

NAME: Restoring Coastal Estuarine Habitat in Three North Carolina Estuaries

LOCATION: Brunswick, Carteret, Onslow and New Hanover Counties, North Carolina

ACRES: 9.3 acres of oyster habitat and 1.24 acres of saltmarsh habitat

NON-FEDERAL SPONSOR: North Carolina Coastal Federation

PROJECT DESCRIPTION:

The proposed project would occur on three different sites along North Carolina's coastline: Lower Lockwood Folly River; Stump Sound; and Jones Island. The project will include the restoration of coastal saltmarsh habitat and the creation of oyster reefs comprised of oyster shellbags. The oyster reefs will be designed and constructed using a variety of reef heights, shell layer thickness, and edge complexity, providing substrate for oyster larvae and serving as wave dampening mechanisms to control erosion along the shorelines. Once the oyster reefs have been constructed, the saltmarsh restoration will take place between the oyster reefs and eroding shoreline. Smooth cordgrass (*Spartina alterniflora*) and saltmeadow hay (*Spartina patens*) seedlings will be planted along the intertidal zone, landward of the restored oyster reef area in each project area.

EXPECTED BENEFITS:

This project will benefit the eastern oyster (*Crassostrea virginica*) by providing substrate for larvae to attach to, helping to increase species numbers and improve water quality in the project area. These reefs will also provide habitat for a variety of marine fish and invertebrate species. In addition, this approach also allows for adaptation to rising sea levels, as the living shoreline allows the project components to adapt and migrate to changing levels of water.

STATUS: Planning and Design