Jayne Gaskin/CRD

The new living shoreline at Coastal Regional Headquarters in Brunswick serving as a demonstration site for the continuous education of living shorelines in Georgia.

Living shoreline added to Coastal HQ

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A living shoreline was constructed in mid June to replace 160 feet of a wooden bulkhead at DNR's Coastal Regional Headquarters (CRH).

Living shorelines are an erosion control technique that maintains or enhances the natural connectivity and processes between the land-water interface and is constructed using the strategic placement of mostly native materials to protect estuarine shorelines, absorb wave and tidal energy, and enhance coastal habitats.

Although living shorelines are best suited for areas of low to mid energy and may not be best in every situation, we have learned of some potential disadvantages of hardened structures, including habitat loss and further erosion on each side of the structure.

The CRH Living Shoreline has a dual purpose – protecting infrastructure behind the upland and serving as a demonstration site for the continuous education of living shorelines in Georgia.

Although high tides typically touch the new living shoreline, oyster cultch material was not used for this project due to the proximity of the creek.

The living shoreline is 160 linear feet and separated into four, 40-foot sections, where two have a two-tiered design and the other two were graded to a 3:1 slope.

Dividing the shoreline into four sections allows for the demonstration of various methods and materials that can be used to construct a living shoreline. One of the tiered sections and one of the sloped sections use natural coir fiber erosion control mats and straw double layer jute mats where the others have no mats.

To further support sediment and materials on the shoreline, fiber coir logs and Sox were placed at the "toe" of the shoreline, as well as at the bases of the top and middle tiers.

Existing storm drains that run through the shoreline were maintained and supported with rip rap at the inlets and outlets. All four sections include native vegetation; 750 Spartina alterniflora plugs were planted along the intertidal and a variety of approximately 1,500 plants like Muhly grass (*Muhlenbergia capillaris*), saltmeadow cordgrass (*Spartina patens*), sea oxeye daisy (*Borrichia frutescens*) and dune sunflower (*Helianthus deblis*) were planted behind it.

A stone infiltration trench was constructed along the top of the shoreline to absorb stormwater runoff. Diamondback terrapins have already used the living shoreline for upland access and nesting habitat.

CRD staff will continue to monitor the living shoreline as a part of a coastwide monitoring effort to move living shorelines forward in Georgia.