



- **Board of Directors**
Engineering, Operations, and Technology Committee

7/9/2024 Board Meeting

7-1

Subject

Award a \$2,197,460 contract to J.F. Shea Construction Inc. for the replacement of a section of steel pipe on the Rialto Pipeline and rehabilitation of Service Connection CB-11; and authorize an increase of \$150,000 to an existing agreement with Brown and Caldwell for a new not-to-exceed amount of \$395,000 to provide technical support during construction; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Executive Summary

The Rialto Pipeline supplies untreated water from the East Branch of the State Water Project to the F.E. Weymouth Water Treatment Plant (Weymouth plant). This project will replace a deteriorated 35-foot-long segment of 120-inch diameter steel pipe on the Rialto Pipeline and rehabilitate Service Connection CB-11. Inspections have shown that the mortar lining is failing, and the steel pipe is corroding within the portion to be replaced. These improvements will enhance the reliability of water deliveries along the Rialto Pipeline.

This action awards a \$2,197,460 contract to J.F. Shea Construction Inc. for replacement of 35 feet of steel pipe on the Rialto Pipeline and rehabilitation of Service Connection CB-11 during a planned 2024/2025 shutdown. This action also increases the amount of an existing agreement with Brown and Caldwell to provide technical support during construction. See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the Subcontractors for Low Bidder, and **Attachment 4** for the Location Map.

Proposed Action(s)/Recommendation(s) and Options

Staff Recommendation: Option #1

Option #1

- Award a \$2,197,460 contract to J.F. Shea Construction Inc. for replacement of steel pipe on the Rialto Pipeline and rehabilitation of Service Connection CB-11.
- Authorize an increase of \$150,000 to an existing agreement with Brown and Caldwell for a new not-to-exceed amount of \$395,000 to provide construction support services.

Fiscal Impact: Expenditure of \$3,600,000 in capital funds. All costs will be incurred in the current biennium and have been previously authorized.

Business Analysis: This option will improve the operational reliability of the Rialto Pipeline and reduce the risk of unplanned outages.

Option #2

Do not proceed with the project at this time.

Fiscal Impact: None

Business Analysis: This option will forego an opportunity to improve the operational reliability of the Rialto Pipeline, which may lead to costly urgent repairs.

Alternatives Considered

During the planning phase of this project, staff considered different options to address the failure of mortar lining and corrosion within an approximately 35-foot-long segment of the Rialto Pipeline. Initially staff considered performing weld repairs and cement mortar re-lining of the existing pipeline using an existing accessway that is located over 700 feet from the repair site. Staff estimated that repairing the pipeline from the existing accessway would require cutting steel pipe segments into small strips, transporting them through the pipe, and reassembling them inside the 120-inch diameter pipe. The selected option to excavate and replace the 35-foot segment of pipe in its entirety can be completed more efficiently and cost-effectively during a shorter shutdown than repairing the existing pipe.

Applicable Policy

Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

Related Board Action(s)/Future Action(s)

By Minute Item 53141, dated February 13, 2023, the Board authorized the procurement of a triple offset valve to rehabilitate the CB-11 service connection.

By Minute Item 53494, dated January 9, 2024, the Board authorized the procurement of plug valves to be installed on the Foothill and Rialto Feeder.

By Minute Item 53598, dated April 9, 2024, the Board appropriated a total of \$636.5 million for projects identified in the Capital Investment Plan for Fiscal Years 2024/25 and 2025/26.

Summary of Outreach Completed

Metropolitan has coordinated with the City of Upland to obtain approved plan check drawings and a noise variance for the proposed construction activities.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is exempt from CEQA because the action consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use and no possibility of significantly impacting the physical environment. In addition, the proposed action consists of replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced.

CEQA determination for Option #2:

None required

Details and Background

Background

The Rialto Pipeline was built in 1972 and conveys untreated water from California Department of Water Resources' Devil Canyon Powerplant afterbays in San Bernardino to Metropolitan's Live Oak Reservoir in La Verne and Metropolitan's nearby San Dimas Power Plant. The pipeline extends approximately 30 miles, supplying water to the Weymouth plant and serving three member agencies through 11 service connections.

