaches that have received direct sand placement in the past. The project also called for sand placement between approximately Painted Bunting Road and Marsh Wren Road, which was beyond historical sand placement limits. Approximately 2,855,800 cubic yards of beach-compatible sand were placed along the island's shoreline through this project, which is inclusive of additional sand placed to address erosion experienced during Hurricane Matthew (October 2016). This project was constructed by cutter-suction pipeline dredge and used the Bay Point Shoals and Barrett Shoals borrow area.

The 2017 project was an emergency restoration of both the South Beach portion of the 2016 project and a northward extension of the beach fill to approximately 1,000 feet north of Duckhawk Road. The purpose of this project was to address erosional impacts associated with Hurricane Matthew, and subsequently Irma (September 2017), along the South Beach shoreline. Approximately 709,500 cubic yards of beach-compatible sand were placed within one distinct shoreline segment for this project. The project was constructed by cutter-suction pipeline dredge and used the Barrett Shoals borrow area.

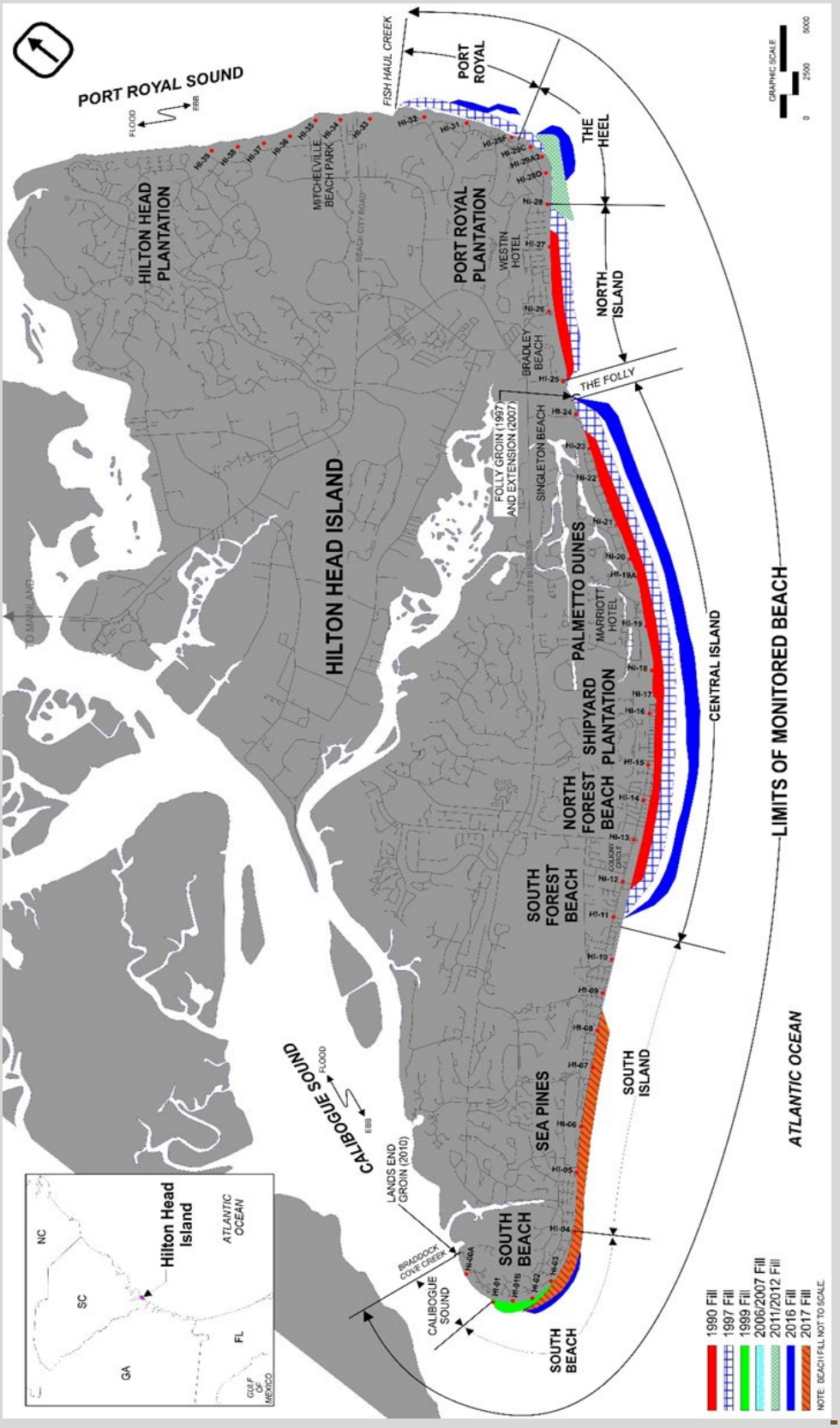


Figure 25: Historical beach fill projects at Hilton Head Island.

Figure 26: 2006/07 Project in Construction, with Pre-1990 Shoreline shown as Red Line.

5.2.2 Emergency Orders and Sandbags

No State-issued Emergency Orders have been issued for Hilton Head Island recent years (since 2015).

5.2.3 Previous Hurricanes and Storm Events

Over the past decade (2012-2022), four major hurricane storm events have impacted Hilton Head Island and resulted in losses to the Island's beaches. The four hurricanes are: Joaquin (2015), Matthew (2016), Irma (2017), and Dorian (2019). Erosional losses resulting from the aforementioned storms' impacts to the Town's engineered beaches[1] resulted in FEMA-eligible Category G reimbursements. As of May 2022, the Town's engineered beach reaches include:

- South Beach – HI-01 to HI-04
- South Island – HI-04 to HI-08+1000 ft
- Central Island – HI-11 to *The Folly*
- North Island, The Heel, and Port Royal Plantation – *The Folly* to *Fish Haul Creek*
- Fish Haul Creek – FH-05 to HI-35

Hurricane Joaquin (2015). The direct storm effects from Joaquin to Hilton Head Island occurred between 29 September and 7 October 2015. Despite tracking far to the east of the island, moisture from Hurricane Joaquin fed a non-tropical low-pressure system that stalled over the southeast United States resulting in elevated tides, waves, significant rains and substantial coastal flooding. This event occurred as the Town of Hilton Head Island, SC was planning to construct its next island-wide beach renourishment project in early 2016. Based upon review of the available beach profile data (pre- and post-storm), it was concluded that approximately 177,250 cy were lost from the entire beach system (dune to depth of closure). Of this total, 151,720 cy of material were lost from the engineered beach. In order to account for the material lost, as a direct result of Hurricane Joaquin, an additional 151,720 cy were added to the design of the 2016 island-wide renourishment project.

Hurricane Matthew (2016). Hilton Head Island was impacted by Hurricane Matthew between 7 and 8 October 2016. The center of the storm passed about 5 to 10 miles offshore of Hilton Head Island before making landfall as a Category 1 storm over the Cape Romain National Wildlife Refuge, approximately 80 miles northeast of Hilton Head Island. Through the course of the storm, the Island endured maximum winds of nearly 90 mph, more than 19 inches of rain, and peak water levels near +9.4 ft (NGVD 29) with wave-driven storm run-up that may have reached even higher elevations. Based upon profile comparison from pre- to post-storm, the beach lost a total of 384,000 cy (4.4 cy/ft) of sand from dune to depth of closure. Of this total volume, 291,900 cy were lost from the engineered beach and were eligible for FEMA Category G reimbursements. In addition to beach volume losses, there was an estimated loss of 33.6 acres of dune vegetation along approximately 44,000 ft of engineered shoreline as a result of the storm related

[1] The term "engineered beach" refers to sections of the Town's shoreline that have received sand fill placement during any of the historical beach fill projects. Since the engineered beach is defined only where a project has been previously constructed, the total engineered beach along Hilton Head Island has increased over time. Losses incurred along the engineered beach may be eligible for FEMA Category G reimbursements.

erosion and dune loss. Hurricane Matthew impacted the Island during the final construction phase of the 2016 Island-wide Beach Renourishment Project, which drove up the amount of sand lost above the MHW line; however, since the construction contractor was still on site, part of the beach fill was immediately refilled in the storm's aftermath.

Hurricane Irma (2017). Hurricane Irma impacted Hilton Head Island between 9-12 September 2017 with the most severe conditions occurring on 11 September 2017. The impacts to the island were realized through the significant and sustained onshore flow associated with the powerful hurricane as it approached and moved up the Florida peninsula. During the storm, the island experienced sustained winds of up to 45 mph, and gusts reaching as high as 60 mph. Water levels in the vicinity of the Island were approximately +9.0 ft (NGVD29), with maximum storm surge of about 5.5 feet above the predicted levels. Pre- to post-storm beach profile comparison indicated a loss of about 255,700 cy from the dune to depth of closure. Of this volume loss, 204,300 cy were lost from the engineered beach and were eligible for FEMA Category G reimbursements. Unlike Hurricane Matthew, there was no observed vegetation loss through the impacts of Hurricane Irma. Hurricane Irma impacted the Island during construction of the 2017 South Island Emergency Beach Fill Project, which drove up the amount of sand lost above the MHW line in the South Beach and South Island shoreline reaches. After the passage of the storm, a portion of the 2017 beach fill that had been lost through the storm was refilled to the design template.

Hurricane Dorian (2019). Hilton Head Island was impacted by Hurricane Dorian between 4-6 September 2019. At the storm's peak (midnight 5 September 2019), the island was exposed to sustained winds ranging from 40 to 50 mph, with gusts reaching as high as 60 mph. Offshore significant wave heights also peaked on September 5, with the greatest wave height measurements of 15-25 ft persisting for approximately 42 hours, and wave heights of at least 5 ft persisting for about 5 days (approx. 1-6 September). Water levels in the vicinity of Hilton Head Island peaked at about +6.5 ft (NGVD29). From the tide gage record and beach profile survey data, it is believed that storm surge at Hilton Head Island may have reached as high as +7 ft (NGVD29) in some areas. Pre- to post-storm beach profile comparison indicates that approximately 180,400 cy were lost along the Town's beaches, from dune to depth of closure. Of this total volume loss, approximately 146,700 cy were lost along the engineered beach and were eligible for FEMA Category G reimbursements. In addition to beach volume losses, it was estimated that roughly 1.53 acres of previously-planted dune vegetation was lost along the South Island segment.

5.3 EROSION CONTROL ALTERNATIVES

Since 1986, a fundamental tenet of the Town's beach management strategy is that reliance upon "*hard*" structures should be minimized. Prior to the initiation of beach restoration through nourishment, different types of hard structures implemented for shore stabilization by the private sector (*i.e.* homeowners, developers, hotels, P.O.A.'s, etc.) have typically consisted of structures such as groins and seawalls or bulkheads. For the purpose of evaluation, two basic types of shoreline stabilization techniques have been considered: "hard" and "soft" shoreline treatments. In 2005, Olsen Associates, Inc. prepared a white paper on shoreline stabilization structures that included the following evaluation of alternatives for both "hard" and "soft" erosion control techniques.

"Armoring consists of shoreline *hardening* through the application of bulkheads, seawalls or revetments.

- Bulkheads are vertical retaining walls designed to hold or prevent soil from sliding waterward.
- Seawalls are usually massive, vertical designed structures used to protect backshore areas from heavy wave action. In highly erosive conditions or exposed locations they may separate land from water.
- Revetments provide a sloping protective cover of erosion-resistant material to protect a shorefront from waves and/or strong currents. They can be solid (*i.e*. sloping concrete for example), but most typically are comprised of a designed cross section of natural rock (like granite), or on less frequent occasions manmade type armor units.

Although armoring may be successful in limiting or reducing the extent of horizontal shoreline recession along a chronically eroding shorefront, it does *not* serve to alleviate deflation (*i.e*. vertical erosion) of the beach profile seaward. Hence, armoring is considered to be net impactive with respect to littoral processes. Most vertical armoring is highly reflective of incident wave energy; thereby further accentuating offshore sediment losses, in particular during storm events. For this reason, a sloping rock revetment (with a lower coefficient of reflectivity) is typically preferable over a vertical seawall or bulkhead in open coast environments.

Groins are one of the oldest and most common shore-connected beach stabilization structures. Groins are structures typically constructed perpendicular to a shoreline in the zone of most active littoral transport across the beach profile. As such, groins are often designed to interrupt longshore transport in order to trap, or retain sand mobilized by waves or currents. Groins are often deployed as a field of structures in order to spatially affect a section of shorefront. At the terminus of a littoral cell, a single "terminal structure" may be used to anchor the beach, and/or limit the removal of sand from the shore into a navigational channel or the shoals of a tidal inlet."

Rather than these hard structures, the principal means of shore stabilization embraced by the Town of Hilton Head Island Shoreline Management Plan should be beach nourishment. Beach nourishment functions as a restorative "*soft*" structure which provides for improved shorefront conditions suitable for recreation, protection of upland development or infrastructure, as well as environmental enhancement. In

the mid 1980's the Town commissioned an "Erosion Assessment Study for Hilton Head Island" (Coastal Science and Engineering, Inc., 1986) which was followed by an "Engineering Evaluation of a Beach Restoration Strategy for Hilton Head Island" (Olsen Associates, Inc., 1987) In addition to providing the technical rationale for beach nourishment, these two documents formed the basis for the Town's initial and first request to use State funds for the purpose of beach nourishment in 1989.

Since that time, the Town has enacted a local "Beach Preservation Fee" which amounts to a 2% assessment on short-term rental accommodations. Rental to the same person, or party, of ninety (90) continuous days or more is not considered short term. The collection of this fee has allowed the Town to unilaterally fund subsequent beach renourishment projects, conduct semi-annual beach surveys and annual shoreline aerial photography, provide annual monitoring reports, acquire land, develop beach parks to enhance access, and install and maintain sand fencing and dune vegetation. The program generates approximately $4 million per year. The Town of Hilton Head Island has spent roughly $84 million for beach renourishment and shore-stabilization projects between 1990 and 2021, and the Town's Capital Improvements Program includes funding to continue providing beach re-nourishment and maintenance in future years.

The Town has undertaken large-scale beach fill projects on its oceanfront beach in 1990, 1997, 2006/07, 2012, 2016, and 2017. Besides the creation of a wider, higher elevation, and more robust beach configuration suitable for both active and passive opportunities of recreation and access by emergency, code enforcement and maintenance vehicles all stages of the tide, the Town has also been able to initiate a wide array of additional beach and shoreline management functions. These efforts benefit the local population as well as the island's natural environment. Noteworthy accomplishments directly associated with the Town's existing management program include, but are not necessarily limited to the following areas:

1. A coincident program of dune and vegetation restoration,
2. Improved beach protection laws for existing shorefront development and future redevelopment,
3. Enhanced property values and concurrent ad valorem tax base,
4. Eligibility for unique post-disaster financial assistance from FEMA,
5. Acquisition of undeveloped oceanfront lands for purposes of improved public access and park creation,
6. Improved promotional opportunities and amenities for resorts, hotels, property management firms, etc.
7. Protection of the Folly and its unique estuarine environment,
8. Improved Federal Flood Insurance program compliance,
9. More effective regulation of inappropriate oceanfront development,
10. Enhanced habitat for birds and endangered sea turtles, and
11. Semi-annual beach surveys and annual shoreline aerial photography used for modeling erosion and accretion rates when studying the Island's renourishment needs.

Figure 27: Sand Fencing on Hilton Head Island.

Figure 28: Effective Beach Renourishment and Preservation over Time

6 - NEEDS, GOALS AND IMPLEMENTATION STRATEGIES

6.1 POLICY OF BEACH PRESERVATION

The Beachfront Management Act states very clearly that the policy of the state of South Carolina is to protect, preserve, restore and enhance the beach/dune system. This act also calls for promoting wise use and development of the state's beachfront by implementing regulatory standards on the ocean side of the SCDHEC OCRM setback line.

With the adoption of the Land Management Ordinance and the Comprehensive Plan and appendices, including the Beach Management Plan, many of the Town's policies and goals on shoreline preservation are being met.

Need 1: *The Town should investigate methods to continue to protect the existing beach/dune features and those features resulting from renourishment projects from development and redevelopment pressures.*

Goal 1.1: Have a well-maintained beach and dunes system that helps to preserve and protect the Island's manmade and natural resources and provides for a sound economic base.

Goal 1.2: Continue to Protect and Enhance the Beach/Dune System though the regulation of beachfront development.

Implementation Strategies:

A. The Town should continue to implement its Capital Improvement Program and Land Acquisition Program to develop, renovate, or expand its beach parks.

Achievements:

- ✓ Town Council authorized the first phase of a comprehensive Shoreline Management Plan. The first element, an inventory and analysis of shoreline stabilization structures, has been completed.
- ✓ The Town has completed four major and one emergency beach renourishments since 1990, with another large-scale project currently underway.
- ✓ Detached breakwaters were installed along parts of Port Royal Sound Shoreline.
- ✓ The Town has begun post 2007 project monitoring, studies on groins at Port Royal Plantation, South Beach, and the Spa area on Port Royal Sound.
- ✓ The Town had Olsen Associates for studies on groins at Port Royal Plantation, South Beach, and the Spa area on Port Royal Sound.

- ✓ Semi-annual beach surveys are conducted, and an annual monitoring report is prepared.
- ✓ Sea turtle monitoring continues including the mapping all nesting sites.
- ✓ A dedicated funding source has been established for beach renourishment in the form of a beach preservation fee, derived from an additional two percent Local Accommodations Tax levied by Town Council. This source provides approximately $7 million each year, dedicated to beach renourishment and related monitoring, dune refurbishment, maintenance and operations, beach parks and beach access facilities.
- ✓ Completed a Port Royal beach erosion study.
- ✓ The Town's monitoring of threatened or endangered shorebirds is assisting federal and state agencies in the protection and recovery of those species.

B. Continue to hold densities along the beachfront to their current levels or below.

Achievements:

- ✓ The Town adopted *Resolution 2003-08,* that states: "to ensure that the intent of the ten Planned Unit Developments within the Town's PD-1 District is not compromised, *the master plan caps for those Planned Unit Developments should be held at current levels or below* until the Comprehensive Plan review/revision process is completed and this resolution is incorporated into the same, unless it can be clearly demonstrated that such a change will result in a reduced impact on infrastructure and the natural resources of the Island."
- ✓ A goal of the Land Use Element states*: "the reduction in allowable densities is preferred*." The Town should "reduce allowable development densities to ensure that development and redevelopment do not create adverse impacts on the natural resources of the Island, and so, not place an unreasonable burden on the community's infrastructure. Further, since 70% of the Town is within areas that were master planned, the "*master plan caps should be held at or below current levels* to ensure that the intent of those PUDs is not compromised" *(Comprehensive Plan 2004).*

C. Continue to amend and enforce the LMO and Municipal Code to protect the established dunes systems on our beachfront, to provide for re-establishment of the dunes systems during redevelopment, and to provide for redevelopment scenarios after a natural disaster.

Achievements:

- ✓ LMO Chapters 3 & 5 regulate growth management requirements regarding site design and density; LMO Chapter 6 regulates natural resources, including beach protection and preservation. These chapters address building location on the site and requirements for protection of beach/dunes systems and vegetation.

- ✓ Municipal Code Title 8 Chapter 1 regulates beach/dune use and activities. Municipal Code Title 8 Chapter 3 provides for Sea Turtle Protection.
- ✓ Town Council adopted the Recovery Plan in 2003, which was updated in 2014. The Disaster Recovery Commission was formed to work with staff to further research certain unresolved issues in the Recovery Plan.
- ✓ Town Council adopted the Coastal Protection Area and Transition Area Overlay Zoning Districts.
- ✓ The Town installed fences and plantings to support buildup and retention of dunes.

D. Work with SCDHEC OCRM during the update of the Town's Local Comprehensive Beach Management Plan.

Achievements:

- ✓ Beach Management Plan was first adopted in 1991 and amended in 1992 (inclusion of 40 Year Retreat Policy) and in 1998 (update of Beach Access section).
- ✓ This constitutes the update of the 2017 Beach Management Plan. Town Staff coordinated heavily with OCRM Staff on its outline and content.

E. Continue to promote environmental education programs and standards that stress protection of fragile areas and wildlife.

Achievements:

- ✓ In 2001, USFWS identified critical wintering habitat for the Piping Plover along parts of the Island's shoreline and in 2013 designated critical habitat unit SC-15 on the north end of the island.
- ✓ The Town supports the Loggerhead Sea Turtle Protection Program through funding.
- ✓ The SCDNR Marine Sea Turtle Conservation Program manages the sea turtle populations along the coast and encompasses education programs within local communities.
- ✓ The Town provides information to the public via web site and brochures that addresses habitat on the beach.
- ✓ The Town conducted a habitat inventory near Fish Haul Creek in 2003.
- ✓ Ordinance enforcement is carried out by Town Code Enforcement Officers, Facilities Management staff, Shore Beach franchise employees and BCSO deputies.
- ✓ Town Staff works with OCRM, DNR, the Coastal Discovery Museum, Clemson Extension, Lowcountry Estuarium, and other partners to present public education programs on such topics as water quality, low impact development, wildlife and native beach plantings to both the general public and the development community.

F. Coordinate with the Chamber of Commerce in tourism efforts to promote our beach.

Achievements:

- ✓ ATAX grants are given to the Chamber for promotions.

G. Work to revise state support for enhanced protection of the beach and dunes system.

H. Provide input to SCDHEC OCRM during the update of the State's Beach Management Plan.

I. Work with the State to receive beach nourishment funds in the event the Town does not have local funding to renourish.

6.2 STRATEGY FOR PRESERVING & ENHANCING PUBLIC BEACH ACCESS

Need 2: *Although most of the oceanfront land has already been developed under private ownership, the Town should seek opportunities to work with developers to allow for public beach access in redeveloped sites, and to work with Property Owners Associations to protect accesses that currently exist.*

Goal 2.1: Have adequate public beach access at Town-owned sites and seek innovative solutions to provide additional beach access for the public in privately owned neighborhoods and commercial areas.

Implementation Strategies:

A. The Town should continue to implement its Capital Improvement Program to develop, renovate, or expand its beach parks.

Achievements:

- ✓ The Town owns 8 dedicated beach parks with over 1400 parking spaces.
- ✓ The Town has a dedicated funding source for land acquisition on the beach.
- ✓ The Town has spent over $171 million for land acquisition to acquire over 1,300 acres, some of which has been used to develop public beach parks.
- ✓ The Town has renovated the Coligny Beach Park to open views to the ocean and to provide a better designed park and has plans to improve Islanders Beach Park and Chaplin Park at Burkes Beach.

B. Continue to work with oceanfront developments to consider providing public access to the beach opportunities during re-development. Also work with neighborhood associations to protect neighborhood access points.

Achievements:

- ✓ LMO 16-6-304 provides the ability for the Town to "consider the need for beach access to meet the public interest" while reviewing all development applications

involving property adjacent to the beach. This allows Town Staff to recommend to Town Council purchasing the property for beach access.

- ✓ The Town has negotiated with beachfront developers to include emergency vehicle access in some of the new development along the beach (Marriott Oceanfront, Disney).

C. Develop methods of increasing public awareness concerning beach access points through better access signage, informational kiosks, directional signage and brochures.

Achievements:

- ✓ The Town has installed beach matting at Alder Lane, Coligny, Burkes/Chaplin, Driessen, Folly Field, Islanders', and Fish Haul beach parks for access to the lower beach area by wheelchairs and other mobility devices used by disabled people to traverse the dry, soft sand.
- ✓ The Town installed GEOWEB to stabilize emergency accesses to the beach. Accesses are in the Coligny Beach Park, Islanders Park, Bradley and Burkes Beach Roads, Mitchellville and future Collier Beach Park.
- ✓ Staff worked with oceanfront beach developers to allow beach access emergency markers for location identification and installed them for efficient emergency vehicle access.
- ✓ The Fire Rescue Master Plan recommends special emergency response vehicles be purchased in order to facilitate medical emergency response on the beach.
- ✓ The Town updated its web site to include a section Beach Parks and Access
- ✓ The Town produced a Beach brochure and a Park Brochure detailing beach access locations and pathways to the beach.
- ✓ The Town coordinated with SCDOT for additional highway identification signs to better direct the public to beach parks.

Section 7
Appendices

Appendix 7.1 – Beach Management Overlay

This appendix provides the Coastal Protection Area (CPA-O) and Transition Overlay (TA-O) zoning district text from the Town's Land Management Ordinance, along with an island wide map and enlarged section maps of these districts.

