

# Preliminary Findings of the SC Shoreline Change Advisory Committee

**Shoreline  
Change  
Initiative**



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Ocean and Coastal  
Resource Management

# *1987 South Carolina Blue Ribbon Committee on Beachfront Management*



- Appointed by Coastal Council in 1987
- Proposed long-term solutions to beach erosion issues; balancing public/private interests
- Cited sea level rise, development encroachment, and lack of beach mgmt planning as major concerns
- **1988 Beachfront Management Act**
  - Enacted a policy of retreat
  - Established Baseline and Setback Area
  - Restricted square footage of new structures
  - Created standards for state and local beach mgmt plans
  - Established real estate disclosure requirements

# Shoreline Trends

## Beachfront development

- Pop. increase since 1987 (avg. 43% in coastal counties)
- 3,850 beachfront habitable structures (~39% seaward of the setback line)

## State of Beaches

- Long-term net erosion with dynamic “inlet zones”

## Renourishment Projects

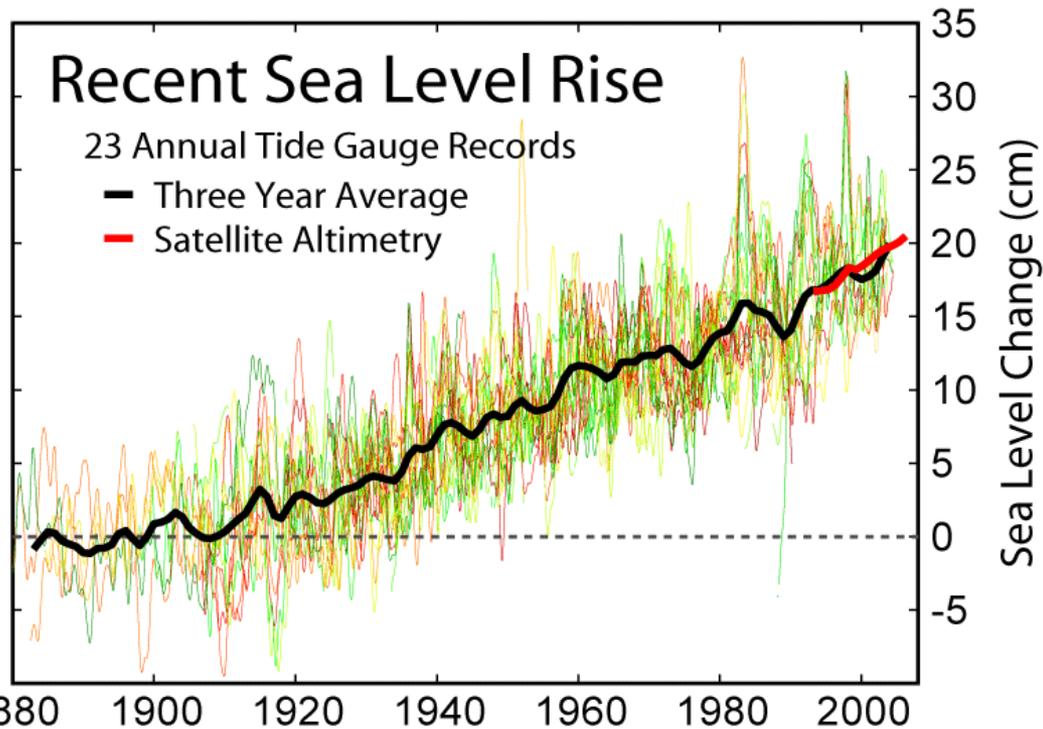
- 25 projects since 1985; ~\$225M

## Extent of “hard” stabilization

- ~24.3 miles Seawalls/revetments
- 165 Groins
- Estuarine structures unknown



# Sea Level Rise



## Global Sea Level Rise:

**~ 8 inches / past 100 yrs**

*Charleston Harbor RSLR*

*(1921 – 1999):*

**1.08 ft / 100 yrs**

*Springmaid Pier RSLR*

*(1957 – 1999):*

**1.7 ft / 100 yrs**

# SC Shoreline Change Initiative

- State faced with continuing conflicts in shoreline mgt, attention to SLR, and upcoming state beach plan updates
- Recognized need to revisit findings of 1987 Blue Ribbon Committee on Beachfront Management
- Established a Shoreline Advisory Committee to provide impartial, science-based recommendations
- Committee Goals
  - Identify information gaps, technology and research needs
  - Evaluate existing shoreline policies and recommend alternative approaches

