

Comprehensive Coastal Resource Management Plans

What are they and what do they mean for you?



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Center for Coastal Resources Management
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Virginia Coastal Partners Workshop
Engaging Stakeholders in Coastal Management
December 5-6, 2012



Outline

- What is the CCRMP
- Details on the content information
- Review example from Westmoreland
- Schedule of deliverables

Senate Bill 964 (2011)

- ❖ *The VMRC 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 Commission shall develop integrated guidance for tidal shorelines. The guidance shall:*
 1. *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 shorelines*
 3. *Explain the risks and benefits provided by each management option*
 4. *Recommend procedures to achieve efficiency and effectiveness.*



Senate Bill 964 (2011)

- ❖ *VIMS shall...Develop comprehensive coastal resource management guidance for local governments to foster the sustainability of shoreline resources by December 30, 2012. The guidance shall identify preferred options for shoreline management and taking into consideration the resource condition, priority planning, and forecasting of the condition of the Commonwealth's shoreline with respect to projected sea-level rise.*



Comprehensive Coastal Resource Management Guidance/Plan (CCRMP)

What is it?

Guidance for local governments offering an ecosystem-based approach to manage and sustain coastal resources into the future.

Ecosystem Services

- Water Quality Improvement
- Stabilization/Erosion control
- Habitat

Legislated Definition of a Living Shoreline

- "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.

CCRMP - Content

- Issue statement for comprehensive plans
- Shoreline Best Management Practices
- Shoreline and tidal marsh inventory data
- Manager's Toolbox
 - Map Viewer
 - Risk Assessment/Vulnerability for Sea Level Rise
 - Link to resources: tools, data, information, training
- Outreach and Education

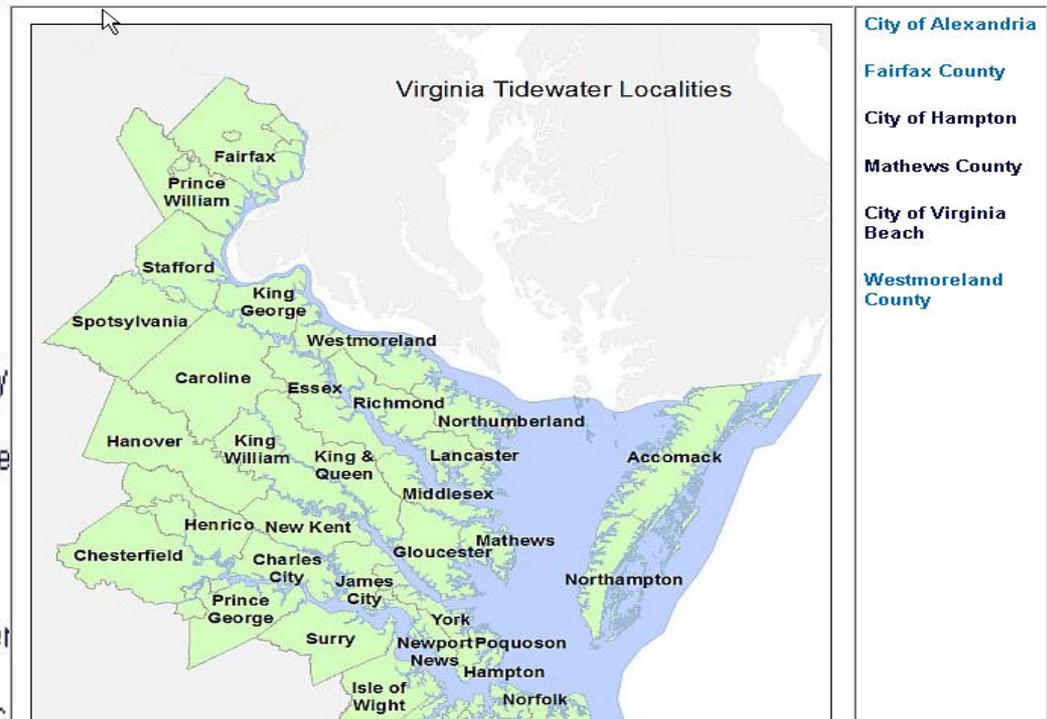
<http://ccrm.vims.edu/ccrmp/index.html>

Comprehensive Coastal Resource Management Plans (CCRMPs) for Tidewater Localities

