

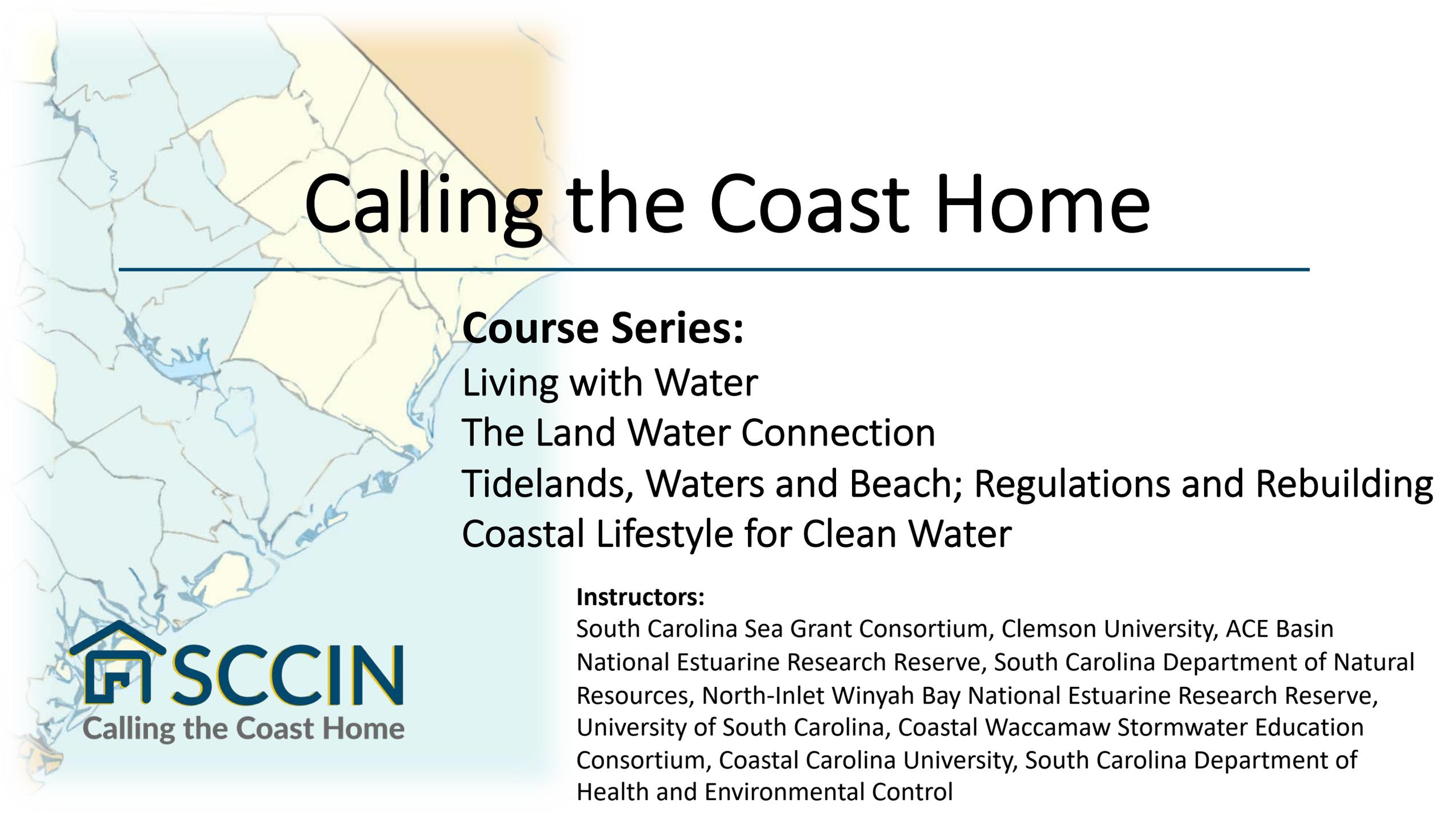
Tidelands, Water and Beaches: Regulations & Rebuilding



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SC DHEC OCRM
Charleston, SC



January 30, 2020
Charleston Trident Association
of Realtors
5006 Wetland Crossing, North
Charleston

A map of the South Carolina coastal region, showing the coastline and major water bodies. The map is overlaid with a semi-transparent blue and yellow gradient.

Calling the Coast Home

Course Series:

Living with Water

The Land Water Connection

Tidelands, Waters and Beach; Regulations and Rebuilding Coastal Lifestyle for Clean Water

Instructors:

South Carolina Sea Grant Consortium, Clemson University, ACE Basin National Estuarine Research Reserve, South Carolina Department of Natural Resources, North-Inlet Winyah Bay National Estuarine Research Reserve, University of South Carolina, Coastal Waccamaw Stormwater Education Consortium, Coastal Carolina University, South Carolina Department of Health and Environmental Control





South Carolina Coastal Information Network

<https://www.sccoastalinfo.org/>

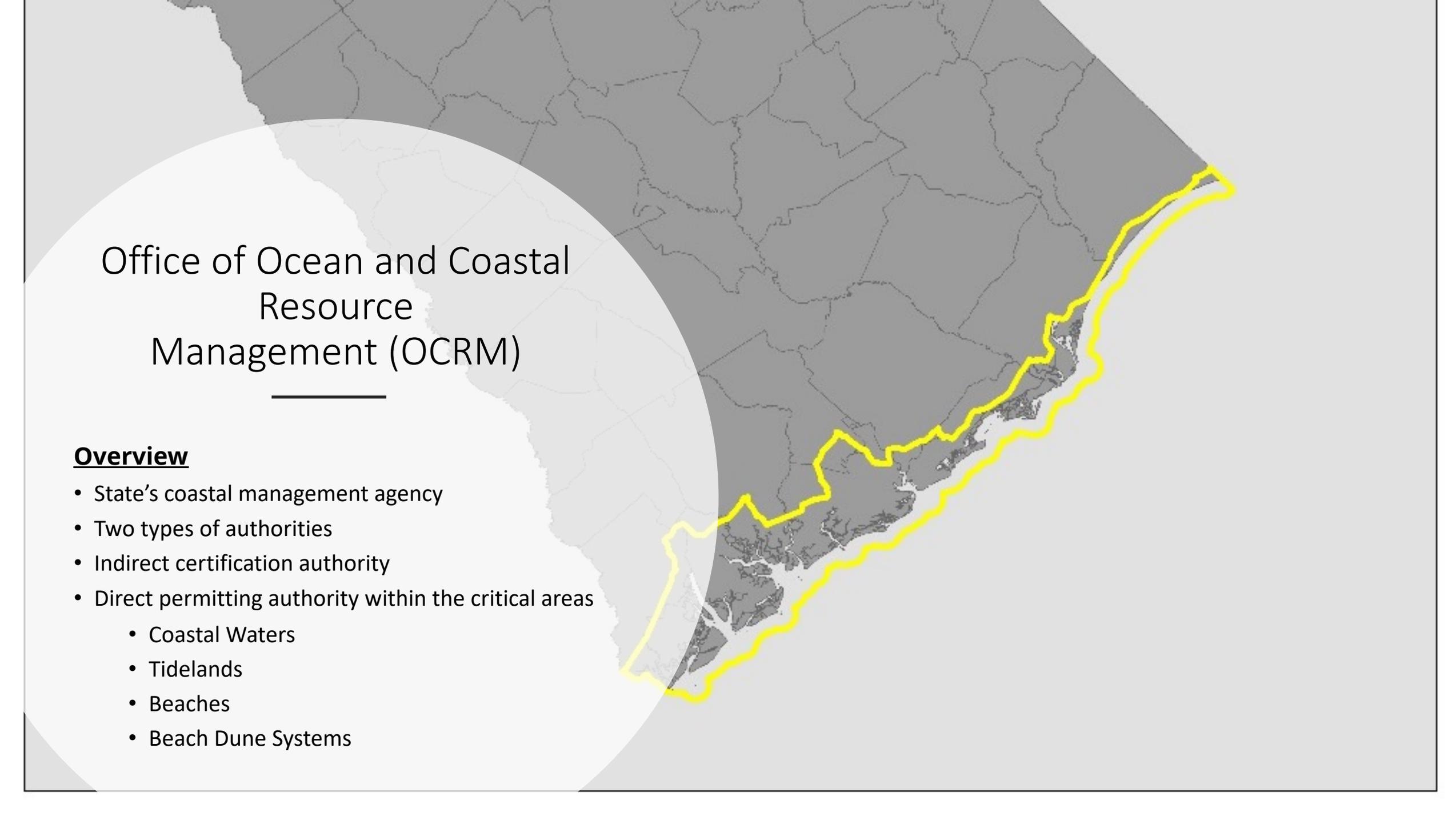
The screenshot displays the SCCIN website homepage. At the top, the logo 'SCCIN South Carolina Coastal Information Network' is on the left, and navigation links 'HOME ABOUT EVENTS RESOURCES CONTACT' are on the right. A 'Sign Up to receive automatic notifications' link and a 'LOGIN' button are also present. Below the navigation is a large banner image of a coastal wetland. A white box on the banner contains the text 'Welcome to SCCIN' and 'A Coastal Partnership: Providing Educational and Training Opportunities for Coastal Community Officials', with a 'LEARN MORE >' button. Below the banner is a search bar with 'SEARCH:' and radio buttons for 'Events' (selected) and 'Resources'. The main content area is titled 'CURRENT EVENTS' and features two event cards. The first card is for 'AUGUST 01, 2019' and 'A HISTORY OF LEED AT FURMAN UNIVERSITY', with a time of '11:30 AM - 1:30 PM' and 'Registration Required', and a 'READ MORE >' button. The second card is for 'ALL EVENTS' with a 'VIEW ALL EVENTS >' button. At the bottom, there are three icons: 'PARTNERS' (hands shaking), 'EVENTS' (calendar), and 'RESOURCES' (book). Below each icon is a brief description: 'Learn about the more than 20 Network partners representing federal and state agencies, regional', 'View conference, seminar, workshop, and training events from Network partners throughout the state', and 'Search from nearly 400 resources covering a wide range of topics, such as community resilience and'. A small circular icon is in the bottom right corner.

