



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

12/12/2017 Board Meeting

8-5

Subject

Adopt CEQA determination and appropriate \$2.47 million; award \$1,433,000 contract to Lasater Construction Co., Inc. to replace a spillway gate at Eagle Mountain Reservoir; and authorize increase of \$75,000 to an agreement with Lee & Ro, Inc., for a new not-to-exceed total of \$320,000 (Appropriation No. 15438)

Executive Summary

This action awards a construction contract to replace a spillway gate at Eagle Mountain Reservoir on the Colorado River Aqueduct (CRA). This action also authorizes an amendment to an existing professional services agreement to provide technical support during the construction.

Timing and Urgency

The spillway gate at Eagle Mountain Reservoir is used to dewater the reservoir for maintenance and repairs, and to safely release water in case of an emergency. The existing 70-year-old gate is deteriorating and needs to be replaced. If the spillway gate were to fail, uncontrolled flows from the reservoir would be released to surrounding areas.

This project has been reviewed with Metropolitan's Capital Investment Plan (CIP) prioritization criteria and is included in the CRA Reliability Program. Funds for this action are available within Metropolitan's capital expenditure plan for fiscal year 2017/18.

Details

Background

The CRA is a 242-mile-long conveyance system that transports water from the Colorado River to Lake Mathews. It consists of five pumping plants; 124 miles of tunnels, siphons, and reservoirs; 63 miles of canals; and 55 miles of conduits. The aqueduct was constructed in the late 1930s and was placed into service in 1941.

In May 2014, Metropolitan's Board authorized final design to replace eight deteriorating radial gates along the CRA. Significant corrosion has occurred on the gates' steel frames. In addition, the performance of the motor actuators has diminished, and they require frequent repairs. As a result, the gates and actuators will be replaced over several shutdown seasons.

One of the eight gates is located at Eagle Mountain Reservoir. This gate is used to dewater the reservoir for maintenance and repairs, and to safely release water in case of an emergency. It is constructed of steel and is mounted on a concrete outlet structure. The gate is 8 feet wide and 10 feet high.

Due to its deteriorated condition, the spillway gate at Eagle Mountain Reservoir has been prioritized for replacement in advance of the seven other CRA gates. In February 2016, the Board authorized procurement of a new spillway gate. This gate has now been fabricated and delivered to Metropolitan. Bids have been received for installation of the new gate, and staff recommends award of the contract at this time so the work may be completed during the upcoming shutdown season. Staff will return to the Board at a later date to award procurement and installation contracts for the remaining seven gates.

Eagle Mountain Reservoir Spillway Gate Replacement – Construction (\$2,470,000)

The scope of the contract includes: (1) removal of the existing gate and installation of the new Metropolitan-furnished gate; (2) repair of damaged concrete on the spillway and installation of rip-rap at the toe of the spillway; and (3) extension of power supply and controls. Metropolitan force activities will include: (1) installation and programming of Supervisory Control and Data Acquisition equipment; and (2) dewatering of the reservoir and returning it to service.

Specifications No. 1797 for replacement of the spillway gate at Eagle Mountain Reservoir was advertised for bids on October 4, 2017. As shown in **Attachment 2**, four bids were received and opened on November 9, 2017. The low bid from Lasater Construction Co., Inc. in the amount of \$1,433,000 complies with the requirements of the specifications. The three higher bids ranged from \$1,592,000 to \$2,504,316, while the engineer's estimate was \$1.33 million. For this contract, Metropolitan established a Small Business Enterprise (SBE) participation level of at least 15 percent of the bid amount. Lasater Construction Co., Inc. has committed to meet this level of participation.

This action appropriates \$2.47 million and awards a \$1,433,000 contract to Lasater Construction Co., Inc. to replace a spillway gate at Eagle Mountain Reservoir. In addition to the amount of the contract, the requested funds include: \$295,000 for the Metropolitan force activities described above; \$263,000 for construction inspection; \$78,000 for submittals review and preparation of record drawings by Metropolitan staff; \$75,000 for technical support during construction by Lee & Ro, Inc., as discussed below; \$80,000 for environmental monitoring and project management; and \$246,000 for remaining budget.

Metropolitan staff will perform inspection of the construction. For this project, the anticipated cost of inspection is approximately 14 percent of the total construction cost. Engineering Services' goal for inspection of projects with construction less than \$3 million is 9 to 15 percent. The total cost of construction for this project is \$1.93 million, which includes the amount of the contract (\$1,433,000); Metropolitan force activities (\$295,000); and the previously procured slide gate (\$204,188).

Technical Support During Construction (Lee & Ro, Inc.) – Amendment to Agreement

Lee & Ro, Inc. performed final design to replace the existing spillway gate under a board-authorized agreement. As the engineer of record, Lee & Ro, Inc. is recommended to provide technical support during construction. Planned activities include responding to requests for information from the contractor, advising staff on technical issues as they may arise, and assisting with start-up of the equipment. Lee & Ro, Inc. is an SBE firm, and thus achieves 100 percent SBE participation. No subconsultants are planned for this agreement.

This action authorizes an increase of \$75,000 to an existing agreement with Lee & Ro, Inc., for a new not-to-exceed total of \$320,000, to provide technical support during construction to replace the spillway gate at Eagle Mountain Reservoir.

