



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

6/12/2018 Board Meeting

8-2

Subject

Adopt CEQA determination and appropriate \$7.7 million; and award \$5,553,669 contract to Henkels & McCoy, Inc. to replace the 2.4 kV power line at Intake Pumping Plant (Appropriation No. 15438)

Executive Summary

This action awards a construction contract to replace and relocate the 2.4 kV power line that serves Intake Pumping Plant and other nearby facilities.

Timing and Urgency

The existing 2.4 kV electrical service to Intake Pumping Plant is conveyed over a three-mile-long overhead power line that originates at Gene Pumping Plant. The poles for this line were installed in the 1930s during the original construction of the Colorado River Aqueduct (CRA) to support a telephone line. In the 1950s, power cables were added and the poles were retrofitted with extensions and cross arms to provide adequate clearance between the power and communication cables. The existing wooden poles have deteriorated due to weathering in the desert environment and need to be replaced.

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

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.

The 2.4 kV power line serving Intake Pumping Plant originates at Gene Pumping Plant and provides electrical service to several facilities including Gene Wash Dam, the Black Metal Mountain communication tower, and Intake Village. The three-mile-long overhead line is supported by 40-foot-tall wooden poles that were installed during the original construction of the CRA. These poles also support communication cables.

Over the years, the wooden poles have deteriorated substantially due to weathering in the harsh desert environment. The pole cross arms, insulators, and pole extensions require frequent repairs, which are difficult to perform because some poles are inaccessible by vehicle. In June 2013, Metropolitan's Board authorized final design to replace and relocate the 2.4 kV power line to a more accessible alignment. Staff has completed final design and recommends proceeding with construction at this time.

Intake Pumping Plant 2.4 kV Power Line Replacement – Construction (\$7,700,000)

The scope of the construction contract includes relocating the power line from steep mountain slopes to an alignment that runs closer to existing patrol and maintenance roads. The relocated line will be supported by 50 new poles. Each pole will be fabricated of steel and will range from 50 to 65 feet in height, with a foundation depth of up to 15 feet. Portions of the work will take place in environmentally sensitive areas. The final connections of the new power and communication lines to existing lines and/or electrical panels will be performed by Metropolitan forces.

Award of Construction Contract (Henkels & McCoy, Inc.)

Specifications No. 1798A for replacement of the power line at Intake Pumping Plant was advertised for bids on April 4, 2018. As shown in **Attachment 2**, three bids were received and opened on May 8, 2018. The low bid from Henkels & McCoy, Inc. in the amount of \$5,553,669 complies with the requirements of the specifications. The other two bids were \$6,232,000 and \$7,869,977, while the engineer's estimate was \$4.3 million. Staff investigated the difference between the low bid and the engineer's estimate and attributes the difference to the bidder's higher anticipated costs for drilling deep foundation holes for the poles, and for logistical challenges due to the remoteness of the job site. For this contract, Metropolitan established a Small Business Enterprise (SBE) participation level of at least 15 percent of the bid amount. Henkels & McCoy, Inc. has committed to meet this level of participation. The subcontractors for this contract are listed in **Attachment 3**.

Metropolitan force activities will include: (1) extending cables from the final poles to existing panels at Gene and Intake Pumping Plants; (2) terminating the communication cables to existing network servers at both pumping plants; and (3) connecting the power and communication cables to existing services at Gene Wash Dam, Black Metal Mountain, and Intake Village. This work will be completed during a planned CRA shutdown in early 2019.

This action appropriates \$7.7 million and awards a \$5,553,669 million contract to Henkels & McCoy, Inc. to replace the 2.4 kV power line at Intake Pumping Plant. In addition to the amount of the contract, the requested funds include \$549,000 for the Metropolitan force activities described above; \$693,000 for construction inspection; \$111,000 for submittals review and record drawing preparation by Metropolitan staff; \$140,000 for technical support during construction by HDR Engineering, as discussed below; \$150,000 for environmental monitoring during construction by Aspen Environmental Group, as discussed below; \$132,000 for project controls and project management; and \$371,331 for remaining budget.