SC DHEC Office of Ocean and Coastal Resource Management (OCRM)

History

- **Federal:** Coastal Zone Management Act (1972) established guidelines for state Coastal Management Programs.
- **State:** SC Coastal Tidelands and Wetlands Act was passed in 1977; amended in 1988.
- **Goal:** Protect the quality of the coastal environment and to promote the economic and social improvement of the coastal zone and of all the people of the State

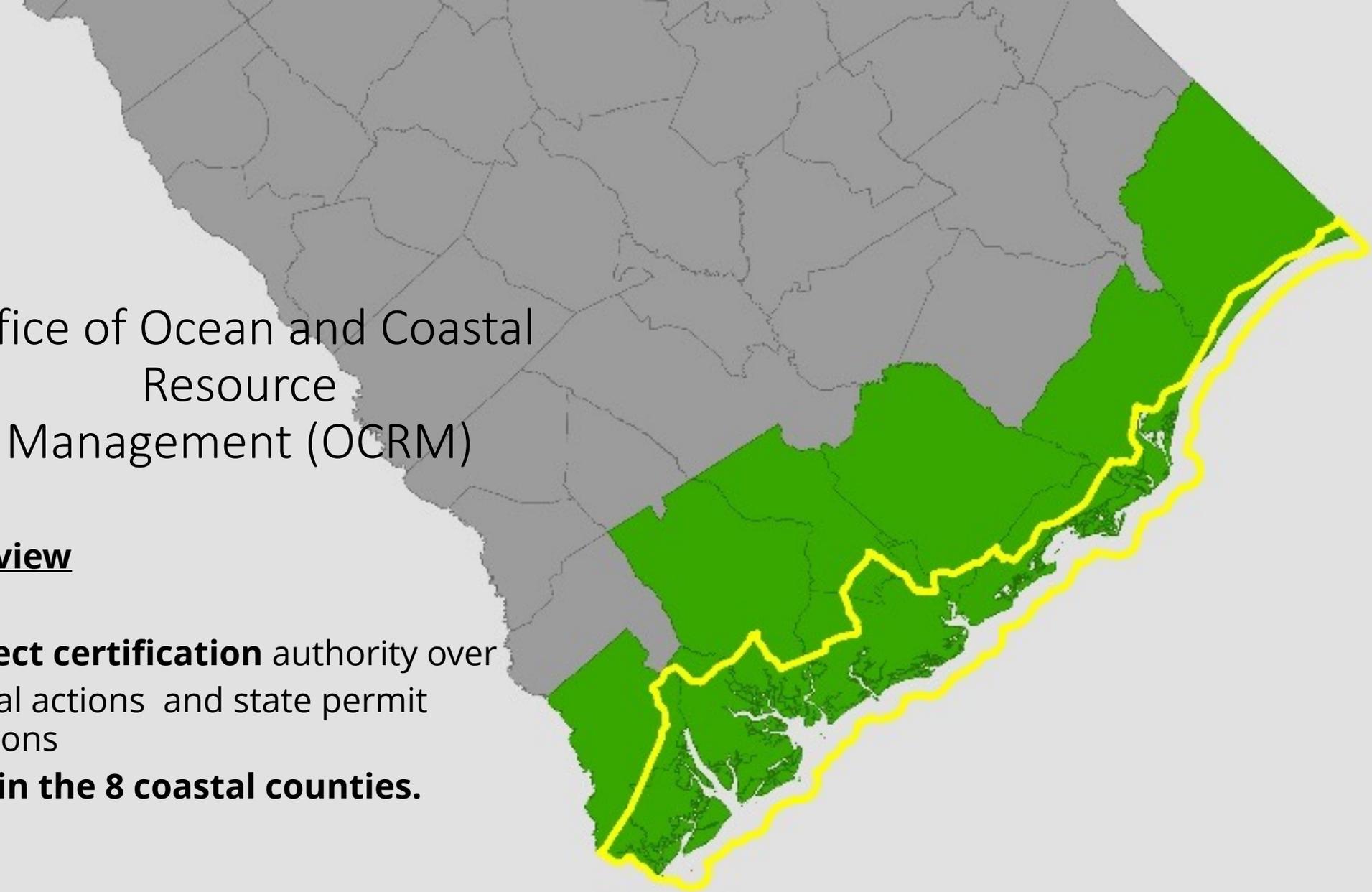


A map of North Carolina with a yellow outline highlighting the coastal region. The map shows county boundaries and the coastline. A large white circle is overlaid on the left side of the map, containing the title and overview text.

Office of Ocean and Coastal Resource Management (OCRM)

Overview

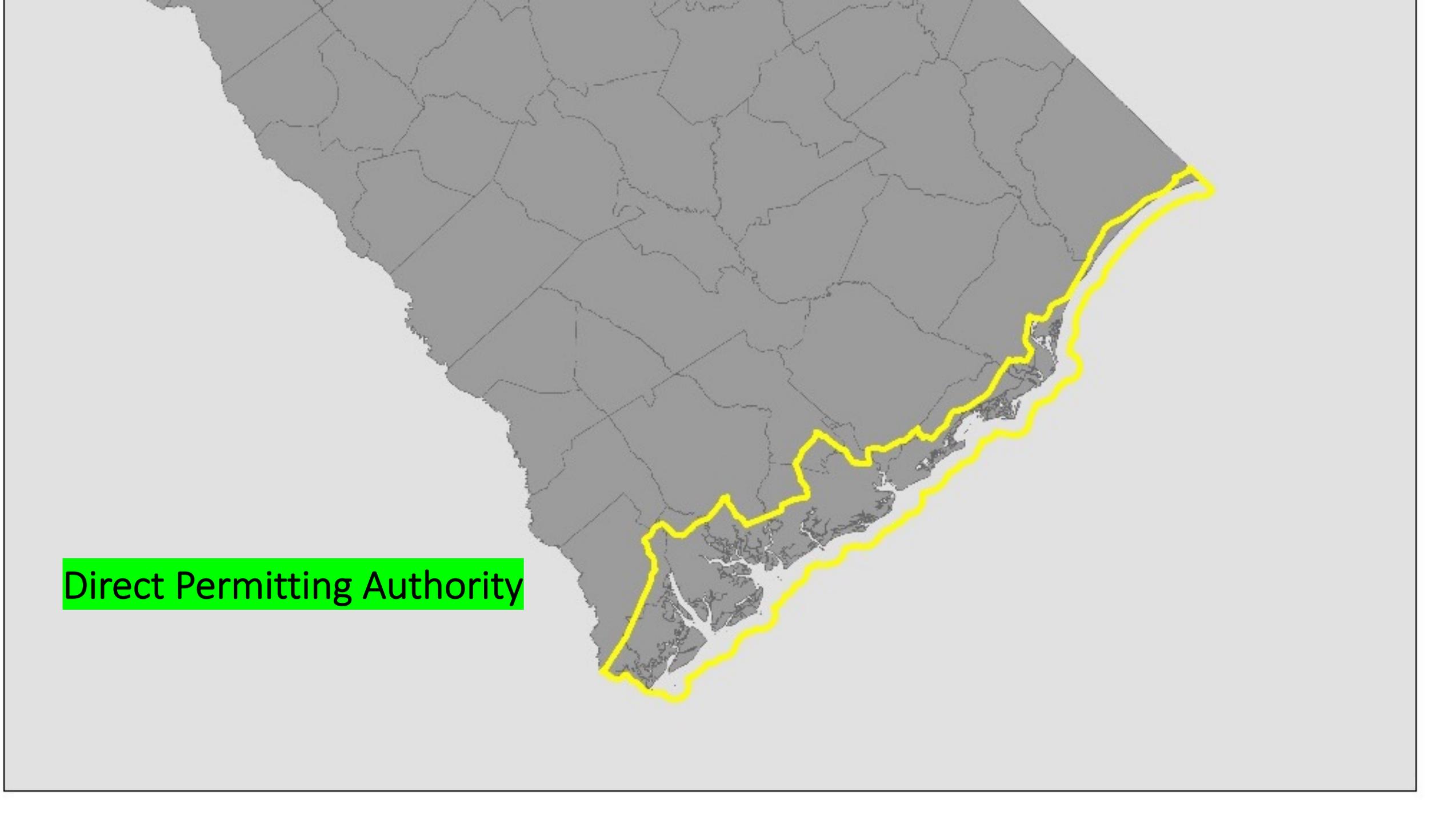
- State's coastal management agency
- Two types of authorities
- Indirect certification authority
- Direct permitting authority within the critical areas
 - Coastal Waters
 - Tidelands
 - Beaches
 - Beach Dune Systems

