



King And Queen County, VA  
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## **Shoreline Erosion Project Water Quality Impact Assessment (WQIA) & Wetland Board Permit Submittal Guidelines**

### **A proposed shoreline erosion control project must:**

- Be necessary (i.e., Is there active, detrimental shoreline erosion occurring?)
- Avoid wetland impacts when possible.
- Preserve existing vegetation to the maximum extent possible.
- Minimize land disturbance.
- Provide mitigation plantings if vegetation is to be removed.
- Have an access path that will provide the minimum disturbance as necessary.
- Meet the erosion and sediment control ordinance requirements.

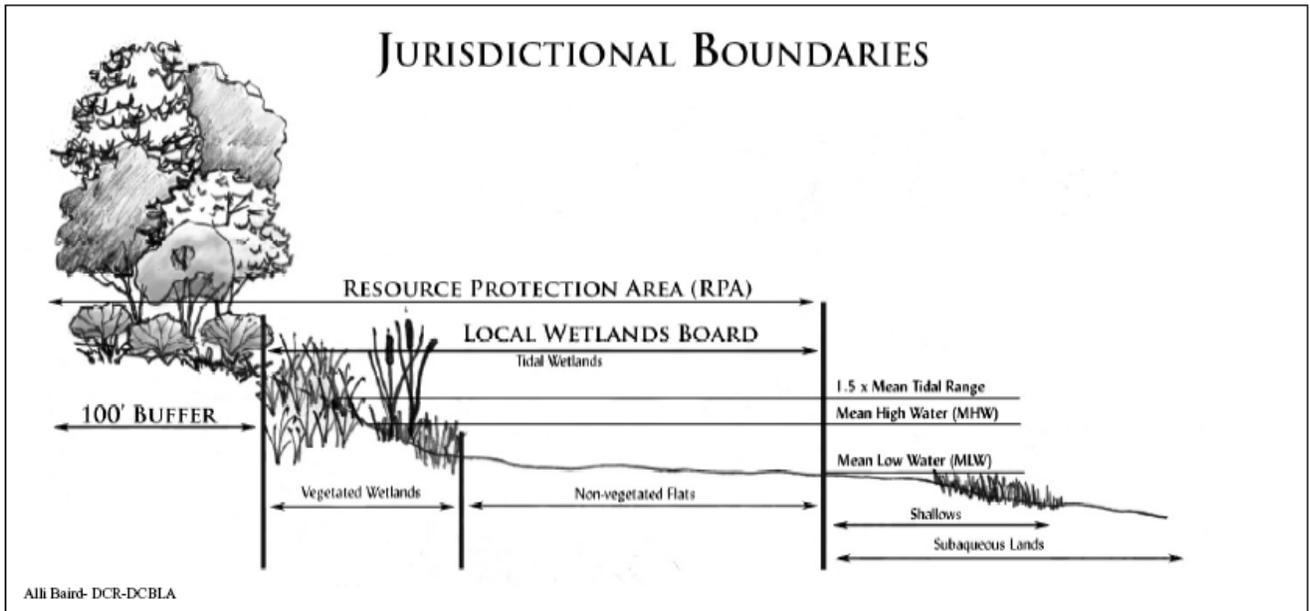
### **Field Requirements:**

- The limits of the Resource Protection Area (RPA) (100-foot buffer) must be clearly marked on site.
- Trees to be removed must be clearly flagged or marked on site.
- Limits of land clearing/grading clearly flagged on site.
- The seaward toe and landward top of proposed structure clearly staked in the field at a minimum every 40 feet with staking that will stay in place. *Projects not properly staked will be considered incomplete and will not be reviewed until project is properly staked.*

### **Submittal Requirements:**

- Readable copy of plat or survey of property where project is located.
- Show, with dimensions, all property lines for each lot. Clearly show and label all easements.
- All plans including section views MUST be drawn to scale and be readable. (Not to scale or plus or minus distances are unacceptable). Dimensions will not supercede the need for the drawing to be to scale.
- Plan submittal shall be on 8 ½" x 11" size paper.
- All lines on drawings are to be labeled.
- Location of MLW and MHW indicated on plan view and cross section drawings.
- Provide MHW & MLW elevation (ex. MHW = +3.0', MLW = 0.0')
- Indicate all existing and proposed structures (buildings, shoreline structures, etc.) and physical features (ie. slopes, waterbodies, etc.).

