

The Launch: Comprehensive Coastal Resource Management Plans for Local Governments

The passage of Senate Bill 964 into law in April of 2011, requires any locality in Tidewater Virginia, as defined in § 10.1-2101 of the Code of Virginia, to incorporate guidance developed by the Virginia Institute of Marine Science (VIMS) into the next scheduled review of its comprehensive plan beginning in 2013.

The guidance was to be consistent with the newly established policy which states that the Commonwealth supports a living shoreline alternative for shoreline stabilization. In conjunction with the Virginia Marine Resources Commission (VMRC) and the Department of Conservation and Recreation, VIMS was to develop guidance that would:

- 1. Communicate to stakeholders and regulatory authorities the Commonwealth's preference for living shorelines as the preferred alternative for stabilizing tidal shorelines;*
- 2. Identify preferred shoreline management approaches for shoreline types;*
- 3. Explain the risks and benefits of protection associated with each management option; and*
- 4. Recommend procedures to achieve efficiency and effectiveness by the various regulatory entities*

The Center for Coastal Resources Management (CCRM) was faced with several issues at the time the legislation passed. First, the timeline established by the law meant guidance needed to be in place prior to 2013. Second, the law incorporated all 44 Tidewater jurisdictions. Finally, there was no allocation of resources to accomplish this, which meant CCRM would need to prioritize the content of materials to be delivered and establish a schedule for rolling out products.

In 2011, CCRM focused on the content for the Comprehensive Coastal Resource Management Plans (CCRMPs). We reviewed existing materials, tools, and outreach educational materials in house and under development. We consulted with a variety of stakeholders at the local level and within state agency programs. We met with non-governmental organizations (NGOs) and resource managers within neighboring states. Through this discovery process we concluded that the CCRMPs should include the following:

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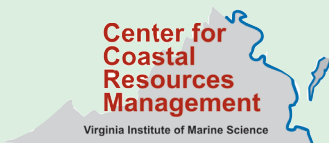
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- *Interpretative language for local governments for use within a Comprehensive Plan*
- *Guidance focused on the scientific rationale behind a living shoreline policy*
- *Decision-based management tools*
- *Educational opportunities*

Interpretive Comprehensive Plan Language

Collaborating with planners from the Hampton Roads Planning District Commission, the City of Virginia Beach and the County of Gloucester, interpretive language suitable for inclusion in a Comprehensive Plan was prepared to assist local governments in adoption and compliance with the new policy. While offered as a template, the document can be lifted verbatim and inserted into local government Comprehensive Plans. The principal guidance is a list of recommendations offered as alternative strategies for policy implementation.

Recommendations

- *Refer to the guidance presented in the locality's Comprehensive Coastal Resource Management Plan (CCRMP) prepared by VIMS to guide regulation and policy decisions regarding shoreline erosion control.*
- *Utilize VIMS' Decision Trees for onsite review and subsequent selection of appropriate erosion control/shoreline best management practices: <http://ccrm.vims.edu/decisiontree/index.html>.*
- *Utilize VIMS' CCRMP Shoreline Best Management Practices for management recommendations for all tidal shorelines in the jurisdiction.*
- *Consider a policy where the above Shoreline Best Management Practices become the recommended adaptation strategy for erosion control, and where a departure from these recommendations by an applicant wishing to alter the shoreline must be justified at a hearing of the board(s).*
- *Encourage staff training on decision making tools developed by the Center for Coastal Resources Management at VIMS.*

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- *Follow the development of the state-wide General Permit being developed by VMRC. Ensure that local policies are consistent with the provisions of the permit.*
- *Evaluate and consider a locality-wide permit to expedite shoreline applications that request actions consistent with the VIMS recommendation.*
- *Seek public outreach opportunities to educate citizens and stakeholders on new shoreline management strategies including Living Shorelines.*
- *Follow the development of integrated shoreline guidance under development by VMRC.*
- *Evaluate and consider a locality-wide regulatory structure that encourages a more integrated approach to shoreline management.*
- *Consider preserving available open spaces adjacent to marsh lands to allow for inland retreat of the marshes under rising sea level.*
- *Evaluate and consider cost share opportunities for construction of living shorelines.*

The Guidance Document

Comprehensive Coastal Resource Management Guidance informs managers about the benefits of ecosystem services, communicates our current understanding of coastal systems, and highlights the costs and benefits of living shorelines versus traditional erosion control practices.

