Case Studies

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION LIVING SHORELINE DEMONSTRATION AREA

520 Barracuda Blvd.
New Smyrna Beach, FL 32169

Project Footprint
5 acres of restored saltmarsh, 300 linear ft of shoreline demonstration area

Want to Visit?
The site is maintained by the Marine Discovery Center, which is open daily.

Coordinating Organization
Florida Fish and Wildlife Conservation Commission (FWC) Marine Discovery Center

The Shoreline Demonstration Area (from left to right): native plants, native plants with oyster bags, terracing with oyster bags, a kayak launch, a retaining wall with oyster bags. Photo credit: http://floridalivingshorelines.com/.

Project Description
During summer and fall of 2014, five acres of FWC property (the Mosquito Lagoon Marine Enhancement Center) were restored to saltmarsh through a grant-funded partnership. The Shoreline Demonstration Area was added to the project to showcase various techniques used to stabilize eroding shorelines, including methods using mostly natural materials. This showcase site has signs along a publicly accessible walking trail highlighting the various living shoreline implementation techniques from fully green (oyster reef sloping to high marsh) to rehabilitated seawall (oyster reef and mangroves in front of a seawall) applications. Contracted businesses installed terracing, a retaining wall, and seawall. Native plants came from a local nursery. Oyster shell came from a local restaurant recycling program, Shuck and Share, housed on the property.

For more information contact Jeff Beal, FWC, jeff.beal@myfwc.com
http://floridalivingshorelines.com/project/marine-discovery-center/

SOUTH CAROLINA DEMONSTRATION SITE

310 Okatie Highway
Okatie, SC 29909

Project Footprint
41 linear ft of oyster reef, 50 linear ft of oyster castle, 45 linear ft of crab trap reef, 122 linear ft of modified crab trap reef

Want to Visit?
The demonstration site is located along an intertidal shoreline of the Chechessee River, at the Port Royal Sound Maritime Center

Coordinating Organization
South Carolina Department of Natural Resources (SC DNR)

UAV imagery of the SCDNR deployment of different reef substrates. Photo credit: SCDNR.

Project Description
The SC DNR has been constructing oyster reef-based living shorelines since 2001. The success of these living shoreline projects has sparked the interest of nearby property owners to pursue similar projects. Consequently, the South Carolina Department of Health and Environmental Control (SC DHEC) has sought to develop a regulatory process to guide the design and permitting of living shorelines. SC DNR, working in partnership with the National Estuarine Research Reserve System (NERRS) and SC DHEC, is conducting a multi-year research program to inform living shoreline regulations. The program seeks to evaluate historic sites, analyze existing data, create and monitor new sites, and conduct case studies. Materials being tested are both oyster-based and natural fiber-based. Data on rates of elevation change from historic sites, such as the Chechessee River site (an oyster-based site), provide science-based information on how living shorelines protect South Carolina's marshes from erosion and habitat loss. Preliminary results, from historical analysis, indicate an average vertical accumulation rate of 2.3 cm/yr behind reefs relative to controls.

For more information contact Dr. Peter Kingsley-Smith, SC DNR, kingsleysmithp@dnr.sc.gov

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