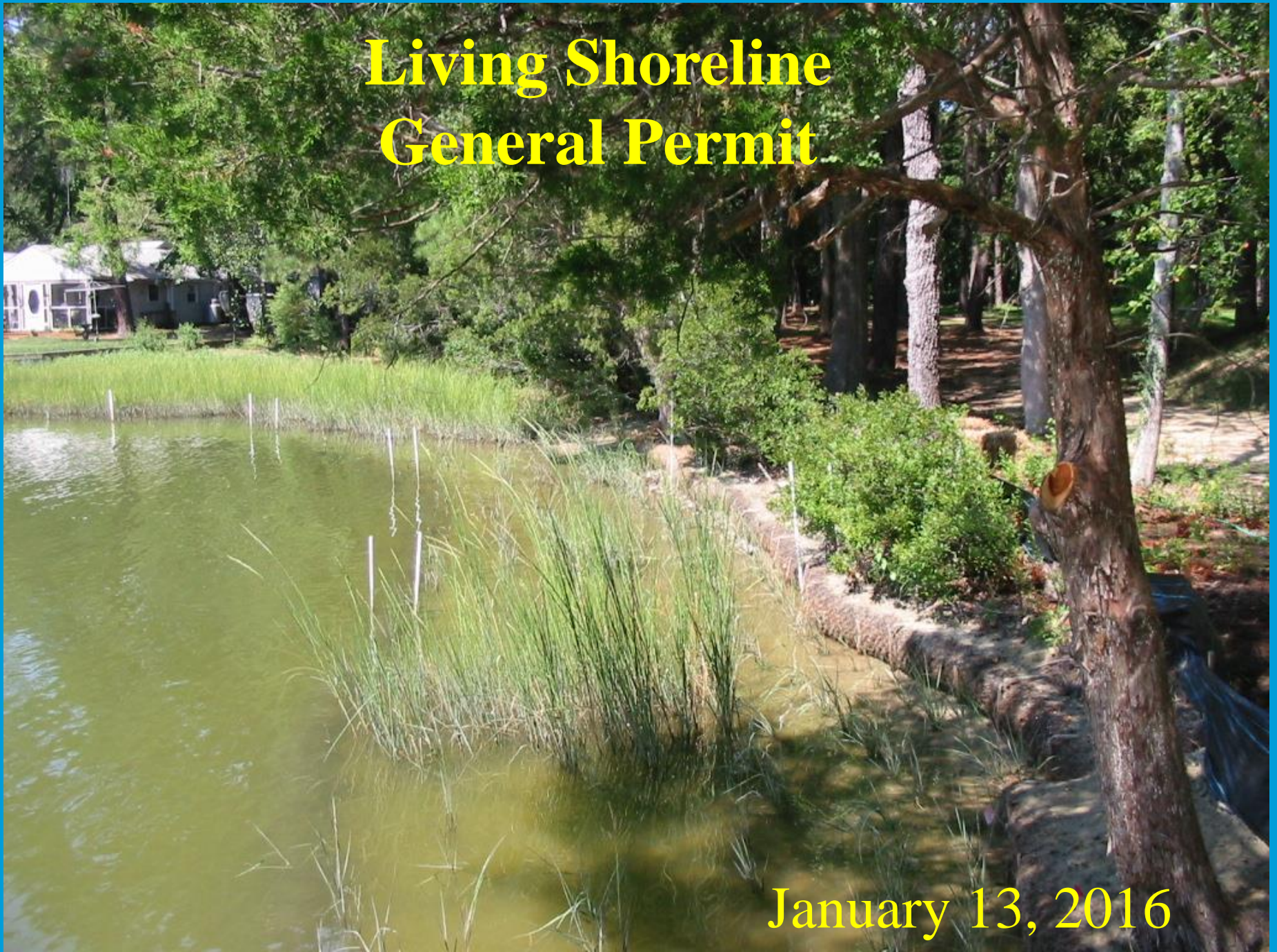


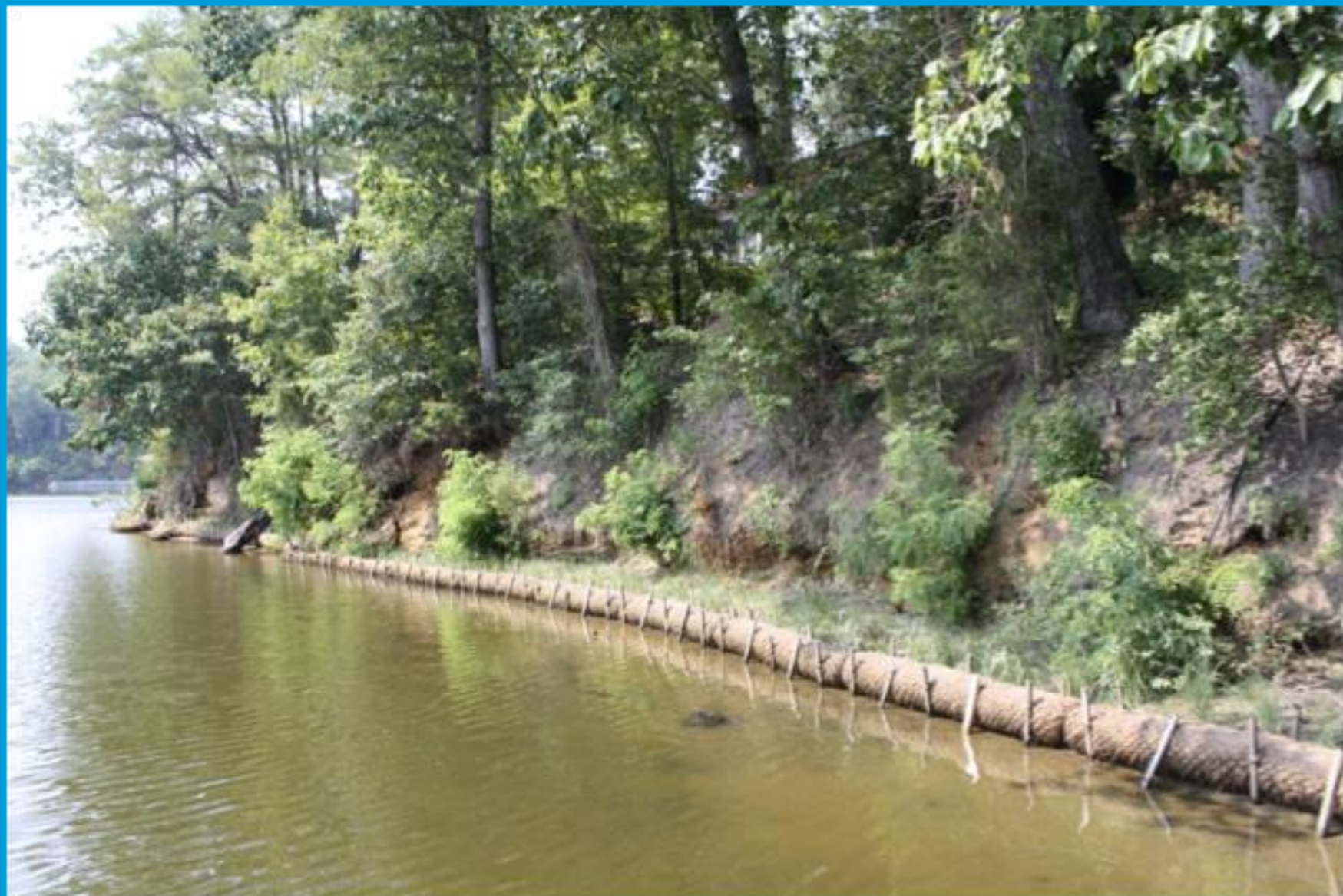
Living Shoreline General Permit



January 13, 2016

"Living shoreline" means a shoreline management practice that provides erosion control and water quality benefits; protects, restores or enhances natural shoreline habitat; and maintains coastal processes through the strategic placement of plants, stone, sand fill, and other structural and organic materials.







