SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



Interim Guidance for the Development of Local Comprehensive Beach Management Plans

Revised 2012

Office of Ocean and Coastal Resource Management

Guidelines for the development of LOCAL COMPREHENSIVE BEACH MANAGEMNT PLANS in accordance with Sections 48-39-320 and 350 S.C. Coastal Zone Management Act, as amended

Department of Health and Environmental Control's Office of Ocean and Coastal Resource Management Charleston, SC 29405

TABLE OF CONTENTS

Introduction	4
Background	5
Legislative Findings	
Beachfront Management Act Policies	
State Beach Management Implementation	6
State Comprehensive Beach Management Plan	9
Amendments to the State Beachfront Management Act	10
Local Beach Management Implementation	10
Local Comprehensive Beach Management Plans	11
How a Local Plan is Used	11
Steps in the Process	11
Initial Coordination	11
Preliminary Review	11
State Review and Approval	12
Beach Management Plan Format	12
1. Introduction	13
2. Inventory of Existing Conditions	13
3. Beachfront Drainage Plan	16
4. Beach Management and Authorities	16
5. Erosion Control Management	18
6. Needs, Goals and Implementation Strategies	20
7. Appendix	
Summary	23
Onlina Pasauraas	22

Interim Guidance for the Development of Local Comprehensive Beach Management Plans

Introduction

South Carolina Department of Health and Environmental Control's Office of Ocean and Coastal Resource Management (DHEC-OCRM) is responsible for the management of the state's beachfront and coastal zone. The Beachfront Management Act, S.C. Code Ann. § 48-39-250 et seq., established a requirement in section 48-39-350 that ocean beachfront counties and municipalities must prepare local comprehensive beach management plans in coordination with DHEC-OCRM that contain ten key elements at a minimum. Once adopted by the community, local comprehensive beach management plans are then submitted to DHEC-OCRM for review and state approval. The state is currently reviewing and updating the State Comprehensive Beach Management Plan that provides guidance for the development and revision of local comprehensive beach management plans. DHEC-OCRM has prepared this interim guidance to assist communities preparing to revise their local comprehensive beach management plans while the state plan is being revised.

DHEC-OCRM is responsible for ensuring that beachfront communities develop, implement, and update their local comprehensive beach management plans. However, DHEC-OCRM also seeks to ensure that the planning process does not unduly impact beachfront communities. DHEC-OCRM provides technical assistance to local governments by appointing a planning staff member to serve as the Community Liaison and point of contact for the local government to provide planning support during the development and revision of local comprehensive beach management plans.

In accordance with the state Beachfront Management Act, local comprehensive beach management plans are required, at a minimum, to include the following ten elements:

- 1. an inventory of beach profile data and historic erosion rate data for each standard erosion zone and inlet erosion zone under the local jurisdiction;
- 2. an inventory of public beach accesses along with a plan for enhancing public access and parking;
- 3. an inventory of all structures located in the area seaward of the setback line;
- 4. an inventory of turtle nesting and important habitats of the beach/dune system and a protection and restoration plan if necessary;
- 5. a conventional zoning and land use plan consistent with the purposes of the Act for the area seaward of the setback line;
- 6. an analysis of beach erosion control alternatives, including renourishment of the beach under the local government's jurisdiction;
- 7. a drainage plan for the area seaward of the setback zone;
- 8. a post disaster plan including plans for cleanup, maintaining essential services, protecting public health, emergency building ordinances, and the establishment of priorities, all of which must be consistent with the Act;

- 9. a detailed strategy for achieving the goals of this chapter by the end of the fortyyear retreat period. Consideration must be given to relocating buildings, removal of erosion control structures, and relocation of utilities; and
- 10. a detailed strategy for achieving the goals of preservation of existing public access and the enhancement of public access to assure full enjoyment of the beach by all residents of this state.

Local oceanfront governments should work in concert with their DHEC-OCRM Community Liaison to develop a scope of work, share necessary planning information, and ensure that potential beach management issues are identified and analyzed. The beach management planning process may take as little as six months or as much as year or more to prepare, however the process should not be rushed. Timing will depend on the level of coordination and the information and issues that must be identified and addressed. The local comprehensive beach management plan is intended to be a useful tool in the local and state management of South Carolina's oceanfront.