Metropolitan staff will perform inspection of the construction. For this project, the anticipated cost of inspection is approximately 11.4 percent of the total construction cost. Engineering Services' goal for inspection of projects with construction greater than \$3 million is 9 to 12 percent. The total cost of construction for this project is \$6,102,669, which includes the amount of the contract (\$5,553,669) and Metropolitan force activities (\$549,000).

The total estimated cost to complete the replacement of the 2.4 kV power line at Intake Pumping Plant, including the amount appropriated to date and current funds requested, is \$8.2 million.

Specialized Environmental Services (Aspen Environmental Group) – No Action Required

Aspen Environmental Group will perform environmental monitoring during the construction. Aspen Environmental Group was prequalified to provide specialized environmental services via Request for Qualifications No. 1143. Subsequently, Aspen Environmental Group was selected for this project based on its extensive experience with projects in environmentally sensitive locations. The scope of work will include: (1) conducting biological field surveys; (2) providing technical guidance on environmental regulations; and (3) performing onsite monitoring. A new agreement with Aspen Environmental Group is planned to be executed under the General Manager's Administrative Code authority to award contracts of \$250,000 or less. The estimated cost for these services is \$150,000.

For this agreement, Metropolitan established an SBE participation level of 25 percent. Aspen Environmental Group has agreed to meet this level of participation. The sole subconsultant planned for this agreement is P2S Engineering.

Technical Support during Construction (HDR Engineering) – No Action Required

HDR Engineering performed final design to replace the power line at Intake Pumping Plant under a board-authorized agreement. As the engineer of record, HDR Engineering will provide technical support during construction. Planned activities include: (1) responding to requests for information from the contactor; (2) advising staff on technical issues as they may arise, including foundation and site condition assessments; and (3) assisting with testing and commissioning of the new lines. A new agreement with HDR Engineering is planned to be executed under the General Manager's Administrative Code authority to award contracts of \$250,000 or less. The estimated cost for these services is \$140,000.

For this agreement, Metropolitan established a SBE participation level of 25 percent. HDR Engineering has agreed to meet this level of participation. The sole subconsultant planned for this agreement is TJC and Associates, Inc.

Summary

This action appropriates \$7.7 million and awards a construction contract to Henkels & McCoy, Inc. for replacement of the 2.4 kV power line at Intake Pumping Plant. 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.

This project is included within capital Appropriation No. 15438, the CRA Reliability Appropriation – FY 2006/07 Through FY 2011/12, which was initiated in fiscal year 2006/07. With this action, the total funding for Appropriation No. 15438 will increase from \$80,834,000 to \$88,534,000.

Project Milestone

June 2019 – Completion of construction of the new power line to Intake Pumping Plant

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 49442, dated June 11, 2013, the Board authorized final design to relocate the 2.4 kV power line at Intake Pumping Plant.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The project was previously determined by the Board to be categorically exempt under Classes 1, 2, and 4 (Sections 15301, 15302, and 15304 of the State CEQA Guidelines) on June 11, 2013. With the current action, there is no substantial change proposed since the original project was first approved in 2013. Hence, the previous environmental documentation in conjunction with the project fully complies with CEQA and the State CEQA Guidelines. Accordingly, no further CEQA documentation is necessary for the Board to act with regard to the proposed action.

The CEQA determination is: Determine that the proposed action was previously addressed in the 2013 categorical exemptions (Classes 1, 2, and 4; Sections 15301, 15302, and 15304 of the State CEQA Guidelines), and that no further environmental analysis or documentation is required.

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination that the proposed action was previously determined to be categorically exempt, and that no further environmental analysis or documentation is required, and

- a. Appropriate \$7.7 million;
- b. Award \$5,553,669 million contract to Henkels & McCoy, Inc. to replace the 2.4 kV power line at Intake Pumping Plant.

