Reviewer: _____ Project: _____
Review Completed On (date): _____

ISLE OF WIGHT COUNTY: WATER QUALITY IMPACT ASSESSMENT

Shoreline Erosion Control Projects

This document is intended to be a guide for localities to determine whether a project is consistent with the Chesapeake Bay Preservation Area Ordinance and related state regulations.

Application Date: _____/_____/_____

Scheduled for Wetlands Board on: _____/_____/_____

Is project in Wetlands Board jurisdiction?	Yes	No
Non-vegetated (between MLW and MHW)	____	____
Vegetated (1.5 times mean tide range)	____	____
Is project exempt from Wetlands Board hearing?	____	____

What reason for exemption? _____

(private single-user piers; private recreation; grazing, haying, forestry; research by VMRC, VIMS, DGIF; aids to navigation authorized by government; emergency measures to protect public health; maintenance/repair or addition to pre-existing roads, highways, RR beds or facilities PROVIDED no waterway is altered or additional wetlands are covered; government activities in wetlands; normal maintenance of pre-existing man-made drainage ditches PROVIDED no additional wetlands are covered).

SECTION FOR APPLICANTS

Applicant Name: _____

Project Type (revetment, bulkhead, etc):_____

Project Address: _____

Tax Map/Parcel #: _____

VIMS Report #: _____

Purpose Statement:

This form is to be used for the review of all shoreline erosion control projects that involve land disturbance or removal of vegetation in the Resource Protection Area (RPA). Generally, the purpose of this Water Quality Impact Assessment (WQIA) is to:

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

Regulatory Authority:

Section 4001 (B) of the Regulations states that a water quality impact assessment shall be required for any proposed land disturbance, development or redevelopment within an RPA.

The Regulations require that the local government make a determination that:

- Any proposed shoreline erosion control measures are **necessary**
- The erosion control measures will employ the **best available technical advice**
- **Indigenous vegetation** will be preserved to the maximum extent practicable
- Proposed **land disturbance** will be minimized
- Appropriate **mitigation plantings** are proposed that will provide the required water quality functions of the buffer area
- The project is consistent with the locality's **comprehensive plan**
- **Access** to the project will be provided with the minimum disturbance necessary
- The project complies with **erosion and sediment control** requirements

Submittal Requirements:

In order to adequately review the project, the applicant must provide three (3) copies of a site plan that includes the following information:

- Environmental Site Assessment: To include field-delineated location of the RPA, including the 100-foot buffer area and field-delineated wetlands, if present. Plan to be certified as complete and accurate by a professional engineer or a certified land surveyor. See CBPA Section 5000 (B).
- Landscaping Plan: To include existing vegetation on site; vegetation to be removed; vegetation to be replanted to mitigate for impacts to RPA. See CBPA Section 5000 (C). Also, see *Riparian Buffers Modification and Mitigation Guidance Manual*, especially Appendix A (plant lists) and Appendix D (replacement rates).
- Stormwater Management Plan: If deemed necessary by Zoning Administrator. To include location and design of all planned stormwater control devices; process for implementing non-structural practices; Chesapeake Bay calculations, etc. See CBPA Section 5000 (D).
- Erosion and Sedimentation Control Plan: Plan to meet requirements of Chapter 6 of the Isle of Wight County Code on erosion and sedimentation control. To include method and extent of site access and to include limits of clearing and grading. See CBPA Section 5000 (E).
- Project construction plans shall be certified as complete and accurate by a professional shoreline engineer or other qualified professional, as well as a determination of the necessity of the project. See CBPA Section 4003 (C) (4.e.).

Other Requirements:

- Written documentation from a reputable source (best available technical advice) that:

  (1) Describes the nature and extent of the erosion problem on site,
  (2) Provides the justification (need) for the project, **and**
  (3) Provides the basis for selecting the proposed erosion control method.

- Buffer mitigation plan (re-vegetation plan) and long term maintenance plan.
- Copy of the Joint Permit Application

SECTION FOR LOCALITIES

Project Evaluation:

Necessity:

Note: The requirement in §9 VAC 10-20-130.5.a(4) of the Bay Act Regulations that an erosion control method be "necessary" originates from the official *Wetlands Guidelines* manual prepared by VMRC and VIMS. One of the required criteria is that that "shoreline protection structures are justified only if there is active, detrimental shoreline erosion which cannot be otherwise controlled….Needless shoreline modification is therefore discouraged." Therefore, there must be documentation that the proposed shoreline erosion control method is necessary and consistent with the scale of the erosion problem on the site. The following information should be analyzed to make that determination:

1. Enter the historical or current erosion rate, if available _____
2. Enter the average fetch (in miles): _____
3. Proposed erosion control method: _____
4. Is the proposed method consistent with the following ranking chart? (Y / N)
   If "NO", higher-ranking alternatives should be explored.

EROSION CONTROL METHOD RANKINGS
(1=most preferred method)

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

1. **Vegetative stabilization with/or bank re-grading**
2. **Revetment**
3. **Bulkhead**

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

1. **Vegetative stabilization with/or bank grading**
2. **Beach nourishment**
3. **Revetment**
4. **Breakwaters**
5. **Groins**
6. **Bulkheads**

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

1. **Relocation (of threatened structures)**
2. **Beach Nourishment**
3. **Revetments**
4. **Breakwaters**
5. **Groins**
6. **Seawall**

Best available technical advice:

1. What technical advice did the applicant base the proposal on? (check one)
   a. ____SEAS
   b. ____VIMS
   c. ____Other (shoreline engineer, erosion control specialist, etc.)
      Please describe: _____
      _____
2. Is the applicant's proposal consistent with the technical advice obtained? (Y/N) _____

Preservation of vegetation:

Amount of existing woody vegetation: _____ ft.^{2}
Woody vegetation proposed to be cleared: _____ft.^{2}

Minimization of land disturbance: Disturbed area: _____ ft.^{2}
Total site area: _____ft. ^{2}

Mitigation plantings proposed: Vegetation to be planted: _____ ft.^{2}
(must be equal to or greater than amount of vegetation cleared)

Comprehensive plan consistency: List applicable comprehensive plan policies:
(Example: Use non-structural control methods when erosion is slight to moderate)

Policy	Regulatory Citation	Consistent (Y/N)?

Project Access:

Type of access proposed? (water/land)
Area of disturbance required for access: _____ ft.^{2}

Compliance with Erosion and Sediment Control Regulations

Has applicant demonstrated compliance with the local E&S control regulations or indicated that compliance will be required prior to issuance of any land-disturbing permits?
_____
_____
_____
_____

Consistency Checklist

REQUIRED CONDITION	Y/N	If "NO", list conditions that must be addressed for consistency
The proposed shoreline erosion control measures are necessary and consistent with the nature of the erosion problem on the site.		
The "best available technical advice" has been used in the selection, planning, and design of the erosion control project.		
Indigenous vegetation will be preserved to the maximum extent practicable.		
Proposed land disturbance has been minimized		
Appropriate mitigation plantings have been proposed that will provide the required water quality functions of the buffer area *(Please refer to the Buffer Guidance Manual for assistance. Lawn grass is not appropriate as a replacement planting)*		

The project is consistent with the comprehensive plan.		
Access to the project will be provided with the minimum disturbance necessary.		
The project will comply with all erosion and sediment control requirements.		

Final Determination

The proposed erosion control method and project is:

_____CONSISTENT _____ INCONSISTENT with the Bay Act Regulations.