



Coastal Wetland Restoration at Apalachicola National Estuarine Reserve



April 2014



October 2014

Restore the Earth Foundation, Inc. (REF) partnering with **Matrix New World Engineering**, implemented the wetland restoration of the Living Shoreline site at **Apalachicola National Estuarine Research Reserve** as a part of a mitigation project to offset site expansion of a major power utility, **Progress Energy**.

The purpose of the project was to restore coastal marsh vegetation to fill in and supplement the existing oyster reef restoration. Both the vegetation and oyster reef restoration are components of a larger restoration mitigation project.

The project area was successfully vegetated using REF's innovative custom composted filled Gulf Saver™ bags that were plugged with native *Spartina alterniflora* (smooth cordgrass).

Notable: prior to REF's successful Gulf Saver bag restoration, several attempts to vegetate the area using bare root plugs had failed due to the high energy environment of the project site.

The REF Gulf Saver bag wetland restoration has survived multiple storm events and to-date has met all growth performance monitoring criteria for the mitigation.

The Apalachicola National Estuarine Research Reserve, designated in 1979, is a joint partnership between the National Oceanic and Atmospheric Administration and the Florida Department of Environmental Protection (FDEP). The second largest Research Reserve in the country at 246,000 acres, much of the acreage (135,680) is state-owned submerged lands, including significant acreage of brackish submerged vegetation, sea grasses (*Halodule wrightii*), oyster reef (*Crassostrea virginica*), tidal flats and unconsolidated bottom.

PROJECT DETAILS

Location:
Apalachicola National Estuarine Research Reserve, Eastpoint, Florida

Date:
April 2014

Project Attributes:

- Living Shoreline
- High Wave Energy
- Difficult site
- Mitigation project
- Vegetation stabilization

SITE BACKGROUND

The Apalachicola Bay lies at the terminus of the Apalachicola River, which is formed by the confluence of the Chattahoochee and Flint Rivers at the Florida/Georgia border. Both the Chattahoochee and Flint rivers originate in northern Georgia and drain an area of approximately 20,000 mi². Because of the myriad habitats, temperate climate and relatively pristine condition, the Apalachicola Reserve is one of the most biologically diverse areas in North America. The Reserve is home to several endangered and imperiled species. The river and bay are also tremendously productive, supporting commercial and recreational fisheries including finfish, shrimp and oysters. Apalachicola Bay provides 90% of the oyster product coming out of Florida, which equates to 10% nationally. Between 65 and 80% of Franklin County's workforce is employed in some manner by the seafood industry.

