

A Solution for Shoreline Management: LIVING SHORELINES

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Erosion at Camp Albemarle prior to living shoreline.



*Camp Albemarle site after living shoreline installation.
(Image taken a few days after Hurricane Florence)*



Bulkhead damage at Camp Albemarle after Hurricane Florence. This bulkhead is adjacent to the living shoreline.

What is a living shoreline?

Shoreline change and erosion are continuous processes, driven by currents, waves, winds, storms, sea levels and human influences. Bulkheads are “hardened” structures commonly installed along sound-side shorelines to try to reduce erosion. Unfortunately, they destroy natural marsh and cause increased erosion of nearby properties. Living shorelines are an alternative solution for shoreline management that maintain the natural marsh. These systems often use marsh plants and sometimes oyster or rock to create a more natural and productive shore.

Did you know?

- North Carolina has over 12,000 miles of shoreline bordering the bays, creeks and sounds that make up our estuaries.
- Estuaries are where fresh water and salty ocean water meet. They are home to many important fish and shellfish that need protection.
- Each year an estimated 26 miles of estuarine shoreline are “hardened.”
- Bulkheads are a temporary fix and often need costly repairs.
- Living shorelines are longer-term, less-expensive, and reduce erosion while maintaining or restoring the shoreline’s natural system.
- Living shorelines are more storm-resilient. After Hurricane Florence, none of the North Carolina Coastal Federation’s living shoreline projects had damage.

Benefits

- Reduced erosion
- Maintained natural marsh
- Protected coastal habitat
- Filtered and improved water quality
- Buffered shore for changing water levels



North Carolina
Coastal Federation
Working Together for a Healthy Coast



Bogue Sound shoreline with an offshore sill built with bags of recycled oyster shells and Native Shorelines, a division of Restoration Systems, LLC, QuickReef™ structures.



Living Shoreline with offshore oyster reefs, built in 2014, and planted with saltmarsh grasses at Trinity Center in Pine Knoll Shores.



Live oysters growing on oyster shell bags in Bogue Sound. Recycled oyster shells are a perfect home for baby oysters to attach and grow on.



QuickReef™ units from Native Shorelines, a division of Restoration Systems, LLC, are made up of a mixture of oyster shells and limestone marl to protect shorelines from erosion and provide valuable oyster and fish habitat.



Check out our list of contractors and engineers who have been trained to install living shorelines in your region.

NORTHEAST COAST CONTRACTORS

Outer Banks Excavating
(252) 202-8733
mperry@perrymarine.com

Total Marine Services Inc.
Duncan Silver
(252) 473-5130

Backwater Environmental
(336) 707-1965
backwater.biz

NORTHEAST COAST ENGINEERS

Bissell Professionals
(252) 261-3266
bissellprofessionalgroup.com

Quible & Associates
(252) 291-8147
quible.com

Albemarle & Associates, Ltd.
(252) 441-2113
albemarleassociates.com

CENTRAL COAST CONTRACTORS

Native Shorelines, LLC
(252) 333-9852
nativeshorelines.com

Sandbar Oyster Company
(252) 732-4516
sandbaroystercompany.com

Bobby Cahoon
Marine Construction
(252)249-1617
bobbycahoonconstruction.com

Mud Bucket Dredging
(252) 241-1504
mudbucketdredgingnc.com

Brooks Dredging and
Marine Construction, Inc.
(252) 728-6886
brooksdredging.com

TD Eure Marine
Construction, LLC
252-728-4191
tdeuremarine.com

SOUTHEAST COAST CONTRACTORS

Connaway
Marine Construction
(910) 264-9599
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