



Palm Beach County  
Board of County Commissioners

# Providencia Cay Estuarine Restoration Project

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## Challenge

- The Lake Worth Lagoon is an estuary that has suffered the extensive loss of estuarine habitats and degraded water quality due to human development activities over the past century.
- A 3.5 acre dredge hole has accumulated fine-grained, organic-rich sediment (muck) which is contributing to the degradation of water quality and habitat.
- This muck is can be easily re-suspended in the water column causing increased turbidity and reducing the light availability for marine plants.

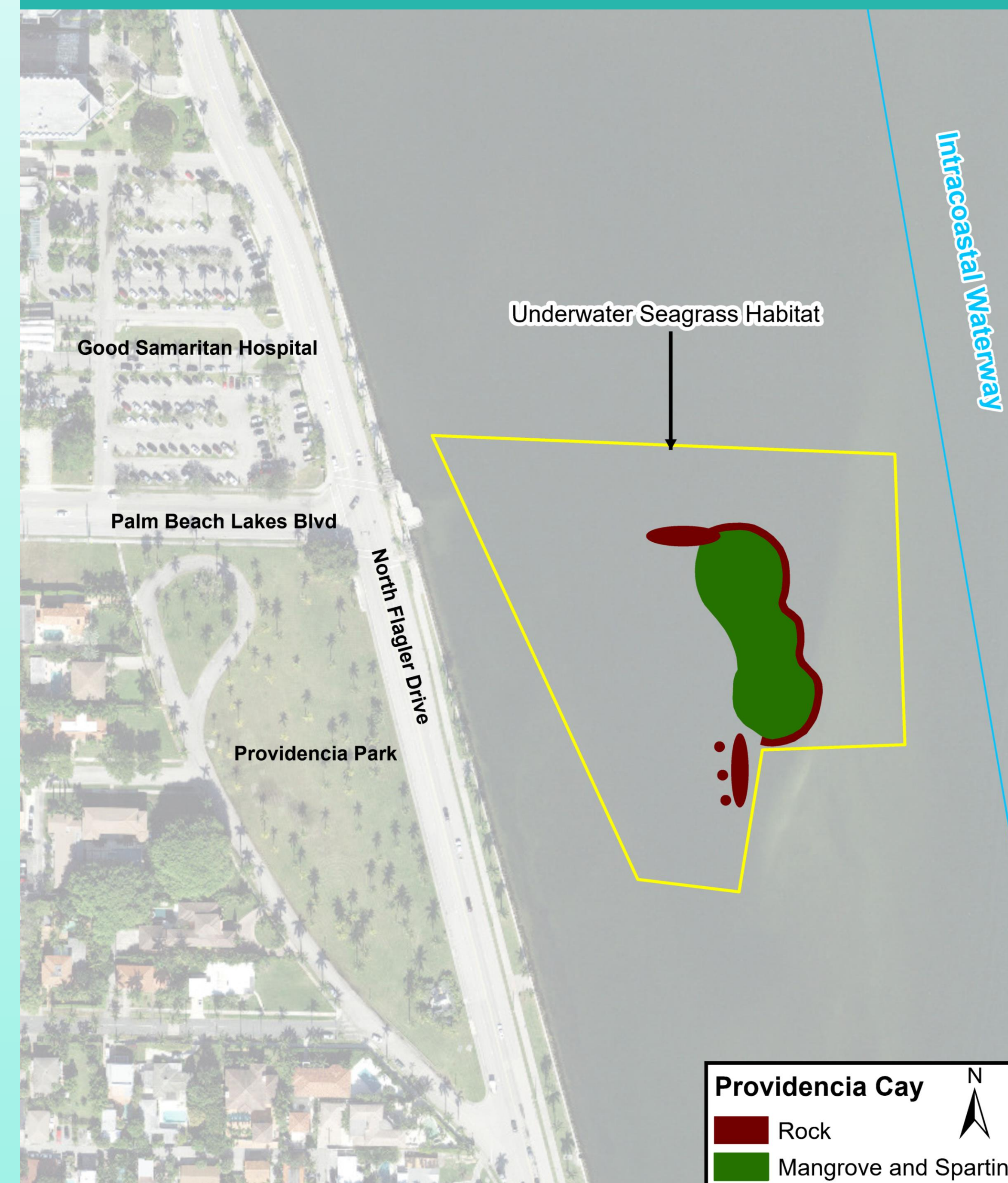
## OBJECTIVES

The purpose of this project is to create habitat for key estuarine species and improve the water quality around the dredge hole by:

