



DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON, D.C. 20314-1000

October 29, 2001

REPLY TO
ATTENTION OF:

CECW-PM (10-1-7a)

SUBJECT: Smith Island, Somerset County, Maryland

THE SECRETARY OF THE ARMY

1. I submit for transmission to Congress my report on the ecosystem restoration study for Smith Island, Somerset County, Maryland. It is accompanied by the report of the district and division engineers. These reports are in partial response to a resolution of the Committee on Public Works and Transportation of the House of Representatives, dated 28 September 1994. The study resolution requested review of the report of the Chief of Engineers on the Chesapeake Bay, Maryland and Virginia, published as House Document 176, Eighty-eighth Congress, First Session, and other pertinent reports to determine whether modifications of the recommendations contained therein are advisable at the present time, with particular emphasis on providing improvements on Smith Island, Maryland and Virginia, in the interests of navigation, flood control, erosion control, environmental restoration, wetlands protection, and other purposes.

2. Smith Island is part of a chain of islands that form the border between Chesapeake Bay and Tangier Sound and is comprised of 97 percent emergent wetlands. The study area is within the bay's largest contiguous bed of submerged aquatic vegetation (SAV). The decline of SAV is recognized as the primary cause of the decline in waterfowl populations that rely on aquatic habitats for food. Although SAV coverages have been rebounding in the last decade throughout much of the bay, Tangier Sound has not followed this trend. Many factors determine whether or not SAV flourishes: some are local and some are larger scale. The effects of erosion are likely the over-riding cause of SAV decline in the study area. Erosion of Smith Island allows increased wave and current action into shallow-water areas that were previously protected, quiescent, and suitable for SAV growth. The eroded material also adds turbidity and nutrients to the water column that further inhibit light penetration and, thus, SAV colonization and growth. Additionally, the landmasses themselves are high quality emergent wetlands. These wetlands are even more valuable than most since they are part of a remote island with little human disruption. In its entirety, Smith Island has lost over 3,300 acres of wetlands in the last 150 years; and between 1992 and 1998, almost 2,400 acres of SAV have been eliminated.

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3. Study investigations involved understanding and quantifying the impacts of the ongoing process of erosion on habitat degradation. It was determined that the loss of SAV around parts of Smith Island could be reversed by providing shoreline protection. The study team determined that the most cost-effective and reliable way to provide restoration benefits was to construct approximately 19,000 feet of offshore, segmented breakwaters to protect and re-create strategic areas offshore of the Martin National Wildlife Refuge. In many areas, the breakwaters would be back-filled using borrow material from areas located to the west of the island.
4. The project costs are all allocated to the environmental restoration project purpose. Based on November 2000 price levels, the total first cost of the project is \$7,442,000, of which \$4,838,000 would be a Federal cost and \$2,604,000 would be a non-Federal share. The average annual cost of operation, maintenance, repair, replacement, and rehabilitation (OMRR&R) is \$16,000.
5. The criteria of environmental effectiveness and economic efficiency were used to evaluate 49 alternatives at 5 sub-areas, including a no-action alternative at each area. The ecosystem restoration benefits were analyzed based on SAV acreage protected and created, as well as wetlands acreage protected and created. Cost effectiveness and incremental cost analysis techniques identified the plans that were the best investments for producing varying levels of aquatic and wetland habitats. The recommended plan is estimated to annually protect approximately 720 acres and restore approximately 1,400 acres of wetland and SUV habitat. In the area landward of the segmented breakwaters, 23 acres of wetlands also would be created.
6. A monitoring and adoptive management plan was developed to address project effectiveness. The total plan could extend over a 5-year period and could utilize on-site U.S. Fish and Wildlife Service personnel. The estimated \$50,000 cost of the monitoring and adoptive management program has been included as part of the project construction estimate.
7. Washington level review indicates that the recommended plan is technically sound, environmentally and economically justified, and socially acceptable. The plan conforms to essential elements of the U.S. Water Resources Council's Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies and complies with other administration and legislative policies and guidelines. Also, the views of interested parties, including Federal, State and local agencies have been considered.
8. I generally concur in the findings, conclusions, and recommendations of the reporting officers. Accordingly, I recommend implementation of the authorized project in accordance with the reporting officers' plan with such modifications as in the discretion

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required by Section 210 of the Water Resources Development Act of 1996. Project cost sharing for environmental restoration under this act requires a non-Federal sponsor share of 35 percent and a Federal share of 65 percent. Further, the non-Federal sponsor would be responsible for 100 percent of the cost of operation and maintenance of the project. The recommendation is also subject to the non-Federal sponsor agreeing to comply with all applicable Federal laws and policies, including the following requirements:

a. Provide 35 percent of the separable project costs allocated to environmental restoration as further specified below:

(1) Enter into an agreement which provides, prior to execution of a project cooperation agreement for the project, 25 percent of design costs;

(2) Provide, during construction, any additional funds needed to cover the non-Federal share of design costs;