Comprehensive Coastal Resource Management Guidance

Planning Information and Guidance for the Living Shoreline Preference

Prepared By

Center for Coastal Resources Management
Virginia Institute of Marine Science
College of William and Mary



January, 2013



The Tidal Wetlands Workshops provide a venue for communicating updates on the CCRMPs to the professional Tidewater community.

CCRMP Web Portal

The internet is the most effective medium for information access, and CCRM has developed a portal through which products and information can be accessed for each jurisdiction. Six jurisdictions were selected to pilot the first iteration of CCRMPs. These were the City of Alexandria, Fairfax County, City of Hampton, Mathews County, City of Virginia Beach and Westmoreland County

(Table 1). Selection was based on the status of existing data to support geospatial models that delineate Shoreline Best Management Practices, scheduled or anticipated Comprehensive Plan updates, local interest expressed by the locality, and to a lesser degree, the long-term impacts posed by sea level rise resulting in potential resource vulnerability.

Using the following link users can access the CCRMP Portal

(Figure 1, Page 5) and select their jurisdiction: <http://ccrm.vims.edu/ccrmp/index.html>. This site will continue to evolve as CCRMPs for more localities are completed. Table 1 identifies those localities completed in 2012 and those planned for 2013. The CCRMP Portal is also the place where all localities can find the links to the Guidance Document and language for Comprehensive Plans.

Completed CCRMPs by Locality	Planned CCRMPs for 2013
City of Alexandria	Charles City County
Fairfax County	Northampton County
City of Hampton	City of Poquoson
Mathews County	Prince William County
City of Virginia Beach	City of Suffolk
Westmoreland County	York County

Table 1. 2012 CCRMPs and localities planned for 2013.



Shoreline best management practices protect the bank and create habitat.



Figure 1. The CCRMP Portal includes an interactive map from which a locality may be selected.

Inside the CCRMPs: Decision-based Tools

CCRMPs for individual localities are being organized into 4 major themes: guidance, shoreline best management practices, data, and tools. For a sneak peak we will use Westmoreland County as an example (<http://ccrm.vims.edu/ccrmp/westmoreland/index.html>) (Figure 2).

Practical information, guidance, and resources specific to the locality are available through the four tabs. The toolbox includes a Comprehensive Map Viewer (Figure 3, Page 6) which displays recommended Shoreline Best Management Practices as well as Shoreline Inventory Data in an interactive map viewer. The tool allows users to select the data to be displayed and customize their own maps for publication and use. The toolbox also includes a tool to allow local governments to view anticipated impacts of sea level rise on their community through the year 2100 (Figure 4, Page 6).

Comprehensive Coastal Resource Management Plan (CCRMP): Westmoreland County

Welcome to the Comprehensive Coastal Resource Management Plan (CCRMP) for Westmoreland County. This site has been prepared to assist with implementation of new policy established by the General Assembly in 2011. In 2011, the Virginia Assembly passed legislation to amend sections §28.2-1100 and §28.2-104.1 of the Code of Virginia. These amendments require that local governments incorporate the guidance prepared by the Virginia Institute of Marine Science's Center for Coastal Resources Management into local Comprehensive Plans when they come up for revision.

The addition of section §15.2-2223.2 establishes that **Living Shorelines** are now the Commonwealth's preference for tidal shoreline management wherever possible. The Comprehensive Coastal Resource Management Plan (CCRMP) provides guidance for adopting this policy into planning documents as well as where these best management practices are appropriate along the shoreline. The CCRMP also provides access to data and tools for additional guidance on shoreline management, regulatory review, and resource risk and vulnerability.

Select from one of the links below for more information and guidance or return to [CCRMP HOME](#).

