


Carrot Island

In a collaborative effort, Natrx and its partners installed a 2,000-foot living shoreline at Carrot Island, part of the Rachel Carson Estuarine Reserve. The easternmost shores of the island which helps protect historic Beaufort, North Carolina, had endured substantial erosion damage, necessitating swift action to safeguard its integrity and fortify the island while still preserving its vital natural habitats and delicate marine ecosystems.



 Beaufort, North Carolina

 May 2024

PROJECT OVERVIEW

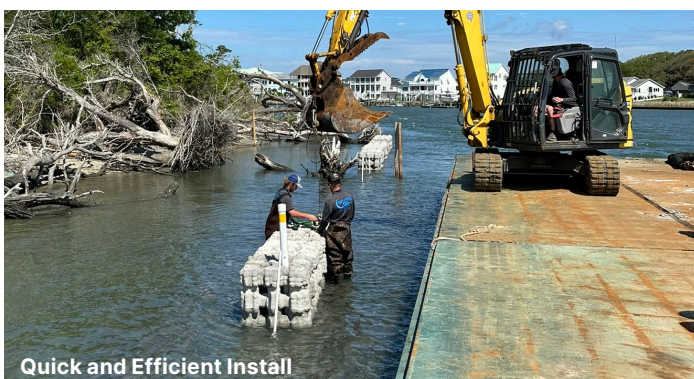
Client: Carteret County

Partners: Department of Environmental Protection, Moffatt & Nichol, Carteret Marine Services, Sandbar Oyster Company

Project: Shoreline Preservation & Maintenance

PROJECT GOALS

- Safeguard the fragile shoreline along Carrot Island's eastern edge from erosion.
- Mitigate the relentless impact of high wave energy, shielding the shoreline from further damage.
- Enhance sedimentation to replenish the island's sandy beaches, fostering a thriving coastal ecosystem.
- Maintain and protect the island's native marine life habitats and surrounding ecosystems, ensuring their vitality and resilience.
- Creation of new oyster habitat



Quick and Efficient Install

PROJECT OUTCOMES

- Designed and deployed an innovative three-tiered living shoreline solution, featuring Natrx Lattice ExoForms, low-profile "Oyster Catchers," and vibrant tidal marsh plants.
- Engineered the living shoreline to safeguard and foster thriving ecosystems for fish, oysters, and vegetation, while dramatically mitigating wave energy impact on the island.
- Quickly and efficiently installed Lattice ExoForms at an astounding rate of one unit being placed every 90 seconds.
- Delivered a solution with a significantly reduced physical footprint (merely 1/3 the size of a comparable rock solution) and substantially lower costs, showcasing unparalleled efficiency and sustainability.



Three-Tiered Living Shoreline