

Living Shorelines: The Preferred Approach to Shoreline Erosion Protection

A More Natural Approach

Shoreline erosion is a serious concern to waterfront landowners that want to protect their property, but installing structural barriers to protect land can also destroy important wetland, beach and dune habitats and disrupt important natural physical, geological and biological processes.

The emphasis is now “Living Shoreline” management techniques which provide a good alternative to traditional shoreline hardening. These techniques can prevent shoreline erosion while maintaining the benefits to wildlife and water quality that a natural shoreline provides.

“Living Shorelines” also may provide an opportunity for wetlands along the shoreline to migrate landward as sea level rises.

The Virginia Coastal Zone Management Program Office, Virginia Institute of Marine Science and Virginia Marine Resources Commission - partners in the Virginia CZM network, are working together to promote this technique through a number of actions under the Living Shorelines Initiative.



Virginia Coastal Zone
MANAGEMENT PROGRAM

Protecting, restoring, strengthening our coastal ecosystems & economy.

Living Shorelines Benefits

- Reducing bank erosion and property loss to you or your neighbor
- Providing an attractive natural appearance
- Creating recreational use areas
- Improving marine habitat & spawning areas
- Allowing affordable construction costs
- Improving water quality and clarity



Graphic courtesy Burke Environmental Associates

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| <p>Riparian Vegetation Management</p> <p>Bank Grading</p> <p>Fiber Logs</p> | <p>Tidal Marsh Enhancement</p> <p>Tidal Marsh Creation</p> <p>Beach Nourishment & Dune Restoration</p> <p>Marsh Toe Revetment</p> <p>Marsh Sill</p> <p>Marsh with Groins</p> | <p>Living Breakwater</p> <p>Offshore Breakwater System</p> <p>Oyster Reefs</p> |
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Living Shorelines Initiative Results Completed by the Virginia CZM Program Partnership

- Hosted 2006 Living Shoreline Summit, which included representatives from North Carolina and Maryland.
- Developed design standards for Living Shorelines guided by new research, including a study of sill design influences on water quality and fish use, and a comparative study of nekton use of rip-rap armored and natural fringing marsh shoreline.
- Developed and offered a new training program for shoreline contractors.
- Provided Living Shorelines training for local government officials.
- Designed a new Living Shorelines website and new information and education materials for contractors and public and private landowners.
- Revised management policies to promote the use of Living Shorelines and recognize them as the preferred alternative where appropriate.
- Developed 31 shoreline inventories and 16 shoreline evolution reports for coastal localities.

Living Shorelines Website:

<http://ccrm.vims.edu/livingshorelines/>

Shoreline Management Planning Website:

<http://ccrm.vims.edu/ccrmp/index.html>

For more information on the Living Shorelines Initiative:

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The Living Shorelines Initiative has been funded in part by the Virginia CZM Program through a CZMA grant from NOAA.



Before Living Shoreline Restoration



After Living Shoreline Restoration

All photos courtesy of VIMS