



- Board of Directors
Engineering and Operations Committee

6/14/2016 Board Meeting

7-3

Subject

Appropriate \$700,000; and award \$343,625 contract to Environmental Construction, Inc. to replace blow-off valves on the Middle Feeder (Approp. 15480)

Executive Summary

This action awards a construction contract to replace two deteriorated plug valves and to modify the vault lid for an underground structure on the Middle Feeder.

Timing and Urgency

Blow-off structures are used to dewater feeders for repairs and to provide an access point for routine maintenance and inspection. After 63 years of operation, two blow-off valves on the Middle Feeder have deteriorated and need to be replaced. Presently, the primary blow-off valve does not open and close reliably, while the secondary valve is frozen in the open position. These valves should be replaced in order to avoid an unscheduled shutdown of the Middle Feeder.

This project has been reviewed with Metropolitan's Capital Investment Plan (CIP) prioritization criteria and is included in the Distribution System Reliability Program. Funds for this action are available within Metropolitan's capital expenditure plan for fiscal year 2015/16.

Details

Background

The Middle Feeder is a 72-inch-diameter welded-steel pipeline with a length of approximately 36 miles. The first reach from Garvey Reservoir to the Victoria Street Lateral was placed into service in 1953, while the second reach from the F. E. Weymouth Water Treatment Plant to Garvey Reservoir was completed in 1958. The Middle Feeder delivers treated water from the Weymouth plant to five member agencies. A blow-off structure within the city of Compton contains two 12-inch lubricated plug valves that are used to control the dewatering flowrate when the feeder is shut down.

Staff performed a detailed inspection of the blow-off structure and determined that the two valves have deteriorated beyond repair. Following 63 years of operation, the primary valve no longer operates reliably and the secondary valve is frozen in the open position. Failure of the primary valve could result in an unplanned discharge of water into the Los Angeles River, or an extended shutdown to dewater the pipeline using submersible pumps.

In November 2014, Metropolitan's Board authorized design and procurement to replace the two blow-off valves. The valves have been delivered and design is now complete. Staff recommends award of the construction contract at this time so the work can take place during a scheduled shutdown of the Middle Feeder in September 2016.

Middle Feeder Blow-off Valve Replacement – Construction (\$700,000)

The planned work includes replacing the existing lubricated plug valves with new valves. The fixed roof of the existing underground vault will be removed for the construction and will be replaced with a segmented removable lid to improve access for future maintenance and repairs. Due to the vault's location within a public street, shoring and traffic control will be necessary during the construction. Most of the work will be performed on a continuous round-the-clock basis.

Specifications No. 1841 to replace blow-off valves on the Middle Feeder was advertised for bids on March 8, 2016. As shown in [Attachment 2](#), five bids were received and opened on May 11, 2016. The apparent low bidder requested to be released from its bid in accordance with the California Public Contract Code, due to an inadvertent clerical error made during the bid process which materially changed its bid. Upon review of the request and documentation submitted, the apparent low bidder was released from its bid. The apparent second low bidder did not acknowledge receipt of an addendum and as a result, its bid was deemed to be non-responsive. The third low bid from Environmental Construction, Inc. in the amount of \$343,625 complies with requirements of the specifications. The two higher bids were \$348,111 and \$376,675, while the engineer's estimate was \$270,000. Staff investigated the difference between the engineer's estimate and the third low bid, and attributes that difference to the contractor's assessment of cost and risks for round-the-clock construction and the extensive traffic control requirements. Due to the small size of the contract and limited subcontracting opportunities, Metropolitan did not establish a Small Business Enterprise (SBE) participation level for this work.

This action appropriates \$700,000 to replace blow-off valves on the Middle Feeder. In addition to the amount of the contract, the requested funds include: \$180,000 for Metropolitan force activities, which includes dewatering of the feeder, disinfection and water quality testing, and return of the pipeline to service. The requested funds also include \$88,000 for construction inspection; \$33,000 for submittals review and record drawing preparation by Metropolitan staff; \$42,000 for local agency permitting, public outreach, and project management; and \$13,375 for remaining budget.

Construction inspection will be performed by Metropolitan staff. For this project, the anticipated cost of inspection is approximately 14.6 percent of the construction cost. Engineering Services' goal for inspection of projects with construction cost less than \$3 million is 9 to 15 percent. For this project, the total cost of construction is \$603,625, which includes the contract (\$343,625), Metropolitan force activities (\$180,000), and the previously procured plug valves (\$80,000).

The total estimated cost to replace the blow-off valves, including the amount appropriated to date and current funds requested, is \$1.05 million.

This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal year 2015/16 capital expenditure plan. See [Attachment 1](#) for the Financial Statement, [Attachment 2](#) for the Abstract of Bids, [Attachment 3](#) for the listing of Subcontractors for Low Bidder, and [Attachment 4](#) for the Location Map.

This project is included within capital Appropriation No. 15480, the Conveyance and Distribution System Rehabilitation Appropriation – FY 2012/13 Through FY 2017/18, which was initiated in fiscal year 2012/13. With the present action, the total funding for Appropriation No. 15480 will increase from \$39.02 million to \$39.72 million.