# External Advisory Committee

- **Jeff Allen**, *Clemson University*
- **Sara Brown**, *USACE*
- **Jimmy Carroll**, *Carroll Realty*
- **Marc Cherry/Ben Gramling**,  
*Gramling Brothers, Inc.*
- **Mary Conley**, *SC TNC*
- **Toni Connor-Rooks/Aaron Pope**,  
*City of Folly Beach*
- **Paul Conrads**, *USGS*
- **Hamilton Davis/Nancy Vinson**,  
*SC CCL*
- **Rick DeVoe/Denise Sanger**,  
*SC Sea Grant*
- **Kirstin Dow**, *USC (Hazards Institute)*
- **Josh Eagle**, *USC School of Law*
- **Jill Foster**, *Town of Hilton Head Island*
- **Paul Gayes**, *Coastal Carolina Univ.*
- **Bob George**, *G. Robert George & Associates*
- **Tina Hadden**, *USACE*
- **Tim Hall/Mark Caldwell**, *USFWS*
- **Scott Harris**, *College of Charleston*
- **Norm Levine**, *College of Charleston*
- **Jim London**, *Clemson University*
- **Chris Mack/Tim Mason**, *Dewberry, Inc.*
- **Tara Miller/Jeff Payne**, *NOAA CSC*
- **Jim Morris**, *USC Baruch Institute*
- **Bob Van Dolah/Derk Bergquist**, *SC DNR*

# Progress to Date

- **Meetings since September 2007:**
  - Orientation on OCRM authorities and activities
  - Presentations from original Blue Ribbon Committee members
  - Information on shoreline mgmt in other states (NC, TX)
  - Identification of research priorities and informational needs
  - Series of mgmt-oriented meetings
    - Retreat, renourishment, erosion control, role of local governments, and estuarine shoreline issues

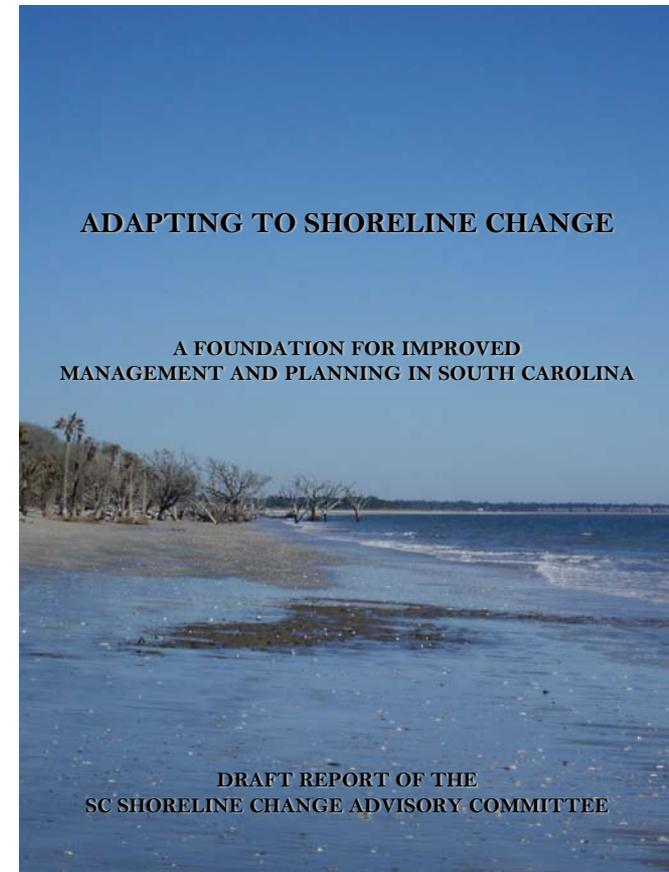


# Ongoing Opportunities for Input

- To date, received > 60 pages of public comments
- Held 2 public hearings
- Provided for public comments at each Committee meeting
- Conducted regional “Community Leaders” discussion forums for Grand Strand, Charleston, and Beaufort
- Draft report will be disseminated broadly for public comment, to be included in final report
- DHEC-OCRM will develop formal response

# Policy Recommendation Templates

- General Recommendations
- Rationale (Status, Trends, Problem Statement)
- New Policy Recommendations
- New Management and Planning Actions
- Existing Policies or Programs
- Estimated Costs and Benefits
- Measures of Success
- Feasibility Issues
- Key Uncertainties/Assumptions
- Examples from Other States or Areas
- Barriers or Concerns (if any)



# Draft Recommendations

## **Goal 1, “Minimize Risks to Beachfront Communities”**

- Limit future exposure to losses of infrastructure, properties, and economic and natural resources that rely on a healthy beach/dune system.

