



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

December 8, 2009 Board Meeting

8-3

Subject

Appropriate \$6.49 million; and award \$4,792,162 contract to PCL Construction, Inc. for access covers replacement and desert water tanks safety improvements at the Colorado River Aqueduct (Approp. 15374)

Description

This action awards a construction contract for needed rehabilitation work along the Colorado River Aqueduct (CRA). The work includes replacement of deteriorated access covers over the aqueduct, and improvement of access pathways to the water storage tanks at each pumping plant. Staff has consolidated both projects into a single construction contract for greater efficiency, due to the close proximity of the work.

Timing and Urgency

Replacement of the 36 deteriorated steel and concrete access covers along the CRA is needed to protect the aqueduct from intrusion of soil and debris, and to prevent unauthorized access. The access pathway improvements for the 15 fire, cooling and domestic water tanks will improve worker safety by mitigating hazards resulting from the tanks' locations in steep terrain, high above each pumping plant. Staff has assessed the urgency of these two projects, and recommends moving forward at this time to maintain reliable water deliveries from the CRA and to enhance workplace safety.

These projects have been reviewed with Metropolitan's updated Capital Investment Plan (CIP) prioritization criteria, and are categorized as Infrastructure Upgrade projects. Both projects are budgeted within Metropolitan's CIP for fiscal year 2009/10.

Project No. 1 - Access Covers Replacement - Construction (\$1,947,000)

The CRA conveyance system includes 173 openings to the aqueduct that are capped and protected by steel and concrete covers. The function of these covers is to restrict unauthorized access to the aqueduct and to protect it from intrusion of soil and debris. Many of the original covers are over 60 years old and are deteriorating due to weathering and corrosion. In September 2007, Metropolitan's Board authorized final design for replacement of the access covers.

During the preliminary and final design process, staff assessed the condition of access covers throughout the CRA, and prioritized the covers for repair. Staff recommends that repairs proceed at this time for 36 of the most severely distressed covers along the aqueduct. Staff will continue to monitor the condition of the remaining 137 access covers, and will move forward with repairs in stages.

Final design and construction of the access cover repairs has been timed to coincide with planned CRA shutdowns. Staff recommends proceeding with award of a contract at this time for the most severely deteriorated covers located along the aqueduct.

Project No. 2 - Desert Water Tank Safety Improvements – Construction (\$4,543,000)

Metropolitan has 15 existing fire, cooling, and domestic water storage tanks at the five CRA pumping plants. These tanks are located on steep, rocky slopes, high above each of the desert facilities. At least once per month, plant operators are required to access these tanks to perform routine maintenance work. In May 2005, Metropolitan's Workplace Health and Safety staff identified potential safety hazards in accessing the water tanks

during regular maintenance or rescue operations. Examples of these safety hazards include deteriorated access covers, substandard handrails and guardrails, lack of lighting for nighttime work, and lack of delineators or guard posts along access roads. This project will include new landings, handrails, lighting, spring-loaded hatch covers, guard posts and delineators along the edge of access roads, improved pathways, and new grading to permit vehicles to turn around.

In September 2007, Metropolitan's Board authorized final design for improvements of access to the water storage tanks. Final design was completed in July 2009. Staff recommends proceeding with award of a construction contract at this time.

Construction Contract Award

Staff has consolidated both projects into a single construction contract to improve efficiency. Specifications No. 1562 for replacement of CRA access covers and construction of water tank safety improvements was advertised for bids on September 3, 2009. The contract includes replacing 18 deteriorated 18 feet wide by 24 feet long steel transition covers and 18 concrete manhole covers each of which is 2.5 feet wide by 9 feet long along the CRA conveyance system. Additional improvements include new landings, handrails, improved pathways, lighting, spring-loaded hatch covers, grading to permit vehicles to turn around, guard posts and delineators along the edge of access roads at all 15 water tanks for the five pumping plants. As shown in [Attachment 2](#), eight bids were received and opened on October 21, 2009. The low bid from PCL Construction, Inc., in the amount of \$4,792,162, complies with the requirements of the specifications. The seven higher bids ranged from \$5.43 million to \$7.82 million. The engineer's estimate was \$5.2 million. For this contract, Metropolitan established a Small Business Enterprise participation level of at least 20 percent of the bid amount. PCL Construction, Inc. has committed to meet this level of participation.

This action appropriates \$6.49 million and awards a \$4,792,162 construction contract to PCL Construction, Inc. In addition to the amount of the contract, the appropriated funds include \$574,000 for construction inspection; \$316,100 for contract administration, environmental monitoring, and project management; \$169,500 for technical support by Metropolitan design staff; \$78,700 for incidentals; and \$559,538 for remaining budget.

Metropolitan staff will perform inspection of the construction contract. For this project, the anticipated cost of construction inspection is approximately 12 percent of the total construction cost. Engineering Services' goal for inspection of construction contracts greater than \$3 million is 9 to 12 percent. For this project, the inspection costs are at the upper end of the goal due to the multiple remote construction sites located over a wide area.