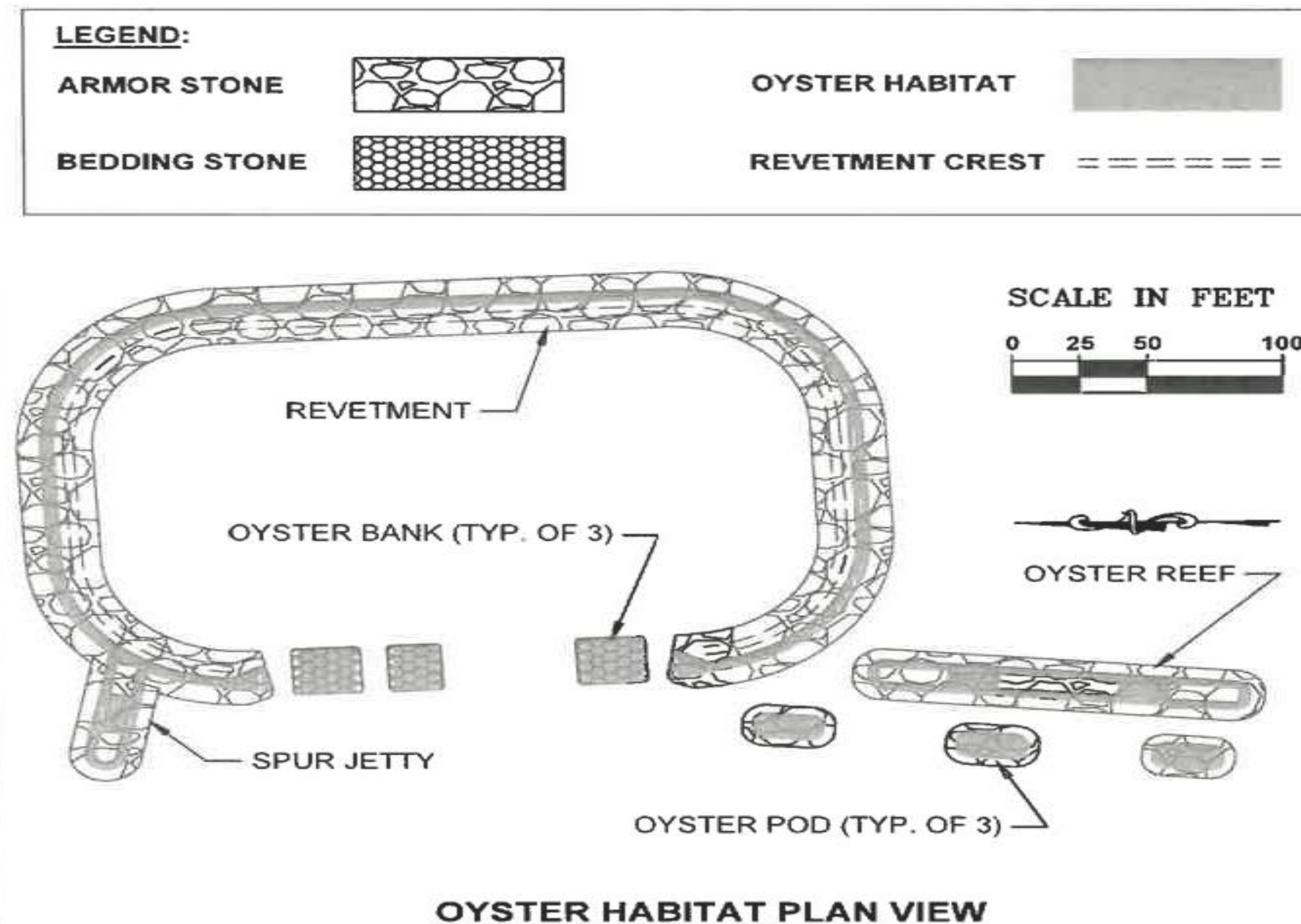
1. Capping the existing muck sediment in the hole.
2. Creating habitat for seagrass recruitment.
3. Building upon the capped sediment to create an emergent island.
4. Include additional oyster and artificial reef habitat in the area.