Background

The General Assembly of the state of South Carolina amended the South Carolina Code of Laws on July 1, 1988 to increase the state's authority to manage the use and preservation of ocean beaches and dunes. The state's Coastal Tidelands and Wetlands Act (Chapter 39 of Title 48 of the 1976 Code), often referred to as the South Carolina Coastal Zone Management Act, was amended to include the State Beachfront Management Act beginning in §48-39-250.

Legislative Findings

Through the Act¹, the General Assembly stated eleven legislative findings which include the importance of the beach and dune system in protecting life and property from storms, providing significant economic revenue through tourism, providing habitat for native plants and animals, and providing a healthy leisure environment for state residents. The General Assembly also stated that the state's Coastal Zone Management Act prior to 1988 did not provide adequate jurisdiction to the state's coastal management agency. Consequently, unwise development had jeopardized the stability of the beach and dune system, accelerating erosion and endangering adjacent property.

The findings of the Act state that erosion is a natural process. The Act asserts that hard erosion control devices, such as oceanfront seawalls and riprap, had not proven effective in protecting erosion-threatened structures and had contributed to a deterioration and loss of dry sand beaches. Likewise, inlet and harbor management practices affect the littoral transport of sand. The Act states that funding for beach and dune protection and management was inadequate, and that promoting public access was in the state's best interest for both tourists and residents. Finally, the Act states that no coordinated state policy for post-storm management of the beach and dunes existed. It suggests that a comprehensive beach management plan was needed to prevent unwise development and minimize adverse impacts.

¹ §48-39-250

Beachfront Management Act Policies

The General Assembly, "...in recognition of its stewardship responsibilities," established eight state policies to guide the management of ocean beaches². The eight beach policies are summarized as:

- 1. Protect, preserve, restore, and enhance the beach/dune system;
- 2. Create a comprehensive, long-range beach management plan and require local beach management plans for the protection, preservation, restoration, and enhancement of the beach/dune system, each promoting wise use of the state's beachfront to include a gradual retreat from the system over a forty-year period;
- 3. Severely restrict the use of hard erosion control devices encourage the replacement of hard erosion control devices with soft technologies which will provide for the protection of the shoreline without long-term adverse effects;
- 4. Encourage the use of erosion-inhibiting techniques which do not adversely impact the long-term well-being of the beach/dune system;
- 5. Promote carefully planned nourishment as a means of beach preservation and restoration where economically feasible;
- 6. Preserve existing public access and promote the enhancement of public access for all citizens including the handicapped and encourage the purchase of lands adjacent to the Atlantic Ocean to enhance public access;
- 7. Involve local governments in long-range comprehensive planning and management of the beach/dune system in which they have a vested interest; and
- 8. Establish procedures and guidelines for the emergency management of the beach/dune system following a significant storm event.

The state Beachfront Management Act establishes the statutory guidance and state policies, which directs all state beachfront activities and decisions. The Act is implemented through a variety of mechanisms at the state and local levels, including through the local comprehensive beach management plans.

State Beach Management Implementation

The state of South Carolina established a forty-year policy of retreat as part of the Beachfront Management Act³. DHEC-OCRM, as the steward of the state's coastal resources, is responsible for implementing this policy through a comprehensive beach management program including regulation, scientific monitoring, state and local planning, and outreach and education⁴. Key sections of the Beachfront Management Act direct DHEC-OCRM to regulate and enforce activities that impact or occur on oceanfront beaches in the state. The Act also directs the development and implementation of a Comprehensive State Beach Management Plan with a long-ranging planning vision⁵.

² §48-39-260

³ §48-39-280(A) ⁴ §48-39-80

⁵ §48-39-320

The implementation of the forty-year retreat policy is derived from regulations that restrict shoreline development within an established beachfront jurisdictional area. As amended, the Beachfront Management Act provides DHEC-OCRM with direct authority in the immediate beachfront area, limited to two scientifically-determined jurisdictional lines: the baseline and the setback line.

To establish the baseline position, the shoreline is classified as either standard erosion zones or inlet erosion zones based on their erosion characteristics. The baseline for a standard erosion zone is established at the location of the crest of the primary oceanfront sand dune in that zone. If the shoreline in a standard erosion zone had previously been altered naturally or artificially by the construction of an erosion control device, the baseline is established where the crest of the dunes would have been had the disturbance not occurred⁶.

