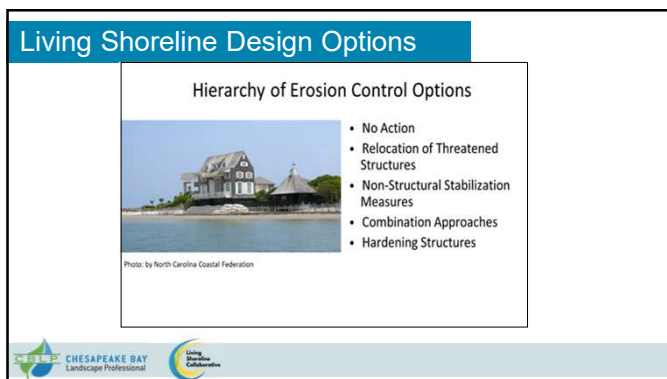




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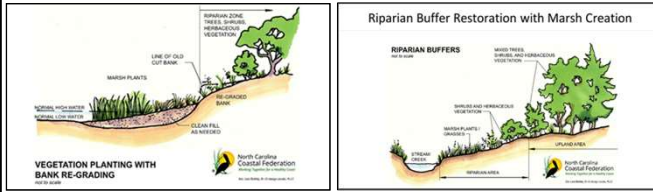


2



3

Bank Grading and Plantings



4

Bank Grading and Plantings



5

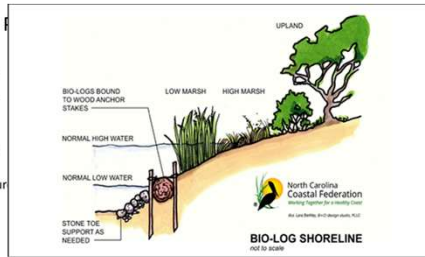
Hybrid Living Shoreline Measures



6

Coir Log Methods

- Works in areas with minimal wave energy
- Can be combined with other measures
- Biologs provide temporary protection for juvenile plants
- Need initial monitoring and minimal maintenance to ensure plants are growing



7

Coir Log Methods



8

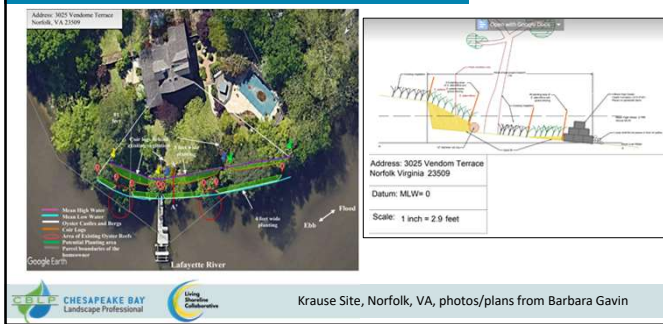
Coir Log Methods



Krause Site, Norfolk, VA, photos/plans from Barbara Gavin

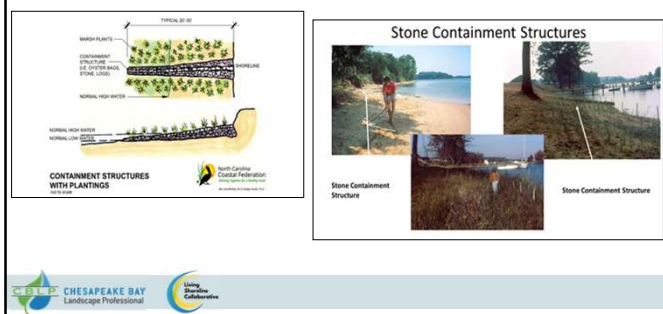
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Coir Log Methods