Welcome to the Comprehensive Coastal Resource Management Atlas. This atlas is a portal to guidance, data, and resources for local governments to assist with implementation of new policy mandated by the General Assembly of Virginia for management of tidal shorelines in Virginia.

Here you will find links specific for each locality to:

- Comprehensive Plan Guidance:
 - information on the new CCRMP policy
 - guidance on the rationale behind the policy
 - language suitable for inclusion in a Comprehensive Plan
- Shoreline Best Management Practices:
 - decision trees that deliver best management practices
 - map of shoreline best management practices



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](#).



[Comprehensive Plan
Guidance](#)

[Shoreline Best
Management Practices](#)

[Shoreline & Tidal
Marsh Inventory Data](#)

[County
Toolbox](#)



Comprehensive Plan Guidance

CCRMP Guidance: Westmoreland County



CCRMPs in Virginia Law



Guidance on the Rationale Behind the Policy



Language Suitable for Inclusion in a Comprehensive Plan

CCRMP
County Home

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Toolbox](#)

The assessment was conducted at parcel level scale but the output represents a reach based or cumulative approach to shoreline management. In some instances, specific site conditions, including the presence of existing erosion control structure, lot size, or proximity of primary buildings to the shoreline, may alter the recommendation. For more explicit, on-site decision making refer to the [Decision Tree Shoreline Management Options](#). The Decision Trees lead users through a series of questions about shoreline characteristics and result in recommendations of environmentally preferred treatments for the shoreline.