The baseline for inlet erosion zones is determined differently for inlets that are stabilized by jetties, groins or other structures, and inlets that are not stabilized. For unstabilized inlets, DHEC-OCRM establishes the baseline at the most landward point of erosion at any time during the past forty years⁷. For inlet zones that are stabilized by jetties, groins, or other structures, DHEC-OCRM establishes the baseline at the location of the crest of the existing dune⁸.

The setback line is a boundary established by DHEC-OCRM that is dependent upon the baseline position and the local long-term erosion rate. The setback line is drawn landward of the established baseline at a distance equal to forty times the average erosion rate. In places with stable or accretional beaches, the setback line is drawn at a minimum distance of twenty feet landward of the baseline⁹.

State jurisdictional lines are not permanent. State law requires DHEC-OCRM to review baselines and setback lines every eight to ten years to account for natural or man-made changes. Jurisdictional lines are determined based on the best scientific and historical data available. In determining revisions to any lines within inlet zones, DHEC-OCRM must consider historical inlet migration, inlet stability, channel and ebb tidal delta changes, the effects of sediment bypassing on shorelines adjacent to the inlets, and the effects of nearby beach restoration projects on inlet sediment budgets¹⁰.

Construction, reconstruction, or alteration activities within the state's beachfront jurisdictional area are restricted in order to implement the policy of shoreline retreat. Activities seaward of the baseline or within the setback area are subject to permitting approval from DHEC-OCRM.

⁷ §48-39-280(A)(2)

⁶ §48-39-280(A)(1)

⁸ §48-39-280(A)(3)

⁹ §48-39-280(B)

¹⁰ §48-39-280(A)(2)

New construction allowed seaward of the baseline is limited to the following types of structures:

- 1. wooden walkways no more than six feet wide,
- 2. wooden decks no larger than 144 square feet,
- 3. public fishing piers,
- 4. golf courses,
- 5. normal landscaping,
- 6. pools located landward of an existing functioning erosion control structures,
- 7. groins built before 1988, and
- 8. structures permitted by a DHEC-OCRM special permit.¹¹.

Construction between the state baseline and setback lines may include habitable structures, erosion control devices, and swimming pools. New habitable structures built between the baseline and setback line may not exceed 5,000 square feet of heated space, and must be located as far landward on the property as possible. Construction must not incorporate any erosion control structure or device as part of the integral habitable structure. No part of the building may be constructed seaward of the baseline or on the primary sand dune. The applicant must certify to DHEC-OCRM in writing that these conditions are accurate, and submit a drawing that shows the footprint of the structure on the property, a cross section of the structure, and the structure's relation to property lines and setback lines which may be in effect¹².

Owners may replace habitable structures permitted within the setback area that have been destroyed beyond repair by natural causes after notifying DHEC-OCRM. The owner must certify that the total square footage of the replaced structure seaward of the setback line is not greater than the original square footage. They must also certify that the replaced structure is no further seaward than the original structure, and is constructed as far landward as possible, considering local zoning and parking requirements ¹³.

No new erosion control devices are allowed seaward of the setback line except to protect a public highway that existed prior to the ratification of the Beachfront Management Act. Erosion control structures that existed before 1988 may not be repaired or replaced if the above grade structure is destroyed more than fifty percent. DHEC-OCRM is responsible for assessing the damage to erosion control devices, as well as habitable structures, to determine the extent of damage following hurricanes or other events¹⁴.

Finally, no new pools are permitted to be constructed seaward of the setback line, unless they are located landward of an existing, functional erosion control device. Pools that existed prior to 1988 may be repaired or replaced provided the owner certifies that it is rebuilt no larger than the original, is constructed in such a manner that it does not act as an erosion control device, and has been moved as far landward as practical.

¹¹ §48-39-290(A) ¹² §48-39-290(B) ¹³ §48-39-290(B)(1)(a)(iv)

¹⁴ §48-39-290(B)(a)

DHEC-OCRM may issue a special permit for any other construction or alteration between the setback line and baseline 15.