Westmoreland County
Preferred Shoreline Best Management Practices

Legend

- Area of Special Concern
- Elk River Aquatic Resource Area
- Shoreline Management
- County Park
- Land Use (Zoning)
- Wetlands
- Elk River Aquatic Resource Area
- Elk River Aquatic Resource Area
- Elk River Aquatic Resource Area
- Elk River Aquatic Resource Area

**Comprehensive Plan
Guidance**

**Shoreline Best
Management Practices**

**Shoreline & Tidal
Marsh Inventory Data**

**County
Toolbox**

Figure 2. Westmoreland County CCRMP home page.

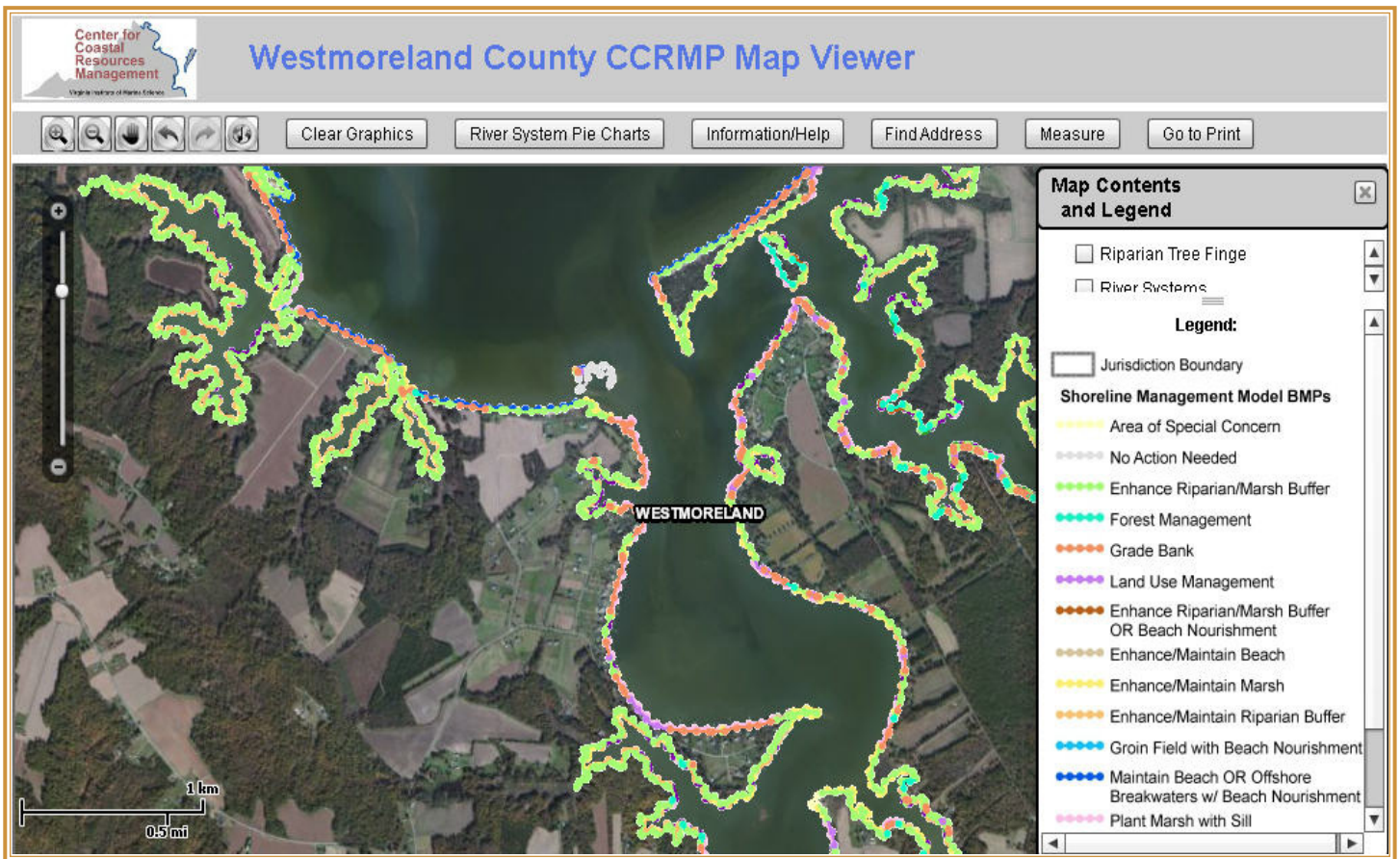


Figure 3. CCRMP Map Viewer for Westmoreland County.