Living Shoreline Advisory Groups

Technical Workgroup

VMRC

**VIMS (CCRM, Shoreline Programs
and Advisory Services)**

**DCR (SEAS and CBLAD) - DEQ
Corps of Engineers**

Advisory Committee

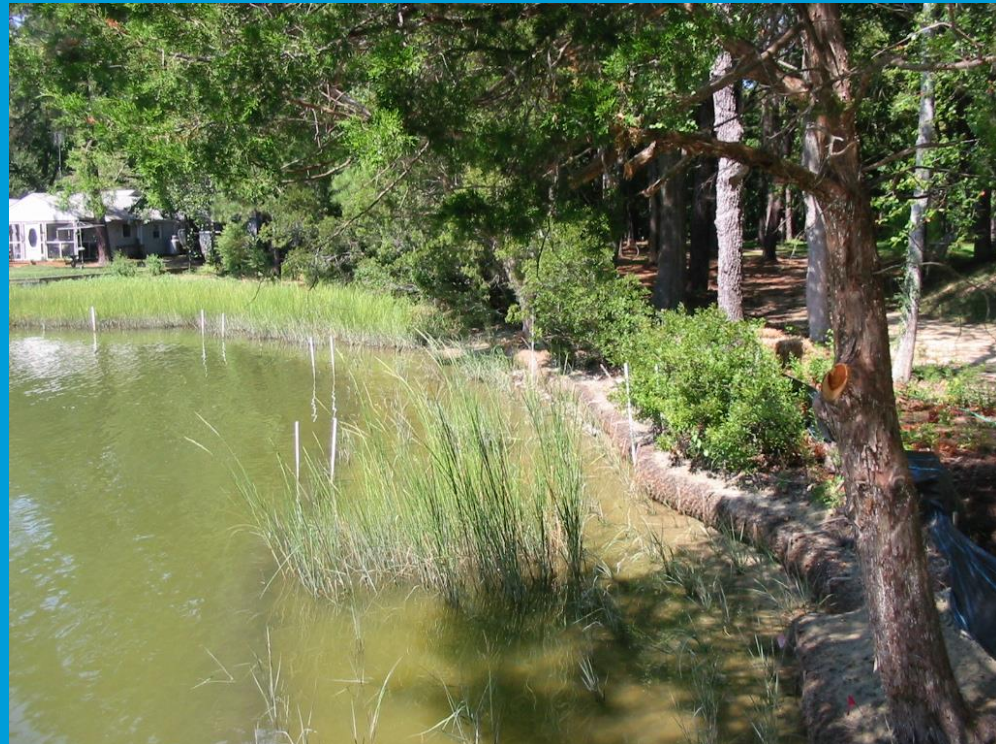
Local Staff

**Wetlands Board Members
Agents and Contractors**



General Permit Concepts

- Won't cover all types of living shoreline projects
- 2 Groups of permits with different levels of review
 - Group 1 (Wetlands enhancement)
 - Group 2 (Sills)
- Streamlined procedure
- Eliminated or reduced fees
- Some level of review at local level
- Kick-out clause



Group 1 Overview

Components

- Fiber logs, fiber mats and shell bags
- Maximum fetch of ½ mile
- Confined to areas above mean low water
- Sand fill to enhance planting area limited to height of adjacent wetlands
- Identify source and utilize clean sand material with no more than 10% passing a #100 sieve.
- Designed to allow for improvements to enhance an intertidal area for vegetative plantings.

Procedures

- Standard application submitted (may develop an abbreviated application)
- Reviewed concurrently by VMRC and Wetlands Board
- If Wetlands Board and VMRC determine the application is sufficiently complete, meets the permit conditions and concur with the use of the abbreviated process VMRC shall issue the permit (21 days)
- Some minimal monitoring required
- No processing or permit fee
- Maintenance provision
- Given the limited potential to adversely impact the environment, adjoining neighbors of the general public, there is no public notice or notification of adjoining property owners proposed

Group 1 Administrative Procedures

Application submitted.



Application forwarded to Corps of Engineers and reviewed concurrently by VMRC and LWB.



LWB and VMRC concurrently review application for completeness and to determine if the project meets the criteria and is appropriate.
LWB has 21 days to review.



If VMRC and LWB determine the application is complete, meets the criteria, and is appropriate, VMRC shall issue the GP.



If either VMRC or the LWB determine the application is incomplete or doesn't meet the criteria or is not appropriate for any reason, the GP shall not be issued. Requests for additional information may be made. If GP is not issued the application may be considered in accordance with the standard process for a regular permit.



If LWB does not comment with 21 days, VMRC may assume there is no objection to the issuance of the GP.

