VIMS Shoreline Permit Application Report # 03-1282

APPLICANT: ELIZABETH R. & WILLIAM A. PERKINS, JR.
Locality: MIDDLESEX COUNTY
Immediate Waterway: Montgomery Cove
Watershed: RAPPAHANNOCK RIVER
Purpose: Other
Application Type: Wetlands, Subaqueous
Site Inspection: 3/20/06
Report Date: 3/23/06

Type of Activity Proposed Extent Project Location

Maintenance dredging (yd³) 180
Impact Subaqueous Bottom (ft²) 600
Impact Sand Flat Community (Type XIV) (ft²) 1345
Impact Saltmarsh Cordgrass Community (Type I) (ft²) 175

Total Impacts (ft²) 2120
Total Impacts (Wetlands) 1520
Total Impacts (Subaqueous) 600
Total Impacts (Beach/Dune) 0
Total Fill (ft²) 0

Center for Coastal Resources Management
P.O. Box 1346
Gloucester Point, VA 23062-1346

(804)684-7380, fax: (804)684-7179, e-mail: http://ccrm.vims.edu/

David L. O’Brien, Director
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:

This project includes dredging approximately 180 cubic yards of material to increase tidal flushing into a salt marsh and pond, but not to improve navigation access. The revised drawings did not specify the methods. Access will apparently be from the upland and the dredged material will be hauled away by trucks, although the disposal site was not reported.

The dredge area includes vegetated and non-vegetated tidal wetlands plus shallow, subaqueous habitat. These adverse impacts are expected to be temporary and localized. The eastern exposure plus the quantity and on-shore movement of sand into this cove indicates the dredge cut will eventually fill in again. There will also be temporary water quality degradation, but a prolonged increase in turbidity is not expected due to the quality of the sand.

Existing marsh vegetation will be impacted if heavy equipment must cross through salt meadow vegetation to access the dredge cut. The use of construction mats should be considered if they would reduce the potential for compaction and other permanent damage to roots and rhizomes.

Even though the proposed impacts should be temporary and localized, it is not exactly clear what the ecological benefits will be, especially if frequent maintenance dredging events will be required. Previous permit records from 2001 and 2003 plus a recent site visit did not reveal any evidence of stagnant conditions, invasive species or other ecological indicators that the existing tidal connection should be increased and artificially maintained. Although the existing tidal exchange is restricted, it appears to be self-maintaining for normal tidal marsh functions as indicated by the dominance of low marsh vegetation inside the pond and a pool large and deep enough to support mosquito-eating fish.

Karen A. Duhring
Marine Scientist
Hydrologic Units (HU) are smaller drainage areas within a watershed. A watershed is the area of land where the surface water drains to a common point.

Wetland Board decisions made by one locality can result in cumulative impacts within a watershed shared with other jurisdictions. Cumulative impact is the aggregate of many small individual impacts, where the total adverse impact may be greater than the sum of its parts.

Resource management decisions in this project's watershed are made by:

Lancaster County
Middlesex County

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<th>Permitted Impacts (square feet)</th>
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Permit Site Study Area

Montgomery Cove
Middlesex County
VIMS Shoreline Permit Application Report # 03-1282

To Wetlands Board / VMRC:
Please indicate Wetlands Board / VMRC action on this sheet and return to VIMS, Wetlands Program, P.O. Box 1346, Gloucester Point, VA 23062

Application Number: 03-1282
Name: Elizabeth R. & William A. Perkins, Jr.
Locality: Middlesex County
Waterway: Montgomery Cove

Please check here if this application was approved as proposed _____

Complete the form below if the application was modified.

<table>
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<th>ACTIVITIES</th>
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<tr>
<td>Impact Saltmarsh Cordgrass Community (Type I) (ft2)</td>
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Please specify required modifications: ______________________________________

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