State Comprehensive Beach Management Plan

DHEC-OCRM is required by the Beachfront Management Act to prepare a "... longrange and comprehensive beach management plan for the Atlantic Ocean shoreline in South Carolina". This plan, South Carolina's Beachfront Management Plan, is particularly important for two reasons; the Plan harbors the precise building setback lines along the entire coast, and references all approved local comprehensive beach management plans. Required elements of the state plan include:

- 1. Development of a database for the state's coastal areas to provide essential information concerning the management of the beach/dune system;
- 2. Development of guidelines for the accomplishment of:
 - a. beach/dune restoration and nourishment;
 - b. development of a beach access program;
 - c. maintenance of a ecologically stable, dry, sandy beach;
 - d. protection of all sand dunes seaward or setback line;
 - e. protection of endangered and threatened species as well as critical habitats;
 - f. regulation of vehicular traffic upon the beaches and beach/dune system;
 - g. development of a mitigation policy for construction allowed seaward of setback line;
- 3. Development of a mitigation policy for construction allowed seaward of the setback line;
- 4. Development of a public education and awareness program on the importance of the beach/dune system; and
- 5. Assistance to local governments in developing the local comprehensive beach management plans.

The State Comprehensive Beach Management Plan is currently codified as a state regulation. Any local comprehensive beach management plan that is adopted by a county or municipality and approved by DHEC-OCRM becomes part of the state plan. DHEC-OCRM considers state and local comprehensive plans when reviewing critical area permit applications to ensure that no permit shall be issued which is *inconsistent* with the state plan, and all permits issued are *consistent* with the local plans to the maximum extent practicable ¹⁷.

Furthermore, consideration of the state's policies regarding the management of its beaches must be given when reviewing special permit applications for activities seaward of the baseline. Specifically, there shall be no adverse impact on the stated policies of the

¹⁷ R. 30-15.D (4)

¹⁵ §48-39-290(B)(3)(a) ¹⁶ §48-39-320(A)

Beachfront Management Act, including the policies protecting the sand dunes and preservation of the dry sand beach. ¹⁸

Amendments to the State Beachfront Management Act

Since being introduced in 1988, the state Beachfront Management Act (Act 634) or its sections have been amended six times to date. ¹⁹ Three of these amendments are of particular interest to communities concerning local comprehensive beach management plans and are summarized below:

Act 607 -

This critical piece of legislation, ratified in 1990, was the first major amendment to Act 634. Modifications made accounted for lessons learned from Hurricane Hugo. A significant provision added to this amendment allowed for the seaward movement of the baseline. Previously a seaward movement of the baseline was not authorized under any circumstance. Additionally, this amendment established guidelines for determining the placement of the baseline and setback lines, and detailed the requirements for construction, reconstruction, replacement and repair of structures within the state's jurisdictional area.

<u>Act 497</u> –

This amendment, ratified in 1994, added a provision concerning *Local Cooperative Agreements* and the reimbursement of funds by the Army Corps of Engineers for a federally cost-shared beach nourishment project. The amendment states that the nonfederal project sponsor must refund the state for a federally cost-shared beach nourishment project. Reimbursement shall be shared between the state and nonfederal sponsor based on the ratio each entity contributed to the nonfederal match.

<u>Act 198</u> –

This amendment, ratified in 2002, provided a new provision allowing existing groins to be reconstructed, repaired and maintained seaward of the baseline. The provision allows new groins on beaches that exhibit high erosion rates where existing development or public parks are being impacted. Furthermore, groins can be constructed or reconstructed in advance of an on-going beach nourishment project.

Local Beach Management Implementation

Local counties and municipalities whose jurisdiction includes ocean beachfront have certain responsibilities, authorities, and limitations as directed by the state Beachfront Management Act and other state authorities.

-

¹⁸ R.30-15.F (2)

¹⁹ 1990 (Act 607), 1993 (Act 29), 1993 (Act 181), 1994 (Act 497), 2002 (Act 198), and 2006 (Act 387)

Local Comprehensive Beach Management Plans

The most significant direct requirement of each of the eighteen counties and municipalities that border the Atlantic Ocean in South Carolina is the development and implementation of a local comprehensive beach management plan approved by DHEC-OCRM.

How a Local Plan is Used

Local comprehensive beach management plans should be developed with a varied user group in mind. The local plan is intended to be comprehensive enough that any resident of the state who reads the plan can understand the general layout, conditions, issues, and management strategy of the community. The plan also needs to adequately document important management concerns, issues, or policies that may affect or be affected by federal, state, or local funding limitations. Local plans provide guidance to state and federal agencies on local policies, regulations, and procedures related to beach management. The local plan should be detailed enough that state agents can use the document as part of a beachfront emergency response and damage assessment program.

Steps in the Process

The state review and approval procedure for a local comprehensive beach management plan is divided into three phases: initial coordination, preliminary review, and state review and approval. Each phase includes a series of individual steps designed to ensure that the minimum requirements established by the state Beachfront Management Act in section 48-39-350 have been met.

