THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Board Action

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

9/9/2025 Board Meeting

7-10

Subject

Award a $7.988 million contract to Legion Contractors Inc. to construct electrical conduits at the Henry J. Mills Water Treatment Plant to support replacement of the plant's control system; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Executive Summary

Metropolitan's control system operates, monitors, and collects critical information from Metropolitan facilities throughout Southern California. The existing system is nearing the end of its service life, and a comprehensive upgrade of Metropolitan's entire control system is currently underway to maintain reliable water deliveries over the long term. The current plan is to upgrade the control system at the Mills plant first before starting work on other facilities. Construction of new communication conduits at the Mills plant are required to support and facilitate the replacement of the Mills control system. Installing new communication fibers in the conduits will increase the control system's data communication capacity and facilitate expected future data communication growth.

This action awards a $7.988 million contract to Legion Contractors Inc. for the construction of new communication conduits at the Mills plant. See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the List of Sub-Contracts, and **Attachment 4** for the Location Map.

Proposed Action(s)/Recommendation(s) and Options

Staff Recommendation: Option #1

Option #1

Award a $7.988 million contract to Legion Contractors Inc. to construct electrical conduits at the Mills plant to support replacement of the plant's control system.

Fiscal Impact: Expenditure of $11.1 million in capital funds. Approximately $3 million will be incurred in the current biennium and has been previously authorized. The remaining funds for this action will be accounted for in the next biennium's Capital Investment Plan budget.
Business Analysis: This option will enhance the reliability and operating efficiency of Mills' plant's control system. This option will support Metropolitan's control system replacement, protect Metropolitan's assets, enhance delivery reliability to member agencies, and reduce the risk of a control system breakdown.

Option #2
Do not proceed with the project at this time.
Fiscal Impact: None
Business Analysis: Under this option, staff will continue to support the existing control system for as long as spare parts are available.

Alternatives Considered

Staff considered incorporating the cable conduit installation with the upgrade of the entire Mills plant controls as one contract. However, this results in a large contract with two different focuses and delays the project's completion. Under the selected option, a contract would be issued for the installation of the conduits allowing construction of this initial step to proceed, while design is being performed for the control systems. This will result in a shorter schedule and more cost-effective approach.

Applicable Policy

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

Related Board Action(s)/Future Action(s)

By Minute Item 53598, dated April 8, 2024, the Board appropriated a total of $636.48 million for projects identified in the Capital Investment Plan for Fiscal Years 2024/2025 and 2025/2026.

By Minute Item 52777, dated April 11, 2022, the Board authorized an agreement with Stantec Consulting Services, Inc. for a not-to-exceed amount of $8.5 million to replace the control system at the Mills Water Treatment Plant and amended an existing agreement with CH2M Hill Engineers, Inc. for a not-to exceed amount of $4.435 million.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1

The proposed action is exempt from CEQA because it involves the operation, repair, and maintenance of existing public structures, facilities and mechanical equipment involving negligible or no expansion of existing or former use and no possibility of significantly impacting the physical environment. In addition, the proposed action is exempt from CEQA because it consists of the replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced. Finally, the proposed action is exempt from CEQA because it consists of minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes. (State CEQA Guidelines Sections 15301, 15302, and 15304.)

CEQA determination for Option #2

None required

Details and Background

Background

Metropolitan's control system was commissioned in the mid-1990s and relies upon proprietary hardware and software to augment the local, manual controls that were installed when facilities were originally constructed. Staff use the control system to monitor and operate treatment plants, chemical feed systems, flow control structures, hydroelectric power plants, pump stations, and associated facilities. In addition to its control, monitoring, and alarm functions, the system compiles operational data critical for regulatory compliance and daily business processes.

Metropolitan's existing control system has operated reliably for over 28 years but is nearing the end of its service life. A condition assessment of the control system identified near-term cybersecurity risks with certain components and impending technological obsolescence of the system's hardware, software, control, and communication features. While upgrades over the past 28 years have extended the system's service and it continues to operate reliably today, the existing system must be replaced to maintain future reliability and reduce

cybersecurity risks. Without a reliable control system, a broad range of equipment designed to operate remotely must be operated locally with manual input. Operational data presently collected automatically and summarized for submission to regulatory agencies would instead need to be gathered and logged manually, while safety procedures that include automatic alarms would need to be assessed, modified, and staffed appropriately. Over the next ten years, major control system elements, including hardware, software, and the communication network, will need to be upgraded. In June 2017, the Board approved conceptual design for upgrading Metropolitan's overall control system.

In the April 2022 Board action, staff recommended implementing the Mills plant system upgrades in a two-step process that includes a pilot project, followed by the full-scale project for the remainder of the plant. A pilot control system equipment demonstration project on one system at the Mills plant is anticipated to be completed in September 2025. After completion of the pilot program, final design will begin to upgrade the entire Mills plant, utilizing a common control system platform across the remaining facilities in Metropolitan's system.

