
11. RECOMMENDATIONS

I have reviewed and evaluated, in light of the overall public interest, the documents concerning the proposed action, as well as the stated views of other interested agencies and concerned public related to the expansion of Poplar Island. I have reviewed alternative modifications to the existing Poplar Island Environmental Restoration Project (PIERP) to increase habitat restoration, to provide additional dredged material capacity, and to support other project enhancements. This study was conducted under the existing Poplar Island project authorization, Section 537 of the Water Resources Development Act (WRDA) 1996, as amended, which allows the U.S. Army Corps of Engineers (USACE) to protect, restore, and create aquatic and ecologically related habitat.

USACE guidance (Policy Guidance Letter No. 40) specifies that the expansion of existing sites should be considered for placement capacity before new placement sites are proposed. A reassessment of a previously authorized project is documented in a General Reevaluation Report (GRR) when a significant period of time has elapsed or if conditions have changed since the initial feasibility study was completed (ER 1105-2-100). The results of the GRR may affirm the previous plan; reformulate it, as appropriate; or find that no plan is currently justified. Actions associated with a GRR are subject to compliance with the National Environmental Policy Act (NEPA) of 1969 [40 Code of Federal Regulation (CFR) Parts 1500-1508], as amended, and the regulations of the President's Council on Environmental Quality (CEQ). The nature and scope of the changes to the environmental effects of the project identified as a result of new information, of changed conditions, or changes to the project determine the appropriate type of NEPA documentation.

As part of the reevaluation for the existing project, I have given consideration to the relevant aspects of public and agency interest, including environmental, social, economic, and engineering concerns. The expansion of the Poplar Island Restoration Project was one of the actions specifically recommended by the USACE-Baltimore District's, *Dredged Material Management Plan (DMMP) and Tiered Environmental Impact Statement* (USACE, 2005a) to meet the projected dredged material shortfall. The report projected that the Port of Baltimore community would face a dredged material placement shortfall starting in 2009, related to the statutory closure of the Hart-Miller Island Containment Facility in 2009, the closure of the Pooles Island open water sites in 2010, and other restrictions imposed by the State of Maryland on open water placement.

A lack of placement capacity would reduce or eliminate necessary maintenance and modification of the Baltimore Harbor and Channels and the Inland Waterway Delaware River to Chesapeake Bay, Chesapeake and Delaware (C&D) Canal Federal navigation projects, which would have an adverse impact on the regional and national economy. The recommended plan proposed herein represents a cost-effective and environmentally beneficial plan to provide approximately 28 million cubic yards (mcy) of additional placement capacity at Poplar Island and extend the life of the project by approximately seven years. The extended life cycle at PIERP will bridge the gap between closure of Pooles Island and the

anticipated completion of another large placement site. Without the expansion, overloading of the PIERP (starting in 2010) would shorten the estimated capacity and lifespan of the existing project and lead to inefficient use of the site.

On the basis of these evaluations, and with the support of various resource agencies, I recommend a northern lateral expansion of approximately 575 acres and a 5-ft raising of the existing western upland Cells 2 and 6 at the PIERP. The 575-acre placement site would consist of approximately 165 acres of wetland habitat (29 percent), 270 acres of upland habitat (47 percent), and an open-water embayment of approximately 130 acres (24 percent). The inclusion of an open-water embayment within the footprint of the lateral expansion will provide semi-protected fisheries habitat adjacent to wetland and upland cells, and will increase the trophic interaction between the wetland cells and the open-water embayment within the lateral expansion. The bottom habitat of the open-water embayment would remain essentially undisturbed, preserving the existing bathymetry and benthic habitat. In addition, the construction of small rock reefs within the open-water embayment will provide cover and enhance fish habitat. The recommended northern lateral expansion will have a footprint of disturbance of approximately 470 acres based on the maximum outward extent of the toe dike construction.

I also recommend additional consultation with Federal and State agencies [U.S. Environmental Protection Agency (USEPA), U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), Maryland Department of Natural Resource (MDNR), and Maryland Department of the Environment (MDE)] and the Maryland Port Administration (MPA) (the non-Federal sponsor) during the next design phase of this project to optimize specific features of the proposed open-water embayment, including: the size of the embayment; location within the lateral expansion (eastern vs. western portion); stability and function of the embayment; hydrodynamics and hydraulics; protection of wildlife; access for the public, commercial watermen, and recreational fishermen; and long-term maintenance.

