VIMS Shoreline Permit Application Report # 02-1677

APPLICANT: U. S. NAVY
Immediate Waterway: Little Creek
Locality: CITY OF VIRGINIA BEACH
Purpose: Improve Drainage
Application Type: Wetlands
Site Inspection: 11/22/02
Report Date: 2/10/03

<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Proposed Extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riprap (ft)</td>
<td>200</td>
</tr>
<tr>
<td>Impact Mud Flat Community (Type XVI) (ft²)</td>
<td>600</td>
</tr>
<tr>
<td>Impact Brackish Water Mixed Community (Type XII) (ft²)</td>
<td>1850</td>
</tr>
<tr>
<td>Total Impacts (ft²)</td>
<td>2450</td>
</tr>
<tr>
<td>Total Impacts (Wetlands)</td>
<td>2450</td>
</tr>
<tr>
<td>Total Impacts (Subaqueous)</td>
<td>0</td>
</tr>
<tr>
<td>Total Impacts (Beach/Dune)</td>
<td>0</td>
</tr>
<tr>
<td>Total Fill (ft²)</td>
<td>0</td>
</tr>
</tbody>
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Project Location: City of Virginia Beach

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
ANNOUNCEMENT

Information provided in this report is only the environmental and marine resources input into the decision making process and 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.

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.

Comments:

We have reviewed this proposal from a marine environmental perspective and it is our opinion that the individual and cumulative adverse impacts resulting from this activity can be reduced. The applicant proposes to line an existing tidal ditch with riprap to prevent additional erosion and help convey off-site increased stormwater associated with proposed site improvements. As proposed, the project will result in direct impacts to 1,850 sq. ft. of vegetated and 600 sq. ft. of non-vegetated wetlands.

From a water quality perspective and to reduce impacts to the marine environment, we suggest the applicant consider employing a BMP (i.e. stormwater detention basin) to reduce flow energies and allow for the settling-out of suspended sediments before discharging the stormwater into receiving waters. This alternative would likely eliminate the need for re-grading and expanding the existing ditch while reducing unnecessary impacts to marine resources. Consequently, a small amount of riprap placed along the banks of the existing ditch is anticipated to be adequate in preventing further erosion of the channel.

Walter I. Priest, III
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

City of Virginia Beach
SOUTHERN BAYSHORE
Little Creek

Project site

Southern Bayshore watershed

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

Intertidal flat

Open water

0 0.5 1 Miles
To Wetlands Board: Please indicate Wetlands Board action on this sheet and return to VIMS

Application Number: 02-1677
Name: U. S. Navy
Locality: City of Virginia Beach
Waterway: Little Creek

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

**ACTIVITIES**

<table>
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Comments: __________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________

Certified by: __________________________________________