See [Attachment 1](#) for the Financial Statement, [Attachment 2](#) for the Abstract of Bids, and [Attachment 3](#) for the Location Map.

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 Milestone

June 2011 – 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 overall activities involve funding, design, minor alterations and replacement of existing public facilities; minor modifications in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature,

scenic trees; and a check for performance of an operation, or quality, health, or safety of a project. In addition, these activities involve negligible or no expansion of use and no possibility of significantly impacting the physical environment. Accordingly, the proposed action qualifies under Class 1, Class 2, Class 4, and Class 9 Categorical Exemptions (Sections 15301, 15302, 15304, and 15309 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 4, Section 15304; and Class 9, Section 15309 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination and

- a. Appropriate \$6.49 million; and
- b. Award \$4,792,162 contract to PCL Construction, Inc. for the CRA Access Covers Replacement and Desert Water Tanks Safety Improvements.

Fiscal Impact: \$6.49 million in budgeted funds under Approp. 15374

Business Analysis: These projects will enhance workplace safety and protect Metropolitan’s assets.

Option #2

Do not award the construction 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 more favorable bids, and would delay the rehabilitation work.

Staff Recommendation

Option #1



 Roy L. Wolfe
 Manager, Corporate Resources

11/18/2009

 Date



 Jeffrey Kichtlinger
 General Manager

11/19/2009

 Date

[Attachment 1 – Financial Statement](#)

[Attachment 2 – Abstract of Bids](#)

[Attachment 3 – Location Map](#)

Financial Statement for CRA Pumping Plant Reliability Program

A breakdown of Board Action No. 10 for Appropriation No. 15374 for the Access Cover Replacement and Desert Water Tank Safety Improvement Projects* is as follows:

	Previous Total Appropriated Amount (Dec. 2009)	Current Board Action No. 10 (Dec. 2009)	New Total Appropriated Amount
Labor			
Studies and Investigations	\$ 889,000	\$ -	\$ 889,000
Final Design	1,129,800	-	1,129,800
Owner Costs (Program mgmt., contract admin., environ. monitoring)	1,685,000	485,600	2,170,600
Construction Inspection and Support	813,400	574,000	1,387,400
Metropolitan Force Construction	3,022,700	-	3,022,700
Materials and Supplies	2,666,000	-	2,666,000
Incidental Expenses	76,300	78,700	155,000
Professional Services	763,000	-	763,000
Equipment Use	82,700	-	82,700
Contracts	437,000	4,792,162	5,229,162
Remaining Budget	1,662,100	559,538	2,221,638
Total	\$ 13,227,000	\$ 6,490,000	\$ 19,717,000

Funding Request

Program Name:	CRA Pumping Plant Reliability Program		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15374	Board Action No.:	10
Requested Amount:	\$ 6,490,000	Capital Program No.:	15374
Total Appropriated Amount:	\$ 19,717,000	Capital Program Page No.:	281
Total Program Estimate:	\$ 39,700,000	Program Goal:	I-Infrastructure Reliability

* The total amount expended to date on the Access Covers Replacement and Desert Water Tanks Safety Improvements projects is approximately \$1,522,000.

The Metropolitan Water District of Southern California
Abstract of Bids Received on October 21, 2009 at 2:00 P.M.
Specifications No. 1562
Colorado River Aqueduct Access Covers Replacement and
Water Tank Safety Improvements Project

The Colorado River Aqueduct Access Covers Replacement and Water Tank Safety Improvements project will replace 36 deteriorated steel and concrete access covers along the CRA conveyance system. Safety improvements at 15 fire, cooling and domestic water tanks include new concrete pathways, stairways, platforms, hatch covers, lighting, ladders & safety cages, guardrail, and grading of vehicular access road and turn around areas.

Engineer's Estimate: \$5,160,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE**
PCL Construction, Inc., Tempe, AZ	\$ 4,792,162	\$1,309,799	27.34%	Yes
Gantry Constructors, Inc., Clarkdale, AZ	\$ 5,434,000	N/A	N/A	N/A
Abhe & Svoboda, Inc., Alpine, CA	\$ 5,487,120	N/A	N/A	N/A
Quest Civil Constructors, Inc., Phoenix, AZ	\$ 5,625,625	N/A	N/A	N/A
4-Con Engineering, Inc., Riverside, CA	\$ 5,975,000	N/A	N/A	N/A
Steve Bubalo Construction Co., Monrovia, CA	\$ 6,370,000	N/A	N/A	N/A
W.A. Rasic Construction Co., Inc., Bell Gardens, CA	\$ 7,150,000	N/A	N/A	N/A
SCW Contracting Corporation, Fallbrook, CA	\$ 7,820,000	N/A	N/A	N/A

*SBE (Small Business Enterprise) participation was established at 20% for this contract

Location Map