Appendix 7.2 Inventory of Beachfront Structures

This appendix provides an inventory (mapped and tabular) of all structures located seaward of the OCRM setback line. The structural inventory includes tax parcel identification numbers and street address of all parcels with a structure located seaward of the setback line. Also included are abbreviations indicating the type of structure (i.e., habitable structure greater than 5,000 sq. ft., habitable structure less than 5,000 sq. ft, seawall, deck, pool, parking lot, pier) and the distance each structure is located seaward from the setback line (ft).

Appendix 7.3 – Public Access Inventory Table

This appendix provides an inventory table of existing public access locations and associated amenities (i.e., parking, signage, walkways, bathrooms). The extent of "full and complete public access" as defined in the State Beachfront Management Plan is also discussed in Section 2.5 of this document. A stretch of beach is considered to be "accessible" to the public if the following are met: reasonable provision is made for transportation facilities, facilities are available year round, public walkways or access points to the beach are open and readily available, and access to the area is actually sought by members of the general public with reasonable frequency. Criteria for providing "full and complete public access" are summarized in the SCDHEC OCRM Public Beach Access Facility Classification Table also found in Section 2.5 of this document. The public access inventory table provides the common name of the beach access location (park or street name), the street address, the tax parcel identification number, and the facility type.

Appendix 7.4 – Prior Studies

This appendix provides a listing of the major studies conducted on the Hilton Head Island Beach (digital copies of previous and available studies can be provided upon request).

Appendix 7.5 – Local Laws and Ordinances

The appendix provides copies of Local Laws and Ordinances related to beach management.

Appendix 7.6 – Beach Management Agencies and Jurisdictions

The appendix provides a listing of the federal, state, and local agencies having jurisdiction and responsibility for elements of beach management.

THE END

Appendix 7.1

Beach Management Overlays

Appendix 7.1

Beach Management Overlays

Town of Hilton Head Island - Land Management Ordinance

Sec. 16-3-106.L. Coastal Protection Area (CPA-O) District

1. Applicability and Purpose

a. The purpose of the Coastal Protection Area Overlay (CPA-O) District, in conjunction with the Transition Area Overlay (TA-O) District, is to eliminate the potential for seaward migration of the built environment along the Island's beachfront to the greatest extent possible. This environmentally sensitive area:

i. Protects life and property by serving as a storm barrier;

ii. Provides an important basis for a tourism industry that generates annual tourism industry revenue;

iii. Provides habitat for numerous species of plants and animals that are important to the natural functioning of the beach and ***dune system***, or that are threatened or endangered; and

iv. Provides ***beach*** and ***dune system*** vegetation that is unique and extremely important to the vitality and preservation of the barrier island environment.

b. All new ***development*** and changes to existing ***development*** in the district are subject to the regulations of this section.

c. The ***Town's*** standards and regulations pertaining to ***development*** activity within the CPA-O district are intended to complement those of the State of South Carolina.

d. Where ***State*** law and ***Town*** provisions regulate ***development*** under this subsection, the more restrictive standard shall govern, to the extent allowed by ***State*** law. In the event of a conflict between the provisions of this section and applicable ***State*** law, ***State*** law governs.

2. Delineation of the CPA-O District

a. General

Except as otherwise provided in subparagraph b below, the Coastal Protection Area Overlay (CPA-O) District includes the following areas within and ***adjacent*** to ***parcels*** fronting the Hilton Head Island ***beach***, as defined in Section 8-1-112 of the ***Municipal Code***:

i. **Parcels Containing Single-Family, Golf Course, and Open Space Uses**

For ***parcels*** containing ***single-family*** residential and golf course ***uses***, and ***open space uses*** without ***structures***, the CPA-O District includes the area between:

01. The ***Beachfront Line*** or the seaward property line of the ***parcel***, whichever is further landward, and

02. The ***mean high water line***, the ***Beachfront Line***, or the seaward property line of the ***parcel***, whichever is further seaward.

ii. **Parcels Containing Other Uses**

For ***parcels*** containing any ***land use*** other than ***single-family*** residential and golf course ***uses***, and ***open space uses*** without ***structures***, the CPA-O District includes the area between:

01. The seaward boundary of the Transition Area Overlay (TA-O) District (see Sec. 16-3-106.M.2, Delineation of the TA-O District) and

02. The ***mean high water line***, the ***Beachfront Line***, or the seaward property line of the ***parcel***, whichever is further seaward.

iii. **Basis for Parcel Lines**

The ***single-family parcels*** (with the exception of North Forest Beach ***Subdivisions*** 1, 2, and 3) and non-***single-family parcel*** lines used to establish the CPA-O District boundaries in accordance with this subparagraph are as platted and recorded in the Beaufort County Register of Deeds Office as of the date of Ordinance 2009-22.

b. Hilton Head Beach Subdivisions 1, 2, and 3 subdistricts

i. The three ***single-family subdivisions*** identified as Hilton Head Beach ***Subdivisions*** 1, 2, and 3, are subdistricts within the CPA-O District. The Hilton Head Beach ***Subdivisions*** 1, 2, and 3 subdistricts are ***contiguous*** with ***parcels*** of property described as "Beach Lot," "Strand Parcel" ***lots*** on recorded plats as follows:

01. For Hilton Head Beach Subdivision 1, the plat is recorded in the Beaufort County Register of Deeds Office, in Plat Book 81 at Page 153, and the property in question is described thereon as the "Beach Lot";

02. For Hilton Head Beach Subdivision 2, the plat is recorded in the Beaufort County Register of Deeds Office, in Plat Book 84 at Page 112, and the property in question is described thereon as the "Strand Parcel"; and

03. For Hilton Head Beach Subdivision 3, the plat is recorded in the Beaufort County Register of Deeds Office, in Plat Book 81 at Page 154, and the property in question is described thereon as the "Beach Lot."

ii. The ***uses*** allowed in the CPA-O District in Hilton Head Beach Subdivision 2 are those ***uses*** allowed on the "Strand Parcel" property in the declarations of covenants and restrictions that are recorded in the Beaufort County Register of Deeds Office in Official Record Book 1532 at Page 1312.

iii. For all other property in the CPA-O District, this ***Ordinance*** applies.

iv. With respect to the CPA-O District in Hilton Head Beach Subdivision 2, where the text of this ***Ordinance*** conflicts with the declarations of covenants described above, the text of the declarations of covenants and restrictions shall control.

3. Activities and Uses Permitted and Prohibited in the CPA-O District

a. All ***development*** is prohibited in the CPA-O District except the following permitted ***uses*** and activities:

i. Boarded pathways as perpendicular to the ***beach*** as practical and not larger than six feet in width and their associated wooden deck not larger than 144 square feet (must comply with Sec. 16-6-103, Beach and Dune Protection);

ii. Beach renourishment;

iii. Emergency vehicular ***beach access***; and

iv. Permitted ***beach maintenance*** activities such as sand fencing, re-vegetation with native plant material and erosion control.

b. All activities and ***uses*** in the CPA-O District must also comply with all current local, ***State*** and federal laws.

4. Nonconforming Structures within the CPA-O District

a. Any ***structure*** or site feature that is nonconforming to the activities and ***uses*** permitted within the CPA-O District may be rebuilt to its current size (or smaller) and location provided that:

i. The ***structure*** conforms to current local, ***State***, and federal laws;

ii. The same ***use*** that previously existed is reestablished within the ***structure***; and

iii. Neither the ***structure*** nor the ***use*** has been discontinued for a period of 12 consecutive months or greater.

b. Normal ***maintenance*** activities of nonconforming ***structures*** are allowed.

Sec. 16-3-106.M. Transition Area Overlay (TA-O) District

1. Applicability and Purpose

a. The purpose of the Transition Area Overlay (TA-O) District, in conjunction with the Coastal Protection Area Overlay (CPA-O) District, is to eliminate the potential for seaward migration of the built environment along the Island's beachfront as well as protect the area between existing

construction and the mean high water mark, to the greatest extent possible. This environmentally sensitive area:

i. Protects life and property by serving as a storm barrier;

ii. Provides an important basis for a tourism industry that generates annual tourism industry revenue;

iii. Provides habitat for numerous species of plants and animals that are important to the natural functioning of the ***beach*** and ***dune system***, or that are threatened or endangered; and

iv. Provides ***beach*** and ***dune system*** vegetation that is unique and extremely important to the vitality and preservation of the barrier island environment.

b. All new ***development*** and changes to existing ***development*** in the district are subject to the regulations of this section.

c. The ***Town's*** standards and regulations pertaining to ***development*** activity within the TA-O district are intended to complement those of the State of South Carolina.

d. Where ***State*** law and ***Town*** provisions regulate ***development*** under this subsection, the more restrictive standard shall govern, to the extent allowed by ***State*** law. In the event of a conflict between the provisions of this section and applicable ***State*** law, ***State*** law governs.

2. Delineation of the TA-O District

a. General

Except as otherwise provided in subparagraph b below, the Transition Area Overlay (TA-O) District applies only to non-***single-family*** areas, where it includes the area between:

i. The existing line of ***construction*** (as bound by the South Carolina State Plane Coordinate System), and

ii. The most immediate seaward property line of ***parcels*** fronting the ***beach*** (as defined in Section 8-1-112 of the ***Municipal Code***) or the ***Beachfront Line***, whichever is further landward.

b. Hilton Head Beach Subdivisions 1, 2, and 3 subdistricts

i. The three ***single-family subdivisions*** identified as Hilton Head Beach Subdivisions 1, 2, and 3, are subdistricts within the TA-O District. The Hilton Head Beach Subdivisions 1, 2 and 3 subdistricts are ***contiguous*** with ***parcels*** of property described as 'A' ***lots***, 'E' and 'S' ***lots*** and 'X' ***lots*** on recorded plats as follows:

01. For Hilton Head Beach Subdivision 1, the plat is recorded in the Beaufort County Register of Deeds Office, in Plat Book 81 at Page 153, and the ***lots*** in question are described thereon as the "A" ***lots***;

02. For Hilton Head Beach Subdivision 2, the plat is recorded in the Beaufort County Register of Deeds Office, in Plat Book 84 at Page 112, and the ***lots*** in question are described thereon as the "E" and "S" ***lots***; and

03. For Hilton Head Beach Subdivision 3, the plat is recorded in the Beaufort County Register of Deeds Office, in Plat Book 81 at Page 154, and the ***lots*** in question are described thereon as the "X" ***lots***.

ii. The ***uses*** allowed in the TA-O District in Hilton Head Beach Subdivisions 1, 2, and 3 are those ***uses*** allowed on the "A," "E," "S," and "X" ***lots*** in the declarations of covenants and restrictions that are recorded in the Beaufort County Register of Deeds Office as follows:

01. For Hilton Head Beach Subdivision Number 1, in Official Record Book 1450 at Page 835;

02. For Hilton Head Beach Subdivision Number 2, in Official Record Book 1532 at Page 1317; and

03. For Hilton Head Beach Subdivision Number 3, in Official Record Book 1450 at Page 828

iii. Where the text of this ***Ordinance*** conflicts with the declarations of covenants described above, the text of the declarations of covenants and restrictions shall control.

3. Activities and Uses Permitted in the TA-O District

a. In addition to the activities and ***uses*** permitted in the CPA-O District (see Sec. 16-3-106.L.3), the TA-O District may include any ***uses*** that do not require enclosed space to operate. These activities and ***uses*** include, but are not limited to, ***swimming pools***, boardwalks, fire pits, decks, required drainage ***improvements***, and necessary utilities.

b. The activities and ***uses*** in the TA-O District shall be located as far landward as possible. Activities or ***uses*** in the TA-O District shall be accessory activities or ***uses*** to the ***development*** to which they are directly seaward.

c. ***Development*** in the TA-O District shall conform to the standards for ***impervious cover*** and ***open space*** for the underlying ***base zoning district***.

d. Activities or ***uses*** in the TA-O District shall not be on or in any part of a ***dune or dune system***.

4. Nonconforming Structures within the TA-O District

a. Any ***structure*** or site feature that is nonconforming as to the activities and ***uses*** permitted within the TA-O District may be rebuilt to its current size (or smaller) and location provided that:

i. The ***structure*** conforms to current local, ***State***, and federal laws;

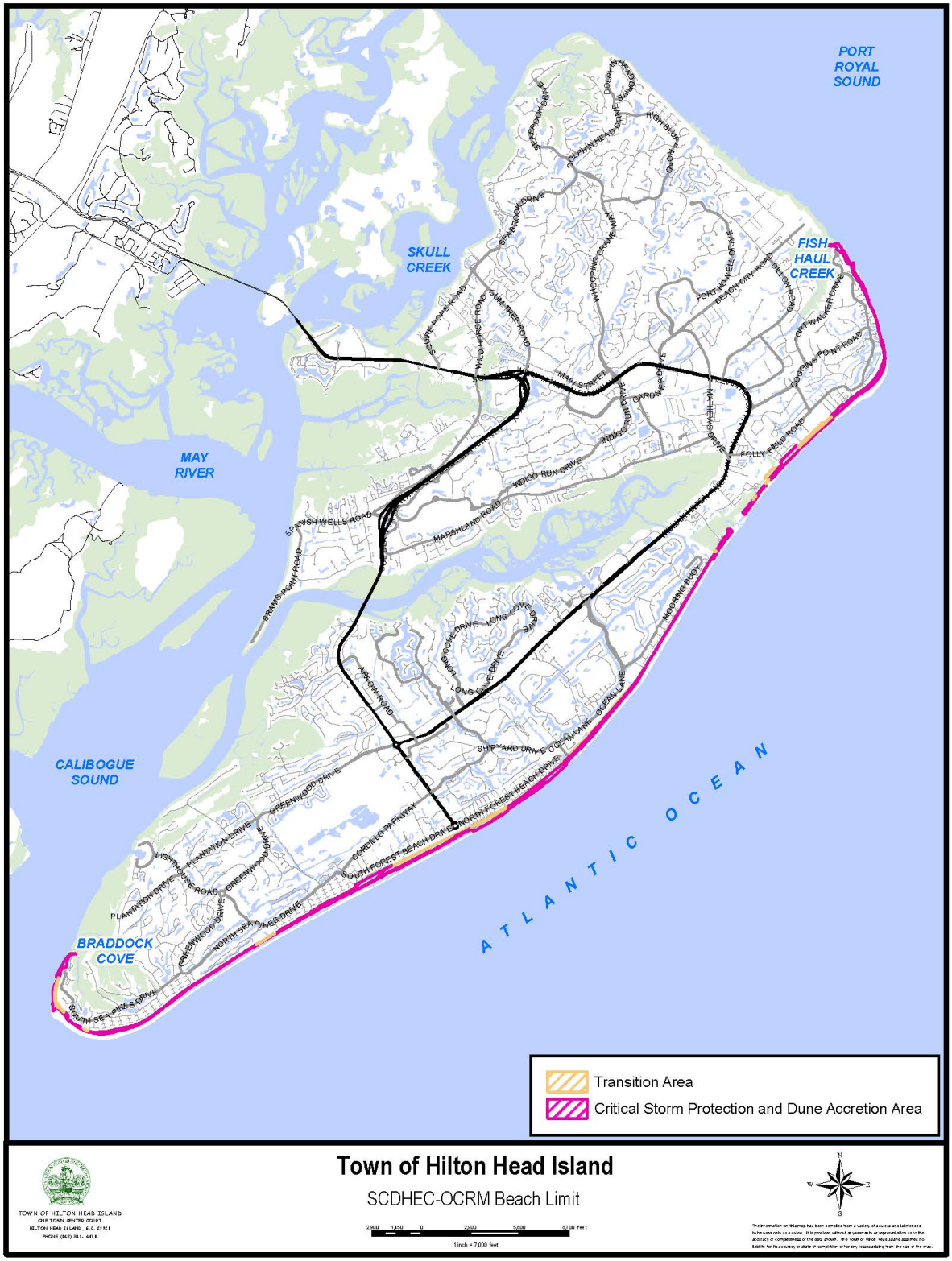
ii. The same ***use*** that previously existed is reestablished within the ***structure***; and

iii. ***Use*** of the ***structure*** has not ceased for a period of 12 consecutive months or greater.

b. Normal ***maintenance*** activities of ***nonconforming structures*** are allowed.

Appendix 7.1

Beach Management Overlays



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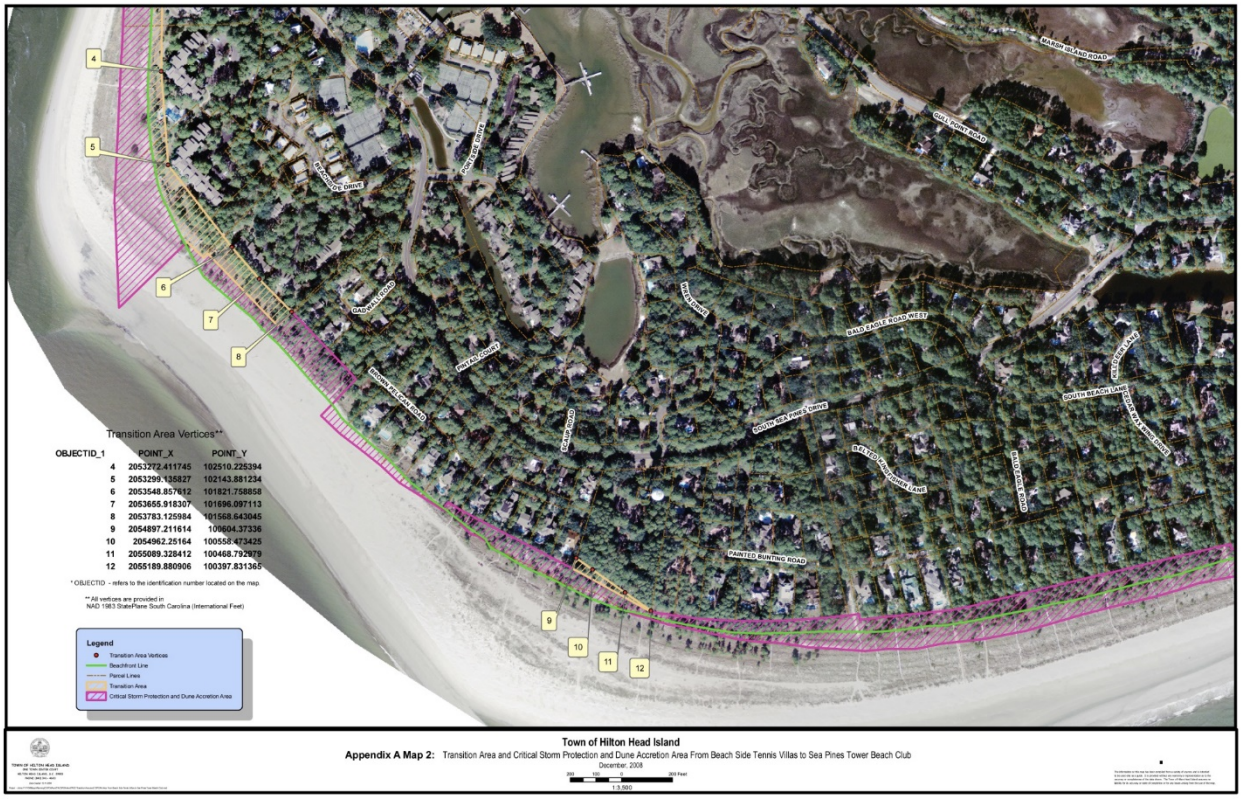
Beach Management Overlays



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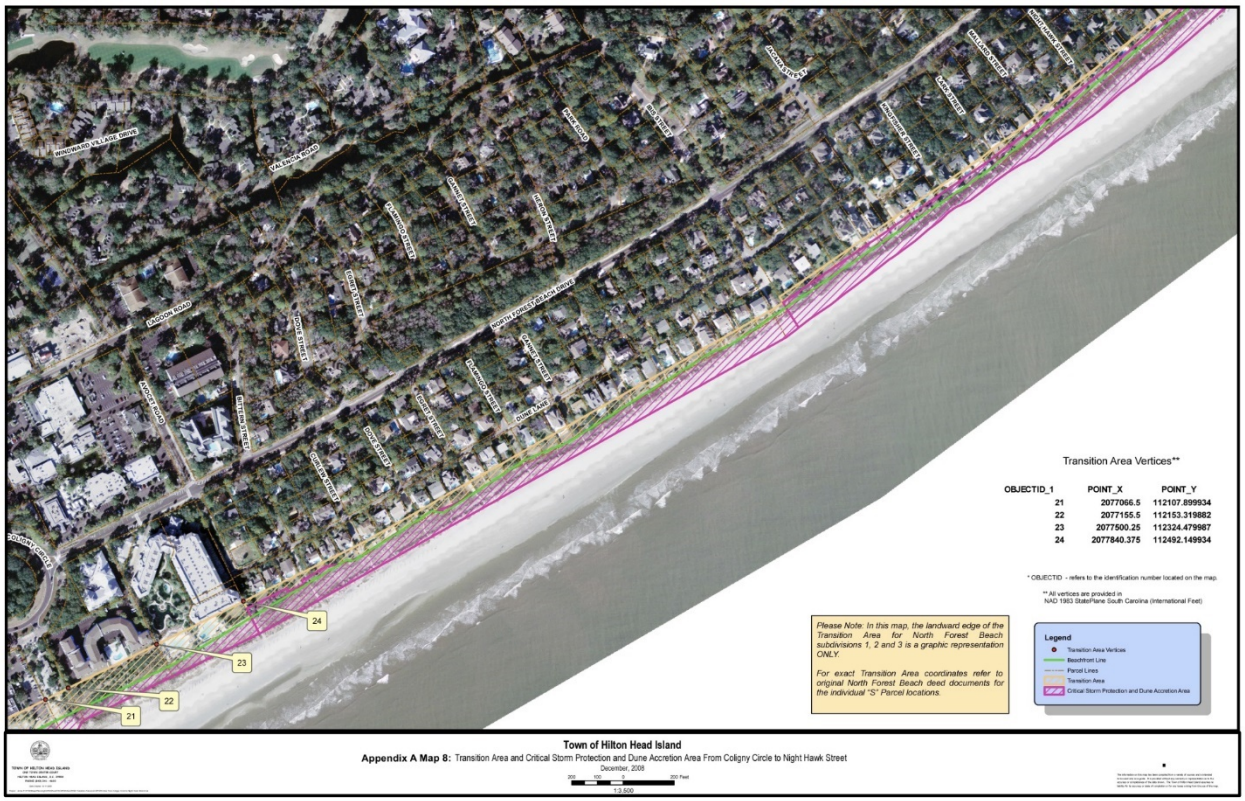

