



# Virginia Wetlands Report



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## Putting Nature to Work: Marine contractors and permitting agents are targeted with new online course and VIMS workshop

The Center for Coastal Resources Management at the Virginia Institute of Marine Science recently completed an on-line course with funding from the Chesapeake Bay Restoration Fund that targets marine contractors. A workshop is also planned with the theme of “Putting Nature to Work: How to Design and Build Living Shoreline Projects.” These training programs were developed to help marine contractors and others directly involved with the planning and construction of shoreline stabilization projects.

Many waterfront property owners are simply not aware of the many alternatives for reducing shoreline erosion. The best method for any particular shoreline depends on a variety and combination of factors such as bank height, shoreline orientation, the expected wave height during storms and the particular interests of the property owner.



*Volunteers planting marsh grass at Longwood University’s Hull Springs Farm living shorelines project in August 2008.*

There is a growing interest in “living shoreline” type designs that mimic nature to the advantage of both the property owner and the ecosystem. Yet, the design, installation, costs and maintenance of these projects may be too complex or labor intensive for property owners to complete without professional help.

The objective of these training programs is to increase familiarity with the engineering and biological components of this approach. Current and future risks from erosion, tidal flooding, and wave action must be recognized and the desired level of protection established.

The potential for successfully growing vegetation in various shoreline habitats requires basic knowledge of plant identification, natural succession and other biological principles. It is also necessary to use established tidal benchmarks, instead of traditional land-based reference elevations.

With a better comprehension of standard construction practices and cost factors, more of Virginia’s marine contractors and permitting agents should be able to connect with clients that appreciate the benefits of living shorelines and need to hire professional services for their shoreline work.

Visit this web site to view the on-line course:  
[ccrm.vims.edu/education/living\\_shoreline\\_design\\_class](http://ccrm.vims.edu/education/living_shoreline_design_class)

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**Putting Nature to Work:  
How to Design & Build Living Shoreline Projects  
Friday, October 24, 2008 at VIMS**

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- Living Shoreline Summit Proceedings Now Available
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## New Living Shorelines Reference Now Available

### Management, Policy, Science and Engineering of Nonstructural Erosion Control in the Chesapeake Bay:

#### Proceedings of the 2006 Living Shoreline Summit.

These proceedings are the result of the two-day Living Shoreline Summit held in December 2006 at Williamsburg, Virginia. This document contains peer-reviewed papers and other information designed for coastal managers, policy-makers, landowners, marine contractors, engineers, scientists, and regulators on the practice, construction of, and case studies for living shorelines. The wide variety of topics covered provides a comprehensive reference on the subject.

The introduction by keynote speaker Susan Roberts identifies the need for a new shoreline management framework to change the current practice of armoring sheltered coasts to the detriment of natural habitats. Several papers discuss basic design criteria and evaluate the effectiveness of various living shoreline techniques. An overview of regulatory policies throughout the Mid-Atlantic region, descriptions of available tools and case studies are also included.

The final chapters of the proceedings evaluate the needs and recommendations for future activities, including cost sharing programs, research questions, and regulatory incentives.

This document is a significant reference for the science and policy of the living shoreline approach. The tireless efforts of the editors and the contributions of the authors is certainly commendable.

### Contents of Proceedings

- ❖ Living Shoreline Design Options
- ❖ Evaluation of Living Shoreline Techniques
- ❖ Shoreline Policy: Regulatory Overview
- ❖ Tools and Decision-Making: Facilitating and Encouraging Living Shoreline Implementation
- ❖ Conclusions and Next Steps

“Why should a marine contractor or design firm take time to learn about living shorelines? The answer is that the demand will continue to rise....Marine contractors are often the first point of contact a private property owner has.....They can also provide feedback to managers about the relative success or failure of projects and policies. It is imperative that managers and marine contractors share more information with each other.”

*excerpt from “Incentives to Promote Living Shoreline Techniques in the Chesapeake Bay”*

*by J. Davis and A. Luscher*

Visit the VIMS/CBNERRVA or the Chesapeake Bay Trust websites to view or download the Proceedings <http://www.vims.edu/cbnerr/coastal/recentlivings.htm> or [www.cbtrust.org](http://www.cbtrust.org)

Complimentary CD’s were mailed to all summit participants. Contact Sandra Erdle if you did not receive yours or if you want to order another CD ([serdle@vims.edu](mailto:serdle@vims.edu), 804-684-7144).

