



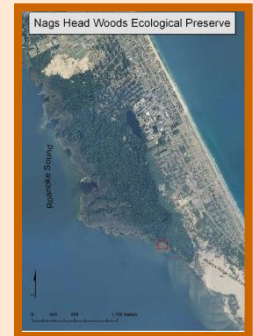
Demonstrating the value of natural communities for shoreline protection: restoration of oyster reefs, submerged aquatic vegetation, coastal wetlands, and maritime salt shrubs along a high energy, high-bank shoreline

## North Carolina



### Native Reef Restoration

The North Carolina Chapter of The Nature Conservancy, in partnership with the Town of Nags Head and the North Carolina Division of Marine Fisheries, has embarked on a comprehensive ecosystem restoration project in Nags Head Woods Ecological Preserve to restore native maritime salt shrub, coastal marsh, submerged aquatic vegetation (SAV), and native oyster reefs along a highly eroding, high-bank shoreline to demonstrate the benefits of natural alternatives to hard stabilization to neighboring property owners. Approximately 0.5 acres of oyster reef, 0.25 acres of SAV, and 0.5 acres of wetlands and uplands will be restored. Restoration will be accomplished through use of oyster shell bags, oyster shell mats, buoy-deployed seeding for SAV and vegetation plantings.



#### Fast Facts

- Oyster reefs and SAV function as nature's breakwaters, reducing shoreline wave energy and erosion
- Coastal wetlands trap drifting sediments leading to accretion and provide further wave energy absorption along the shoreline
- Oyster reefs, SAV, and coastal wetlands provide essential habitat for fish, shrimp, crabs, and bivalve mollusks.

Once established, the oyster reefs, SAV, and coastal marsh will not only provide native fishes and shellfish with valuable nursery, foraging, and refuge habitat, but will attenuate wave energy reaching the shoreline thereby reducing erosion potential. Maritime salt shrubs planted along the high-bank will further reduce erosion potential through direct stabilization of the high-bank itself. The shoreline protected, a portion of a 40 acre parcel owned the Town of Nags Head but managed by The Nature Conservancy as part of Nags Head Woods Ecological Preserve, is a highly visible site adjacent to numerous influential property owners who are actively seeking solutions for shoreline erosion. The results of this pilot project will almost certainly influence these and other property owners decisions on strategies to address erosion.



## Working Together

Town of Nags Head

North Carolina Division of  
Marine Fisheries



*The mission of The Nature Conservancy is to preserve the plants, animals, and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.*

### for more information

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# NOAA

The National Partnership between the NOAA Community-based Restoration Program and The Nature Conservancy implements innovative conservation activities that benefit marine, estuarine and riparian habitats across the United States. The NOAA Restoration Center has worked with community organizations to support locally-driven projects that provide strong on-the-ground habitat restoration components that offer educational and social benefits for people and their communities, as well as long-term ecological benefits.