

Redefine Environmental Sustainability: Core Value Chapter Synopsis

• “Environmental sustainability is a foundational value and principle for the people of Hilton Head Island.” • This group has worked to develop a new understanding of environmental sustainability on Hilton Head Island. • The Our Plan Environment Work Group emphasized the following for environmental sustainability:

- o Reducing waste and increasing recycling and composting
- o Creating a new green brand for the Island with a Sustainable Practices Center,
- o Preserving and restoring water quality,
- o Transitioning away from treated drinking water for irrigation,
- o Monitoring the environment,
- o Strengthening environmental regulations,
- o Supporting wetland and forest management plans,
- o Conserving energy,
- o Reducing our dependence on fossil fuels,
- o Preparing for and mitigating the effects of sea level rise and climate change, and
- o Recognizing the importance of and improving air quality.

ISSUES/ EXISTING CONDITIONS/ CONSTRAINTS • However, Hilton Head Island is no longer at the forefront of sustainability; it “has not innovated or kept local practices on track with emerging contemporary developments in sustainability.” • There is a perception that the Island has reached the limit of development, particularly development supporting visitors, making the beach and roads overcrowded during the high season. • There is a perception of a lack of support among residents for env protection. • We need to respond to emerging environmental threats such as the increased number of hurricanes affecting the Island and climate change and resulting sea-level rise/flooding. • There is a growing concern about the supply of drinking water. • The Island isn’t efficiently handling solid waste. We need to increase recycling and composting.

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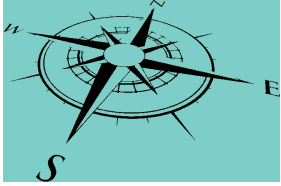
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1. Waste

Work towards a Zero Waste model Island-wide.

Keyword: Waste; Recycling. Elements: Natural Resources, Community Facilities... About this Goal: • Nearly all waste produced in the Town is disposed of on the mainland. • Current waste collection practices and a lack of composting and recycling facilities on the Island create unnecessary traffic congestion, air pollution, and energy waste. • The Town should move towards the goal of a Zero Waste model by streamlining waste collection, increasing recycling and composting rates, supporting an off-Island waste transfer station and materials processing facility, and educate residents and visitors about recycling, composting, and litter control.

1.1. Haulage

Examine the lessons learned from the previous single waste hauler program and consider implementing a new program for single family residences that includes recycling services.

Stakeholder(s):

Waste Haulers

Residences

1.2. Recycling & Composting

Explore methods to improve recycling and composting rates.

1.2.1. Handling

Investigate ways to ensure waste haulers properly handle materials to be recycled.

Stakeholder(s):

Waste Haulers

1.2.2. Disposal

Develop or adopt best practices in disposal of building and site materials, compost, and solid waste.

1.2.3. Businesses

Explore incentives to increase recycling rates for businesses.

Stakeholder(s):

Businesses

1.2.4. Non-Residential Sites

Explore requiring recycling containers at non-residential sites.

1.2.5. Labelling

Encourage the standardization of recycling labelling to increase recycling rates.

1.2.6. Usage

Pursue ways to use recycled materials and compost locally.

1.2.7. Commercial Composting

Explore requiring a certain amount of commercial composting.

Stakeholder(s):

Businesses

1.2.8. Hazardous Waste

Encourage Beaufort County to provide additional hazardous waste, such as electronics, collection opportunities on the Island.

Stakeholder(s):

Beaufort County

1.2.9. Sludge

Encourage the development of a joint sludge composting operation on the Island with participation from solid waste disposal and recycling organizations.

1.3. Transfer & Processing

Encourage Beaufort County to create an off-Island transfer station and materials processing center.

Stakeholder(s):

Beaufort County

1.4. Convenience Center

Evaluate the location of the Beaufort County Convenience Center on the Island to assess its capacity to meet current and future needs.

Stakeholder(s):

Beaufort County

1.5. Education & Promotion

Pursue promotional and educational efforts to support recycling, composting, and litter control.

1.5.1. Composting

Facilitate composting models at highly visible sites, such as schools and Town facilities.

1.5.2. Information

Pursue new ways to disseminate information on waste and recycling on the Town's website to residents and visitors.

1.5.3. Recycling & Litter

Promote Beaufort County's recycling and litter control programs.

Stakeholder(s):

Beaufort County

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2. Recognition

Become recognized leaders in environmental protection and sustainability.