Approximately 16 miles of the Rialto Pipeline are prestressed concrete cylinder pipe, while the remaining 14 miles are welded steel pipe. The pipeline ranges in diameter from 96 inches to 120 inches.

A December 2020 inspection of the Rialto Pipeline revealed severe corrosion and localized pitting in an approximately 35-foot-long segment of a 120-inch diameter steel pipe located in the City of Upland. Temporary repairs were made, and this section of pipe is currently structurally sound. Replacement of this segment is recommended due to the extent of damage and to ensure the long-term integrity of the pipeline. Replacement of the section of pipe will also allow for the rehabilitation of Service Connection CB-11, which is located in the vicinity of the damaged section of pipe.

The turnout structure for Service Connection CB-11, located in the City of Rancho Cucamonga, was originally constructed as a dewatering pump well under the original Rialto Pipeline construction contract. In 2005, the turnout was converted to a 40 cubic feet per second service connection to deliver water to recharge groundwater basins, and a 24-inch diameter butterfly valve was installed. Since that conversion, this turnout can no longer be used as a dewatering location on the pipeline. The existing butterfly valve has a disk in the flow path that obstructs lowering a pump through the valve and into the pipeline for dewatering activities.

The Rialto Pipeline is typically shut down and dewatered every five to seven years for inspections and maintenance. During the planned shutdown, the valve at Service Connection CB-11 will be replaced with a full-port triple offset valve that will allow staff to lower a dewatering pump into the pipeline at this location. The use of this location to dewater the pipeline will shorten the overall duration of future shutdowns of the pipeline by approximately 24 hours. In addition to replacing the turnout valve, piping adjacent to the turnout valve and six blowoff valves on the feeder have deteriorated and will also be replaced during the shutdown.

Final design is now complete for replacement of the deteriorated section of steel pipe on the Rialto Pipeline and rehabilitation of Service Connection CB-11. Due to the long lead time for the manufacture of large-diameter valves, a procurement contract was awarded in February 2023 by Metropolitan's Board for the 20-inch isolation valve. The valve has been delivered and is currently being stored at Metropolitan's La Verne facility. Staff recommends the award of a construction contract at this time.

Rialto Pipeline Rehabilitation – Construction

The scope of the construction contract consists of replacing a 35-foot segment of 120-inch diameter steel pipe on the Rialto Pipeline, replacement of the isolation valve at Service Connection CB-11 with a Metropolitan-furnished triple offset ball valve, and replacement of corroded piping. Metropolitan forces will dewater the pipelines, replace six deteriorating blowoff valves, establish clearances, and return the system to service. The work will be conducted during a planned twelve-day shutdown scheduled for February 2025.

A total of \$3,600,000 is allocated for this work. In addition to the contract amount, \$150,000 will be allocated for technical support during construction by Brown and Caldwell as described below. Allocated funds for work by Metropolitan staff include: \$530,000 for Metropolitan force shutdown activities; \$207,000 for construction management and inspection; \$177,000 for submittals review, responding to requests for information, and preparation of record drawings; \$144,000 for contract administration, environmental monitoring support, project management, and other owner's costs; and \$194,540 for remaining budget. **Attachment 1** provides the allocation of the required funds.

Award of Construction Contract (J.F. Shea Construction Inc.)

Specification No. 2058 to rehabilitate the Rialto Pipeline was advertised for bids on May 3, 2024. As shown in **Attachment 2**, two bids were received and opened on June 6, 2024. The low bid from J.F. Shea Construction Inc. in the amount of \$2,197,460 complies with the requirements of the specifications. The other bid was \$2,433,000, while the engineer's estimate for this project was approximately \$2,650,000. For this contract, Metropolitan established a Small Business Enterprise participation level of at least 25 percent of the bid amount. J.F. Shea Construction Inc. has agreed to meet this level of participation. The subcontractors for this contract are listed in **Attachment 3**.

This action awards a \$2,197,460 contract to J.F. Shea Construction Inc. for the replacement of a 35 ft section of steel pipe on the Rialto Pipeline and the replacement of piping and an isolation valve located at Service Connection CB-11. As described above, Metropolitan staff will perform construction management and inspection. Engineering Services' performance metric target range for construction management and inspection of projects with construction less than \$3 million is 9 to 15 percent. For this project, the performance metric goal for inspection, which includes previously allocated fabrication inspection (\$70,000), is 8.2 percent of the total construction cost (\$3,382,460), which includes the construction contract (\$2,197,460), Metropolitan-furnished equipment (\$655,000), and Metropolitan force construction (\$530,000).