During the subsequent development of the Mills plant control system project, it was determined that construction and installation of new communication conduits and communication fiber to install a new Supervisory Control and Data Acquisition (SCADA) system is required. Staff has performed extensive surveys of the Mills plant communication conduit system and has determined that many of the existing underground conduits have reached their maximum cable capacity and are full, necessitating the construction of additional underground conduits. Additionally, as part of this work, staff have also selected communication fiber with substantially increased data transmission capacity to address Metropolitan's current and future data communication needs for these services. Staff has also taken advantage of this opportunity to combine this effort with the communications needs for security systems and information technology for increased project cost efficiency.

Mills Plant Fiber Conduit Installation – Construction

The work consists of installing approximately two miles of conduit duct bank and the necessary fiber optic cable for the SCADA system throughout the Mills plant site. Work required will involve saw-cutting of asphalt pavement and/or excavation, earth removal, installation of conduits, backfill, slurry covering, repaving, and communication fiber pulling, fiber termination, and fiber testing. Metropolitan staff will isolate equipment when required, shut down and reactivate electrical systems upon completion of duct bank crossing or connection and provide contractor oversight near electrical facilities.

A total of $11.1 million is required to complete this work. In addition to the construction contract described below, allocated funds for Metropolitan staff activities include $634,000 for Metropolitan force work; $956,000 for construction management and inspection; $255,000 for construction documentation, coordination, approval, responding to contractor requests for information, coordination with contractor during testing, and approval & archival of record drawings; $459,000 for consultant for engineering construction support, submittal review, and record drawings under an existing board authorized contract; $338,000 for contract administration, environmental support, project controls, and project management; and $470,000 for remaining budget. **Attachment 1** provides the allocation of required funds.

Award of a Construction Contract – (Legion Contractors Inc.)

Specifications No. 2077 for Mills Plant Fiber Conduit Installation was advertised for bids on April 28, 2025. As shown in **Attachment 2**, four bids were received and opened on July 8, 2025. The apparent low bidder requested to withdraw its bid due to a mathematical error in the calculation of its bid. The next lowest bid from Legion Contractors Inc. (Legion), in the amount of $7.988 million, was subject to a protest by the third lowest bidder, Royal Electric Company (Royal), which argued that Legion had failed to submit a required certification and proof of registration with its bid. Metropolitan staff rejected the protest, and, following a hearing, an ad hoc subcommittee of the Board denied Royal's subsequent appeal. Legion's bid thus complies with the requirements of the specifications. The other bids ranged from $9.480 million to $14.309 million, while the engineer's estimate was $7,900,000. For this contract, Metropolitan established a Small Business Enterprise (SBE) participation level of at least 25 percent. Legion Contractors Inc. is a certified SBE firm and thus achieves 100 percent SBE participation. Metropolitan staff will perform construction management and inspection. Engineering Services' performance metric target range for construction management and inspection of projects with construction greater

than $3 million is 9 to 12 percent. For this project, the performance metric goal for inspection is 11.1 percent of the total construction cost. The total cost of construction for this project is $8.622 million, which includes the contract costs ($7.988 million) and Metropolitan force construction ($634,000).

Project Milestone

January 2028 – Completion of construction

9/2/2025
Mai M. Hattar *Date*
Chief Engineer
Engineering Services

9/2/2025
Deven Upadhyay *Date*
General Manager

Attachment 1 – Allocation of Funds

Attachment 2 – Abstract of Bids

Attachment 3 – List of Sub-contractors

Attachment 4 – Location Map

Ref# es12698837

Allocation of Funds for Mills Plant Fiber Conduit Installation

		Current Board Action (Sept. 2025)
Labor		
Studies & Investigations	$	-
Final Design		-
Owner Costs (Program mgmt., envir. monitoring, & contract		338,000
Submittals Review & Record Drwgs.		255,000
Construction Inspection & Support		956,000
Metropolitan Force Construction		589,000
Materials & Supplies		45,000
Incidental Expenses		-
Professional/Technical Services		-
Parsons Corp.		459,000
Right-of-Way		-
Equipment Use		-
Contracts		-
Legion Contractors Inc.		7,988,000
Remaining Budget		470,000
Total	**$**	**11,100,000**

The total amount expended to date on the Mills Control System is approximately $6.9 million. The total estimated cost to complete the replacement, including the amount appropriated to date, current funds requested and construction costs, is approximately $37 million.

The Metropolitan Water District of Southern California

Abstract of Bids Received on July 8, 2025, at 2:00 P.M.

Specifications No. 2077
Mills Plant Fiber Conduit Installation

The work consists of installing a conduit duct bank throughout the Mills plant site. Work required will involve saw-cutting of asphalt pavement and/or excavation of rock, earth removal, installation of PVC conduits, backfill, slurry covering, repaving, and communication fiber pulling, fiber termination, and fiber testing.

