

Shoreline Stabilization Guide

The construction of vertical walls or bulkheads along the banks and shorelines of naturally occurring surface waterbodies is *prohibited* within the Natural Resource Management Area (NRMA) and the Indian River Lagoon Surface Water Improvements and Management Overlay Zone (SWIM/Class II Overlay). Hardening of the banks with a vertical wall or bulkhead is permitted only when erosion is causing a serious threat to life or property and a waiver is approved by the Volusia County Council. Please see pages 4 and 5 of this document for more information on existing vertical walls/bulkheads and approved waivers.

In lieu of vertical walls or bulkheads, other methods of bank and shoreline stabilization (i.e. sloping stabilization methods combined with vegetation) shall be used in these areas. The following methods are examples of acceptable shoreline stabilization and are intended to be utilized as a guide. The applicant may submit alternative shoreline stabilization methods to be reviewed by staff. Please be aware that additional items may be required by staff during the permit review process.

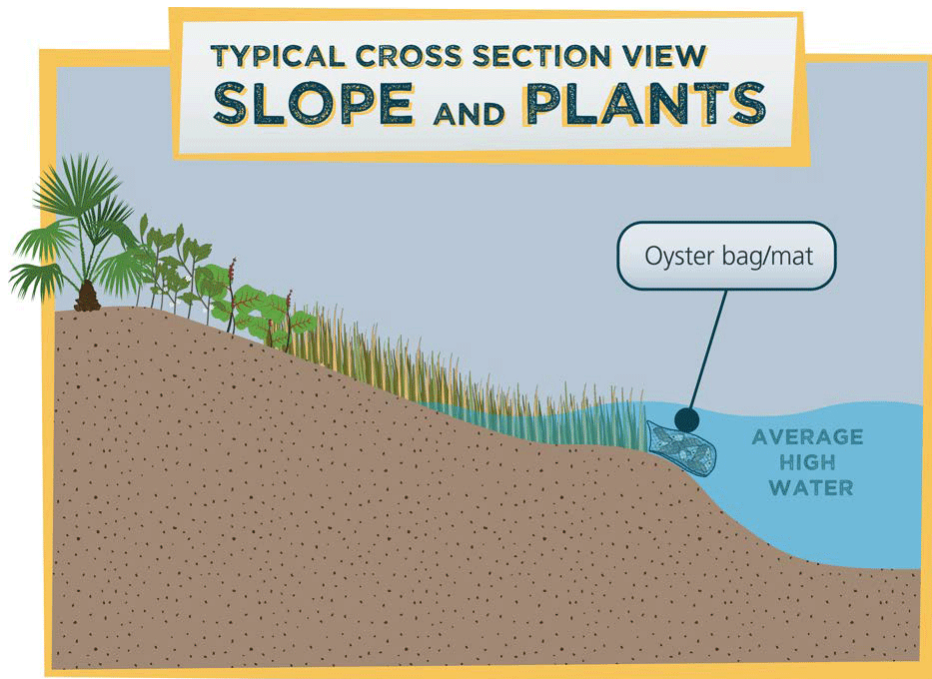
Types of Shoreline Stabilization Methods

Low to Moderate Wave Energy

Options:

1. Native plants only
2. Native plants + coir logs
3. Native plants + oyster bag/mat breakwater*

Example:



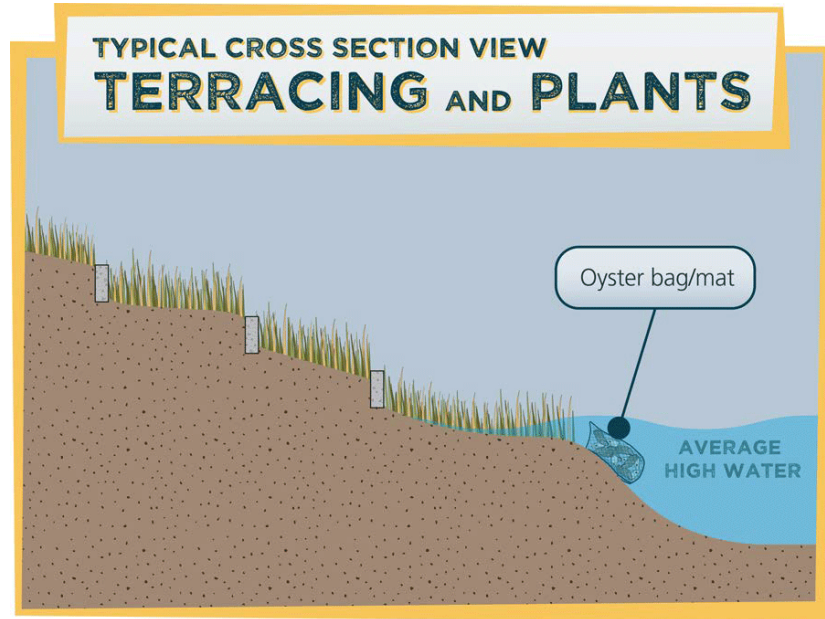
*Oyster bag/mat breakwaters are permitted only along coastal waterways

