Planning Commission Regular Meeting
July 10, 2024 @ 1:30 PM
Watch Live on YouTube

Seabrook Island Town Hall, Council Chambers
2001 Seabrook Island Road
Seabrook Island, SC 29455

Virtual Participation: Individuals who wish to participate in the meeting via Zoom may call (843) 768-9121 or email kwatkins@townofseabrookisland.org for log-in information prior to the meeting.

AGENDA

1. CALL TO ORDER

2. APPROVAL OF MINUTES

   A. Planning Commission Regular Meeting: May 8, 2024
   B. Planning Commission Regular Meeting: June 12, 2024
   C. Planning Commission Special Called Meeting: June 28, 2024

3. OLD BUSINESS ITEMS

   There are no old business items

4. NEW BUSINESS ITEMS

   A. Review and Discussion of Comprehensive Plan Elements [pages 2 – 44]
      - Natural Resources – First Draft
      - Cultural Resources – First Draft
      - Resilience – First Draft

5. ITEMS FOR INFORMATION OR DISCUSSION

6. ADJOURNMENT
The following legend applies to the entirety of the draft document.

Legend
- **Text highlighted Yellow**: Items for Planning Commission discussion
- **Text highlighted Gray**: Still waiting on updated data
NATURAL RESOURCES ELEMENT

Element Goal

Maintain Seabrook Island’s environmental integrity and natural beauty through the continuation of sustainable actions that ensure that natural systems and built structures protect habitats, create a healthy environment, and promote energy efficiency.

5.1: OVERVIEW

Seabrook Island is a coastal barrier island located in the South Carolina Lowcountry between Johns Island and the Atlantic Ocean. The island is surrounded by saltwater bodies and marshes: to the north is Bohicket Creek and its marshes, to the south is the Atlantic Ocean, to the east is Kiawah River and its marshes, and to the west is the North Edisto River. The Island has a rich variety of maritime habitats and scenic natural resources that include miles of beach, a broad salt marsh with tidal creeks, freshwater wetlands, and extensive maritime forest and shrub thickets.

Human impact has played a large role in the quantity and quality of natural resources on Seabrook Island. Even prior to Spanish exploration in the 1500’s and English settlement in the 1600’s, native American Indians cleared lands in the Lowcountry to grow maize and other crops. While the Spanish were in search of gold and moved on, the English had a stronger appreciation for working the land agriculturally. English Lord Proprietors of Carolina received their charter from King Charles II of England in 1663, and accepted a collective land grant from the king that encompassed over 850,000 square miles extending from Virginia to Spanish Florida. In the Lowcountry, Native Americans welcomed the English settlement that followed, even showing them how to live off the land. While rice and indigo were the common crops in surrounding areas, Seabrook Island was transformed into a sea-island cotton plantation. Cotton production on the island remained lucrative until the Civil War, however after the war cotton production declined. Seabrook Island then gradually reforested into the ecosystem found on the island today: a maritime forest of pines, live oaks, hickories, magnolias, sweetgums and palmettos, surrounded by saltwater wetlands, dune fields and sandy beaches.

Today, while most of the geographic Seabrook Island is in the incorporated Town, a large majority is also within the Seabrook Island Development (SID). The SID is a planned unit development that is a gated and privately managed community with a private club, a church/environmental camp operated by the Episcopal Diocese of South Carolina, and SIPOA. The SIPOA provides many of the community services and facilities typically provided by local government. The area of the Town not within the SID includes several parcels “outside the gates”, and flanking the only land-based access to the SID. Through decades of environmentally conscious leadership, Seabrook Island has successfully maintained a spectacular range of wildlife and a thriving ecosystem, while providing its residents and visitors with a wonderful array of both human-inspired and nature-based amenities and activities.

5.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

With regard to development, the vast majority of Seabrook Island is substantially “built out”. The island has retained much of its rich natural resources thanks to an environmentally conscious regulatory structure provided through Town and SIPOA governing documents.

Town of Seabrook Island Governing Documents. As required by the South Carolina Local Government Comprehensive Planning Enabling Act, the Town’s Code, Development Standard Ordinance (DSO), and Zoning Map shall implement, and remain consistent with this Town of Seabrook Island Comprehensive Plan. The DSO is the primary document guiding development within the Town, and
does so “in accordance with existing and future needs, and in order to protect, promote and improve the public health, safety, morals, convenience, order, appearance, prosperity and general welfare: to preserve the environmental character of the Town of Seabrook Island; and to facilitate the timely and adequate provision of water, sewage disposal and other utility services, parks and other public requirements.”

Seabrook Island Property Owners Association Governing Documents. Most recently modified in February 2017, the Protective Covenants for Seabrook Island Development state that each property owner in the SID “becomes a member of SIPOA with voting rights as set forth in the Bylaws of SIPOA and obligations as set forth in these Protective Covenants and their derivative rules and regulations”. The covenants further declare that “the purpose and business of SIPOA is to preserve the property values and the quality of life in the SID through development and implementation of programs to protect the environment, to facilitate acquisition and maintenance of green space, and to provide for the health, safety, security and welfare of property owners”. Additional SIPOA responsibilities that contribute to the preservation of Seabrook Island’s natural resources include a continual update and enforcement of the SIPOA Rules and Regulations Handbook, a security force of commissioned code enforcement officers, multiple all-volunteer special interest groups, and ten standing committees, including an architectural review committee, environmental committee and planning committee.

Other Documents Promoting Environmental Sustainability. There are additional documents and studies related, at least in part, to environmental protection. These documents and studies are sanctioned by the Town, SIPOA, or both, and either serve as regulatory documents in and of themselves, or contribute to the principles and content of the Town and/or SIPOA’s regulatory structure. Below is a list of the Primary and Secondary Seabrook Island Natural Resource Preservation Documents. These documents directly or indirectly promote the preservation of Seabrook Island’s natural resources.

Primary Documents:
- The Comprehensive Beach Management Plan (Town); and
- The Comprehensive Emergency Plan (Town).

Secondary Documents:
- The SIPOA Architectural Review Committee’s Policies and Procedures for Residential Development (SIPOA);
- The Lake Management Plan (SIPOA);
- The Deer Management Program (SIPOA);
- Stormwater System Rehabilitation Plan (SIPOA);
- Backyard Buffers for the South Carolina Lowcountry (SIPOA);
- The Sustainable Community Baseline Report & Site Assessment (SIPOA); and
- Protective Covenants, Rules and Regulations (SIPOA and Condo, Villa and Neighborhood Regimes).

Seabrook Island Green Space Conservancy. In 2000, this Section 501(c)(3) charitable organization began as a response to the SIPOA Board of Directors concern over the permanent loss of green space and wildlife habitat resulting from the “build out” of Seabrook Island. The Conservancy’s objective is to identify, for potential acquisition, high visibility properties that preserve substantial green space and wildlife habitat. These properties, once acquired by the Conservancy through charitable donations, bargain sales, or traditional purchase procedures, are transferred, by deed, to SIPOA for permanent preservation and maintenance as green space. The properties are also rezoned to Agriculture – Conservation, and are inspected annually by the Conservancy and the SIPOA Environmental Committee to insure compliance with the green space provisions in the transferring the property to SIPOA.
According to the Conservancy’s website, a total of 24 acres, or 1 percent of Seabrook Island, has become property that will remain green space in perpetuity through the actions of the Conservancy and donors.

**Beach and Dune Preservation**

Oceanfront beach and dunes serve several important functions. These include storm protection for upland areas, habitat for a variety of plant and animal species, nesting habitat for sea turtles and recreation for Town residents, property owners and visitors. The management and preservation of Seabrook Island’s beaches and dunes is a continual process, and a recent comprehensive update to the 20-plus year old beach management plan has given the Town, SIPOA, SIC, and the St. Christopher Camp and Conference Center (the “Camp”) a better understanding of the issues and needs, and a clear and purposeful set of goals and implementation strategies.

Seabrook Island Town Council adopted the 2014 Update of their Comprehensive Beach Management Plan (referred to hereafter as the “BMP”) on December 176, 2014. The BMP is a complete revision of the Town’s original Beach Management Plan adopted in 1992. The BMP is consistent with the South Carolina State Beachfront Management Act and was updated in accordance with the guidelines provided by the South Carolina Department of Health and Environmental Control’s Office of Ocean and Coastal Resources Management. The BMP was a joint effort from the Town of Seabrook Island leadership and staff, the SIPOA, SIC, and the Camp. The BMP cites Dr. Tim Kana, founder and president of (Coastal Science and Engineering), Dr. Patrick Barrineau (Coastal Science and Engineering), and Robert Driscoll (Town Planning Commission) as the primary authors. The BMP represents a comprehensive analysis of the island’s beach management, including a full review of all Seabrook Island Coastal Erosion Studies and Annual Beach Monitoring Surveys, many of which were conducted over decades of research by the primary author cited above. This Natural Resources Element acknowledges by reference, the findings, needs, goals and implementation strategies contained within the above referenced 2014 Update of the Town of Seabrook Island Beach Management Plan.

While it is not within the context of this Natural Resources Element to fully describe the BMP, a brief overview of its structure and recommendations is warranted. The BMP is a technical document that comprehensively describes all aspects of beach management regarding Seabrook Island in seven detailed sections:

- **Section 1 Introduction** - describes the purpose and history of the plan, an overview of the municipality and history of beach management practices, and a summary of the current beach management issues impacting Seabrook Island’s coastline;
- **Section 2 Inventory of Existing Conditions** - provides an inventory of existing conditions, including general characteristics of the beach and beachfront structures, and a description of the current state of the shoreline as a natural resource with ecological habitats;
- **Section 3 Beachfront Drainage Plan** - describes the surface drainage patterns of land along the island’s beachfront;
- **Section 4 Beach Management and Authorities** - includes a thorough description of beach management, and a thorough summary of the multiple authorities that regulate and enforce beach development, shoreline protection, and other regulations regarding the island’s beach management;
Chapter 5 - Natural Resources Element

- **Section 5 Erosion Control Management** – cites numerous previous coastal erosion studies to support a discussion on shoreline change analysis, then provides an inventory of beach alterations, including previous beach renourishments and various “soft engineering” solutions conducted over the past 30 years, and ends with a discussion of future erosion control alternatives;

- **Section 6 Needs, Goals and Implementation Strategies** – includes a strategy for preserving and enhancing public beach access and description of the three components of the Town’s “retreat strategy” (the creation of a stable or accreting beachfront that is compatible with the State’s retreat policy):
  1) The relocation of Captain Sams Inlet to support the continued migration of sand down the coast from Kiawah Island;
  2) Maintaining a “shelf” down to and around the corner of the Edisto River inlet to continue renourishment of the Edisto River shoreline of Seabrook Island; and
  3) Supplementing the first two components by sand scraping from sections of excess accretion along the north shore of the island and moving that sand to the south beach area.

- **Section 7 Appendix** – includes much of the technical data referenced in the previous sections of the BMP.