A map of Virginia with 8 coastal counties highlighted in green. The highlighted counties are York, James City, Middlesex, Gloucester, Stafford, Sussex, Northampton, and Accomack. A yellow line outlines the coastline of these counties. The rest of the state is shown in light gray with county boundaries.

Office of Ocean and Coastal
Resource
Management (OCRM)

Overview

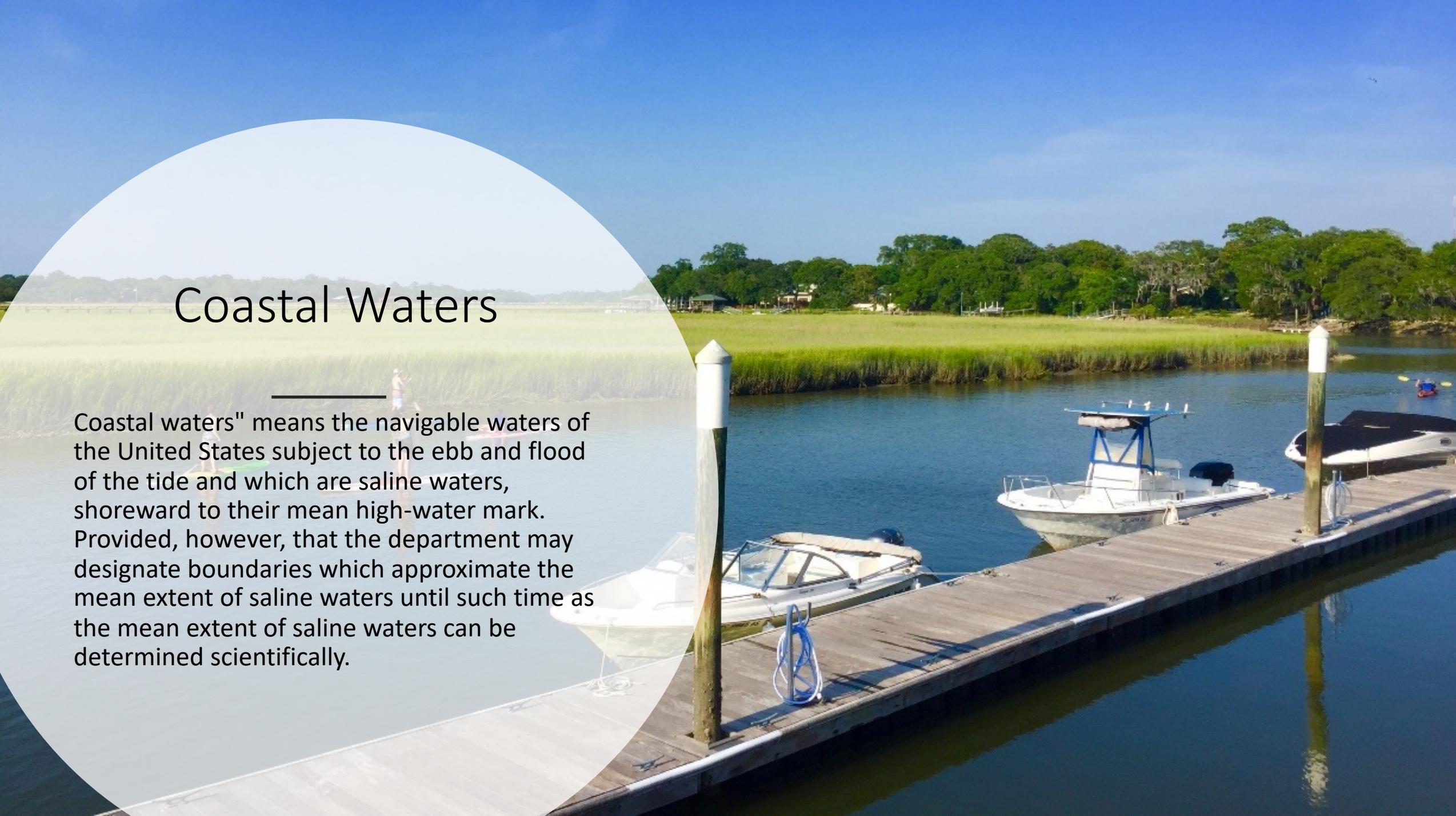
Indirect certification authority over federal actions and state permit decisions **within the 8 coastal counties.**

A map of the state of Virginia, shaded in light gray, with county boundaries visible. A thick yellow line traces the coastline from the southern tip of the state up to the northern border. A green rectangular box is positioned in the lower-left area of the map, containing the text "Direct Permitting Authority".

Direct Permitting Authority

Coastal Waters

Coastal waters" means the navigable waters of the United States subject to the ebb and flood of the tide and which are saline waters, shoreward to their mean high-water mark. Provided, however, that the department may designate boundaries which approximate the mean extent of saline waters until such time as the mean extent of saline waters can be determined scientifically.





Tidelands

Tidelands are all areas which are at or below mean high tide and coastal wetlands, mudflats, and similar areas that are contiguous or adjacent to coastal waters and are an integral part of the estuarine systems involved. Coastal wetlands include marshes, mudflats, and shallows and means those areas periodically inundated by saline waters whether or not the saline waters reach the area naturally or through artificial water courses and those areas that are normally characterized by the prevalence of saline water vegetation capable of growth and reproduction. Provided, however, nothing in this definition shall apply to wetland areas that are not an integral part of an estuarine system.

Beaches

Beaches is defined as those lands subject to periodic inundation by tidal and wave action so that no nonlittoral vegetation is established.



Beach/Dune System

All land from the mean high-water mark of the Atlantic Ocean landward to the 40 year setback line described in Section 48-39-280.



Purpose of coastal regulations



Dock Permitting

- Waterfront definition
 - Dock alignment
 - Dock size tied to creek size
 - Dock length
-
- Community Docks and Marinas
 - Commercial/Industrial Docks and Wharfs