Initial Coordination

In the first step, the beachfront county or municipality must hold an initial coordination meeting with the DHEC-OCRM Community Liaison to discuss the project schedule, local beach management issues, review criteria, state and local expectations, and the approval process.

Working with the DHEC-OCRM Community Liaison, the local government prepares and develops a preliminary draft of the local beach management plan.

When the local government has completed the preliminary draft, it is submitted to DHEC-OCRM for preliminary review. The county or municipality should submit four (4) bound and one (1) unbound hard copies of the draft document, and one (1) CD-ROM which includes the document in Microsoft Word format and all maps and figures in digital format. All maps presented in the document should include a legend, scale bar and north arrow.

Preliminary Review

DHEC-OCRM staff will review the preliminary draft document and provide comments to the local government, which the Community Liaison will help address.

Once the county or municipality has revised the preliminary draft document to reflect the comments received from DHEC-OCRM, the revised plan should be placed on public notice by the local government for 30 days, after which time the local government may hold a public hearing if deemed necessary.

The local government can now adopt the local comprehensive beach management plan by resolution, and should submit the locally adopted plan to DHEC-OCRM for state review and approval. The county or municipality should submit a copy of the resolution, two (2) bound hard copies of the locally adopted document to the Community Liaison, and one (1) CD-ROM which includes the document and all maps and figures in Adobe Acrobat PDF format.

State Review and Approval

Upon receipt of the locally adopted plan, DHEC-OCRM will initiate a 30-day public comment period. The DHEC-OCRM Community Liaison will afford the opportunity for a public hearing in the community indicating how the locally adopted beach management plan meets the ten requirements established by the state Beachfront Management Act in section 48-39-350. The DHEC-OCRM Community Liaison will address any comments received at the public hearing in a prepared response document as part of the state review and approval process.

DHEC-OCRM will prepare a summary of the final document and recommend state approval. Upon state approval, the DHEC-OCRM Community Liaison will issue a public notice that includes the implementation date of the local comprehensive beach management plan.

Beach Management Plan Format

DHEC-OCRM uses the local comprehensive beach management plans as part of administrative and program management decisions and as guidance for disaster response. For this reason, DHEC-OCRM has prepared a standard format for all local comprehensive beach management plans that ensures consistency and uniformity in their composition. This format also ensures that the required elements are adequately presented. DHEC-OCRM recognizes that each local plan may be unique in the beach management issues and enforceable policies.

The standard format of a local comprehensive beach management plan includes eight major sections each designed to address one or more required element. The following guidance is provided to assist local governments in preparing sections of the plan. Following each heading and subheading is a brief explanation of the recommended local information and discussion that should be included.

1. Introduction

1.1 Purpose

Briefly describe why the plan is being prepared and what the objectives of the county or municipality is in writing the plan.

1.2 History of Plan Approvals and Revisions

Discuss the history of your local beach management plan. When was the plan first approved? Have there been any subsequent revisions? If so, what changed from the previous plan?

1.3 Overview of Municipality/History of Beach Management Approaches

Briefly describe your municipality and provide a history of beach management approaches utilized by your community. These include informal policies, formal policies enacted by local legislative bodies, and local standard operating procedures that have historically been used as beach management approaches. The community can also use this section to make known any policy statements, which must be discussed in more detail later in the plan.

1.4 Current Beach Management Issues

Discuss, in a broad context, local issues that affect beach management in the community (i.e., beach erosion, dog management, dangerous currents, concession stands, need for beach nourishment, etc.) Important issues that are identified must be addressed later in the plan. Your DHEC-OCRM Community Liaison can help identify and frame local issues.

2. <u>Inventory of Existing Conditions</u>

2.1 General Characteristics of the Beach

Discuss each section of the local beach morphologically. Provide information about the beach, sand (grain size), describe the dunes, and note if there have been major changes over time. Include a location map

2.1.1 General Land Use Patterns

Discuss land use within your municipality. Begin at a community-wide level and gradually focus on beachfront areas. Discuss standard planning information about the community's population and land use. This information can be taken from the community's comprehensive plan. Include any current or future land use maps.

2.2.1 Beach Uses

Discuss each of the various uses of the beach, particularly if there are different uses between sections (i.e., swimming, boating, surf fishing).