(3) Provide all lands, easements, and rights-of-way, including suitable borrow and dredged or excavated material disposal areas, and perform or assure the performance of all relocations determined by the Government to be necessary for the construction, operation, and maintenance of the project;

(4) Provide or pay to the Government the cost of providing all retaining dikes, waste weirs, bulkheads, and embankments, including all monitoring features and stilling basins, that may be required at any dredged or excavated material disposal areas required for the construction, operation, and maintenance of the project; and

(5) Provide, during construction, any additional costs as necessary to make its total contribution equal to 35 percent of the separable project costs allocated to environmental restoration.

b. For so long as the project remains authorized, operate, maintain, repair, replace, and rehabilitate the completed project, or functional portion of the project, at no cost to the Government, in accordance with applicable Federal and State laws and any specific directions prescribed by the Government.

c. Give the Government a right to enter, at reasonable times and in a reasonable manner, upon land that the local sponsor owns or controls for access to the project for the purpose of inspection, and, if necessary, for the purpose of completing, operating, maintaining, repairing, replacing, or rehabilitating the project.

d. Assume responsibility for operating, maintaining, replacing, repairing, and rehabilitating (OMRR&R) the project or completed functional portions of the project,

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including mitigation features without cost to the Government, in a manner compatible with the project authorized purpose and in accordance with applicable Federal and State laws and specific directions prescribed by the Government in the OMRR&R manual and any subsequent amendments thereto.

e. Comply with Section 221 of Public Law 91-611, Flood Control Act of 1970, as amended, and Section 103 of Public Law 99-662, the Water Resources Development Act of 1986, as amended, which provide that the Secretary of the Army shall not commence the construction of any water resources project or separable element thereof, until the non-Federal sponsor has entered into a written agreement to furnish its required cooperation for the project or separable element.

f. Hold and save the Government free from all damages arising from the construction, operation, maintenance, repair, replacement, and rehabilitation of the project and any project-related betterments, except for damages due to the fault or negligence of the Government or the Government's contractors.

g. Keep and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the project to the extent and in such detail as will properly reflect total project costs.

h. Perform, or cause to be performed, any investigations for hazardous substances that are determined necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9601-9675, that may exist in, on, or under lands, easements or rights-of-way necessary for the construction, operation, and maintenance of the project; except that the non-Federal sponsor shall not perform such investigations on lands, easements, or rights-of-way that the Government determines to be subject to the navigation servitude without prior specific written direction by the Government.

i. Assume complete financial responsibility for all necessary cleanup and response costs of any CERCLA regulated materials located in, on, or under lands, easements, or rights-of-way that the Government determines necessary for the construction, operation, or maintenance of the project.

j. To the maximum extent practicable, operate, maintain, repair, replace, and rehabilitate the project in a manner that will not cause liability to arise under CERCLA.

k. Prevent obstructions of or encroachments on the project (including prescribing and enforcing regulations to prevent such obstructions or encroachments) which might reduce the ecosystem restoration, hinder its operation and maintenance, or interfere with its

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proper function, such as any new development on project lands or the addition of facilities which would degrade the benefits of the project.

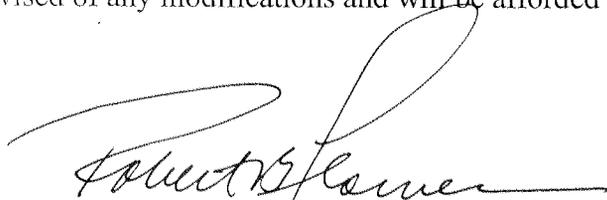
l. Comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public law 91-646, as amended by title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17) and the Uniform Regulations contained in 49 CFR part 24, in acquiring lands, easements, and rights-of-way, and performing relocations for construction, operation, and maintenance of the project, and inform all affected persons of applicable benefits, policies, and procedures in connection with said act.

m. Comply with all applicable Federal and State laws and regulations, including Section 601 of the Civil Rights Act of 1964, Public Law 88-352, and Department of Defense Directive 5500.11 issued pursuant thereto, as well as Army Regulation 600-7 entitled, "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army."

n. Provide the non-Federal share of that portion of the costs of mitigation and data recovery activities associated with historic preservation, that are in excess of 1 percent of the total amount authorized to be appropriated for the project, in accordance with the cost sharing provisions of the agreement.

o. Do not use Federal funds to meet the non-Federal sponsor's share of total project costs unless the Federal granting agency verifies in writing that the expenditure of such funds is authorized.

9. The recommendation contained herein reflects the information available at this time and current departmental policies governing formulation of individual projects. It does not reflect program and budgeting priorities inherent in the formulation of a national civil works construction program nor the perspective of higher review levels within the executive branch. Consequently, the recommendation may be modified before it is transmitted to the Congress as a proposal for authorization and implementation funding. However, prior to transmittal to the Congress, the sponsors, the State, interested Federal agencies, and other parties will be advised of any modifications and will be afforded an opportunity to comment further.



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