It should be noted that in May 2015, Seabrook Island, with the cooperation of federal, state, and local authorities and utilizing SIPOA funds, relocated Captain Sam’s Creek using scientific island inlet relocation methodology. The environmentally-friendly significance of allowing the inlet to migrate naturally over a designated inlet conservation zone, as opposed to stabilizing the inlet itself or heavily armoring the shoreline, led to the American Shore and Beach Preservation Association (ASBPA) awarding the 2016 Best Restored Beach Award to Seabrook Island.

**Maritime Forest Preservation**

Inland from the beaches and dunes described in the previous section, the interior of Seabrook Island is dominated by a maritime forest ecosystem. As described in the introductory section of this chapter, soon after the Civil War, the sea-island crops that had dominated much of the Seabrook Island landscape since colonial times were abandoned, allowing land on the island to naturally and gradually reforest. Many years later, the forward thinking conservation efforts of early SID leaders has resulted in many of the beautiful characteristics of the maritime forest ecosystem to still remain today.

As noted in the BMP, barrier islands such as Seabrook Island are comprised of habitats that are characterized to varying degrees by instability. The habitat providing the greatest stability is a maritime forest, which is a natural vegetation unique to many parts of the coastal Lowcountry, and more formally identified as the Atlantic Maritime Forest. Within this forest, the tree canopy is dominated by southern live oak (Quercus virginiana), laurel oak (Q. laurifolia), southern magnolia (Magnolia grandiflora), and loblolly pine (Pinus taeda). Conspicuous understory plants include sabal palmetto (Sabal palmetto), southern red cedar (Juniperus silicicola), and yaupon holly (Ilex vomitoria) among others. The maritime forest forms the relatively stable core of Seabrook Island that has endured over long periods of time, as opposed to the maritime shrub thickets, saltwater wetlands, dune fields, and sand beaches that become progressively less stable over time.

The Seabrook Island environment as a whole, and the maritime forest in particular, play an important role in the design of a new home, and this is emphasized throughout the Seabrook Island
Architectural Review Committee’s Policies and Procedures manual. The manual’s opening paragraph under the section entitled Design Guidelines for New Single-Family Residences illustrates this emphasis well:

“The sea island environment of Seabrook creates opportunities to design residences which incorporate the natural characteristics of the property, its surrounding environment, and the island into the design. Those residential designs which respond to the nature and character of the individual property become a positive contribution to the island by maintaining the maritime forest and landscape, while at the same time allowing for the residence to take full advantage of its views and surrounding environment. Residential designs which respect and complement the natural surroundings are the most successful designs.”

Wildlife on Seabrook Island
As noted in the Sustainable Community Baseline report and Site Assessment, approximately 33 percent of Seabrook Island is devoted to legally protected green space (22 acres including beach trust), recreational green spaces (horse pasture, golf courses, trails), wetlands, dry beach/dunes, maritime forest (200 acres in Camp St. Christopher), or undeveloped lots (150 acres). This provides an excellent habitat for a diverse mix of flora and fauna.

While the maritime forest, maritime shrub thicket, and even the dune fields provide the ideal habitat for many land animals including deer, fox, squirrel, bobcat, and coyote, the island’s tidal creeks and marshes serve as nurseries and food sources for a myriad of salt water species, from microscopic to huge herons, pelicans, raptors, and dolphins.

A webpage created by SIPOA and dedicated to Seabrook Island Wildlife can be accessed from either the Town’s website or the Discover Seabrook website maintained by the SIC and SIPOA. The webpage provides information on the many mammals, birds, fish, reptiles and insects that call Seabrook Island or its surrounding waters home. The webpage also provides direct links to documents of interest, such as the SIPOA Deer Management Program, special informational pages, such as information on dolphin strand feeding, and additional links to SIPOA special interest groups, such as the Seabrook Island Birders Group and the Seabrook Island Turtle Patrol. Much of the following information describing the abundant Seabrook Island wildlife has been extracted from this webpage.

Mammals on Seabrook Island. Mammals are abundant on Seabrook Island, and thanks to preservation efforts they are able to thrive in their native habitat while safely coexisting in close proximity to humans.
Larger mammals found on Seabrook Island or the adjacent waters include:

- Bobcats (Lynx rufus);
- Coyotes (Canis latrans);
- Gray fox (Urocyon cinereoargenteus);
- White-tailed deer (Odocoileus virginianus);
- Bottlenose dolphins (Tursiops truncatus); and
- Wild turkey (Meleagris gallopavo).

The smaller mammals found on Seabrook Island include:

- Raccoon (Procyon lotor);
- Virginia Opossum (Didelphis virginiana);
- Northern river otter (Lontra canadensis);
- Marsh rice rat (Oryzomys palustris); and
- Southern flying squirrel (Glaucomys volans).

Birds on (or above) Seabrook Island. The Seabrook Island Birders are a very active SIPOA Special Interest Group always open to new volunteers and enthusiasts. The group maintains a very informational webpage that includes brochures, a gallery, calendar, list of activities, contact information, and a drop down menu entitled “All About Birds” that includes external links, bird checklists, Apps for birders, and more. The Check List of the Seabrook Island Birds, available for download from the group’s webpage, lists hundreds of birds and the location of birding hotspots on Seabrook Island.

Fish on Seabrook Island. Fish found on Seabrook Island or off its coast include freshwater fish stocked in Palmetto Lake, as well as the saltwater fish found in the adjacent ocean and rivers surrounding the island. Largemouth bass, bluegill, sterile grass carp, and channel catfish are stocked at Palmetto Lake, adjacent to the SIPOA Lakehouse. Saltwater fish include Atlantic Croaker, Red Drum, Blackdrum, Southern Flounder, Spotted Seatrout, and Sheephead. Fishing charters and offshore fishing are available at the Bohicket Marina and Market.

Seabrook Island Reptiles, Amphibians, and Snakes. There are numerous reptiles, amphibians, and snakes calling Seabrook Island home. These include frogs and toads; salamanders and skinks; turtles and terrapins; the American Alligator; and numerous venomous and non-venomous snakes.

A very active and dedicated SIPOA special interest group is the Seabrook Island Turtle Patrol. The Turtle Patrol’s mission, as stated on their website, is “to protect and preserve the sea turtles that visit Seabrook Island beaches through identification and protection of nests, inventory of nests, data collection, and education of island residents and visitors”.

Checklist of the Seabrook Island Birds
Source: www.seabrookislandbirders.org
Wildlife Protection. Protection of the abundant wildlife on Seabrook Island comes in many forms. The first two sections of this chapter detail beach management and maritime forest management, and under both management efforts the unique habitats preserved provide food, shelter, and safety for much of the wildlife listed in this section. Continuation and enhancement of these management efforts is the primary wildlife protection tool available to the Town of Seabrook Island.

In addition, many volunteers are actively involved in wildlife protection. While some serve preservation-related SIPOA committees, such as the Architectural Review Committee, the Environmental Committee, and the Planning Committee, others remain active in wildlife protection-related SIPOA special interest groups, such as the Seabrook Island Birders Club, the Seabrook Island Natural History Group, and the Seabrook Island Turtle Patrol.

The Town’s DSO, and several documents created under SIPOA, also explicitly or inherently protect wildlife. For example, the rezoning review criteria in Section 20.40.10 of the Town’s DSO requires consideration of the effect of the proposed rezoning “on environmentally sensitive land or natural features, wildlife habitat, vegetation, and water and air quality”. Similarly, Section VI.A. of the SIPOA Rules and Regulations require all members to follow specific procedures to ensure protection of vegetation, stating that “the grassy dunes, maritime forests, and wetlands of Seabrook Island provide food, cover, and nesting for wildlife”. Finally, several other SIPOA documents are specifically written with wildlife protection in mind, including a Deer Management Plan and informational brochures providing tips for helping Loggerhead Turtles.

Natural Hazards
As evidenced in recent years, the Charleston area is no stranger to the recurrent burden of flooding and threats of hurricanes. In addition, the Charleston region lies within one of the most seismically active areas in the Eastern United States. As a coastal community, Seabrook Island’s housing stock, infrastructure, and topography itself is vulnerable to threats associated with flooding, storm surges, hurricanes, sea level rise, and earthquakes.

Flooding is the most frequent and costly natural hazard in the United States. On Seabrook Island, the most common types of flooding are rain events, tidal, and storm surges. Other issues that enhance the effects and extent of flooding are sea level rise and climate change.

Rain-Event Flooding. Rain-event flooding can be classified by severe rain events, whether associated with tropical weather or not, that cause major flooding in areas that may not have experienced flooding in prior years. Like tidal flooding, these big rain events are exacerbated by a combination of several factors that result in widespread flooding, including king tides, sea level rise, drainage issues, and storm surges.
Charleston County experienced flooding as a result of continual rain lasting several days in 2015 that caused extensive damage and shut down businesses for days. The storm drainage systems could not handle the amount of rain that fell in the area, and because there was no break in the rain, the drainage systems had no time to recover. In addition, the storm hit during high tide, adding more stress to the already aggravated system.

**Tidal Flooding.** Tidal flooding, also called nuisance flooding, can shutdown areas of Seabrook Island for hours or days. Sea level rise leads to increases in tidal flooding. Rising seas means higher tides, and more frequent king tides, which are now an issue to formerly non-flood-prone areas. Frequent road closures, property damage, loss of business, and potentially hazardous conditions leave areas affected by tidal flooding in a state of uncertainty all too often. Sea level rise will continue to be a more frequent issue to all coastal areas within the County, and time is of the essence to study and make modifications to alleviate some of the effects that this will have on Seabrook Island. This not only impacts the ability for area residents to get to and from their homes, but also has a large impact on continuity of services for business operations, safety services, including access to area hospitals, and the general functioning of the area and its residents on a normal day-to-day level.

**King Tides.** In November of 2018 resulted in the sixth highest tide on record, leading to several road closures and flooding on a perfectly sunny day. Instances like these are becoming more and more common, and Seabrook Island needs to plan for ways to protect and prepare the community.

**Storm Surge.** Storm surge is the rise of water level that occurs as a result of high winds pushing onto the coast due to tropical conditions. In combination with regular tides, storm surge can cause significant flooding in coastal areas, and is exasperated depending on the intensity of the storm. Some problems that storm surge cause include: inland flooding, flooding in advance of a storm, dangerous debris carried by waves, severe beach erosion, and significant property damage.

Advancements in mapping have provided flood inundation maps to inform citizens of potential flood impacts during different categories of storm events where a citizen can simply type in their address on a webpage and have a visual reference of where flooding can occur around them. These tools are very helpful when planning and preparing for an event. It is important to note, however, that storm surge is merely one element of total water level rise, with tides, waves, and freshwater flow making up the other components.

**Hurricanes.** Records dating back to the 1600’s indicate there were about 43 tropical cyclones in Charleston County before official records were started in 1851. Since then, an additional 41 tropical systems: 25 hurricanes, 10 tropical storms, and six tropical depressions, have hit or affected the Charleston region (NOAA). Seabrook Island remains vulnerable to hurricanes and tropical weather, and there is potential for this threat to increase with climate change and warming seas. Hurricanes pose many threats to the area, including wind, rainfall, and storm surge. In addition, tides can also have a major effect on the extent of hurricane-related flooding.

