



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-1000

CECW-NAD

19 October 2020

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)

SUBJECT: Atlantic Intracoastal Waterway Deep Creek Bridge Replacement, Chesapeake, Virginia Final Post-Authorization Change Report, dated July 2020

1. Purpose. Request your review and approval of the Atlantic Intracoastal Waterway Deep Creek Bridge Replacement, Chesapeake, Virginia final post-authorization change report (PACR). The PACR documents the need to modify the authorized total project cost to \$59,500,000.

2. Post Authorization Change. The existing Deep Creek bridge was built in 1934 and currently is owned and maintained by the U.S. Army Corps of Engineers (USACE). In 2003, USACE completed a study of the bridge under Section 216 of the Flood Control Act of 1970 (Public Law 91-611) (33 USC 509a), which authorizes the Secretary of the Army, acting through the Chief of Engineers, to review existing USACE projects and to make recommendations to Congress on the advisability of modifying the structures or their operation. Consistent with the 3 March 2003 Report of Chief of Engineers, the bridge replacement was authorized by Section 1001(44) of the Water Resources Development Act (WRDA) of 2007 (Public Law 110-114) at a total cost of \$37,200,000.

The revised estimated total project first cost (without inflation) is \$59,500,000 (October 2020 price levels). There are no changes in project location, purpose, or scope. The maximum project cost for the authorized project, adjusted for allowable inflation in accordance with Section 902 of WRDA 1986, is \$59,775,000 (October 2020 price levels). The revised fully funded total project cost exceeds the Section 902 limit.

3. Background.

a. The Deep Creek bridge is owned, operated, and maintained by USACE. In the absence of the bridge replacement project at Deep Creek, the operation and maintenance costs will continue to be totally borne by the Federal Government, as would all succeeding life cycle rehabilitations and replacements.

b. In a letter dated 21 March 1996, the City of Chesapeake requested that the Norfolk District consider the need for and feasibility of modifying or replacing this structure in conjunction with City and Commonwealth of Virginia's plans to improve the road system in this area. The City of Chesapeake's 1996 letter also stated that the City would assume ownership and subsequent operation and maintenance of a replacement

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bridge. A feasibility study was completed, a Report of the Chief of Engineers was signed on 3 March 2003, and the project was authorized in 2007.

c. USACE and City of Chesapeake executed a project partnership agreement (PPA) on 19 August 2016 to replace the bridge. As part of the PPA, the City of Chesapeake agreed to voluntarily contribute \$20 million toward the cost of construction. In addition, following the completion of construction, the PPA requires the City of Chesapeake to assume ownership of the bridge and responsibility for project operation, maintenance, repair, rehabilitation, and replacement at its own expense.

d. The project would replace the existing two-lane traverse with a five-lane bridge spanning the Dismal Swamp Canal in Chesapeake, Virginia, at 100 percent federal cost. At the October 2020 price level, the estimated total first project cost is \$59,500,000. The fully funded project cost is \$61,427,000. The USACE Walla Walla District Cost Engineering Mandatory Center of Expertise completed a cost and schedule risk analysis for the project and certified the revised total project cost estimate on 7 October 2020.

4. Updated Project Cost and Benefits. An economic update was completed for the subject PACR. The project continues to be economically justified, with a benefit-to-cost ratio of 2.84 at a 2.5 percent discount rate. The total average annual cost of the project is \$2.5 million and the total average annual net benefits are \$4.6 million. The cost increase is due to 1) increased vender quotes, labor costs, and necessary design changes; 2) updated real estate costs reflecting recently received appraisals and actual costs of agreements signed by property owners; 3) updated utility relocation costs with current contract prices from utility companies; 4) increased demand and material tariffs; and 5) anticipated increases in construction costs once construction begins.

5. Project Cost Sharing. The construction of the recommended plan is authorized at 100 percent federal cost. However, as noted above, the City of Chesapeake has signed a PPA under which it agreed to voluntarily contribute \$20 million in non-federal funding toward construction. Once construction is complete, the non-federal sponsor is required to assume ownership and sole responsibility for future operation, maintenance, repair, rehabilitation, and replacement of the project.

6. Environmental Considerations. The PACR did not require additional coordination under the National Environmental Policy Act. There are no major changes to the project's environmental circumstances or consideration since the bridge replacement was authorized; therefore, the project is still consistent with the April 2001 Environmental Assessment and Finding of No Significant Impact.

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7. Conclusion. I have reviewed the PACR and concur with the increase of the authorized cost to \$59,500,000 (October 2020 price level). I recommend that the enclosed PACR be transmitted to Congress as a basis for increasing the authorized project cost of the Atlantic Intracoastal Waterway Deep Creek Bridge Replacement Project.

A handwritten signature in black ink, appearing to read "Alvin B. Lee". The signature is written in a cursive style with some loops and flourishes.

ALVIN B. LEE
Director of Civil Works

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