



ENVIRONMENTAL SUPPORT SERVICES FOR MUCK DREDGING/CAPPING PROJECT

PROJECT DESCRIPTION

AEI was subcontracted to provide environmental, permitting, geotechnical, and limited engineering services to the City of Cocoa Beach. The Brevard County 2019 Save Our Indian River Lagoon Plan Update prioritized the Cocoa Beach Golf Course project as one of three funded muck dredging projects in the Banana River Lagoon. However, due to only partial funding for the project, the City had to consider alternatives such as sand capping to achieve the same results as dredging at a reduced cost. The Geosyntec-Applied Ecology team was contracted to evaluate muck management alternatives, liaise with all regulatory agencies to reach a consensus, and design the project in accordance with regulatory requirements.

AEI conducted environmental resource surveys, design reviews, permitting, and agency coordination/public outreach tasks. AEI completed all the ecological and water quality assessment work to evaluate and prioritize alternative muck management strategies based on cost and ecological benefits. The assessments within the entire project area included a sub-bottom survey of the muck deposit area (160 acres), the adjacent shorelines, and the proposed dredge spoil management area to identify and map any environmental resources including Submerged Aquatic Vegetation (SAV) and other listed species.

After the proposed restoration alternatives were formulated, AEI assisted with the cap design which includes an oyster reef and mangrove planting. The project team also led the permitting strategy, including water quality and habitat monitoring plans, ensuring regulatory approval to ensure project success.

OUTCOMES

Due to the collaborative and innovative approach led by the project team, both federal and state permit authorizations were issued, making this the first capping project to be permitted in the Indian River Lagoon, opening the door for other innovative in-water ecological restoration projects.

PROJECT DETAILS

PROJECT CLIENT:

The City of Cocoa Beach via Geosyntec Consultants, Inc.

PROJECT LOCATION:

Cocoa Beach, FL

SERVICE LINE AREAS:

-  Environmental Services
-  Coastal Management & Planning
-  Ecological Services
-  Geospatial Services

EXPERTISE:

- Coastal Engineering
- Environmental Permitting
- Environmental Assessment
- Benthic Survey
- Sediment Survey
- Monitoring Plans