

# SOUTHERN PALM BEACH ISLAND COMPREHENSIVE SHORELINE STABILIZATION PROJECT

## A Palm Beach County Shore Protection Project

### Project Location

- Encompasses .67 miles of shoreline extending from the Town of South Palm Beach (R134+135') south to the Lantana Municipal Beach (R137+410').

### The Problem

- Continued erosion along the project area threatens upland structures & recreational beaches.

### History

- PBC has completed six (6) dune restoration projects along the shoreline since 2003. The constructed dune served as a buffer against the intense 2004 & 2005 hurricane seasons and numerous tropical and nor'easter storms.

### The Solution

- Construct a series of low-profile groins in order to stabilize the beach. Place sand behind the structures where the beach is the most critically eroded and reconstruct a dune system planted with native plants.

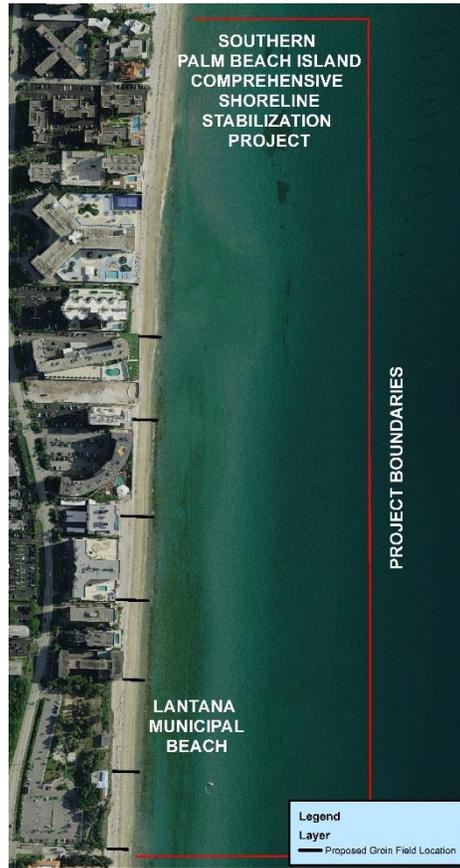
### Benefits

- A stabilized beach and dune will provide storm protection, recreational opportunities, and sea turtle nesting habitat.

### Partners

- Palm Beach County (Tourism bed tax revenue)
- Florida Department of Environmental Protection (FDEP)
- Town of South Palm Beach

### PROJECT LOCATION



### PROJECT OVERVIEW

- Since 2007, the County has completed several engineering studies that have evaluated various long term erosion control alternatives (no action, beach nourishment, groins & breakwaters) for the project area.
- In 2013, the County completed a final engineering analysis to help identify the most appropriate shore protection plan for the project area. A series of 7 low-profile, shore-perpendicular groins plus a moderate beach fill (~86,000 CY) was selected.
- Due to the close proximity of the Town of Palm Beach's proposed South Reach 8 project the two projects were evaluated under one Environmental Impact Statement (EIS). The USACE required completion of an EIS under the National Environmental Policy Act (NEPA). The EIS further evaluated project alternatives & impacts.
- The FINAL EIS (FEIS) was completed in July 2016 and the Record of Decision (ROD) is expected to be received in 2017. Comments received from the public & permitting agency scoping meetings helped to influence the final design & permitting of the project.

### FAQ

- **What is the cost of the project?**

The project as presently proposed would cost approximately \$10.5 million to construct. This cost includes sand placement and groin & mitigation construction.

- **How often will the project area require maintenance?**

The project is designed to last 3 years. Therefore, placement of fill material will be required approximately every 3 years depending on several factors including wave climate, storm impacts and the results of post-construction physical monitoring.

- **What are the groins made of?**

The groins are concrete panels with concrete support piles and are approximately 100' long and spaced 300' apart. Exact length and location of the 7 groins will depend on pre-construction project conditions.

- **How do the groins work?**

Groins are shore perpendicular structures that disrupt a portion of the sand flowing south along the beach and encourage sediment deposition on the updrift side of the structure.

- **Have groins been used successfully in other locations?**

Yes, they have been extensively used throughout the world and along Palm Beach County shorelines for decades. Since groins can cause downdrift impact to adjacent beaches they must be designed to minimize impact.

- **Will the structures have any impact to recreational activities?**

The goal of the project is to stabilize the beach while maintaining current recreational activities such as surfing, fishing, swimming and snorkeling.



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