VIMS Shoreline Permit Application Report #03-2428

APPLICANT: J. HUGH RYAN, JR.
Locality: NORTHUMBERLAND COUNTY
Immediate Waterway: Indian Creek
Watershed: NORTHERN NECK BAYSHORE
Purpose: Erosion Control
Application Type: Wetlands
Site Inspection: 12/15/03
Report Date: 12/17/03

Type of Activity

<table>
<thead>
<tr>
<th>Proposed Extent</th>
<th>Project Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riprap (ft2)</td>
<td>Northumberland County</td>
</tr>
<tr>
<td>Impact Sand/Mud Mixed Flat Community (Type XV) (ft2)</td>
<td>240</td>
</tr>
<tr>
<td>Fill Sand/Mud Mixed Flat Community (Type XV) (ft2)</td>
<td>120</td>
</tr>
<tr>
<td>Total Impacts (ft2)</td>
<td>240</td>
</tr>
<tr>
<td>Total Impacts (Wetlands)</td>
<td>240</td>
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<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>120</td>
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</tbody>
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NOTE
The Virginia Institute of Marine Science (VIMS) recognizes that the regulatory process considers all aspects of a particular project, including socioeconomic factors. This report, however, only addresses marine environmental concerns.

Findings & Recommendations:
A rock revetment is proposed along a forested shoreline with noticeable bank undercutting. The adverse environmental impacts resulting from this project will be minimized if the revetment is hand-stacked along the toe of the existing bank, as proposed.

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

Indian Creek
Northumberland County

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 0.25 0.5 Miles
To Wetlands Board / VMRC: Please indicate Wetlands Board / VMRC action on this sheet and return to VIMS

Application Number: 03-2428
Name: J. Hugh Ryan, Jr.
Locality: Northumberland County
Waterway: Indian Creek

Please check here if this application was approved as proposed _____

Complete the form below if the application was modified.

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>PROPOSED</th>
<th>PERMITTED</th>
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</thead>
<tbody>
<tr>
<td>Riprap (ft)</td>
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<tr>
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Please specify required modifications: _______________________________________________________
_______________________________________________________________________________________
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