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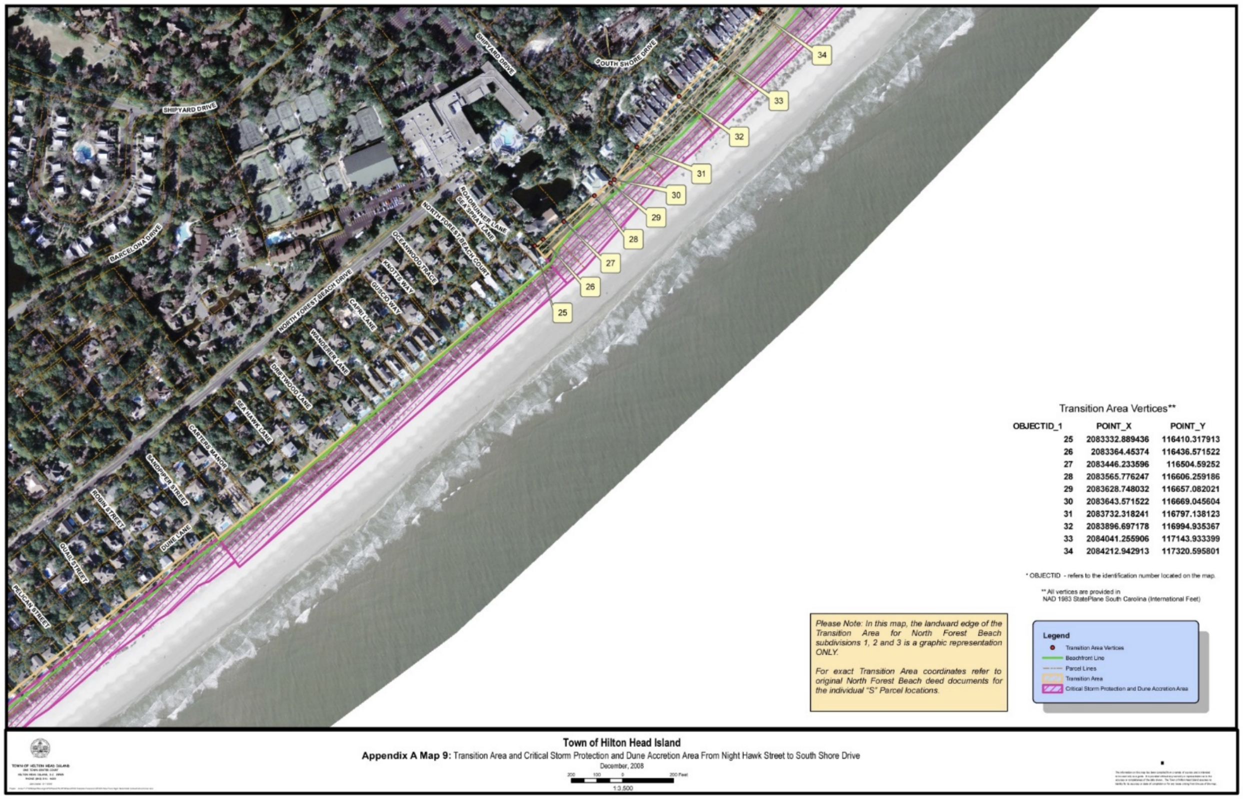
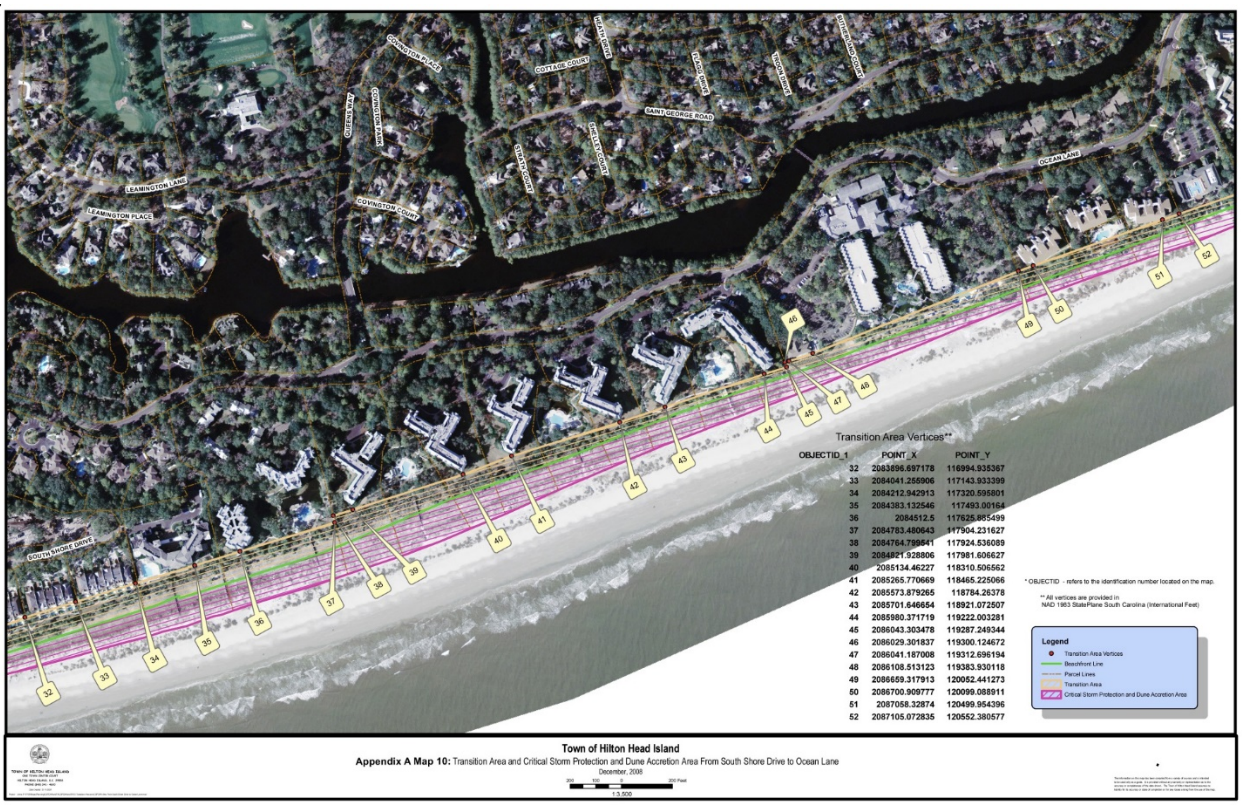
Beach Management Overlays



Transition Area Vertices**

OBJECTID_1	POINT_X	POINT_Y
25	2083332.889436	116410.317913
26	2083364.45374	116436.571522
27	2083446.233596	116504.59252
28	2083565.776247	116606.259186
29	2083628.748032	116657.082021
30	2083643.571522	116669.045604
31	2083732.318241	116797.138123
32	2083896.697178	116994.935367
33	2084041.255906	117143.933399
34	2084212.942913	117320.595801



Transition Area Vertices**

OBJECTID_1	POINT_X	POINT_Y
32	2083896.697178	116994.935367
33	2084041.255906	117143.933399
34	2084212.942913	117320.595801
35	2084383.132546	117493.00164
36	2084512.5	117625.885499
37	2084783.480643	117904.231627
38	2084764.799541	117924.536089
39	2084821.928806	117981.606627
40	2085134.46227	118310.506562
41	2085265.770669	118465.225066
42	2085573.879265	118784.26378
43	2085701.646654	118921.072507
44	2085980.371719	119222.003281
45	2086043.303478	119287.249344
46	2086029.301837	119300.124672
47	2086041.187008	119312.696194
48	2086108.513123	119383.930118
49	2086659.317913	120052.441273
50	2086700.909777	120099.088911
51	2087058.32874	120499.954396
52	2087105.072835	120552.380577

Appendix 7.1

Beach Management Overlays

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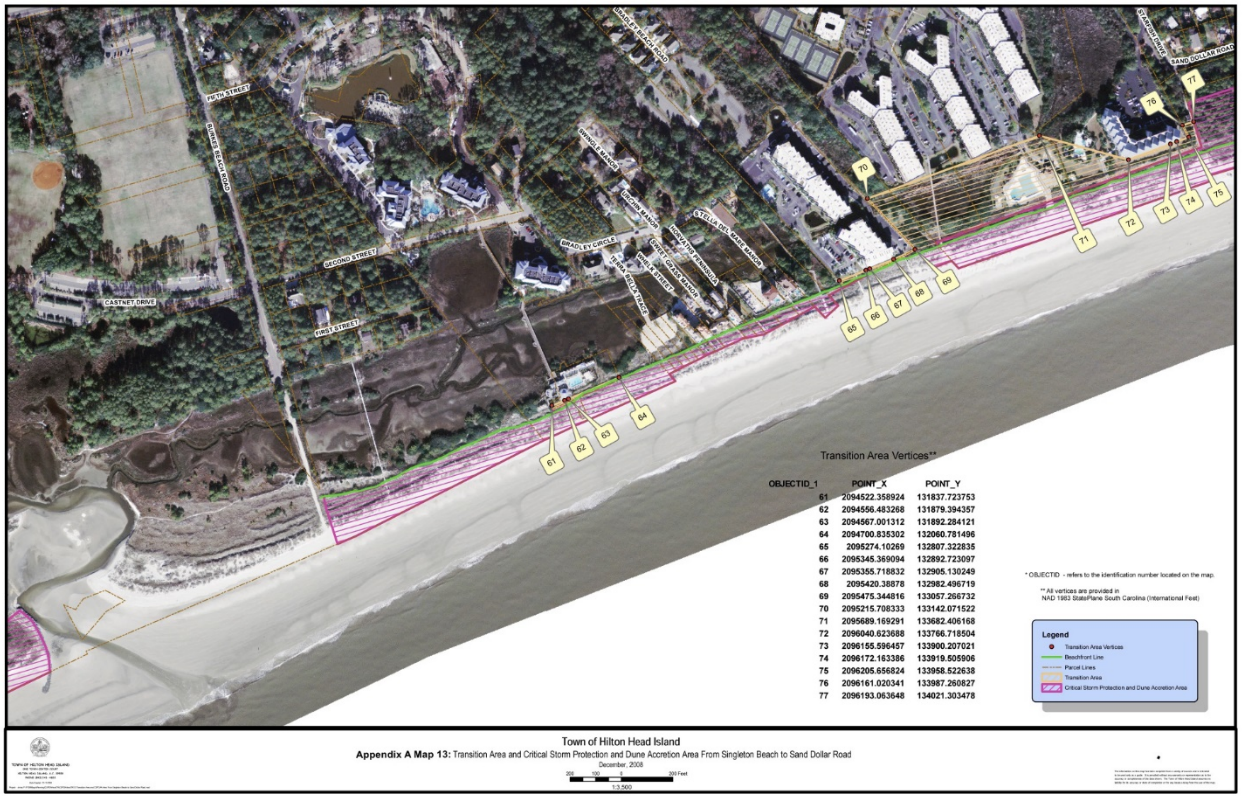
Beach Management Overlays



Appendix 7.1

Beach Management Overlays

Appendix 7.1

Beach Management Overlays

Appendix 7.2 Inventory of Beachfront Structures

Town of Hilton Head Island - Beach Management Plan
Appendix 7.2: 2022 Inventory of Structures Seaward of Setback Line

	Tax Parcel ID Number	Street Address	Habitable Structure		Ancillary Structure	Swimming Pool	Deck, Patio or Driveway	Boardwalk	Fence	Rock Revetment	Seawall	
			< 5,000 ft²	> 5,000 ft²							Concrete	Timber
		TOTAL	222	18	27	244	304	372	14	66	5	5
1	R510 005 000 0031 0000	6 OVERLOOK PL	19			44	63	260				
2	R510 005 000 0032 0000	60 PORT ROYAL DR	5				10					
3	R510 005 000 0034 0000	56 PORT ROYAL DR				20	39	291				
4	R510 005 000 0035 0000	54 PORT ROYAL DR				18		345				
5	R510 005 000 0076 0000	52 N PORT ROYAL DR	13									
6	R510 005 000 0077 0000	3 WAGENER PL				8		337				
7	R510 005 000 0078 0000	5 WAGENER PL					25					
8	R510 005 000 0083 0000	7 HEYWARD PL			21		24					
9	R510 005 000 0085 0000	8 HEYWARD PL				28						
10	R510 005 000 0094 0000	9 DRAYTON PL				20						
11	R510 005 000 0095 0000	10 DRAYTON PL				14		59				
12	R510 005 000 0096 0000	8 DRAYTON PL						37				
13	R510 005 000 0142 0000	110 FORT WALKER DR				15		257				
14	R510 005 000 0146 0000	7 STEAM GUN PL					67					
15	R510 005 000 0147 0000	130 FORT WALKER DR	31			54	179					
16	R510 005 000 0184 0000	26 N PORT ROYAL DR					21					
17	R510 005 000 0186 0000	22 N PORT ROYAL DR					19					
18	R510 005 000 0187 0000	20 N PORT ROYAL DR						12				
19	R510 005 000 0188 0000	3 MIDDLETON PL						17				
20	R510 005 000 0205 0000	132 FORT WALKER DR	70			89		430				
21	R510 005 000 0206 0000	136 FORT WALKER DR	49			82						
22	R510 005 000 0207 0000	134 FORT WALKER DR	88					233				
23	R510 008 000 022V 0000	4 TERRA BELLA TRCE	123			126	54	307				
24	R510 008 000 0358 0000							145				
25	R510 008 000 0499 0000	12 WHELK ST	118			131	62	333				
26	R510 008 000 0501 0000	16 WHELK ST	118			129		187				
27	R510 008 000 0502 0000	14 WHELK ST	124			131		200				
28	R510 008 000 0624 0000	6 TERRA BELLA TRCE	133			141						
29	R510 009 000 0011 0000	85 FOLLY FIELD RD						61				
30	R510 009 000 0047 0000							45				
31	R510 009 000 011A 0000		64			101		145				
32	R510 009 000 0118 0000	3 STELLA DEL MARE MANO	64			101	102	202				
33	R510 009 000 011D 0000	4 STELLA DEL MARE MANO	66			97	107					
34	R510 009 000 0224 0000	66 PLANTERS ROW						369				
35	R510 009 000 0363 0000	64 PLANTERS ROW						148				
36	R510 009 000 0538 0000	40 FOLLY FIELD RD		84			86	142				
37	R510 009 000 0775 0000	85 FOLLY FIELD RD						31				
38	R510 009 000 0776 0000	85 FOLLY FIELD RD						60				
39	R510 009 000 0887 0000	40 FOLLY FIELD RD			35		45	281				
40	R510 009 000 0892 0000							213, 80, 58				
41	R510 009 000 0897 0000	40 FOLLY FIELD RD						117				
42	R510 009 000 0921 0000						45	575				
43	R510 009 000 0922 0000	50 STARFISH DR						107				
44	R510 009 000 1014 0000							49, 181, 139, 131, 123, 118, 145, 167, 132, 6				

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	Tax Parcel ID Number	Street Address	Habitable Structure		Ancillary Structure	Swimming Pool	Deck, Patio or Driveway	Boardwalk	Fence	Rock Revetment	Seawall	
			< 5,000 ft²	> 5,000 ft²							Concrete	Timber
		TOTAL	222	18	27	244	304	372	14	66	5	5
45	R510 009 000 1029 0000	55 STARFISH DR						92				
46	R510 009 000 1057 0000	17 SALT SPRAY LA				21						
47	R510 009 000 1058 0000	19 SALT SPRAY LA					8					
48	R510 009 000 1059 0000	21 SALT SPRAY LN				36	41					
49	R510 009 000 1060 0000	23 SALT SPRAY LN	35									
50	R510 009 000 1066 0000							23				
51	R510 009 000 1073 0000	20 HORVATHS PENINSULA	116			101	123	190				
52	R510 009 000 1075 0000	21 SWEET GRASS MANOR	119			129		190				
53	R510 009 000 1082 0000	5 GRASSLAWN AV						91				
54	R510 009 000 1084 0000	5 GRASSLAWN AV						92				
55	R510 009 000 1086 0000	5 STELLA DEL MARE MANO	102			112	123	198				
56	R510 009 000 1087 0000	16 HORVATHS PENINSULA	116			101	123	190				
57	R510 009 000 1097 0000	16 SWEET GRASS MANOR	118			129	62	187				
58	R510 009 000 1103 0000	17 SWEET GRASS MANOR	119					190				
59	R510 009 000 1201 0000	21 HORVATHS PENINSULA	116				123	198				
60	R510 009 000 171A 0000							15				
61	R510 009 000 1718 0000							15				
62	R510 009 000 171C 007C							40				
63	R510 012 000 0002 0000	5 CASTNET DR	148		122	172	93	253, 292	100			
64	R510 012 000 0010 0000		148				71	254				
65	R510 012 000 0108 0000	19 SINGLETON BEACH PL	197			211	142	253				
66	R510 012 000 010C 0000	21 SINGLETON BEACH PL	200			215	142	259				
67	R510 012 000 010N 0000	23 SINGLETON BEACH PL	197			210	133	259				
68	R510 012 000 010Q 0000	34 SINGLETON BEACH PL			122			274				
69	R510 012 000 010R 0000	1 COLLIER BEACH RD	140			160	82	243				
70	R510 012 000 0138 0000								100			
71	R510 012 000 0363 0000		197			210	133	276				
72	R510 012 000 0378 0000	8 COLLIER BEACH RD	148			162	82	243				
73	R510 012 000 0379 0000	6 COLLIER BEACH RD	140			160	70	247				
74	R510 012 000 0380 0000	4 COLLIER BEACH RD	134			154	64	246				
75	R510 012 000 0381 0000	2 COLLIER BEACH RD	123			147	67	242				
76	R510 012 000 0382 0000	1 SINGLETON BEACH PL	133			160	178	251				
77	R510 012 000 0384 0000	5 SINGLETON BEACH PL	136			158	166	254				
78	R510 012 000 0385 0000	7 SINGLETON BEACH PL	148			172	93	254				
79	R510 012 000 0390 0000		175			153	101	252				
80	R510 012 000 0391 0000	10 COLLIER BEACH RD	154				90					
81	R510 012 000 0392 0000	12 COLLIER BEACH RD	154			170	88	233				
82	R510 012 000 0393 0000	14 COLLIER BEACH RD	163			180	96	235				
83	R510 012 000 0394 0000	16 COLLIER BEACH RD	175			153	101	252				
84	R510 012 000 0395 0000	13 SINGLETON BEACH PL	197			216	148	254				
85	R510 012 000 0396 0000	11 SINGLETON BEACH PL	189			210	128	254				
86	R510 012 000 0397 0000	9 SINGLETON BEACH PL	168			191	114	253				
87	R510 012 000 0403 0000	3 COLLIER CT	154			7	44					
88	R510 012 000 0406 0000	15 COLLIER BEACH RD	25			35	101	252				
89	R510 012 000 0546 0000	27 SINGLETON BEACH PL	225			235	152	276				
90	R510 012 000 0547 0000	29 SINGLETON BEACH PL	222			234	164	277				

	Tax Parcel ID Number	Street Address	Habitable Structure		Ancillary Structure	Swimming Pool	Deck, Patio or Driveway	Boardwalk	Fence	Rock Revetment	Seawall	
			< 5,000 ft²	> 5,000 ft²							Concrete	Timber
		TOTAL	222	18	27	244	304	372	14	66	5	5
91	R510 012 000 0548 0000	31 SINGLETON BEACH PL	220			233	153	304				
92	R510 012 000 0549 0000	32 SINGLETON BEACH PL	222			234	164	277				
93	R511 008 000 0372 0000	50 SECOND ST				124	159	226				
94	R511 008 000 0504 0000				161	124	159	226				
95	R520 012 000 0144 0000						239					
96	R520 012 000 0195 0000	7 NIGHT HARBOUR	167			184	92	281				
97	R520 012 000 0196 0000	9 NIGHT HARBOUR	167			184	92	281				
98	R520 012 000 0197 0000	11 NIGHT HARBOUR	174			212	156	233				
99	R520 012 000 0198 0000	10 NIGHT HARBOUR	175			193	104					
100	R520 012 000 0199 0000	8 NIGHT HARBOUR	170			194	119	252				
101	R520 012 000 0200 0000	6 NIGHT HARBOUR	182				116	336				
102	R520 012 000 0201 0000	4 NIGHT HARBOUR	14			194	119	252				
103	R520 012 000 0203 0000	9 MAN O WAR	190			213	128	271				
104	R520 012 000 0204 0000	11 MAN O WAR	195			223	125	271				
105	R520 012 000 0205 0000	13 MAN O WAR	196			223	134	272				
106	R520 012 000 0206 0000	15 MAN O WAR	195			215	116	277				
107	R520 012 000 0207 0000	10 MAN O WAR	199			216	127	273				
108	R520 012 000 0208 0000	8 MAN O WAR	200			234	237	289				
109	R520 012 000 0209 0000	6 MAN O WAR	197			217	126	273				
110	R520 012 000 0210 0000	4 MAN O WAR 0	197			217	68	273				
111	R520 012 000 0211 0000	2 MAN O WAR	200			234	66	289				
112	R520 012 000 0212 0000	1 MAN O WAR	195			22	116	277				
113	R520 012 000 0213 0000	160 MOORING BUOY	196			35	65	272				
114	R520 012 000 0214 0000	162 MOORING BUOY	195		31	24	35	271				
115	R520 012 000 0215 0000	164 MOORING BUOY	27			50	128	336				
116	R520 012 000 0216 0000	8 LONG BOAT	193			197	133	329				
117	R520 012 000 0217 0000	10 LONG BOAT	207			224	135					
118	R520 012 000 0218 0000	11 LONG BOAT	211			226	145	277				
119	R520 012 000 0219 0000	9 LONG BOAT	201			221	135					
120	R520 012 000 0220 0000	7 LONG BOAT	218			171	257	273				
121	R520 012 000 0221 0000	6 LONG BOAT	193			197	133	329				
122	R520 012 000 0222 0000	4 LONG BOAT	38			224	135					
123	R520 012 000 0226 0000	3 LONG BOAT	34			221	135	277				
124	R520 012 000 0227 0000	5 LONG BOAT	218			171	257	273				
125	R520 012 000 0228 0000	12 ARMADA	158			187	184	280				
126	R520 012 000 0229 0000	14 ARMADA	168			199	202					
127	R520 012 000 0230 0000	16 ARMADA	169			200	93					
128	R520 012 000 0231 0000	18 ARMADA	176			215	83	303				
129	R520 012 000 0233 0000	17 ARMADA	158			194	102					
130	R520 012 000 0234 0000	15 ARMADA	173			202	205	296				
131	R520 012 000 0235 0000	13 ARMADA	176			213	253					
132	R520 012 000 0236 0000	11 ARMADA	195			230	234	305				
133	R520 012 000 0237 0000	10 ARMADA	158			187	184	280				
134	R520 012 000 0239 0000	6 ARMADA	169			200	93					
135	R520 012 000 0240 0000	4 ARMADA	176			215	83	303				
136	R520 012 000 0241 0000	3 ARMADA	158			194	102					

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	Tax Parcel ID Number	Street Address	Habitable Structure		Ancillary Structure	Swimming Pool	Deck, Patio or Driveway	Boardwalk	Fence	Rock Revetment	Seawall	
			< 5,000 ft²	> 5,000 ft²							Concrete	Timber
		TOTAL	222	18	27	244	304	372	14	66	5	5
137	R520 012 000 0242 0000	5 ARMADA	173			202	205	296				
138	R520 012 000 0243 0000	7 ARMADA	176			213	253	296				
139	R520 012 000 0244 0000	9 ARMADA	25			230	30	305				
140	R520 012 000 0334 0000	14 DUNE HOUSE LA			250			280				
141	R520 012 000 0334 0001	DUNE HOUSE LN			250			280				
142	R520 012 000 0334 0002	DUNE HOUSE LN			250			280				
143	R520 012 000 0334 0003	DUNE HOUSE LN			250			280				
144	R520 012 000 0334 0004	DUNE HOUSE LN			250			280				
145	R520 012 00A 0001 0000	8 DINGHY LN	188			204	203	267				
146	R520 012 00A 0002 0000	10 DINGHY LN	192			211	231					
147	R520 012 00A 0003 0000	11 DINGHY LN	174			192	207	252				
148	R520 012 00A 0004 0000	9 DINGHY LA	196			217	232	253				
149	R520 012 00A 0005 0000	7 DINGHY LA	205			223	227	285				
150	R520 012 00A 0006 0000	6 DINGHY LA	37			211	203	267				
151	R520 012 00A 0007 0000	4 DINGHY LA	192			20	108	252				
152	R520 012 00A 0009 0000	5 DINGHY LA	205			223	227	285				
153	R520 012 00A 0014 0000	8 EAST WIND	176			194	119	285				
154	R520 012 00A 0015 0000	10 EAST WIND	201			225	232	283				
155	R520 012 00A 0016 0000	11 EASTWIND	191				235	303				
156	R520 012 00A 0017 0000	9 EAST WIND	216			233	232	384				
157	R520 012 00A 0018 0000	7 EAST WIND	216			239	239	384				
158	R520 012 00A 0019 0000	6 EAST WIND	176			194	119	285				
159	R520 012 00A 0020 0000	4 EAST WIND	201			225	232	283				
160	R520 012 00A 0021 0000	3 EAST WIND	49			233	232	303				
161	R520 012 00A 0022 0000	5 EAST WIND	46			239	72	384				
162	R520 012 00A 0027 0000	8 FLOTILLA	217			237	236	387				
163	R520 012 00A 0028 0000	10 FLOTILLA	234			245	249	275				
164	R520 012 00A 0029 0000	11 FLOTILLA	212			244		275				
165	R520 012 00A 0030 0000	9 FLOTILLA	239			259	260					
166	R520 012 00A 0031 0000	7 FLOTILLA	231			257	165		303			
167	R520 012 00A 0032 0000	6 FLOTILLA	56		70	237	236	387				
168	R520 012 00A 0033 0000	4 FLOTILLA	60			245	249	275				
169	R520 012 00A 0034 0000	3 FLOTILLA	57			71	73					
170	R520 012 00A 0035 0000	5 FLOTILLA	81			257	165		303			
171	R520 012 00A 0040 0000	8 GALLEON	226			250	261					
172	R520 012 00A 0041 0000	10 GALLEON	231			251		278				
173	R520 012 00A 0042 0000	11 GALLEON	231			240	252					
174	R520 012 00A 0043 0000	9 GALLEON	214			231	243					
175	R520 012 00A 0044 0000	7 GALLEON	207			231	231	317				
176	R520 012 00A 0045 0000	6 GALLEON	226			250	99		303			
177	R520 012 00A 0047 0000	3 GALLEON	64			231	243					
178	R520 012 00A 0048 0000	5 GALLEON	63			76	231	317				
179	R520 012 00A 0053 0000	8 HIGH RIGGER	206			222	239	317				
180	R520 012 00A 0054 0000	10 HIGH RIGGER	212			223	233					
181	R520 012 00A 0055 0000	11 HIGH RIGGER	211			247	253					
182	R520 012 00A 0056 0000	9 HIGH RIGGER	217			245	251					