Bulkheads and Rip Rap in Tidelands and Coastal Waters

- Bulkheads – vertical wall
- Rip Rap – sloping rock structures

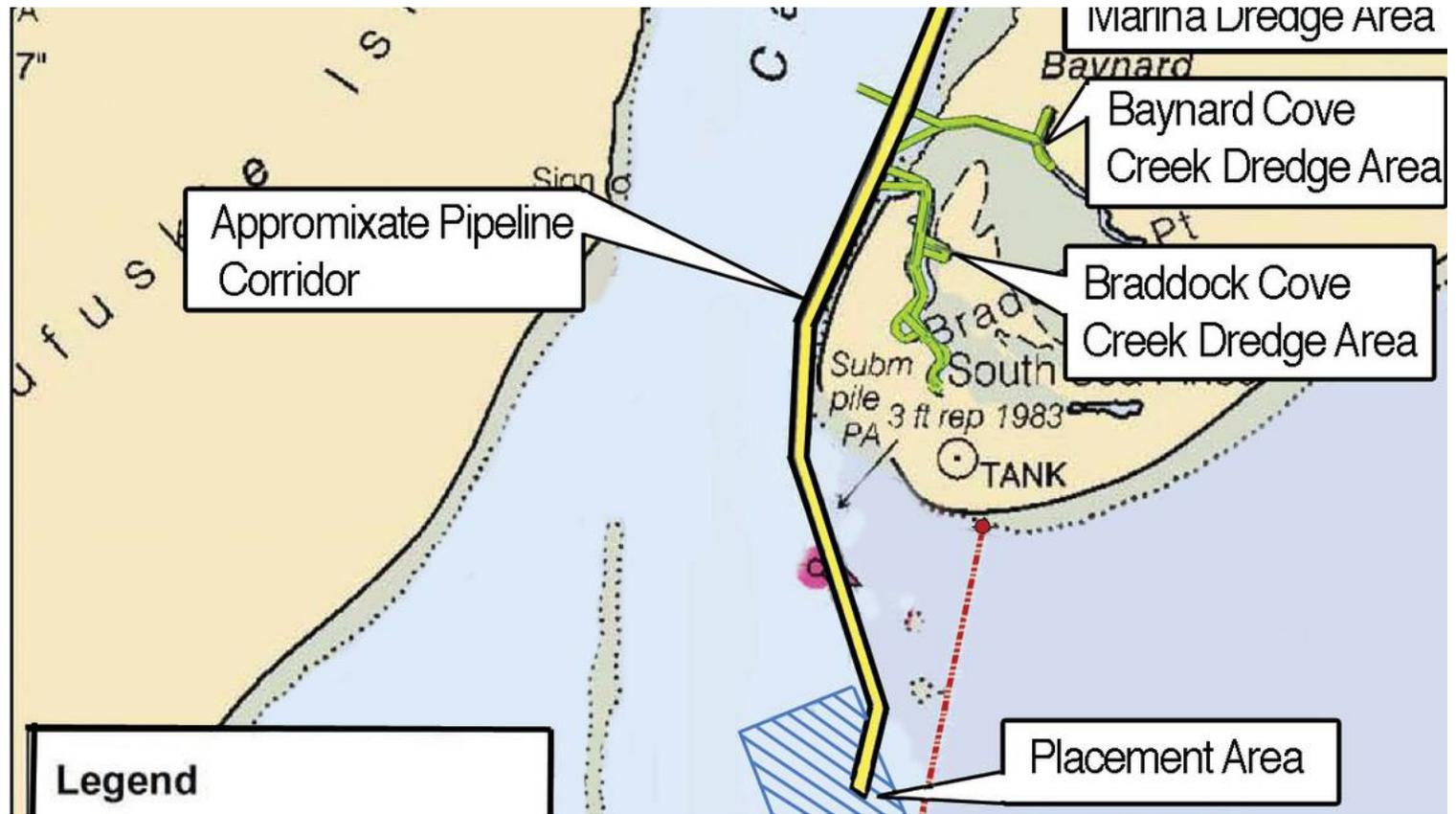


Dredging Activities

- Commercial/Industrial approaches and channels
- Public and Private Marinas slips and basins



Hilton Head Project

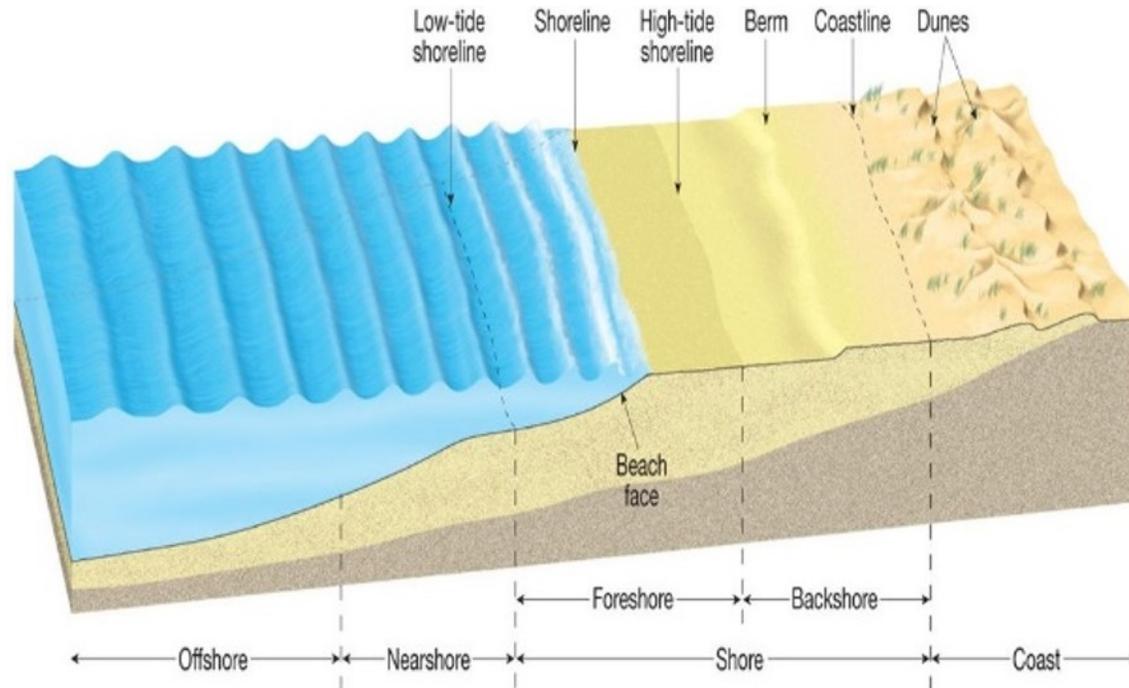


Construction in Progress

SHEP Project



Beaches and Barrier Islands are Dynamic

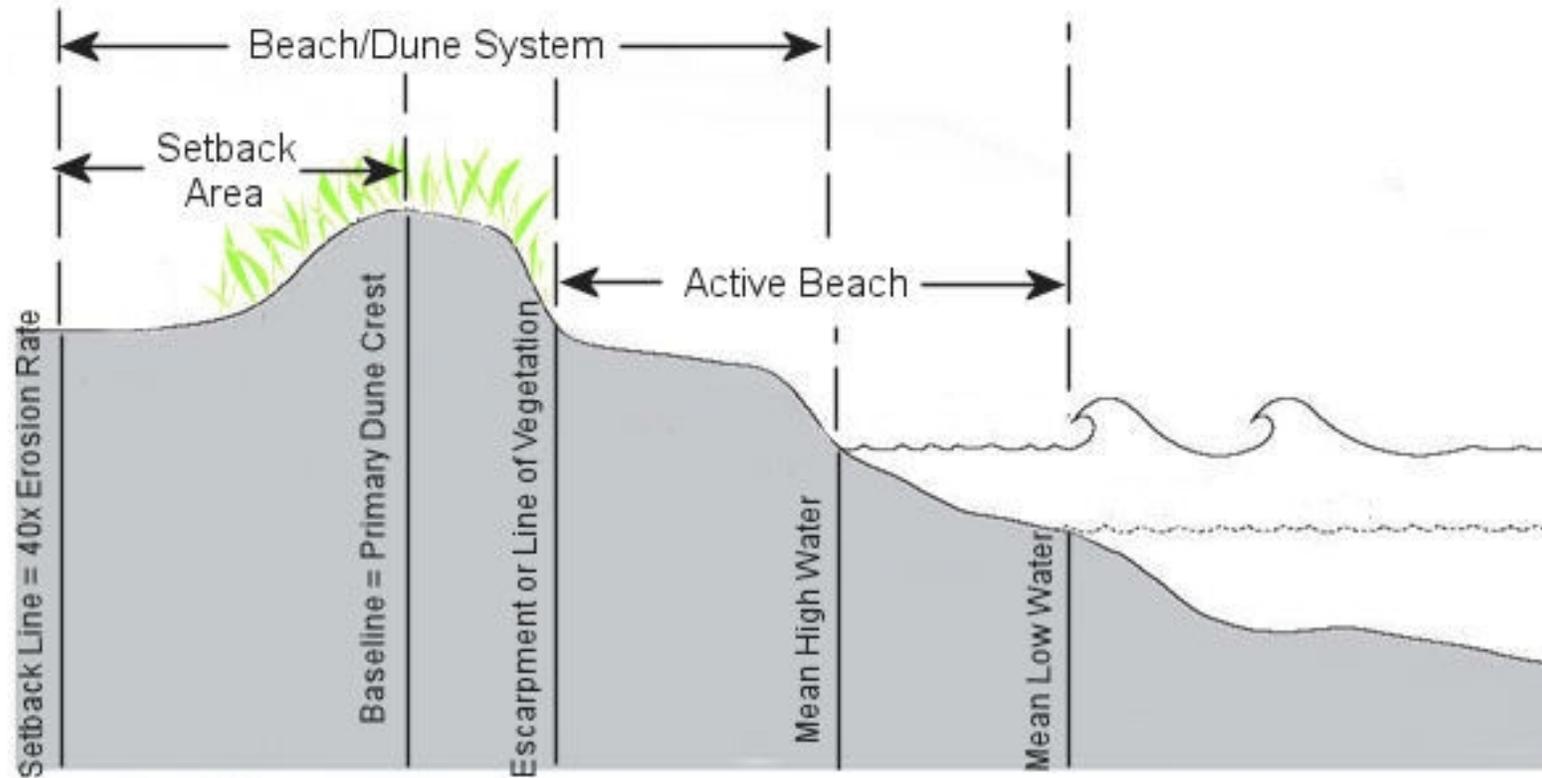


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Beaches and Barrier Islands through time