In 2016, the area was hit by Hurricane Matthew, which made landfall near McClellanville, SC as a Category 1 Hurricane. The storm dumped nearly a foot of rain on parts of the County, and the combination of a six-foot storm surge and strong winds led to extensive damage along the coast, despite hitting the area during a relatively low tide. Matthew resulted in water levels three to five feet higher than normal astronomical tides.

In 2017, Seabrook Island felt the effects of Hurricane Irma, which had weakened to a tropical storm before Seabrook Island felt its effects. Tropical Storm Irma swept through Charleston during an extremely high tide, resulting in a peak storm tide recorded at almost 10 feet in the Charleston Harbor, the third highest on record in Charleston County.
Sea Level Rise. Sea level rise is the result of two major causes: the thermal expansion caused by warming of the ocean and increased melting of land-based ice (NOAA). The current global rate of rise is about one-eighth of an inch per year, and scientists are confident that the global mean sea level will rise from 8 inches to 6.6 feet by the year 2100 (NOAA, Climate.gov). Global sea level trends and local sea level trends are different measurements; the sea level is not changing at the same rate across all regions of the ocean. Sea level rise at specific locations may vary from the global average due to many local factors such as: land subsidence from natural processes and withdrawal of groundwater and fossil fuels; upstream flood control; erosion; changes in regional ocean currents; variations in land height; and whether the land is still rebounding from the compressive weight of Ice Age glaciers. NOAA estimates the rate at which sea levels are rising in South Carolina has been increasing, and is now around one inch of rise every two years.

Earthquakes. Although Seabrook Island has not had a major damaging earthquake, they regularly occur in South Carolina, and there have been several small scale earthquakes nearby, mainly clustered around Summerville. Additionally, Seabrook Island lies within a "high potential for liquefaction" area. Liquefaction is the transformation of loosely packed sediment or cohesion-less soil to a liquid state, as a result of increased pore fluid pressure and reduced effective stress, and it is caused by the ground shaking during an earthquake.

Community Resilience
Charleston County defines resilience as the ability of a community to respond, adapt, and thrive under changing conditions, including, but not limited to, recurrent burdens and sudden disasters.

The Town of Seabrook Island has numerous existing tools and protective measures already in place that contribute to resilience. As detailed in the Community Facilities Element of this Comprehensive Plan, the Town, SIPOA, and other Seabrook Island entities and residents have addressed emergency preparedness and disaster response through a Comprehensive Emergency Plan, Disaster Recovery Council, a volunteer Community Emergency Response Team, and the preparation of an Emergency Preparedness Homepage on the Town’s website. Additionally, the Town’s Development Standards Ordinance Article 9.0 sets specific Environmental Performance Standards for sensitive areas.

The Town should continue to utilize the best available data, findings, strategies, and plans to develop a community resilience plan that identifies the potential impacts and appropriate mitigation efforts necessary to improve the Seabrook Island community’s resilience to hazards and changing conditions. This should not be a static plan, but rather a plan that is periodically updated to address changing conditions and include the most recent data, findings, and strategies available.

5.3: NATURAL RESOURCES ELEMENT GOAL

Element Goal
Maintain Seabrook Island’s environmental integrity and natural beauty through the continuation of sustainable actions that ensure that natural systems and built structures protect habitats, create a healthy environment, and promote energy efficiency.

Natural Resources Element Needs

- As the Town is further developed, an increasing amount of the Island’s natural habitat is taken away;
- Development also removes the connectivity between natural habitats, putting stress on the Island’s wildlife to find alternate routes to move around the Island;
Continued monitoring and research of the island’s ecosystems, and the wildlife species they support, in order to best prepare and revise current and future preservation studies, regulations, policies and procedures; and

Best available data should be taken into account when planning new developments or other projects;

- Determine areas that are at a high risk for natural hazards, evaluate development intensity regulations for these areas, and prioritize projects in these areas;

- Strengthen the Town’s partnerships with surrounding jurisdictions in order to combat natural hazard issues that cross jurisdictional boundaries;

- Educate the public about their role in building resilience;

- Encourage property owners and the island entities to eliminate existing invasive plant species and discourage future use of these plants; and

- As they are the Island’s key natural resources, the beach, and dunes must be maintained and protected.

5.4: NATURAL RESOURCES ELEMENT STRATEGIES AND TIMEFRAMES

The Town should undertake the following strategic actions in support of the Vision and Goals of this Plan. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

1. Continue to pursue the goals and support and promote the implementation of strategies contained in Section 6 of the Town of Seabrook Island Comprehensive Beach Management Plan.

2. Complete the Island’s development in a way that maintains the Island’s environmental integrity and natural beauty and is consistent with the Vision of the Town.

3. Continue to maintain the existing quality of the natural resources on Seabrook Island, as well as the waters and marine environment surrounding the Island.

4. Maintain, expand, and support public education, outreach programs, and natural resource preservation volunteer groups.

5. Continue to support the strategies and recommendations included in the Primary and Secondary Seabrook Island Natural Resource Preservation Documents listed in Section 5.2, Background and Inventory of Existing Conditions, of this Natural Resources Element.

6. Identify and pursue amendments to existing Town policies and regulations to improve the Town’s resilience towards long-term stresses and acute disasters, using the best available data to inform decisions.

7. Work with adjacent jurisdictions to secure funding to perform a regional vulnerability, risk, and resilience assessment and watershed assessment.

8. Develop, adopt, and implement a Drainage Master Plan in coordination with adjacent jurisdictions.

9. Amend applicable Town ordinances to meet the Community Rating System (CRS) standards not currently addressed by the Town.
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Chapter 5 - Natural Resources Element

NATURAL RESOURCES ELEMENT

Element Goal
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Human impact has played a large role in the quantity and quality of natural resources on Seabrook Island. Even prior to Spanish exploration in the 1500’s and English settlement in the 1600’s, native American Indians cleared lands in the Lowcountry to grow maize and other crops. While the Spanish were in search of gold and moved on, the English had a stronger appreciation for working the land agriculturally. English Lord Proprietors of Carolina received their charter from King Charles II of England in 1663, and accepted a collective land grant from the king that encompassed over 850,000 square miles extending from Virginia to Spanish Florida. In the Lowcountry, Native Americans welcomed the English settlement that followed, even showing them how to live off the land. While rice and indigo were the common crops in surrounding areas, Seabrook Island was transformed into a sea-island cotton plantation. Cotton production on the island remained lucrative until the Civil War, however after the war cotton production declined. Seabrook Island then gradually reforested into the ecosystem found on the island today; a maritime forest of pines, live oaks, hickories, magnolias, sweetgums and palmettos, surrounded by saltwater wetlands, dune fields and sandy beaches.

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With regard to development, the vast majority of Seabrook Island is substantially “built out”. The island has retained much of its rich natural resources thanks to an environmentally conscious regulatory structure provided through Town and SIPOA governing documents.

Town of Seabrook Island Governing Documents. As required by the South Carolina Local Government Comprehensive Planning Enabling Act, the Town’s Code, Development Standard Ordinance (DSO), and Zoning Map shall implement, and remain consistent with this Town of Seabrook Island Comprehensive Plan. The DSO is the primary document guiding development within the Town and
does so “in accordance with existing and future needs, and in order to protect, promote and improve the public health, safety, morals, convenience, order, appearance, prosperity and general welfare: to preserve the environmental character of the Town of Seabrook Island; and to facilitate the timely and adequate provision of water, sewage disposal and other utility services, parks and other public requirements.”

Seabrook Island Property Owners Association Governing Documents. Most recently modified in February 2017, the Protective Covenants for Seabrook Island Development state that each property owner in the SID “becomes a member of SIPOA with voting rights as set forth in the Bylaws of SIPOA and obligations as set forth in these Protective Covenants and their derivative rules and regulations”. The covenants further declare that “the purpose and business of SIPOA is to preserve the property values and the quality of life in the SID through development and implementation of programs to protect the environment, to facilitate acquisition and maintenance of green space, and to provide for the health, safety, security and welfare of property owners”. Additional SIPOA responsibilities that contribute to the preservation of Seabrook Island’s natural resources include a continual update and enforcement of the SIPOA Rules and Regulations Handbook, a security force of commissioned code enforcement officers, multiple all-volunteer special interest groups, and ten standing committees, including an architectural review committee, environmental committee and planning committee.

Other Documents Promoting Environmental Sustainability. There are additional documents and studies related, at least in part, to environmental protection. These documents and studies are sanctioned by the Town, SIPOA, or both, and either serve as regulatory documents in and of themselves or contribute to the principles and content of the Town and/or SIPOA’s regulatory structure. Below is a list of the Primary and Secondary Seabrook Island Natural Resource Preservation Documents. These documents directly or indirectly promote the preservation of Seabrook Island’s natural resources.

Primary Documents:
- The Comprehensive Beach Management Plan (Town); and
- The Comprehensive Emergency Plan (Town).

Secondary Documents:
- The SIPOA Architectural Review Committee’s Policies and Procedures for Residential Development (SIPOA);
- The Lake Management Plan (SIPOA);
- The Deer Management Program (SIPOA);
- Stormwater System Rehabilitation Plan (SIPOA);
- Backyard Buffers for the South Carolina Lowcountry (SIPOA);
- The Sustainable Community Baseline Report & Site Assessment (SIPOA); and
- Protective Covenants, Rules and Regulations (SIPOA and Condo, Villa and Neighborhood Regimes).

Seabrook Island Green Space Conservancy. In 2000, this Section501(c)(3) charitable organization began as a response to the SIPOA Board of Directors concern over the permanent loss of green space and wildlife habitat resulting from the “build out” of Seabrook Island. The Conservancy’s objective is to identify, for potential acquisition, high visibility properties that preserve substantial green space and wildlife habitat. These properties, once acquired by the Conservancy through charitable donations, bargain sales, or traditional purchase procedures, are transferred, by deed, to SIPOA for permanent preservation and maintenance as green space. The properties are also rezoned to Agriculture – Conservation and are inspected annually by the Conservancy and the SIPOA Environmental Committee to insure compliance with the green space provisions in the transferring the property to SIPOA.
According to the Conservancy’s website, a total of 24 acres, or 1 percent of Seabrook Island, has become property that will remain green space in perpetuity through the actions of the Conservancy and donors.

**Beach and Dune Preservation**

Oceanfront beach and dunes serve several important functions. These include storm protection for upland areas, habitat for a variety of plant and animal species, nesting habitat for sea turtles and recreation for Town residents, property owners and visitors. The management and preservation of Seabrook Island’s beaches and dunes is a continual process, and a recent comprehensive update to the 20-plus year old beach management plan has given the Town, SIPOA, SIC, and the St. Christopher Camp and Conference Center (the “Camp”) a better understanding of the issues and needs, and a clear and purposeful set of goals and implementation strategies.

