



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

12/5/2023 Board Meeting

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**7-3**

**Subject**

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Award a \$698,000 contract to B&K Valves & Equipment Inc. for procurement of five globe valves to be installed at four pressure control structures in the Orange County region of Metropolitan's distribution system; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

**Executive Summary**

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Hydraulic globe valves are used at pressure control structure (PCS) facilities within Metropolitan's distribution system to stabilize and control downstream pressures in the distribution system. Five globe valves located at four different PCS facilities in the Orange County region of Metropolitan's distribution system—Coastal Junction, Carbon Creek, Santiago Creek, and Coyote Creek—have failed and have been removed from service; the PCSs remain operational albeit with reduced operational flexibility and redundancy. Replacement of the globe valves will ensure that operational capacities and system redundancies are maintained at the PCS facilities. This action awards a contract for the procurement of five replacement globe valves.

**Details**

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**Background**

The Lower Feeder, Second Lower Feeder, and East Orange County Feeder No. 2 all convey treated water from the Robert B. Diemer Water Treatment Plant to Metropolitan's service area in the Orange County region of the distribution system. The Diemer plant is located at a higher elevation than much of the surrounding Orange County service area, which creates higher pressure in the treated water feeders that originate at the Diemer plant. To reduce the water pressure delivered to lower elevations to within an operable range for the member agencies and to protect against surge pressure events in Metropolitan's feeders, several PCS facilities are utilized within the Orange County area.

PCS facilities are operated to control downstream water pressures by utilizing several smaller-diameter branch lines of varying sizes with a control valve on each branch line set to produce the desired downstream pressures in the feeders. Most of the control valves used within these PCS facilities are hydraulic globe valves. Each branch line within a PCS facility utilizes one control valve, and failure of the control valve will put the individual branch line out of service until a replacement can be installed. Reducing the number of branch lines available at a PCS facility reduces the total flow capacity of the PCS, limits operational flexibility, increases wear on the remaining operational valves, and removes built-in redundancy.

Five different globe valves at four PCS facilities in Orange County have failed and have been removed from service, and blind flanges were installed on the branch lines. The globe valves range between 8 and 12 inches in diameter and were installed approximately 60 years ago. The globe valves that are to be replaced are located at the Coastal Junction, Santiago Creek, Carbon Creek, and Coyote Creek PCS facilities. Coastal Junction and Santiago PCS are located on the East Orange County Feeder No. 2, Carbon Creek PCS is located on the Second Lower Feeder, and Coyote Creek PCS is located on the Lower Feeder.

Procurement specifications for the globe valves are complete, and bids have been received. Staff recommends proceeding with the procurement of replacement globe valves at this time. The valves will be installed by Metropolitan forces.

**Budget Impact**

Based on the current Capital Investment Plan (CIP) expenditure forecast, funds for the procurement are available within the CIP Appropriation for Fiscal Years 2022/23 and 2023/24 (Appropriation No. 15525). This project anticipates an expenditure of approximately \$860,000 in capital funds. Approximately \$160,000 will be incurred in the current biennium and have been previously authorized. The remaining funds from this action will be accounted for and appropriated under the next biennial budget. This project has been reviewed in accordance with Metropolitan's CIP prioritization criteria and was approved by Metropolitan's CIP evaluation team to be included in the Distribution System Reliability Program.

**Orange County Area PCS Globe Valves Replacement – Procurement**

The scope of the work includes furnishing five globe valves, submittal review, fabrication inspection, and contract administration. Globe valves are the primary control valve types used at Metropolitan's PCS facilities throughout the distribution system. Replacement of failed globe valves is critical for the proper operation of the PCS facilities and for the distribution system as a whole. Installation of the valves will be completed by Metropolitan forces, and funds for that work have been previously allocated.

A total of \$860,000 is required for this work. In addition to the amount of the procurement contract described below, allocated funds for Metropolitan staff include \$12,000 for submittal review; \$78,000 for contract administration and fabrication inspections; \$46,000 for project management; and \$26,000 for remaining budget.

**Attachment 1** provides the allocation of the required funds. The total estimated cost to complete the work, including the amount appropriated to date, funds allocated for the work described in this action, and future construction costs, is anticipated to range from \$1 million to \$1.2 million.

***Award of Procurement Contract (B&K Valves and Equipment Inc.)***

Request for bids No. RFB-KK-431080 for the procurement of five globe valves was advertised on August 3, 2023. As shown in **Attachment 2**, one bid was received and opened on September 21, 2023. The low bid from B&K Valves & Equipment Inc., in the amount of \$698,000, complies with the requirements of the specifications. This amount includes all sales and use taxes imposed by the State of California. Staff investigated why only one bid was received and determined that there are a limited number of valve manufacturers that routinely manufacture valves that meet the specifications required for this project. As a procurement contract, there are no subcontracting opportunities, and a Small Business Enterprise participation level was not established for this contract. The budgetary estimate for this material, based on a survey of vendors, ranged from \$600,000 to \$750,000.