- Label all features/structures as existing or proposed or differentiate with faint or dashed lines vs. solid.
- Show locations of adjacent property owners and indicate name and address.
- Provide benchmark distances to the **seaward** face of proposed bulkhead and/or toe of riprap from an existing permanent point of reference readily identifiable in the field (such as a building corner).
- Provide an accurate cross section(s), to scale, with appropriate grade elevations showing existing and proposed bank and bottom profiles, riprap, bulkhead, etc., and dimensions of fill.
- Areas of vegetated wetlands must be identified on the plan.
- Show the length of the existing slope or height of bank and the distance from the toe of slope, to the face of bulkhead, toe of fill or toe of riprap. Provide appropriate number of different cross sections to accurately depict the proposed project.
- If bulkhead is proposed, provide well-designed and detailed drawings of bulkhead construction.
- If riprap is proposed, indicate the type of material (i.e. quarry, concrete, etc); size (i.e., Class 1, Class II, etc.); proposed slope (i.e. 1.5:1, 2:1, etc); and specify that filter cloth will be used underneath the stone.
- Access for construction is restricted to the use of one single access way so as to maintain the integrity of the RPA (100-foot buffer). This access area with dimensions of the area must be shown on the plan.
- Provide a note that silt fence will be installed and maintained at the top of the new bulkhead or riprap prior to any backfilling and until a permanent vegetative cover is established.
- Provide a note that the site will be immediately seeded and mulched upon completion.
- Limits of clearing and grading must be shown on the plan. Total amount of land disturbance in square feet must be indicated on the plan.
- Specific directions to the project must be provided. Inadequate directions may cause the application to be deemed incomplete and will not be reviewed.
- If revisions are submitted, please provide revision dates on all revised drawings.
- It may be necessary during the review of applications to require additional information not presented in these guidelines.
- Completed WQIA.
- Completed Joint Permit Application submitted to the Virginia Marine Resources Commission, 2600 Washington Ave, Third Floor, Newport News, VA 23607.
- *Wetland mitigation/compensation is required for any approved unavoidable wetland impacts.*



## Shoreline Erosion Control Water Quality Impact Assessment (WQIA)

(Plan View and Cross Section Drawings of project must accompany this WQIA)

This form is to be submitted for all shoreline erosion control projects that involve land disturbance or removal of vegetation in the Resource Protection Area (RPA). The purpose of this WQIA is to:

- 1) Identify the impacts of the proposed shoreline erosion control project on water quality;
- 2) Ensure that the proposed land disturbance will occur in a manner that will be the least disruptive to the natural functions of the RPA;
- 3) Specify mitigation that will address water quality protection.

**Applicant**

**Name:** \_\_\_\_\_

**Mailing Address:**

\_\_\_\_\_

**Project Address:**

\_\_\_\_\_

**Tax Map #:** \_\_\_\_\_

**Description of Proposed Project:**

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**Describe the erosion problem on site:**

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**Describe how the project has been designed to reduce impacts to the buffer and water quality:**

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**Number of Trees to be removed for:**

- Construction Access: \_\_\_\_\_
- Installation of proposed erosion control structure: \_\_\_\_\_
- Grading: \_\_\_\_\_
- Total Trees to be removed: \_\_\_\_\_

VEGETATION REPLACEMENT RATES		
VEGETATION REMOVED	PREFERRED REPLACEMENT VEGETATION	ACCEPTABLE ALTERNATIVE VEGETATION
1 tree or sapling 1/2"-2 1/2" caliper	1 tree @ equal caliper or greater	Or 2 large shrubs @ 3'-4' Or 10 small shrubs or woody groundcover * @ 15"-18"
1 tree ≥ 2 1/2" caliper	1 tree @ 1 1/2" - 2" caliper, or evergreen tree @ 6' min. ht., per every 4" caliper of tree removed (ex: a 12" cal. tree would require 3 trees to replace it)	Or 75% trees @ 1 1/2" - 2" and 25% large shrubs @ 3'-4' per every 4" caliper of tree removed. (ex: a 16" cal. tree removed would require 3 trees and 1 large shrub) Or 10 small shrubs or woody groundcover @ 15"-18" per 4" caliper of tree removed (ex: a 8" caliper tree removed requires 20 small shrubs .)
1 large shrub	1 large shrub @ 3'-4'	Or 5 small shrubs or woody groundcover @ 15"-18"
* Woody groundcover is considered to be a woody, spreading shrub that remains close to the ground, to 18" high, such as a shore juniper, <i>juniperus conferta</i> . Vines may not be considered "woody groundcover" for the purpose of vegetation replacement.		

**Mitigation Plantings Proposed (based on Vegetation Replacement Rate Table):**  
(Lawn grass is not appropriate replacement planting)

**Trees:**

Size	Number	Type/Species

**Shrubs:**

Size	Number	Type/Species

**Woody Groundcover or other perennial native plants:**

Size	Number	Type/Species

**Square footage of proposed land disturbance for:**

Construction Access: \_\_\_\_\_ sq. ft.  
Erosion Control Structure: \_\_\_\_\_ sq. ft.  
Grading: \_\_\_\_\_ sq. ft.  
Total land disturbance: \_\_\_\_\_ sq. ft.\*

**Erosion and Sediment Control Measures proposed:**

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**\*Note: A total land disturbance in excess of 2,500 sq. requires a land-disturbing permit.** However, any land disturbance in the RPA may require erosion and sediment control measures regardless of square footage or need for a permit.