Seabrook Island Town Council adopted the 2019 Update of their Comprehensive Beach Management Plan (referred to hereafter as the “BMP”) on December 17, 2019. The BMP is a complete revision of the Town’s original Beach Management Plan adopted in 1992. The BMP is consistent with the South Carolina State Beachfront Management Act and was updated in accordance with the guidelines provided by the South Carolina Department of Health and Environmental Control’s Office of Ocean and Coastal Resources Management. The BMP was a joint effort from the Town of Seabrook Island leadership and staff, the SIPOA, SIC, and the Camp. The BMP cites Dr. Tim Kana, (Coastal Science and Engineering), Dr. Patrick Barrineau (Coastal Science and Engineering), and Robert Driscoll (Town Planning Commission) as the authors. The BMP represents a comprehensive analysis of the island’s beach management, including a full review of all Seabrook Island Coastal Erosion Studies and Annual Beach Monitoring Surveys, many of which were conducted over decades of research. This Natural Resources Element acknowledges by reference, the findings, needs, goals and implementation strategies contained within the above referenced 2014 Update of the Town of Seabrook Island Beach Management Plan.

While it is not within the context of this Natural Resources Element to fully describe the BMP, a brief overview of its structure and recommendations is warranted. The BMP is a technical document that comprehensively describes all aspects of beach management regarding Seabrook Island in seven detailed sections:

- **Section 1 Introduction** - describes the purpose and history of the plan, an overview of the municipality and history of beach management practices, and a summary of the current beach management issues impacting Seabrook Island’s coastline;
- **Section 2 Inventory of Existing Conditions** - provides an inventory of existing conditions, including general characteristics of the beach and beachfront structures, and a description of the current state of the shoreline as a natural resource with ecological habitats;
- **Section 3 Beachfront Drainage Plan** - describes the surface drainage patterns of land along the island’s beachfront;
- **Section 4 Beach Management and Authorities** - includes a thorough description of beach management, and a thorough summary of the multiple authorities that regulate and enforce beach development, shoreline protection, and other regulations regarding the island’s beach management;
• **Section 5 Erosion Control Management** – cites numerous previous coastal erosion studies to support a discussion on shoreline change analysis, then provides an inventory of beach alterations, including previous beach renourishments and various “soft engineering” solutions conducted over the past 30 years, and ends with a discussion of future erosion control alternatives;

• **Section 6 Needs, Goals and Implementation Strategies** – includes a strategy for preserving and enhancing public beach access and description of the three components of the Town’s “retreat strategy” (the creation of a stable or accreting beachfront that is compatible with the State’s retreat policy):

  1) The relocation of Captain Sams Inlet to support the continued migration of sand down the coast from Kiawah Island;

  2) Maintaining a “shelf” down to and around the corner of the Edisto River inlet to continue renourishment of the Edisto River shoreline of Seabrook Island; and

  3) Supplementing the first two components by sand scraping from sections of excess accretion along the north shore of the island and moving that sand to the south beach area.

• **Section 7 Appendix** – includes much of the technical data referenced in the previous sections of the BMP.

It should be noted that in May 2015, Seabrook Island, with the cooperation of federal, state, and local authorities and utilizing SIPOA funds, relocated Captain Sam’s Creek using scientific island inlet relocation methodology. The environmentally friendly significance of allowing the inlet to migrate naturally over a designated inlet conservation zone, as opposed to stabilizing the inlet itself or heavily armoring the shoreline, led to the American Shore and Beach Preservation Association (ASBPA) awarding the 2016 Best Restored Beach Award to Seabrook Island.

**Maritime Forest Preservation**

Inland from the beaches and dunes described in the previous section, the interior of Seabrook Island is dominated by a maritime forest ecosystem. As described in the introductory section of this chapter, soon after the Civil War, the sea-island crops that had dominated much of the Seabrook Island landscape since colonial times were abandoned, allowing land on the island to naturally and gradually reforest. Many years later, the forward thinking conservation efforts of early SID leaders has resulted in many of the beautiful characteristics of the maritime forest ecosystem to still remain today.

As noted in the BMP, barrier islands such as Seabrook Island are comprised of habitats that are characterized to varying degrees by instability. The habitat providing the greatest stability is a maritime forest, which is a natural vegetation unique to many parts of the coastal Lowcountry, and more formally identified as the Atlantic Maritime Forest. Within this forest, the tree canopy is dominated by southern live oak (Quercus virginiana), laurel oak (Q. laurifolia), southern magnolia (Magnolia grandiflora), and loblolly pine (Pinus taeda). Conspicuous understory plants include sabal palmetto (Sabal palmetto), southern red cedar (Juniperus silicicola), and yaupon holly (Ilex vomitoria) among others. The maritime forest forms the relatively stable core of Seabrook Island that has endured over long periods of time, as opposed to the maritime shrub thickets, saltwater wetlands, dune fields, and sand beaches that become progressively less stable over time.

The Seabrook Island environment as a whole, and the maritime forest in particular, play an important role in the design of a new home, and this is emphasized throughout the Seabrook Island
Architectural Review Committee’s Policies and Procedures manual. The manual’s opening paragraph under the section entitled Design Guidelines for New Single-Family Residences illustrates this emphasis well:

“The sea island environment of Seabrook creates opportunities to design residences which incorporate the natural characteristics of the property, its surrounding environment, and the island into the design. Those residential designs which respond to the nature and character of the individual property become a positive contribution to the island by maintaining the maritime forest and landscape, while at the same time allowing for the residence to take full advantage of its views and surrounding environment. Residential designs which respect and complement the natural surroundings are the most successful designs.”

Wildlife on Seabrook Island

As noted in the Sustainable Community Baseline report and Site Assessment, approximately 33 percent of Seabrook Island is devoted to legally protected green space (22 acres including beach trust), recreational green spaces (horse pasture, golf courses, trails), wetlands, dry beach/dunes, maritime forest (200 acres in Camp St. Christopher), or undeveloped lots (150 acres). This provides an excellent habitat for a diverse mix of flora and fauna.

While the maritime forest, maritime shrub thicket, and even the dune fields provide the ideal habitat for many land animals including deer, fox, squirrel, bobcat, and coyote, the island’s tidal creeks and marshes serve as nurseries and food sources for a myriad of saltwater species, from microscopic to huge herons, pelicans, raptors, and dolphins.

A webpage created by SIPOA and dedicated to Seabrook Island Wildlife can be accessed from either the Town’s website or the Discover Seabrook website maintained by the SIC and SIPOA. The webpage provides information on the many mammals, birds, fish, reptiles and insects that call Seabrook Island or its surrounding waters home. The webpage also provides direct links to documents of interest, such as the SIPOA Deer Management Program, special informational pages, such as information on dolphin strand feeding, and additional links to SIPOA special interest groups, such as the Seabrook Island Birders Group and the Seabrook Island Turtle Patrol. Much of the following information describing the abundant Seabrook Island wildlife has been extracted from this webpage.

Mammals on Seabrook Island. Mammals are abundant on Seabrook Island, and thanks to preservation efforts they are able to thrive in their native habitat while safely coexisting in close proximity to humans.
Chapter 5 - Natural Resources Element

Larger mammals found on Seabrook Island or the adjacent waters include:

- Bobcats (Lynx rufus);
- Coyotes (Canis latrans);
- Gray fox (Urocyon cinereoargenteus);
- White-tailed deer (Odocoileus virginianus);
- Bottlenose dolphins (Tursiops truncatus); and
- Wild turkey (Meleagris gallopavo).

The smaller mammals found on Seabrook Island include:

- Raccoon (Procyon lotor);
- Virginia Opossum (Didelphis virginiana);
- North American river otter (Lontra canadensis);
- Marsh rice rat (Oryzomys palustris); and
- Southern flying squirrel (Glaucomys volans).

Birds on (or above) Seabrook Island. The Seabrook Island Birders are a very active SIPOA Special Interest Group always open to new volunteers and enthusiasts. The group maintains a very informational webpage that includes brochures, a gallery, calendar, list of activities, contact information, and a drop down menu entitled “All About Birds” that includes external links, bird checklists, Apps for birders, and more. The Check List of the Seabrook Island Birds, available for download from the group’s webpage, lists hundreds of birds and the location of birding hotspots on Seabrook Island.

Fish on Seabrook Island. Fish found on Seabrook Island or off its coast include freshwater fish stocked in Palmetto Lake, as well as the saltwater fish found in the adjacent ocean and rivers surrounding the island. Largemouth bass, bluegill, sterile grass carp, and channel catfish are stocked at Palmetto Lake, adjacent to the SIPOA Lakehouse. Saltwater fish include Atlantic Croaker, Red Drum, Blackdrum, Southern Flounder, Spotted Seatrout, and Sheephead. Fishing charters and offshore fishing are available at the Bohicket Marina and Market.

Seabrook Island Reptiles, Amphibians, and Snakes. There are numerous reptiles, amphibians, and snakes calling Seabrook Island home. These include frogs and toads; salamanders and skinks; turtles and terrapins; the American Alligator; and numerous venomous and non-venomous snakes.

A very active and dedicated SIPOA special interest group is the Seabrook Island Turtle Patrol. The Turtle Patrol’s mission, as stated on their website, is "to protect and preserve the sea turtles that visit Seabrook Island beaches through identification and protection of nests, inventory of nests, data collection, and education of island residents and visitors".
Wildlife Protection. Protection of the abundant wildlife on Seabrook Island comes in many forms. The first two sections of this chapter detail beach management and maritime forest management, and under both management efforts the unique habitats preserved provides food, shelter, and safety for much of the wildlife listed in this section. Continuation and enhancement of these management efforts is the primary wildlife protection tool available to the Town of Seabrook Island.

In addition, many volunteers are actively involved in wildlife protection. While some serve preservation-related SIPOA committees, such as the Architectural Review Committee, the Environmental Committee, and the Planning Committee, others remain active in wildlife protection-related SIPOA special interest groups, such as the Seabrook Island Birders Club, the Seabrook Island Natural History Group, and the Seabrook Island Turtle Patrol.

5.3: NATURAL RESOURCES ELEMENT GOAL

Element Goal
Maintain Seabrook Island’s environmental integrity and natural beauty through the continuation of sustainable actions that ensure that natural systems and built structures protect habitats, create a healthy environment, and promote energy efficiency.

Natural Resources Element Needs

- As the Town is further developed, an increasing amount of the Island’s natural habitat is taken away;
- Development also removes the connectivity between natural habitats, putting stress on the Island’s wildlife to find alternate routes to move around the Island;
- Continued monitoring and research of the island’s ecosystems, and the wildlife species they support, in order to...
best prepare and revise current and future preservation studies, regulations, policies and procedures; and

- Best available data should be taken into account when planning new developments or other projects.

### 5.4: NATURAL RESOURCES ELEMENT STRATEGIES AND TIMEFRAMES

The Town should undertake the following strategic actions in support of the Vision and Goals of this Plan. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

1. Continue to pursue the goals and support and promote the implementation of strategies contained in Section 6 of the Town of Seabrook Island Comprehensive Beach Management Plan.

2. Complete the Island’s development in a way that maintains the Island’s environmental integrity and natural beauty and is consistent with the Vision of the Town.

3. Continue to maintain the existing quality of the natural resources on Seabrook Island, as well as the waters and marine environment surrounding the Island.

4. Maintain, expand, and support public education, outreach programs, and natural resource preservation volunteer groups.

5. Continue to support the strategies and recommendations included in the Primary and Secondary Seabrook Island Natural Resource Preservation Documents listed in Section 5.2, Background and Inventory of Existing Conditions, of this Natural Resources Element.
Seabrook Island Comprehensive Plan Five-Year Review
Draft Document

The following legend applies to the entirety of the draft document.