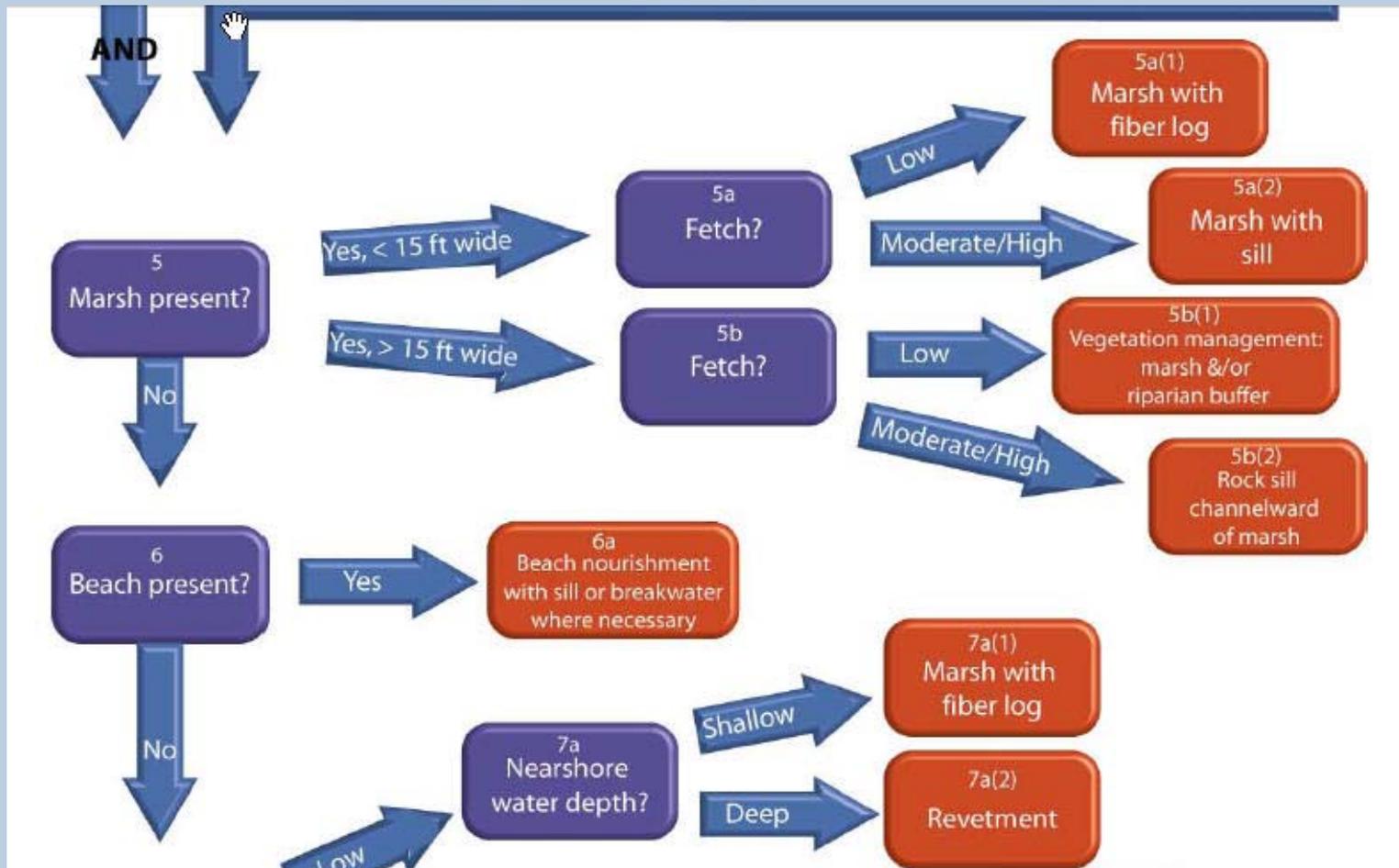
Decision Trees

- **Best Use(s):** For onsite field review of shoreline management options



Mapped Shoreline Best Management Practices (or go back and choose the [Toolbox Button](#) to see the [County Map Viewer](#))

- **Best Use(s):**
 1. **Desktop review of shoreline management options**
 2. **Regulatory consistency with preferred the best management practices**
 3. **Comprehensive Planning**



Shoreline Decision Trees (onsite/offsite)

Westmoreland County Preferred Shoreline Best Management Practices

- Legend**
- Area of Special Concern
 - Forest management
 - Grade Bank
 - Land Use Management
 - No Action Needed
 - Riparian/Marsh Buffer
 - Groin Field with Beach Nourishment
 - Marsh with Sill
 - Offshore Breakwaters with Beach Nourishment
 - Revetment
 - Widen Marsh/Enhance Buffer



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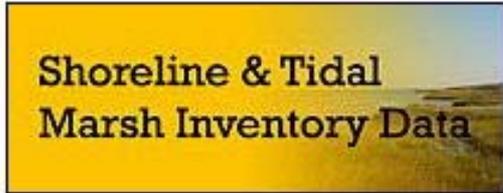
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CCRMP Shoreline & Tidal Marsh Inventory: Westmoreland County



[Shoreline Inventory for Westmoreland County](#)



[Tidal Marsh Inventory for Westmoreland County](#)

[CCRMP
County Home](#)

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- Permit Reports
- Contact Us
- Staff
- Site Map

Permit Reports



Adobe Acrobat



CCRM Internal Site



The Chesapeake Bay Shoreline Inventory



- Shoreline Situation Reports (VA)**
- Acomack County SSR
 - Caroline County
 - Essex County and the Town of Tappahannock
 - King and Queen County SSR
 - King William County SSR
 - Lancaster County SSR
 - Mathews County SSR
 - Middlesex County SSR
 - Northumberland County SSR
 - City of Norfolk SSR
 - Piankatank River SSR
 - City of Poquoson SSR
 - Stafford County
- Shoreline Situation Reports (MD)**
- Baltimore County SSR
 - Caroline County SSR
 - Dorchester County SSR
 - St. Mary's County SSR
 - Somerset County SSR
 - Wicomico County SSR
 - Worcester County SSR