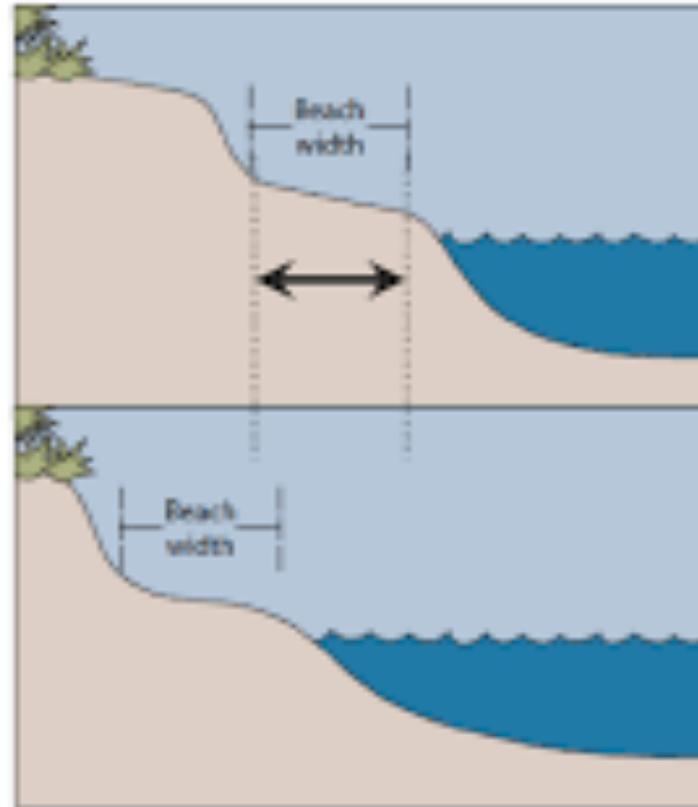
- <https://earthengine.google.com/timelapse/>
- <https://earthengine.google.com/timelapse/>