Legend
- **Text highlighted Yellow**: Items for Planning Commission discussion
- **Text highlighted Gray**: Still waiting on updated data
CULTURAL RESOURCES ELEMENT

Element Goal
Support the continuation and expansion of activities and events that ensure the diverse cultural interests of the Town’s residents and visitors, including outreach events directed at neighboring communities, and identification, preservation and protection of archaeological and historic resources.

6.1: OVERVIEW
According to the South Carolina Local Government Comprehensive Planning Enabling Act of 1994, the Cultural Resources Element “should consider historic buildings and structures, unique commercial or residential areas, unique natural or scenic resources, archaeological sites, educational, religious or entertainment areas or institutions, and any other feature or facility relating to the cultural aspects of the community." Many of the cultural aspects enjoyed by the Seabrook Island community are available within the town limits, while others extend to the rich cultural heritage of the region as a whole. This element identifies both the local and the regional cultural resources, and includes a review of the recreational activities, arts and cultural events, and other cultural opportunities available to the Seabrook Island community. Also included is a review of the historic and scenic areas, as well as the cultural contributions of the local and regional commercial districts. For many who reside in or visit Seabrook Island, it is the “culture” created by the opportunity for healthy recreation and social interaction that serves as the island’s primary attraction.

6.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

Recreational Activities
These types of facilities include beaches, community pools, golf, tennis, equestrian activities, walking trails, bike paths, and recreation centers. These recreational amenities play an important role in the culture of Seabrook Island. While access to many of these amenities require membership or a SIC Amenity Card, these cards are available to property owners, residents, guests and visitors to the island and can be obtained at the Amenity Office located outside the security gate.

The Seabrook Island Club (SIC), SIC facilities include the Island House, Beach Club, Equestrian Center, Racquet Club and golf courses. The Island House includes both a formal dining restaurant overlooking the Atlantic Ocean, and a casual dining restaurant overlooking golf courses, as well as a golf pro shop and a 30,000 square foot special events venue. The Beach Club includes two oceanfront pools, a cafe, gift shop, and open air pavilion style dining. The Equestrian Center is a 22-acre facility containing forty-two stalls, miles of trails and an experienced, dedicated staff. Residents of all ages and riding experience can enjoy beach and scenic trail riding all year long. The Racquet Club contains 15 clay tennis courts, pickleball courts, a clubhouse and pro shop. The Racquet Club offers lessons and clinics, as well as Junior Tennis Programs. The Crooked Oaks Golf Course designed by Robert Trent Jones, Sr., and the Ocean Winds Golf Course designed by Willard Byrd, wind through ocean, marsh and maritime forest surroundings. Coaching sessions and private lessons are available from a staff of PGA golf professionals. SIC also provides six unique indoor and outdoor venues for weddings, receptions, corporate retreats and other special events, including catering and state-of-the-art audio visual equipment.
SIPOA Amenities. Amenities offered to property owners and guests through SIPOA include the Lake House, Oyster Catcher Community Center and pool, crabbing dock, boat ramp, and nature trails. The Lake House is a 27,500 square foot community facility overlooking Palmetto Lake. It was constructed in 2009, and includes a fitness center, indoor and outdoor pools, library, and meeting rooms. In addition to fitness equipment, the Lake House hosts many popular wellness classes and events, and is home to many special interest groups that bring together Seabrookers with common interests. The Oyster Catcher Community Center includes meeting space and an outdoor pool. Additional SIPOA facilities include:

- A floating crabbing and fishing dock located in Cap’n Sams Creek for fishing and crabbing;
- A basketball court and volleyball court;
- A boat ramp where canoes, kayaks and small boats can be launched;
- A children’s playground; and
- Boardwalks and four nature trails.

Beach Access. Perhaps the most enticing natural and cultural resource would be Seabrook Island’s three and a half miles of ocean and riverfront beach, one of the longest and widest expanses of beach shoreline in the coastal Carolinas. The Town and SIPOA cooperatively manage Seabrook Island’s beaches, and land adjacent to the Atlantic Ocean and portions of the North Edisto River Inlet. The original design of Seabrook Island included a full set of resident/visitor beach access points with boardwalks from the parking areas and bicycle racks onto the beach. Each of these access entry points include signage, trashcans and dispensers for dog waste bags, and both the boardwalks and the associated amenities are maintained by SIPOA.

The Town of Seabrook Island’s Comprehensive Beach Management Plan, more fully described in the Natural Resources Element, meets the policies and objectives of the State Beachfront Management Act and provides for the long-term preservation and management of Seabrook Island’s coastline. A primary objective of this Plan is “the continuation of a beach access system for Seabrook Island residents and authorized guests that includes twelve access points that are well marked and well maintained by the property owner’s association”.

As described in the Discover Seabrook Amenity Guide, each of Seabrook Island’s beaches has its own personality. For example, Pelican Beach (aka Sunset Beach) is characterized by soft waves, slow current and great views of evening sunsets, while North Beach (aka Atlantic Beach) is large and deep, with rolling dunes and sunrise views. Between these two beaches is The Sands at the Beach Club, which includes sunrise and sunset views, oceanfront pools and a full service bar and restaurant.
St. Christopher Camp and Conference Center. The Camp is an intentional Christian ministry of the Episcopal Diocese of South Carolina. It is located on over 314 acres of beach, maritime forest, and undisturbed salt marsh on Seabrook Island. While it started from its earliest days as a summer camp for disadvantaged boys in 1938, the Camp St. Christopher has grown expanded into a full-fledged year-round conference facility. Summer camp still continues in the summers and for over thirty years the Barrier Island Environmental Education Program has provided an amazing outdoor education experience for school children during the school year.

The Camp is, at its core, a ministry. The ministry maintains a complete conference center for both large and small groups, as well as individuals seeking personal retreats. The conference center is fully equipped to provide lodging, meeting rooms, worship spaces, audio-visual support and excellent dining, all in a stunning location. A primary function of the conference center is to host ministry events, and the Camp has gifted staff who are ready to serve in leading musical worship, biblical teaching and preaching, and prayer ministry.

Each summer, St. Christopher welcomes hundreds of children and youth for camp experiences that include chapel, waterfront activities, outdoor games, and opportunities to grow in faith. Since 1981, St. Christopher has offered the Barrier Island Environmental Education Program providing an educational experience in outdoor classrooms for thousands of school children during the academic year. On the conference side, St. Christopher is fully equipped to provide visiting groups with lodging, meeting spaces, chapels for worship, audio-visual capabilities, and dining, all in a stunning location. In addition to conferences for large and small groups, individuals are also invited to schedule personal retreats for rest, restoration, and renewal.

Other Recreational Activities. Many residents and visitors to Seabrook Island take advantage of the rental options readily available to enjoy the outdoors. Bikes, canoes, kayaks, paddleboards and electric low-speed vehicles can all be rented by the day, and beach chairs, umbrellas and beach carts can be delivered to residences within the community. For more adventurous outings, the Charter Office located at the Bohicket Marina and Market is a one stop shop for sailing tours, fishing charters, stand-up paddleboard lessons and rentals, and even a kid-friendly pirate adventure cruise on the Black Ghost Pirate Ship.

Bohicket Marina (www.bohicket.com)

Arts and Cultural Events
Seabrook Island residents and visitors have ample opportunity to enjoy local and regional arts and cultural events unique to the Lowcountry.

Local Arts and Cultural Events. There are a number of recurring local cultural events that take place on or near Seabrook Island.
Seabrook Island entities sponsor many of these events, which have included:

- An Easter Service, egg hunt, and brunch;
- Mother’s Day Celebration;
- Annual Racquet Club Championships;
- Island-wide Spring Fling and BBQ;
- Memorial Day Weekend Charleston Symphony Orchestra Concert;
- Father’s Day Steak Night Dinner;
- Summer Art Show at The Lakehouse;
- Island-wide Independence Day Celebration;
- Alan Fleming Tennis Tournament;
- Island-wide Fall Halloween Festival;
- Veteran’s Day Charitable Golf Outing;
- Thanksgiving Buffet;
- Annual Turkey Trot (5K Race);
- Tree Lighting at The Lakehouse; and
- Annual New Year’s Eve Event

The commercial entities of Bohicket Marina and Freshfields Village provide an impressive list of annual local cultural opportunities, including:

**Bohicket Marina**
- Annual Oyster Roast
- Annual Dolphin Slam Tournament
- Backpack Buddies Chili Cook-Off
- Billfish Tournament
- Bohicket-Charleston 5K/10K Run
- Family Fall Festival
- Holiday Festival/Boat Parade/Sunset & Santa
- “Kids Fish”
- “Kick It at Bohicket” Marina

**Freshfields Village**
- Fall Sip & Stroll
- Farmer’s Market
- Memorial Day Weekend Concert Series
- Movies on the Village Green
- Music on the Green
- Reel Good Time Bingo
- Spring Festival Weekend
- Starlight Cinema

**Other Local Venues**
- Charleston Cup – Steeplechase (Stono Ferry)
- Charleston Symphony Orchestra (Kiawah Island)
- Holiday Kid’s Festival & Photos w/ Santa @at Freshfields

**Regional Arts and Cultural Events.** Nearby Charleston truly provides the opportunity to experience world class arts and culture. Food is central to Charleston and is served up in high-end restaurants, outdoor cafes, and local hot spots throughout Charleston. Even the many Charleston food trucks bringing their unique eats to festivals and special events enjoy name recognition. A full spectrum of live music and performing arts are available year-round on stages throughout the Charleston Region, including:

- Charleston Gilliard Center
- Charleston Music Hall
- Charleston Performing Arts Center
- Charleston Pour House
- Flowertown Players
- Music Farm
- North Charleston Coliseum and Performing Arts Center
- PURE Theater
- Sottile Theater
- Theater 99
Many annual festivals and special events showcase the rich cultural identity of the Charleston Region and include:

- Annual Lowcountry Oyster Festival (Boone Hall Plantation)
- Charleston Fashion Week
- Charleston Restaurant Week
- Charleston Wine and Food Festival
- Cooper River Bridge Run (10K race)
- Festival of Houses and Gardens
- Flowertown Festival
- Highwater Festival
- Holiday Festival of Lights
- Lowcountry Cajun Festival
- MOJA Arts Festival
- Piccolo Spoleto Festival
- Southeastern Wildlife Expedition
- Spoleto Festival USA
- Volvo Car Open Tennis Tournament
- World Grits Festival

Downtown Charleston also boasts numerous art galleries, museums, the South Carolina Aquarium, world-class shopping on King Street, and a vibrant and safe nightlife that flourishes throughout the year.