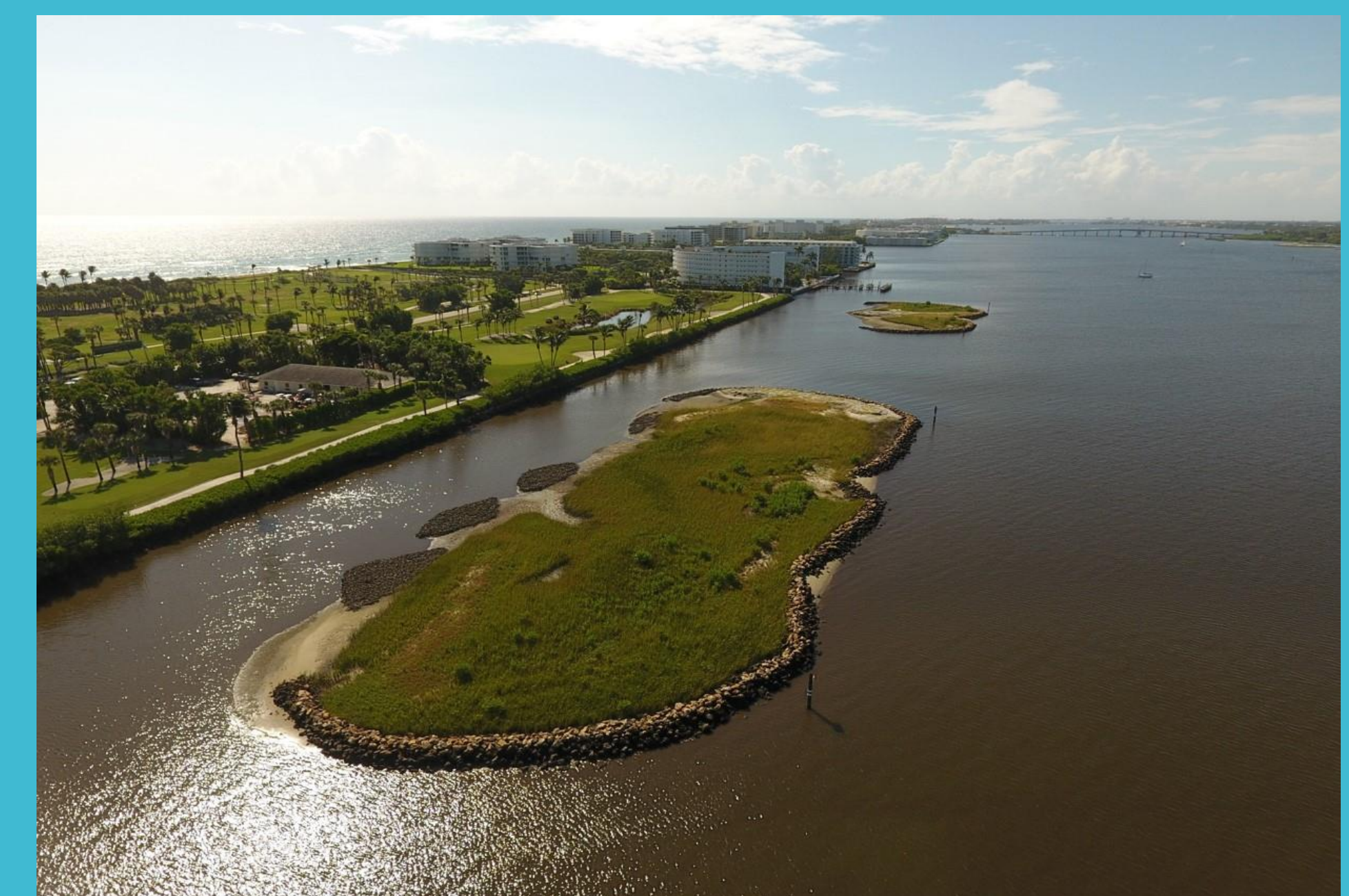
## Project Details



- Total footprint of 6 acres.
- Project includes construction of a revetment border with spur jetty, oyster pods, and an oyster reef, all built on a raised plateau of sand.
- Methods used in the Providencia Cay project have been used by PBC ERM to restore over 250 acres of land.
- Seagrass and benthic habitat will surround the entire site.
- This areas will also serve as part of the Paddling Blue Trail.



## Goals



This restoration project will support local wildlife and improve water quality while offering the opportunity for the public to learn about the environment, fostering a connection that promotes future environmental health.

## ACKNOWLEDGEMENTS

- Palm Beach County Environmental Resources Management
- Florida Inland Navigation District - WAP
- All past artificial reef partners and donors who make these projects possible.