Group 1 Specific Criteria

- authorizes placement of fiber logs, fiber mats, shell bags, and sand to support the planting of wetlands vegetation. Logs, mats, and shell bags shall not be placed on existing vegetation.
- coarse sand containing less than 10% fine material (passing a #100 sieve) shall be utilized for any required fill.
- sand placement is limited to areas within the wetland jurisdiction and may not raise the elevation above 1.5 times the mean tide range above mean low water. Sand may be placed on existing wetlands vegetation if deemed necessary to improve wetlands habitat or resiliency provided there is no net loss in aerial coverage of vegetation.
- appropriate wetland vegetation shall be planted in all wetland areas where sand is placed where the resulting substrate elevation is appropriate to support wetland vegetation growth . Wetlands vegetation are those species listed in the code however *Phragmites sp.* is not typically considered an appropriate species for planting purposes.
- temporary grazing protection may be utilized (and is encouraged) to protect wetland vegetation and ribbed mussels. Protection should be depicted in the design.



U.S. Army Corps
Of Engineers
Norfolk District

Fort Norfolk, 803 Front Street
Norfolk, Virginia 23510-1096

CENAO-REG
13-RP-19

REGIONAL PERMIT

Effective Date: August 14, 2013

Expiration Date: August 14, 2018

I. AUTHORIZED ACTIVITIES:

Activities authorized by this Regional Permit (RP) include living shorelines, riprap revetments, bulkheads, breakwaters, groins, jetties, spurs, baffles, aquaculture activities and boat ramps. A living shoreline is defined as a shoreline management practice that provides erosion control and water quality benefits; protects, restores, or enhances natural shoreline habitat; and maintains coastal processes through the strategic placement of plants, stone, sand fill, and other structural and organic materials. The Norfolk District encourages the use of living shorelines as the preferred alternative for stabilizing tidal shorelines where viable.

13-RP-19, Regional Permit 19, authorizes the following activities, subject to the conditions, limitations, and descriptions set out further herein:

1. Living Shoreline Group 1: Non-structural activities that provide substrate necessary to support wetland vegetation.
2. Living Shoreline Group 2: Sill with tidal marsh.
3. Low breakwaters and associated sandy fill material.
4. Bulkheads, riprap, and associated backfill and/or excavation, including bulkhead repair and/or replacement.
5. Groins, jetties, spurs and/or baffles and associated sandy fill material.
6. Aquaculture or mariculture activities.
7. Boat ramps and accessory structures, including any fill or excavation for installation.

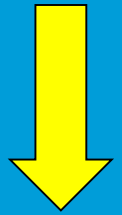
II. AUTHORITIES:

The people of the Commonwealth of Virginia are hereby authorized by the Secretary of the Army and the Chief of Engineers pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403) and Section 404 of the Clean Water Act (33 U.S.C. § 1344) to perform certain work in waters of the Commonwealth as described further herein strictly subject to the conditions and limitations set out further herein.



← Before

After



Group 2 – (Sills)

Components

- Maximum fetch of 1.5 miles
- Demonstrable evidence of active detrimental erosion
- Maximum distance offshore of 30' channelward of mlw
- Existing or created marsh must be at least 8 feet wide
- Maximum water depth of -2' MLW
- Maximum sill height +1' MHW
- Slopes no flatter than 2:1
- Appropriate concrete may only be used as core material
- Filter cloth required under sill
- Some provision for gaps or windows (every 100' or at least one per structure)
- Sill is the only proposed structure. Sill may still qualify if revetment is already present and sill is protecting an existing marsh of at least 8' in width.
- Utilize clean sand material with no more than 10% passing a #100 sieve
- Must include a vegetative planting plan
- Must be a net gain in aerial vegetative coverage.
- Riparian bank modifications – grading, tree removal, and terracing should be allowed to establish wide gradual slopes landward of intertidal area with an integrated wetland-upland vegetation buffer. (Standard E&S conditions, WQIA, landscape agreements as required under CBPA)

Group 2 – (Sills)

Procedures

- VMRC and LWB review - each with option to require a regular permit if conditions dictate (Kick-out provision)
- Site visit would likely be necessary
- VMRC could possibly issue a single “joint” permit
- Reduced or eliminated fees and royalties
- Some simple monitoring requirement – photos?
- Maintenance provision
- Eliminate or abbreviated public notice?
- Adjoining Property Owner notification??