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	Tax Parcel ID Number	Street Address	Habitable Structure		Ancillary Structure	Swimming Pool	Deck, Patio or Driveway	Boardwalk	Fence	Rock Revetment	Seawall	
			< 5,000 ft²	> 5,000 ft²							Concrete	Timber
		TOTAL	222	18	27	244	304	372	14	66	5	5
183	R520 012 00A 0057 0000	7 HIGH RIGGER	183			205	217	383				
184	R520 012 00A 0058 0000	6 HIGH RIGGER	27			73	239	317				
185	R520 012 00A 0059 0000	4 HIGH RIGGER	51			223	233					
186	R520 012 00A 0060 0000	3 HIGH RIGGER	37			245	71					
187	R520 012 00A 0061 0000	5 HIGH RIGGER	37			64	217	383				
188	R520 012 00A 0066 0000	8 IRON CLAD	215			231	234	383				
189	R520 012 00A 0067 0000	10 IRON CLAD	213			215	219	292				
190	R520 012 00A 0068 0000	11 IRON CLAD	207			235		307				
191	R520 012 00A 0069 0000	9 IRON CLAD	203			226		370				
192	R520 012 00A 0070 0000	7 IRON CLAD	193			220	228	355				
193	R520 012 00A 0071 0000	6 IRON CLAD	31			58	234	383				
194	R520 012 00A 0072 0000	4 IRON CLAD	37			56	219	292				
195	R520 012 00A 0073 0000	3 IRON CLAD	36			226	77	370				
196	R520 012 00A 0074 0000	5 IRON CLAD	60			220	228	355				
197	R520 012 00A 0079 0000	8 JUNKET	203			239	250	355				
198	R520 012 00A 0080 0000	10 JUNKET	220			249		299				
199	R520 012 00A 0081 0000	11 JUNKET	221			247	252	272				
200	R520 012 00A 0082 0000	9 JUNKET	205			218	234	270				
201	R520 012 00A 0083 0000	7 JUNKET	222			239		305				
202	R520 012 00A 0084 0000	6 JUNKET	41			57	250	355				
203	R520 012 00A 0085 0000	4 JUNKET	22			44		299				
204	R520 012 00A 0086 0000	3 JUNKET	43			218	234	270				
205	R520 012 00A 0087 0000	5 JUNKET	23			239		305				
206	R520 012 00A 0092 0000	8 KETCH	220			244	234	305				
207	R520 012 00A 0093 0000	10 KETCH	178			203	224	286				
208	R520 012 00A 0094 0000	11 KETCH	214			234	139	288				
209	R520 012 00A 0095 0000	9 KETCH	205			222	224					
210	R520 012 00A 0096 0000	7 KETCH	203			230	236	329				
211	R520 012 00A 0097 0000	6 KETCH	49			244	234	305				
212	R520 012 00A 0098 0000	4 KETCH	33			203	224	286				
213	R520 012 00A 0099 0000	3 KETCH	44			43	224					
214	R520 012 00A 0100 0000	5 KETCH	51			230	236	329				
215	R520 012 00A 0205 0000	8 CAT BOAT	191			212	214	272				
216	R520 012 00A 0206 0000	10 CAT BOAT	181			199	200	269				
217	R520 012 00A 0207 0000	11 CAT BOAT	189			219	224	269				
218	R520 012 00A 0208 0000	9 CAT BOAT	186			205	112					
219	R520 012 00A 0209 0000	7 CAT BOAT	187			209	209	267				
220	R520 012 00A 0210 0000	6 CAT BOAT	9			27	214	272				
221	R520 012 00A 0211 0000	4 CAT BOAT	22			199	39	269				
222	R520 012 00A 0212 0000	3 CAT BOAT	10			205	44					
223	R520 012 00A 0213 0000	5 CAT BOAT	53			209	58	267				
224	R520 012 00A 0218 0000	12 BRIGANTINE	188			210	242	305				
225	R520 012 00A 0219 0000	14 BRIGANTINE	177			197	198					
226	R520 012 00A 0220 0000	16 BRIGANTINE	193			221	220	273				
227	R520 012 00A 0221 0000	18 BRIGANTINE	148			173	209	265				
228	R520 012 00A 0222 0000	20 BRIGANTINE	185			226	227	334				

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	Tax Parcel ID Number	Street Address	Habitable Structure		Ancillary Structure	Swimming Pool	Deck, Patio or Driveway	Boardwalk	Fence	Rock Revetment	Seawall	
			< 5,000 ft²	> 5,000 ft²							Concrete	Timber
		TOTAL	222	18	27	244	304	372	14	66	5	5
229	R520 012 00A 0223 0000	21 BRIGANTINE	195			223	98	334				
230	R520 012 00A 0224 0000	19 BRIGANTINE	204			216	229	315				
231	R520 012 00A 0225 0000	17 BRIGANTINE	203			226	96	258				
232	R520 012 00A 0227 0000	13 BRIGANTINE	189			204	204	257				
233	R520 012 00A 0228 0000	10 BRIGANTINE	188			210	242	305				
234	R520 012 00A 0229 0000	8 BRIGANTINE	177			197	198					
235	R520 012 00A 0230 0000	6 BRIGANTINE	193			221	220	273				
236	R520 012 00A 0231 0000	4 BRIGANTINE	148			173	227	265				
237	R520 012 00A 0232 0000	3 BRIGANTINE	7			223	98	334				
238	R520 012 00A 0233 0000	5 BRIGANTINE	4			12	17	315				
239	R520 012 00A 0234 0000	7 BRIGANTINE	13			4	45	258				
240	R520 012 00A 0235 0000	9 BRIGANTINE	6									
241	R520 016 000 0095 0000	12 DUNE HOUSE LA	31	222		35	155		254			
242	R520 016 000 0096 0000	1 HOTEL CIR		67	135	207	249	282				251
243	R520 016 000 0332 0000	21 OCEAN LA		166				274				
244	R520 016 000 0334 0000	21 OCEAN LA		86		157	191	258				
245	R520 016 000 0335 0000	21 OCEAN LA		143								
246	R520 016 000 0338 0000	25 OCEAN LA		105	140	177	186	238				
247	R520 016 000 0340 0000	1 OCEAN LA		175	102	169	184	308				242
248	R520 016 000 0343 0000	77 OCEAN LA		16	24		25	172				
249	R520 016 000 0345 0000	41 OCEAN LA		123				290				
250	R520 016 000 0347 0000	63 OCEAN LA		34								
251	R520 016 000 0350 0000	51 OCEAN LA		79								
252	R520 016 000 0351 0000	57 OCEAN LA			28	68	126	199				
253	R520 016 000 0353 0000	11 OCEAN LA		137		129	141	256				
254	R520 016 000 0354 0000	57 OCEAN LA		47								
255	R520 016 000 0355 0000	47 OCEAN LA		99								
256	R520 016 000 0356 0000	47 OCEAN LA				76	105	232				
257	R520 016 000 0357 0000	164 SOUTH SHORE DR						191				
258	R520 016 000 0358 0000	150 SHORE DR				28		178				
259	R520 016 000 0360 0000	136 S SHORE DR				29						
260	R520 016 000 0368 0000	120 SHORE DR				20		187				
261	R520 016 000 0369 0000	100 SHORE DR	27									
262	R520 016 000 097A 0000	10 DUNE HOUSE LA	99	213					254			
263	R520 016 000 3478 0000	65 OCEAN LA					91	215				
264	R550 015 000 0267 0000	130 SHIPYARD DR		10				97				
265	R550 015 00A 0081 0000	33 SANDPIPER ST				12	13		27			
266	R550 015 00A 0084 0000	10 SEA HAWK LA				17	49	197				49
267	R550 015 00A 0085 0000	11 SEA HAWK LA					52	197				52
268	R550 015 00A 0086 0000	10 DRIFTWOOD LN	29			34	48					65
269	R550 015 00A 0088 0000	8 WANDERER LA	31			45	57	71		64		
270	R550 015 00A 0089 0000	9 WANDERER LN	32			44	51	71				
271	R550 015 00A 0090 0000	9 GUSCIO WY	29			42	62	120				
272	R550 015 00A 0091 0000	3 GUSCIO WY	17			34	71	96		83		
273	R550 015 00A 0092 0000	1 GUSCIO WY	31			47		96		85		
274	R550 015 00A 0093 0000	101 OCEANWOOD TRACE					13					

	Tax Parcel ID Number	Street Address	Habitable Structure		Ancillary Structure	Swimming Pool	Deck, Patio or Driveway	Boardwalk	Fence	Rock Revetment	Seawall	
			< 5,000 ft²	> 5,000 ft²							Concrete	Timber
		TOTAL	222	18	27	244	304	372	14	66	5	5
275	R550 015 00A 0097 0000	5 ROADRUNNER LA	57			73	76	126		110		
276	R550 015 00A 0112 0000	73 DUNE LA						38				
277	R550 015 00A 0116 0000	81 DUNE LA					10	49				
278	R550 015 00A 0127 0000	87 DUNE LA						55		27		
279	R550 015 00A 0136 0000	89 DUNE LA					18	32		30		
280	R550 015 00A 0137 0000	91 DUNE LA					7	27		27		
281	R550 015 00A 0147 0000	95 DUNE LA					22	38				
282	R550 015 00A 0149 0000	99 DUNE LA						42		29		
283	R550 015 00A 0158 0000	101 DUNE LA				3				40		
284	R550 015 00A 0159 0000	103 DUNE LA				11	12	122		38		
285	R550 015 00A 0160 0000	105 DUNE LA					12	125		48		
286	R550 015 00A 0169 0000	107 DUNE LA			10			132		40		
287	R550 015 00A 0170 0000	109 DUNE LA			10		9	46		32		
288	R550 015 00A 0171 0000	111 DUNE LA 1				3				35		
289	R550 015 00A 0180 0000	113 DUNE LA					32			39		
290	R550 015 00A 0181 0000	115 DUNE LA			18	10	20	51		27		
291	R550 015 00A 0182 0000	117 DUNE LA				5	14	39		35		
292	R550 015 00A 0191 0000	119 DUNE LA					4	55		36		
293	R550 015 00A 0192 0000	121 DUNE LA	5			8		56		35		
294	R550 015 00A 0193 0000	123 DUNE LA	26			24	31	53		39		
295	R550 015 00A 0202 0000	125 DUNE LA				27	28			41		
296	R550 015 00A 0203 0000	127 DUNE LA				14	17	43		41		
297	R550 015 00A 0204 0000	129 DUNE LA	8			10	24	46		35		
298	R550 015 00A 0213 0000	131 DUNE LA				9	11	49		39		
299	R550 015 00A 0214 0000	133 DUNE LA				14	17					
300	R550 015 00A 0215 0000	135 DUNE LN					24			37		
301	R550 015 00A 0226 0000	7 DUNE LA					12			22		
302	R550 015 00A 0236 0000	23 BITTERN ST								21		
303	R550 015 00A 0260 0000	23 DUNE LA						136		32		
304	R550 015 00A 0270 0000	27 DUNE LA					14	74				
305	R550 015 00A 0271 0000	29 A DUNE LN					4			34		
306	R550 015 00A 0280 0000	31 A DUNE LA				4				42		
307	R550 015 00A 0281 0000	31 B DUNE LA								38		
308	R550 015 00A 0282 0000	33 DUNE LA								29		
309	R550 015 00A 0291 0000	35 DUNE LN						114				
310	R550 015 00A 0292 0000	37 DUNE LA					3	50				
311	R550 015 00A 0315 0000	63 DUNE LA						34				
312	R550 015 00A 0319 0000	49 DUNE LA			23		13	61				
313	R550 015 00A 0323 0000	65 DUNE LA						42				
314	R550 015 00A 0511 0000	150 SHIPYARD DR	57		14			234				
315	R550 015 00A 0513 0000	102 OCEANWOOD TRACE			79	50	56	114				
316	R550 015 00A 0514 0000	103 OCEANWOOD TRACE				51	66			88		
317	R550 015 00A 0515 0000	104 OCEANWOOD TRACE	26				37	122				
318	R550 015 00A 0526 0000						72	126	27			
319	R550 015 00A 0528 0000						32	49, 51	27	37		
320	R550 015 00A 0533 0000	40 KNOTTS WY	31			48	56	120				

Town of Hilton Head Island - Beach Management Plan
Appendix A: 2022 Inventory of Structures Seaward of Setback Line

	Tax Parcel ID Number	Street Address	Habitable Structure		Ancillary Structure	Swimming Pool	Deck, Patio or Driveway	Boardwalk	Fence	Rock Revetment	Seawall	
			< 5,000 ft²	> 5,000 ft²							Concrete	Timber
		TOTAL	222	18	27	244	304	372	14	66	5	5
321	R550 015 00A 0544 0000									23		
322	R550 015 00A 0546 0000									31		
323	R550 015 00A 0548 0000							51				
324	R550 015 00A 0554 0000							39				
325	R550 015 00A 0555 0000								27			
326	R550 015 00A 0556 0000							172		44		
327	R550 015 00A 0559 0000						52	197				
328	R550 015 00A 0562 0000						57	71		64		
329	R550 015 00A 0563 0000						72	212				
330	R550 015 00A 0564 0000						62	120				
331	R550 015 00A 0565 0000						71	96		83		
332	R550 015 00A 0567 0000							122				
333	R550 015 00A 0568 0000									88		
334	R550 015 00A 0569 0000				79			114				
335	R550 015 00A 0571 0000						77					
336	R550 015 00A 0572 0000										96	
337	R550 015 00A 0574 0000							131				
338	R550 015 00A 0575 0000						90	126		103		
339	R550 015 00A 0576 0000									110		
340	R550 015 00A 0577 0000	7 GUSCIO WY	27			35	50	87				
341	R550 015 00A 0578 0000	5 GUSCIO WY	35			47	59	87, 87		79		
342	R550 015 00A 0579 0000							45				
343	R550 015 00A 0584 0000									22		
344	R550 015 00A 0585 0000									25		
345	R550 015 00A 0586 0000						14	33		29		
346	R550 015 00A 0588 0000									27		
347	R550 015 00A 0589 0000						15	34		27		
348	R550 015 00A 0590 0000							41		34		
349	R550 015 00A 0592 0000							61		29		
350	R550 015 00A 0599 0000							33				
351	R550 015 00A 0600 0000							27		19		
352	R550 015 00A 0601 0000						13	27		20		
353	R550 015 00A 0602 0000						14			21		
354	R550 015 00A 0605 0000							36		25		
355	R550 015 00A 0606 0000							60				
356	R550 015 00A 0607 0000					3	6	37		22		
357	R550 015 00A 0612 0000				23		12	45		29		
358	R550 015 00A 0613 0000	24 JACANA ST					16	49		38		
359	R550 015 00A 0614 0000	26 CARTERS MANOR	6					172		44		
360	R550 015 00A 0694 0000	85 FOREST BEACH DR								35		
361	R550 015 00A 0704 0000				17	4	7	47		32		
362	R550 015 00A 0714 0000							51, 44, 42, 44, 31		35, 35, 38		
363	R550 015 00A 0717 0000						50,47,24,33,48,39	158, 61, 47, 74, 70, 70, 57, 64, 74, 56, 62, 19, 7, 125, 68				

Town of Hilton Head Island - Beach Management Plan
Appendix A: 2022 Inventory of Structures Seaward of Setback Line

	Tax Parcel ID Number	Street Address	Habitable Structure		Ancillary Structure	Swimming Pool	Deck, Patio or Driveway	Boardwalk	Fence	Rock Revetment	Seawall	
			< 5,000 ft²	> 5,000 ft²							Concrete	Timber
		TOTAL	222	18	27	244	304	372	14	66	5	5
364	R550 015 00A 0720 0000						32			39		
365	R550 015 00A 083A 0000	100 FOREST BEACH DR									56	
366	R550 015 00A 087A 0000	9 DRIFTWOOD LA	20			46	60			62		
367	R550 015 00A 089B 0000	7 WANDERER LA	31			47	72	212				
368	R550 015 00A 095A 0000	126 N FOREST BEACH CT	36			63	66				96	
369	R550 015 00A 095B 0000	124 FOREST BEACH CT	27			66	77				95	
370	R550 015 00A 096C 0000	3 SEA SPRAY LN	32				52	131				
371	R550 015 00A 096D 0000	4 SEA SPRAY LA	38			78	55	131				
372	R550 015 00A 097C 0000	7 ROADRUNNER LA	66			87	90	126		103		
373	R550 017 000 1081 0000	253 SEA PINES DR		26			35	138	96			
374	R550 017 000 1188 0000	251 SEA PINES DR					39	107				
375	R550 017 00A 0001 0000							12				
376	R550 017 00A 0002 0000	51 BEACH LAGOON DR					24	31				
377	R550 017 00A 0006 0000	43 S BEACH LAGOON DR						23				
378	R550 017 00A 0007 0000	41 BEACH LAGOON DR					4	73				
379	R550 017 00A 0009 0000	37 BEACH LAGOON DR					25					
380	R550 017 00A 0010 0000	35 BEACH LAGOON DR						21				
381	R550 017 00A 0011 0000	33 S BEACH LAGOON DR					26					
382	R550 017 00A 0012 0000	31 BEACH LAGOON DR					28					
383	R550 017 00A 0014 0000	27 BEACH LAGOON DR					8	67				
384	R550 017 00A 0016 0000	25 S BEACH LAGOON DR					11					
385	R550 017 00A 0017 0000	23 BEACH LAGOON DR						44				
386	R550 017 00A 0018 0000	21 BEACH LAGOON DR						30				
387	R550 017 00A 0019 0000	19 BEACH LAGOON DR						78				
388	R550 017 00A 001A 0000	87 SEA PINES DR						113				
389	R550 017 00A 0021 0000	15 BEACH LAGOON DR					11					
390	R550 017 00A 0022 0000	13 BEACH LAGOON DR					11	12				
391	R550 017 00A 0024 0000	9 BEACH LAGOON DR						74				
392	R550 017 00A 0025 0000	7 BEACH LAGOON DR				2		38				
393	R550 017 00A 0026 0000	5 BEACH LAGOON DR					16	74				
394	R550 017 00A 0027 0000	3 SOUTH BEACH LAGOON RD					23	76				
395	R550 017 00A 0029 0000	4 BEACH LAGOON DR				2		49				
396	R550 017 00A 0030 0000	8 BEACH LAGOON DR					3	100				
397	R550 017 00A 0031 0000	12 E BEACH LAGOON DR					29	107				
398	R550 017 00A 0032 0000	16 BEACH LAGOON DR					5	69				
399	R550 017 00A 0033 0000	20 BEACH LAGOON DR					16	63				
400	R550 017 00A 0034 0000	24 BEACH LAGOON DR					16	54				
401	R550 017 00A 0035 0000	28 BEACH LAGOON DR					16	44				
402	R550 017 00A 0036 0000	32 BEACH LAGOON DR						56				
403	R550 017 00A 0037 0000	36 BEACH LAGOON DR						84				
404	R550 017 00A 0038 0000	34 BEACH LAGOON DR						56				
405	R550 017 00A 0039 0000	30 BEACH LAGOON DR						57				
406	R550 017 00A 0040 0000	26 BEACH LAGOON DR					16					
407	R550 017 00A 0041 0000	22 BEACH LAGOON DR					14					
408	R550 017 00A 0042 0000	18 E BEACH LAGOON DR					16	64				
409	R550 017 00A 0046 0000	2 BEACH LAGOON DR					19					

Town of Hilton Head Island - Beach Management Plan
Appendix A: 2022 Inventory of Structures Seaward of Setback Line

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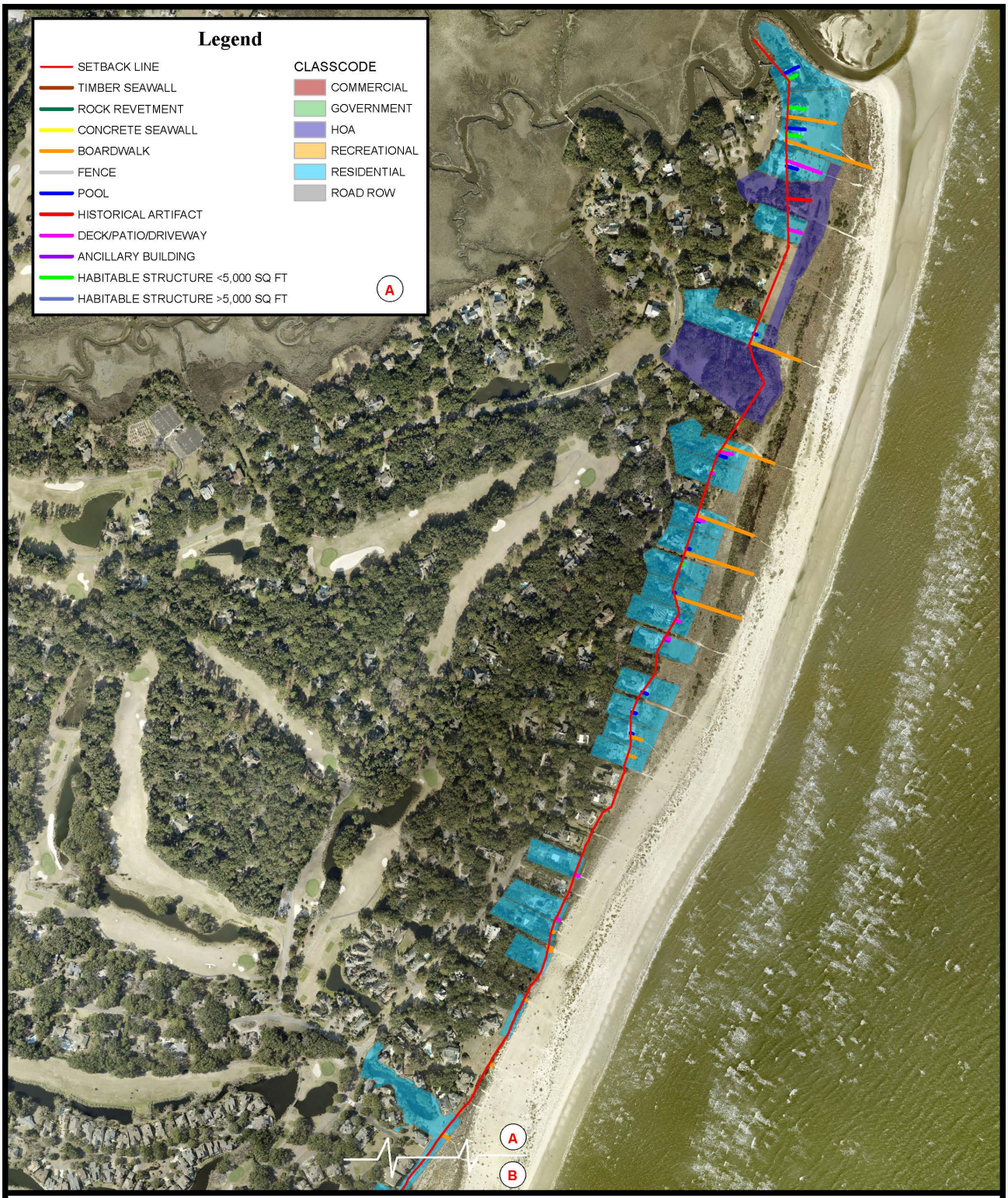
			< 5,000 ft²	> 5,000 ft²							Concrete	Timber
		TOTAL	222	18	27	244	304	372	14	66	5	5
410	R550 017 00A 1282 0000	1 BEACH LAGOON RD						47				
411	R550 017 00A 1282 0001	1 BEACH LAGOON RD Unit 29						35				
412	R550 017 00A 1282 0002	1 BEACH LAGOON RD Unit 28						36				
413	R550 017 00A 1282 0003	1 BEACH LAGOON RD Unit 27						34				
414	R550 017 00A 1282 0006	1 BEACH LAGOON RD Unit 24						50				
415	R550 017 00A 1282 0007	1 BEACH LAGOON RD Unit 23						36				
416	R550 017 00A 1284 0000	1 BEACH LAGOON RD						41				
417	R550 017 00A 1290 0000	91 SEA PINES DR					6	111				
418	R550 017 00B 0123 0000	5 LANDS END WY						100				
419	R550 017 00B 0124 0000	7 LANDS END WY	9				39					
420	R550 017 00B 0125 0000	9 LANDS END WY	7				22	98				
421	R550 017 00B 0126 0000	11 LANDS END WY						98				
422	R550 017 00B 0127 0000	13 LANDS END WY						111				
423	R550 017 00B 0164 0000	45 LANDS END RD						23				
424	R550 017 00B 0176 0000	47 LANDS END RD									5	
425	R550 017 00B 0186 0000	1 LANDS END WY						110				
426	R550 017 00B 0208 0000							110	96			
427	R550 018 000 016F 0000							29				
428	R550 018 000 0223 0000							40				
429	R550 018 000 0285 0000							193				
430	R550 018 000 0302 0000							179				
431	R550 018 000 068U 0000							79				
432	R550 018 00A 0490 0000	23 RED CARDINAL RD						28				
433	R550 018 00A 0505 0000	155 SEA PINES DR					9, 23, 26, 28	6, 26, 43, 83				
434	R550 019 000 0141 0000	12 PAINTED BUNTING RD						175				
435	R550 019 000 0161 0000	6 BROWN PELICAN RD	20			20	20	171				
436	R550 019 000 0162 0000	8 BROWN PELICAN RD	15			41	39	130				
437	R550 019 000 0163 0000	10 BROWN PELICAN RD	6			26	25	361				
438	R550 019 000 0166 0000	5 BROWN PELICAN RD					15					
439	R550 019 000 0256 0000	225 SEA PINES DR					31					
440	R550 019 000 307A 0000							68				
441	R552 018 000 001C 0000	10 FOREST BEACH DR			21	4	23	19	21			
442	R552 018 000 012B 0000	4 FOREST BEACH DR						36				
443	R553 018 000 0003 0000	1 COLIGNY CIR						52				
444	R553 018 000 003A 0000	1 FOREST BEACH DR				21	39					
445	R553 018 000 003A 0001						39					
446	R553 018 000 003A 0002						39					
447	R553 018 000 003B 0000	11 FOREST BEACH DR						16				



