



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

CECW-NAD

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)

SUBJECT: Washington, D.C. and Vicinity Flood Risk Management Project Final Post Authorization Change Report (PACR)

1. Purpose. Request your review and approval of the subject PACR. The PACR documents the need to modify the authorized total project cost to \$16,236,000.
2. Post Authorization Change. The project was originally authorized under Section 5 of the Flood Control Act of 1936 (Public Law (PL) 74-738). With limited available funding, initial construction of a concrete retaining wall and earth embankment levee just north of the Lincoln Memorial Reflecting Pool was completed in 1938. During a flood event, sandbags and earthen fill were used to form a temporary closure across 17<sup>th</sup> Street, at 23<sup>rd</sup> Street and Constitution Avenue, and at Fort McNair (2<sup>nd</sup> and P Streets, SW). Post-authorization modifications were subsequently authorized under Section 301(a)(4) of the Water Resources Development Act (WRDA) of 1996 (PL 104-303) and Section 309 of WRDA 1999 (PL 106-53).
  - a. In May 1992, a General Design Memorandum presented plans for all components of the project to fully meet the authorized level of protection. Authorization was received for the recommended design modifications in WRDA 1996. A 1998 post-authorization change report provided updated project costs and benefits, which resulted in the WRDA 1999 authorized project cost of \$5,965,000 (October 1997 price levels). An Engineering Documentation Report was prepared in May 2010 to document a design change for the closure structure at 17<sup>th</sup> Street. Utilizing American Reinvestment and Recovery Act funds, the 17<sup>th</sup> Street closure structure was constructed in 2014.
  - b. This final PACR documents project modifications required to meet flood risk management criteria developed post-Hurricane Katrina in 2005, as well as FEMA levee accreditation requirements, and updates costs and the economic analysis for the project. The revised estimated total project first cost (without inflation) is \$16,236,000 (October 2020 price levels). There are no changes in project location or purpose. The maximum project cost for the authorized project, adjusted for allowable inflation in accordance with Section 902 of WRDA 1986, is \$10,954,000 (October 2020 price levels). The revised fully funded total project cost exceeds the Section 902 limit.

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### 3. Background.

a. The project would raise the existing 2,450-linear foot Potomac Park levee to a consistent elevation of 18.7 feet NAVD88 to meet a one-foot freeboard requirement; convert the 23<sup>rd</sup> Street and Constitution Avenue temporary closure into a permanent earthen enclosure; and construct a drainage control structure between the eastbound and westbound ramps of the Theodore Roosevelt Bridge at Constitution Avenue. The Fort McNair closure would continue to be operated as a temporary closure structure.

b. At the October 2020 price level, the estimated total project first cost is \$16,236,000. The fully funded project cost is \$16,634,000. The U.S. Army Corps of Engineers (USACE) 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 1 September 2020.

4. Updated Project Costs and Benefits. An economic update was completed for the subject PACR. The project continues to be economically justified, with a remaining benefit-to-cost ratio of 14.3 at a 2.50 percent discount rate. The total remaining average annual cost of the project is \$172,300 and the total remaining average annual net benefits are \$2,283,000. The cost increase is due to: design changes needed based upon post-Hurricane Katrina design criteria and Federal Emergency Management Agency levee accreditation requirements; delays in project implementation; and updated costs.

5. Project Cost Sharing. This project is authorized for construction by USACE at full Federal cost. Upon completion of construction, the National Park Service (NPS) owns and is responsible for the operation, maintenance, repair, replacement, and rehabilitation (OMRR&R) of the closures on the National Mall, and the District of Columbia owns and is responsible for OMRR&R of the closure adjacent to Fort McNair.

6. Environmental Considerations. USACE completed a Supplemental Environmental Assessment in 2020 to update and evaluate potential effects that may result from constructing the flood risk management improvements on the National Mall and Memorial Park (NAMA). The NPS and the National Capital Planning Commission served as cooperating agencies in accordance with the National Environmental Policy Act. A 2018 Programmatic Agreement was executed among USACE, NPS, National Capital Planning Commission, the Commission of Fine Arts, the Advisory Council on Historic Preservation, and the Washington, D.C. Historic Preservation Office to ensure

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the cultural and historic resources of the NAMA are not adversely affected by the federal action. The recommended plan would not have significant effects on the human and natural environment; therefore, a Finding of No Significant Impact has been prepared.

7. Conclusion. I have reviewed the PACR and concur with the increase of the authorized cost to \$16,236,000 (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 Washington, D.C. and Vicinity Flood Risk Management Project.

ALVIN B. LEE  
Director of Civil Works