

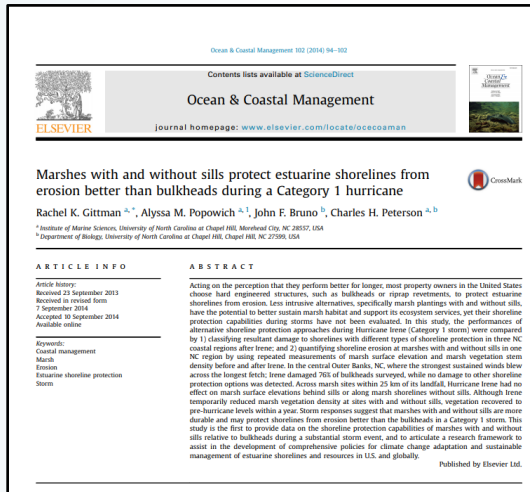
Living Shorelines: From The Beginning to Now



New and Innovative Construction Materials and Businesses Dedicated to Building Living Shorelines



Research, Education & Outreach



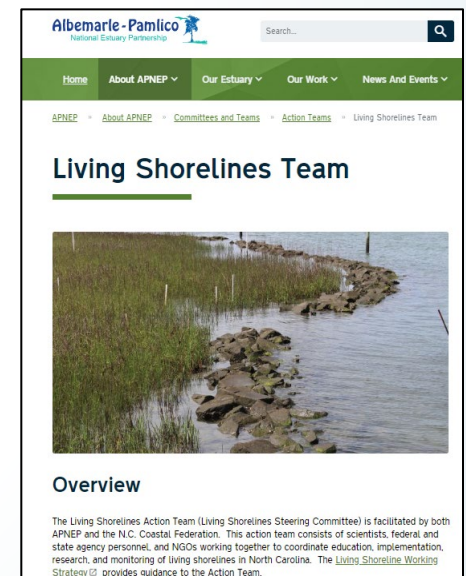
Benefits of Living Shorelines

- Natural alternative to the traditionally used hard shoreline stabilization methods
- Attenuate waves and reduce shoreline erosion
- Restore and protect valuable salt marsh and oyster habitat
- Improve water quality
- Resilient and outperform bulkheads through storms
- Require minimal to no maintenance
- Increase property value
- Typically less expensive than bulkheads
- Benefit landward properties and the Sound as a whole



Living Shoreline Steering Committee

- Established summer 2018
- Co-chaired by Albemarle-Pamlico National Estuary Partnership (APNEP) and North Carolina Coastal Federation
- Brings together living shoreline stakeholders to identify and collaborate on multiple living shoreline efforts to promote and expand their use in the state
- Four Subcommittees:
 - Education & Outreach
 - Research
 - Incentives & Implementation
 - Policy
- Pursue actions aligned with DEQ Coastal Habitat Protection Plan, DCM Living Shoreline Strategy, N.C. Oyster Blueprint, and APNEP and Federation goals

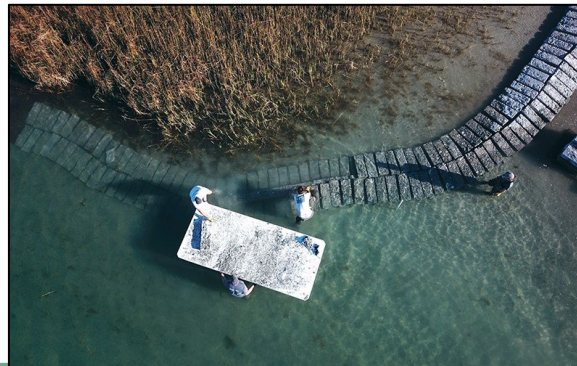


Living Shorelines By The Numbers

Year	Feet	Approx. Miles	# of Sites	# of Marsh Grass Plugs Planted
2019	2,379	0.5	16	21,987
2020	6,384	1.2	22	18,000
2021	5,091	1	30	137,692
2022	7,129	1.4	35	21,804
2023	10,965	2.1	58	29,632
TOTAL	35,046	6.6	>161	245,425
Proposed	>40,000	> 7.6		



Small-Scale Living Shoreline Examples

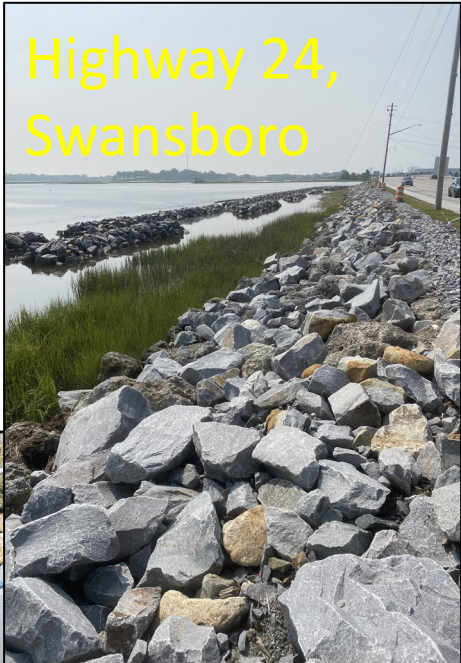


Large-Scale Living Shoreline Examples (Based on length and/or dimensions of structure)

Whittaker Pointe, Oriental



Carteret Community College, Morehead City



Highway 24, Swansboro

Atlantic Harbor, Atlantic



McGinnis Point HOA, Pine Knoll Shores

Increased Use of Living Shorelines

- Streamlining of the living shoreline permitting process
- Availability of living shoreline cost-share funding
 - National Oceanographic Atmospheric Administration
 - U.S. Fish & Wildlife Service/Southeast Aquatic Resources Partnership
 - N.C. Division of Soil & Water Conservation's Community Conservation Assistance Program (CCAP)
 - North Carolina Land and Water Fund
 - N.C. General Assembly





Living Shorelines

Overarching Goal

To make living shorelines the norm for shoreline stabilization in North Carolina instead of bulkheads, to protect and restore our valuable salt marsh and oyster habitats and help to improve water quality.