SC's Beach terms

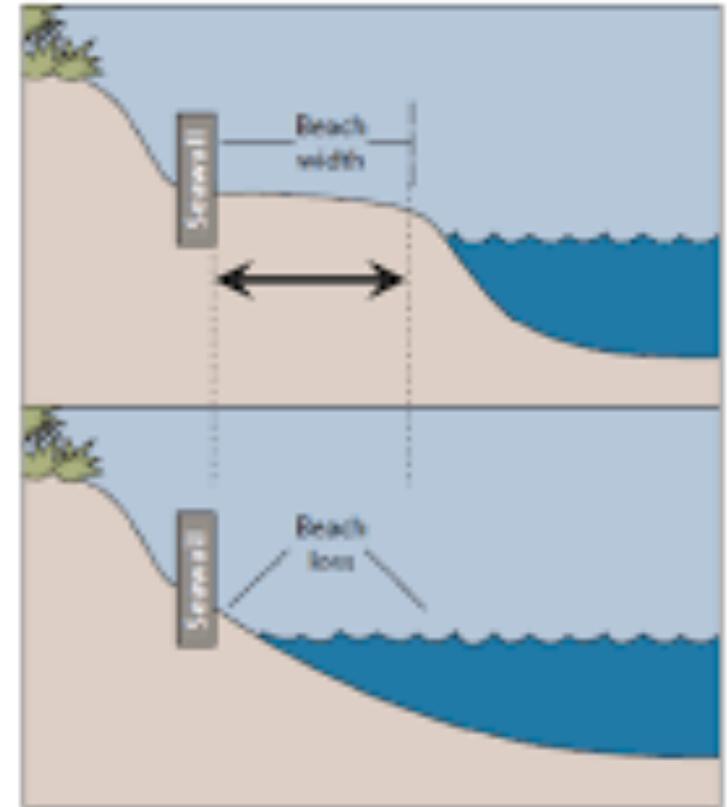


Effects of
hard
structures on
beachfront

Normal Beach Retreat



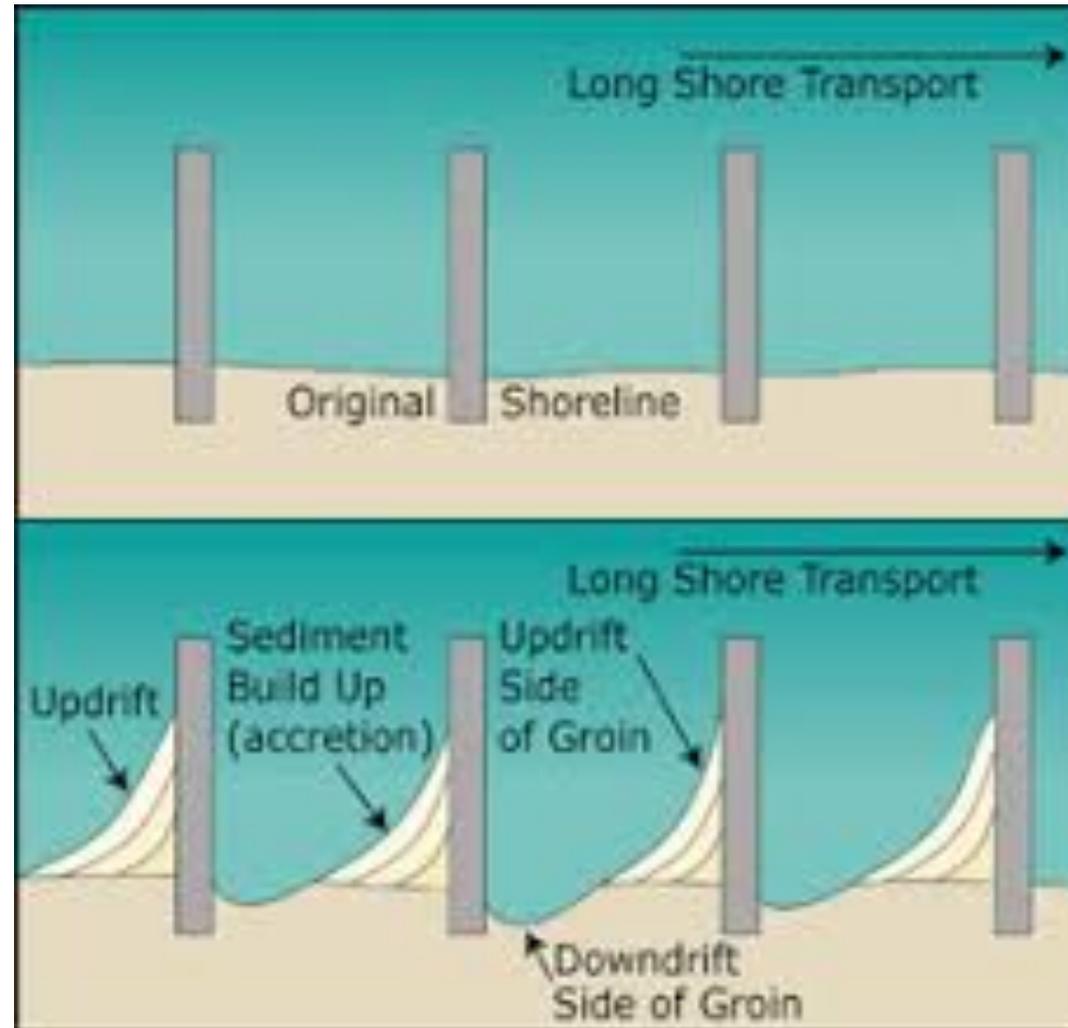
Blocked Beach Retreat



Jetties at an inlet



Effects of
Groins on
beachfront



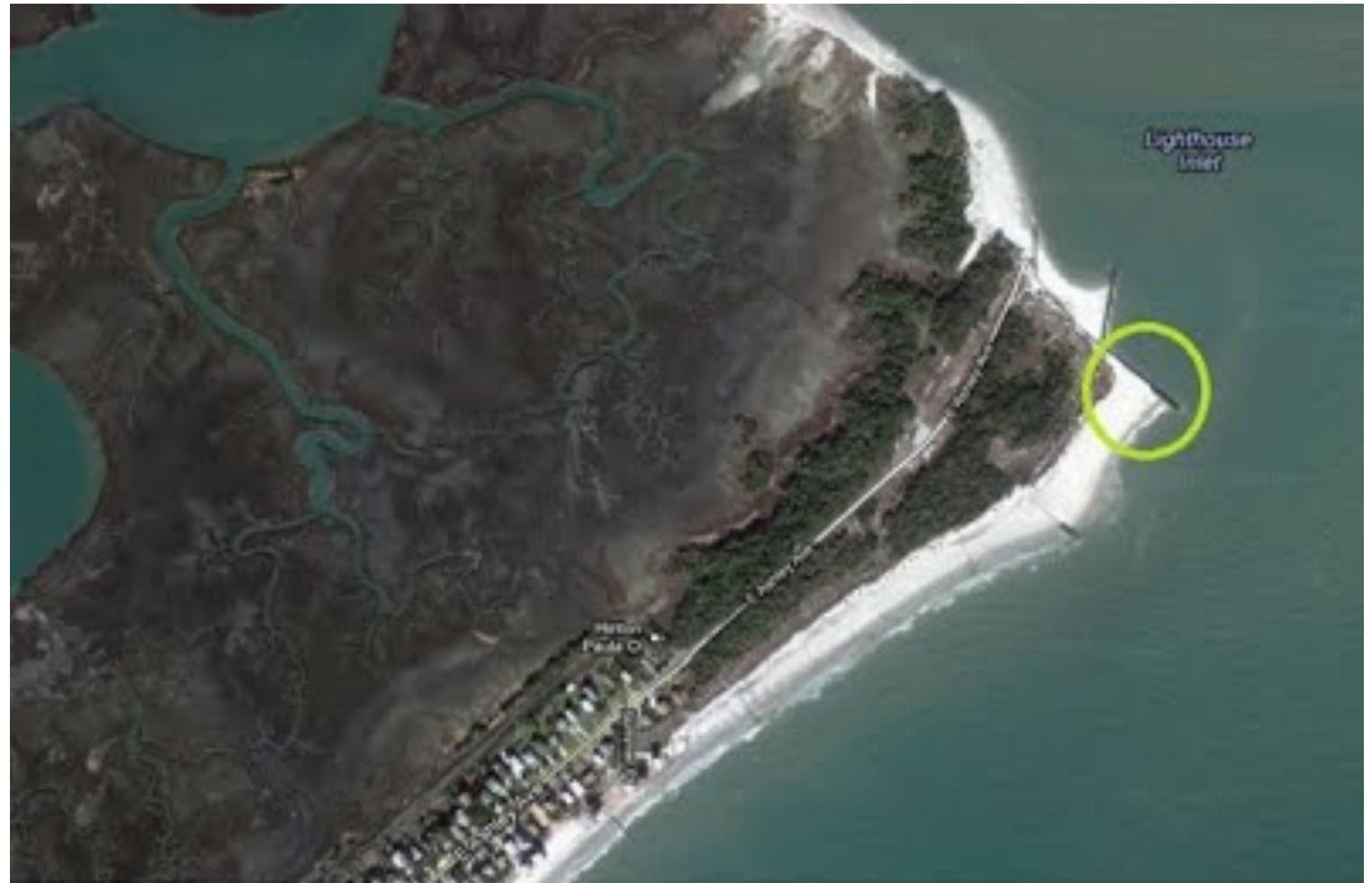
Groin



Groin Field



Groin at Inlet
end of
barrier Island



Folly Beach
Lighthouse
in surf



Seawall



Downdrift
effects of
seawall



Rock Rip Rap
Revetment
with Seawall



Dynamic
nature of our
beaches



Experimental
efforts along
the
beachfront



How does SC manage the beachfront?

Jurisdictional lines enable OCRM to implement laws and regulations that protect coastal resources and guide development away from dynamic shorelines.

There are two lines of beachfront jurisdiction:

- **Baseline** is the **more seaward line**
- **Setback Line** is the **more landward line**

Why does OCRM update these lines?

South Carolina law requires DHEC to establish and then review the positions of the baseline and setback line every 7 to 10 years.

Reviews were conducted during the following years:

- 1990-1991
- 1999-2001
- 2008-2010
- 2016-2018

The law also requires DHEC to review the **average long-term shoreline change rate** (aka the “long-term erosion rate”) for all oceanfront land that is or potentially could be developed during this time.

Beach Jurisdictional Lines



Baselines Set by Beach Zones

At a glance:

- There are three beach zones:
 - **Unstabilized inlet zone**
 - **Stabilized inlet zone**
 - **Standard zone**

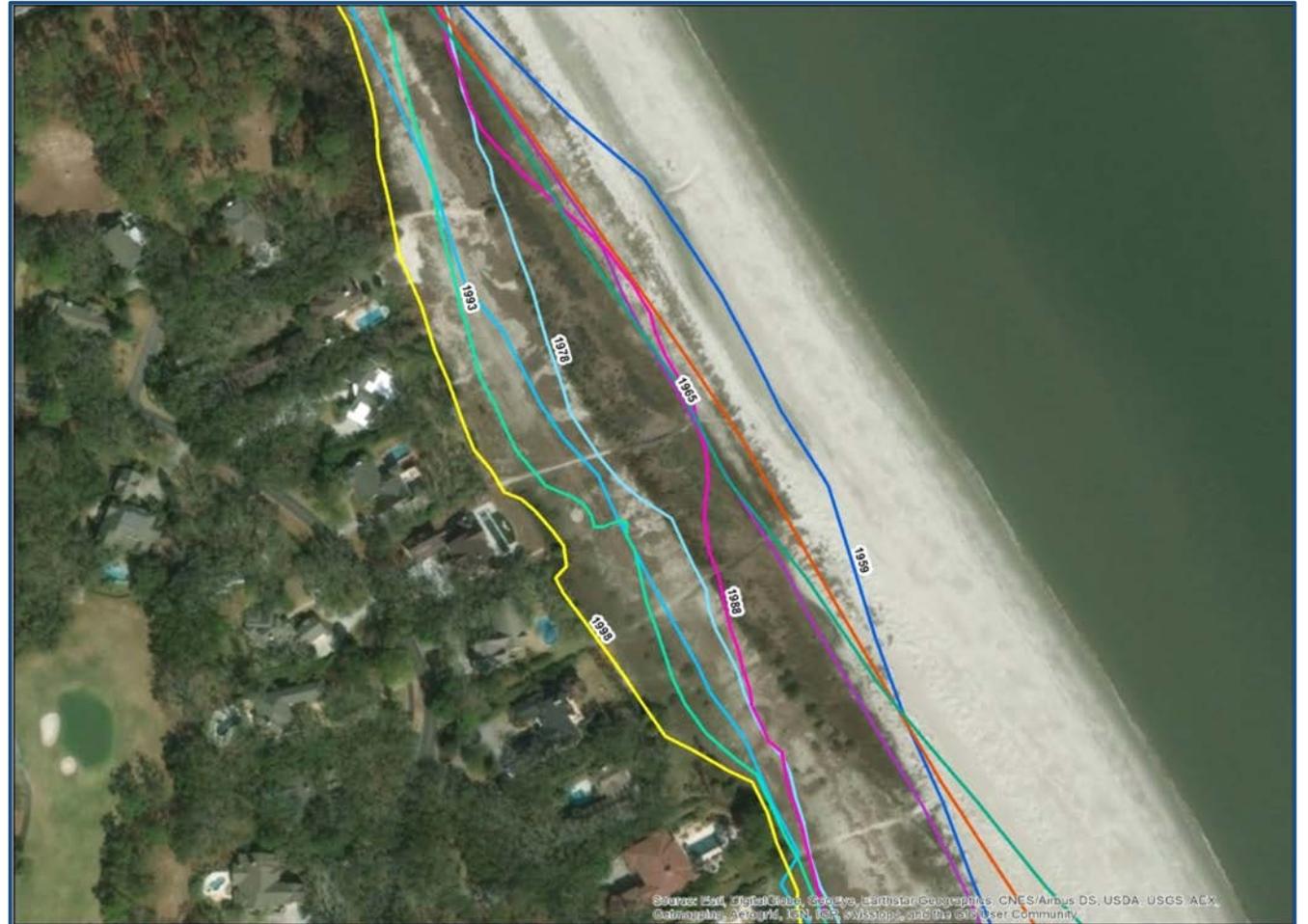
How is the Baseline set in the Standard and Stabilized Inlet Zones?

The baseline in these zones is set at the crest of the primary oceanfront sand dune.