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HILTON HEAD ISLAND, S.C. 29928
PHONE (843) 341- 4600

Date Created: MAY 13, 2022
Project - OCRM PWA.aprx

TOWN OF HILTON HEAD ISLAND

INVENTORY OF STRUCTURES SEAWARD OF SETBACK LINE

1 inch = 600 feet

0 150 300 600 900 Feet

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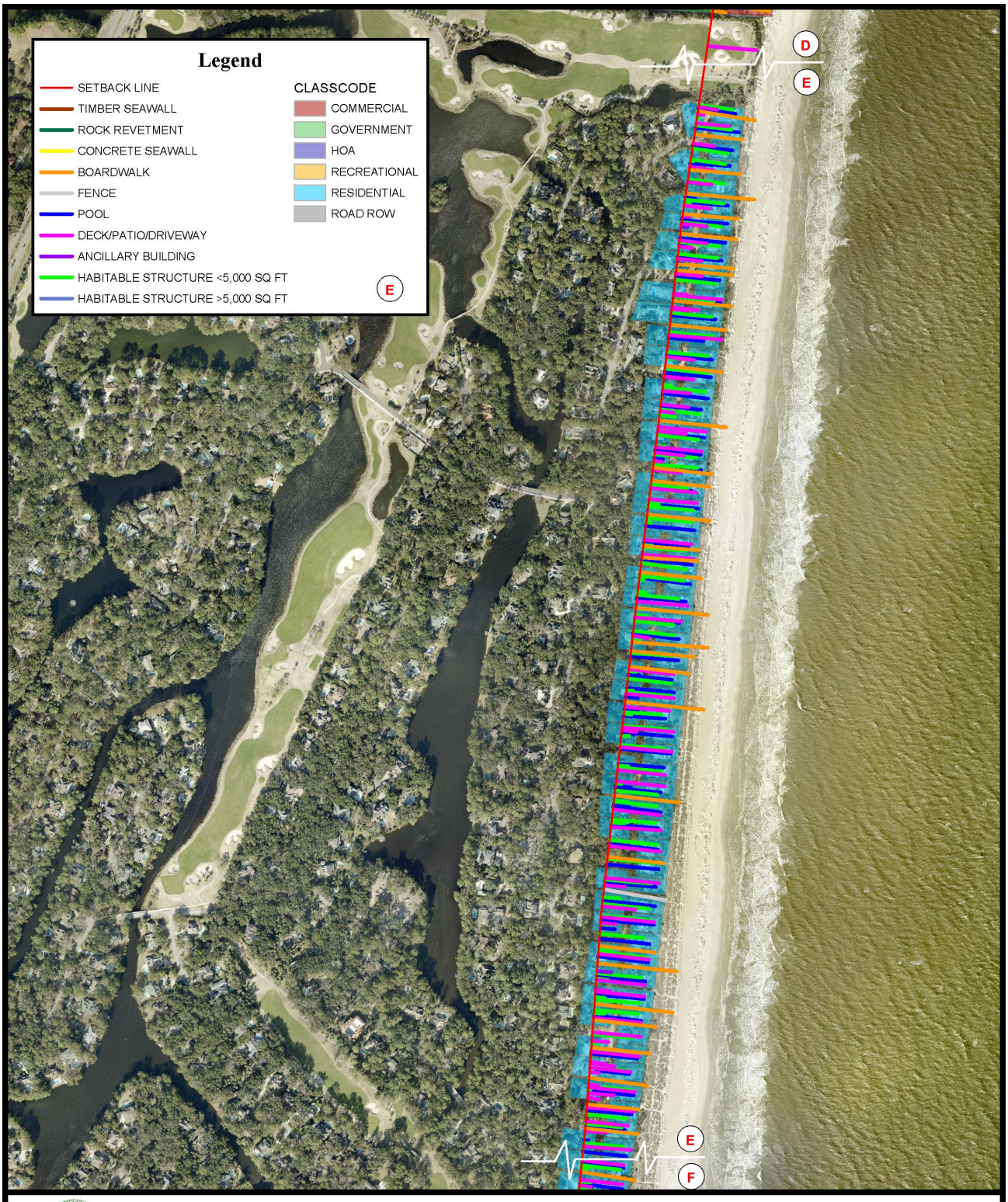

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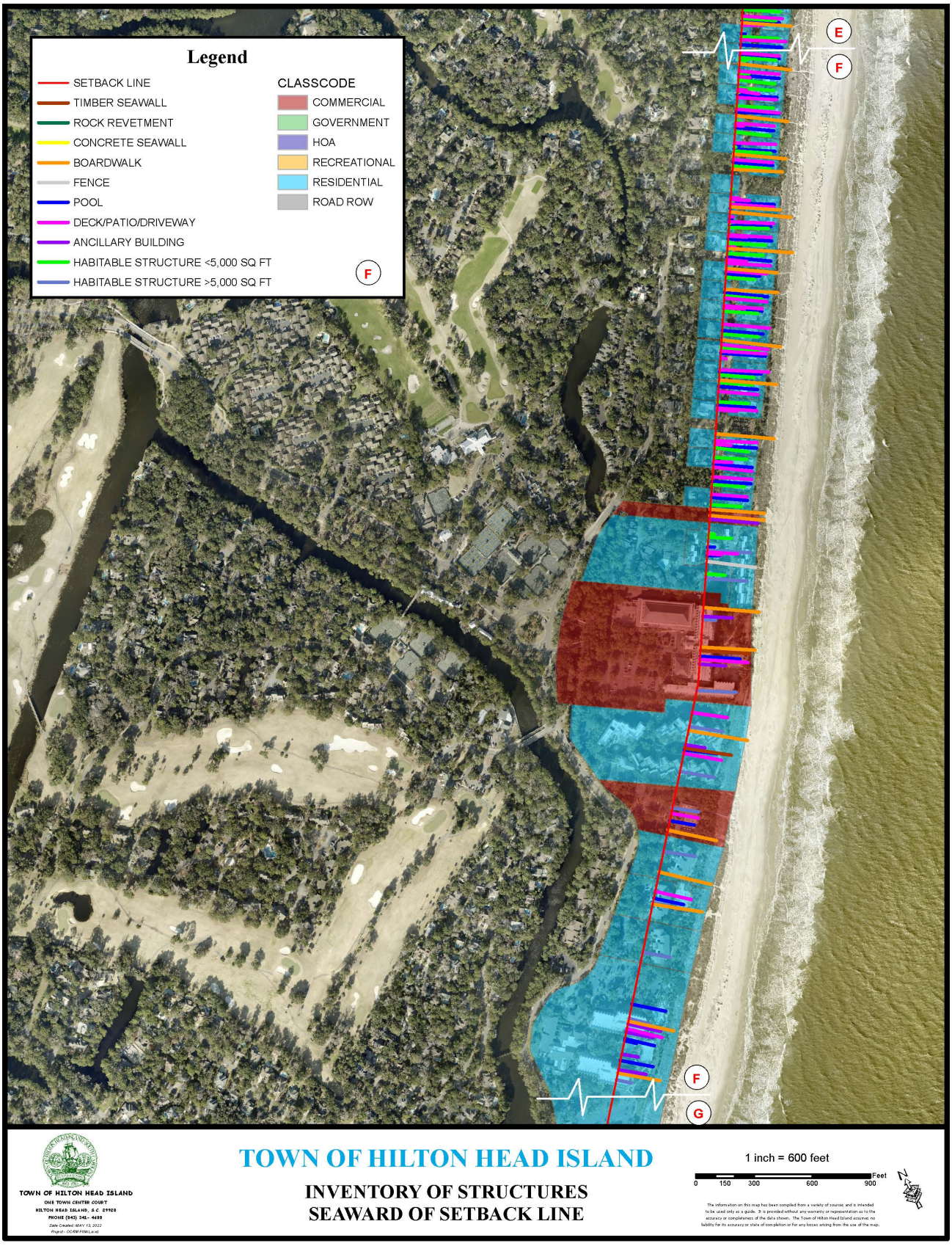

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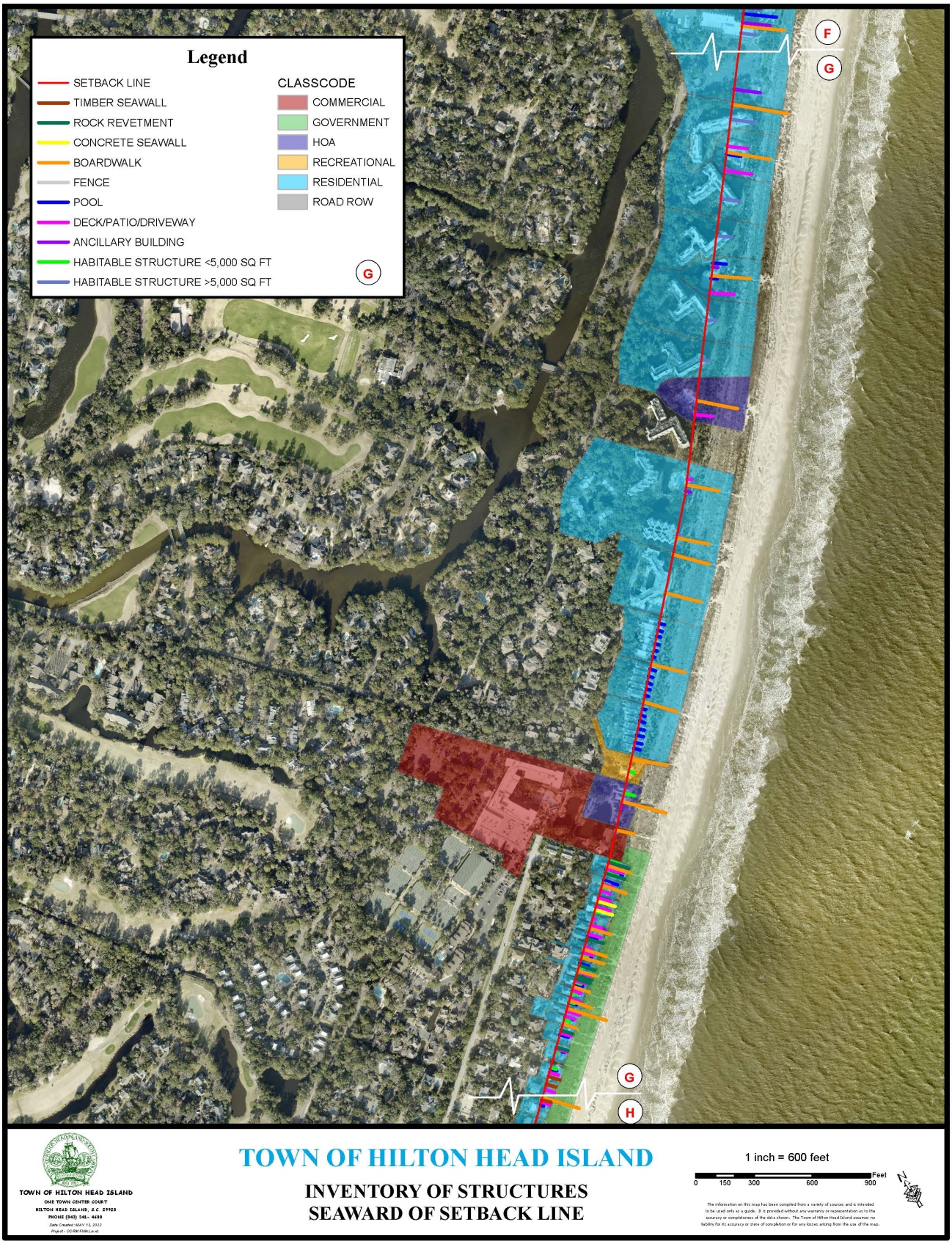

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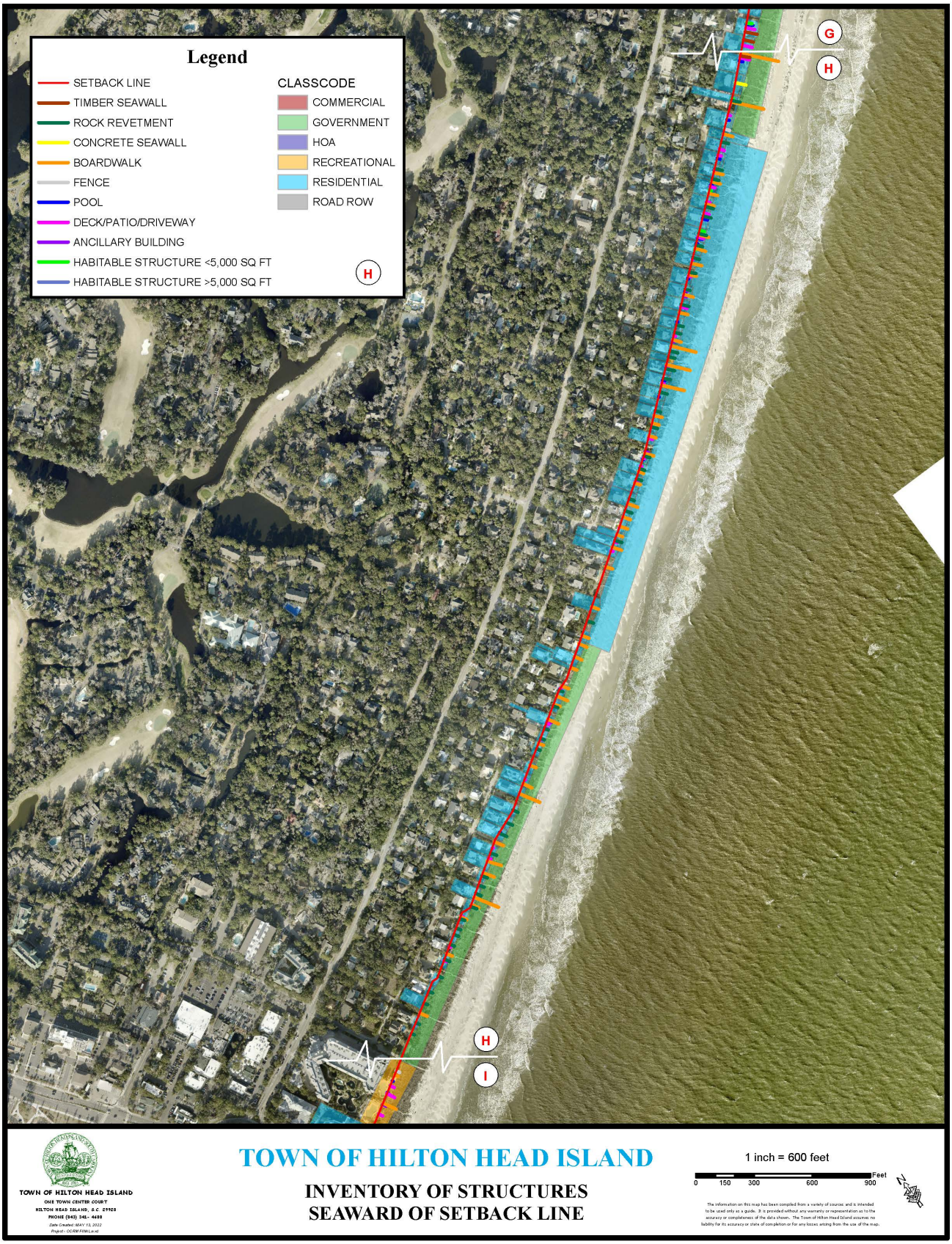

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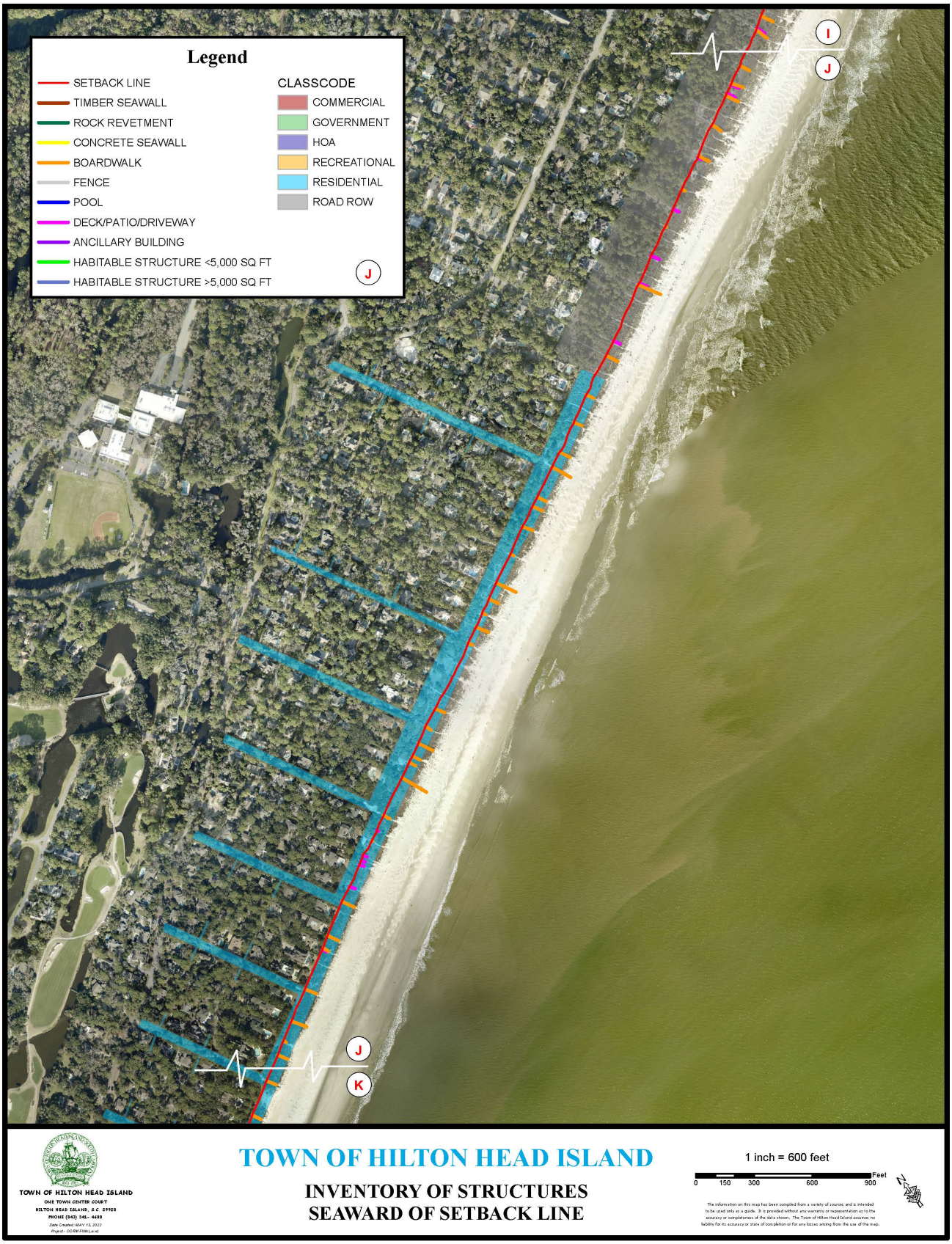

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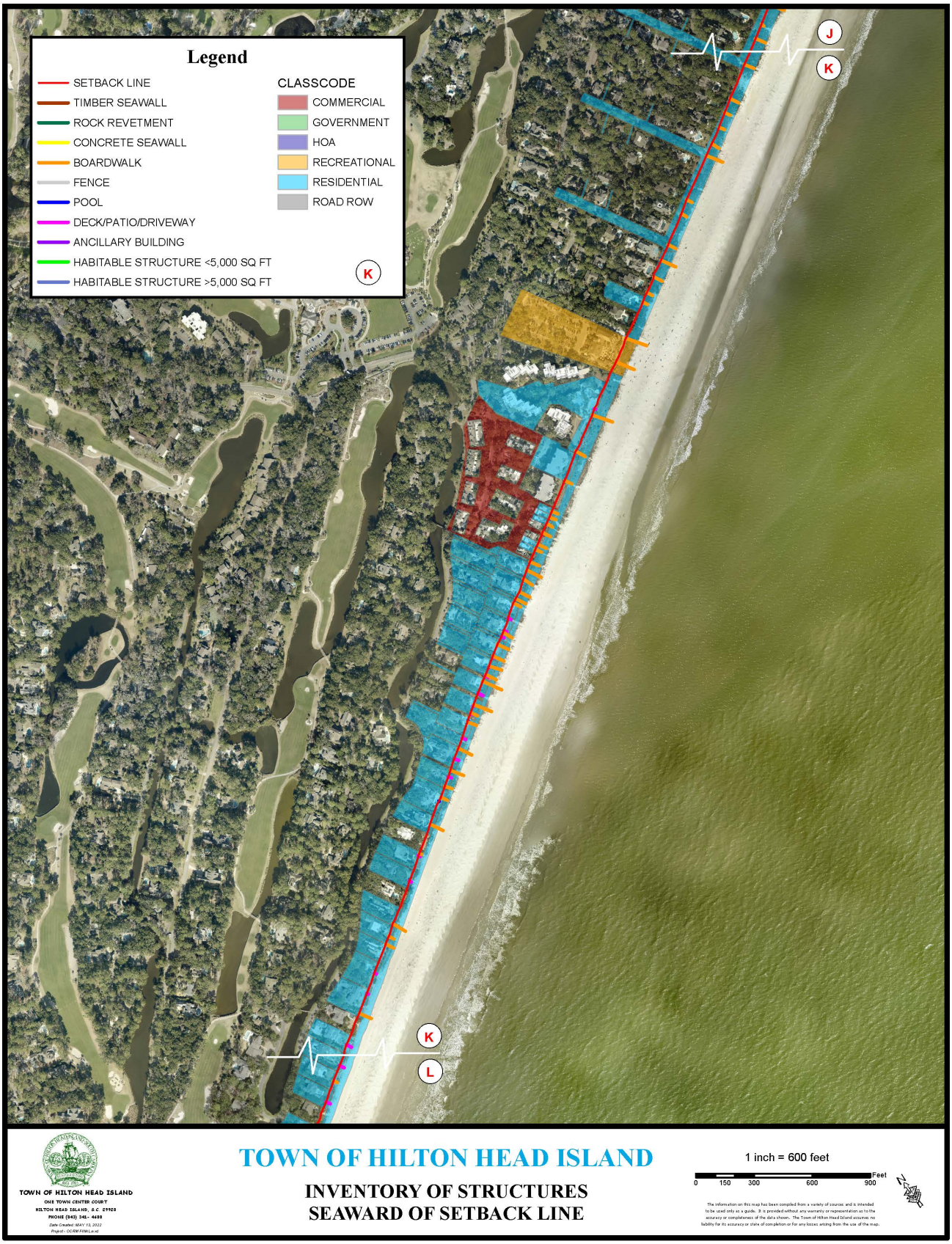

