



Natural & Nature-Based Features

Living Shorelines: Oyster Sills



VA Sea Grant

Description

Hybrid living shorelines combine organic features with structures to support wide tidal marshes and beaches. Oyster sills combine natural and planted tidal marshes with low-elevation reef structures that support the growth of shellfish and filter-feeders. Oyster sills are suitable where natural oyster productivity is high, existing marshes have eroding edges, and where minor upland bank erosion is present despite marsh vegetation. Research has shown that hybrid living shorelines and the habitats they support provide cleaner water, economic gains, and cultural traditions as ecosystem service benefits.

Multiple Benefits

- * Increase tidal habitat diversity
- * Dissipate energy of incoming waves
- * Flood storage
- * Nitrogen, phosphorus & sediment capture
- * Seafood production

Oyster Sill Restoration Tips

- * Average salinity should always be above 10 ppt
- * Locate normal & extreme tide elevations on land, present & future scenarios
- * Make sure construction & future maintenance access is feasible
- * Choose wetland plants based on local salinity average
- * Plant low & high marsh, expect plant changes over time
- * Reserve adjacent land upslope for future tidal marsh location
- * Perform periodic inspections & maintenance, like remove trash
- * Add thin-layer fill over time to maintain marsh elevations

Resources

[Living Shoreline Shellfish Reefs](#)

[Living Shorelines: Marshes and Oysters Story Map](#)



Water Quality BMPs

Urban or Ag Shoreline Management

Urban or Ag Shoreline Erosion Control:
Vegetated

Urban or Ag Shoreline Erosion Control:
Non-Vegetated



Community Rating System

Credit Potential

Oyster Sills in Special Flood Hazard Areas

Oyster sills will not receive credit in the CRS Program.

Vegetated tidal marsh areas landward of the sills can potentially earn **Open Space Preservation related** credit.

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