**Alternatives Considered**

The hydraulic globe valves currently used in Metropolitan PCS facilities are not widely available; the original valve manufacturer is no longer in business. An alternative to this procurement would be to modify branch lines at the PCS facilities to fit a new type of valve with greater availability. This alternative will not address the immediate need for replacement of the failed valves because it would require a longer-term project. The selected alternative, to procure five globe valves, will provide a near-term solution to restore full operational capacity to the four PCS facilities in Orange County. Staff will continue to investigate through a detailed analysis if a wholesale change to a more readily available valve is supported.

**Summary**

This action awards a \$698,000 procurement contract to B&K Valves & Equipment Inc. for five globe valves to be installed at four different PCS facilities in the Orange County region of the distribution system.

See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Abstract of Bids, and **Attachment 3** for the Location Map.

***Project Milestones***

November 2024 – Delivery of valves

April 2025 – Complete installation of the valves

## Policy

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

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 52778, dated April 12, 2022, the Board appropriated a total of \$600 million for projects identified in the Capital Investment Plan for Fiscal Years 2022/2023 and 2023/2024.

## California Environmental Quality Act (CEQA)

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### CEQA determination for Option #1:

The proposed action is exempt from CEQA because it involves repair and maintenance of existing public facilities and mechanical equipment involving negligible or no expansion of existing or former use and no possibility of significantly impacting the physical environment (State CEQA Guidelines Section 15301).

### CEQA determination for Option #1:

None required

## Board Options

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### Option #1

Award a \$698,000 procurement contract to B&K Valves & Equipment Inc. for five globe valves.

**Fiscal Impact:** Expenditure of \$860,000 in capital funds. \$160,000 will be incurred in the current biennium and has been previously authorized. The remaining funds from this action will be accounted for in the next biennial budget.

**Business Analysis:** This option will improve the operational reliability of four PCS facilities in the Orange County region of the distribution system.

### Option #2

Do not proceed with the project at this time

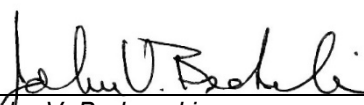

**Fiscal Impact:** None

**Business Analysis:** This option would forego the opportunity to improve the operational reliability of four PCS facilities in the Orange County region of the distribution system.

## Staff Recommendation

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Option #1

 John V. Bednarski Manager/Chief Engineer Engineering Services	11/21/2023 Date
 Adel Hagekhalil General Manager	11/22/2023 Date

**Attachment 1 – Allocation of Funds**

**Attachment 2 – Abstract of Bids**

**Attachment 3 – Location Map**

**Allocation of Funds for Orange County Area PCS Globe Valve Replacement**

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	<b>Current Board Action (Dec. 2023)</b>
Labor	
Studies & Investigations	\$ -
Final Design	-
Owner Costs (Program mgmt.)	28,000
Submittals Review & Record Drwgs.	12,000
Fabrication Inspection & Support	78,000
Metropolitan Force Construction	-
Materials & Supplies	-
Incidental Expenses	18,000
Professional/Technical Services	-
Right-of-Way	-
Equipment Use	-
Contracts	-
B&K Valves & Equipment Inc.	698,000
Remaining Budget	26,000
<b>Total</b>	<b>\$ 860,000</b>

The total amount expended for the procurement of five globe valves for PCS facilities in the Orange County region is approximately \$50,000. The total estimated cost to complete the valve replacement, including the amount appropriated to date, funds allocated for the work described in this action, and future construction costs, is anticipated to range from \$1 million to \$1.2 million.

**The Metropolitan Water District of Southern California**  
**Abstract of Bids Received on September 21, 2023, at 11:00 A.M.**  
**Specifications No. ME-15102**  
**Globe Valves for Distribution System**

The work includes the procurement of five globe valves.

**Budgetary estimate: \$600,000 to \$750,000**

<b>Bidder and Location</b>	<b>Total</b>	<b>SBE \$</b>	<b>SBE %</b>	<b>Met SBE<sup>1,2</sup></b>
<b>B&amp;K Valves &amp; Equipment Inc. Carlsbad, CA</b>	<b>\$698,000</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

<sup>1</sup> As a procurement contract, there are no subcontracting opportunities.

<sup>2</sup> Includes sales and use taxes of 7.75 percent imposed by the state of California

