



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

REPLY TO
ATTENTION OF:

CECW-PE (10-1-7a)

23 DEC 1996

SUBJECT: Chesapeake and Delaware Canal, Baltimore Harbor Connecting Channels (Deepening), Delaware and Maryland

THE SECRETARY OF THE ARMY

1. I submit for transmission to Congress my report on the study of deep-draft navigation improvements for Chesapeake and Delaware Canal, Baltimore Harbor Connecting Channels (Deepening), Delaware and Maryland. It is accompanied by the report of the division and district engineers. These reports are in final response to a resolution by the Committee on Public Works and Transportation of the House of Representatives on September 8, 1988. This resolution requested the review of existing reports of the Chief of Engineers for the Inland Waterway-Delaware River to Chesapeake Bay, Delaware and Maryland, and the report on Baltimore Harbor and Channels, Maryland, with a view to determining the feasibility of measures to promote and encourage the efficient, economic, and logical development of the channel system serving the Port of Baltimore. The report of the division and district engineers was prepared in cooperation with the Maryland Department of Transportation.
2. Section 101(b)(12) of the Water Resources Development Act (WRDA) of 1996, Public Law 104-303, authorized construction of the Chesapeake and Delaware Canal, Maryland and Delaware, project for navigation and safety improvements, subject to completion of a final report of the U.S. Army Corps of Engineers on or before December 31, 1996, and subject to the conditions recommended in that final report. This report constitutes the final report of the Corps required by WRDA 1996.
3. The plan developed by the district engineer consists of deepening the existing 35-foot mean low water depth navigation channel to a 40-foot mean low water depth and allowance for advanced maintenance, along the alignment and within the existing navigation channel, as presently authorized and constructed. The project also includes the enlargement of the Reedy Point flare, bend widening at Sandy Point, and construction of an emergency anchorage at Howell Point. The plan includes aids to navigation and lands, easements, rights-of-way and disposal areas as required for the initial construction and maintenance of the project. Initial construction dredging quantities are estimated at 18 million cubic yards, and the incremental increase in maintenance quantities is estimated at 16,000 cubic yards annually. Dredged material from project construction will be placed in existing Federal upland sites, an existing state of Maryland owned containment site, and one open water site located in the upper Chesapeake Bay.

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4. As reported by the district engineer, the authorized project, based on October 1995 price levels, is currently estimated at \$82,800,000. The Federal share of these costs, which includes navigation aids of \$90,000, is estimated at \$53,852,000, and the non-Federal sponsor's share is estimated at \$28,948,000. The non-Federal share of project costs includes an additional payment of 10 percent of the construction of the general navigation features required by WRDA 1986 (Public law 99-662). In accordance with Section 201 of WRDA 1996, the cost of diking and other improvements necessary for proper disposal of dredged material is considered a general navigation feature, and cost-shared accordingly. The operation, maintenance, repair, replacement, and rehabilitation (OMRR&R) of the disposal facility would be 100 percent Federal. Average annual benefits and average annual costs, based on a discount rate of 7.625 percent and a 50-year period of analysis, are estimated at \$8,889,000 and \$7,165,000, respectively, including \$82,000 for OMRR&R.

5. Washington level review has concluded that the plan developed by the reporting officers is engineeringly sound. However, while the review found that the entrance flare, bend widening and emergency anchorage are economically justified, questions remain regarding other aspects of the project. Specifically, questions remain about the appropriate channel depth, whether or not recent improvements at other east coast ports would affect traffic projections, supporting documentation for the number of vessels that would realize a time savings for use of the C&D Canal, and economic benefits associated with those vessel time savings. These economic questions must be resolved and a channel depth selected before the design of a project can be initiated. Additionally, as part of the public interest review of the project report, opposition was expressed by citizens in the project area, and concerns were raised regarding potential environmental impacts. These concerns include possible impacts on groundwater quality from the disposal of dredged material, loss of groundwater into the canal, bank erosion, and water quality impacts in the Chesapeake Bay. Environmental concerns will be addressed further during the preconstruction engineering and design phase of the project. The Maryland Port Administration, the States of Delaware and Maryland, interested Federal and local agencies, and other parties who have expressed an interest in the project, will be advised of any modifications and will be afforded an opportunity to comment during the preconstruction engineering and design phase of the project. I have considered the views of interested parties, including Federal, State, and local agencies in formulating my recommendations, and I am confident that improvements to the canal can be designed and implemented in an environmentally sensitive manner.