VIRGINIA ACTS OF ASSEMBLY -- 2015 SESSION

CHAPTER 474

An Act to amend the Code of Virginia by adding a section numbered 62.1-229.5, relating to loans for the creation of living shorelines.

[H 1734]

Approved March 23, 2015

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered 62.1-229.5 as follows:

§ 62.1-229.5. *Loans for living shorelines.*

Loans may be made from the Fund, in the Board's discretion, (i) to a local government for the purpose of establishing living shorelines, as defined in § 28.2-104.1, to protect or improve water quality and prevent the pollution of state waters or (ii) to a local government that has developed a funding program to provide low-interest loans or other incentives to individual citizens of the Commonwealth to facilitate the establishment of living shorelines to protect or improve water quality and prevent the pollution of state waters. The Board shall develop guidelines for the administration of such loans.

DEQ – Clean Water Financing and Assistance Program
Virginia Clean Water Revolving Loan Fund

Group 2 Permit Requirements

- Permittee is required to notify VMRC upon completion of the project and shall provide brief monitoring report at the end of the first full growing season and after the second year of establishment. The monitoring shall be conducted between June and September and shall include at a minimum the project number, representative photos and a brief statement concerning the success of the project.
- Wetlands planted under the general permit shall not be cut and areas shall be replanted to ensure there is at least no net loss of wetland vegetation within the project area during the term of the permit. If necessary, additional sand may be placed to restore the originally proposed grade.
- Any measures undertaken to eradicate invasive wetlands vegetation (such as *Phragmites sp.*) shall be noted in the application or conducted in accordance with a plan approved by the wetlands board or locality. Such plans should include measures to revegetate the area with appropriate native wetlands vegetation.

2010 SESSION

ENROLLED

SENATE JOINT RESOLUTION NO. 35

Requesting the Virginia Institute of Marine Science to study tidal shoreline management in the Commonwealth. Report.

Agreed to by the Senate, February 16, 2010
Agreed to by the House of Delegates, March 9, 2010

WHEREAS, shorelines of all estuaries erode over time due to manmade and natural processes and one-third of all shorelines of the Chesapeake Bay are classified as eroding, with some areas losing as much as eight to 11 inches of shoreline per year; and

WHEREAS, traditional methods to protect shorelines, such as riprap revetments, bulkheads, and seawalls, have replaced shoreline vegetation, reduced water filtration and habitat functions, steepened shorelines, and reduced or removed shallow-water nurseries and refuge habitats for many estuarine species; and

WHEREAS, eighty-five percent of the Chesapeake Bay shoreline is privately owned, and it is critical to provide education to landowners on the benefits of living shorelines that employ natural habitat elements including emergent marsh grasses, submerged aquatic vegetation, riparian vegetation, coarse woody debris, and oyster reef and shell; and

WHEREAS, the development of tidal shoreline resources in the Commonwealth may be regulated or directed by numerous federal, state, and local agencies including the United States Army Corps of Engineers, Department of Environmental Quality, Virginia Marine Resources Commission, and local wetlands and zoning boards; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Virginia Institute of Marine Science be requested to study tidal shoreline management in the Commonwealth.

In conducting its study, the Virginia Institute of Marine Science shall (i) review tidal shoreline management in the Commonwealth and similarly situated states; (ii) identify potential changes to the regulatory structure of tidal shoreline management to reduce the cost and time required to issue a permit; (iii) identify regulatory innovations that would increase adoption of living shorelines among shoreline landowners; and (iv) make specific recommendations to achieve the sustained protection of tidal shoreline resources.

Technical assistance shall be provided to the Virginia Institute of Marine Science by the Virginia Marine Resources Commission and the Division of Chesapeake Bay Local Assistance of the Department of Conservation and Recreation. All agencies of the Commonwealth shall provide assistance to the Virginia Institute of Marine Science for this study, upon request.

The Virginia Institute of Marine Science shall complete its meetings by November 30, 2010, and shall submit to the Governor and the General Assembly an executive summary and a report of its findings and recommendations for publication as a House or Senate document. The executive summary and report shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports no later than the first day of the 2011 Regular Session of the General Assembly and shall be posted on the General Assembly's website.