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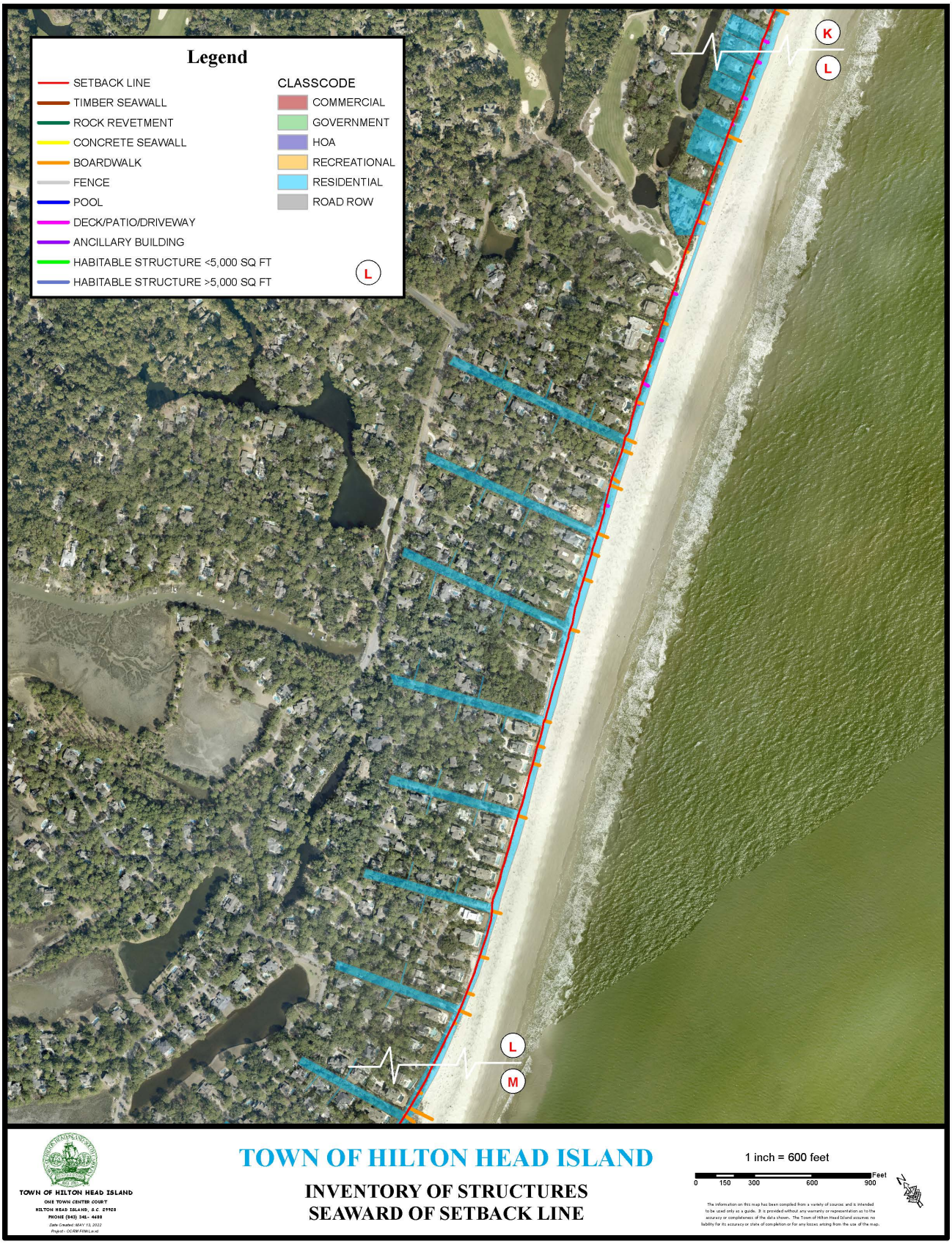

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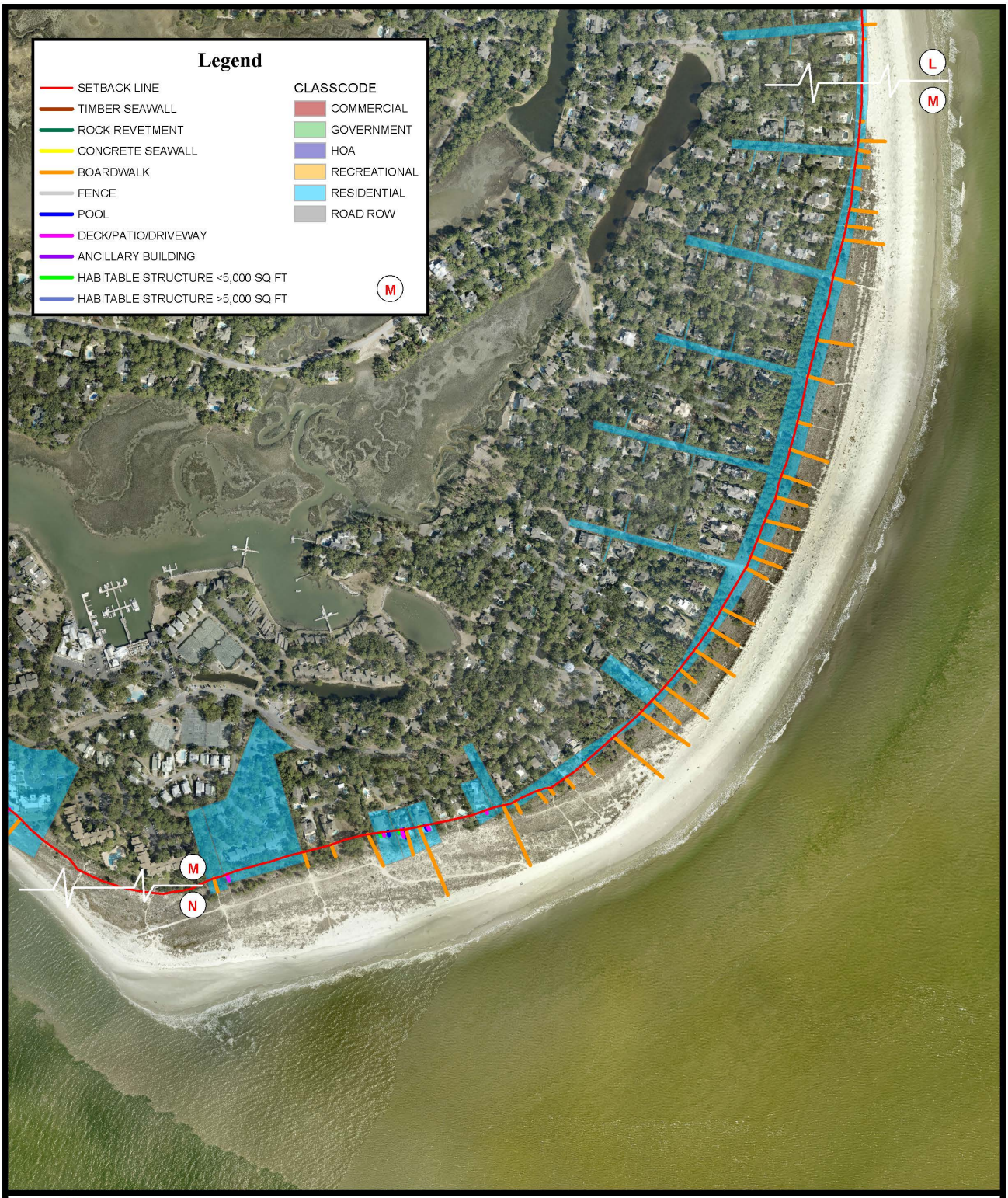

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1 inch = 600 feet

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Appendix 7.4

Prior Studies related to Beach Management

Town of Hilton Head Island

Prior Beach Management Studies

Olsen Associates, Inc. (1987). "Engineering Evaluation of a Beach Restoration Strategy for Hilton Head Island, SC," *engineering report prepared for the Town of Hilton Head Island by Olsen Associates, Inc.,* Jacksonville, FL, January 1987.

Olsen Associates, Inc. (1998). "South Beach Shoreline Erosion Study, Hilton Head Island, SC," *engineering report prepared for the Town of Hilton Head Island by Olsen Associates, Inc.,* Jacksonville, FL.

Olsen Associates, Inc. (2000). "Historical Shoreline Change Study, Port Royal Sound Shoreline," *engineering report prepared for the Town of Hilton Head Island by Olsen Associates, Inc.,* Jacksonville, FL.

Olsen Associates, Inc. (2006). "Lands End Groin Rehabilitation Project, Hilton Head Island, SC," *engineering report prepared for the Town of Hilton Head Island by Olsen Associates, Inc.,* Jacksonville, FL, December 2006.

Olsen Associates, Inc. (2008). "Hilton Head Island, SC, North Island Shoreline Change Study," *engineering report prepared for the Town of Hilton Head Island by Olsen Associates, Inc.,* Jacksonville, FL, August 2008.

Olsen Associates, Inc. (2009). "Port Royal Sound Shoreline Restoration and Stabilization Project; Analysis of Potential Borrow Area Related Impacts to the Local Wave Climate (P/N 2009-1056-1IW)" *engineering report prepared for the Town of Hilton Head Island by Olsen Associates, Inc.,* Jacksonville, FL, August 2009.

Olsen Associates, Inc. (2013). "Engineered Beach Documentation Required to Establish Post-Disaster Funding Eligibility, Town of Hilton Head Island, SC," *engineering report prepared for the Town of Hilton Head Island by Olsen Associates, Inc.,* Jacksonville, FL, January 2013.

Olsen Associates, Inc. (2014). "Hilton Head Island, SC, Beach Condition and 2015/16 Beach Renourishment Scope Development Summary," *engineering report prepared for the Town of Hilton Head Island by Olsen Associates, Inc.,* Jacksonville, FL, June 2014.

Olsen Associates, Inc. (2014). "Town of Hilton Head Island, Beach Condition Summary and Recommendations for Fish Haul/Spa Shoreline," *engineering report prepared for the Town of Hilton Head Island by Olsen Associates, Inc.,* Jacksonville, FL, October 2014.

Appendix 7.5

Local Laws and Ordinances related to Beach Management

Chapter 1 BEACHES[1]

ARTICLE 1. GENERAL PROVISIONS

Sec. 8-1-111. Title.

This chapter shall be known and may be cited as the "**Town of Hilton Head Island Beach Ordinance**".

(Ord. No. 84-10, 5-21-84)

Sec. 8-1-112. Definitions.

For the purposes of this chapter, the following terms, phrases, words and their derivations shall have the meaning given herein:

(1) Beach shall mean:

a. Commencing at the southern shore of Braddock Cove, the area lying between the mean low water mark of Calibogue Sound and the property line of property lying closest to Calibogue Sound or the Atlantic Ocean, south west, south east along Calibogue Sound and north east along the Atlantic Ocean to the Tower Beach Club, and extending from the mean low water mark of Calibogue Sound and the Atlantic Ocean for a distance of seventy-five (75) yards into the waters of Calibogue Sound and the Atlantic Ocean;

b. Commencing at Tower Beach Club, the area between the mean low water mark of the Atlantic Ocean and the first property line of property lying closest to the Atlantic Ocean, northeast along the Atlantic Ocean to the Port Royal Beach Club, and extending from the mean low water mark of the Atlantic Ocean for a distance of one hundred fifty(150) yards into the waters of the Atlantic Ocean;

c. Commencing at the Port Royal Beach Club, the area lying between the mean low watermark of the Atlantic Ocean or Port Royal Sound and the first property line of property lying closest to the Atlantic Ocean or Port Royal Sound, then northwestward along the Atlantic Ocean or Port Royal Sound to the southeast terminus of the Rock Revetment at Dolphin Head Recreation Area, and extending from the mean low water mark of Port Royal Sound for a distance of seventy-five (75) yards into the waters of Port Royal Sound;

d. Commencing at southeast terminus of the Rock Revetment at Dolphin Head Recreation Area, the area lying between the low water mark of Port Royal Sound, and the seaward boundary of the Rock Revetment, then northwest along Port Royal Sound to the northwest terminus of the Rock Revetment at Dolphin Head Recreation Area, and extending from the mean low water mark of Port Royal Sound for a distance of seventy-five (75) yards into the waters of Port Royal Sound; and

e. Commencing at the northwest terminus of the Rock Revetment at Dolphin Head Recreation Area, the area lying between the low water mark of Port Royal Sound and the vegetated marshes and vegetated upland northwest and west along Port Royal Sound to the northern shore of Park Creek and extending from the mean low water mark of Port Royal Sound for a distance of seventy-five (75) yards into the waters of Port Royal Sound.

[1]Cross reference(s)—Beaches, § 16-6-301 et seq.

(2) *Boat* shall mean any watercraft, wind surfer, including sea planes when not airborne, sail boat, "jet ski", "aqua-trike" or similar type of watercraft.

(3) *Designated area* shall be defined as any portion of the beach or areas between the setback line (as established by SC Code of Laws 48-39-280(B)) and the landward barrier line (both non-single family and single family development) designated by the Town Council for a special use (swimming, surfing, beaching of boats, etc.).

(4) *Designated swimming areas* shall be the following sections of the beach described as follows: Coligny Circle area, from the northern boundary of the Breakers to the southern boundary of the Holiday Inn. For the town's public boardwalk at Alder Lane Beach Park, the designated swimming area shall include all lands seaward of the mean high water line and within one hundred (100) feet on either side of the centerline. For the town's public boardwalk at Driessen Beach Park, the designated swimming area shall include all lands seaward of the mean high water line and within four hundred (400) feet on either side of the centerline. For the town's public boardwalk at Folly Field Beach Park, the designated swimming area shall include all lands seaward of the mean high water line and within one hundred (100) feet north of the centerline and two hundred (200) feet south of the centerline. For the Town's Islanders Beach Park, the designated swimming area shall include all lands seaward of the mean high water line within two hundred (200) feet north of the centerline and one hundred (100) feet south of the centerline.

(5) *Float* shall mean any nonmotorized raft, inner tube or similar structure designed for recreation purposes made of a rubber, plastic or other soft material.

(6) *Motorboat* shall mean any boat or other type of vessel, which is propelled by any type of electric, internal combustion or other type of engine.

(7) *Stunt kite* shall mean any kite which is capable of being manually maneuvered to perform flight patterns, to include rapid ascent and descent and various other gyrations.

(8) *Dune* or *dune system* shall mean one (1) or a series of hills or ridges exhibiting varied topography, generally running parallel to the beach of wind-blown sand or one (1) or a series of hills or ridges of sand resulting directly or indirectly from restoration or beach renourishment, all of which may or may not be anchored by vegetation (e.g., sea oats) and is in the vicinity of the beach.

(9) *Primary ocean front sand dunes* shall mean those dunes which constitute the front row of dunes closest to the Atlantic Ocean.

(10) *Alcoholic liquors* shall mean any spirituous malt, vinous, fermented, brewed (whether lager or rice beer) or other liquors, or any compound or mixture thereof, by whatever name it is known, which contains alcohol and is used as a beverage.

(11) *Leash* shall mean a chain, rope, strap or electronic device for leading or holding an animal in check.

(12) *Designated water sports area* shall be the following section of the beach described as follows: For Collier Water Sports Park, designated water sports area shall include all lands seaward of the mean high water line from the southern boundary of the Folly and extend four hundred (400) feet to the south.

(13) *Personal property* shall mean but is not limited to towels, tents (including tent frames), cabanas, umbrellas and other shading devices, beach chairs and other furniture, picnic tables, tiki huts, volleyball nets, hammocks, floats, sailboards, surfboards, kites, unpermitted boats as defined under sec. 8-1-611, beach toys, grills, nets, coolers, kayaks, general items for beach recreation, or similar items.

(14) *Reserved.*

(15) *Reserved.*

(16) *Reserved.*

(17) *Reserved.*

(Ord. No. 84-10, 5-21-84; Ord. No. 87-4, § 2, 4-7-87; Ord. No. 88-30, §§ 1, 2, 12-19-88; Ord. No. 88-31, § 1, 12-19-88; Ord. No. 90-15, § 1, 6-4-90; Ord. No. 94-13, § 1, 5-17-94; Ord. No. 99-04, § 1, 1-19-99; Ord. No. 00-24, § 1, 9-5-00; Ord. No. 2006-04, § 1, 5-16-06; Ord. No. 06-27, § 1, 12-5-06; Ord. No. 2009-23, § 1, 9-1-09; Ord. No. 2019-24, § 1, 11-19-19)

ARTICLE 2. PROHIBITED AND REGULATED ACTIVITIES

PART A. GENERAL BEACH PROHIBITIONS

Sec. 8-1-211. Unlawful activities enumerated.

In order to assure the public health, safety, and welfare of all individuals using the beaches within the town, it shall be unlawful for any person to do any of the following activities on the beaches within the town:

(1) *Vehicles prohibited.* The driving or operating of any motor vehicle of any kind or nature on the beach within the town; provided, however, that governmental vehicles operated while cleaning or working on the beach, law enforcement vehicles, emergency vehicles, or vehicles operating pursuant to a duly granted permit from the town shall be exempt from the application of this section. In addition, individuals who have physical handicaps 1) which are recognized by state law, and 2) which would otherwise preclude their use and enjoyment of the beach, may drive on the beach an appropriate small open motorized vehicle designed to transport one such handicapped individual, at speeds not in excess of ten (10) miles per hour.

(2) *Operation of motorized watercraft (including, but not limited to, jet skis, motorboats, etc.).* The operation, anchoring or launching of motorized craft is prohibited within the police jurisdiction of the town, except that motorized watercraft (excluding jet skis, wave runners and boats of their class) shall be permitted to operate within the police jurisdiction of the town from that area commencing at the southern boundary of Tower Beach Club, hence northward along the Calibogue Sound to the southern shore of Braddock Cove at Calibogue Sound and extending from the mean low water mark for a distance of seventy-five (75) yards into the water. Authorized emergency watercraft shall not be prohibited from operation, anchoring or launching within the police jurisdiction of the town.

(3) *Para-sailing.* No para-sailing operation shall be permitted within the police jurisdiction of the town.

(4) *Sand-sailing.* The operation of a sand sailor or other wind powered vehicle on the beach during the hours of 10:00 a.m. to 6:00 p.m. from April 1st through September 30th of each year.

(5) *Kites.* All kites will be under manual control. The use of "stunt" kites is prohibited in designated swimming areas. Elsewhere, the use of stunt kites is prohibited between the hours of 10:00 a.m. to 6:00 p.m. from April 1st through September 30th of each year.

(6) *Glassware.* All forms of glassware are prohibited on the beach and in the water.

(7) *Sleeping on beach after midnight.* Sleeping by persons on the beach between the hours of midnight and 6:00 a.m.

(8) *Animals.* Except as provided herein, no person shall bring or allow any dog, or any other animal on the beach that is not at all times on a leash between the hours of 10:00 a.m. and 5:00 p.m. from April 1st through the Thursday before Memorial Day weekend and from the Tuesday after Labor Day weekend through September 30th. No person shall bring or allow any dog, or any other animal, on the beach between the hours of 10:00 a.m. and 5:00 p.m. from the Friday before Memorial Day weekend through

the Monday of Labor Day weekend. No person shall bring or allow any dog or any other animal on the beach that is not on a leash or under positive voice control of the responsible person between 5:00 p.m. and 10:00 a.m. from April 1st through September 30th. No person shall bring or allow any dog or any other animal on the beach that is not on a leash or under positive voice control at any hour from October 1st through March 31st. Any violation of the provisions hereof may result in the owner of the animal being charged with a misdemeanor and the animal being seized by the appropriate animal control officer or law enforcement officer.

No person shall permit any excrement from any animal under that person's control to remain on the beach but shall dispose of same in a sanitary manner.

From April 1st through the Thursday before Memorial Day weekend and from the Tuesday after Labor Day weekend through September 30th of each year, dogs or any other animal, other than seeing-eye dogs, shall not be allowed in any designated swimming area unless on a leash and walking through the area between 10:00 a.m. and 5:00 p.m.

(9) *Horses on the beach.* The riding or driving of horses on the beach except that an annual marsh tacky race, sponsored by the Native Island Business and Community Affairs Association or the Coastal Discovery Museum, is permitted to be conducted on the beach.

(10) *Marine and wildlife.* In addition to any other applicable state or federal laws, no person shall physically harm, harass, or otherwise disturb any sea turtle, its eggs or hatchlings, any sea bird, its eggs or young, or any other beach fauna.

Beached or stranded sea turtles, whales, or dolphins shall be reported immediately to the proper authorities.

(11) *Shark fishing.* The baiting or fishing for shark from the beach or inside of an area four hundred (400) yards from the water's edge along the beach.

(12) *Fires.* Building fires for any purpose other than cooking. Fires for cooking purposes shall be limited to portable liquid fueled cooking stoves.

(13) *Fireworks discharge.* The discharging of fireworks on the beach, except by permit from the town manager for planned fireworks displays.

(14) *Disturbing the public peace.* It shall be unlawful for any person to attempt to attract the attention of the public to any political or commercial activity by the use of a loudspeaker or other sound amplification device, or to otherwise unreasonably disturb the peace of any person on the beach.

(15) *Indecent exposure.* Nudity is prohibited on the beach.

(16) *Disorderly conduct.* Public drunkenness or other disorderly conduct is prohibited on the beach.

(17) *Commercialization.* No commercial activity shall be undertaken on the beach on [or] in the waters within the jurisdiction of the town, including the sale, solicitation or offer for sale of any product, real estate or real estate interest, service or activity, the rental or offer of rental of any real or personal property, the distribution of any material, handouts, bills, promotional brochures or similar items, except in conformity with the provisions of this chapter. (See Article III, "Franchising".) Except that an event to celebrate the anniversary of the sighting of Hilton Head Island or the anniversary of the incorporation of the town, or both, which is approved by the town, is permitted to be conducted on the beach at the approved location and time.

Any person proposing to operate any commercial enterprise on private property contiguous to the beach shall be subject to all applicable provisions of this municipal code and must possess a valid town business license. (See Title 16 regarding development plan approvals.)

(18) *Unauthorized wearing of lifeguard emblems, insignia, etc.* It shall be unlawful for any person in the public beach areas who is not certified in life saving and approved by the town or its agent to wear or display any badge, uniform, emblem, insignia or lettering designating, identifying or tending to identify said person to be a lifeguard.

(19) *Litter on beach or in water.* No person shall place or deposit litter including but not limited to cans, garbage, waste or refuse, or any part thereof, on the beach or within the waters adjacent to the beach.

(20) *Possession or consumption of alcoholic liquors, beer, or wine is prohibited on the beaches.* It shall be unlawful for any person to possess or consume any alcoholic liquors, beer, ale, porter, wine or any other similar malt or fermented beverage on the beaches as defined in Title 8, section 8-1-112(1) of the Municipal Code; provided, however, that when consumption is specifically authorized by permit or license of the S.C. Alcoholic Beverage Control Commission, the same shall be permitted.

(21) *Open containers.* The possession of any opened container of alcoholic liquor, beer, or wine on the beaches shall be prohibited and shall constitute prima facie evidence of the consumption of the alcoholic liquor at the prohibited place.

(22) *Digging holes and shovels.* Anyone digging a hole or creating a sand structure on the beach shall restore the sand to its natural condition before leaving the beach and no later than thirty (30) minutes prior to sunset as stated by the National Weather Service. Shovels, except those that are made of wood and/or plastic and that are less than thirty (30) inches in length and six (6) inches in width, shall be prohibited on the beach. No persons shall dig any hole to a depth greater than twelve (12) inches on the beach. Authorized personnel, including members of the Sea Turtle Patrol, town employees performing work related to beach preservation, and others approved by the town shall be exempt from the application of this section.

(23) *Personal property left unattended.* Any personal property referenced in sec. 8-1-112 left unattended on the beach between the hours from sunset to sunrise as stated by the National Weather Service shall be deemed a public nuisance and the town or authorized personnel shall dispose of them. Those who leave unattended or store personal property on the beach between the hours from sunset to sunrise do so at their own risk. The town and authorized personnel do not assume any liability for personal property left unattended or stored on the beach between the hours from sunset to sunrise.

(Ord. No. 84-10, 5-21-84; Ord. No. 85-2, § 1, 2-18-85; Ord. No. 87-4, § 2, 4-7-87; Ord. No. 88-30, §§ 3—5, 12-19-88; Ord. No. 89-8, § 1, 5-15-89; Ord. No. 90-15, § 2, 6-4-90; Ord. No. 94-13, § 2, 5-17-94; Ord. No. 2010-02, § 1, 2-23-10; Ord. No. 2013-09, § 1, 9-3-13; Ord. No. 2019-24, § 2, 11-19-19)

Cross reference(s)—Animals running at large, § 17-1-114.

