VIMS Shoreline Permit Application Report # 02-0011

APPLICANT: MICHAEL L. MILLS
Immediate Waterway: York River
Locality: GLOUCESTER COUNTY
Purpose: Erosion Control
Application Type: Wetlands, Subaqueous
Site Inspection: 1/31/02
Report Date: 2/5/02

Project Location

Type of Activity | Proposed Extent | Project Location
--- | --- | ---
Groins (ft) | 80 | Gloucester County
Groins
Fill Sand/Mud Mixed Flat Community (Type XV) (ft2) | 16 |
Impact Subaqueous Bottom (ft2) | 60 |
Fill Subaqueous Bottom (ft2) | 60 |
Total Impacts (ft2) | 60 |
Total Impacts (Wetlands) | 0 |
Total Impacts (Subaqueous) | 60 |
Total Impacts (Beach/Dune) | 0 |
Total Fill (ft2) | 76 |
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 viewpoint. In general, groins protect the shoreline by trapping sand to build a beach. The beach creates a shoaling environment reducing the energy of the waves reaching the fastland and also adds physical distance between the waves and the fastland. Groins work best on sandy shorelines with large sand supplies. Regardless of the amount of sand, however, groins create a risk for increased downdrift erosion by impeding the movement of sand along the nearshore zone. Additionally, groins often act to "capture" oblique, or angled waves, directing the wave energy into the shoreline. This may result in increased erosion immediately adjacent to the structure. On-site observation indicates little sand along the shoreline other than some sand stored in a small (2 feet high) dune-like feature.

While there is evidence of some erosion on the property, there are no improvements at risk and erosion protection may not be warranted. We question the use of groins as appropriate shoreline erosion protection at this location.
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

Gloucester County
YORK RIVER
York River

Project site

York River watershed

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

Roads
Primary
Secondary
Tertiary
Open water

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

Application Number: 02-0011
Name: Michael L. Mills
Locality: Gloucester County
Waterway: York River

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

APPLICATION

ACTIVITIES

<table>
<thead>
<tr>
<th></th>
<th>PROPOSED</th>
<th>PERMITTED</th>
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<tbody>
<tr>
<td>Groins (ft)</td>
<td>80</td>
<td>___</td>
</tr>
<tr>
<td>Groins</td>
<td>2 Units</td>
<td>___</td>
</tr>
<tr>
<td>Fill Sand/Mud Mixed Flat Community (Type XV) (ft2)</td>
<td>16</td>
<td>___</td>
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Comments: ___________________________________________________________

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Certified by: ________________________________________________________