VIMS Shoreline Permit Application Report # 01-0842

**APPLICANT:** PRATT, HORACE R.
**Immediate Waterway:** Chesapeake Bay
**Locality:** CITY OF HAMPTON
**Purpose:** Residential Construction
**Application Type:** Beach/Dune
**Site Inspection:** 8/10/01
**Report Date:** 8/20/01

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<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Proposed Extent</th>
<th>Project Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Structure (ft²)</td>
<td>463</td>
<td></td>
</tr>
<tr>
<td>Impact Beach/Dune (ft²)</td>
<td>463</td>
<td></td>
</tr>
<tr>
<td>Total Impacts (ft²)</td>
<td>463</td>
<td>City of Hampton</td>
</tr>
<tr>
<td>Total Impacts (Wetlands)</td>
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<td></td>
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<tr>
<td>Total Impacts (Subaqueous)</td>
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<tr>
<td>Total Impacts (Beach/Dune)</td>
<td>463</td>
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<tr>
<td>Total Fill (ft²)</td>
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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
ATTENTION

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.

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.

Comments:

It is our opinion that the individual and cumulative adverse environmental impacts resulting from a portion of this project warrant careful consideration. The following report summarizes these impacts and, where appropriate, suggests alternatives to minimize these effects.

The project site is a coastal primary sand dune and beach. The landward half of the lot is vegetated with typical dune plant species, such as American beach grass, short dune grass and saltmeadow hay. A well defined primary dune is located in the center of the lot. This vegetated dune acts as a buffer against coastal flooding and serves as a reservoir of sand for the beach.

A three story single family residence is proposed on an open-pile foundation between the road and the crest of the dune. The proposed parking area underneath the house is concrete and fill extending to the rear of the house. A second story deck on pilings is proposed over the crest of the dune. Stairs leading down from the deck are also proposed to access the beach at the rear of the house.

From a marine environmental perspective, the proposal is undesirable. The project will have a significant adverse impact on the structure and function of the existing coastal primary sand dune. Construction of the house, deck and stairs over the dune will result in changes to the wind and water-driven sand deposition patterns. Most of the existing vegetation on the dune will probably not survive the construction and pile driving activities. Without stabilizing vegetation, the dune will be more vulnerable to erosion, wind and wave action.

If construction of a single family residence is permitted, the Coastal Primary Sand Dune Guidelines issued by the Virginia Marine Resources Commission for residential construction should be followed. If encroachment into the primary dune is unavoidable, then alteration of the dune slope during and after construction should be limited to the minimum necessary. The concrete parking area should be designed to avoid encroaching onto the back slope of the dune. A cantilevered second floor deck would reduce the number of pilings and associated impacts into the dune. The beach access steps should be elevated above the dune and extend over the dune vegetation with a landing seaward of the existing dune toe.

All precautions should be taken to retain as much natural vegetation as possible. Disturbed areas of the dune should be replanted in the fall with American beach grass on 18" centers. Each plug should be fertilized with a slow release fertilizer.
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 Hampton
PENINSULA BAYSHORE
Chesapeake Bay

Project site
Peninsula Bayshore 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

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: 01-0842
Name: Pratt, Horace R.
Locality: City of Hampton
Waterway: Chesapeake Bay

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>
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<th>PERMITTED</th>
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Comments: __________________________________________________________________________________
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Certified by: __________________________________________