VIMS Shoreline Permit Application Report # 02-1993

APPLICANT: WILLIAM R. BUNKER
Immediate Waterway: Aquia Creek
Locality: STAFFORD COUNTY
Purpose: Water Access
Application Type: Wetlands, Subaqueous
Site Inspection: 11/7/02
Report Date: 11/13/02

Type of Activity Proposed Extent
Boat Ramps (ft²) 176
  Impact Subaqueous Bottom (ft²) 64
  Fill Subaqueous Bottom (ft²) 64
  Impact Freshwater Mixed Community (Type XI) (ft²) 112
  Fill Freshwater Mixed Community (Type XI) (ft²) 112

Total Impacts (ft²) 176
  Total Impacts (Wetlands) 112
  Total Impacts (Subaqueous) 64
  Total Impacts (Beach/Dune) 0
  Total Fill (ft²) 176

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
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 and it is our opinion that the individual and cumulative adverse impacts resulting from this activity will be minimal.

Thomas A. Barnard, Ph.D.
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>139525 ft²</td>
</tr>
<tr>
<td>Non-Vegetated Wetlands</td>
<td>116227 ft²</td>
</tr>
<tr>
<td>Subaqueous Bottom</td>
<td>83177 ft²</td>
</tr>
</tbody>
</table>

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

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<tr>
<th>Community Type</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Vegetated Wetlands</td>
<td>6212 ft²</td>
</tr>
<tr>
<td>Non-Vegetated Wetlands</td>
<td>5737 ft²</td>
</tr>
<tr>
<td>Subaqueous Bottom</td>
<td>2438 ft²</td>
</tr>
</tbody>
</table>

Total Proposed Shoreline Structures and Activities for Stafford County -- 1996-1999

<table>
<thead>
<tr>
<th>Structure Type</th>
<th>Extent</th>
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</thead>
<tbody>
<tr>
<td>Boat Ramps</td>
<td>1197 ft²</td>
</tr>
<tr>
<td>Boat Slips</td>
<td>148</td>
</tr>
<tr>
<td>Breakwater</td>
<td>160 ft</td>
</tr>
<tr>
<td>Bulkhead</td>
<td>1861 ft</td>
</tr>
<tr>
<td>Commercial Structure</td>
<td>17984 ft²</td>
</tr>
<tr>
<td>Groins</td>
<td>16</td>
</tr>
<tr>
<td>Maintenance dredging</td>
<td>40 yd³</td>
</tr>
<tr>
<td>Riprap</td>
<td>2128 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.
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Permit Site Study Area

Stafford County
LOWER POTOMAC RIVER
Aquia Creek

Project site

Lower Potomac River watershed

Shoreline

Hydrology

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

Application Number: 02-1993
Name: William R. Bunker
Locality: Stafford County
Waterway: Aquia Creek

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

ACTIVITIES

<table>
<thead>
<tr>
<th>PROPOSED</th>
<th>PERMITTED</th>
</tr>
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Comments: __________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________

Certified by: __________________________________________