Summary

This action appropriates \$2.47 million, awards a contract to replace a gate at Eagle Mountain Reservoir, and authorizes an amendment to an agreement for technical support. This project is included within capital Appropriation No. 15438, the CRA Reliability Appropriation - FY 2006/07 Through FY 2011/12. With the present action, the total funding for Appropriation No. 15438 will increase from \$78,364,000 to \$80,834,000.

The total estimated cost to complete the replacement of eight radial gates along the CRA, including the amount appropriated to date, current funds requested, and future construction costs, is anticipated to range from \$10 million to \$12 million.

This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal year 2017/18 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.

Project Milestone

December 2018 – 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

By Minute Item 49766, dated May 13, 2014, the Board authorized final design to replace radial gates along the CRA.

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; final design; 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 do 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 \$2.47 million;
- b. Award \$1,433,000 contract to Lasater Construction Co., Inc. to replace a spillway gate at Eagle Mountain Reservoir; and
- c. Authorize increase of \$75,000 to an agreement with Lee & Ro, Inc., for a new not-to-exceed total of \$320,000, to provide technical support.

Fiscal Impact: \$2.47 million of capital funds under Appropriation No. 15438

Business Analysis: This option will help to maintain operational reliability of the Eagle Mountain Reservoir, and to prevent unplanned releases from the reservoir.

Option #2

Do not proceed with the project at this time.

Fiscal Impact: None

Business Analysis: This option would forego an opportunity to enhance reliability of the CRA. Further deterioration of the spillway gate could lead to excessive leakage, more extensive repairs, and increased costs.


Staff Recommendation

Option #1



Gordon Johnson
Manager/Chief Engineer
Engineering Services

11/22/2017
Date



Jeffrey Kightlinger
General Manager

11/27/2017
Date

Attachment 1 – Financial Statement

Attachment 2 – Abstract of Bids

Attachment 3 – Subcontractors for Low Bidder

Attachment 4 – Location Map

Ref# es12653191

Financial Statement for CRA Reliability Appropriation – FY 2006/07 Through FY 2011/12

A breakdown of Board Action No. 34 for Appropriation No. 15438¹ is as follows:

	Previous Total Appropriated Amount (Jan. 2017)	Current Board Action No. 34 (Dec. 2017)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 2,850,800	\$ -	\$ 2,850,800
Final Design	5,533,900	-	5,533,900
Owner Costs (Program mgmt.)	4,814,090	80,000	4,894,090
Submittals Review & Record Drwgs.	1,408,600	78,000	1,486,600
Construction Inspection & Support	5,599,500	263,000	5,862,500
Metropolitan Force Construction	6,523,600	295,000	6,818,600
Materials & Supplies	3,135,405	-	3,135,405
Incidental Expenses	163,800	-	163,800
Professional/Technical Services	4,128,000	-	4,128,000
Lee & Ro, Inc.	245,000	75,000	320,000
Equipment Use	25,505	-	25,505
Contracts	42,576,336	1,433,000	44,009,336
Remaining Budget	1,359,464 ²	246,000	1,605,464
Total	\$ 78,364,000	\$ 2,470,000	\$ 80,834,000

Funding Request

Appropriation Name:	CRA Reliability Appropriation – FY 2006/07 Through FY 2011/12		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15438	Board Action No.:	34
Requested Amount:	\$ 2,470,000	Budget Page No.:	220
Total Appropriated Amount:	\$ 80,834,000	Total Appropriation Estimate:	\$ 110,200,000

¹ The total amount expended to date to replace gates on the CRA is approximately \$1,428,000. The total estimated cost to complete this project, including the amount appropriated to date, current funds requested, and future construction costs, is anticipated to range from \$10 million to \$12 million.

² Includes previous reallocation of \$60,000 from Remaining Budget to the Intake power and communication line relocation for performance of a value engineering review.

The Metropolitan Water District of Southern California

Abstract of Bids Received on November 9, 2017 at 2:00 P.M.

Specifications No. 1797

CRA Eagle Mountain Reservoir Spillway Radial Gate Replacement

The work includes removal of an existing gate and replacement with a Metropolitan-furnished slide gate and actuator. The work also includes repairs to the concrete spillway, including repair of cracked concrete and installation of rip-rap at the spillway toe.

Engineer's estimate: \$1,330,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE¹
Lasater Construction Co., Inc. Encinitas, CA	\$1,433,000	\$1,433,000	100	Yes
L. H. Woods & Sons, Inc. Vista, CA	\$1,592,000	—	—	—
PCL Construction, Inc. Corona, CA	\$1,920,000	—	—	—
Abhe & Svoboda Inc. Alpine, CA	\$2,504,316	—	—	—

¹ SBE (Small Business Enterprise) participation was established at 15% for this contract

The Metropolitan Water District of Southern California
Subcontractors for Low Bidder
Specifications No. 1797
CRA Eagle Mountain Reservoir Spillway Radial Gate Replacement

Low Bidder: Lasater Construction Co., Inc.

Subcontractor and Location
Allen Fence Construction, Desert Hot Springs, CA
KO Electric, Ramona, CA
Performance Abatement Services, Anaheim, CA

Location Map