## **Goal 2, “Improve the Planning of Beach Renourishment Projects”**

- Opportunities for improved coordination and decision-making with regard to renourishment projects and other “soft” solutions to beach erosion.

## **Goal 3, “Maintain Prohibitions and Further Restrict the Use of Hard Stabilization Structures”**

- Recommends improved guidance for the siting, design, and use of groins, breakwaters, and temporary structures.

## **Goal 4, “Enhance the Management of Sheltered Coastlines”**

- Addresses parallel issues facing estuarine and sheltered coastlines

# Recommendations for Local Communities

- **Local governments should establish a beachfront building line.**
  - Would protect the area seaward of the built environment.
  - Local governments should examine and consider the model ordinances developed by the Towns of Hilton Head Island and Pawleys Island.

# Recommendations for Local Communities

- **State and local voluntary acquisition strategies should be established for high risk property.**
  - Identify undeveloped shoreline properties that could incorporate land protection strategies through acquisition and/or easements.
  - Incorporate land acquisition, easement, and relocation programs into Local Comprehensive Beach Management Plans.

# Recommendations for Local Communities

- **Planning requirements should be integrated for beachfront communities.**
  - The timing of local beach management and hazard mitigation planning processes should be brought into line with the Local Comprehensive Plan process.
  - Integrated local plans should be required for a beachfront community to gain access to a state “beach management fund”.

# Recommendations for Local Communities

- **Local governments should contribute to Regional Sediment Management efforts.**
  - Proactive beach renourishment plans should be developed by local communities.
  - Potential identified borrow sources of sand for renourishment should be considered and incorporated in a community's Local Comprehensive Beach Management Plan.

