



● **Board of Directors**
Engineering and Operations Committee

11/8/2022 Board Meeting

7-2

Subject

Ratify an emergency contract with PCL Construction, Inc., in the amount of \$855,623.78, for replacement of the expansion joint on the Upper Feeder pipeline at the Santa Ana River bridge crossing; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA [Requires four-fifths vote of the Board]

Executive Summary

This action ratifies an emergency contract with PCL Construction, Inc., which was executed by the General Manager to replace the damaged expansion joint on the Upper Feeder, in the amount of \$855,623.78. A shutdown of the Upper Feeder was completed in September 2022, and the bellows expansion joint was replaced with a new slip-type expansion joint at the Upper Feeder's Santa Ana River crossing. This ratification should be the final board action with respect to this emergency work.

Details

Background

The Upper Feeder was constructed in 1936 as part of Metropolitan's original water delivery system. The 116-inch-diameter welded-steel pipeline extends approximately 60 miles from Lake Mathews to the Eagle Rock Control Facility in Los Angeles. The feeder conveys up to 750 cubic feet per second (cfs) of untreated Colorado River water from Lake Mathews to the F. E. Weymouth Water Treatment Plant, and then delivers treated water to the Central Pool portion of the distribution system.

The Upper Feeder crosses the Santa Ana River with a 1,010-foot-long steel truss bridge in the cities of Jurupa Valley and Riverside. Before the recent shutdown, the feeder had a bellows-type expansion joint at the bridge's mid-span that allowed for the pipeline's thermal expansion and contraction.

On April 13, 2022, a leak was discovered at the bellows expansion joint. A steel bracket was installed as a temporary measure to stop the leak, and flow in the pipeline was reduced to approximately 525 cfs to decrease the pipeline's internal pressure. Staff monitored the crack length and effectiveness of the short-term repair.

Due to the critical nature of the feeder, the risk of an unplanned outage, the location of the expansion joint above environmentally sensitive areas, and the historically low State Water Project (SWP) allocation, the General Manager executed an emergency contract with PCL Construction in June 2022 for installation of a new joint consistent with Section 8122(b) of Metropolitan's Administrative Code. This section of the Administrative Code, which mirrors Sections 21567 and 22050 of the California Public Contract Code, allows for the General Manager to waive competitive bidding requirements and execute contracts over the amount of \$250,000 in response to an emergency condition.

An emergency is defined as a sudden, unexpected occurrence that requires immediate action to prevent or mitigate the loss or substantial impairment of life, health, property, or essential public services. Executing an emergency contract was necessary to allow adequate time for the contractor to plan, staff, and mobilize for construction so that the installation of the new expansion joint could take place during the September shutdown on the Upper Feeder.

PCL Construction successfully replaced the bellows joint with a Metropolitan-fabricated slip-type joint during the September shutdown. Prior to the shutdown, the Upper Feeder was operating at a reduced flow to reduce the risk of pipe failure. Now that the joint has been replaced, the flow on the feeder has been increased in support of operational actions being implemented due to the current drought.

In July 2022, Metropolitan's Board amended the Capital Investment Plan for fiscal years 2022/2023 and 2023/2024 to include replacement of an expansion joint on the Upper Feeder at the Santa Ana River Bridge and authorized continuation of the emergency action to execute a no-bid contract for the expansion joint replacement. In accordance with the Administrative Code, Metropolitan's Board also voted to continue the emergency contract actions July, August, and September 2022. A four-fifths vote of the Board is required to ratify the emergency construction contract.

Upper Feeder Expansion Joint Replacement - Construction

The emergency construction contract with PCL Construction included: removal of bridge structural members to access the pipe and joint; removal of the existing bellows expansion joint; installation of the new slip-type expansion joint; removal and reinstallation of the steel cage that provides lateral restraint at the joint; and minor adjustments to the bridge truss isolators. PCL Construction performed this construction work under a time-and-materials emergency contract. The contractor has completed all contractual obligations, including replacement of the Upper Feeder expansion joint, during the September shutdown.

Additional construction activities completed by Metropolitan forces included: fabrication of the new slip-type expansion joint; installation of a new 36-inch accessway; installation of a new 6-inch drain valve for improved dewatering of this pipe segment; installation of a new 4-inch tap near the expansion joint for use during construction; grading, clearing, and grubbing an area adjacent to the bridge for the contractor's crane pad and other construction activities; and shutdown, dewatering, quagga filtration, and startup activities. Metropolitan staff also provided design support for construction activities, construction inspection services, contract administration, environmental monitoring, and regular survey monitoring of the bridge and expansion joint.

A total of \$2,500,000 is allocated for this work. In addition to the amount of the contract described below, other funds allocated include \$677,000 for Metropolitan force activities as described above; \$292,000 for materials, supplies, and incidental expenses; \$274,000 for construction inspection; \$127,000 for submittals review, technical support during construction, responding to requests for information, and preparation of record drawings; \$196,000 for contract administration, environmental monitoring, field survey support, and project management; and \$78,376.22 for remaining budget.

Attachment 1 provides the allocation of funds. The total amount expended for the Upper Feeder expansion joint replacement is approximately \$3.40 million.

Ratification of Emergency Construction Contract (PCL Construction, Inc.)