#### Official citation

Erdle, S.Y., J.L.D. Davis, and K.G. Sellner, eds. 2008. Management, Policy, Science and Engineering of Non-structural Erosion Control in the Chesapeake Bay: Proceedings of the 2006 Living Shoreline Summit. CRC Publ. No. 08-164, Gloucester Point, VA 136 pp.

# WORKSHOP ANNOUNCEMENT

## Putting Nature to Work: How To Design and Build Living Shoreline Projects

Friday, October 24, 2008

Watermen's Hall Lobby & Auditorium

Virginia Institute of Marine Science, Gloucester Point, VA



Chesapeake Bay  
National Estuarine  
Research Reserve  
in Virginia

8:00 am - 9:00 am Registration

9:00 am - 4:00 pm Workshop

Workshop Web Site: [ccrm.vims.edu/Fall2008](http://ccrm.vims.edu/Fall2008)

A workshop will be held at VIMS for marine contractors, permitting agents, environmental consultants, local government staff, advisory board members, and anyone else interested in the living shoreline approach for habitat restoration and erosion protection. Invited speakers include VIMS advisory scientists, habitat restoration experts, consultants and contractors.

The planned sessions will provide guidance for understanding how land use and shoreline management choices determine the health of the aquatic ecosystem and how to select the best erosion protection method for particular shoreline situations.

Standard design and construction practices for non-structural and hybrid methods will be covered, including how to install marsh sills, plant tidal marshes and dune vegetation, and how to calculate material quantities. How to make cost estimates and cost comparisons between alternatives will also be discussed.

### Planned Workshop Sessions

- Ecosystem services provided by tidal shoreline habitats and the cumulative effects of shoreline hardening
- Recognizing Opportunity: Feasible alternatives based on regional and local shoreline conditions
- Non-structural methods 1: Upland runoff controls, riparian buffer enhancement, and bank grading
- Non-Structural Methods 2: Planting tidal marshes, fiber logs, beach nourishment, and planting sand dunes
- Hybrid / Structural Methods: Marsh sills with and without bank grading, headland breakwaters with pocket beaches, gapped offshore breakwater systems, construction access and restoration considerations

Name \_\_\_\_\_

Affiliation \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_

Registration - \$25 (includes lunch).

Deadline for payment & registration: October 17, 2008

If paying by VISA/MasterCard please email ([dawnf@vims.edu](mailto:dawnf@vims.edu)) or fax (804-684-7179) registration form AND call Dawn at 804-684-7380 with credit card information.

Make checks payable to: VIMS Tidal Wetlands Workshop  
Please mail: Tidal Wetlands Workshop/CCRM  
P.O. Box 1346  
Gloucester Point, VA 23062

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## Tidal Wetlands News & Events

**Restore America's Estuaries, October 11-17, 2008, Providence, RI.** This is the only national conference that focuses exclusively on coastal habitat restoration. For more information, visit <http://www.estuaries.org/>

**Coastal GEOTOOLS 2009, March 2-5, 2009, Myrtle Beach, SC.** The theme for 2009 is "Building the Digital Coast", a new initiative that provides easy access to organized and relevant data, tools, and technical training. Sponsored by NOAA. <http://www.csc.noaa.gov/geotools/>

**20th Annual Environment Virginia, March 31-April 2, 2009, Lexington, VA.** Join over 700 environmental leaders in celebrating the 20th anniversary of this symposium. The conference brings together the public and private sectors to manage our natural resources for a sustainable future and foster economic prosperity. [www.environmentva.org](http://www.environmentva.org)

**Wetland Connections, June 22-26, Madison, WI.** Society of Wetland Scientists Annual Meeting. Wetland Connections is a deliberately broad and inclusive theme for the 2009 conference. Keep your connections current by attending the 2009 meeting and participating in one or more of the activities of the conference. [http://www.sws.org/2009\\_meeting/index.mgi](http://www.sws.org/2009_meeting/index.mgi)

**Updated Joint Permit Application (JPA).** The Norfolk District Corps of Engineers, Department of Environmental Quality and the Virginia Marine Resources Commission have issued a revised version of the Standard Joint Permit Application (JPA). <http://www.nao.usace.army.mil/technical%20services/Regulatory%20branch/JPA.asp>

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