Shoreline Practices with Pros

<table>
<thead>
<tr>
<th>Practice</th>
<th>Pros</th>
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<tbody>
<tr>
<td>Clean Fill/ Dredge Material</td>
<td>• Encourages vegetation</td>
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<tr>
<td>Upland Vegetation - Trees, Shrubs, Grasses and Grass Roots</td>
<td>• Soil stabilization in upland zone</td>
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<tr>
<td>Wetland Vegetation - Marsh Grasses</td>
<td>• Improves finfish and shellfish habitat</td>
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<tr>
<td>Natural Fiber Logs with Vegetation</td>
<td>• Low impact</td>
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<td>Natural Fiber Matting with Vegetation</td>
<td>• Can be used for moderate slopes</td>
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<tr>
<td>Living Breakwaters</td>
<td>• Wave attenuation</td>
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<td>Sediment-Filled Geotextile Tubes</td>
<td>• Effective erosion control</td>
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<tr>
<td>Native Oyster Reefs</td>
<td>• Wave attenuation</td>
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<tr>
<td>Small Concrete Oyster Balls</td>
<td>• Wave attenuation</td>
</tr>
<tr>
<td>Sill with Planted Marsh</td>
<td>• Absorbs waves and creates a calm area behind the silt to promote habitat and vegetation growth</td>
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<tr>
<td>Marsh Toe Revetment (Existing Marsh)</td>
<td>• Stabilization of eroding marsh</td>
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<td>Breakwaters with Transitional Wetlands</td>
<td>• Traps sediment; maintains natural shoreline</td>
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WHAT IS A LIVING SHORELINE?

A “living shoreline” describes a natural approach to shoreline stabilization that reduces erosion while restoring, preserving, or creating valuable habitat along the shore. Instead of drowning shoreline habitats and changing shoreline landscapes as seen with the use of hardened structures, living shorelines encourage the preservation and growth of shoreline habitats and improved water quality. By installing living shorelines where appropriate, property owners can make a significant cumulative impact on the restoration and preservation of Mississippi’s shorelines and habitat.

FACTORS TO CONSIDER WHEN SELECTING SHORELINE PRACTICES

- Type of Shoreline
- Rate of Erosion
- Slope
- Erosional Forces
- Wave Energy
- Water Depth
- Offshore Ground Surface
- Salinity
- Fetch
- Longshore Sediment Transport

BENEFITS OF LIVING SHORELINES

- Increased fish/wildlife habitat
- Increased property value
- Erosion reduction
- Pollution reduction
- Aesthetically pleasing
- Improved water quality
- Cost savings for installation and maintenance

SOFT OR LIVING SHORELINE PRACTICES AND HYBRIDS

- Clean Fill/Dredge Material, Regrade, and Revegetate can dissipate wave energy and provide surface to plant vegetation in the upland buffer and bankface zones.

- Upland Vegetation: Trees, Shrubs, and Grass Roots stabilize riparian zone (upland buffer) above high tide, stabilize soil, filter runoff, and provide habitat.

- Wetland Vegetation: Marsh Grasses dissipate wave energy, filter upland runoff, and improve habitat for fish and wildlife.

- Natural Fiber Logs with Vegetation are coconut fibers bound together with biodegradable netting and are used to stabilize the toe of a slope and minimize bank erosion.

- Sediment-Filled Geotextile Tubes can be placed under water to stabilize the shoreline or along a beach to stabilize the upland area behind the beach.

- Living Breakwaters are constructed of rock, oyster shell, recycled concrete, or timber fencing and placed parallel to the shore in medium- to high-energy open-water environments.

- Native Oyster Reefs can be enhanced or created at living shoreline sites to serve as natural shoreline protective structures.

- Small Concrete Oyster Balls are hollow concrete structures strategically placed to dissipate wave energy and provide habitat by creating a hard surface for oysters to construct an oyster reef.

- Sills with Planted Marsh are low elevation stone structures used to trap sediment to promote marsh growth and habitat development behind the structure.

- Marsh Toe Revetments with Vegetation are revetments are composed of riprap installed parallel to the shoreline along an existing marsh.

- Breakwaters with Transitional Wetlands calm wave energy, creating a protective area for wetland habitat development and growth.