In addition to lateral and vertical expansion, I also recommend implementation of the following actions to complete the existing PIERP project: raising the existing temporary upland dikes from +23 ft mean lower low water (MLLW) to +25 ft MLLW to allow for placement and consolidation of the dredged material necessary to reach the original upland target elevation of 20 feet; dredging of a new southern access channel and turning basin to accommodate the closure of Cell 6; restoration of internal borrow sites within wetland Cell 4; construction of temporary cross dikes within wetland Cell 5; and constructing new discharge, pier, and bulkhead structures to accommodate the closure of Cell 6. These actions will require borrow of sand from outside the existing project footprint, but are necessary actions to successfully complete the existing PIERP.

As part of the GRR/Supplemental Environmental Impact Statement (SEIS), potential recreational/educational opportunities were evaluated with respect to compatibility with the PIERP's ecosystem restoration purpose and objectives. Only passive recreation components (including public tours, nature trails, kiosks, observation areas, picnic areas, research and

volunteer opportunities, and habitat enhancements for fish and birds) were considered feasible for implementation at the PIERP because of the need to protect the habitat restoration goals of the project. Recreational and educational opportunities would be limited to areas of the PIERP with controlled access. I recommend that these opportunities be further evaluated with appropriate stakeholders, and that recreational and educational opportunities be implemented at PIERP. As per USACE guidance, the recreational/educational features will not exceed 10 percent of the total project cost.

Lastly, I recommend that the existing project authorization and Project Cooperation Agreement (PCA) be amended to include the placement of dredged material from the southern approach channels to the C&D Canal. Dredged material from the southern approach channels to the C&D Canal will continue to be placed at Pooles Island open water sites until the mandatory closure in 2010 or until the open water sites reach the allowable capacity of 7.5 mcy (whichever occurs first). In addition, I recommend that dredged material from other Federal navigation channels be placed at the PIERP if the material undergoes and passes the required sediment quality evaluations, and if other local beneficial uses and placement options are not feasible in the vicinity of the Federal navigation projects. Dredged material from Baltimore Harbor/Patapsco River west of the North Point/Rock Point line will not be placed at Poplar Island. Although USACE policy [Policy Guidance Letter No. 47] allows non-Federal entities to utilize Federal placement facilities, acceptance of material from other non-Federal (i.e., State, county, and local) dredging projects at the PIERP is not part of the recommended plan because of concerns expressed by Federal and State regulatory and resource agencies.

Overall, this project will restore 575-acres of remote island habitat (consisting of a minimum of 50 percent wetlands and open-water embayment habitat) at Poplar Island, protect Jefferson and Coaches Island from some additional shoreline erosion, further protect and create quiescent conditions in Poplar Harbor for submerged aquatic vegetation (SAV) recovery, and enhance diamondback terrapin habitat, waterbird habitat, and fisheries habitat. Impacts to environmental and cultural resources and quality of human environment have been evaluated and are documented herein as required by the NEPA of 1969. The recommended plan is in full compliance with the NEPA of 1969, the Clean Water Act of 1972 (as amended), the Endangered Species Act of 1973, the Fish and Wildlife Coordination Act of 1958 (as amended), the Clean Air Act of 1972 (as amended), and Section 106 of the National Historic Preservation Act (NHPA) of 1966.

The total, fully-funded project cost for the PIERP is an estimated \$715.7 million. The fully funded cost for the PIERP, as currently authorized, is \$401.5 million; and the estimated fully funded cost for the recommended plan for the lateral and vertical expansion of the PIERP is \$314.2 million. The cost for the recommended plan for the lateral and vertical expansion of the PIERP is to be cost-shared \$235.7 million for the Federal government (75 percent) and \$78.5 million for the non-Federal sponsors (25 percent). The State of Maryland, as represented by the MPA is the Non-Federal sponsor of the PIERP, under an existing PCA, and the MPA has contributed approximately \$59.3 million in cash and in-kind services to

support the project, to date. It is anticipated that the existing PCA would be amended to include the expansion of the PIERP.

In the future, if or when the USACE is in need of additional placement capacity, we will again be required to assess expansion/maximization of existing sites first. Based on my evaluation of this project, however, I do not believe that further vertical expansion (additional raising of the upland dikes) would result in additional environmental benefits to the project. In addition, lateral expansion in the future is unlikely based on the existing environmental and engineering constraints at the site. The current recommended plan maximizes the benefits of a lateral and vertical expansion. Further study of additional environmental restoration in this area will not, in my current assessment, lead us to recommend future expansion scenarios at the PIERP.

The recommendations contained herein reflect the information that is currently available at this time and current USACE policies governing the formulation of individual projects. The recommendations do not reflect program budgeting priorities inherent in the formulation of a national Civil Works construction program nor the perspective of higher-level reviews within the Executive Branch. Consequently, the recommendations may be modified before they are transmitted to the Congress as proposals for authorization and implementation funding. However, prior to transmittal to the Congress, the non-Federal sponsor, interested state and Federal agencies, and other parties will be advised of any modifications and will be afforded an opportunity to comment further.



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