



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

1/11/2011 Board Meeting

7-1

Subject

Appropriate \$427,000; and award \$305,483.16 procurement contract to TW Associates, dba MISCO, for the Eagle Rock Tower and Puddingstone Spillway gate actuators (Approp. 15441)

Description

This action awards a procurement contract for seven motor-operated actuators for existing slide gates at the Eagle Rock Tower and Puddingstone Spillway. These slide gates are essential for flow control, distribution, and isolation of the Upper Feeder and Central Pool portion of the distribution system.

Timing and Urgency

The Eagle Rock Control Tower's gates are used to regulate flows in the Upper Feeder, Santa Monica Feeder, Palos Verdes Feeder, and Eagle Rock Lateral. The Puddingstone Spillway gate is used to isolate a portion of the Upper Feeder. In the event of closure of the gates in the Eagle Rock Control Tower, the radial gate at Puddingstone Spillway would need to close to halt flow in the Upper Feeder. The existing 70-year-old gate actuators, which are used for opening and closing of the gates, are showing signs of corrosion and continued deterioration, and need to be replaced. A failure of the gates could interrupt deliveries to 17 cities within the service areas of the Three Valleys Municipal Water District, the Foothill Municipal Water District, and the cities of Pasadena and San Marino. Staff recommends procuring the actuators at this time due to the long lead-time for design, manufacture and delivery.

This project has been reviewed with Metropolitan's updated Capital Investment Plan (CIP) prioritization criteria, and is categorized as an Infrastructure Rehabilitation project. This project is budgeted within Metropolitan's CIP for fiscal year 2010/11.

Background

The Upper Feeder was constructed in 1936 as part of Metropolitan's original distribution system. The feeder is approximately 60 miles long, with a diameter ranging from 84 to 152 inches. It delivers untreated water from Lake Mathews to the Weymouth plant, and treated water from the Weymouth plant to the Eagle Rock Control Facility in the city of Los Angeles. The Upper Feeder's treated-water system is approximately 25 miles in length, and is comprised of a series of pipelines and deep tunnels through the San Gabriel Mountains that have few isolation points due to the depth of the pipeline.

Eagle Rock Tower is the western terminus of the treated-water portion of the Upper Feeder. Five slide gates within the tower are used to regulate water flow from the Upper Feeder into the Palos Verdes Feeder, Santa Monica Feeder and Eagle Rock Lateral. These gates and their actuators were installed in 1940. Rehabilitation work was performed on the slide gates and gates stems in the 1960s, but not on the actuators.

Puddingstone Spillway is located on the Upper Feeder just west of the Weymouth plant, and was designed to be the primary means of isolation for the treated-water portion of the Upper Feeder. The radial gate and actuator were installed in the 1940s, and neither has been rehabilitated since their original installation.

In the current operational configuration, a pipeline failure along the treated-water section of the Upper Feeder would require a shutdown of the entire 25-mile section from Weymouth to Eagle Rock, including the Weymouth plant itself. Such an outage would affect 14 active service connections serving the Three Valleys Municipal Water District, the Foothill Municipal Water District, and the cities of Pasadena and San Marino. In addition, since the Puddingstone gate is located downstream of the Weymouth plant and its connections with the Orange County Feeder and the Middle Feeder, replacement of the actuator would allow the latter two lines to remain operational during inspections or repairs on the downstream portion of the Upper Feeder. Restoring the functionality of the actuators and gates at Eagle Rock and Puddingstone would increase Metropolitan's delivery reliability by allowing the Weymouth plant to remain operational during inspections or repairs on the downstream portion of the Upper Feeder.

New actuators are critical to the operation of Eagle Rock Tower and Puddingstone Spillway. The existing actuators are past their service life and are beyond repair. Spare parts are not available, and it was determined that the actuators need to be replaced. Staff recommends proceeding with procurement of the actuators at this time due to the long lead-time for design, manufacture and delivery. Staff will return to the Board at a later date for award of a construction contract to install the gate actuators and to rehabilitate the gates at the Eagle Rock Tower and Puddingstone Spillway. Installation of actuators and rehabilitation of the gates at Eagle Rock Tower and Puddingstone Spillway is planned for an Upper Feeder shutdown scheduled for early 2012.

Eagle Rock Tower and Puddingstone Spillway Gates Rehabilitation – Procurement (\$427,000)

Specifications No. 1664 for furnishing seven motor-operated actuators for slide gates at Eagle Rock Tower and Puddingstone Spillway was advertised for bids on October 6, 2010. As shown in [Attachment 2](#), one bid was received and opened on November 16, 2010. An extensive outreach effort had been undertaken to attract potential bidders for this procurement. Two manufacturers are capable of furnishing actuators of the size and with the operational features required for this project. Staff contacted numerous local vendors for these manufacturers to generate interest in the project. At least two additional vendors had expressed interest in bidding the project, but did not submit bids due to their own logistical issues.

The low bid from TW Associates, dba MISCO, in the amount of \$305,483.16 complies with the requirements of the specifications. The engineer's estimate was \$350,000. Based on staff's experience with previous procurements of specialized actuators, the low bid conforms with the range of anticipated bids. Staff therefore recommends moving forward with award of the contract. No Small Business Enterprise (SBE) incentive credit was identified for this procurement contract due to the limited number of potential bidders for a manufactured product.

