VIMS Shoreline Permit Application Report #03-0164

APPLICANT: JOHN & SUSAN P. MOUNDALEXIS
Immediate Waterway: Upper Machodoc Creek
Locality: KING GEORGE COUNTY
Purpose: Erosion Control
Application Type: Wetlands
Site Inspection: 3/11/03
Report Date: 3/25/03

Type of Activity Proposed Extent

Bulkhead (ft) 131
  Fill Sand/Mud Mixed Flat Community (Type XV) (ft²) 141
  Impact Sand/Mud Mixed Flat Community (Type XV) (ft²) 141
  Fill Intertidal Rubble/Riprap (ft²) 141
  Impact Intertidal Rubble/Riprap (ft²) 141

Total Impacts (ft²) 282
  Total Impacts (Wetlands) 282
  Total Impacts (Subaqueous) 0
  Total Impacts (Beach/Dune) 0
  Total Fill (ft²) 282

Project Location

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 application from a marine environmental perspective. Observations made on site indicate that the amount and size of stone along the shoreline appears inadequate to provide the desired shoreline protection. It is suggested that a properly designed riprap revetment could be an alternative to the proposed bulkhead, which may have adverse impacts on adjacent properties. However, as proposed, the bulkhead will impact approximately 141 square feet of both intertidal sand/mud and rubble/riprap wetland communities and these impacts appear to have been minimized. If permitted, we recommend that the rock be placed at the toe of the bulkhead to help minimize any scour that might occur.

Rebecca J. Thomas
Marine Scientist
Total Permitted Wetlands Loss by Type for
LOWER POTOMAC RIVER : 1996-1999

<table>
<thead>
<tr>
<th>Community Type</th>
<th>Extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetated Wetlands</td>
<td>143892 ft²</td>
</tr>
<tr>
<td>Non-Vegetated Wetlands</td>
<td>126780 ft²</td>
</tr>
<tr>
<td>Subaqueous Bottom</td>
<td>93578 ft²</td>
</tr>
</tbody>
</table>

Total Permitted Wetlands Loss by Type for
King George County : 1996-1999

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<tr>
<th>Community Type</th>
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<tr>
<td>Vegetated Wetlands</td>
<td>104742 ft²</td>
</tr>
<tr>
<td>Non-Vegetated Wetlands</td>
<td>7681 ft²</td>
</tr>
<tr>
<td>Subaqueous Bottom</td>
<td>43366 ft²</td>
</tr>
</tbody>
</table>

Total Proposed Shoreline Structures and Activities for
King George County -- 1996-1999

<table>
<thead>
<tr>
<th>Structure Type</th>
<th>Extent</th>
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<tbody>
<tr>
<td>Boat Ramps</td>
<td>3916 ft²</td>
</tr>
<tr>
<td>Boat Ramps</td>
<td>1 Openpile</td>
</tr>
<tr>
<td>Boat Slips</td>
<td>4</td>
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<tr>
<td>Breakwater</td>
<td>503 ft</td>
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<tr>
<td>Bulkhead</td>
<td>1958 ft</td>
</tr>
<tr>
<td>Commercial Structure</td>
<td>1620 ft²</td>
</tr>
<tr>
<td>General Fill</td>
<td>101334 ft²</td>
</tr>
<tr>
<td>Groins</td>
<td>26</td>
</tr>
<tr>
<td>Groins</td>
<td>1006 ft</td>
</tr>
<tr>
<td>Beach Nourishment</td>
<td>16530 ft²</td>
</tr>
<tr>
<td>Beach Nourishment</td>
<td>390 ft</td>
</tr>
<tr>
<td>New Dredging</td>
<td>9 yd³</td>
</tr>
<tr>
<td>Riprap</td>
<td>1898 ft</td>
</tr>
</tbody>
</table>

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

King George County
LOWER POTOMAC RIVER
Upper Machodoc Creek

Locality boundaries
Lower Potomac 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

Rocks
- Primary
- Secondary
- Tertiary

Intertidal flat
- Open water

Project site

N

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

Application Number: 03-0164
Name: John & Susan P. Moundalexis
Locality: King George County
Waterway: Upper Machodoc Creek

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

<table>
<thead>
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<th>ACTIVITIES</th>
<th>PROPOSED</th>
<th>PERMITTED</th>
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Comments: __________________________________________________________________________________
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Certified by: __________________________________________