Construction Support (Brown and Caldwell) – Amendment to Existing Agreement

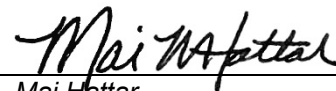
This action authorizes an increase of \$150,000 to an existing agreement with Brown and Caldwell for a new not-to-exceed total of \$395,000. Brown and Caldwell was prequalified via Request for Qualification No. 1215 based on its experience with pipeline projects through urban areas. Brown and Caldwell provided engineering support services during the project's final design phase and is the engineer of record.

Brown and Caldwell will review contractor submittals and requests for information, review the asbestos control plan prior to submittal to the South Coast Air Quality Management District, and provide asbestos abatement monitoring services. The increase in the Brown and Caldwell agreement supplements the existing agreement's capacity to cover costs for the construction phase of the Rialto Pipeline Rehabilitation project.

This action authorizes a \$150,000 amendment to an existing agreement with Brown and Caldwell for a new, not-to-exceed total of \$395,000 for technical support during construction for the rehabilitation of the Rialto Pipeline. The subconsultant planned for this agreement includes Aurora Industrial Hygiene.

Project Milestone

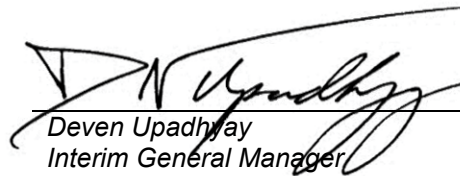
March 2025 – Completion of construction



Mai Hattar
Interim Chief Engineer
Engineering Services

6/26/2024

Date



Deven Upadhyay
Interim General Manager

6/26/2024

Date

Attachment 1 – Allocation of Funds

Attachment 2 – Abstract of Bids

Attachment 3 – Subcontractors for Low Bidder

Attachment 4 – Location Map

Ref# es12699997

Allocation of Funds for Rialto Pipeline Rehabilitation

	Current Board Action
	(Jul. 2024)
Labor	
Studies & Investigations	\$ -
Final Design	-
Owner Costs (Program mgmt., envir. monitoring)	144,000
Submittals Review & Record Drwgs.	177,000
Construction Inspection & Support	207,000
Metropolitan Force Construction	500,000
Materials & Supplies	-
Incidental Expenses	30,000
Professional/Technical Services	-
Brown and Caldwell	150,000
Right-of-Way	-
Equipment Use	-
Contracts	-
J.F. Shea Construction, Inc.	2,197,460
Remaining Budget	194,540
Total	\$ 3,600,000

The amount expended to date on the Rialto Pipeline Rehabilitation project is approximately \$1 million. The total estimated cost to complete this project, including the funds allocated for the work described in this action, is \$4.6 million.

The Metropolitan Water District of Southern California**Abstract of Bids Received on June 6, 2024, at 2:00 P.M.****Specifications No. 2058****Rialto Pipeline Rehabilitation**

The work consists of replacement of a 35-foot section of steel pipe on the Rialto Pipeline and the replacement of a pipe spool and isolation valve located at service connection CB-11 for the Rialto Pipeline Rehabilitation project.

Engineer's estimate: \$2,650,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE¹
J.F. Shea Construction Inc. Walnut, CA	\$2,197,460	550,000	25	Yes
Mladen Buntich Construction Co. Inc Upland, CA	\$2,433,000	-	-	-

¹ Small Business Enterprise (SBE) participation level established at 25 percent for this contract.

The Metropolitan Water District of Southern California**Subcontractors for Low Bidder****Specifications No. 2058
Rialto Pipeline Rehabilitation****Low bidder: J.F. Shea Construction Inc.**

Subcontractor and Location	Service Category, Specialty
Western Paving Contractors Inc. Irwindale, CA	Paving
Environmental Construction Group Signal Hill, CA	Demolition/Abatement
Capital Industrial Coatings Huntington Beach, CA	Painting
Dean's Welding Temecula, CA	Furnish, Fitup & Weld Pipe

Distribution System