PART B. PROHIBITIONS AND PERMITTED USES PERTAINING TO DESIGNATED SWIMMING AREAS, WATER SPORTS AREAS[2]

[2]Editor's note(s)—Ord. No. 2009-23, § 1, adopted Sept. 1, 2009, amended the title of part B to read as herein set out. The former title read Prohibitions and Permitted Uses Pertaining to Designated Swimming Areas, Designated Water Sports, the Critical Storm Protection and Dune Accretion Area and the Transition Area.

Sec. 8-1-221. Activities prohibited during summer season.

In addition to the prohibitions which are applicable to the beach, the following activities shall be prohibited in the designated swimming areas from sunrise to sunset during the period from April 1 through September 30 in each year;

(1) Fishing or surf casting.

(2) Reserved.

(3) The use of a surfboard of similar article for surfing or surf riding.

(4) Frisbees and/or other team sports involving a ball.

(5) Recreational games with metal components such as metal horseshoes.

(Ord. No. 84-10, 5-21-84; Ord. No. 87-4, § 2, 4-7-87; Ord. No. 88-30, §§ 6, 7, 12-19-88; Ord. No. 94-13, § 3, 5-17-94; Ord. No. 00-24, § 2, 9-5-00)

Sec. 8-1-222. Activities prohibited in the designated water sports areas.

In addition to the prohibitions which are applicable to the beach, the following activities shall be prohibited in designated water sports areas from sunrise to sunset: fishing or surf casting.

(Ord. No. 00-24, § 3, 9-5-00)

Sec. 8-1-223. Reserved.

Editor's note(s)—Ord. No. 2009-23, § 1, adopted Sept. 1, 2009, deleted § 8-1-223, which pertained to activities and uses permitted and prohibited in the critical storm protection and dune accretion area and derived from Ord. No. 06-04, § 1, adopted May 16, 2006; and Ord. No. 06-27, § 1, adopted Dec. 5, 2006.

Sec. 8-1-224. Reserved.

Editor's note(s)—Ord. No. 2009-23, § 1, adopted Sept. 1, 2009, deleted § 8-1-224, which pertained to activities and uses permitted in the Transition Area and derived from and Ord. No. 06-27, § 1, adopted Dec. 5, 2006.

PART C. DESIGNATED AREAS

Sec. 8-1-231. Designation for special use.

The town council may from time to time designate by resolution of the town council designated areas for any special use. Such designation may be established on either a temporary or a permanent basis by the council. No permanent designation may be made by the council of any section of beach for an activity which is prohibited by this chapter.

(Ord. No. 84-10, 5-21-84; Ord. No. 87-4, § 2, 4-7-87)

PART D. RESERVED[3]

Sec. 8-1-241. Reserved.

Editor's note(s)—See editor's note attached to part D.

PART E. ENFORCEMENT

Sec. 8-1-251. Authority of law enforcement officers.

Those persons who shall be duly appointed deputies or constables, or who are law enforcement officers or code enforcement officers of the town, the county or the state, shall have the power and authority to enforce this chapter.

(Ord. No. 84-10, 5-21-84; Ord. No. 87-4, § 2, 4-7-87; Ord. No. 06-27, § 1, 12-5-06)

Sec. 8-1-252. Power to recall swimmers.

The aforementioned law enforcement officers or duly appointed representatives of the town shall have the power and authority to recall from the waters and the surf adjoining the waters, any person who, in their discretion, shall be in danger of drowning or becoming imperiled, or who may imperil the safety of others, or when the condition of the wind, water, weather or any hazard, including the physical or mental condition of the person in the waters, shall be such as to constitute a danger to the health, life or safety of that person, rescue personnel, or other persons within the waters.

(Ord. No. 84-10, 5-21-84; Ord. No. 87-4, § 2, 4-7-87; Ord. No. 06-27, § 1, 12-5-06)

Sec. 8-1-253. Fines and penalties.

Any person who violates the provisions of this article upon conviction shall be guilty of a misdemeanor and shall be subject to a fine or imprisonment, or both, as provided for in section 1-5-10 of this Code. Each day's continued violation or separate incident shall constitute a separate offense.

(Ord. No. 87-4, § 2, 4-7-87; Ord. No. 93-24, § 3, 9-20-93; Ord. No. 06-27, § 1, 12-5-06)

[3]Editor's note(s)—Ord. No. 2009-23, § 1, adopted Sept. 1, 2009, deleted part D, which pertained to Nonconforming Structures within the Critical Storm Protection and Dune Accretion Area and the Transition Area. Part D contained § 8-1-241, which pertained to nonconforming structures and derived from Ord. No. 06-04, § 1, adopted May 16, 2006; and Ord. No. 06-27, § 1, adopted Dec. 5, 2006.

ARTICLE 3. FRANCHISING[4]

Sec. 8-1-311. Franchise agreement.

No commercial activity of any kind which proposes to operate in whole or part within the beach area as defined in section 8-1-112(1) shall commence operation unless and until a franchise agreement has been executed and entered into by and between the applicant-franchisee and the town manager on behalf of the town.

(Ord. No. 85-2, § 2, 2-18-85)

Sec. 8-1-312. Form of franchise application and agreement; rules of operation.

(a) An application and agreement for a beach franchise operation shall contain such information as may be required of the applicant-franchisee by the town council regarding the proposed establishment and conduct of the franchise operation.

(b) Each franchise agreement, if and when executed and entered into by the appropriate parties, shall contain such provisions regarding the establishment and conduct of the franchise operation which reflect due concern for:

(1) The preservation and enhancement of the health, safety and general welfare of citizens enjoying the beach; and,

(2) The preservation and enhancement of the beach ecology.

(c) The town manager may from time to time promulgate appropriate rules and regulations regarding franchise operations which shall be available to all applicant-franchisees upon request.

(Ord. No. 85-2, § 2, 2-18-85; Ord. No. 87-4, § 2, 4-7-87)

Sec. 8-1-313. Legal conformity.

In addition to conformity with any other applicable ordinance, statute, law, rule or regulation regarding the establishment and conduct of the franchise operation, each applicant-franchisee shall certify to the town manager with sufficient proof upon request that any other permit, license or permission required by law has been secured.

(Ord. No. 85-2, § 2, 2-18-85; Ord. No. 87-4, § 2, 4-7-87)

Sec. 8-1-314. Franchise fee.

The town manager shall administer a franchise fee schedule approved by the town council which is based upon calendar year gross receipts and other such factors as the town council may determine.

(Ord. No. 85-2, § 2, 2-18-85; Ord. No. 87-4, § 2, 4-7-87)

[4]Cross reference(s)—Business and professional licensing; franchising and regulation, Tit. 10; franchises granted, various, § 10-5-10 et seq.

Sec. 8-1-315. Franchise term, renewal and termination; appeals.

(a) The term of any beach franchise agreement shall be determined by town council.

(b) The violation of any provision of the franchise agreement by the franchisee and/or his agent or employee may result in termination of the agreement, after due notice and opportunity to remedy the violation, by the town manager.

(c) Sixty (60) days prior to the expiration of the franchise agreement, the franchisee may apply for renewal of the franchise agreement to the town manager, who shall consider prior conduct and other such factors as he may deem relevant in consideration of the renewal application. The town manager shall notify each franchisee by certified mail at least thirty (30) days in advance of the date the franchise is due to expire as to whether or not the franchise will be renewed by the town.

(d) Any appeal from a decision of the town manager to deny an initial franchise application, to terminate for cause a franchise agreement or to deny renewal of a franchise agreement shall be to the town council.

(Ord. No. 85-2, § 2, 2-18-85; Ord. No. 87-4, § 2, 4-7-87)

Sec. 8-1-316. Assignment and transfer.

A franchisee may assign or transfer his franchise to another person subject to a sixty-day notification to the town clerk and treasurer and upon approval of the town manager.

(Ord. No. 85-2, § 2, 2-18-85; Ord. No. 87-4, § 2, 4-7-87)

Sec. 8-1-317. Beach cleanliness.

Each franchisee shall be responsible for maintaining beach cleanliness in an area and according to such terms as may be further specified in the franchise agreement. Recurring legitimate complaints regarding beach cleanliness in a franchisee specified area may result in immediate suspension of the franchisee's agreement by the town manager.

(Ord. No. 85-2, § 2, 2-18-85; Ord. No. 87-4, § 2, 4-7-87)

ARTICLE 4. DUNE PROTECTION

Sec. 8-1-411. Permit required; damage prohibited.

No person shall alter, destroy or remove any portion of a sand dune, except by obtaining a valid permit for construction or development from all required governmental authorities, including the town.

(Ord. No. 84-10, 5-21-84; Ord. No. 87-4, § 2, 4-7-87)

Sec. 8-1-412. Tampering with beach protection equipment.

No person may destroy, damage, remove or otherwise alter any beach renourishment equipment or beach protection structure, except as may be granted by an appropriate development or building permit.

(Ord. No. 84-10, 5-21-84; Ord. No. 87-4, § 2, 4-7-87)

Sec. 8-1-413. Destruction of sea oats or other dune vegetation.

It shall be unlawful for any person to alter, remove or otherwise destroy sea oats or any other vegetative matter growing out of the sand dunes with the exception of permitted elevated dune walkovers or similar beach access for accessibility or pruning of dune vegetation when authorized by the town, in accordance with accepted International Society of Arboriculture practices, and land management ordinance (LMO) sections 16-6-104.B.2.viii and 16-6-103.F. The LMO official may allow removal of nonnative invasive vegetation in the dune systems, including but not limited to, Chinese tallow or beach vitex. In addition, the administrator may approve the removal of trees below six (6) inches in diameter, with the exception of live oaks, or grant a tree removal permit for trees of protected size if determined by the administrator it is needed to create a view corridor. All trees removed must be cut flush with existing grade and leave the root system intact.

(Ord. No. 84-10, 5-21-84; Ord. No. 87-4, § 2, 4-7-87; Ord. No. 2010-11, § 1, 6-1-10; Ord. No. 2015-14, § 1(Exh. 1), 6-16-15)

ARTICLE 5. ABANDONED MOTOR VEHICLES, BOATS AND/OR OTHER PROPERTY[5]

Sec. 8-1-511. Abandoned vehicles, boats and/or other property.

It shall be unlawful for any person to abandon any motor vehicle, boat and/or other property on the beach. Such property will be considered abandoned (and subject to section 8-1-512) if the property has remained in the same place for an excess of sixty (60) days. Any boat on the beach that is in a state of disrepair, damaged, or un-seaworthy as determined by the town manager or designee may be removed at any time. Upon determination that the property is abandoned or in a state of disrepair, damaged, or un-seaworthy as determined by the town manager or designee, a violation notice will be placed on the property and the owner, if determinable, will be sent a written notice by certified mail allowing thirty (30) days to remove such property, after which time the town may remove the property to a designated impoundment yard at the expense of the owner, if determinable, or dispose of the property by an alternative means at the discretion of the town manager or his designated agent.

(Ord. No. 87-4, § 2, 4-7-87; Ord. No. 05-11, § 1, 5-3-05; Ord. No. 05-33, § 1, 12-20-05)

Sec. 8-1-512. Removal and disposition of abandoned property.

(a) Any abandoned motor vehicle, boat and/or other property may be removed to a storage area approved by the town manager for safekeeping by or under the direction of an enforcement officer of the town.

(b) The owner of any removed property, before obtaining possession thereof, shall pay to the agent of the town all costs incurred for storage for such property and all reasonable costs incidental to the removal, storage and locating of the owner. If not reclaimed, the property may be sold thirty (30) days after removal, provided that preceding such public or private sale a public notice has been given. Upon approval by the town manager, the motor vehicle, boat and/or other property will be sold to the highest bidder. Property with an appraised value of less than one thousand dollars ($1,000.00) may be disposed of by any alternative means at the discretion of the town manager or his designated agent.

(c) The town manager may promulgate regulations governing the alternative means of disposal of abandoned property of a value less than one thousand dollars ($1,000.00) as by destruction, donation to an appropriate organization, or any other appropriate method designated by regulation, provided that no employee of the

[5]Cross reference(s)—Junked or abandoned vehicles generally, § 12-1-411 et seq.

disposing agency shall be entitled to purchase or receive any such abandoned property unless purchased at public auction.

(d) The proceeds of any sale shall be forwarded to the town to pay for the costs of removal and storage, taxes and liens in that order. After the ownership at the time of the removal is established satisfactorily to the town, the owner shall be paid the remaining proceeds after payment of the foregoing costs and liens.

(e) If the owner of the property cannot be identified or located after a reasonable effort by the town, any remaining proceeds after costs, taxes and liens are paid will go to the town.

(Ord. No. 87-4, § 2, 4-7-87; Ord. No. 88-30, § 8, 12-19-88; Ord. No. 05-33, § 2, 12-20-05)

ARTICLE 6. BOATS ON THE BEACH

Sec. 8-1-611. Permit requirement.

The owner of any boat, as defined in section 8-1-112(2), which remains overnight on the beach, as defined in section 8-1-112(1), shall obtain either a seasonal or annual beach boat permit. A seasonal beach boat permit shall be valid for six (6) months. The annual beach boat permit shall be valid for a period of one (1) year and shall require a boat to pass an inspection deeming it seaworthy by the town's designee prior to being issued. A seasonal beach boat permit shall not require an inspection prior to being issued. An annual beach boat permit and a seasonal beach boat permit may be obtained from the town business license clerk or other designee. No beach boat permit shall be required for any such boat removed daily from the beach prior to 8:00 p.m., but the provisions of section 8-1-615 shall apply.

(Ord. No. 87-13, § 1, 7-6-87; Ord. No. 05-33, § 3, 12-20-05)

Sec. 8-1-613. Application and fee.

(a) A beach boat permit application 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 type, serial number, boat insurance information, and storage location of the boat in winter and summer months.

(b) An annual or seasonal fee as determined by the Town Manager shall be paid at the time such application for a beach boat permit is submitted. The Town Manager shall set the annual and seasonal fees for the year prior to December 1st of the previous year.

(c) The permit issued shall be in the form of a numbered sticker which shall be affixed to the permitted boat at a clearly visible location on the hull. Lost or stolen stickers shall be replaced upon reapplication without charge. Such permit shall be valid during the calendar year it is issued and will expire annually on December 31st.

(d) A copy of all town beach regulations and other pertinent information shall be provided to all permittees at the time of permit issuance.

(Ord. No. 87-13, § 1, 7-6-87; Ord. No. 05-33, § 4, 12-20-05)

Sec. 8-1-615. Dune protection and other regulations.

(a) Any boat which is placed or located at any time atop the primary dunes, meaning those sand dunes which constitute the front row of dunes adjacent to the Atlantic Ocean or other coastal waters, may be subject to immediate impoundment at the direction of a designated town enforcement officer.

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

(c) Boats left on the beach overnight shall have halyards and other possible noise-making parts secured tightly.

(Ord. No. 87-13, § 1, 7-6-87)

Chapter 5 SEA TURTLE PROTECTION

Sec. 8-5-111. Definitions.

In this chapter, the following terms when capitalized shall have the meanings set forth in this section:

Ambient light means artificial light that is visible from the beach emanating from light fixtures with a shield that are visible from the beach and from unshielded light fixtures and sources that are not visible from the beach.

Artificial light means the light originating from any human-made device or human activity.

Beach means that 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).

Downward directed means positioning of any light fixture so that the light from it is directed perpendicular to the ground.

Existing development means any construction authorized by building permit for which application was made on or before April 30, 2021, and any other related installation on the lot or parcel on which the structure is built.

Floodlight means any reflector-type exterior light fixture that is attached directly to a building or pole and that does not have a shield.

Light fixture means any housing for any artificial light source.

Low profile luminaire means any light fixture set on a base which raises the bulb or other source of the light no higher than forty-eight (48) inches off the ground, and designed in such a way that light is downward directed from a light source that has a shield.

New development means any construction authorized by building permit for which application was made on or after May 1, 2021, and any other related installation on the lot or parcel on which the structure is built.

Opaque means any thing or material that blocks the passage of light through it.

Sea turtle nesting season means the period from May 1 through October 31 of each year.

Security light means an exterior light fixture that illuminates a portion of a structure or property that is intended to deter or detect intrusions or other criminal activity and for the safety of property owners and guests.

Shield means an opaque material covering the bulb, lamp, glowing lens, reflector or reflective surface of a light fixture so that the bulb, lamp, glowing lens, reflector or reflective surface is not visible except when viewed from directly underneath the shield. For interior light fixtures, lampshades that cover the bulb, lamp, glowing lens, reflector or reflective surface of the lamp, whether or not made of opaque material, qualify under this subsection as a shield.

Solar screen means a type of screen intended to reduce the amount of artificial light passing through a glass window or door. A solar screen must have a manufacturer verified inside-to-outside light transmittance value of 0.45 (45%) or less.

Tinted or *filmed glass* means glass that has been treated to reduce light transmittance. Tinted or filmed glass must have a manufacturer verified inside-to-outside light transmittance value of 0.45 (45%) or less. Filmed glass cannot have an exterior visible light reflectance of more than fifty percent (50%).

Transmittance value means a measurement of the percentage of visible light that leaves the interior of a structure through glass windows or doors. This measurement is related to the absorbance of the applied material, rated by the manufacturer.

Visible from the beach means capable of being observed by or within the line of sight of a pedestrian walking or standing on the beach.

(Ord. No. 90-13, § 1, 5-7-90; Ord. No. 2021-09, § 1, 2, 3-16-21)

Sec. 8-5-112. Purpose.

The purpose of this chapter is to protect threatened and endangered sea turtles known to nest on the Beaches of Hilton Head Island, including Loggerhead, Leatherback and Kemp's Ridley sea turtles, by limiting artificial light that is visible from the beach. Artificial light is documented to cause misorientation and disorientation of nesting females and sea turtle hatchlings, which is documented to lead to injury and death of adult sea turtles and hatchlings.

(Ord. No. 90-13, § 1, 5-7-90; Ord. No. 2021-09, § 3, 3-16-21)

Sec. 8-5-113. Standards for new development.

It is the intent of the Town of Hilton Head Island to reduce the number of nesting adult females and sea turtle hatchlings misoriented and disoriented by artificial light that is visible from the Beaches of Hilton Head Island. To meet this intent, all new development shall comply with the standards below. Exterior light fixtures, windows, and glass doors that are visible from the beach, or that would be visible from the beach if they were not obscured from view of the beach by vegetation when they are installed, shall meet the standards below. Ambient light is permitted.

(1) Exterior light fixtures that are visible from the beach shall be downward directed, and shall also have a shield.

(2) Floodlights that are visible from the beach serving as temporary security lighting at construction sites shall not be mounted more than fifteen (15) feet above the ground. Such light fixtures shall be activated by a motion detector or shall use bulbs that produce long wavelength light (560 nanometers or greater), which is amber, orange, or red light. The light from any such floodlight shall not spread beyond the boundary of the property being developed.

(3) Permanent security lighting visible from the beach shall be permitted throughout the night as long as low profile luminaires are used.

(4) Light fixtures illuminating areas of dune walkovers shall be turned off between 10:00 p.m. and 6:00 a.m. during sea turtle nesting season. Light fixtures illuminating areas of dune walkovers that produce long wavelength light (560 nanometers (NM) or greater), which is amber, orange, or red light, are exempt from this requirement.

(5) Windows and glass doors that are visible from the beach shall have tinted or filmed glass, or shall be installed with an interior or exterior solar screen. If a solar screen is used, the solar screen must completely cover the glass between 10:00 p.m. and 6:00 a.m. during sea turtle nesting season.

(Ord. No. 90-13, § 1, 5-7-90; Ord. No. 2021-09, §§ 4, 5, 3-16-21)

Editor's note(s)—Ord. No. 2021-09, §§ 4, 5, adopted March 16, 2021, changed the title of § 8-5-113 from "New development" to read as set out herein.

Sec. 8-5-114. Exemptions.

The provisions of Section 8-5-113 shall not apply to any structure for which a building permit has been issued or applied for by the Town of Hilton Head Island prior to April 30, 2021.

(Ord. No. 90-13, § 1, 5-7-90; Ord. No. 2021-09, §§ 6, 7, 3-16-21)

Editor's note(s)—Ord. No. 2021-09, §§ 6, 7, adopted March 16, 2021, changed the title of § 8-5-114 from "Exemptions for new development" to read as set out herein.

Sec. 8-5-115. Standards for existing development.

It is the intent of the Town of Hilton Head Island to reduce the number of nesting adult females and sea turtle hatchlings misoriented and disoriented by artificial light that is visible from the Beaches of Hilton Head Island. To meet this intent, all existing development shall comply with the standards below. Ambient light is permitted.

(1) All exterior light fixtures visible from the beach shall be downward directed and have a shield on or after May 1, 2021 or they shall be turned off between 10:00 p.m. and 6:00 a.m. during sea turtle nesting season.

(2) On or after May 1, 2021, floodlights visible from the beach serving as temporary security lighting at construction sites shall not be mounted more than fifteen (15) feet above the ground. Such floodlights shall be activated by a motion detector or shall use bulbs that produce long wavelength light (560 nanometers (NM) or greater), which is amber, orange, or red light. The light shall not spread beyond the boundary of the property being developed.

(3) On or after May 1, 2021, permanent security lighting visible from the beach shall be permitted throughout the night as long as low profile luminaires are used or any such permanent security lighting shall be turned off between 10:00 p.m. and 6:00 a.m. during sea turtle nesting season.

(4) On or after May 1, 2021, light fixtures illuminating areas of dune walkovers on the beach shall be turned off between 10:00 p.m. and 6:00 a.m. during sea turtle nesting season. Light fixtures that are downward directed, have a shield, and use bulbs that produce long wavelength light (560 nanometers (NM) or greater), which is amber, orange or red light, are exempt from this requirement.

(5) On or after May 1, 2021, one (1) or more of the following options shall be used so that interior artificial light is less visible from the beach between 10:00 p.m. and 6:00 a.m. during sea turtle nesting season. Ambient light is permitted.

a. Use opaque material (curtains, blinds, drapes, etc.) or solar screens to cover windows and glass doors that are visible from the beach between 10:00 pm. and 6:00 a.m. during sea turtle nesting season.
b. Apply film with a manufacturer verified inside-to-outside light transmittance value of 0.45 (45%) or less to windows and glass doors that are visible from the beach. Any film used shall not have an exterior visible light reflectance of more than fifty percent (50%).
c. Use shields on light fixtures that are visible from the beach.
d. Use long wavelength (560 nanometers (NM) or greater) lightbulbs in light fixtures that are visible from the beach.
e. Turn off interior lights that are visible from the beach between 10:00 p.m. and 6:00 a.m. during sea turtle nesting season.

(6) On or after May 1, 2021, new windows and glass doors installed in existing development that are visible from the beach shall be of tinted or filmed glass, or shall be installed with an interior or exterior solar screen. Existing development shall be exempt from the requirement of this Section 8-5-115(6) if the total

area of all new windows and glass doors to be installed constitutes less than half of the total area of windows and glass doors on the structure that are visible from the beach.

(Ord. No. 90-13, § 1, 5-7-90; Ord. No. 2021-09, §§ 8, 9, 3-16-21)

Editor's note(s)—Ord. No. 2021-09, §§ 8, 9, adopted March 16, 2021, changed the title of § 8-5-115 from "Existing development" to read as set out herein.

Sec. 8-5-116. Enforcement and penalty.

This Chapter shall be enforced in accordance with the provisions of this Chapter, with penalties set forth in Section 1-5-10 of this Code.

(Ord. No. 90-13, § 1, 5-7-90; Ord. No. 2021-09, §§ 10, 11, 3-16-21)

Editor's note(s)—Section 8-5-117 has been renumbered as § 8-5-116 in order to facilitate the exclusion of a reserved section. The previous § 8-5-116 pertained to publicly owned lighting and derived from Ord. No. 90-13, § 1, adopted May 7, 1990. Sec. 8-1-617. Enforcement.

(a) As of the effective date of this article, the owner of any boat found atop a primary dune in violation of section 8-1-615(a) shall, in addition to the penalties provided for in section 1-5-10 of this Code, pay all costs incurred by the town or its designee in the impoundment and storage of such boat.

(b) As of the effective date of this article, the boat owner or other person(s) responsible for a violation of section 8-1-615(b) or (c) shall be subject to the penalties provided for in section 1-5-10 of this Code.