Keywords: Environmental Sustainability; Environmental Protection. Elements: Natural Resources, Community Facilities, Land Use, Economic Development... About this Goal: • Coastal municipalities are under increasing pressure to accommodate human-induced changes to the natural environment. • In order to sustain long-term wellbeing, the Town needs to employ, and encourage others to use, resource efficiency and low-impact development practices. See Regional Strategy 4.5

2.1. Sustainable Practices Center

Create a Sustainable Practices Center that hosts regular presentations, has space for sustainability research and oversees the Town’s sustainable practices initiatives.

2.1.1. Research

Investigate ways to support environmental ecosystem research.

2.1.2. Events

Sponsor an environmentally-focused event of regional or national significance.

2.1.3. Plan

Develop and implement a Sustainable Practices Plan.

2.2. Requirements & Incentives

Create requirements and incentives for sustainable development of structures and sites.

Stakeholder(s):

Builders

Site Developers

2.2.1. Sustainability Standards

Investigate implementation of environmentally sustainable standards, such as Sustainable Sites Initiative, LEED or Earthcraft, for all development projects.

Stakeholder(s):

Developers

2.2.2. Impact

Integrate a Low Impact Development (LID) menu of optional design techniques in the LMO.

Provide an incentive for each LID technique.

2.3. Green Standard

Create a green standard for all Town facilities and Capital Improvement Projects.

2.3.1. Town Facilities

Continue to pursue green certifications, such as Sustainable Sites Initiative, LEED or Earthcraft, for new and redeveloped Town facilities and infrastructure.

2.3.2. Evaluation

Establish evaluation criteria to include during the solicitation process for potential contractors based on their use of environmental sustainability practices.

Stakeholder(s):

Contractors

2.3.3. Roadways

Pursue the use of recycled materials for roadways.

2.3.4. Heat Islands

Consider the use of reflective paint for dark surfaces to reduce urban heat islands.

2.3.5. Maintenance

Continue green maintenance strategies, including the use of organic fertilizer and cleaning products, low-VOC paint, and carpet.

2.3.6. Buildings

Continue to increase building efficiency by using compact fluorescent and other high-efficiency bulbs for light fixtures and enhancing weatherproofing for doors and windows.

2.4. Eco-Tourism

Encourage eco-tourism businesses and events to apply for ATAX grants.

Stakeholder(s):

Eco-Tourism Businesses

2.5. Environmental Education

Explore ways to expand environmental education efforts and programs, such as using new formats (videos) and promoting social media posts.

2.5.1. Efforts & Projects

Continue to implement effective environmental education efforts and projects, such as installing interpretive signs on Town property.

2.5.2. Partnerships

Strengthen existing and form new local, regional, and national partnerships with environmental organizations, governments, businesses, religious groups, civic groups, neighborhoods, POAs, schools and universities, etc, for environmental education purposes.

Stakeholder(s):

Environmental Organizations
Governments
Businesses
Religious Groups
Civic Groups

Neighborhoods
POAs
Schools
Universities

2.6. Land Acquisition

Identify smaller pieces of land for acquisition to provide localized benefits such as reduction of stormwater runoff, increased shading of impervious surfaces, and overall reduction of impervious surfaces.

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3. Water

Ensure our water is clean, abundant, available, and monitored.

Keyword: Water. Elements: Natural Resources... About this Goal: • The Island must manage development and its effects on our water resources. Clean, abundant drinking water must be prioritized by reducing the waste of treated drinking water. • The Town must monitor water quality, reduce impervious surfaces, encourage environmentally sound stormwater and flood control practices, maintain buffers, and acquire sensitive properties.

3.1. Watersheds

Preserve healthy watersheds and restore impaired watersheds.

3.1.1. Quality

Publish water quality data in an annual report.

3.1.2. Stormwater

Continue to monitor water quality at stormwater discharge points and use the data to guide future infrastructure improvements.

3.1.3. Watersheds

Explore incentives for applicants to use watershed friendly, low-impact planning strategies during plan review.

3.1.4. Impervious Surfaces

Reduce impervious surfaces in sensitive areas through land acquisition.

3.1.5. Headwaters

Explore innovative methods to take development pressure off environmentally sensitive headwater regions.

3.1.6. Broad Creek

Continue to implement the recommendations of the Broad Creek Management Plan and evaluate the need to update the plan.

3.1.7. Waterways

Avoid channelizing naturalized waterways solely for drainage purposes.

3.1.8. Stormwater

Incentivize alternative stormwater management techniques, to include LID techniques such as bioretention, treatment trains, permeable pavement, and infiltration.

3.2. Irrigation

Foster the reduction of the amount of treated water used for irrigation and increase the amount of reclaimed water used for irrigation.

See Infrastructure Tactics 4.2.1 and 4.2.2

3.2.1. Plantings

Encourage the use of drought-tolerant native plantings with high wildlife value (food and habitat).