Tidal Marsh Inventory



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CCRMP Toolbox: Westmoreland County



Comprehensive Map Viewer: illustrates shoreline best management practices and current shoreline condition in an interactive map viewer



Sea Level Rise Risk and Vulnerability Tool: illustrates shoreline best management practices and current shoreline condition in an interactive map viewer



Additional Links: information on integrated coastal management and shoreline best management practices

- [NOAA Habitat Restoration Techniques](#)
- [Living Shorelines](#)

Westmoreland County CCRMP Map Viewer



Clear Graphics

River System Pie Charts

Information/Help

Find Address

Measure

Go to Print



Map Contents and Legend

- Marsh with Sill
- Offshore Breakwaters w/ Beach No
- Revetment
- Widen Marsh/Enhance Buffer

Legend:

- County Boundaries
- Area of Special Concern
- Forest management
- Grade Bank
- Land Use Management
- No Action Needed
- Riparian/Marsh Buffer
- Groin Field with Beach Nourishment

Map Viewer



Fairfax County and the City of Alexandria CCRMP Map Viewer



Clear Graphics

River System Pie Charts

Information/Help

Find Address

Measure

Go to Print



Map Contents and Legend

- Riparian Tree Finge
- River Systems

Shoreline Management Options:

- Undefended Shoreline
- Defended: Failing Structure
- Defended: Serviceable Structure
- Areas of Special Concern
- Shoreline

Legend:

Recommendations: Undefended Shorelin

- No action needed
- Marsh with fiber log
- Marsh with sill
- Beach nourishment with sill or breakwater
- Breakwater w/ beach nourishment
- Revetment

Click on Segment for Recommendation

Map Contents and Legend

Shoreline Management Options:

Undefended Shoreline

Recommendations: Undefended Shoreline

- Marsh with fiber log
- Marsh with sill
- Beach nourishment with sill or breakwater
- Breakwater w/ beach nourishment
- Revetment
- Rock sill channelward of marsh
- Grade bank & upland mgt.
- Grade bank & vegetate
- Manage forest to prevent tree falls
- Move improvement; consult experts
- Vegetation mgt.: Forest stewardship
- Vegetation mgt.: marsh &/or riparian bu

