

A Guide to the Applicant's Statement of Justification for Shoreline Alteration/Stabilization in Tidal Wetlands & Additional Submission Requirements

Overview

Both the Commonwealth of Virginia (*Code of Virginia, Ch. 13 of Title 28.2*) and Fairfax County (*Fairfax County Code, Ch. 116, Wetlands Zoning Ordinance*) have requirements to protect wetlands and associated wildlife and natural systems for the benefit of the public.¹

In Fairfax County, generally, the area between mean low and mean high tide lines is the jurisdiction of the Wetlands Board. County staff determines what areas require wetlands permits. This cannot be done solely by visual observation.

The Wetlands Board considers whether or not alteration or stabilization of the shoreline is warranted based on guidelines of the Virginia Marine Resources Commission. The goal of the Board, through the public hearing and permitting process, is “to ... protect public and private property ... and the natural environment, [by] preserving wetlands wherever possible ... and to accommodate development in a manner consistent with wetlands preservation.”

VMRC guidelines state the following:

Shoreline protection structures are justified only if there is active, detrimental shoreline erosion which cannot be otherwise controlled; if there is rapid sedimentation adversely affecting marine life or impairing navigation which cannot be corrected by upland modifications; or if there is a clear and definite need to accrete beaches.

For applications seeking to justify structures because of erosion, the design of a shoreline alteration or stabilization project that disturbs intertidal wetlands must use the Erosion Rate Classification and the Justification Guide following this policy statement.

Wetlands Board Policies

The Fairfax County Wetlands Board has adopted the following policies for considering applications for permits:

Mitigation: Fairfax County has committed to Virginia's “no-net-loss” wetlands policy. Unavoidable losses of vegetated and non-vegetated wetlands that are given permits by the Wetlands Board must be mitigated. See *Fairfax County Wetlands Board Tidal Wetlands Mitigation and Compensation Policy, 2005*).

¹ “Wetlands provide a number of ecological functions. The three most commonly cited wetland functions are related to water quality, hydrology, and habitat, but other functions also exist (e.g., alteration of microclimate carbon sequestration)....Knowledge of the existence of wetland functions increases with increasing scientific understanding, but the perceived importance of different wetland functions changes as human values change....” (National Research Council, *Compensating for Wetlands Losses under the Clean Water Act*, National Academy Press, Washington, D.C., 2001, p. 27.)

Compensation: If the Board requires a compensation fee for mitigation, the rate is \$28 per square foot, calculated according to the fair market value of Fairfax County waterfront property, with guidance by the U. S. Corps of Engineers.

Determination of Wetlands Loss: In determining the total area of wetlands loss, the Board will include the shoreward half of a riprap footprint impact, not the total riprap footprint impact, as wetland loss.

*“Living Shorelines”*²: Among all the options, applicants must consider a design that maintains or creates a living shoreline, as an approach for shoreline stabilization, and demonstrate to the Board why a living shoreline approach would not achieve your goals. Properly sited and designed living shorelines will be preferentially permitted over hardened shoreline approaches. The Board does not require mitigation or compensation for properly designed and sited living shoreline stabilizations.

The *Fairfax County Comprehensive Plan, Policy Plan, 2003 Edition, Chesapeake Bay Supplement, Appendix B*, adopted November 15, 2004, page 12 states: “Shoreline stabilization approaches that apply biological techniques, using native plant species, are preferred where such approaches are consistent with the best available technical guidance provided by the Virginia Marine Resources Commission, the Virginia Institute of Marine Science, and the Shoreline Erosion Advisory Service.”

Shoreline Erosion Classification³

The Wetlands Board may give a permit for alteration or stabilization of a shoreline in order to protect property against active, detrimental erosion or rapid sedimentation. Erosion must be *active and detrimental* erosion, as evidenced by measurements made over time, photos, maps, staff analysis or other testimony.

Classify the rate of erosion on the shoreline as:

- ◆ **Areas with Low Erosion Rate** (**< 1 ft. /yr.**)
Low energy shorelines with an average fetch exposure of < 1 nautical mile
- ◆ **Areas with Moderate Erosion Rate** (**1 – 3 ft. /yr.**)
Medium energy shorelines with an average fetch exposure of 1 – 5 nautical miles
- ◆ **Areas with High Erosion Rate** (**> 3 ft. /yr.**)
High energy shorelines with an average fetch exposure of > 5 nautical miles)

² A “**Living Shoreline Treatment**” is a shoreline management practice that addresses erosion by providing for long-term protection, restoration or enhancement of vegetated shoreline habitats. This is accomplished through the strategic placement of plants, stone, sand fill and other structural and organic materials.