ENROLLED

SESSER



REPORT OF THE VIRGINIA
INSTITUTE OF MARINE SCIENCE

**Study of Tidal Shoreline
Management in Virginia:
Recommendations for Living
Shorelines and Tidal Resources
Sustainability
[SJR 35 (2010)]**

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA



SENATE DOCUMENT NO. 16

COMMONWEALTH OF VIRGINIA
RICHMOND
2010

**Senate Joint
Resolution 35
(2010)**

**Senate Document
#16 (2010)**

VIRGINIA ACTS OF ASSEMBLY -- 2011 RECONVENED SESSION

CHAPTER 885

An Act to amend and reenact § 28.2-1100 of the Code of Virginia and to amend the Code of Virginia by adding sections numbered 15.2-2223.2 and 28.2-104.1, relating to Marine Resources Commission; Virginia Institute of Marine Science; coastal resource management.

[S 964]

Approved April 29, 2011

Be it enacted by the General Assembly of Virginia:

1. That § 28.2-1100 of the Code of Virginia is amended and reenacted and that the Code of Virginia is amended by adding sections numbered 15.2-2223.2 and 28.2-104.1 as follows:

§ 15.2-2223.2. *Comprehensive plan to include coastal resource management guidance.*

Beginning in 2013, any locality in Tidewater Virginia, as defined in § 10.1-2101, shall incorporate the guidance developed by the Virginia Institute of Marine Science pursuant to subdivision 9 of § 28.2-1100 into the next scheduled review of its comprehensive plan. The Department of Conservation and Recreation, Virginia Marine Resources Commission, and the Virginia Institute of Marine Science shall provide technical assistance to any such locality upon request.

§ 28.2-104.1. *Living shorelines; development of general permit; guidance.*

A. As used in this section, unless the context requires a different meaning:

"Living shoreline" means a shoreline management practice that provides erosion control and water quality benefits; protects, restores or enhances natural shoreline habitat; and maintains coastal processes through the strategic placement of plants, stone, sand fill, and other structural and organic materials.

B. The Commission, in cooperation with the Department of Conservation and Recreation and with technical assistance from the Virginia Institute of Marine Science, shall establish and implement a general permit regulation that authorizes and encourages the use of living shorelines as the preferred alternative for stabilizing tidal shorelines in the Commonwealth. In developing the general permit, the Commission shall consult with the U.S. Army Corps of Engineers to ensure the minimization of conflicts with federal law and regulation.

C. The Commission, in cooperation with the Department of Conservation and Recreation and with technical assistance from the Virginia Institute of Marine Science, shall develop integrated guidance for the management of tidal shoreline systems to provide a technical basis for the coordination of permit decisions required by any regulatory entity exercising authority over a shoreline management project. The guidance shall:

1. Communicate to stakeholders and regulatory authorities that it is the policy of the Commonwealth to support living shorelines as the preferred alternative for stabilizing tidal shorelines;

2. Identify preferred shoreline management approaches for the shoreline types found in the Commonwealth;

3. Explain the risks and benefits of protection provided by various shoreline system elements associated with each management option; and

4. Recommend procedures to achieve efficiency and effectiveness by the various regulatory entities exercising authority over a shoreline management project.

§ 28.2-1100. Virginia Institute of Marine Science continued; duties.

The Virginia Institute of Marine Science shall hereafter be referred to as the Institute. The Institute shall:

1. Conduct studies and investigations of the seafood and commercial fishing and sport fishing industries;

2. Consider ways to conserve, develop and replenish fisheries resources and advise the Marine Resources Commission and other agencies and private groups on these matters;

3. Conduct studies of problems pertaining to the other segments of the maritime economy;

4. Conduct studies of marine pollution in cooperation with the State Water Control Board and the Department of Health and make the data and their recommendations available to the appropriate agencies;

5. Conduct hydrographic and biological studies of the Chesapeake Bay, its tributaries, and all the tidal waters of the Commonwealth and the contiguous waters of the Atlantic Ocean;

6. Engage in research in the marine sciences;

7. Conduct such special studies and investigations concerning these subjects as requested by the Governor; and

8. Engage in research and provide training, technical assistance and advice to the Board of Conservation and Recreation on erosion along tidal shorelines, the Soil and Water Conservation Board

VIRGINIA ACTS OF ASSEMBLY -- 2014 SESSION

CHAPTER 143

An Act to amend and reenact §§ 28.2-104.1, 28.2-1302, and 28.2-1403 of the Code of Virginia, relating to living shoreline general permits.

