DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
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MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)

SUBJECT: Port of Long Beach Deep Draft Navigation Project, Los Angeles County, California, Validation Report

1. Purpose. This memorandum transmits the enclosed Port of Long Beach (POLB) Deep Draft Navigation, Los Angeles County, California, post-authorization change report (validation report) for your review and concurrence. As authorized by Water Resources Development Act 2022, the POLB Project improves navigation efficiency and safety by deepening the Approach Channel, Main Channel, West Basin, and Pier J Approach. The POLB is a nationally critical gateway, and the Project has strong economic benefits, in addition to benefits to national security, energy independence, and supply chain resilience. The validation report presents a revised cost estimate and documents design refinements to the authorized project. The validation report provides justification for increasing the authorized total project first cost from $189,308,000 (authorized cost of $175,787,000 adjusted to fiscal year (FY) 2026 price levels) to $255,811,000 (FY 2026 price levels). The primary driver of the Project cost increase is attributed to a 2024 critical update of the Cost Engineering Dredge Estimating Program (CEDEP) revising nationwide dredge productivity, contractor markups, market conditions in labor, and fuel pricing assumptions. The Project's WRDA 2022 authorized cost relied on the 2021 CEDEP model, which did not accurately forecast the unprecedented consolidation and inflation within the maritime sector. The Project cost increase exceeds the cost limit imposed by Section 902 of the Water Resources Development Act of 1986, as amended (33 U.S.C. § 2280), requiring authorization. The validation report further describes recommended design refinements which are within the Project's existing Chief's discretionary authority. With an updated benefit-to-cost ratio of 2.9, the Project remains economically justified.

2. Authorized Project.

a. The Project was authorized for construction in Section 8401(1) of the Water Resources Development Act of 2022 (Public Law 117-263). The authorized Project's general navigation features consist of the following:

1) Deepening the Approach Channel from -76 feet to -80 feet mean lower low water (MLLW);

2) Bend easing within portions of the Main Channel to -76 feet MLLW;

3) Constructing an approach channel to Pier J South to -55 feet MLLW;

4) Constructing a turning basin outside of Pier J South to -55 feet MLLW;

5) Deepening the West Basin from -50 feet to -55 feet MLLW;

6) Dredged material placement at a nearshore beneficial use placement site and two ocean dredged material disposal sites designated by the United States Environmental Protection Agency; and

7) Constructing a substation at Pier J to power the dredges, thereby mitigating for impacts to air quality.

b. To fully realize the benefits of the general navigation features, the non-federal sponsor will construct local service facilities. The local service facilities include deepening Pier J Basin and berths J266-270 within the Pier J South Slip to -55 feet MLLW. Structural improvements to the Pier J breakwaters are necessary to accommodate deepening of the Pier J Slip (local service facility) and approach channel (general navigation feature) to -55 feet MLLW.

3. Post-Authorization Change. The Project is currently in the pre-construction engineering and design phase with an approximate 50 percent design maturity. Federal construction of the Project is expected to begin in 2028. Non-federal construction has started under the 2025 in-kind memorandum of understanding. While the objectives of the authorized project remain unchanged, design refinements have increased project costs above the Section 902 limit, therefore requiring congressional authorization.

a. Cost Increase. Section 8401(1) authorized the navigation improvement Project at $175,787,000 (FY 2023 price levels). At FY 2026 price levels, the authorized first cost is $189,308,000 and the estimated cost escalated through construction is $203,654,000. Adding 20 percent of the authorized Project results in a Section 902 limit of $238,811,000. The total project first cost is now estimated at $255,811,000 (FY 2026 price levels; a $66,503,000 increase from the prior authorized cost), with a fully funded cost of $275,197,000, exceeding the Section 902 limit by $36,386,000.

b. Design refinements increasing overall project costs.

1) Updated unit prices for dredging (approximately $37.1 million increase). Dredging unit prices were adjusted based on the 2024 updated CEDEP, that was revised to reflect the current market conditions to include recent, higher-than-anticipated bids for all USACE dredging projects, assumptions in productivity, contractor markups, labor, and fuel. The USACE Cost Mandatory Center of Expertise (Cost MCX) has validated that a project's cost increases automatically by 25 percent for hopper dredges and 20 percent for mechanical dredges when run through the updated 2024 model. Of

the Project's 35 percent total project first cost increase, 20 percent is attributed to the application of the updated CEDEP. This is aligned with Cost MCX expectations.

