

OYSTER REEF RESTORATION ON SAPELO ISLAND FOR COASTAL HAZARD PROTECTION



Institute for Resilient
Infrastructure Systems
UNIVERSITY OF GEORGIA



Flooding in Hogg Hummock on Sapelo Island, adjacent to the proposed habitat restoration.

OYSTER REEF RESTORATION ON SAPELO ISLAND

Project Contacts:

12/15/2024

University of Georgia

Brock Woodson, bwoodson@uga.edu

Nik Heynen, nheynen@uga.edu

SOLO

Maurice Bailey, maurice@saveourlegacyourselves.org

Shell to Shore

Hunt Revell, shelltoshoremail@gmail.com

ABOUT THE PROJECT

This project will work to restore the oyster reefs and salt marshes around the Saltwater Geechee community of Hogg Hummock on Sapelo Island, Georgia to support a more resilient community in the face of future climate changes by boosting flood protection, improving the historical ditch network, and protecting culturally important places.

University of Georgia researchers are partnering with Save Our Legacy Ourselves (SOLO), a local Saltwater Geechee non-profit, and Shell to Shore (S2S), a non-profit based in Athens, Georgia that provides oyster shells from local restaurants for restoration projects.

THE MAIN GOALS

The project has three goals:

- Restore the marsh to reduce flooding and increase the potential for community members in Hogg Hummock to use the land in other beneficial ways.
- Engage community members to restore the marsh and oversee long term monitoring of how the project performs and empower Hogg Hummock community members to further public education efforts.
- Learn from the experience so that they can use this community-based planning process in other places, specifically for projects that incorporate model-based scenarios for oyster habitat restoration.



THE PROPOSED CHANGES

The team has identified five potential actions that could help reduce flooding and protect the community:

- Placing oyster reefs in places to help channel floodwaters away from the community.
- Installing tide gates near outlets from historical ditches.
- Removing dikes to reconnect the marsh
- Planting native species in the nearby lowland forest.
- Turning flood-affected lands into salt-tolerant farmland to make room for the marsh to migrate as sea levels rise.

Potential actions will be discussed with community members, and all required permits, insurance, and bonds will be obtained prior to any action being taken.



Map of the proposed habitat restoration site (Big Hole Marsh).

TIMELINE

The project will be done in phases over three years:

PHASE ONE – YEAR 1

The team will work with the community to develop conceptual restoration designs. The team will evaluate how proposed plans will improve flood protection, both from sea level change and storms, protect important areas, and provide additional opportunities around oyster reef restoration by collecting data and using computer models. The study will be used in conversations with community members to develop a Comprehensive Habitat Restoration Plan.

PHASE TWO – YEAR 2

The team will implement the Comprehensive Habitat Restoration Plan by restoring oyster reefs throughout Big Hole marsh next to Hogg Hummock alongside community members.

PHASE THREE – YEAR 3

The team working with the community will monitor the project to see whether it is providing the benefits it was designed to provide, including flood protection and habitat restoration, and communicate these benefits to the community.

STAFFING AND COMMUNITY PLANNING ADVISORY BOARD

To help the project have as much community transparency and accountability as possible **Ms. Francine Bailey** and **Mr. JC Walker** have been hired to help as staff members of the project team. The project team has assembled a Community Planning Advisory Board composed of Sapelo Island resident decedents to advise and help disseminate information. The members of the Community Advisory Planning Board include **Mrs. Mary Ann Bailey**, **Mr. Stanley Walker**, **Mr. Marvin “Kent” Grovner Sr.**, **Ms. Mattie Banks** and **Ms. Francine Bailey** as a liaison.