This action awards a \$305,483.16 contract to TW Associates, dba MISCO, to furnish seven motor-operated actuators, and the services of an erecting engineer during installation. The contract amount includes all sales and use taxes imposed by the state of California. Procurement support activities will include fabrication inspection and review of submittals, both of which will be performed by Metropolitan staff. Requested funds include \$305,483 for the procurement contract; \$21,400 for factory fabrication inspection; \$16,700 for submittals review; \$27,700 for project management; and \$55,717 for remaining budget.

Summary

This action appropriates \$427,000 and awards a procurement contract to furnish seven motor-operated actuators for Eagle Rock and Puddingstone Gates. This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds have been included in the fiscal year 2010/11 capital budget. See [Attachment 1](#) for the Financial Statement, [Attachment 2](#) for the Abstract of Bids, and [Attachment 3](#) for the Location Map.

The total projected cost to complete the gate rehabilitation project is \$2.63 million. This project is included within capital Appropriation No. 15441, the Conveyance and Distribution System Rehabilitation Program Phase 2, which was initiated in fiscal year 2006/07. Appropriation No. 15441 also includes other projects such as prestressed concrete cylinder pipeline repairs of the Calabasas Feeder, Lake Skinner Outlet Conduit, Rialto Pipeline, San Diego Pipeline No. 5, and Sepulveda Feeder. With the current action for the actuator procurement contract, the total funding for Appropriation No. 15441 will increase from \$28,022,000 to \$28,449,000.

This project is consistent with Metropolitan's goals for sustainability by enhancing reliability of the existing conveyance and distribution system in order to maintain reliable water deliveries in the future.

Project Milestones

February 2012 – Shutdown for actuators and gates installation at Eagle Rock Tower

March 2013 – Shutdown for actuators and gates installation at Puddingstone Spillway

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 action involves the funding, procurement and design of existing public facilities involving negligible or no expansion of use and no possibility of significantly impacting the physical environment. Accordingly, the proposed action qualifies under a Class 1 Categorical Exemption (Section 15301 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under a Categorical Exemption (Class 1, Section 15301 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination and

- a. Appropriate \$427,000; and
- b. Award \$305,483.16 procurement contract to TW Associates, dba MISCO, for seven motor-operated actuators for the Eagle Rock Tower and Puddingstone Spillway gates.

Fiscal Impact: \$427,000 in budgeted funds (Approp. 15441)

Business Analysis: This option will enhance reliable deliveries to Three Valleys Municipal Water District, Foothill Municipal Water District, and the cities of Pasadena and San Marino. This project will protect Metropolitan's assets, increase service reliability to member agencies, and reduce the risk of costly emergency repairs.

Option #2

Do not award the procurement contract and re-advertise in an attempt to receive more favorable bids.

Fiscal Impact: None

Business Analysis: This option may or may not result in a lower bid, and would delay rehabilitation of the actuators and gates at Eagle Rock Tower and Puddingstone Spillway. Until the replacement actuators are installed, the treated-water portion of the Upper Feeder and the Weymouth plant will need to be shut down in the event of planned or unplanned repairs to the Upper Feeder. This option could lead to higher costs, more extensive repairs, and additional system shutdowns.

Staff Recommendation

Option # 1



Roy L. Wolfe
Manager, Corporate Resources

12/22/2010

Date



Jeffrey Knightlinger
General Manager

12/28/2010

Date

Attachment 1 – Financial Statement

Attachment 2 – Abstract of Bids

Attachment 3 – Location Map

Ref# cr12607692

Financial Statement for Conveyance and Distribution System Rehabilitation Program – Phase 2

A breakdown of Board Action No. 28 for Appropriation No. 15441 for furnishing motor-operated actuators for Eagle Rock and Puddingstone gates* is as follows:

	Previous Total Appropriated Amount (Dec. 2010)	Current Board Action No. 28 (Jan. 2011)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 1,784,200	\$ -	\$ 1,784,200
Final Design	2,270,400	-	2,270,400
Owner Costs (Project mgmt, project controls)	3,413,350	23,700	3,437,050
Submittals Review	47,000	16,700	63,700
Construction Inspection & Support	1,262,600	6,400	1,269,000
Metropolitan Force Construction	6,201,700	-	6,201,700
Materials and Supplies	1,299,100	-	1,299,100
Incidental Expenses	731,400	4,000	735,400
Professional/Technical Services	1,028,500	15,000	1,043,500
Equipment Use	223,200	-	223,200
Contracts	7,090,647	305,483	7,396,130
Remaining Budget	2,669,903	55,717	2,725,620
Total	\$ 28,022,000	\$ 427,000	\$ 28,449,000

Funding Request

Program Name:	Conveyance and Distribution System Rehabilitation Program - Phase 2		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15441	Board Action No.:	28
Requested Amount:	\$ 427,000	Capital Program No.:	15441-I
Total Appropriated Amount:	\$ 28,449,000	Capital Program Page No.:	277
Total Program Estimate:	\$ 53,850,000	Program Goal:	I-Infrastructure Reliability

* The total amount expended to date on the Eagle Rock Tower Slide Gate Rehabilitation and the Puddingstone Radial Gate Replacement projects is approximately \$947,031

The Metropolitan Water District of Southern California
Abstract of Bids Received on November 16, 2010 at 2:00 P.M.
Specifications No. 1664, Furnishing Motor-Operated Actuators
for Eagle Rock and Puddingstone Gates

This contract furnishes seven motor-operated gate actuators and the services of an erecting engineer.

Engineer's Estimate: \$350,000

Bidder and Location	Total¹
TW Associates, dba MISCO	\$305,483.16

¹ Includes sales and use taxes of 9.75 percent imposed by the state of California