2.2.2 Benefits and Values of the Beach

Provide discussion of the general benefits provided by the beach to residents and visitors, and prepare an estimated economic value associated with the local beach. This information is extremely important when seeking funds for beach management and access improvements.

2.3. Beachfront Developments and Zoning

Provide a conventional zoning and land use plan for the area seaward of the setback line. Identify and discuss the purpose and permitted uses of each zoning classification seaward of the setback line. A zoning map including the area seaward of the DHEC-OCRM setback line must be included.

If possible, identify all major development projects (i.e., hotels, apartments, condominiums, planned unit developments) that are located adjacent to the beach. This discussion could include the name of the development, approximate number of buildings and units, date of construction and any relevant conditions of development agreements.

2.3.1 Beachfront Structural Inventory

Map and discuss all structures located seaward of the setback line. Discussion should provide summary statistics on type and number of structures seaward of setback line. Provide a table (appendix) of structures which includes tax map numbers, distances to setback line and baseline and a note indicating if a pool or an erosion control structure(s) is present. A sample table is provided in Section 7.2 of this document..

2.4. Natural Resource and Ecological Habitats

Discuss the habitat provided by the beach/dune system. Note the species of beach grass, common animals using the beach/dunes and habitats found just upland of the dune system. If necessary, provide a protection and restoration plan for any critical habitats. Habitat management, such as sand fencing, that can positively or negatively affect the system should also be noted.

2.4.1 Threatened and Endangered Species

A table of threatened and endangered species and their state and federal protected status should be included. Any activities that may negatively affect threatened or endangered species should be discussed. If necessary, provide a protection plan.

2.4.2 Turtle Nesting

Sea turtle nesting must be inventoried and discussed. A map of the turtle nesting locations should be included in the plan. If necessary, provide a protection and restoration plan for turtle nesting locations.

2.5. Existing Public Access and Map

Inventory the existing public access locations and associated amenities (i.e., parking, signage, walkways, bathrooms) and present them in the plan in both table (table can be referenced and put in an appendix) and map form. An overall discussion of the condition of existing public access along the beachfront should be included. The extent of "full and complete public access" as defined in the State Beach Management Plan must be included in both text and map form. Criteria for determining "full and complete public access" are summarized in the DHEC-OCRM Public Beach Access Facility Classification Table below.

Type of Facility	Distance on Either Side of Access Point Which Will be Considered as Having Full and Complete Access	Minimum Facilities	
Public Access Point	1/8 mile	Trash receptacle; walkover / improved surface access, signage, on-street parking for 6 vehicles	
Local Public Access Park	1/4 mile	As Above, parking for 10 vehicles	
Neighborhood Public Access Park	1/2 mile	As above, parking for 25 vehicles	
Community Public Access Park	3/4 mile	As above, showers, lifeguards, concession, handicapped access and parking, parking for 75 vehicles	
Regional Public Access Park	1 mile	As above, parking for 150 vehicles or greater	

DHEC OCRM Public Beach Access Facility Classification

3. Beachfront Drainage Plan

Discuss the community's stormwater management plan and specifically address drainage seaward of the setback line. A map indicating outfalls seaward of the setback line and discussion of how the community is managing and reducing the impacts of stormwater on the beach should be included. The community must develop a plan of action and implementation schedule that will include the following: a strategy to provide treatment or reduce number of outfalls onto the beachfront, a maintenance and improvement schedule to provide better treatment, a strategy to eliminate pool overflows or deck outfalls from discharging onto the beach, and methods for providing additional retention basins, infiltration systems and reduced flow.

Moreover, identify and discuss any upland drainage issues that affect the beach, as well as how the county or municipality will manage stormwater under the federal and state stormwater programs. The discussion should include how those programs will specifically affect the beachfront.

4. Beach Management and Authorities

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

4.1. State Authorities

4.1.1 Overview of State Policies (Beachfront Management Act)

Provide discussion of the South Carolina's Beachfront Management Act, its policies and how they are implemented. Your DHEC-OCRM Liaison can help prepare this discussion.

4.1.2 Beachfront Setback Area

Discuss the state of South Carolina's forty-year retreat policy as a part of the state Beachfront Management Act and DHEC-OCRM's role in implementing and enforcing this policy. Maps illustrating the baseline and setback line positions should be provided. Your DHEC-OCRM Liaison can help prepare this discussion.

4.2. Local Government and Authorities

Briefly detail what local authorities exist in your municipality; specifically with regards to beach management.