Steep Slope and Low to Moderate Wave Energy

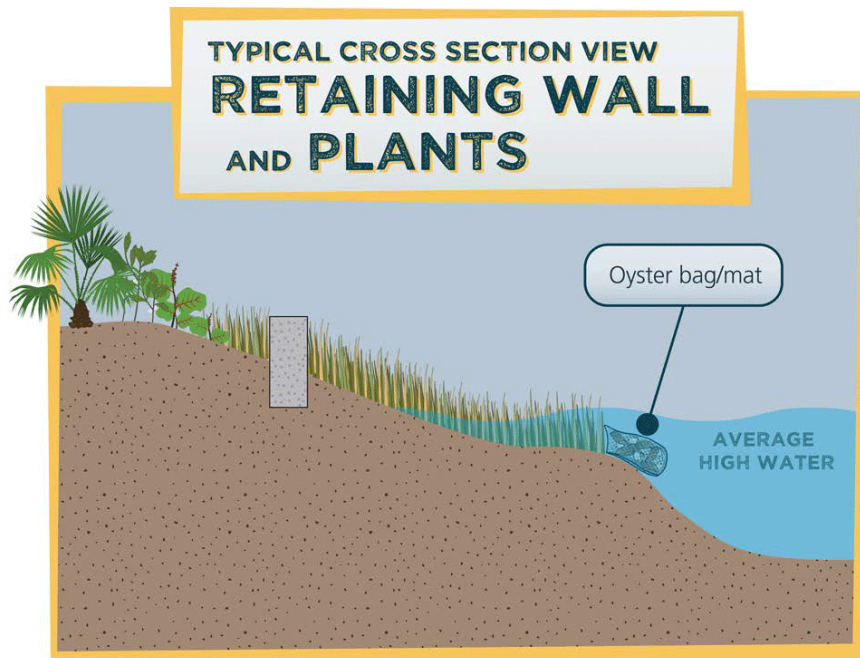
Options:

1. Native plant terraces
2. Native plant terraces + oyster bag/mat breakwater*
3. Retaining wall + native plants
4. Retaining wall + native plants + oyster bag/mat breakwater*

Example 1:



Example 2:



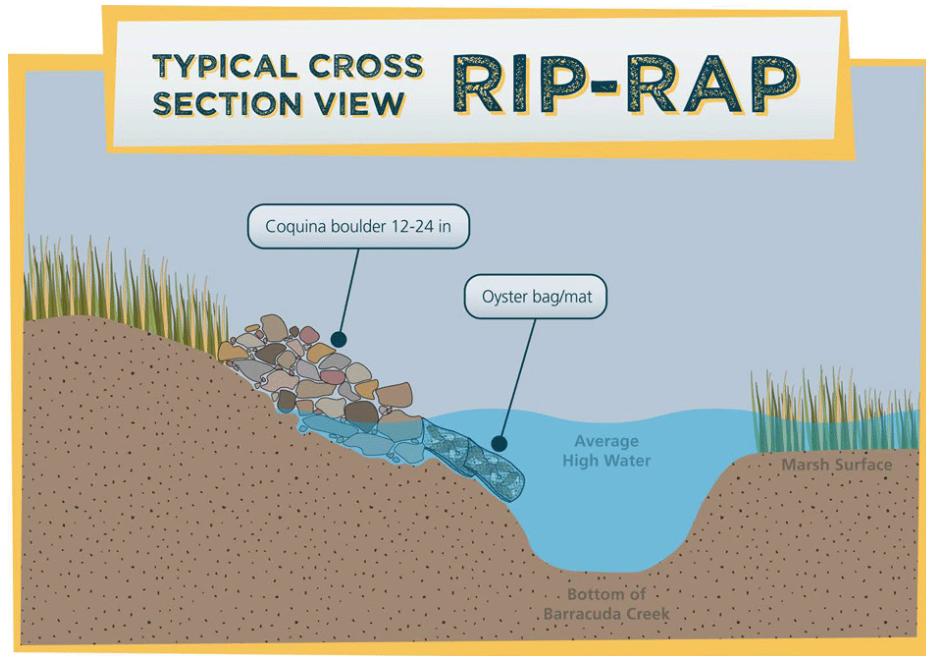
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Moderate to High Wave Energy