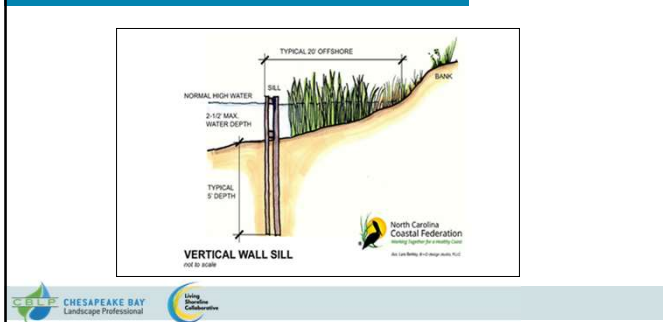
10

Containment Structures with Plantings



11

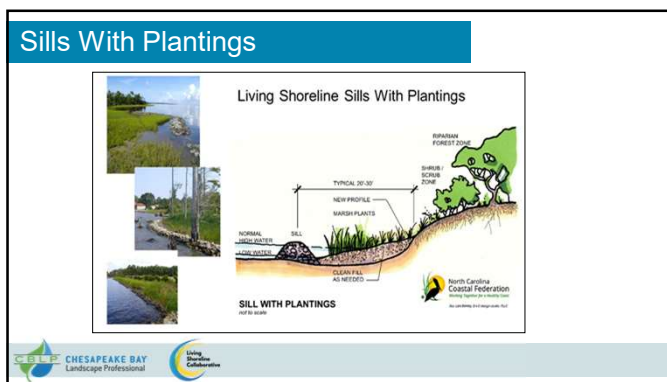
Vertical Wall Sills



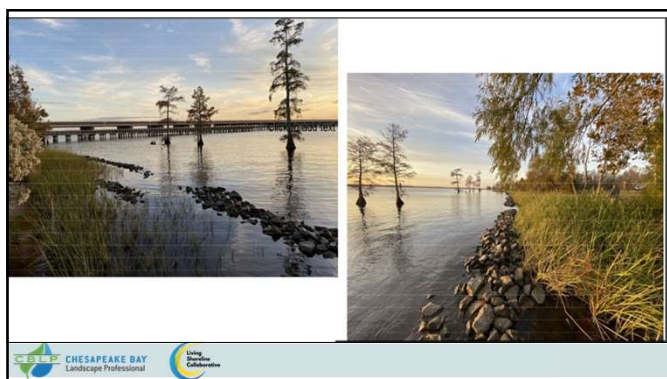
12



13



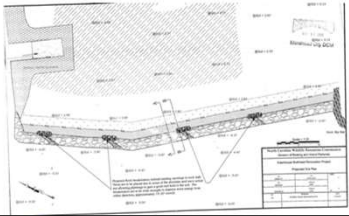
14



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Stone Sills With Freshwater Plants

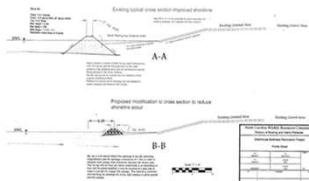
Stone Sill Living Shoreline in Freshwater Environment
Edenhouse Boat Ramp, Chowan River, Edenton, NC (2004-2005)



16

Stone Sills With Freshwater Plants

Stone Sill Living Shoreline in Freshwater Environment
Edenhouse Boat Ramp, Chowan River, Edenton, NC (2004-2005)



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Oyster Shell Living Shoreline Methods



18

Loose Oyster Shell Sills/Patch Reefs

Loose Oyster Shell Methods- Morris Landing, NC



Photo: North Carolina Coastal Federation

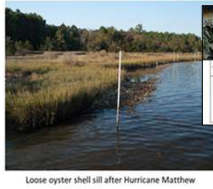
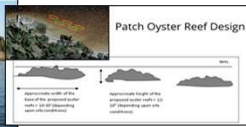


Photo: L. A. Jansen



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Marsh Toe Revetments



MARSH TOE REVETMENT
not to scale

Deer Creek Living Shoreline Project Oyster Shell Bag Marsh Toe Revetment



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Marsh Toe Revetments



Photos from North Carolina Coastal Federation



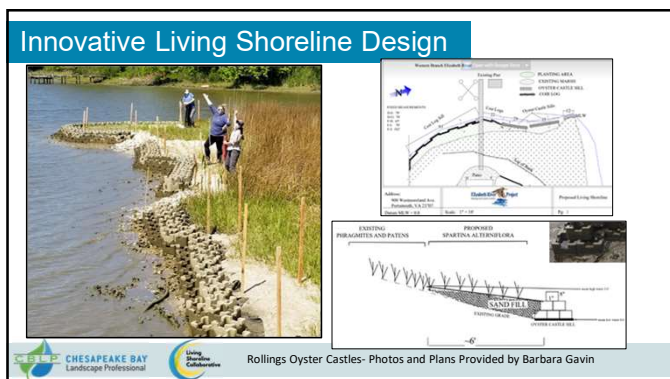
21



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Innovative Living Shoreline Design

Natrx ExoForms™

A highly flexible, coastal resilience solution that's safer and faster to install than traditional methods, promotes habitat-growth and ecological benefits, and gets stronger over time.

Natrx Dry Forming™ Advanced Manufacturing


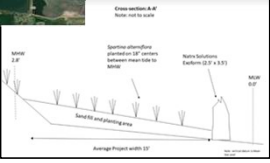
INITIAL DESIGN INITIAL FABRICATION PHYSICAL DELIVERY

CHESAPEAKE BAY Landscape Professional Living Shoreline Collaborative

Photos and Text courtesy of Natrx™ (<https://natrx.io/living-shorelines-by-natrx>)

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Innovative Living Shoreline Design

Shoreline at 10' from water
Shoreline at 20' from water
Shoreline at 30' from water
Shoreline at 40' from water
Shoreline at 50' from water
Shoreline at 60' from water
Shoreline at 70' from water
Shoreline at 80' from water
Shoreline at 90' from water
Shoreline at 100' from water

Natrx™ Living Shoreline Design Project, Norfolk, Va. From Ryan Walsh

CHESAPEAKE BAY Landscape Professional Living Shoreline Collaborative

Natrx Solutions™ Project design plans provided by Ryan Walsh

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Innovative Living Shoreline Design






Quickreef (Patent Pending) Photos from Restoration Systems/ Native Shorelines <https://nativeshorelines.com/>

CHESAPEAKE BAY Landscape Professional Living Shoreline Collaborative

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Questions? Tracy Skrabal skrabalt@gmail.com





CHESAPEAKE BAY
Landscape Professionals



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Shorelines
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