### VIMS Shoreline Permit Application Report # 02-0966

**APPLICANT:** VANNESS FAMILY TRUST  
**Immediate Waterway:** Rappahannock River  
**Locality:** LANCASTER COUNTY  
**Purpose:** Erosion Control  
**Application Type:** Beach/Dune, Wetlands  
**Site Inspection:** 6/5/02  
**Report Date:** 6/10/02

#### Type of Activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Proposed Extent (ft²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riprap (ft)</td>
<td>920</td>
</tr>
<tr>
<td>Impact Intertidal Beach Community (Type XIII)</td>
<td>8280</td>
</tr>
<tr>
<td>Fill Intertidal Beach Community (Type XIII)</td>
<td>4140</td>
</tr>
<tr>
<td>Impact Beach/Dune (ft²)</td>
<td>1400</td>
</tr>
<tr>
<td>Total Impacts (ft²)</td>
<td>9680</td>
</tr>
<tr>
<td>Total Impacts (Wetlands)</td>
<td>8280</td>
</tr>
<tr>
<td>Total Impacts (Subaqueous)</td>
<td>0</td>
</tr>
<tr>
<td>Total Impacts (Beach/Dune)</td>
<td>1400</td>
</tr>
<tr>
<td>Total Fill (ft²)</td>
<td>4140</td>
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</tbody>
</table>

#### Project Location

![Project Location Map](image)

Virginia Institute of Marine Science  
School of Marine Science  
P.O. Box 1346, Route 1208 Greate Road  
Gloucester Point, Virginia 23062-1346  
phone: (804)684-7380, fax: (804)684-7179, e-mail: wetlands@vims.edu
NOTICE
The Virginia Institute of Marine Science (VIMS) is aware that regulatory or administrative bodies who weigh the overall potential public and private benefits and detriments in arriving at decisions must also consider other factors such as economics, aesthetics, zoning, or community desires. INFORMATION PROVIDED IN THIS REPORT IS, THEREFORE, ONLY THE ENVIRONMENTAL AND MARINE RESOURCES INPUT INTO THE DECISION MAKING PROCESS.

This assessment is based on biological, chemical, geological, and physical factors affecting the marine environment at and in the vicinity of the proposed activity. Parameters of the marine environment which may influence recreational, commercial, or industrial activities which are dependent on the marine environment are also considered where applicable.

Comments:
We have reviewed this proposal from a marine environmental viewpoint. A 920-foot riprap revetment is proposed at the base of a high, eroding bluff on the Rappahannock River. Bank grading is also proposed to stabilize the slope. The flagged alignment for the revetment was located 5-15 feet away from the existing bank.

We recommend placement of the revetment as close to the toe of the existing bank as possible. This will minimize exposure of the structure to wave action, as well as minimize impacts to the intertidal wetland and beach resources. The stone size and slope of the revetment should be designed for typical storm events along this tributary.

There is a potential for excessive sedimentation into the adjacent waterway due to the proposed extent of land disturbance. Erosion and sediment control measures will be necessary until the graded bank is stabilized with a vegetative cover.

Karen A. Duhring
Marine Scientist
Hydrologic units represent smaller, isolated watersheds defined by topography and flow direction. These units can be thought of as insulated ecosystems or landscapes within which resources can be managed at a larger scale. The cumulative impact of a project to resources within a hydrologic unit may be significantly greater than the impact to the larger watershed above.
Permit Site Study Area

Lancaster County
RAPPAHANNOCK RIVER
Rappahannock River

Project site

Rappahannock River watershed

Tidal Marsh Inventory - TMI
- Arrow Arum-Pickerelweed
- Big Cordgrass
- Black Needlerush
- Brackish Water Mixed
- Cattail
- Freshwater Mixed
- Reed Grass
- Saltbush
- Saltmeadow
- Saltmarsh Cordgrass
- Yellow Pond Lily

Roads
- Primary
- Secondary
- Tertiary

Intertidal flat

Open water

0 0.5 1 Miles

N
To Wetlands Board: Please indicate Wetlands Board action on this sheet and return to VIMS

Application Number: 02-0966
Name: VanNess Family Trust
Locality: Lancaster County
Waterway: Rappahannock River

Please check here if this application was approved as proposed ____
Complete the form below if the application was modified.

ACTIVITIES

<table>
<thead>
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Comments: __________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________

Certified by: __________________________________________