

## STAFF REPORT FOR PLAN AMENDMENT PA 2013-CW-9CP

### BACKGROUND

- Authorized through adoption of Work Plan on July 9, 2013.

This proposed Plan amendment would add guidance to the 2017 Edition of the Policy Plan volume of the Comprehensive Plan to satisfy a requirement of the Code of Virginia for inclusion within the Comprehensive Plan of state-developed guidance on coastal resource management.

In 2011, the Virginia General Assembly passed legislation to, among other things, add section §15.2-2223.2, to codify a new directive for shoreline management in Tidewater Virginia. §15.2-2223.2 establishes the following:

*Beginning in 2013, any locality in Tidewater Virginia, as defined in § [62.1-44.15:68](#), 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.*

As Fairfax County is identified in §[62.1-44.15:68](#) as a locality in Tidewater Virginia, it is subject to this requirement. In support of this effort, and as required by subdivision 9 of §[28.2-1100](#), the Virginia Institute of Marine Science has developed a Comprehensive Coastal Resource Management Portal (CCRMP) for Fairfax County that contains a wealth of information relating to shoreline conditions and management.

Included within the CCRMP is model language for the Comprehensive Plan requirement; this guidance establishes that living shorelines are the preferred alternative for stabilizing eroding shorelines. The term “living shoreline” has been defined by § 28.2-104.1 of the Code of Virginia and is included by the Virginia Marine Resources Commission (VMRC) in its Living Shorelines General Permits as follows:

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

### PROPOSED PLAN AMENDMENT

PA 2013-CW-9CP proposes to update the guidance within the Environment section of the Policy Plan to reference the Comprehensive Coastal Resource Management Portal, developed for Fairfax County by the Virginia Institute of Marine Science (VIMS). Specifically, Objective 3, Policy c of the Environment section would be modified to reference VIMS guidance and support living

shoreline approaches to shoreline stabilization. In addition, Appendix 1 of the Environment Section, Guidelines for Tidal Shoreline Erosion Control Measures, would be modified to reference the portal and to endorse its use, along with the other relevant guiding documents from the state that are currently referenced. Finally, a definition of “living shoreline” would be added to the Plan glossary, applying the State Code and VMRC definition for living shoreline practices.

## **ANALYSIS**

In 2004, the Board of Supervisors adopted an amendment to the Policy Plan volume of the Comprehensive Plan to bring the Plan into compliance with comprehensive plan requirements of the Chesapeake Bay Preservation Area Designation and Management Regulations (established pursuant to Virginia’s Chesapeake Bay Preservation Act). As part of that amendment, an appendix was added to the Environment section of the Policy Plan entitled “Guidelines for Tidal Shoreline Erosion Control Measures.” These guidelines, which support the Fairfax County Wetlands Board in its permitting decisions relating to shoreline erosion control practices, emphasize living shoreline approaches to tidal shoreline erosion control. As such, the county has had Comprehensive Plan guidance consistent with the 2011 state requirement since 2004.

While the Comprehensive Plan already includes guidance consistent with the 2011 state requirement, it does not reference the wealth of resource information and guidance that has been provided by the CCRMP. This portal provides comprehensive guidance on shoreline conditions and recommended shoreline erosion control best management practices; staff therefore feels that it should be referenced along with other such guidance documents in the Plan. Further, staff feels that, consistent with the 2011 state requirement, text should be added to the Policy Plan that explicitly supports the application of living shoreline approaches as preferred approaches to stabilizing eroding shorelines. A definition of “living shorelines” should also be added to the Plan glossary.

## **CONCLUSION**

The amendment reinforces long-established policy support for living shoreline approaches of shoreline stabilization while referencing the VIMS Comprehensive Coastal Resource Management Portal, consistent with a requirement of the Code of Virginia. Staff from the Virginia Marine Resources Commission has advised county staff that this amendment appropriately identifies procedures for assessment and review of shoreline erosion control structures.

## **RECOMMENDATION**

Staff recommends the following modifications as shown below. Text proposed to be added is shown as underlined and text proposed to be deleted is shown with a ~~striketrough~~. Text shown to be replaced is noted as such.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, as amended through March 14, 2017, pages 10-11:

A *Chesapeake Bay Supplement* has been prepared to address a range of issues related to water quality protection and is incorporated by this reference as part of the Comprehensive Plan. This Supplement includes a map of the county's Chesapeake Bay Preservation Area components as well as discussions and analyses of water quality issues as they relate to pollution sources, infill development, redevelopment, shoreline erosion control, and shoreline access.