Living Shoreline Treatments do not include structures that sever natural processes and connections between riparian, intertidal and aquatic areas such as tidal exchange, sediment movement, plant community transitions and groundwater flow.

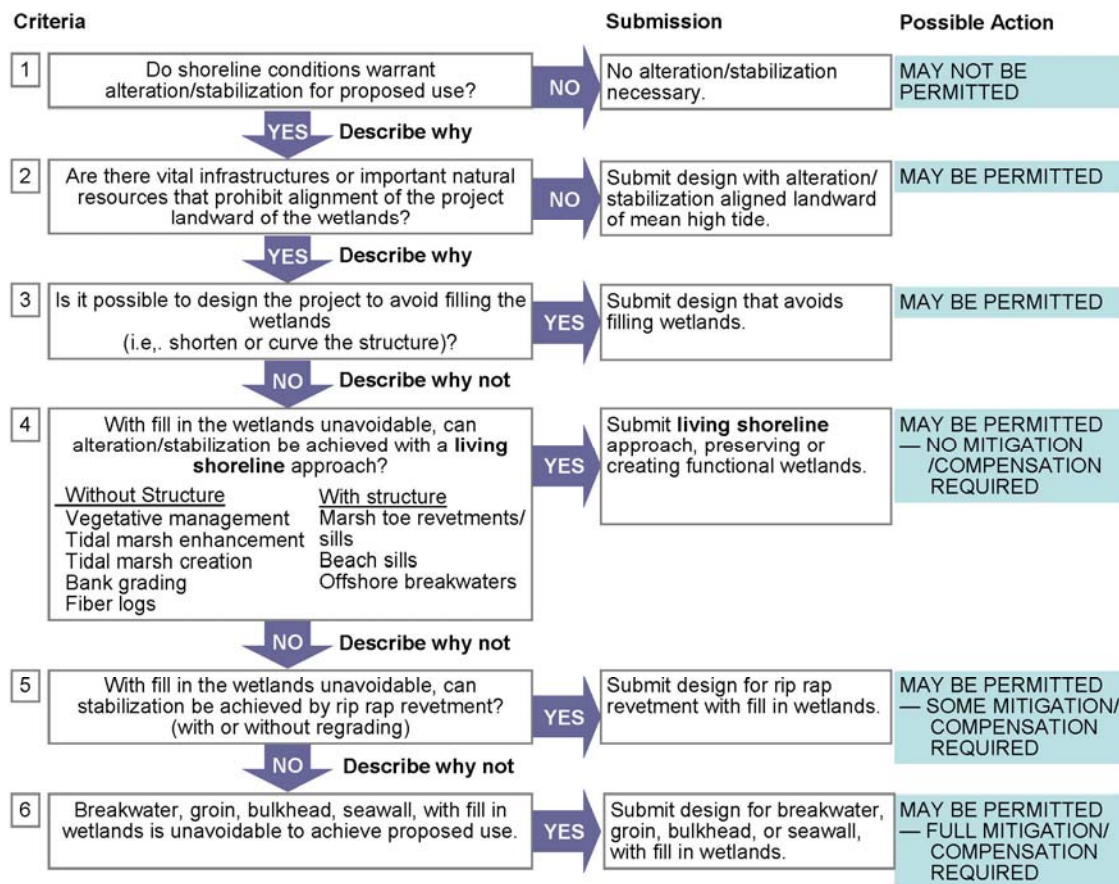
Source: Virginia Institute of Marine Science, College of William and Mary, [Living Shorelines Website](http://ccrm.vims.edu/livingshorelines/index.html).
<http://ccrm.vims.edu/livingshorelines/index.html>

³ The Shoreline Erosion Classification is adapted from a matrix which was originally 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 and incorporated into the *Fairfax County Comprehensive Plan, Policy Plan, 2003 Edition, Chesapeake Bay Supplement*, adopted November 15, 2004.

Justification Guide⁴

Many proposed uses of the shoreline can be accommodated with little or no loss of wetlands, by following the criteria below in preferential order. A written justification should explain why the submitted approach is the most appropriate, and why a preferred approach is not feasible.

Property owners are encouraged to consult the Virginia Institute for Marine Science, the Virginia Shoreline Erosion Advisory Service, and the Virginia Department of Conservation and Recreation for additional guidance.



⁴ The **Justification Guide** was adapted from a decision tree presented in [A Special Report: Recommendations for Implementing the Tidal Wetlands Mitigation-Compensation](#), No. 05-1 September 2005. Center for Coastal Resources Management, Virginia Institute of Marine Science, College of William and Mary.