Specifications No. 2045 for the replacement of the expansion joint on the Upper Feeder at the Santa Ana River crossing was executed by the General Manager as a time and materials contract. The contract includes markups of 25 percent for labor and 15 percent for equipment and other expenses. The markups included the contractor's compensation for overhead costs (including home office support, superintendence, bond and insurance premiums, and taxes) and profit. Due to the relatively short timeframe to negotiate this emergency contract, no Small Business Enterprise requirement was established. At the completion of the emergency contract work, PCL Construction's cost approved by Metropolitan for the time and material work is \$855,623.78.

As described above, Metropolitan staff completed various construction activities and construction support activities as part of this project. The total cost of construction for this project is \$2,334,623.78 which includes \$855,623.78 for the contract; \$292,000 for materials and supplies; and \$1,187,000 for Metropolitan force activities described above. (The construction amount includes \$510,000 which was allocated in July 2022 for fabrication of the slip-type expansion joint). Engineering Services' performance metric target range for inspection of projects with construction less than \$3 million is 9 to 15 percent. For this project, the performance metric goal for inspection is 11.7 percent of the total construction cost.

Alternatives Considered

Metropolitan's staff initially considered using an expedited schedule for board award of a construction contract rather than utilizing the emergency contracting provisions in the Administrative Code. However, even with an accelerated advertisement and award approach, construction work would not have begun until late this year. Staff determined that this was not an acceptable schedule considering the flow restrictions that had been placed on the feeder and the risk of an unplanned outage. The emergency contract with PCL Construction allowed for the timely repair of a major pipeline that delivers Colorado River water into the central portion of Metropolitan's distribution system and is a critical facility helping to reduce the impacts of the extreme drought conditions on the SWP. The selected option reduced the risk of an unplanned shutdown to perform costly emergency repairs and restored reliable deliveries to Metropolitan's member agencies.

Summary

This action ratifies an emergency contract with PCL Construction, Inc., in the amount of \$855,623.78, executed by the General Manager to replace the damaged expansion joint. See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the listing of Subcontractors, and **Attachment 3** for the Location Map.

Project Milestone

Construction was completed in September 2022.

Policy

Metropolitan Water District Administrative Code Section 8122: Emergency Contracts

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 52778, dated April 12th, 2022, the Board appropriated a total of \$600 million for projects identified in the Capital Investment Plan for Fiscal Years 2022/23 and 2023/24.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is statutorily exempt under the provisions of CEQA and the State CEQA Guidelines because it involves the immediate emergency repair of an existing pipeline with the same purpose and capacity to maintain service essential to the public health, safety, or welfare. (Section 15269(b) of the State CEQA Guidelines). In addition, the proposed action is statutorily exempt under the provisions of CEQA and the State CEQA Guidelines because it involves the installation of a new pipeline or maintenance, repair, restoration, removal, or demolition of an existing pipeline that does not exceed one mile in length. (Section 15262(k) of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Ratify an emergency contract with PCL Construction, Inc. in the amount of \$855,623.78 for replacement of the expansion joint on the Upper Feeder pipeline at the Santa Ana River bridge crossing. **[Requires four-fifths vote of the Board.]**

Fiscal Impact: Expenditure of \$2,500,000 in capital funds. All funds were incurred in the current biennium and have been previously authorized. It is not anticipated that the expenditures on this project will increase CIP expenditures in the current biennium beyond those which have been previously approved by the Board.

Business Analysis: This project enhances delivery reliability to member agencies and reduces the risk of unplanned shutdowns of the Upper Feeder.

Option #2

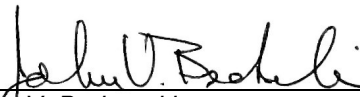
Do not ratify the emergency contract.

Fiscal Impact: Unknown

Business Analysis: The construction work has already been completed. This option could expose Metropolitan to claims for work performed by the contractor under the emergency contract.

Staff Recommendation

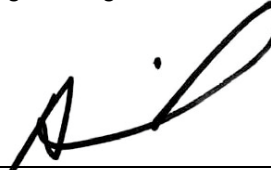
Option #1



John V. Bednarski
Chief Engineer/Manager
Engineering Services

10/20/2022

Date



Adel Hagekhalil
General Manager

10/20/2022

Date

Attachment 1 – Allocation of Funds

Attachment 2 – Listing of Subcontractors

Attachment 3 – Location Map

Ref# es12688250

Allocation of Funds for the Upper Feeder Expansion Joint Replacement

	Current Board Action (Nov. 2022)
Labor	
Studies & Investigations	\$ -
Final Design	-
Owner Costs (Program mgmt., envir. monitoring)	196,000
Submittals Review, Eng Support, & Record Drwgs.	127,000
Construction Inspection & Support	274,000
Metropolitan Force Construction	677,000
Materials & Supplies	183,000
Incidental Expenses	109,000
Professional/Technical Services	-
Right-of-Way	-
Equipment Use	-
Contracts	
PCL Construction, Inc.	855,623.78
Remaining Budget	78,376.22
Total	\$ 2,500,000

The total estimated cost to complete the project, including the amount appropriated to date and funds allocated for the work described in this action, is \$3.4 million.

The Metropolitan Water District of Southern California**Subcontractors for PCL Construction, Inc.****Specifications No. 2045****Upper Feeder Expansion Joint Replacement**

Subcontractor and Location
Mr. Crane Orange, CA
Dean's Certified Welding Temecula, CA