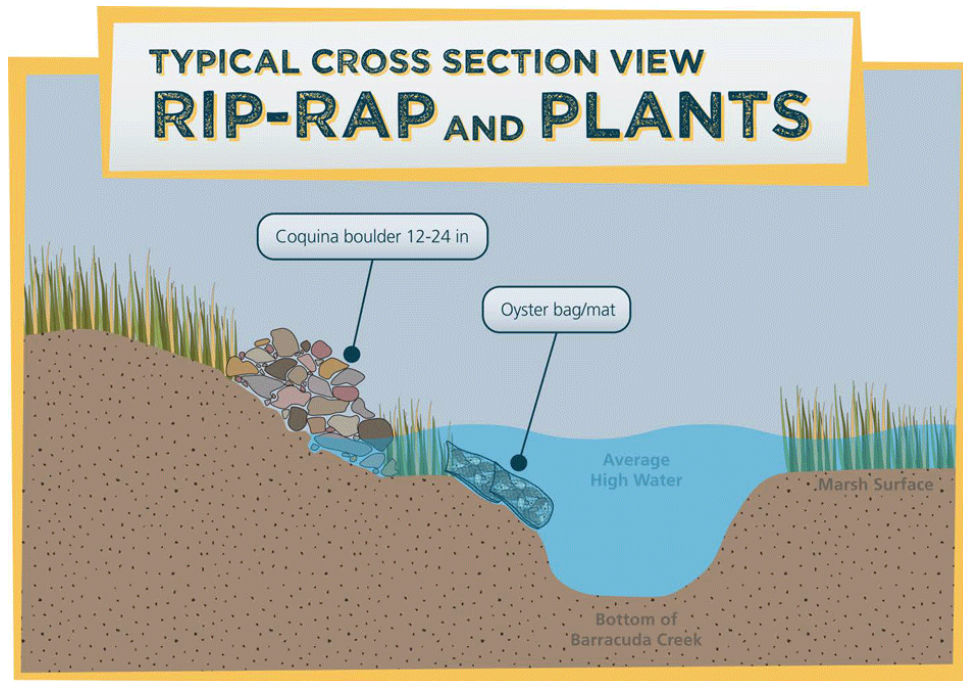
Options:

1. Coquina rip-rap + native plants
2. Coquina rip-rap + native plants + oyster bag/mat breakwater*

Example 1:



Example 2:



*Oyster bag/mat breakwaters are permitted only along coastal waterways

Existing Seawall Repair/Replacement or Waiver Approval

Seawalls may be repaired or replaced if they existed prior to the adoption of the Natural Resource Management Area (NRMA) on September 27, 1990, with Ordinance 90-34 and the Indian River Lagoon Surface Water Improvements and Management Overlay Zone (SWIM/Class II Overlay) on June 18, 1987, with Ordinance 87-14.

Hardening of the banks with a new vertical wall or bulkhead is permitted only when erosion is causing a serious threat to life or property and a waiver is approved by the Volusia County Council.