Project Milestone

November 2016 – Completion of construction

Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

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

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed project involves the funding and minor alterations, reconstruction or replacement of existing public facilities along with the construction of minor appurtenant structures with no expansion of use and no possibility of significantly impacting the physical environment. In addition, the proposed project involves minor modifications in the condition of land, water, and/or vegetation which does not involve removal of healthy, mature, scenic trees. Accordingly, the proposed action qualifies under Class 1, Class 2, Class 3, and Class 4 Categorical Exemptions (Sections 15301, 15302, 15303, and 15304 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under four Categorical Exemptions (Class 1, Section 15301; Class 2, Section 15302; Class 3, Section 15303; and Class 4, Section 15304 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination that the proposed action is categorically exempt, and

- a. Appropriate \$700,000; and
- b. Award \$343,625 contract to Environmental Construction, Inc. to replace blow-off valves on the Middle Feeder.

Fiscal Impact: \$700,000 of capital funds under Approp. 15480

Business Analysis: This option will protect Metropolitan’s assets, enhance delivery reliability to member agencies, and reduce the risk of costly emergency repairs.

Option #2

Do not proceed with the valve replacement project at this time.

Fiscal Impact: Unknown

Business Analysis: This option could lead to higher costs, more extensive repairs, and an unplanned shutdown.

Staff Recommendation

Option #1


 _____ 5/24/2016
 Gordon Johnson Date
 Manager/Chief Engineer
 Engineering Services


 _____ 5/25/2016
 Jeffrey Kightlinger Date
 General Manager

- [Attachment 1 – Financial Statement](#)
- [Attachment 2 – Abstract of Bids](#)
- [Attachment 3 – Subcontractors for Low Bidder](#)
- [Attachment 4 – Location Map](#)

Financial Statement for Conveyance and Distribution System Rehabilitation Appropriation – FY 2012/13 Through FY 2017/18

A breakdown of Board Action No. 22 for Appropriation No. 15480 to replace blow-off valves on the Middle Feeder¹ is as follows:

| | Previous Total Appropriated Amount (June 2016) | Current Board Action No. 22 (June 2016) | New Total Appropriated Amount |
|---|---|--|--|
| Labor | | | |
| Studies & Investigations | \$ 1,682,000 | \$ - | \$ 1,682,000 |
| Final Design | 6,593,000 | - | 6,593,000 |
| Owner Costs (Program mgmt., permitting) | 3,171,779 | 42,000 | 3,213,779 |
| Submittals Review & Record Drwgs. | 732,000 | 33,000 | 765,000 |
| Right of Way | 63,000 | - | 63,000 |
| Construction Inspection & Support | 2,390,000 | 88,000 | 2,478,000 |
| Metropolitan Force Construction | 3,165,000 | 180,000 | 3,345,000 |
| Materials & Supplies | 1,586,000 | - | 1,586,000 |
| Incidental Expenses | 124,000 | - | 124,000 |
| Professional/Technical Services | 2,283,000 | - | 2,283,000 |
| Right of Way | 280,000 | - | 280,000 |
| Equipment Use | 5,000 | - | 5,000 |
| Contracts | 13,860,155 | 343,625 | 14,203,780 |
| Remaining Budget | 3,085,066 | 13,375 | 3,098,441 |
| Total | \$ 39,020,000 | \$ 700,000 | \$ 39,720,000 |

Funding Request

| | | | |
|-----------------------------------|---|--------------------------------------|----------------|
| Appropriation Name: | Conveyance and Distribution System Rehabilitation Appropriation – FY 2012/13 Through FY 2017/18 | | |
| Source of Funds: | Revenue Bonds, Replacement and Refurbishment or General Funds | | |
| Appropriation No.: | 15480 | Board Action No.: | 22 |
| Requested Amount: | \$ 700,000 | Budget Page No.: | 274 |
| Total Appropriated Amount: | \$ 39,720,000 | Total Appropriation Estimate: | \$ 255,000,000 |

¹ The total amount expended to date on the blow-off valve structure on the Middle Feeder is approximately \$350,000. The total estimated cost to complete the repair, including the amount appropriated to date and current funds requested, is \$1.05 million.

The Metropolitan Water District of Southern California

Abstract of Bids Received on May 11, 2016 at 2:00 P.M.

**Specifications No. 1841
Middle Feeder Blow-off Valve Structure**

The work consists of removal of existing pavement and roof slab; replacement of two existing 12-inch lubricated plug valves, tees, piping and miscellaneous metals; installation of a new precast concrete roof slab; surface restoration; and asbestos and lead abatement.

Engineer's Estimate: \$270,000

| Bidder and Location | Total ¹ |
|--|---------------------------|
| M-Rae Engineering, Inc. ² Descanso, CA | \$180,000 |
| Innovative Engineering & Maintenance ³ San Pedro, CA | \$250,000 |
| Environmental Construction, Inc. Woodland Hills, CA | \$343,625 |
| MMC, Inc. La Palma, CA | \$348,111 |
| Zusser Company, Inc. Los Angeles, CA | \$376,675 |

¹ No Small Business Enterprise (SBE) participation level was established due to the small value of the contract and the low subcontracting opportunities.

² M-Rae Engineering, Inc. requested to be released from its bid in accordance with the California Public Contract Code due to an inadvertent clerical error made during the bid process, which materially changed its bid.

³ The bid from Innovative Engineering and Maintenance was deemed to be non-responsive because the bid did not acknowledge receipt of an addendum.

The Metropolitan Water District of Southern California

Subcontractors for Low Bidder

**Specifications No. 1841
Middle Feeder Blow-off Valve Structure**

Low Bidder: Environmental Construction, Inc.

| Subcontractor and Location |
|---------------------------------------|
| RCS Safety, LLC, Santa Fe Springs, CA |

Distribution System