(c) After a 60-day grace period commencing on the effective date of this article, during which period the town shall make a reasonable effort to make boat owners aware of these requirements, boats not displaying a permit sticker may be removed from the beach and disposed of as if abandoned consistent with the provisions of section 8-1-512.

(Ord. No. 87-13, § 1, 7-6-87; Ord. No. 93-24, § 4, 9-20-93)

Appendix 7.6

Beach Management Agencies and Jurisdictions

Numerous agencies have responsibility or authority influencing beach management on Hilton Head Island. This section provides a summary and description of the agencies with regulatory or management authority relevant to beach management in the Town of Hilton Head Island.

Federal

The US Army Corps of Engineers (USACE)

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

USACE has three main permitting mechanisms; the general permit (GP), individual permit, and Nationwide permit. The Army Corps is responsible for reviewing applications and regulating beach nourishment activities under Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. The decision to issue a permit is based on evaluation of the probable impacts of the project including cumulative impacts of the activity on the public interest.

USACE also maintains an emergency management responsibility through its Emergency Management Division located in Charleston. During emergencies, USACE is authorized to provide engineering and public works assistance to State government agencies.

The National Oceanic and Atmospheric Administration (NOAA)

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

The National Marine Fisheries Service (NMFS) implements the Magnuson-Stevens Fishery Management Act policies, monitors and establishes federal catch limits, restores coastal wetlands and shellfish habitat, and assesses natural resource damages to federal trust species. NMFS has coordination authority over federal activities and permits that may adversely affect Essential Fish Habitat (EFH), and requires notification and consultation prior to federal permitting of certain activities, including beach nourishment. NMFS administers the requirements of the Marine

Mammal Protection Act, and has joint responsibility with the US Fish and Wildlife Service for the protection and recovery of sea turtles.

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

The US Fish and Wildlife Service (USFWS)

The US Fish and Wildlife Service (USFWS) is the federal agency responsible for the protection of federal fish and wildlife habitats and species, specifically those that are imperiled, threatened, or endangered. Much like NOAA, USFWS does not directly permit or authorize activities but is typically part of a consultation team and can elevate issues that are deemed important. USFWS is responsible for administering the federal Endangered Species Act (ESA), 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 NMFS for the protection and recovery of sea turtles.

The Federal Emergency Management Agency (FEMA)

The Federal Emergency Management Agency (FEMA) is part of the Department of Homeland Security and is responsible for reducing the loss of life and property and protecting the Nation from hazards, including natural disasters. FEMA supports a risk-based program for a comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation. The Agency provides coordination, resources, and communication to state agencies during federal emergencies and is involved in promoting community resiliency and post-disaster relief. FEMA also administers the National Flood Insurance Program, a federal program enabling property owners in participating communities to purchase insurance as protection against flood losses in exchange for State and community floodplain management.

The United States Coast Guard (USCG)

The United States Coast Guard (USCG) is the federal agency responsible for protecting the nation's waterways and coastline as part of the Department of Homeland Security. The Guards' missions include promoting maritime safety, security and mobility, providing for national defense, and protecting natural resources. USCG performs search and rescue operations in coastal areas

for missing boaters, lost swimmers, and sinking vessels. Coast Guard is also involved in law enforcement on the water, particularly reckless boating, boating while intoxicated and drug interdiction. In addition, the Coast Guard has authority over the permitting of bridges. A major responsibility of the Guard is to respond to, investigate, and address oil spills in a waterbody. USCG has developed an Area Contingency Plan for each section of the State for spills and response. USCG serves as the Federal On Scene Coordinator for spills.

State

State General Assembly

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

Department of Health and Environmental Control (DHEC)

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

DHEC Office of Environmental Quality and Control (EQC)

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

DHEC Office of Ocean and Coastal Resource Management (OCRM)

DHEC OCRM is the State's coastal management agency and administers the federal coastal program, as amended and refined by the state, and protects and manages coastal public trust

resources. Formerly known as the South Carolina Coastal Council, DHEC OCRM consists of a regulatory division, a coastal planning division, a science and policy division, communications and technical resources division, and an administrative division. The regulatory program reviews and permits dock activities beach and dune permits, beach renourishment, wetland impacts, marina applications, and coastal stormwater permitting within the eight coastal counties. The Planning Division provides assistance to local communities in identifying and addressing coastal change, prepares guidance and policy documents to assist government agencies in understanding coastal issues, and manages the preparation of local comprehensive beach management plans.

Department of Natural Resources (DNR)

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

Department of Transportation (DOT)

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

Emergency Management Division

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

Appendix 7.6

Beach Management Agencies and Jurisdictions

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.

Town

The enforceable jurisdictional boundaries of the Town generally include all of Hilton Head Island including an area extending one mile offshore as per Section 5-7-1450 of State Statutes. The Town also includes a large area of Town owned property on Jenkins Island. The jurisdictional area of the Town is defined by Section 2-1-20 of the Municipal Code. The jurisdictional area of the Town's beaches are defined by Section 8-1-112 of the Municipal Code.

Beach Management Plan

TOWN OF HILTON HEAD ISLAND, SC

Community Services and Public Safety Committee | October 24, 2022

Beach Management Plan

Presentation Overview

- Purpose
- Background
- Existing Conditions
- Overlay Districts
- Public Access
- Beachfront Drainage
- Beach Management Authorities
- Local Laws and Ordinances
- Erosion Control & Management
- Needs, Goals and Implementation
- Plan Appendices
- Recommendation and Questions

- Olsen and Associates – History and Future of HHI Beach Management

Beach Management Plan

Purpose

That the Planning Commission endorse the updated Beach Management Plan and forward a recommendation to Town Council for adoption.

Beach Management Plan

Background

The South Carolina Department of Health and Environmental Control Office of Ocean and Coastal Resource Management (DHEC OCRM) is responsible for the management of the state's beachfront. The state Beachfront Management Act (S.C. Code Ann. § 48-39-250 et seq.) establishes statutory guidance and state policies for the beachfront, including a requirement that ocean beachfront counties and municipalities prepare local comprehensive beach management plans in coordination with DHEC OCRM. Once adopted by the community, local comprehensive beach management plans are then submitted to DHEC OCRM for review and state approval every 10 years.

Beach Management Plan

Beachfront Management Act

- According to the Guidelines for the Development of Local Comprehensive Beach Management Plans established under the Beachfront Management Act (S.C. Code Ann. § 48-39-250 et seq.), the following 18 communities are required to develop local comprehensive beach management plans:

County/Town/City	Last Update
City of Folly Beach	2021
Town of Seabrook Island	2019
City of Isle of Palms	2017
Town of Hilton Head Island	2017
Town of Sullivan's Island	2017
Charleston County	2015
City of North Myrtle Beach	2014
Horry County	2013
City of Myrtle Beach	2012
Town of Pawleys Island	2012
Town of Kiawah Island	2012
Town of Edisto Beach	2012
Town of Atlantic Beach	1992
Beaufort County	1993
Georgetown County	1992
Town of Surfside Beach	1991
Colleton County	Default to State Plan
Town of Briarcliffe Acres	Default to State Plan

Source: SCDHEC web site

Beach Management Plan

Background

Local comprehensive beach management plans are required to be reviewed by the local government every five years. Additionally, updated revisions are required to be submitted for state approval every ten years. DHEC has prepared interim guidelines to assist communities preparing to revise their local comprehensive beach management plans while the state plan is being revised.

The Town's plan was last approved by SCDHEC OCRM in August 2017.

Beach Management Plan

History

The Town has had Beach Management Plans reviewed by state in 1992, 1995, 1998, 2001, 2009, and 2017.

Staff has been working closely with OCRM on this 5-year update for 2022.

Beach Management Plan

Existing Conditions

- The long view of beach conditions shows that our renourishment program has been tremendously successful in building up a functional beach. Over the last 32 years, surveys show significant volumetric change with roughly 13,500,000 more cubic yards of sand (February 1990 – November 2021).

- The beach is mostly stable, and the structural features are performing as intended.

- The beach is monitored (surveying and aerial photography) every year in the spring and fall.

- The plan contains graphical data over time of beach profiles, average mean high water position, volumetric changes.

Beach Management Plan

Beach Management Overlays

Coastal Protection Area (CPA-O) and Transition Area Overlay (TA-O) Districts

The purpose of these districts is to eliminate the potential for seaward migration of the built environment along the island's beachfront to the greatest extent possible.

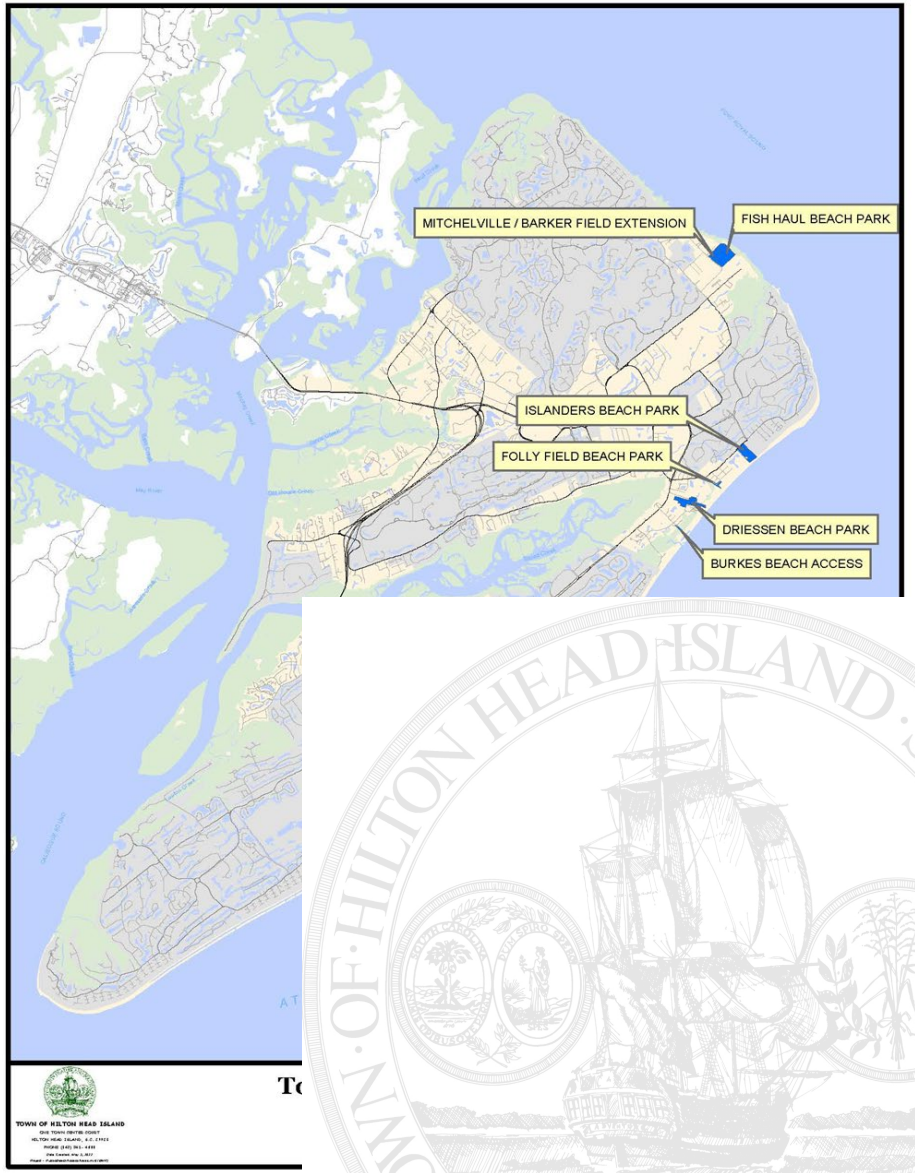
- Development is prohibited - except for boardwalks, emergency vehicular access, beach renourishment, and authorized beach maintenance activities

Beach Management Plan

Public Access

- The Town meets the OCRM public access required number beach parking spaces (1,400).

- New Projects / Programs
  - The Town has implemented a shuttle bus to accommodate parking for beachgoers at USCB
  - The Town is currently designing improvements at Islanders and Chaplin Parks, which shall include additional parking spaces.
  - The Town intends to contract a parking management consultant to better manage beach parking



Beach Management Plan

Public Access

The Town owns and operates seven beach parks with the public can access the beach, offering 1,412 beach parking spaces according to DHEC criteria.

PAP = Public Access Point
LPAP = Local Public Access Point
NPAP = Neighborhood Public Access Park
CPAP = Community Public Access Park
RPAP = Regional Public Access Park

Facility Name	Street Name	Parking Spaces	Facility Type
Alder Lane Beach Access	Woodward Avenue	23*	LPAP
Burkes Beach Access at Chaplin Park	Burkes Beach Road	245*	RPAP
Coligny Area	Coligny Circle South Forest Beach Drive Lagoon Road	512*	RPAP
Driessen Beach Park		178* 28	RPAP
Folly Field Beach Park	Starfish Drive	54*	NPAP
Islanders Beach Park	Folly Field Road	25* 131	NPAP
Fish Haul Beach Park and Barker Field Extension*	Mitchelville Road	169	N/A
Historic Mitchelville Freedom Park*	Beach City Road	47	N/A

*These facilities offer access to Hilton Head beaches, but the SCDHEC OCRM beachfront jurisdiction

Beach Management Plan

Beachfront Drainage

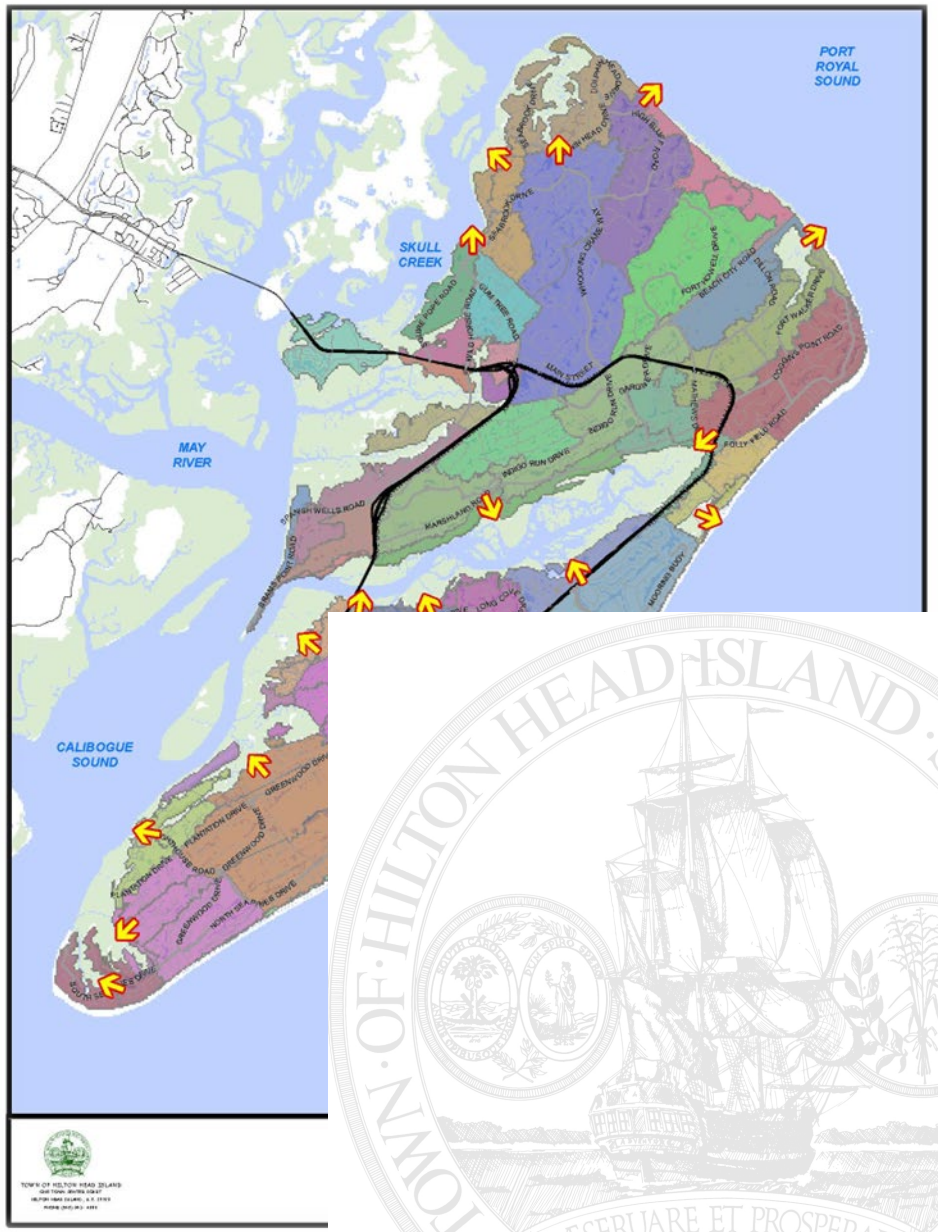
It is to the fortune of our beaches that we have not allowed anthropogenic (man-made) drainage outfalls to the beach areas. Only the natural outfall at the Folly drains to the beach.

The Town has 3 major storm water pump stations that help drain storm water runoff away from the Atlantic beachfront.

The Town has a Storm Water division that manages the public storm water systems on the island and monitors the water quality at the major outfalls.

The Town has development regulations in the LMO requiring retention and detention of storm water runoff.

Lands seaward of the setback line are mostly all well-drained, vegetated, sandy dune areas, with some development encroachments.



Beach Management Plan

Beach Management Authorities

SCDHEC – OCRM

Beachfront Management Act

State and Federal Permitting Agencies

Town of Hilton Head Island

- Land Management Ordinance
  (with the Coastal Protection and Transition Overlay District)
- Town Code

Beach Management Plan

Local Laws and Ordinances

Section 8-1 of the Town Code is known as the “Town of Hilton Head Island Beach Ordinance”
It includes:

- Article 1 – General Provisions (Amended 2022 to extend beach limits)
- Article 2 – Prohibited and Regulated Activities
- Article 3 – Franchising
- Article 4 – Dune Protection
- Article 5 – Abandoned Property (motor vehicles, boats, or other)
- Article 6 – Boats on the Beach

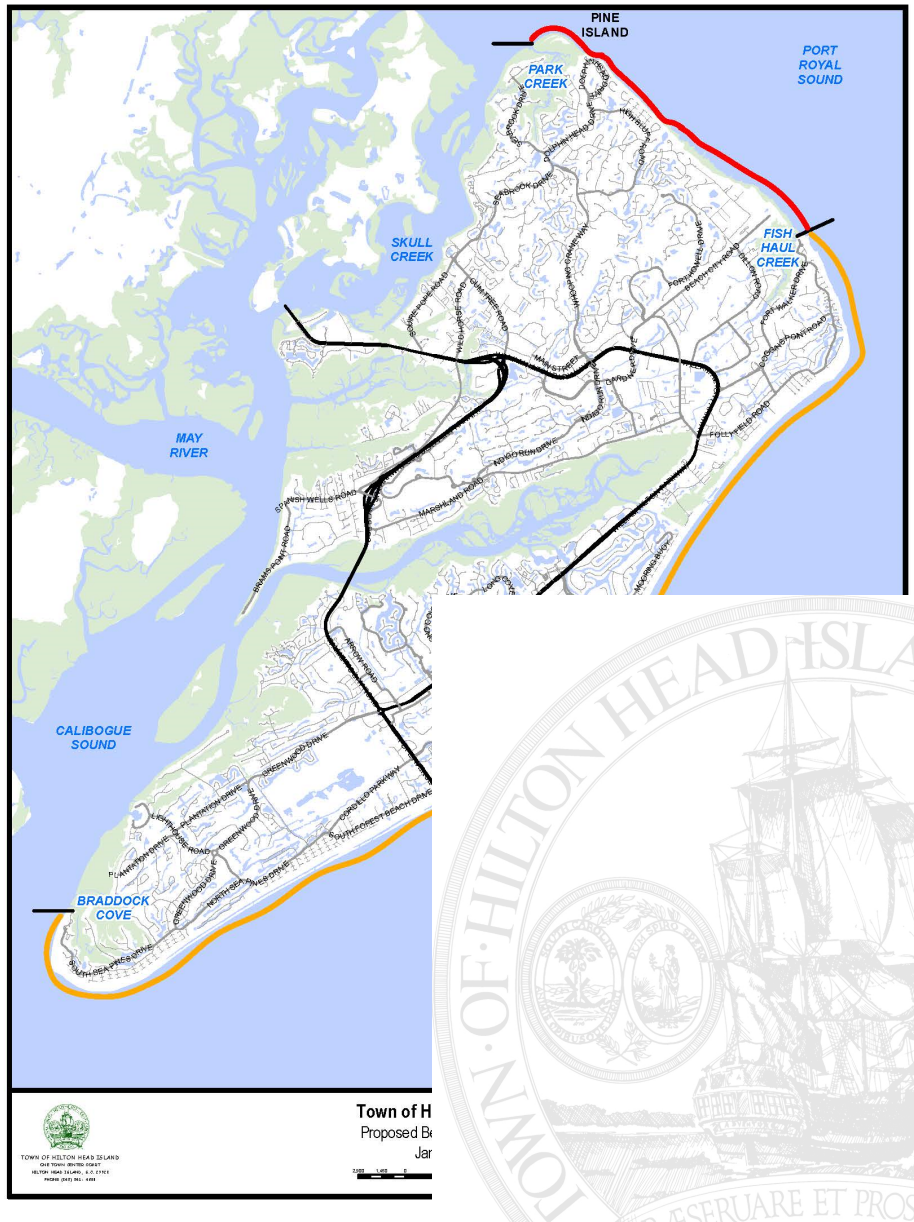
Section 8-5 – Sea Turtle Protection (2021)

Beach Management Plan

Revised Town Beach Limits

In February 2022, the Town extended its beach limits from Fish Haul Creek up to Park Creek.

This added 4.1 miles to the original 14.6 miles of linear beach.



Beach Management Plan

Erosion Control and Management

- Comprehensive Beach Renourishment Program
- Beach Monitoring
- Strategic Stabilization Structures
- Near-Island Sand Sources
- Control Advancement of Seaward Development
- Dune Protections

Benefits of the managed beach program

- Recreational Beach
- Storm Protections
- Environmental Habitat
- FEMA – Public Assistance available to repair damages to the managed beach

Beach Management Plan

Beach Management Plan

Renourishment Program

This is our primary tool for beach preservation and resiliency

1990 Major project along Atlantic beach

1997 Major project along Atlantic beach

1999 Emergency, isolated project in Sea Pines

2007 Major project along Atlantic beach

2011 Small project at the heel (added groin)

2013 Small project (Port Royal Sound)

2016 Major project along Atlantic beach

2017 Emergency, isolated repairs due to Hurricane Mathew

2025 Next Planned Major project

Beach Management Plan

Appendices

The required appendices for the plan are included as shown below:

7.1 Beach Management Overlays

7.2 Inventory of Beachfront Structures

7.3 Public Access Inventory Table

7.4 Prior Studies

7.5 Local Laws and Ordinances

7.6 Beach Management Agencies and Jurisdictions

Beach Management Plan

Needs, Goals, and Implementation Strategies

The Beachfront Management Act clearly states that the policy of the state of South Carolina is to protect, preserve, restore and enhance the beach/dune system.

Beach Preservation and Enhancing Public Beach Access

A. The Town should continue to implement its Capital Improvement Program and Land Acquisition Program to develop, renovate, or expand its beach parks.

B. Continue to hold densities along the beachfront to their current levels or below.

C. Continue to amend and enforce the LMO and Municipal Code as needed to protect beach and dune systems

D. Work with SCDHEC OCRM during the update of the Town's Local Comprehensive Beach Management Plan.

E. Continue to promote environmental education programs and standards that stress protection of fragile areas and wildlife.

F. Coordinate with the Chamber of Commerce in tourism efforts to promote our beach.

G. Work to revise state support for enhanced protection of the beach and dunes system.

H. Provide input to SCDHEC OCRM during the update of the State's Beach Management Plan.

I. Continue to work with oceanfront developments and POA to consider providing public access to the beach opportunities during re-development.

J. Develop methods of increasing public awareness concerning beach access points through better access signage, informational kiosks, directional signage and brochures.

Beach Management Plan

Ongoing Considerations

- Improved public access through better management and expansion of Beach Parking
- Manage erosion through the beach renourishment program
- Climate Adaption and Sea Level Rise – building resiliency into the Beach Renourishment Projects
- Continue to work with SCDHEC-OCRM on regulations, funding opportunities, and beach management program

Beach Management Plan

Recommendation

That the
Community Services and Public Safety Committee endorse the updated Local Comprehensive Beach Management Plan and forward a recommendation to Town Council for adoption.

Questions?