**Objective 3: Protect the Potomac Estuary and the Chesapeake Bay from the avoidable impacts of land use activities in Fairfax County.**

Policy a. Ensure that new development and redevelopment complies with the county's Chesapeake Bay Preservation Ordinance, as applied to Chesapeake Bay Preservation Areas adopted by the Board of Supervisors as generally depicted in Figure 5 of the *Chesapeake Bay Supplement* to the Comprehensive Plan, as may be amended by the Board of Supervisors.

Policy b. Support the analysis and recommendations contained in the *Chesapeake Bay Supplement* to the Comprehensive Plan.

Policy c. Where tidal shoreline erosion control measures are needed, apply techniques that are consistent with the "Guidelines for Tidal Shoreline Erosion Control Measures" in the Environment Appendix. Consistent with this guidance and with guidance developed by the Virginia Institute of Marine Science pursuant to §15.2-2223.2 of the Code of Virginia, support the application of living shoreline approaches as preferred approaches for stabilizing eroding shorelines.

Policy d. Boating and other tidal shoreline access structures should be sited, designed, and constructed in a manner that minimizes adverse environmental impacts. Where county approval of tidal shoreline access structures is needed, the following guidelines should be consulted and considered in the decision-making process: the Chesapeake Bay Program's document entitled "Chesapeake Bay Area Public Access Technical Assistance Report;" and the following guidelines issued by the Virginia Marine Resources Commission; "Shoreline Development BMPs," "Wetlands Guidelines," and "Subaqueous Guidelines."

Policy e. Support efforts to mitigate or compensate for losses of wetlands near the area(s) of impact.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, as amended through March 14, 2017, pages 23-24:

## APPENDIX 1

### GUIDELINES FOR TIDAL SHORELINE EROSION CONTROL MEASURES

Measures to control erosion along the county's tidal shoreline are often pursued in order to protect adjacent property. Where county approval of tidal shoreline erosion control measures is needed, the following guidelines issued by the Virginia Marine Resources Commission should be consulted and considered in the decision-making process: "Shoreline Development BMPs," "Wetlands Guidelines," and "Subaqueous Guidelines." Consistent with these documents, shoreline protection structures should only be pursued where there is active, detrimental shoreline erosion which cannot be otherwise controlled, and such structures should be constructed in a manner that minimizes adverse wetlands impacts.

Living shoreline approaches to shoreline stabilization (approaches that apply biological techniques, using native plant species) have been identified by the Commonwealth of Virginia as the preferred stabilization methods for tidal shorelines. Such approaches are preferred where they such approaches are consistent with the best available technical guidance, which may include guidance provided by the Virginia Marine Resources Commission, the Virginia Institute of Marine Science (including guidance within its Comprehensive Coastal Resource Management Portal), and the Shoreline Erosion Advisory Service. Unless otherwise advised through such guidance, the following preferences, as refined from guidance developed by the Hampton Roads Planning District Commission and subsequently recommended for broader application in tidal areas by the Division of Chesapeake Bay Local Assistance of the Virginia Department of Conservation and Recreation (formerly the Chesapeake Bay Local Assistance Department), should be applied, where feasible, in determining the appropriate approaches to shoreline stabilization (with practices listed in decreasing order of preference):

**Areas with Low Erosion Rates (< 1 ft/yr.)  
(low energy shorelines with an average fetch exposure of <1  
nautical mile)**

1. Vegetative stabilization with or without bank re-grading
2. Revetments
3. Bulkheads

**Areas with Moderate Erosion Rates (1- 3 ft/yr.)  
(medium energy shorelines with an average fetch exposure of 1-5  
nautical miles)**

1. Vegetative stabilization with/or without bank grading
2. Revetments
3. Breakwaters
4. Groins\*
5. Bulkheads

**Areas with Severe Erosion Rates (> 3 ft/yr.)  
(high energy shorelines with an average fetch exposure of > 5  
nautical miles)**

1. Relocation (of threatened structures)
2. Revetments
3. Breakwaters
4. Groins\*
5. Seawalls

\*Groins may not be appropriate in riverine conditions or where they may impede navigation.

**ADD:** Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Glossary, as amended through March 20, 2018, page 10:

**LIVING SHORELINE:** A shoreline management practice that provides erosion control and water quality benefits; protects, restores or enhances shoreline habitat; and maintains coastal processes through the strategic placement of plants, stone, sand fill, and other structural and organic material.

**COMPREHENSIVE LAND USE PLAN MAP:**

The Comprehensive Land Use Plan Map will not change.

**COUNTYWIDE TRANSPORTATION PLAN MAP:**

The Countywide Transportation Plan Map will not change.