

# **DRAFT REPORT OF THE SHORELINE CHANGE ADVISORY COMMITTEE**

## **EXECUTIVE SUMMARY**

Just over twenty years ago, a “Blue Ribbon Committee on Beachfront Management” was convened by the former South Carolina Coastal Council to address what was considered a “crisis” situation involving our beaches. Recognizing the threats of chronic erosion, sea level rise, increased shoreline development, and a lack of comprehensive beachfront planning and management, the panel developed recommendations that provided guidance to state regulators and legislators in developing state beach management policies. Most of their recommendations were adopted into law through the 1988 South Carolina Beachfront Management Act (SC Code §48-39-250 et seq.).

Over the past two decades, the Beachfront Management Act and associated regulations have significantly influenced shoreline development and limited hard stabilization of the beachfront. However, the issues raised by the 1987 panel remain important today. We face a continuing challenge in balancing the protection of economic and environmental resources along our shorelines. Complex regulatory, economic, environmental, and legal issues, together with environmental and socioeconomic data limitations, often result in differing perspectives on future shoreline changes and our ability to adapt to those changes. DHEC’s Office of Ocean and Coastal Resource Management (DHEC-OCRM) is currently re-evaluating these issues in light of twenty years of experience and an improved understanding of shoreline dynamics in our state. In late 2007, an external “Shoreline Change Advisory Committee” was formed to: 1) identify continuing information and research needs; and 2) evaluate existing policies and policy alternatives. The Committee was made up of 23 experts from academia, government, and the private sector, and was charged with examining science and policy issues related to both beachfront and estuarine shoreline management in South Carolina, to help the state address future social, economic, and natural resource impacts of shoreline changes that may result from continued (or accelerated) rise in sea level, development encroachment into the beach/dune system, shoreline alterations, and coastal storms.

First and foremost, the Advisory Committee reaffirmed the overarching policies of the SC Beachfront Management Act and encourages the State to renew its commitment to the challenging but important principles advanced by the Legislature over twenty years ago.

The Committee then identified four broad goals for improved shoreline management in South Carolina. The first three goals are focused on beachfront management. Goal 1, “Minimize Future Risks to Beachfront Communities,” proposes solutions to limit future exposure to losses of infrastructure, properties, and economic and natural resources that rely on a healthy beach/dune system; and to decrease the demand for expensive and sometimes harmful erosion control projects. Goal 2, “Improve the Planning of Beach Renourishment Projects,” presents opportunities for improved coordination and decision-making with regard to renourishment projects and other “soft” solutions to beach erosion. Goal 3, “Limit the Use of Hard Stabilization Structures,” reinforces existing prohibitions on seawalls and revetments, and recommends improved guidance for the siting, design, and use of groins, breakwaters, and temporary structures. Goal 4, “Enhance the Management of Sheltered Coastlines” presents parallel issues facing estuarine and sheltered coastlines of South Carolina, and policy and management recommendations for addressing those issues.

For each goal, several policy and management recommendations were developed to suggest potential improvements to current practices. For each general recommendation, the Committee was asked to clearly articulate the rationale (problems being addressed), existing policies and programs that are relevant to the issue, new specific policy recommendations, new planning and management actions, general costs and benefits, uncertainties, and examples from other coastal states. The 13 recommendations described in this report call for actions by a number of state agencies and local governments, as well as potential actions by the SC General Assembly. A summary of the recommendations is provided in Appendix 1 and below.

