



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

CECW-SWD

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)

SUBJECT: Corpus Christi Ship Channel, Texas, Deepening and Widening and Barge Shelves, Post Authorization Change Report (PACR), dated March 2020

1. Purpose. Request your review and approval of the Corpus Christi Ship Channel (CCSC), Texas, Deep-Draft Navigation and Ecosystem Restoration Project, PACR, which documents the need to modify the project authorization to increase the authorized cost to \$676,010,000.

2. Post Authorization Change. Section 1001(40) of the Water Resources Development Act (WRDA) of 2007 originally authorized the project at a total cost of \$188,110,000. Section 7003 of the Water Resources Reform Development Act of 2014 authorized the project at a total cost of \$353,231,000.

The revised estimated total project first cost (without inflation), is \$676,010,000 (October 2019 prices). The revised cost is the result of increases in costs for the construction bidding climate and compressed implementation schedule. There are no changes in project location, purpose, or scope. The maximum cost for the authorized project, adjusted for allowable inflation in accordance with Section 902 of the WRDA of 1986, is \$493,199,000 (October 2019 price levels); the revised total project cost exceeds the Section 902 limit.

3. Background.

a. The authorized project consists of deepening and widening of the CCSC from 47 feet to 54 feet, construction of Barge Shelves adjacent to the open bay portion of the CCSC, extension of the La Quinta Channel at a depth of 41 feet, and construction of two separate ecosystem restoration features. After completion, the components will generate significant savings with reductions in shipping costs. The restoration components will protect and restore habitats of national significance.

b. A Project Partnership Agreement (PPA) with the non-federal sponsor, the Port of Corpus Christi Authority, for construction of the La Quinta Channel Extension and Ecosystem Restoration Features was executed on 13 October 2009. Funds to initiate construction of the La Quinta Channel Extension and Ecosystem Restoration components were appropriated in Fiscal Year 2009. As of 2013, construction for both of these separable elements was complete. Remaining construction includes the separable elements for deepening and widening of the CCSC and construction of the

CECW-SWD

SUBJECT: Corpus Christi Ship Channel, Texas, Deep-Draft Navigation and Ecosystem Restoration Project, Post Authorization Change Report, dated February 2020

Barge Shelves. A PPA for the main channel deepening and widening and barge lanes was executed on 9 September 2017.

c. At the October 2019 price level, the estimated total project first cost is \$676,010,000. The U.S. Army Corps of Engineers (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 by memorandum dated 27 February 2020. By memorandum dated 18 February 2020, the Southwestern Division Director, Programs Directorate, granted an exclusion from the requirements to conduct a Type I Independent External Peer Review.

4. Updated Project Costs and Benefits. A limited economic update was completed for the subject PACR. The project continues to be economically justified, based principally on a reduction in shipping costs, and continues to provide ecosystem restoration benefits. At the October 2019 price level, a 2.750 percent discount rate, and a 50-year period of economic analysis, the estimated total equivalent annual costs for the project are \$35,317,000, the remaining total equivalent annual costs are \$30,413,000, and total equivalent annual benefits are \$107,457,000. Total net benefits are \$72,141,000, while the remaining net benefits are \$77,044,000. The total project benefit-cost-ratio is 3.04 to 1 and the Remaining-Benefit-Remaining-Cost ratio is 3.53. The change in cost is not due to any changes in the overall scope of the project, project purpose, project location, local cooperation agreements, or as a result of any modifications required by law. Instead, the increases in cost are due to several factors, as follows:

a. Cost Account 12 – Navigation, Ports & Harbors increased approximately \$247 million due to increases in estimated dredged material volumes, labor & equipment costs, shorter construction durations (affecting bidding climate), environmental windows limiting use of hopper dredges, improved geotechnical data, increase in mobilization/demobilizations, cost management of dredged material, and increased pumping distances;

b. Cost Account 16 – Bank Stabilization increased approximately \$24 million due to a design change from geotubes to riprap and inclusion of costs for Beneficial Use Site 8; and

c. Cost Account 30 – Planning, Engineering and Design and Cost Account 31 – Construction Management increased approximately \$2 million and \$16 million, respectively. These accounts are percentages of the actual contract amount; therefore, since the contracts have increased, the costs associated with these accounts have increased.

CECW-SWD

SUBJECT: Corpus Christi Ship Channel, Texas, Deep-Draft Navigation and Ecosystem Restoration Project, Post Authorization Change Report, dated February 2020

5. Project Cost Sharing. In accordance with the cost sharing provisions of Section 103(a) of WRDA 1986, the costs for deep-draft navigation projects are shared differently depending on the depth of the modification. The cost for constructing the barge lanes is shared at 90 percent federal and 10 percent non-federal. The cost for widening the main channel of the CCSC is shared at 75 percent federal and 25 percent non-federal to a depth of -50 feet and 50 percent federal and 50 percent non-federal at depths greater than -50 feet. The federal share of the project first cost is estimated to be \$403,000,000 and the non-federal share is estimated at \$273,010,000. USACE will be responsible for the operation, maintenance, repair, replacement, and rehabilitation of the Barge Shelves after construction, at a cost currently estimated at \$16,000 per year. The additional annual cost of operation and maintenance for this recommended plan is estimated to be \$5,580,000. In accordance with Section 101(b)(1) of WRDA 1986, as amended (33 U.S.C. 221 I(b)(1)), the non-federal sponsor will be responsible for an amount equal to 50 percent of the cost of the operation and maintenance of the project for depths deeper than -50 feet Mean Lower Low Water.

6. Environmental Considerations. The PACR, as it only proposes an increase in the total project cost, does not require any additional coordination under the National Environmental Policy Act. There have also been no major changes to the project's environmental circumstances or considerations since the project was authorized, and the project is still consistent with the Record of Decision signed in 2003.

7. Conclusion. I have reviewed the PACR and concur with the increase of the authorized cost to \$676,010,000 (October 2019 price level). I recommend that the enclosed PACR be transmitted to Congress as a basis for increasing the authorized project cost of the CCSC.

Encl

ALVIN B. LEE
Director of Civil Works