Identify Results

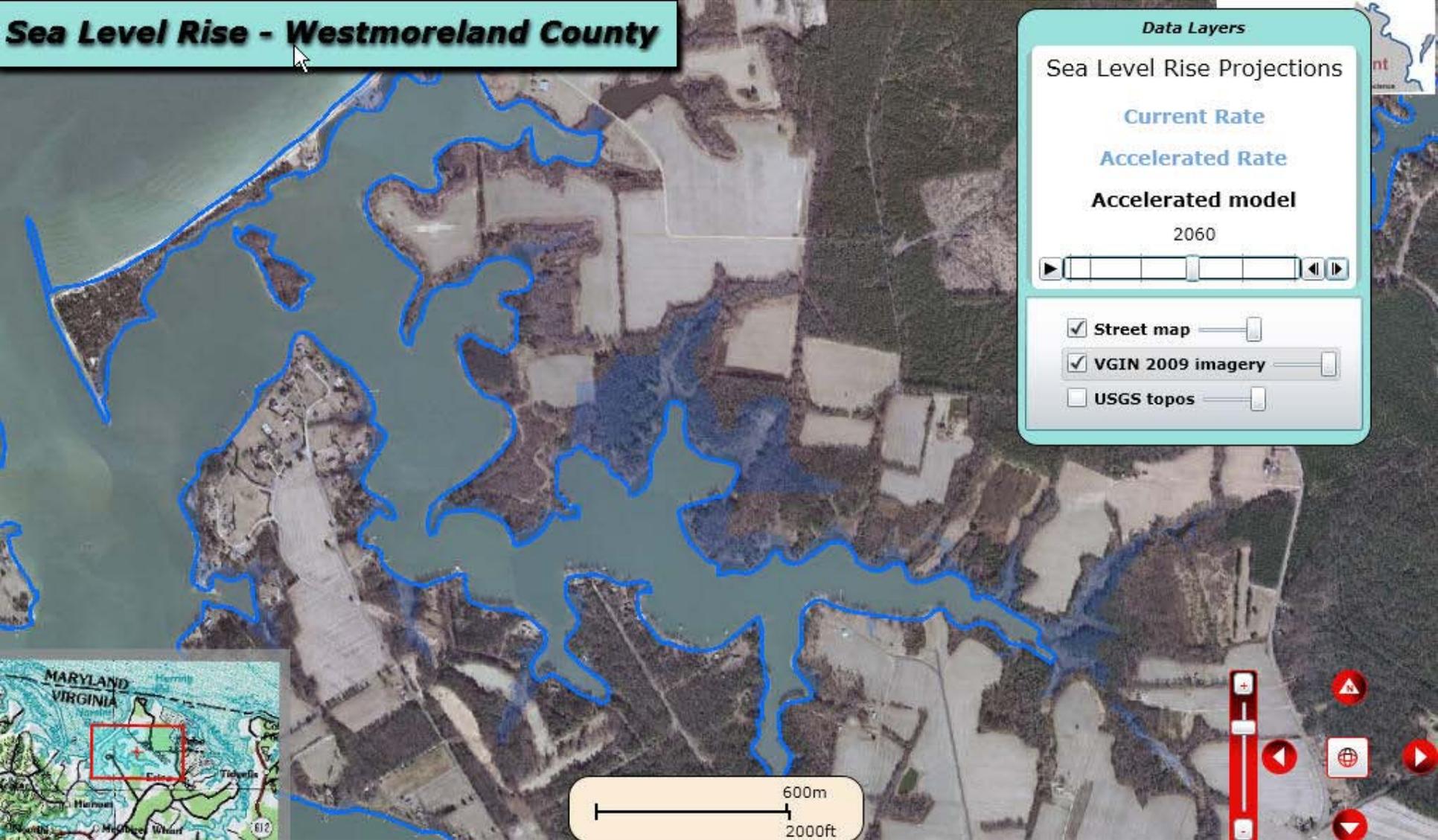
County: Undefended

Shoreline Management Recommendations

Shoreline is currently: not defened

Treatment Recommendations include: Vegetation management: marsh and/or riparian buffer

Sea Level Rise - Westmoreland County



Data Layers

Sea Level Rise Projections

- Current Rate
- Accelerated Rate
- Accelerated model

2060

▶ [Slider] ◀▶

- Street map [Slider]
- VGIN 2009 imagery [Slider]
- USGS topos [Slider]



Additional Resources

Center for Coastal Resources Management

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Living Shorelines

- ▶ Why Living Shorelines
- ▶ Design & Build Criteria
- ▶ Permits for LS
- ▶ LS Plants & Vendors
- ▶ Research
- ▶ Policy & Legislation
- ▶ Learn about LS
- ▶ Demonstration Sites
- ▶ Photo Gallery
- ▶ Glossary of Terms
- ▶ FAQs
- ▶ Resources & Contacts

W&M > VIMS > CCRM > Living Shorelines > Resources & Contacts

Living Shorelines Resources and Contacts

Quicklinks to: [Agencies & Organizations](#) [Articles & Projects](#)

On-line Course

[Creating Living Shorelines](#) - an on-line course with 3 modules that provides information about ecosystem services and how to choose and design living shoreline methods.