Fiscal Impact: \$7.7 million in capital funds under Appropriation No. 15438

Business Analysis: This option will maintain reliable power service to critical CRA facilities located near Intake Pumping Plant, and will reduce the risk of costly emergency repairs.

Option #2

Do not proceed with replacement of the power poles at this time.

Fiscal Impact: None

Business Analysis: This option would forego an opportunity to maintain reliable power to Intake Pumping Plant.

Staff Recommendation

Option #1


 _____ 5/23/2018
 Gordon Johnson Date
 Manager/Chief Engineer
 Engineering Services


 _____ 5/25/2018
 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 CRA Reliability Appropriation – FY 2006/07 Through FY 2011/12

A breakdown of Board Action No. 35 for Appropriation No. 15438¹ is as follows:

	Previous Total Appropriated Amount (Dec. 2017)	Current Board Action No. 35 (June 2018)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 2,850,800	\$ -	\$ 2,850,800
Final Design	6,329,900	-	6,329,900
Owner Costs (Program mgmt., contract admin.)	4,894,090	132,000	5,026,090
Submittals Review & Record Drwgs.	1,486,600	111,000	1,597,600
Construction Inspection & Support	5,862,500	693,000	6,555,500
Metropolitan Force Construction	6,818,600	549,000	7,367,600
Materials & Supplies	3,135,405	-	3,135,405
Incidental Expenses	163,800	-	163,800
Professional/Technical Services	4,448,000	-	4,448,000
HDR Engineering	-	140,000	140,000
Aspen Environmental Group	-	150,000	150,000
Equipment Use	25,505	-	25,505
Contracts	44,009,336	-	44,009,336
Henkels & McCoy, Inc.	-	5,553,669	5,553,669
Remaining Budget	809,464 ²	371,331	1,180,795
Total	\$ 80,834,000	\$ 7,700,000	\$ 88,534,000

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.:	35
Requested Amount:	\$ 7,700,000	Budget Page No.:	220
Total Appropriated Amount:	\$ 88,534,000	Total Appropriation Estimate:	\$ 110,200,000

¹ The total amount expended to date to replace the 2.4 kV power line at Intake Pumping Plant is approximately \$885,000. The total estimated cost to complete this project, including the amount appropriated to date and current funds requested, is \$8.2 million.

² Includes previous reallocation of \$796,000 from Remaining Budget for final design to rehabilitate the sump systems at all five CRA pumping plants to add the replacement of corroded grating, ladders, and pipe supports in the sumps.

The Metropolitan Water District of Southern California

Abstract of Bids Received on May 8, 2018 at 2:00 P.M.

**Specifications No. 1798A
Intake Pumping Plant 2.4 kV Power Line Relocation**

The work consists of replacement of 50 power poles and cables over a length of three miles. Each power pole will be fabricated of steel.

Engineer’s estimate: \$4,300,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE¹
Henkels & McCoy, Inc. Pomona, CA	\$5,555,669	\$833,350.50	15	Yes
Herman Weissker Power, Inc. Downey, CA	\$6,232,000	-	-	-
Diversified Utility Services, Inc. Bakersfield, CA	\$7,869,977	-	-	-

¹ Small Business Enterprise (SBE) participation level was established at 15 percent for this contract.

The Metropolitan Water District of Southern California

Subcontractor for Low Bidder

**Specifications No. 1798A
Intake Pumping Plant 2.4 kV Power Line Relocation**

Low bidder: Henkels & McCoy, Inc.

Subcontractor and Location
Cal Valley Construction Fresno, CA
Cam Guard Systems, Inc. Corona, CA
Aldridge Libertyville, IL
Performance Abatement Services, Inc. Lenexa, KS
Growth Development Marketing, Inc Chino, CA

Location Map