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6. Federal implementation of the authorized project would be subject to the non-Federal sponsor agreeing to comply with applicable Federal laws and policies. The non-Federal sponsor would be responsible for the following items of local cooperation:

a. Provide, operate, maintain, repair, replace, and rehabilitate, at its own expense, the local service facilities in a manner compatible with the project's authorized purposes and in accordance with applicable Federal and State laws and regulations and any specific directions prescribed by the Federal Government;

b. Provide all lands, easements, and rights-of-way, and perform or ensure the performance of all relocations determined by the Federal Government to be necessary for the construction, operation, maintenance, repair, replacement, and rehabilitation of the general navigation features;

c. Accomplish all removals determined necessary by the Federal Government other than those removals specifically assigned to the Federal Government;

d. Provide, during the period of construction, a cash contribution equal to 25 percent of the total cost of construction of the general navigation features of the project;

e. Repay with interest, over a period not to exceed 30 years following completion of the period of construction of the project, an additional 0 to 10 percent of the total cost of construction of general navigation features depending upon the amount of credit given for the value of lands, easements, rights-of-way, and relocations provided by the non-Federal sponsor for the general navigation features. If the amount of credit exceeds 10 percent of the total cost of construction of the general navigation features, the non-Federal sponsor shall not be required to make any contribution under this paragraph, nor shall it be entitled to any refund for the value of lands, easements, rights-of-way, and relocations in excess of 10 percent of the total cost of construction of the general navigation features;

f. Give the Federal Government a right to enter, at reasonable times and in a reasonable manner, upon property that the non-Federal sponsor owns or controls for access to the general navigation features for the purpose of inspection, and, if necessary, for the purpose of operating, maintaining, repairing, replacing, and rehabilitating the general navigation features;

g. Hold and save the United States free from all damages arising from the construction, operation, maintenance, repair, replacement, and rehabilitation of the project, any betterments,

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and the local service facilities, except for damages due to the fault or negligence of the United States or its contractors;

h. Keep, and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the project, for a minimum of 3 years after completion of the accounting for which such books, records, documents, and other evidence is required, to the extent and in such detail as will properly reflect total cost of construction of the general navigation features, and in accordance with the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments at 32 Code of Federal Regulations (CFR) Section 33.20.

i. Perform, or cause to be performed, any investigations for hazardous substances as 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 that the Federal Government determines to be necessary for the construction, operation, maintenance, repair, replacement, or rehabilitation of the general navigation features. However, for lands that the Federal Government determines to be subject to the navigation servitude, only the Federal Government shall perform such investigation unless the Federal Government provides the non-Federal sponsor with prior specific written direction, in which case the non-Federal sponsor shall perform such investigations in accordance with such written direction;

j. Assume complete financial responsibility, as between the Federal Government and the non-Federal sponsor, 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 Federal Government determines to be necessary for the construction, operation, maintenance, repair, replacement, and rehabilitation of the general navigation features;

k. To the maximum extent practicable, perform its obligations in a manner that will not cause liability to arise under CERCLA;

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, and the Uniform Regulations contained in 49 CFR Part 24, in acquiring lands, easements, and rights-of-way, required for construction, operation, maintenance, repair, replacement, and rehabilitation of the general navigation features, and inform all affected persons of applicable benefits, policies, and procedures in connection with said act;

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m. Comply with all applicable Federal and State laws and regulations, including, but not limited to, Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d), 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;" and

n. Provide a cash contribution equal to 25 percent of the total historic preservation mitigation and data recovery costs attributable to commercial navigation that are in excess of one percent of the total amount authorized to be appropriated for commercial navigation.



JOE N. BALLARD
Lieutenant General, USA
Chief of Engineers