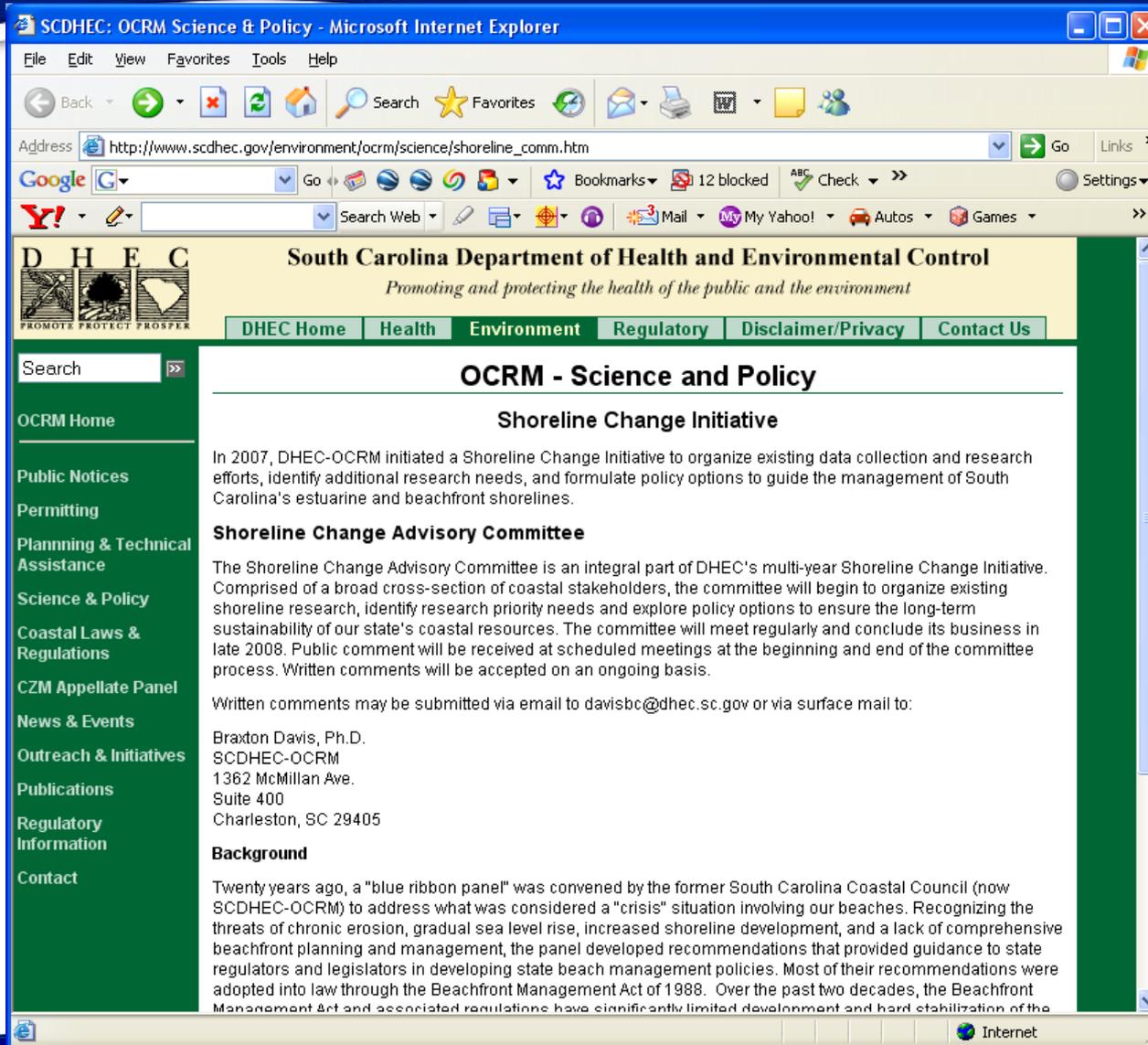
# Recommendations for Local Communities

- **Estuarine Shoreline Management Plans should be developed at the state and local levels.**
  - Mechanism could be similar to that used for Local Comprehensive Beach Management Plans under the Beachfront Management Act.
  - Could be used to address cumulative impacts and designate which shoreline control devices are appropriate and where they should be used.

# Recommendations for Local Communities

- **Local communities should be encouraged to adopt estuarine shoreline buffer ordinances that are more stringent than state buffer zone requirements.**
  - DHEC-OCRM could support the development of buffer ordinances based on lessons learned by other coastal communities with existing buffer ordinances.

# Shoreline Change Initiative Website



SCDHEC: OCRM Science & Policy - Microsoft Internet Explorer

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Address [http://www.scdhec.gov/environment/ocrm/science/shoreline\\_comm.htm](http://www.scdhec.gov/environment/ocrm/science/shoreline_comm.htm)

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**OCRM - Science and Policy**

**Shoreline Change Initiative**

In 2007, DHEC-OCRM initiated a Shoreline Change Initiative to organize existing data collection and research efforts, identify additional research needs, and formulate policy options to guide the management of South Carolina's estuarine and beachfront shorelines.

**Shoreline Change Advisory Committee**

The Shoreline Change Advisory Committee is an integral part of DHEC's multi-year Shoreline Change Initiative. Comprised of a broad cross-section of coastal stakeholders, the committee will begin to organize existing shoreline research, identify research priority needs and explore policy options to ensure the long-term sustainability of our state's coastal resources. The committee will meet regularly and conclude its business in late 2008. Public comment will be received at scheduled meetings at the beginning and end of the committee process. Written comments will be accepted on an ongoing basis.

Written comments may be submitted via email to [davisbc@dhec.sc.gov](mailto:davisbc@dhec.sc.gov) or via surface mail to:

Braxton Davis, Ph.D.  
SCDHEC-OCRM  
1362 McMillan Ave.  
Suite 400  
Charleston, SC 29405

**Background**

Twenty years ago, a "blue ribbon panel" was convened by the former South Carolina Coastal Council (now SCDHEC-OCRM) to address what was considered a "crisis" situation involving our beaches. Recognizing the threats of chronic erosion, gradual 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 Beachfront Management Act of 1988. Over the past two decades, the Beachfront Management Act and associated regulations have significantly limited development and hard stabilization of the

[http://www.scdhec.gov/environment/ocrm/science/shoreline\\_comm.htm](http://www.scdhec.gov/environment/ocrm/science/shoreline_comm.htm)



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