Under Goal 1, the Committee attempts to clarify and reinforce the goals and mechanisms of the state’s “retreat” policy, and lays out five recommendations for improved management to reduce risks to local beachfront communities:

**1) Prevent the seaward expansion of beachfront development**

- Disallow seaward movement of the DHEC-OCRM Baseline
- Local governments should establish a beachfront building line
- Re-survey public/private boundary prior to renourishment

## **2) Strengthen the state's beachfront "setback area"**

- Increase the minimum setback distance
- Align setback regulations with statutes regarding size limitations
- Evaluate all historical shorelines and short-term variability in unstabilized inlet zones
- Limit building in the most vulnerable beachfront areas, particularly seaward of the DHEC-OCRM Baseline
- Protect beaches and dunes outside of the "beach/dune system"

## **3) Eliminate inconsistent public subsidies**

- State should designate "no subsidy" zones in hazardous areas

## **4) Strategically acquire beachfront lands and/or easements**

- Establish state and local voluntary acquisition strategies
- Explore and expand funding mechanisms for voluntary acquisitions, including a state "beach management" trust fund

## **5) Strengthen the role of local governments in beach management and planning**

- Develop stronger guidance, new elements, and OCRM assistance for Local Comprehensive Beach Management Plans
- Integrate planning requirements for beachfront communities

Under Goal 2, the Committee describes existing procedures and implications of beach renourishment and other "soft" solutions to beach erosion, and offers three recommendations for improved management to improve local and state management practices:

## **6) Develop and implement regional sediment management plans**

- State should develop and implement a Regional Sediment Management Plan in cooperation with the U.S. Army Corps of Engineers

## **7) Strengthen reviews of nearshore dredging and other alterations**

- Heightened reviews and monitoring of any projects within 1 mile of the shoreline
- Establish Technical Committee to recommend new criteria

## **8) Improve beach nourishment monitoring**

- Require pre- and post-monitoring for all nourishment projects
- Standardize, to the extent possible, data collected and methods

Under Goal 3, the Committee recommends clarification and enforcement of existing prohibitions on erosion control structures, and describes status and trends of other hard stabilization practices in the state, including the use of temporary erosion control solutions during state or locally-declared emergencies. The Committee offers three recommendations for improved management practices:

## **9) Refine criteria for Emergency Orders and sandbags**

- Establish new criteria for “emergency” – e.g. disaster declarations
- Establish new design criteria for temporary structures (sandbags)

## **10) Improve guidelines for groins and breakwaters**

- Establish Technical Committee to recommend siting/design criteria
- Leverage additional expertise in review of groin and breakwater proposals
- Identify ownership and responsibility for all existing groins

## **11) Expand beachfront real estate disclosure requirements**

- Expand real estate disclosure requirements for approval by the SC Real Estate Commission

Under Goal 4, the Committee describes parallel issues facing estuarine and non-beachfront shorelines in the South Carolina coastal zone, and existing policies related to shoreline developments and alterations. The Committee suggests two recommendations for improved management of estuarine shoreline change:

## **12) Manage erosion control in estuaries**

- Map and characterize estuarine shorelines
- Develop “erosion control options table” for different shorelines
- Expand education and training for property owners and consultants

- Develop Estuarine Shoreline Management Plans at state and local levels
- Promote alternatives to traditional bulkheads and revetments
- Establish minimum setback for bulkheads
- Differentiate “transgression” from erosion in OCRM decisions
- Require analysis of alternatives for undeveloped properties

### **13) Establish non-beachfront shoreline buffer areas**

- Establish 25-ft minimum buffer for all new developments along non-beachfront shorelines in the coastal zone
- For previously developed properties, state tax incentives or credits could be considered for buffers
- Encourage local governments to establish or expand shoreline buffers

Over the coming year, DHEC-OCRM staff will propose specific responses to the policy and management recommendations identified in this report, and will present the Committee’s discussions and findings to a variety of decision-makers and stakeholders to help set the context for future plans and decisions at the state and local levels.

#### ***LINK TO ENTIRE DRAFT REPORT:***

[http://www.scdhec.gov/environment/ocrm/science/docs/SCAC/SCAC\\_DRAFT\\_FINAL\\_REPORT.pdf](http://www.scdhec.gov/environment/ocrm/science/docs/SCAC/SCAC_DRAFT_FINAL_REPORT.pdf)