Engineer's Estimate: $7,900,000

Bidder and Location	Total	SBE $	SBE %	Met SBE[1]
Mel Smith Electric Inc.[2] Stanton, CA	$6,184,000	-	-	-
Legion Contractors Inc. **San Francisco, CA**	**$7,988,000**	**$7,988,000**	**100**	**Yes**
Royal Electric Company Sacramento, CA	$9,480,000	-	-	-
Southern Contracting Company San Marcos, CA	$14,309,000	-	-	-

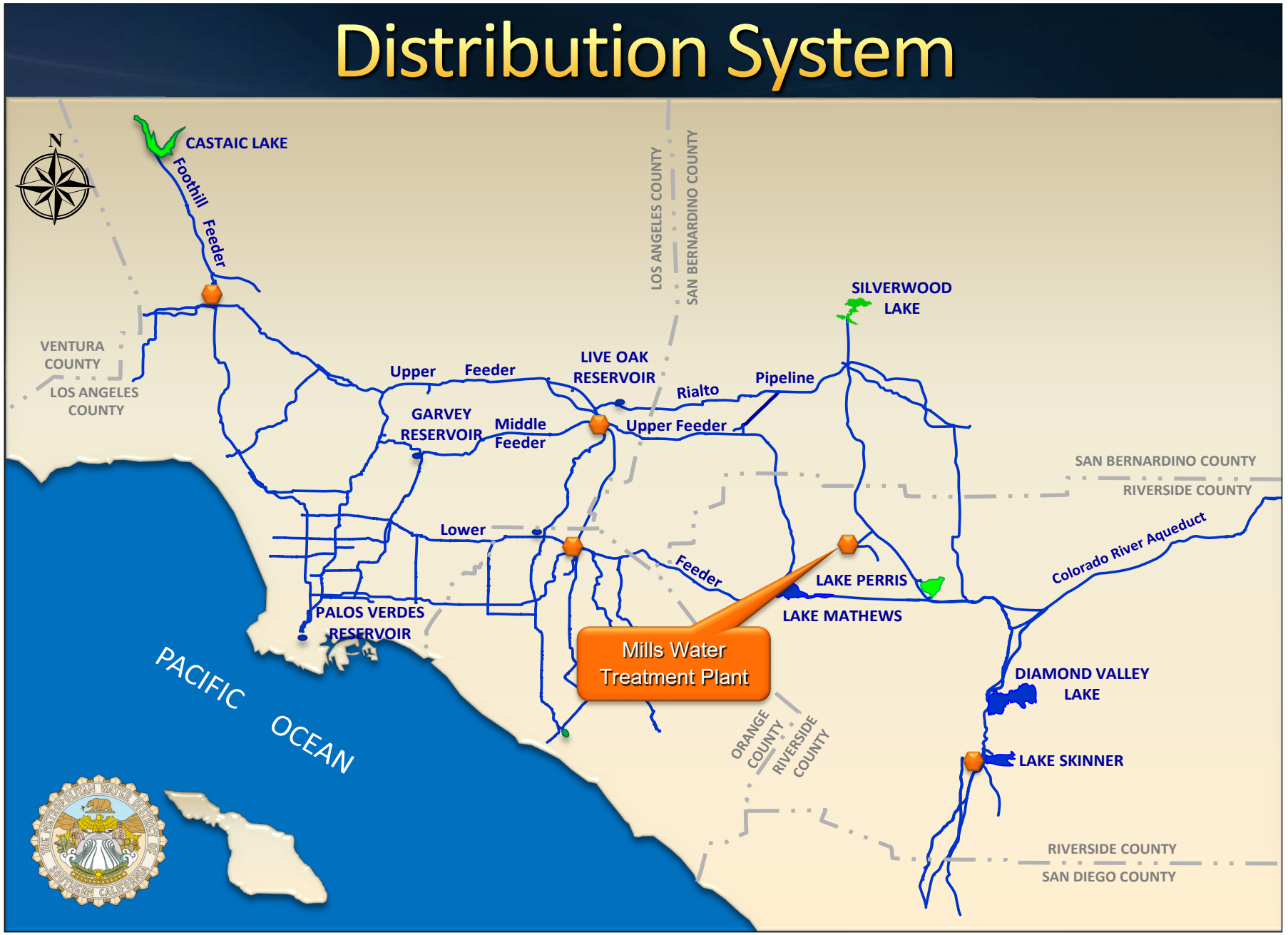
[1] Small Business Enterprise (SBE) participation level established at 25 percent for this contract.
[2] Bidder withdrew bid as a result of an inadvertent error in their contract bid.

The Metropolitan Water District of Southern California

Subcontractor for Low Bidder

Specifications No. 2077
Henry J. Mills WTP Fiber Conduits

Subcontractor	Service Category; Specialty
Dotz Inc. Van Nuys, CA	Electrical


Distribution System
N
CASTAIC LAKE
Foothill Feeder
VENTURA COUNTY
LOS ANGELES COUNTY
LOS ANGELES COUNTY
SAN BERNARDINO COUNTY
SILVERWOOD LAKE
Upper Feeder
LIVE OAK RESERVOIR
Rialto Pipeline
GARVEY RESERVOIR
Middle Feeder
Upper Feeder
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
Lower Feeder
Colorado River Aqueduct
LAKE PERRIS
LAKE MATHEWS
PALOS VERDES RESERVOIR
Mills Water Treatment Plant
PACIFIC OCEAN
DIAMOND VALLEY LAKE
ORANGE COUNTY
RIVERSIDE COUNTY
LAKE SKINNER
RIVERSIDE COUNTY
SAN DIEGO COUNTY