The Primary Oceanfront Sand Dune is defined as a dune that is 3' high and 500 ' long.

How is the baseline set in an Unstabilized Inlet Zone?

The baseline is set at the most landward point of erosion at any time in the past 40 years.



Beachfront Management Reform Act Timeline

- Between 2007 – 2013, the **Shoreline Change Advisory Committee** and the **Blue Ribbon Committee on Shoreline Management** developed statutory and regulatory recommendations to guide the stewardship of SC beachfront.
- **No seaward movement of the baseline.**
- In **June 2016**, legislation went into effect that prohibited the seaward movement of the jurisdictional baseline from its position on December 31, 2017.
- **May 3, 2018**: Act 173 (Beachfront Management Reform Act) signed by Governor Henry McMaster.

Beachfront Management Reform Act

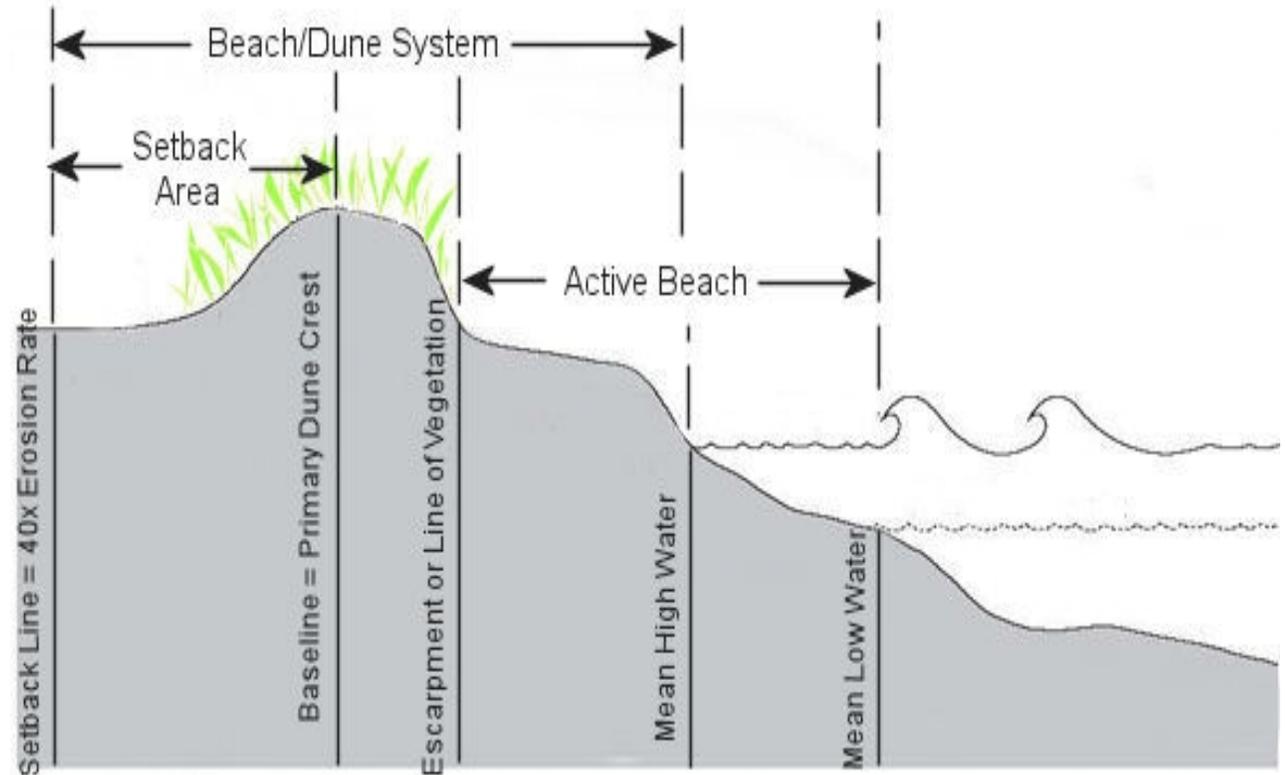
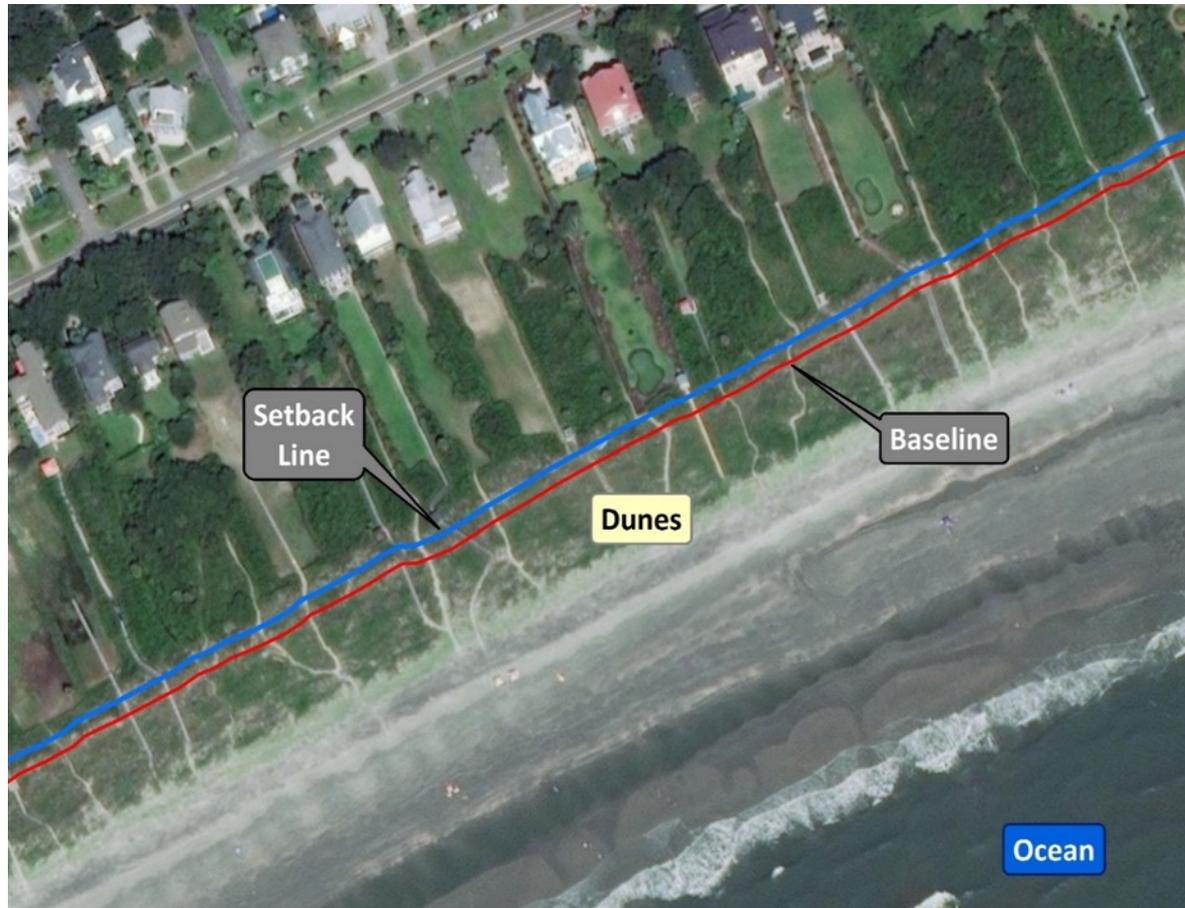
- Act 173 established the baseline location as the **most seaward** location of either the baseline established during the 2008-2012 establishment cycle, or the baseline proposed by DHEC on October 6, 2017.
- Similarly, Act 173 established the setback line location as the **most seaward** location of either the setback line established during the 2008-2012 establishment cycle, or the setback line proposed by DHEC on October 6, 2017.
- Act 173 also provided guidance to DHEC for the implementation of future line review processes, which will be initiated on or after January 1, 2024.
- DHEC-OCRM staff are working to digitize a single baseline and single setback line statewide.