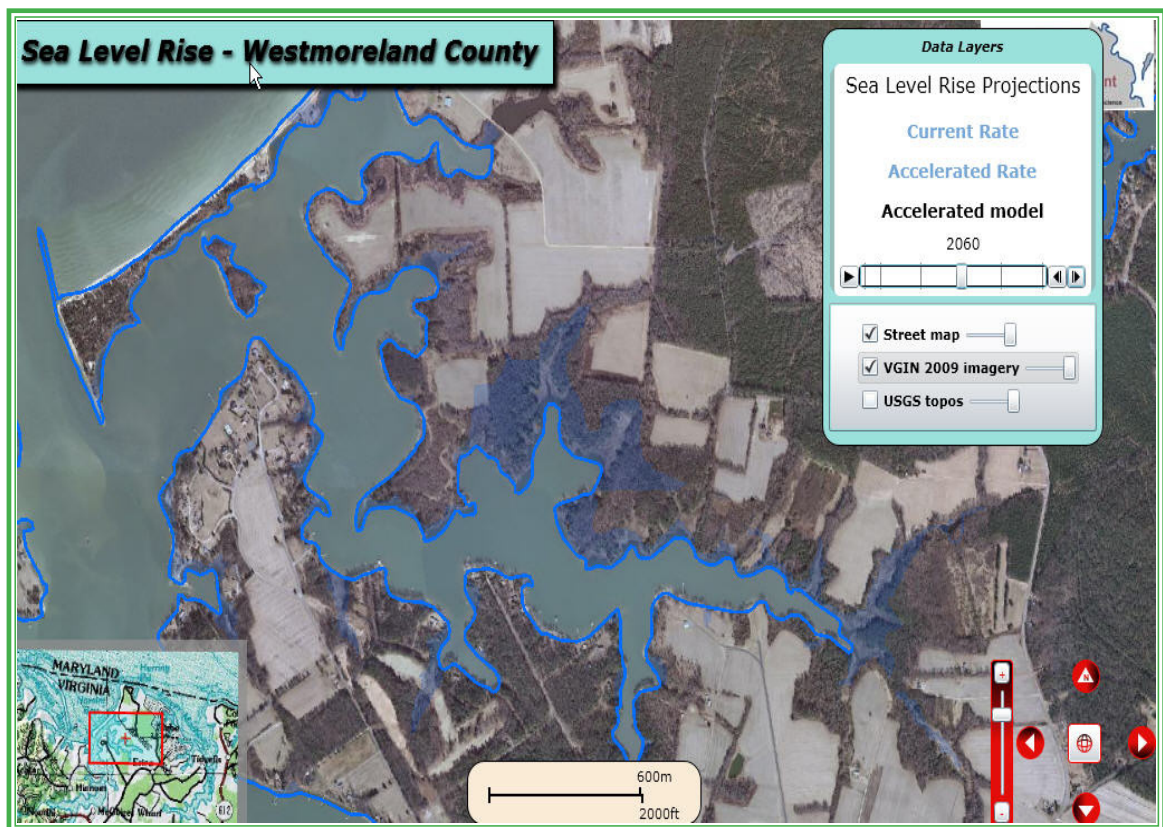


Figure 4. Projected sea level rise inundation in the year 2060 for an area of Westmoreland County.

Educational Opportunities

Several educational programs and opportunities are being developed to assist various stakeholder groups in understanding the content and use of the CCRMPs.

Local Workshops

As each locality's CCRMP is completed, a workshop will be scheduled at the locality primarily to assist the planners in understanding the CCRMP information that is available for incorporation into their comprehensive plans. A more generalized presentation may be scheduled for localities without CCRMPs. Additional local workshops will also be scheduled for other stakeholders such as NGOs and citizen board members.

