DEPARTMENT OF THE ARMY
CHIEF OF ENGINEERS
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WASHINGTON, DC 20310-2600

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SUBJECT: Upper Ohio Navigation Study, Pennsylvania

12 Sep 2016

THE SECRETARY OF THE ARMY

1. I submit for transmission to Congress my report on inland navigation along the Upper Ohio River, Allegheny and Beaver Counties, Pennsylvania. It is accompanied by the report of the Pittsburgh District Engineer and the Great Lakes and Ohio River Division Engineer. This report is in final response to a resolution by the Committee on Public Works of the United States Senate, adopted 16 May 1955; a resolution adopted by the Committee on Public Works and Transportation and Infrastructure of the United States House of Representatives, adopted 11 March 1982; and Section 216 of Public Law 91-611, 1970. The Senate requested "that the Board of Engineers for Rivers and Harbors created under Section 3 of the River and Harbor Act, approved June 13, 1902, be, and is hereby requested to review the reports on the Ohio River published in House Document No. 306, Seventy-fourth Congress, First Session, House Committee on Flood Control Document No. 1, Seventy-fifth Congress, First Session, and related reports, with a view to determining whether any modifications in the present comprehensive plan for flood control and other purposes in the Ohio River basin is advisable at this time." The House of Representatives resolution requested "that the Board of Engineers for Rivers and Harbors established by the Section 3 of the River and Harbor Act approved 13 June 1902, is hereby requested to review the reports on the Ohio River published as House Document No. 492, Sixtieth Congress, First Session, and House Document No. 306, Seventy-fourth Congress, First Session, and other pertinent reports with a view to determine whether any modification in the authorized plan for modern barge navigation and other purposes on the Ohio River is advisable at this time with particular emphasis on need for improvement or replacement of Emsworth Locks and Dam, Ohio River Mile 6.1; Dashields Locks and Dam, Ohio River Mile 13.3; Montgomery Island Locks and Dam, Ohio River Mile 31.7; and other locations where obsolete or inadequate facilities impede the orderly flow of commerce." Section 216 of the 1970 Flood Control Act authorizes the Secretary of the Army to review the operation of projects constructed by the Corps of Engineers when found advisable due to significantly changed physical, economic, or environmental conditions.

The Emsworth Locks and Dam, Dashields Locks and Dam, and Montgomery Locks and Dam were authorized by the River and Harbor Act of 18 July 1918 (P.L. 65-200). Project construction of Emsworth was completed in 1922, Dashields in 1929, and Montgomery in 1936. Preconstruction engineering and design activities, if funded, would be continued under the authority provided by the resolutions cited above.

2. The reporting officers recommend authorizing a plan to construct a new 110 feet wide x 600 feet long lock chamber at each of Emsworth, Dashields, and Montgomery Locks and Dams in place of the existing auxiliary river chambers. The existing land chambers would be retained in a Reactive Maintenance (fix-as-fails) mode. Modifications to the gated Emsworth Main Channel Dam and Montgomery Dam would be necessary to accommodate the new, wider lock chambers. Dashields Dam would be shortened and modified by addition of a gated segment.

3. One of my priorities remains that of accelerating the transition to more standard and interoperable components across the portfolio of locks and dams that comprise the Inland Marine Transportation System. As our districts and the Inland Navigation Design Center work together toward that objective across existing lock and dam assets, the Corps will work to maximize standard and interoperable components during the design phase of the three locks and dams that comprise the recommended plan.

4. Unavoidable environmental impacts would be fully mitigated for by placement of fish habitat structures in approximately three acres of an embayment located upstream of Montgomery Locks and Dam, and revegetation of the upland construction support areas. The aquatic mitigation features would be implemented concurrent with project construction and will be monitored to ensure their performance for five years and at the conclusion of the project construction period. The upland mitigation features would be implemented at the conclusion of the project construction period and monitored for up to five years to ensure their performance. The recommended plan is the national economic development plan. All features are located within the Commonwealth of Pennsylvania.

5. The costs of all project features are shared between the Inland Waterways Trust Fund (50%) and the General Fund of the United States Treasury (50%). Using October 2015 price levels, the estimated total first cost of the plan is $2,648,471,000. The federal share of the total project first cost would be $1,324,235,500 and the Trust Fund share would be $1,324,235,500. The total cost includes $885,100 for environmental mitigation, $242,900 for environmental monitoring, and $204,700 for adaptive management, including contingency. Based on a 3.125-percent discount rate and a 50-year period of analysis, the incremental equivalent average annual costs of the project are $95,000,000. The incremental equivalent average annual benefits are $350,500,000 with net incremental benefits of $255,500,000. The benefit-cost ratio is 3.7 to 1.

6. I concur in the findings, conclusions, and recommendations of the reporting officers. Accordingly, I recommend that the plan to maintain safe, efficient, reliable, and sustainable navigation on the Upper Ohio River in Pennsylvania be authorized in accordance with the reporting officers' recommended plan at an estimated cost of

$2,648,471,000 with such modifications as in the discretion of the Chief of Engineers may be advisable. My recommendation is subject to cost sharing, financing, and other applicable requirements of federal and state laws and policies.

7. 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 or 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 Congress, the Inland Waterways Users Board, the state, interested federal agencies, and other parties will be advised of any significant modifications and will be afforded an opportunity to comment further.

TODD T. SEMONITE
Lieutenant General, U.S. Army
Chief of Engineers