What does the Baseline Mean for Property Owners

- Subject to review and permitting requirements.
- 5000 sq. ft. of heated space
- Subject to removal Beach



Setback Line/Area and Disclosure Requirement



Beach Renourishment





Major Beach/Inlet Project Considerations

- Sediment compatibility
 - Grain size, color, quality
- Selection of offshore borrow areas
- Pre- and post-project monitoring
 - Beach and borrow area topography/bathymetry
 - Compaction
 - Escarpments
- T&E Species: Dredging & sand placement windows: typically November 1 – April 30

OCRM Beachfront Data Viewers

- Beachfront Jurisdictional Lines

<https://gis.dhec.sc.gov/shoreline/>

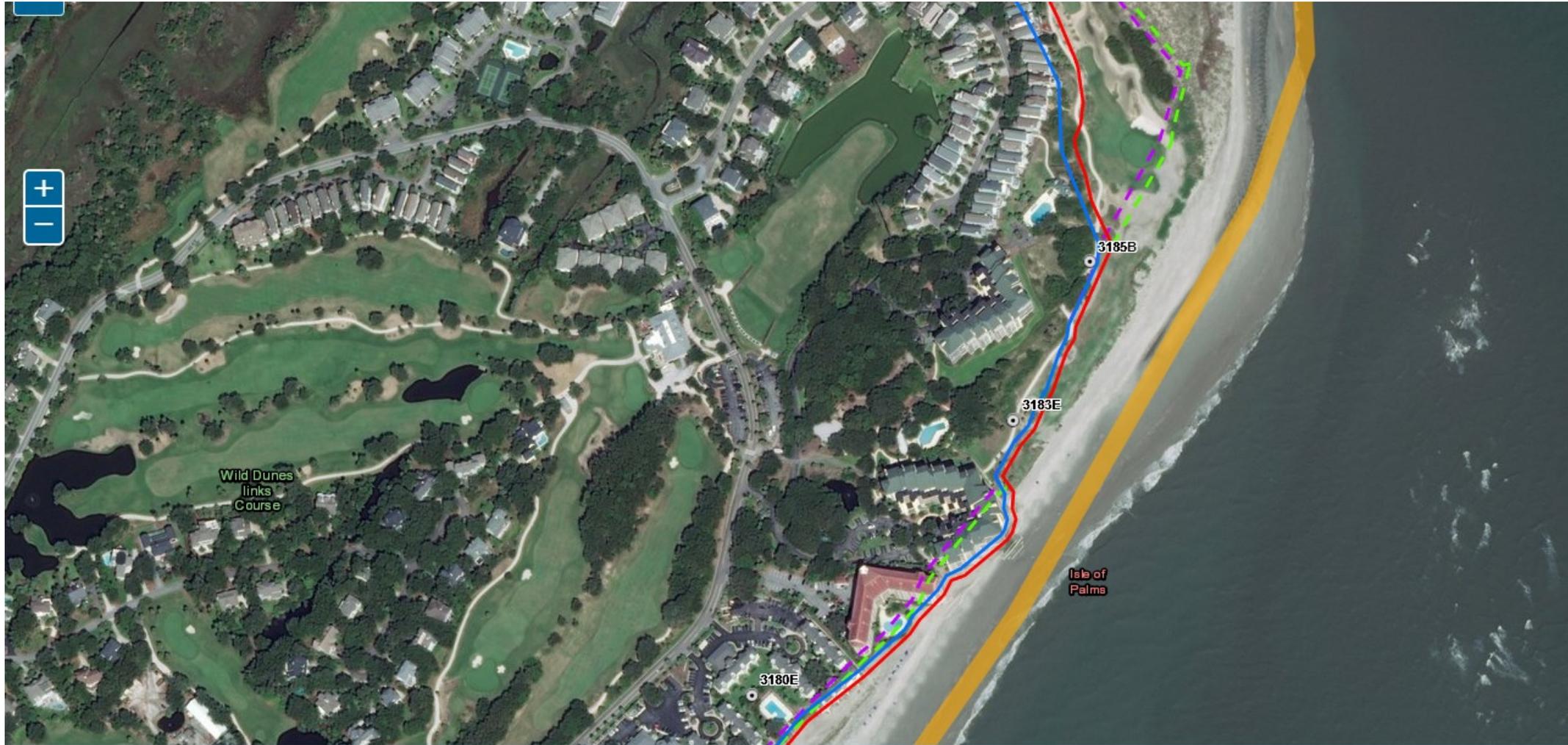
- Beach Topographic Survey Profile Data (B.E.R.M. Explorer)

<https://gis.dhec.sc.gov/bermexplorer/>

- Beach Renourishment Projects

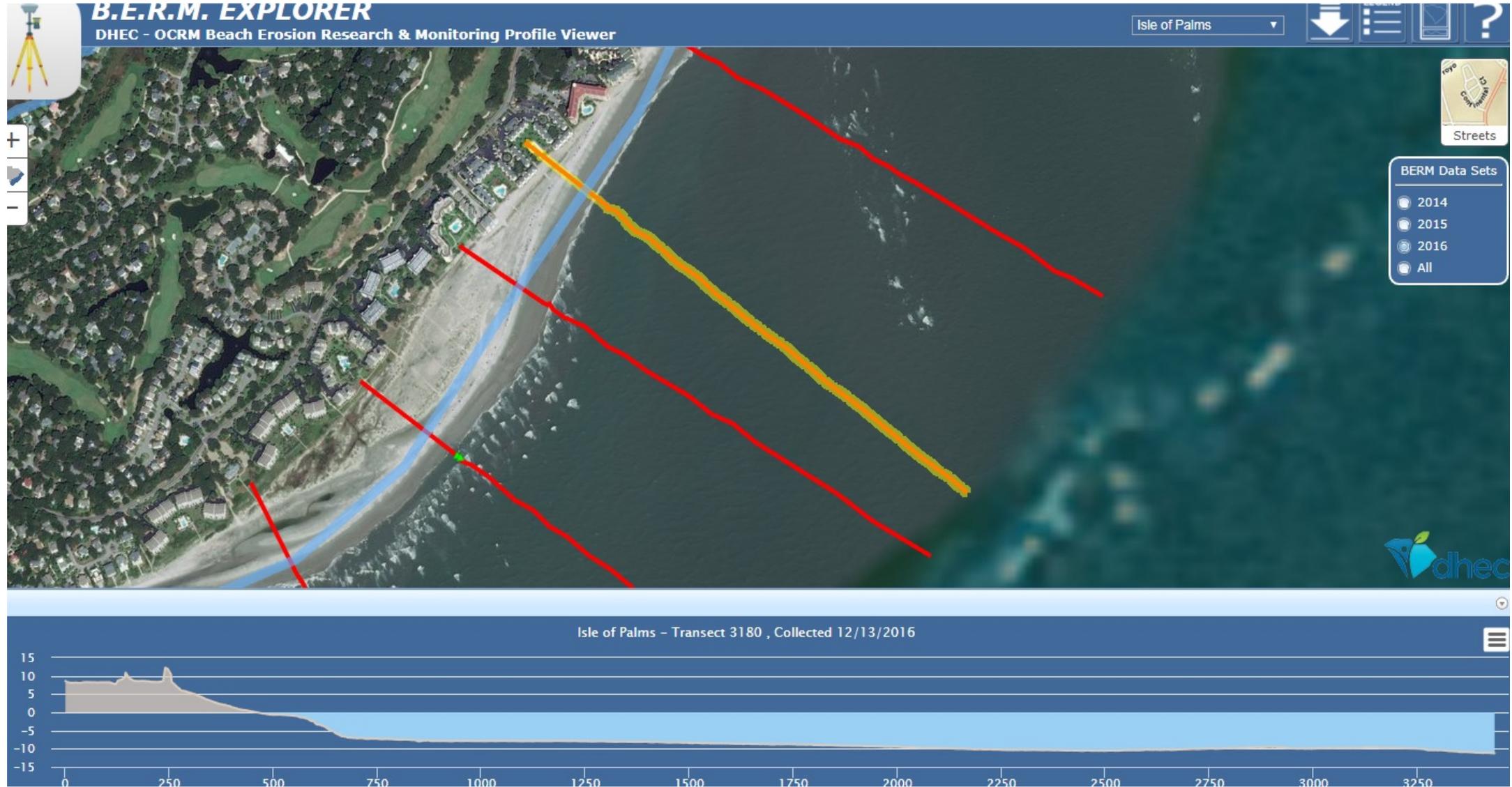
<https://gis.dhec.sc.gov/renourishment/>

Beachfront Jurisdictional Lines



Proposed Base Line Proposed Set Back Line Current Base Line Current Set Back Line Stabilized Inlet Zone Standard Zone Unstabilized Inlet Zone Beach Monument

B.E.R.M. Explorer



Beach Renourishment Projects



Other Coastal Apps

<https://www.scdhec.gov/environment/your-water-coast/ocean-coastal-management/products-and-services>

<https://mycoast.org/sc>

<https://gis.dhec.sc.gov/beachaccess/>



Contact Us

- SCDHEC Ocean and Coastal Resource Management
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- (843) 953-0200

For more information and course materials



South Carolina Coastal
Information Network

<https://www.sccoastalinfo.org/>

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Please let us know how we can improve this course and the series.

Calling the Coast Home

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