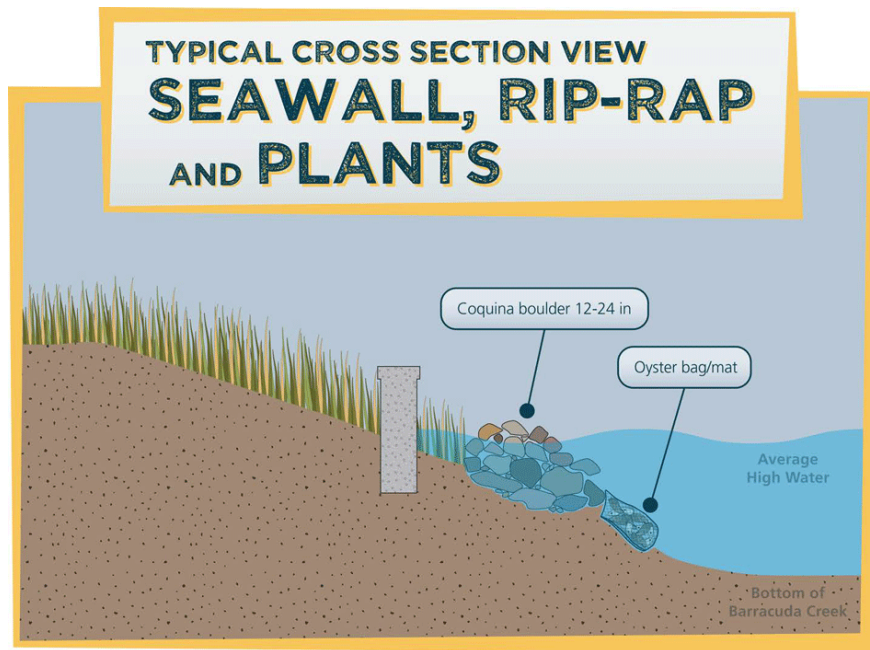
Additions of coquina rip-rap, native plants and/or oyster bags/mats will be required for existing seawall repairs/replacements or waiver approvals from the Volusia County Council.

Existing Seawall Repair/Replacement and Waiver Approvals

Options:

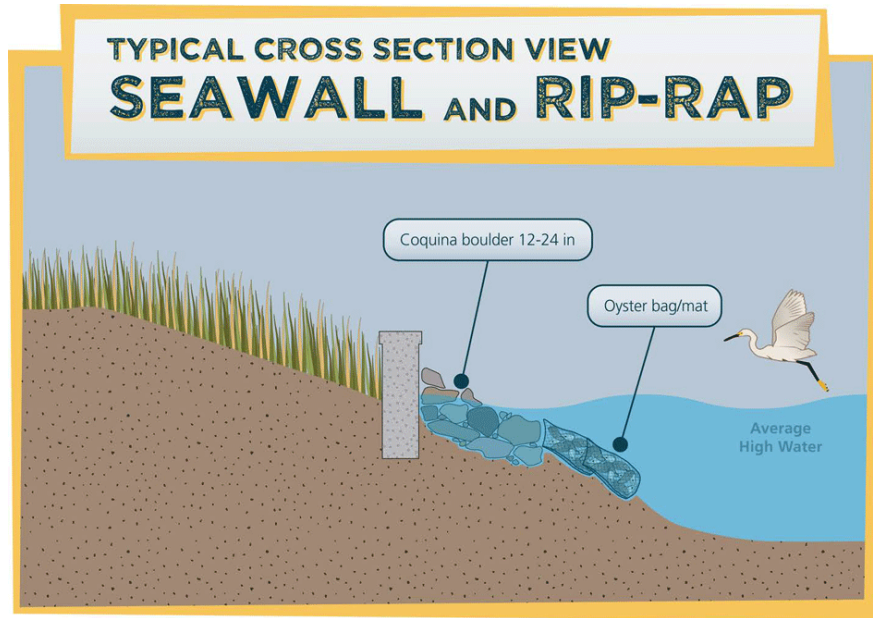
1. Native plants + coquina rip-rap
2. Native plants + coquina rip-rap + oyster bag/mat breakwater
3. Coquina rip-rap + oyster bag/mat breakwater*
-Permitted only when area cannot accommodate native plantings (i.e. width of navigable waterway, water depth, etc.)

Example 1:



*Oyster bag/mat breakwaters are permitted only along coastal waterways

Example 2:



For more information regarding Living Shorelines, please visit <https://floridalivingshorelines.com>

*Oyster bag/mat breakwaters are permitted only along coastal waterways