Online Course in Shoreline Best Management Practices

An online course is being developed that will cover the scientific rationale behind the shoreline best management practice recommendations in the CCRMPs (Figure 5). The course consists of 11 modules (Figure 6) that address the tidal shoreline ecosystem and integrated shoreline management, assessment of shoreline conditions, use of decision tree tools to determine preferred shoreline approaches, and guidance on shoreline best management practice implementation. The course is directed primarily at local decision makers, but may be taken by anyone interested in tidal

shoreline ecosystem science and management. Participants will initially register through a course management system on the CCRM website. The course will be accessible 24/7, so the modules can be worked through at the participant's convenience. Each module will include a video and follow-up quiz. Participants who successfully complete all of the modules will receive a certificate of completion. The course is expected to be available in April 2013.

VIMS-CCRM Annual Workshop

The CCRMPs and education program will be a primary focus of the upcoming annual VIMS-CCRM Tidal Wetlands Workshop at VIMS on April 25, 2013. The workshop is open to anyone interested. Workshop registration materials will be available soon.

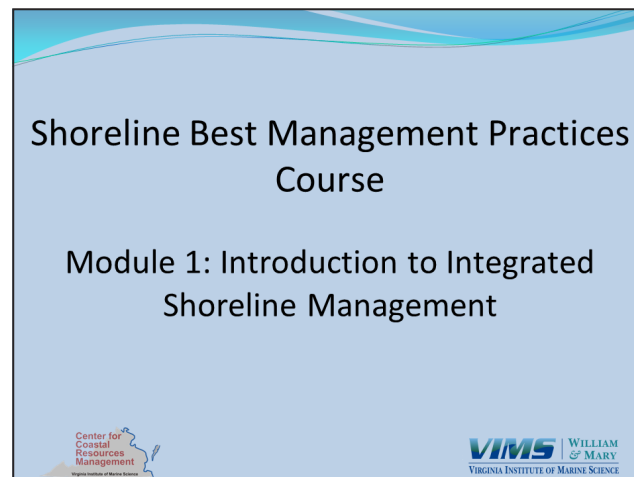


Figure 5. Sample cover slide of Module 1 of the online Shoreline Best Management Practices course.

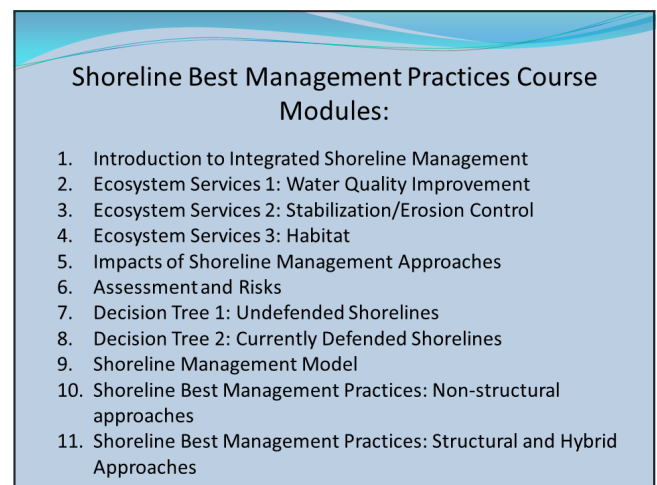


Figure 6. List of the 11 modules in the online Shoreline Best Management Practices course.

Legislative Perspective

The Center for Coastal Resources Management (CCRM) at VIMS has been busy since the passage of Senate Bill 964 in 2011. To prepare local governments for new Comprehensive Plan requirements that could start as early as 2013, CCRM has accomplished the following:

- *Compiled scientific research and management guidance in a document to communicate why living shorelines and ecosystem based management is important (http://ccrm.vims.edu/ccrmp/Guidance_General.pdf)*
- *Convened a stakeholder group representing local planners to assist with the development of specific guidance using language suitable for local Comprehensive Plans (see Interpretive Comprehensive Plan Language on page 2 of this report or view the entire document at http://ccrm.vims.edu/ccrmp/guidance_language.html)*
- *Assembled data and refined decision support models which would become the foundation for the CCRMP toolbox*
- *Developed a comprehensive educational curriculum to educate a broad-based stakeholder audience*
- *Created a web-based structure and portal through which all this information will be served (<http://ccrm.vims.edu/ccrmp/index.html>)*
- *Completed Comprehensive Coastal Resources Management Plans for 6 jurisdictions*