3.2.2. Turf

Work with PUDs and other communities with covenants to change turf grass requirements to eliminate or reduce the requirement to landscape with turf which requires more irrigation and fertilization than native, drought-tolerant species.

Stakeholder(s):

PUDs

Other Communities

3.2.3. Non-Residential Sites

Limit the amount of turf grass and species requiring irrigation planted on non-residential sites through the review process with the Design Review Board, the LMO and the Town's Design Guide.

Stakeholder(s):

Design Review Board

3.2.4. Reclamation

Encourage infrastructure improvements needed to store and use reclaimed water.

3.3. Pollution & Conservation

Continue efforts to educate the public on preventing water pollution and increasing water conservation.

3.3.1. Xeriscaping

Promote sites like the Xeriscape Garden at Town Hall, and build new example sites and structures, such as a green roofs and rainwater harvest technologies.

3.3.2. Stormwater

Highlight resources for alternative stormwater management and designs for both single family and non-single family developments on the Town's website.

4. Natural Environment

Protect and restore the natural environment of Hilton Head Island.

Keyword: Environmental Protection. Elements: Natural Resources, Community Facilities, Land Use. About this Goal: • The preservation of natural resources includes thoughtful planning techniques and sustainable land-use practices. The Town needs to establish goals and clear metrics for environmental preservation, use Town property as an example of environmental preservation, maintain healthy beaches and creeks, invest in well-planned green space, and protect and manage wetlands and forests. • While developing environmental regulations, consider the long-term implications. For example, the unintended consequences of banning plastic bags.

4.1. Goals & Metrics

Establish goals and clear metrics for: water (salt and fresh) quality and quantity; tree coverage; pesticide and herbicide use; wildlife habitat and population and shoreline erosion.

4.1.1. Overlay Districts

Monitor the effectiveness of the Coastal Protection Area Overlay (CPAO) and Transition Area Overlay (TA-O) districts.

See LMO Sections 16-3-106.L and 16-3-106.M

Stakeholder(s):

Overlay Districts

4.1.2. Beaches

Continue to maintain and protect the beach ecosystem for wildlife (e.g. sea turtle nesting, island glass lizard habitat, piping plover critical habitat).

4.1.3. Open Space

Continue to preserve and maintain open space, including the improvement and enhancement of existing open space.

4.2. Town Property

Find ways to use Town property to showcase environmental preservation.

4.2.1. Greenways

Where applicable, establish greenways between Town properties and other areas of open space.

4.2.2. Habitat

Preserve and/or enhance wildlife habitat on Town properties using methods such as nesting boxes, nesting platforms, littoral shelves in ponds, wildflower patches, living hedges and thickets, and enhanced buffers.

4.2.3. Blueways

Where applicable, establish blueways to link Town-owned properties.

4.3. Easements

Encourage utility companies to maintain easements in a natural state.

Stakeholder(s):

Utility Companies

4.4. Corridors

Reduce or remove obstructions in order to create corridors between blueways – especially between freshwater wetlands, salt marshes, and beaches.

4.5. Development

Support environmentally-neutral development.

4.6. Forests

Create a forest management program to preserve and enhance the Island's forested areas.

4.6.1. Native Species

Investigate incentives to encourage all property owners to preserve and replant native trees and understory vegetation or traditional non-native species.

Stakeholder(s):

Property Owners

4.7. Wetlands

Maintain and adapt the wetland management program to preserve and enhance our wetland system.

4.7.1. Buffers

Enhance, create, and maintain vegetated riparian wetland buffers with viewing corridors and windows.

4.7.2. Town Property

Maintain and protect wetland buffers on Town property by utilizing native plants and pervious surfaces.

4.7.3. Regulations

Continue to evaluate adapt wetland regulations to ensure wetlands and wetland buffers are protected.

4.8. Education

Educate residents and visitors on environmental protection ordinances.

Stakeholder(s):

Residents

Visitors

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5. Energy

Maximize the efficiency of energy usage and expand the use of renewable energy.

Keyword: Energy Resources. Elements: Natural Resources, Community Facilities... About this Goal: • Reducing our consumption of fossil fuels will save money and positively impact the environment, as well as help to slow climate change and its negative effects. • Investing in the development of sustainable energy sources will contribute to the Island’s reputation as a leadership in sustainability and add a new aspect to the economy.

5.1. Buildings

Incentivize the use of energy-efficient building techniques, such as Sustainable Sites Initiative, LEED, Earthcraft, green materials, appliances, etc. for residential and non-residential developments.