4.2.1 Municipality's Comprehensive Plan

Detail the municipality's current Comprehensive Plan. Focus on any goals or policies that focus on the beachfront or areas affecting the beachfront.

4.2.2 Municipality's Hazard Mitigation Plan

Detail your county and any local hazard mitigation plan(s) and any other efforts proposed or currently underway to reduce future storm-related damages. Develop

4.2.3 Municipality's Disaster Preparedness and Evacuation Plan

Detail all preparedness plans as they relate to local emergency operations protocol; specifically preparedness and evacuation, recovery plans and mitigation.

4.2.4 Beachfront Development Regulations

A summary of all local ordinances that are related to land disturbance, zoning, building or construction (including conditions following damage or destruction) in the setback area must be included. Compare existing zoning requirements to DHEC-OCRM permit requirements in the setback area and identify any conflicts. Identify changes needed to make current zoning consistent with permit requirements of DHEC-OCRM. Include copies (or reference) of the relevant sections of ordinance in an appendix.

Identify structures not in compliance with the provisions of the Beachfront Management Act. Identify any changes needed to address future development landward of the setback line if the setback line itself is reestablished landward. This information should be considered under the retreat strategy.

4.2.5 Regulations on Beach and Shoreline Protection

Discuss and cite local mandates that have been implemented to support or exceed the state of South Carolina's forty-year retreat policy. For example, include any land use zoning that further restricts construction in the setback area.

4.2.6 Other Regulations on Beach Management

Discuss how the community manages the beach to insure local beach management policies are met for the beach as well as offshore. Summarize all local ordinances that are related to management of the uses of the beach, specifically those related to dogs, beach scraping or beach raking, boat landings on beaches, sea turtle protection, dune habitat protection, vehicles on beaches and protection of sea oats. Include copies (or reference) of the relevant sections of ordinance in an appendix

5. Erosion Control Management

5.1. Shoreline Change Analysis

Discuss shoreline zones as defined by the Beachfront Management Act and which zones are present in your municipality.

5.1.1 Beach Profiles

Provide an inventory and discussion of beach profile data for each standard erosion zone and inlet erosion zone. Data should be presented in a table showing survey stations, survey date and volume of sand recorded. A map indicating all beach monitoring stations and numbers should be provided. Your DHEC-OCRM Liaison can help prepare this.

5.1.2 Long-Term Erosion Rates and Shoreline Change

Explain the methodology of how long-term erosion rates are calculated. Provide an analysis of long-term erosion rates and general shoreline change in your community. Analysis must include historic erosion rate data for each standard erosion zone and inlet erosion zone. Maps illustrating long-term erosion rates and shoreline change should be provided. Your DHEC-OCRM Liaison can help prepare this discussion.

5.2. Beach Alteration Inventory

Provide discussion and an inventory of groins, bulkheads, revetments and seawalls that may exist along the beachfront. Evaluate the condition of each structure. Utilize this information to determine if there are any generalized areas of disrepair or dilapidation. This information should be considered under the retreat strategy. A map indicating all groins and erosion control structures should be provided.

5.2.1 Beach Renourishment

Provide discussion on all historic renourishment projects that have been undertaken along the beachfront. Detail location(s) of projects(s), sources of sand, costs, successes, etc. How has beach nourishment shaped your shoreline?

5.2.2 Emergency Orders and Sandbags

Provide discussion on emergency orders in South Carolina and how emergency orders will be authorized during a local erosion emergency. Detail any past emergency orders or use of sandbags along the community's beachfront. A table indicating the date an emergency order was issued, location of emergency order, type of event that precipitated the emergency order and mitigation technique employed should be provided. Develop a strategy for avoiding future emergency orders. Your DHEC-OCRM Liaison can help prepare this.

5.2.3 Previous Hurricane or Storm Events

Briefly discuss and analyze hurricanes and major storm events that have influenced your community's shoreline.

5.3. Discussion of Erosion Control Alternatives

Provide an analysis of erosion control alternatives that have historically been utilized by the community. Identify beach erosion problems and possible solutions. Possible solutions should be considered under the retreat strategy.

5.3.1 Beach Renourishment

Discuss beach nourishment as an erosion control alternative. Any anticipated future nourishment projects should be provided. Discuss any sediment budget evaluations that have been undertaken in the area. If renourishment is a viable option in the future, develop a plan of action and an implementation schedule in accordance with the DHEC-OCRM's Guidelines for Beach Nourishment. This information should be considered under your retreat strategy.