Funding

- [Living Shorelines Grant Program](#) administered by the Chesapeake Bay Trust in conjunction with National Oceanic and Atmospheric Administration (NOAA) Restoration Center
- [National Fish & Wildlife Foundation Chesapeake Bay Stewardship Fund](#)

Publications for Download

 [Comparing Communities on the York River \(2012\)](#)

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

Product Delivery

- **12/2012:** Language suitable for inclusion in county comprehensive plans
- **CCRMP Atlas**
 - Data
 - Shoreline BMPs
 - Web mapping service
 - Information resources

Scheduled for 2012

Alexandria City
Fairfax County
Hampton City
Mathews County
Virginia Beach City
Westmoreland County

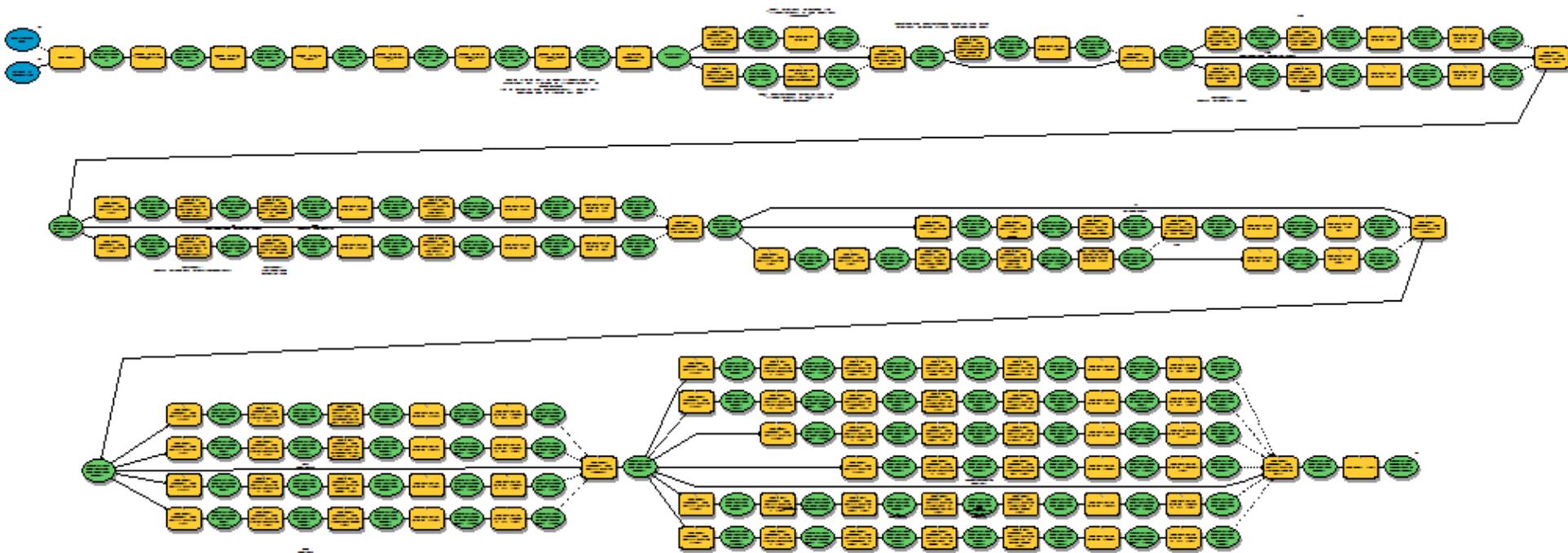
Questions?

Thank You!

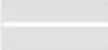


Geospatial Model

Shoreline Best Management Practices



Shoreline Best Management Practice Model Output

-  No action needed
-  Vegetation management: Forest stewardship
-  Vegetation management: Marsh and/or riparian buffer
-  Manage forest to prevent tree falls
-  Grade bank and vegetate
-  Plant marsh with fiber log
-  Rock sill channelward of Marsh
-  Plant marsh with sill
-  Beach nourishment with sill or breakwater where necessary
-  Breakwater with Beach nourishment
-  Revetment
-  Areas of special concern
-  Move improvement if possible; consult experts
-  Currently defended

**Living
Shoreline
Projects**