5.2. Town Facilities

Use Town facilities as examples of efficient energy use and renewable energy systems.

5.2.1. Certifications

Continue to pursue Sustainable Sites Initiative, LEED or similar certifications for Town buildings, project sites and facilities.

5.2.2. Appliances, Lighting & HVAC

Continue to install new and replacement (as needed) energy-efficient appliances, lighting, HVAC systems, etc. in Town buildings and facilities.

5.2.3. Renewables

Consider installing renewable energy systems, such as solar panels, on Town buildings/property to demonstrate the benefits of renewable energy sources.

5.3. Restrictions

Encourage the removal of any private restrictions on the installation and use of renewable energy systems, such as solar panels.

5.4. Palmetto Electric

Promote Palmetto Electric’s energy efficiency and renewable energy programs to residents and visitors.

Stakeholder(s):

Palmetto Electric

Visitors

Residents

5.5. Santee Cooper

Encourage Santee Cooper to increase the use of sustainable energy sources.

Stakeholder(s):

Santee Cooper

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6. Climate Change

Prepare a plan for and to mitigate the effects of climate change.

Keyword: Climate Change; Resiliency Elements: Natural Resources, Land Use, Priority Investments... About this Goal: • As a low-lying barrier island, Hilton Head Island will be one of the first communities in the region to experience the effects of sea level rise from climate change. • We must anticipate the long-term consequences of current development and investments and adjust our standards and choices accordingly.

6.1. Laboratory

Become a living laboratory for managing the effects of climate change.

6.1.1. Coastal Flooding

Develop and implement a resiliency or adaptation plan to address coastal flooding, sea level rise and other issues the Island could face due to climate change.

See Infrastructure Strategy 3.1

6.1.2. Technology

Use the latest technology to better understand the long-term implications of sea level rise and climate change on the Island's natural resources.

6.2. Codes

Adjust Town codes to minimize the impacts of climate change and sea level rise on private property.

Stakeholder(s):

Private Property Owners

6.3.1. Nonconformities

Consider eliminating the grandfather clause for nonconformities in the Coastal Protection Area Overlay (CPA-O) and Transition Area Overlay (TA-O) districts.

This will protect private property from storm surge and sea level rise as well as maintain a mature, intact dune system.

Stakeholder(s):

Overlay Districts

Property Owners

6.3.2. New Structures

Examine the benefits and costs of requiring new structures to be elevated above the minimum requirements.

6.3.3. Exemptions

Consider eliminating or reducing exemptions when permitting the redevelopment of nonconforming structures.

6.3.4. Flood Maps

Anticipate the effects of new FEMA Flood Maps, adoption of which will allow construction below current minimum elevations, by changing requirements to maintain or exceed current minimum elevations.

Stakeholder(s):

FEMA

6.4. Beach Renourishment

Maintain all programs required to support and continue the beach renourishment program.

6.5. Wetlands & Flood-Prone Areas

Continue to acquire wetlands and other low-lying and flood-prone pieces of land in order to decrease development in flood-prone areas.

6.6. Education

Educate residents and visitors about climate change and how it will affect the Island.

Stakeholder(s):

Residents

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7. Air Quality

Improve air quality by reducing/minimizing emissions.

Keyword: Air Quality. Elements: Natural Resources, Land Use, Transportation, Community Facilities... About this Goal: • Air quality has a proven affect on human and environmental health. • The Town can take steps to improve air quality by promoting: o The use of alternative transportation (mass transit, walking, bicycling, etc.), o Providing incentives for energy efficiency, o Monitoring and improving tree and vegetation coverage, o Continuing to purchase property to preserve open space and trees/vegetation and to remove potential density and resulting vehicle traffic, and o Educating residents and visitors about the importance of air quality.

7.1. Public Transit

Explore opportunities for the further development and use of public transit (prioritizing vehicles that use renewable energy) and other innovative transportation strategies.

See Infrastructure Strategy 1.8

7.2. Transportation

Promote the use of human-powered and electric transportation.

See Infrastructure Strategies 1.8 and 1.9

7.3. Trees

Preserve and plant trees for reduction of the urban heat island effect, to lessen the formation of disease-causing ground-level ozone and remove particulate matter and carbon dioxide generated by vehicle emissions.

7.4. Density & Trips

Continue to purchase property to decrease the total available density and the number of peak hour trips on Island roads.

7.5. Municipal Fleet

Continue to convert the Town's municipal fleet of vehicles to those that use hybrid, electric, or similar technology whenever practical.

7.6. Education

Educate residents and visitors about air quality and its impact on human and environmental health.

Stakeholder(s):

Residents

Visitors