Cultural Opportunities through Volunteerism, and Social and Special Interest Groups

Volunteerism. As noted on the Discover Seabrook Volunteer Opportunities webpage, “part of any great community is its volunteer force”. This webpage lists volunteer opportunities available to Seabrook Island residents, complete with a link to the volunteer organization website (if applicable), the volunteer tasks associated with the organization, the overall mission of the organization and whether the organization/volunteer duties are located on or off the island. From the webpage, community members can also add volunteer organizations and become a contact. Currently, the following volunteer organizations are listed on the volunteer webpage (www.discoverseabrook.com/live-here/volunteer/):

- Adopt-a-Highway
- Backpack Buddies – Seabrook Island
- Barrier Island Free Medical Clinic
- Begin with Books
- Charleston Friends of the Library
- Cystic Fibrosis Foundation—SC Chapter
- Darkness to Light
- Edmondston-Alston House
- Exchange Club
- Fields to Families
- Hospice of Charleston
- Johns Island Regional Library
- Lowcountry Orphan Relief
- Meals on Monday
- Mt. Zion Elementary School Volunteer Program
- One80 Place
- Our Lady of Mercy Community Outreach
- Pet Helpers
- Reading Partners
- Respite Care Charleston
- Sea Island Habitat for Humanity
- Seabrook Island Turtle Patrol
- Stono Blessing Basket
- Sweetgrass Garden

SIPOA Special Interest Groups. Another Discover Seabrook webpage is dedicated to Seabrook Island’s social and special
interest groups. The long list of groups available to Seabrook Island community members truly provide something for everyone. As noted on the webpage, there are groups for those with a penchant for games (such as Mahjongg Mavens and the Social Bridge club), nature (such as the Seabrook Island Natural History Group, Garden Club, Seabrook Island Birders, Seabrook Island Green Space Conservancy, and Turtle Patrol), reading (such as the Seabrook Book Club and Exploring Books) and art (such as the Artist Guild, Seabrook Island Photography Club, and the Seabrook Stitchers). The “SIPOA special interest groups contact information” is available from the webpage, and includes the Group names and contacts (www.discoverseabrook.com/live-here/social-groups/).

Archeological Sites and Historic Places
While no sites on Seabrook Island were identified to be of historic significance in any of the three historic surveys, several locations/structures in close proximity to Seabrook Island were identified as historically significant. These historic locations and structures are listed on the National Register of Historic Places:

- Bass Pond Site, Kiawah Island (Pre-historic).
- Johns Island Presbyterian Church, Johns Island (1719);
- John Seabrook Plantation Bridge, Wadmalaw Island (1782);
- Fenwick Hall Plantation, Johns Island (1787);
- Arnoldus Vander Horst House, Kiawah Island (1802);
- Rockville Historic District, Wadmalaw Island (1860);
- Moving Star Hall, Johns Island (1917);
- The Progressive Club, Johns Island (1963);

6.3: CULTURAL RESOURCES ELEMENT GOAL

Element Goal
Support the continuation and expansion of activities and events that ensure the diverse cultural interests of the Town’s residents and visitors, including outreach events directed at neighboring communities, and identification, preservation and protection of archaeological and historic resources.

Cultural Resources Element Needs:

- Ensuring that the cultural interests and needs of the Town’s differing population components are met by providing a diversity of programs;
- Supporting the continuation and expansion of cultural events and programs in the Town, including outreach events directed at neighboring communities; and
- Improve coordination between the groups associated with cultural resources, including the Town and SIPOA special interest groups. A good example of this is the continued coordination and cooperation between the Camp and the Seabrook Island Natural History Group.

6.4: CULTURAL RESOURCE ELEMENT STRATEGIES AND TIMEFRAMES

The Town should undertake the following strategic actions in support of the vision and goals of this Plan. These implementation strategies will be reviewed a minimum of every
five years and updated every ten years from the date of adoption of this Plan.

1. Continue to encourage the development of programs and services that improve the delivery of cultural activities to all of Seabrook Island and its visitors.
2. Continue to promote cultural events using the Town’s accommodations tax revenue that is allocated to the advertising and promotion special fund.
Seabrook Island Comprehensive Plan Five-Year Review
Draft Document

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CULTURAL RESOURCES ELEMENT

Element Goal
Support the continuation and expansion of activities and events that ensure the diverse cultural interests of the Town’s residents and visitors, including outreach events directed at neighboring communities, and identification, preservation and protection of archaeological and historic resources.

6.1: OVERVIEW
According to the South Carolina Local Government Comprehensive Planning Enabling Act of 1994, the Cultural Resources Element “should consider historic buildings and structures, unique commercial or residential areas, unique natural or scenic resources, archeological sites, educational, religious or entertainment areas or institutions, and any other feature or facility relating to the cultural aspects of the community.” Many of the cultural aspects enjoyed by the Seabrook Island community are available within the town limits, while others extend to the rich cultural heritage of the region as a whole. This element identifies both the local and the regional cultural resources, and includes a review of the recreational activities, arts and cultural events, and other cultural opportunities available to the Seabrook Island community. Also included is a review of the historic and scenic areas, as well as the cultural contributions of the local and regional commercial districts. For many who reside in or visit Seabrook Island, it is the “culture” created by the opportunity for healthy recreation and social interaction that serves as the island’s primary attraction.

6.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

Recreational Activities
These types of facilities include beaches, community pools, golf, tennis, equestrian activities, walking trails, bike paths, and recreation centers. These recreational amenities play an important role in the culture of Seabrook Island. While access to many of these amenities require membership or a SIC Amenity Card, these cards are available to property owners, residents, guests and visitors to the island and can be obtained at the Amenity Office located outside the security gate.

The Seabrook Island Club (SIC), SIC facilities include the Island House, Beach Club, Equestrian Center, Racquet Club and golf courses. The Island House includes both a formal dining restaurant overlooking the Atlantic Ocean, and a casual dining restaurant overlooking golf courses, as well as a golf pro shop and a 30,000 square foot special events venue. The Beach Club includes two pools, a cafe, gift shop, and open air pavilion style dining. The Equestrian Center is a 22-acre facility containing forty-two stalls, miles of trails and an experienced, dedicated staff. Residents of all ages and riding experience can enjoy beach and scenic trail riding all year long. The Racquet Club contains 15 clay tennis courts, pickleball courts, a clubhouse and pro shop. The Racquet Club offers lessons and clinics, as well as Junior Tennis Programs. The Crooked Oaks Golf Course designed by Robert Trent Jones, Sr., and the Ocean Winds Golf Course designed by Willard Byrd, wind through ocean, marsh and maritime forest surroundings. Coaching sessions and private lessons are available from a staff of PGA golf professionals. SIC provides indoor and outdoor venues for weddings, receptions, and other special events.
SIPOA Amenities. Amenities offered to property owners and guests through SIPOA include the Lake House, Oyster Catcher Community Center and pool, crabbing dock, boat ramp, and nature trails. The Lake House is a 27,500 square foot community facility overlooking Palmetto Lake. It was constructed in 2009, and includes a fitness center, indoor and outdoor pools, library, and meeting rooms. In addition to fitness equipment, the Lake House hosts many popular wellness classes and events, and is home to many special interest groups that bring together Seabrookers with common interests. The Oyster Catcher Community Center includes meeting space and an outdoor pool. Additional SIPOA facilities include:

- A floating crabbing and fishing dock located in Cap’n Sams Creek for fishing and crabbing;
- A basketball court and volleyball court;
- A boat ramp where canoes, kayaks and small boats can be launched;
- A children’s playground; and
- Boardwalks and four nature trails.

Beach Access. Perhaps the most enticing natural and cultural resource would be Seabrook Island’s three and a half miles of ocean and riverfront beach, one of the longest and widest expanses of beach shoreline in the coastal Carolinas. The Town and SIPOA cooperatively manage Seabrook Island’s beaches, and land adjacent to the Atlantic Ocean and portions of the North Edisto River Inlet. The original design of Seabrook Island included a full set of resident/visitor beach access points with boardwalks from the parking areas and bicycle racks onto the beach. Each of these access entry points include signage, trashcans and dispensers for dog waste bags, and both the boardwalks and the associated amenities are maintained by SIPOA.

The Town of Seabrook Island’s Comprehensive Beach Management Plan, more fully described in the Natural Resources Element, meets the policies and objectives of the State Beachfront Management Act and provides for the long-term preservation and management of Seabrook Island’s coastline. A primary objective of this Plan is “the continuation of a beach access system for Seabrook Island residents and authorized guests that includes twelve access points that are well marked and well maintained by the property owner’s association”.

As described in the Discover Seabrook Amenity Guide, each of Seabrook Island’s beaches has its own personality. For example, Pelican Beach (aka Sunset Beach) is characterized by soft waves, slow current and great views of evening sunsets, while North Beach (aka Atlantic Beach) is large and deep, with rolling dunes and sunrise views. Between these two beaches is The Sands at the Beach Club, which includes sunrise and sunset views, oceanfront pools and a full service bar and restaurant.
St. Christopher Camp and Conference Center. The Camp is a ministry of the Episcopal Diocese of South Carolina. It is located on over 314 acres of beach, maritime forest, and undisturbed salt marsh on Seabrook Island. From its earliest days as a summer camp for disadvantaged boys in 1938, St. Christopher has expanded into a year-round facility.

Each summer, St. Christopher welcomes hundreds of children and youth for camp experiences that include chapel, waterfront activities, outdoor games, and opportunities to grow in faith. Since 1981, St. Christopher has offered the Barrier Island Environmental Education Program providing an educational experience in outdoor classrooms for thousands of school children during the academic year. On the conference side, St. Christopher is fully equipped to provide visiting groups with lodging, meeting spaces, chapels for worship, audio-visual capabilities, and dining, all in a stunning location. In addition to conferences for large and small groups, individuals are also invited to schedule personal retreats for rest, restoration, and renewal.

Other Recreational Activities. Many residents and visitors to Seabrook Island take advantage of the rental options readily available to enjoy the outdoors. Bikes, canoes, kayaks, paddleboards and electric low-speed vehicles can all be rented by the day, and beach chairs, umbrellas and beach carts can be delivered to residences within the community. For more adventurous outings, the Charter Office located at the Bohicket Marina and Market is a one stop shop for sailing tours, fishing charters, stand-up paddleboard lessons and rentals, and even a kid-friendly pirate adventure cruise on the Black Ghost Pirate Ship.

Arts and Cultural Events

Bohicket Marina (www.bohicket.com)

Seabrook Island residents and visitors have ample opportunity to enjoy local and regional arts and cultural events unique to the Lowcountry.

