Summary

The Caloosahatchee River has historically supported vast seagrass beds. However, much seagrass coverage was lost in recent years, due in part to man-made alterations in water flows to the Tidal Caloosahatchee River. Seagrass plays an important role in estuarine ecosystems by providing a vital reproductive and nursery habitat for fish and food for grazers such as manatees and turtles. Seagrass also improves water quality and clarity by removing nutrients and sediment from the water column.

CHNEP is currently working with its partner organizations and the citizens of Lee County toward the overarching goal of restoring the tidal Caloosahatchee River’s abundant seagrass meadows.

Objectives for this project included: restoring the distribution of tapegrass and widgeon grass in the River by establishing seed-source colonies, monitoring the successes of the seagrass restoration, and creating transferable restoration monitoring procedures for future endeavors. This project also sought to enhance public understanding and stewardship of seagrass within the CHNEP area through Citizen-Science. The accomplishments of this project are showcased in the form of outreach and public education events.

Location: Lee County, FL
Partners: Calusa Waterkeeper, Florida Department of Environmental Protection (Florida Coastal Management Program), Florida Gulf Coast University, Environmental Protection Agency, NOAA, Sea & Shoreline, Johnson Engineering, and Lee County Citizen Science Volunteers.
Implemented: 2018
Status: Completed
CHNEP Cost: $14,270
Funding Source: Florida Department of Environmental Protection funds contributed to CHNEP
2019 CHNEP Plan Activity: 1.1: Protect and restore beneficial submerged aquatic vegetation and oysters.
Results and Benefits

Improved Water Quality and Clarity:
The planting of seagrass beds helps to improve water quality by absorbing and transforming excess nutrients in the marine environment. Seagrass also provides stabilization by holding sediments in place, preventing the suspension of sediment in the water column.

Reduced Harmful Algal Blooms:
Excess nutrients in the water due to human-related runoff can create an ideal environment for harmful algal blooms (HABs). The filtration of nutrients through submerged aquatic vegetation, like seagrass, is one way to reduce future HAB outbreaks.

Enhanced Aquatic Habitat:
Seagrass beds are among the most productive ecosystems on the planet and serve as a food source for a variety of herbivores including urchins, manatees, and sea turtles. They also serve as habitat for juvenile fish and other animals. Increasing the amount of seagrass in the Caloosahatchee will create self-sustaining communities.

Increased Public Knowledge:
This project involved educating and informing the general public on seagrass beds to create a team of Citizen Scientists. These Citizen Scientists work together with marine ecology experts to plant and monitor the seagrass conditions. Including the public in this restoration project allowed local residents to play a vital role in improving the Caloosahatchee River.