[H 911]

Approved March 5, 2014

Be it enacted by the General Assembly of Virginia:

1. That §§ 28.2-104.1, 28.2-1302, and 28.2-1403 of the Code of Virginia are amended and reenacted as follows:

§ 28.2-104.1. *Living shorelines; development of general permit; guidance.*

A. As used in this section, unless the context requires a different meaning:

"Living shoreline" means a shoreline management practice that provides erosion control and water quality benefits; protects, restores or enhances natural shoreline habitat; and maintains coastal processes through the strategic placement of plants, stone, sand fill, and other structural and organic materials.

B. The Commission, in cooperation with the Department of Conservation and Recreation, the Department of Environmental Quality, and local wetlands boards, and with technical assistance from the Virginia Institute of Marine Science, shall establish and implement a general permit regulation that authorizes and encourages the use of living shorelines as the preferred alternative for stabilizing tidal shorelines in the Commonwealth. The regulation shall provide for an expedited permit review process for qualifying living shoreline projects requiring authorization under Chapters 12 (§ 28.2-1200 et seq.), 13 (§ 28.2-1300 et seq.), and 14 (§ 28.2-1400 et seq.). In developing the general permit, the Commission shall consult with the U.S. Army Corps of Engineers to ensure the minimization of conflicts with federal law and regulation.

C. The Commission, in cooperation with the Department of Conservation and Recreation and with technical assistance from the Virginia Institute of Marine Science, shall develop integrated guidance for the management of tidal shoreline systems to provide a technical basis for the coordination of permit decisions required by any regulatory entity exercising authority over a shoreline management project. The guidance shall:

1. Communicate to stakeholders and regulatory authorities that it is the policy of the Commonwealth to support living shorelines as the preferred alternative for stabilizing tidal shorelines;

2. Identify preferred shoreline management approaches for the shoreline types found in the Commonwealth;

3. Explain the risks and benefits of protection provided by various shoreline system elements associated with each management option; and

4. Recommend procedures to achieve efficiency and effectiveness by the various regulatory entities exercising authority over a shoreline management project.

§ 28.2-1302. *Adoption of wetlands zoning ordinance; terms of ordinance.*

Any county, city or town may adopt the following ordinance, which, after October 1, 1992, shall serve as the only wetlands zoning ordinance under which any wetlands board is authorized to operate. Any county, city, or town which has adopted the ordinance prior to October 1, 1992, shall amend the ordinance to conform it to the ordinance contained herein by October 1, 1992.

Wetlands Zoning Ordinance

§ 1. The governing body of _____, acting pursuant to Chapter 13 (§ 28.2-1300 et seq.) of Title 28.2 of the Code of Virginia, adopts this ordinance regulating the use and development of wetlands.

§ 2. As used in this ordinance, unless the context requires a different meaning:

"Back Bay and its tributaries" means the following, as shown on the United States Geological Survey Quadrangle Sheets for Virginia Beach, North Bay, and Knotts Island: Back Bay north of the Virginia-North Carolina state line; Capties Creek north of the Virginia-North Carolina state line; Deal Creek; Devil Creek; Nawney Creek; Redhead Bay, Sand Bay, Shipp's Bay, North Bay, and the waters connecting them; Beggars Bridge Creek; Muddy Creek; Ashville Bridge Creek; Hells Point Creek; Black Gut; and all coves, ponds and natural waterways adjacent to or connecting with the above-named bodies of water.

"Commission" means the Virginia Marine Resources Commission.

"Commissioner" means the Commissioner of Marine Resources.

"Governmental activity" means any of the services provided by this _____ (county, city, or town) to its citizens for the purpose of maintaining this _____ (county, city, or town), including but not limited to such services as constructing, repairing and maintaining roads; providing sewage facilities and street lights; supplying and treating water; and constructing public buildings.

"Nonvegetated wetlands" means unvegetated lands lying contiguous to mean low water and between

Senate Bill 964
(2011)

House Bill 911
(2014)