5.3.2 Other Measures

Discuss any other erosion control alternatives utilized by the community.

6. Needs, Goals and Implementation Strategies

6.1. Retreat Strategy

Detail the local strategy for achieving the goals of the state's retreat policy. The plan should examine long-term erosion rates, identify problem areas, and outline strategies for how the municipality will address beach erosion and the problem areas beyond a ten-year planning horizon. The local strategy must include consideration for relocation of buildings, removal of erosion control structures, and the relocation of utilities. Is relocation a viable option as part of your retreat strategy? Are there opportunities to reduce repetitive loss properties? Are land acquisitions or easements an option? Are local policies in place to address the abandonment of properties along the active beach? Is post-storm redevelopment planning/zoning regulation changes an option? Are you taking advantage of pre-disaster mitigation grants or other funding assistance? If not, discuss why?

The local strategy should also include current local regulations that complement the state's retreat policy. Any future needs (i.e. beach nourishment) should be identified. Furthermore, the local strategy should anticipate the landward movement of the baseline and setback line and thus develop policies to address such movement. Finally the local strategy should identify conflicts between any existing plans and ordinances with the state's retreat policy.

6.2. Strategy for preserving and enhancing public beach access

Detail the community's public beach access strategy to assure full enjoyment of the beach by all citizens of the state. Does existing public access meet the demand of the public? If not, why not and discuss opportunities to meet those needs. Are improvements to existing access needed? Is additional access needed? Do we budget for these improvements?

7. Appendix

7.1. Beach Management Overlays

Provide land use maps with zoning and beach management overlays.

7.2. Structures Inventory Table

Provide an inventory table of all structures located seaward of the setback line. The structural inventory should include tax map numbers of all parcels with a structure located seaward of the setback line, and a note indicating the type of structure (i.e., habitable structure greater than 5,000 sq. ft., habitable structure less than 5,000 sq. ft, seawall, deck, pool, parking lot, pier). The inventory should also note how far the structure is located seaward from the setback line (ft). A template table is provided below:

Street	Tax Map Number	Parcel Number	Structure Inventory	Structure Distance From OCRM 40-Year Setback Line	Erosion Control Structure
Street name	Tax #	Parcel #	A, F, P	30, 40, 50	ВН
Street name	Tax #	Parcel #	B, D	40, 50	RR

A=Habitable Structure<5,000sq ft.

BH=Bulk Head B=Habitable Structure>5,000sq ft. PP=Private Pier

D=Deck E=Ancillary Building F=Fence

RA=Recreational Amenity RR=Rock Revetment SB=School Building

P=Pool

7.3. Public Access Inventory Table

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

Street	Tax Map Number	Parcel Number	Facility Type
Street Name	Tax #	Parcel #	PAP
Street Name	Tax #	Parcel #	LPAP

PAP=Public Access Point

LPAP=Local Public Access Point

NPAP=Neighborhood Public Access Point

CPAP=Community Public Access Point

RPAP=Regional Public Access Point

7.4. Prior Studies

Provide all previous studies completed relating to your local beach. Examples would include investigations or projects concerning planning, land use, geology, coastal engineering or coastal process.

7.5. Copies of Local Laws and Ordinances

Provide copies of all local laws and ordinances related to beach management.

Summary

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

Local comprehensive beach management plans are required to be reviewed by the local government every five years. Additionally, updated revisions are required to be submitted for state approval every ten years. In an effort to assist local governments with this process, DHEC-OCRM has developed these guidelines and is prepared to appoint a planning staff member to serve as the Community Liaison. The Community Liaison will provide technical assistance to local governments in the development and revision of the plans and ensure the process is not unduly burdensome.

For additional information or assistance with this process, contact DHEC-OCRM's Coastal Services Division at (843) 953-0200.

Online Resources

South Carolina's Coastal Zone Management Act: Coastal Tidelands and Wetlands Chapter 39 of Title 48 of the SC Code of Laws http://www.scstatehouse.gov/code/t48c039.htm

Rules and Regulations for Permitting in the Critical Areas of the Coastal Zone Chapter 30 of the SC Code of Regulations http://www.scstatehouse.gov/coderegs/c030.htm

SC DHEC Office of Ocean and Coastal Resource Management http://www.scdhec.gov/environment/ocrm/