Local Arts and Cultural Events. There are a number of recurring local cultural events that take place on or near Seabrook Island. Seabrook Island entities sponsor many of these events, which have included:

- An Easter Service, egg hunt, and brunch;
- Mother’s Day Celebration;
- Annual Racquet Club Championships;
- Island-wide Spring Fling and BBQ;
- Memorial Day Weekend Charleston Symphony Orchestra Concert;
- Father’s Day Steak Night Dinner;
- Summer Art Show at The Lakehouse;
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**Island-wide Independence Day Celebration;**
**Alan Fleming Tennis Tournament;**
**Island-wide Fall Halloween Festival;**
**Veteran’s Day Charitable Golf Outing;**
**Thanksgiving Buffet;**
**Annual Turkey Trot (5K Race);**
**Tree Lighting at The Lakehouse; and**
**Annual New Year’s Eve Event**

The commercial entities of Bohicket Marina and Freshfields Village provide an impressive list of annual local cultural opportunities, including:

**Bohicket Marina**
- Annual Oyster Roast
- Annual Dolphin Slam Tournament
- Backpack Buddies Chili Cook-Off
- Billfish Tournament
- Bohicket-Charleston 5K/10K Run
- Family Fall Festival
- Holiday Festival/Boat Parade/Sunset & Santa
- “Kids Fish”
- “Kick It at Bohicket” Marina

**Freshfields Village**
- Fall Sip & Stroll
- Farmer’s Market
- Memorial Day Weekend Concert Series
- Movies on the Village Green
- Music on the Green
- Reel Good Time Bingo
- Spring Festival Weekend
- Starlight Cinema

**Other Local Venues**
- Charleston Cup – Steeplechase (Stono Ferry)
- Charleston Symphony Orchestra (Kiawah Island)
- Holiday Kid’s Festival & Photos w/ Santa at Freshfields

**Regional Arts and Cultural Events.** Nearby Charleston truly provides the opportunity to experience world class arts and culture. Food is central to Charleston and is served up in high-end restaurants, outdoor cafes, and local hot spots throughout Charleston. Even the many Charleston food trucks bringing their unique eats to festivals and special events enjoy name recognition. A full spectrum of live music and performing arts are available year-round on stages throughout the Charleston Region, including:

- Charleston Gilliard Center
- Charleston Music Hall
- Charleston Performing Arts Center
- Charleston Pour House
- Flowertown Players
- Music Farm
- North Charleston Coliseum and Performing Arts Center
- PURE Theater
- Sottile Theater
- Theater 99
- Woolfe Street Playhouse

Many annual festivals and special events showcase the rich cultural identity of the Charleston Region and include:

- Annual Lowcountry Oyster Festival (Boone Hall Plantation)
- Charleston Fashion Week
- Charleston Restaurant Week
- Charleston Wine and Food Festival
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- Cooper River Bridge Run (10K race)
- Festival of Houses and Gardens
- Flowertown Festival
- Highwater Festival
- Holiday Festival of Lights
- Lowcountry Cajun Festival
- MOJA Arts Festival
- Piccolo Spoleto Festival
- Southeastern Wildlife Expedition
- Spoleto Festival USA
- Volvo Car Open Tennis Tournament
- World Grits Festival

Downtown Charleston also boasts numerous art galleries, museums, the South Carolina Aquarium, world-class shopping on King Street, and a vibrant and safe nightlife that flourishes throughout the year.

Cultural Opportunities through Volunteerism, and Social and Special Interest Groups

Volunteerism. As noted on the Discover Seabrook Volunteer Opportunities webpage, “part of any great community is its volunteer force”. This webpage lists volunteer opportunities available to Seabrook Island residents, complete with a link to the volunteer organization website (if applicable), the volunteer tasks associated with the organization, the overall mission of the organization and whether the organization/volunteer duties are located on or off the island. From the webpage, community members can also add volunteer organizations and become a contact. Currently, the following volunteer organizations are listed on the volunteer webpage (www.discoverseabrook.com/live-here/volunteer/):

- Charleston Friends of the Library
- Fields to Families
- Lowcountry Orphan Relief
- Pet Helpers

SIPOA Special Interest Groups. Another Discover Seabrook webpage is dedicated to Seabrook Island’s social and special interest groups. The long list of groups available to Seabrook Island community members truly provide something for everyone. There are groups for those with a penchant for games (such as Mahjongg Mavens and the Social Bridge club), nature (such as the Seabrook Island Natural History Group, the Seabrook Island Birders, Seabrook Island Green Space Conservancy, and Turtle Patrol), reading (such as the Seabrook Book Club and Exploring Books) and art (such as the Artist Guild, Seabrook Island Photography Club, and the Seabrook Stitchers). The “SIPOA special interest groups contact information” is available from the webpage, and includes the Group names and contacts (www.discoverseabrook.com/live-here/social-groups/).

Archeological Sites and Historic Places

While no sites on Seabrook Island were identified to be of historic significance in any of the three historic surveys, several locations/structures in close proximity to Seabrook Island were identified as historically significant. These historic locations and structures are listed on the National Register of Historic Places:

- Bass Pond Site, Kiawah Island (Pre-historic).
- Johns Island Presbyterian Church, Johns Island (1719);
- John Seabrook Plantation Bridge, Wadmalaw Island (1782);
- Fenwick Hall Plantation, Johns Island (1787);
- Arnoldus Vander Horst House, Kiawah Island (1802);
- Rockville Historic District, Wadmalaw Island (1860);
- Moving Star Hall, Johns Island (1917);
- The Progressive Club, Johns Island (1963);
6.3: CULTURAL RESOURCES ELEMENT GOAL

Element Goal
Support the continuation and expansion of activities and events that ensure the diverse cultural interests of the Town’s residents and visitors, including outreach events directed at neighboring communities, and identification, preservation and protection of archaeological and historic resources.

Cultural Resources Element Needs:

- Ensuring that the cultural interests and needs of the Town’s differing population components are met by providing a diversity of programs;
- Supporting the continuation and expansion of cultural events and programs in the Town, including outreach events directed at neighboring communities; and
- Improve coordination between the groups associated with cultural resources, including the Town and SIPOA special interest groups. A good example of this is the continued coordination and cooperation between the Camp and the Seabrook Island Natural History Group.

6.4: CULTURAL RESOURCE ELEMENT STRATEGIES AND TIMEFRAMES

The Town should undertake the following strategic actions in support of the vision and goals of this Plan. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

1. Continue to encourage the development of programs and services that improve the delivery of cultural activities to all of Seabrook Island and its visitors.
2. Continue to promote cultural events using the Town’s accommodations tax revenue that is allocated to the advertising and promotion special fund.
RESILIENCE ELEMENT

Element Goal
Support the continuation and expansion of activities and events that ensure the diverse cultural interests of the Town’s residents and visitors, including outreach events directed at neighboring communities, and identification, preservation and protection of archaeological and historic resources.

12.1: OVERVIEW
Resilience is defined as: the capacity to withstand or to recover quickly from difficulties; toughness. In the context of this element, it refers to the capability of the community to prepare for, adapt to, recover from, and prosper in the face of environmental change and natural disasters. In 2020, the state mandated that a Resilience Element be included in comprehensive plans. According to the State’s Comprehensive Planning Enabling Act (SC Code Section 6-29-510), the Resilience Element should factor in "the impacts of flooding, high water, and natural hazards on individuals, communities, institutions, businesses, economic development, public infrastructure and facilities, and public health, safety, and welfare". It is now more crucial than ever to consider resilience in emergency management and planning processes at all levels of government, as the effects of climate change become more apparent with heat-related illnesses becoming more common, storms becoming more powerful, and heavy rains occurring more frequently. Since 2019, South Carolina has received nine major disaster declarations (FEMA), including Hurricanes Dorian (2019), Ian (2022), and Idalia (2023). Resilience is clearly something that needs to be taken into consideration in light of these recent disasters, the King Tides, and nuisance flooding episodes that coastal South Carolina is experiencing more frequently. Achieving community resilience and protecting natural resources is the aim of this element.

12.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

Topography, Geography, and Hydrology
As noted in the Natural Resources Element, Seabrook Island is a barrier island on the South Carolina coast situated between saltwater marsh and the Atlantic Ocean. The island is bordered by Bohicket Creek to the north, the Atlantic Ocean to the south, Kiawah River to the east, and the North Edisto River to the west. It is located in both the Santee River Basin and Edisto River Basin. The Santee River Basin comprises 11 watersheds and roughly 1,280 square miles and is the sixth largest in the State.

Crashing waves at the Pelican’s Nest
The Edisto River Basin encompasses 30 watersheds and some two million acres.

**Natural Hazards**

As evidenced in recent years, the Charleston area is no stranger to the recurrent burden of flooding and threats of hurricanes. In addition, the Charleston region lies within one of the most seismically active areas in the Eastern United States. As a coastal community, Seabrook Island's housing stock, infrastructure, and topography itself is vulnerable to threats associated with flooding, storm surges, hurricanes, sea level rise, and earthquakes.

Flooding is the most frequent and costly natural hazard in the United States. On Seabrook Island, the most common types of flooding are rain events, tidal, and storm surges. Other issues that enhance the effects and extent of flooding are sea level rise and climate change.

**Hurricanes.** Records dating back to the 1600's indicate there were about 43 tropical cyclones in Charleston County before official records were started in 1851. Since then, an additional 41 tropical systems: 25 hurricanes, 10 tropical storms, and six tropical depressions, have hit or affected the Charleston region (NOAA). Seabrook Island remains vulnerable to hurricanes and tropical weather, and there is potential for this threat to increase with climate change and warming seas. Hurricanes pose many threats to the area, including wind, rainfall, and storm surge. Flooding from heavy rain has been the leading cause of hurricane-related deaths in the state since 2013. In addition, tides can also have a major effect on the extent of hurricane-related flooding.

In 2016, the area was hit by Hurricane Matthew, which made landfall near McClellanville, SC as a Category 1 Hurricane. The storm dumped nearly a foot of rain on parts of the County, and the combination of a six-foot storm surge and strong winds led to extensive damage along the coast, despite hitting the area during a relatively low tide. Matthew resulted in water levels three to five feet higher than normal astronomical tides. In 2017, Seabrook Island felt the effects of Hurricane Irma, which had weakened to a tropical storm before Seabrook Island felt its effects. Tropical Storm Irma swept through Charleston during an extremely high tide, resulting in a peak storm tide recorded at almost 10 feet in the Charleston Harbor, the third highest on record in Charleston County.

Hurricane Dorian traveled along the South Carolina coastline, without making landfall in Charleston County, between September 4-5, 2019, while intensifying to a Category 3 hurricane with maximum sustained winds of 115 miles per hour. Impacts to Charleston County included sustained tropical storm force winds, hurricane force wind gusts, heavy rain, and some coastal flooding.

Hurricane Ian, a powerful Category 4 storm that decimated the southwest Florida coast, made landfall near Florida's east coast late on September 29, 2022, and then gradually moved northward into the coast of South Carolina. Early on Friday, September 30, the local region started to feel the direct effects of Ian. In contrast to southeast Georgia, which was mostly spared from the effects of Hurricane Ian, South Carolina’s Lowcountry suffered greatly. Wind gusts from a tropical storm to a hurricane caused thousands of power outages and many reports of damaged trees and electrical lines. Hurricane Ian reached maximum sustained winds of 85 mph when it made landfall. Significant flooding was caused by heavy rain in numerous areas of the Charleston Metro Area, and multiple Flash Flood Warnings were issued.

**Sea Level Rise** Sea level rise is the result of two major causes: the thermal expansion caused by warming of the ocean and increased melting of land-based ice (NOAA). The current global rate of rise is about one-eighth of an inch per year, and
scientists are confident that the global mean sea level will rise from 8 inches to 6.6 feet by the year 2100 (NOAA, Climate.gov). Global sea level trends and local sea level trends are different measurements; the sea level is not changing at the same rate across all regions of the ocean. Sea level rise at specific locations may vary from the global average due to many local factors such as: land subsidence from natural processes and withdrawal of groundwater and fossil fuels; upstream flood control; erosion; changes in regional ocean currents; variations in land height; and whether the land is still rebounding from the compressive weight of Ice Age glaciers. NOAA estimates the rate at which sea levels are rising in South Carolina has been increasing and is now around one inch of rise every two years.