2) Conservative material placement and disposal assumptions and refined dredge quantities (approximately $10.0 million increase).

i. Conservative Material Placement / Disposal Assumptions: This Project assumes placement of compatible dredged material in the Surfside-Sunset Nearshore Placement Site, the Pier G Slip Fill, and the remaining volume in LA-2 and LA-3 ocean disposal sites. While three additional potential beneficial use placement sites were evaluated for possible future use, additional engineering, cost efficiency and environmental coordination is needed before actual use. Disposal material without a specified beneficial use placement site will be transported to approved LA-2 and LA-3 disposal sites, at an increased cost due to hauling distance.

ii. Refined Dredge Quantities: As part of advancing design, the volume of dredged material has slightly increased overall by 9,000 cubic yards (cy). In response to pilot safety concerns, identified during a 2024 ship simulation study, the West Basin dredge footprint has increased by 1,500,000 square feet and an additional 788,000 cubic yards cy dredge material. This design refinement ensures safe navigability and increased efficiency. Based on a July 2023 hydrographic survey, the amount of dredged material has decreased in the Pier J and the Approach Channel. When summed up, the amount of dredged material during construction has increased 9,000 cy from the authorized amount of 7,392,000 cy to 7,401,000.

3) Increased Labor Costs. The costs of Planning, Engineering, and Design and Construction Management accounts increase commensurate with increased costs because they are a percentage of the construction costs (approximately $9.5 million increase); and

4) Increased Construction Contingency Costs. Although the overall contingency decreased from 34 to 30 percent as design maturity increased, the overall contingency costs increased as the total project cost increased because it is based on a percentage of the total project costs (approximately $10.1 million increase).

c. Refinements reducing overall project costs.

1) Improving Transitions. Improving the transition between the Main Channel and Pier J Approach Channel resulted in a reduction in the volume of material that will not need to be dredged.

2) Lands and Damages. The 2022 integrated feasibility report included potential liability costs for easements from California State Lands Commission for the placement of dredged material at Surfside-Sunset Borrow Site. These costs were removed from

the current cost estimate because the Project will assert navigation servitude.

3) Beneficial Use Sites. Adding three additional beneficial use sites that are closer to the Port of Long Beach reduces costs by diverting material from the ocean disposal sites (located 10 to 25 miles from the Port of Long Beach) to nearby beneficial use sites. Additional potential beneficial use placement may provide cost efficiencies for dredge disposal, depending on the availability of the potential beneficial use sites at time of disposal and potential refined dredge quantities.

4. Economic Evaluation.

a. The authorized Project improves navigation efficiency and safety at the Nation's second-busiest container port by deepening and widening key federal channels and constructing a new approach channel to and turning basin outside of Pier J South. In 2025, the Port of Long Beach handled a record 9.6 million container units, highlighting the national economic importance of maintaining deep-draft access for the largest global vessels.

b. The project remains economically justified under the increased total project cost. Based on FY 2026 price levels, a 3.25 percent discount rate, and a 50-year period of analysis, the project generates equivalent net average annual benefits of $37,607,000 and equivalent total average annual costs of $12,536,000. Equivalent annual net benefits total $25,044,000. The updated benefit-to-cost ratio of 2.9 (with a remaining benefit-to-cost ratio of 3.0).

5. Environmental Compliance. The project's environmental circumstances and considerations have not changed since the project was authorized in 2022, and the project is consistent with the record of decision signed on 6 July 2022. Design refinements, including the evaluation of additional dredged material beneficial use sites and expanding the footprint of the West Basin require compliance with the National Environmental Policy Act, as amended (42 U.S.C. § 4321, *et. seq*). A supplemental environmental assessment and finding of no significant impact was prepared and is appended to the final validation report.

6. Cost Apportionment. Cost apportionment has changed since Project WRDA 2022 authorization pursuant to Section 1117 of WRDA 2024, which increased the federal share for dredging at deeper depths. Project apportionment and cost share is detailed in Section 17. The General Navigation Features (GNF) Project's updated apportionment of $255,811,000 (FY 2026) first cost is: federal ($158,605,000) and non-federal ($97,206,000). The non-federal sponsor, the City of Long Beach (acting through the Port of Long Beach) is also responsible for an additional 10 percent GNF payment, estimated at $23,895,000, payable over 30 years. Separately, the non-federal sponsor is responsible for $36,292,000 in local service facilities costs, including Pier J Basin dredging and breakwater improvements. The U.S. Coast Guard funds $975,000 for new

aids to navigation. The additional annual operation and maintenance dredging attributed to the Project is expected to cost $6,200,000 over the 50-year period of analysis (2030-2079), or $124,000 annually and will be shared 50/50.

7. Recommendation. I report that the project remains engineeringly feasible, environmentally acceptable, and economically justified. I recommend the enclosed validation report be transmitted to Congress as a basis for increasing the authorized project cost of the Port of Long Beach Deep Draft Navigation Report, Los Angeles County, California, to $255,811,000 at FY 2026 price levels.

JASON E. KELLY
Major General, USA
Deputy Commanding General
for Civil and Emergency Operations