In Figures 12.1 through 12.4 the images shown are from the Sea Level Rise viewer on the NOAA.gov website and show a visual representation of how sea level rise would affect our area.

Figure 12.1

Current Area Mean Higher High Water Level

Figure 12.2

Sea Level Rise at 1 Foot

Figure 12.3

Sea Level Rise at 2 Feet
Figure 12.4

Sea Level Rise at 3 Feet

Figure 12.1 shows the current area Mean Higher High Water Level. The three successive images in Figures 12.2 through 12.4 show (in light blue) the areas of Seabrook Island that would be covered by a sea level rise of one foot, two feet, and three feet. At three feet, a majority of the island is affected.

Storm Surge. Storm surge is the rise of water level that occurs as a result of high winds pushing onto the coast due to tropical conditions. In combination with regular tides, storm surge can cause significant flooding in coastal areas, and is exacerbated depending on the intensity of the storm. Some problems that storm surge causes include inland flooding, flooding in advance of a storm, dangerous debris carried by waves, severe beach erosion, and significant property damage.

Advancements in mapping have provided flood inundation maps to inform citizens of potential flood impacts during different categories of storm events where a citizen can simply type in their address on a webpage and have a visual reference of where flooding can occur around them. These tools are very helpful when planning and preparing for an event. It is important to note, however, that storm surge is merely one element of total water level rise, with tides, waves, and freshwater flow making up the other components.

Tidal Flooding. Tidal flooding, also called nuisance flooding, can shutdown areas of Seabrook Island for hours or days. Sea level rise leads to increases in tidal flooding. Rising seas means higher tides, and more frequent king tides, which are now an issue to formerly non-flood-prone areas. Frequent road closures, property damage, loss of business, and potentially hazardous conditions leave areas affected by tidal flooding in a state of uncertainty all too often. Sea level rise will continue to be a more frequent issue to all coastal areas within the County, and time is of the essence to study and make modifications to alleviate some of the effects that this will have on Seabrook Island. This not only impacts the ability for area residents to get to and from their homes, but also has a large impact on continuity of services for business operations, safety services, including access to area hospitals, and the general functioning of the area and its residents on a normal day-to-day level.

King Tides in November of 2018 resulted in the sixth highest tide on record, leading to several road closures and flooding on a perfectly sunny day. Instances like these are becoming more and more common, and Seabrook Island needs to plan for ways to protect and prepare the community.

Rain Event Flooding. Rain event flooding can be classified by severe rain events, whether associated with tropical weather or not, that cause major flooding in areas that may not have experienced flooding in prior years. Like tidal flooding, these big rain events are exacerbated by a combination of several factors that result in widespread flooding, including king tides, sea level rise, drainage issues, and storm surges.
Charleston County experienced flooding as a result of continual rain lasting several days in 2015 that caused extensive damage and shut down businesses for days. The storm drainage systems could not handle the amount of rain that fell in the area, and because there was no break in the rain, the drainage systems had no time to recover. In addition, the storm hit during high tide, adding more stress to the already aggravated system.

Earthquakes and Tsunamis. Although Seabrook Island has not had a major damaging earthquake, they regularly occur in South Carolina, and there have been several small scale earthquakes nearby, mainly clustered around Summerville. Additionally, Seabrook Island lies within a "high potential for liquefaction" area. Liquefaction is the transformation of loosely packed sediment or cohesion-less soil to a liquid state, as a result of increased pore fluid pressure and reduced effective stress, and it is caused by the ground shaking during an earthquake.

Due to Seabrook’s location on the coastline, there is a heightened susceptibility to tsunamis that are caused by earthquakes. Charleston County is designated as a Tsunami Ready community, a voluntary community recognition program that aims to enhance preparedness for tsunami hazards. The program involves active collaboration between federal, state, and local emergency management organizations, community leaders, and the public.

Other Resilience Issues

Transportation Resilience. Transportation is a vital necessity for a well-functioning community. Flooding may cause delays in transit or have negative effects. Over half of all flood-related fatalities, according to the Centers for Disease Control and Prevention, happen when a car is driven into dangerous floodwater. Because Seabrook Island has a distinct topography that combines beaches, low lying areas, and inland terrain, the Town depends on its infrastructure to connect its transportation facilities. Of utmost importance is Seabrook Island Road, the one way on and off of the island. Seabrook Island Road tends to flood during very heavy rain events.

Health Resilience. A lesson learned from the COVID-19 pandemic is that building resilient communities requires careful consideration of health issues. One of the main goals of the planning, mitigation, and response plans that communities create in the face of pertinent dangers is the preservation of human health and welfare. The US Department of Health and Human Services (USDHHS) Administration for Strategic Preparedness and Response developed five strategies to build health resilience in communities: 1. Strengthen and promote
access to public health, healthcare, and social services; 2. Promote health and wellness alongside disaster preparedness; 3. Expand communication and collaboration; 4. Engage at-risk individuals and the programs that serve them; and 5. Build social connections. Planning for resilience necessitates taking into account the growing incidence of biological disasters in addition to natural or weather-related ones. Novel viruses are becoming endemic to society, and disease outbreaks and propagation are intensifying into epidemics and pandemics. Virtually every society on Earth is vulnerable to the threat and consequences of biological disasters, as the growth in outbreaks is linked to increased travel, urbanization, climate change, more human-animal contact, and a scarcity of healthcare staff. Seabrook Island is no exception, and in order to increase health resilience to future potential biological disasters, techniques for anticipation, preparedness, reaction, and recovery should be given top priority.

Economic Resilience. Anticipating and planning for national and worldwide economic shocks that could destabilize local economies is another aspect of building a resilient community. Seabrook Island has seen economic challenges over the past 20 years, including the Great Recession of 2008, the COVID-19 Pandemic, and significant weather related calamities. These kinds of economic shocks have the ability to undermine “business as usual” and commerce and have a detrimental effect on sales tax and tourism revenue.

Energy Resilience. Seabrook Island is experiencing the ongoing and steady growth in population that is also seen in the Southeast and South Carolina. Simultaneously, forecasts suggest that the state would consistently see a greater number of hot days each year compared to past decades. The availability, use, and cost of energy are all intricately affected by this. Increasing the use of renewable energy resources is one approach to contribute to the Town’s increased energy resilience.

Existing Tools
The Town of Seabrook Island has numerous existing tools and protective measures already in place that contribute to resilience. As detailed in the Community Facilities Element of this Comprehensive Plan, the Town, SIPOA, and other Seabrook Island entities and residents have addressed emergency preparedness and disaster response through a Comprehensive Emergency Plan, Disaster Recovery Council, a volunteer Community Emergency Response Team, and the preparation of an Emergency Preparedness Homepage on the Town’s website. Additionally, the Town’s Development Standards Ordinance sets specific Environmental Performance Standards for sensitive areas.

Development Standards Ordinance. As stated in the Land Use Element, Ordinance 2022-04 established a new Development Standards Ordinance (DSO) and zoning map for the Town of Seabrook Island. The Town’s zoning, land use, and development regulations were reviewed and updated over the course of three years, culminating in this legislation. Despite the fact that the previous DSO had been revised and updated over time, with the most recent revision occurring in 2011, this was the first thorough overhaul of the ordinance since the Town’s incorporation over 35 years ago. The DSO received final reading approval from the Seabrook Island Town Council on June 28, 2022. The adopting ordinance states that the effective date is July 1, 2022. The DSO is the guiding document regarding future development in the Town and aims to “protect, promote, and improve the public health, safety, morals, convenience, order, appearance, prosperity, and general welfare” of the Town as well as conserve the community’s “environmental character”; enable the “timely and adequate provision” of “utility services, parks, and other public infrastructure”; influence the “density and distribution of populations and the uses of buildings,
structures and land for trade, residence, recreation, and conservation”; acquire security from “fire, flood, and other dangers”; and advance the community wellbeing “in any other regard specified by Town Council”.

**Beach Management Plan.** The long-term preservation and management of Seabrook Island’s coastline is facilitated by the Town of Seabrook Island’s Comprehensive Beach Management Plan, which is outlined in greater detail in the Natural Resources Element. This plan complies with the State Beachfront Management Act’s goals and regulations. A key purpose of this Plan is “the continuation of a beach access system for Seabrook Island residents and authorized guests that includes twelve access points that are well marked and well maintained by the property owner’s association”. A revised Plan is anticipated to be adopted later this year.

**Marshfront Management Plan.** Salt marshes are an important aspect of the Seabrook Island landscape. Salt marshes are littoral wetlands that experience periodic inundation and drainage due to the ingress and egress of saline water driven by tidal forces. The marshy nature of the area is attributed to the presence of soil consisting of substantial amounts of deep mud and peat. These intertidal habitats are crucial for the well-being of fisheries, coastlines, and communities, and they are a fundamental component of our economy and culture. Additionally, they offer crucial sustenance, shelter, or breeding grounds for about 75 percent of aquatic species that are important for fishing, such as shrimp, blue crab, and several types of finfish. Salt marshes provide shoreline protection by mitigating the impact of waves and retaining sediments, thereby preventing erosion. They mitigate flooding by decelerating and absorbing rainwater, and safeguard water quality by purifying runoff and metabolizing surplus nutrients. The Seabrook Island Marshfront Management Plan is currently being developed to investigate methods of safeguarding the island’s marshland.

**Community Resilience**

The Town should continue to utilize the best available data, findings, strategies, and plans to develop a community resilience plan that identifies the potential impacts and appropriate mitigation efforts necessary to improve the Seabrook Island community’s resilience to hazards and changing conditions. This should not be a static plan, but rather a plan that is periodically updated to address changing conditions and include the most recent data, findings, and strategies available.

**12.3: RESILIENCE ELEMENT GOAL**

**Element Goal**

Support the continuation and expansion of activities and events that ensure the diverse cultural interests of the Town’s residents and visitors, including outreach events directed at neighboring communities, and identification, preservation and protection of archaeological and historic resources.

**Resilience Element Needs:**

- Determine areas that are at a high risk for natural hazards, evaluate development intensity regulations for these areas, and prioritize projects in these areas;
- Strengthen the Town’s partnerships with surrounding jurisdictions in order to combat natural hazard issues that cross jurisdictional boundaries;
- Educate the public about their role in building resilience;
- Encourage property owners and the island entities to eliminate existing invasive plant species and discourage future use of these plants; and
• As they are the Island’s key natural resources, the beach, and dunes must be maintained and protected.

12.4: RESILIENCE ELEMENT STRATEGIES AND TIMEFRAMES

The Town should undertake the following strategic actions in support of the vision and goals of this Plan. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

1. Identify and pursue amendments to existing Town policies and regulations to improve the Town’s resilience towards long-term stresses and acute disasters, using the best available data to inform decisions.

2. Continue to work with adjacent jurisdictions to secure funding to perform a regional vulnerability, risk, and resilience assessment and watershed assessment.

3. Develop, adopt, and implement a Drainage Master Plan in coordination with adjacent jurisdictions.

4. Amend applicable Town ordinances to meet the Community Rating System (CRS) standards not currently addressed by the Town.