



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

12/9/2025 Board Meeting

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8-1

## Subject

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Adopt CEQA determination that the proposed action was previously addressed in the certified 2024 Garvey Reservoir Rehabilitation Project Environmental Impact Report; award a \$115,611,000 construction contract to J.F. Shea Construction Inc. for rehabilitation of Garvey Reservoir facilities; and authorize an increase of \$3.2 million to an existing agreement with Arcadis U.S. Inc. for a new not-to-exceed total amount of \$9.55 million for technical support during construction

## Executive Summary

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The California Division of Drinking Water (DDW) requires all reservoirs holding treated water to be covered to protect them from contamination. The existing floating cover and bottom liner at Garvey Reservoir were installed in 1999 and are at the end of their useful life. Other supporting facilities at Garvey Reservoir have deteriorated and need rehabilitation to maintain reliable water deliveries. As making effective repairs of the cover has become increasingly challenging due to the aging of the cover material, the reservoir has been taken out of service until the new cover is installed. The planned rehabilitation work for Garvey Reservoir includes replacing the reservoir cover and liner, upgrading the reservoir's rainwater collection, pumping, and subdrain systems, and strengthening the inlet/outlet tower structure. Final design to rehabilitate Garvey Reservoir is now complete, and staff recommends proceeding with construction at this time.

This action awards a construction contract with J.F. Shea Construction Inc. for rehabilitation of Garvey Reservoir facilities and authorizes an amendment to an existing agreement with Arcadis U.S. Inc. (Arcadis) to provide technical support during construction. This contract will be covered by Metropolitan's Project Labor Agreement. See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the List of Subcontractors, **Attachment 4** for the List of Subconsultants, and **Attachment 5** for the Location Map.

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

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### Staff Recommendation: Option #1

#### Option #1

- Adopt CEQA determination that the proposed action was previously addressed in the certified 2024 Garvey Reservoir Rehabilitation Project Environmental Impact Report;
- Award a \$115,611,000 construction contract to J.F. Shea Construction Inc. for rehabilitation of Garvey Reservoir facilities; and
- Authorize an increase of \$3.2 million to an existing agreement with Arcadis U.S. Inc., for a new not-to-exceed total amount of \$9.55 million, to provide technical support during construction.

**Fiscal Impact:** \$145 million in capital funds. Approximately \$15 million will be incurred in the current biennium and has been previously authorized. The remaining capital expenditures will be funded from future Capital Investment Plan budgets following board approval of those budgets.

**Business Analysis:** This action will sustain reliable operation of Garvey Reservoir within Metropolitan's distribution system.

### Option #2

Do not proceed with the project at this time.

**Fiscal Impact:** None

**Business Analysis:** This option will extend the current outage of Garvey Reservoir. Staff would continue to bypass the reservoir to minimize the risk of disruption to operations within the distribution system.

## Alternatives Considered

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During the project's initial planning, staff considered using one construction package to address all the rehabilitation areas of Garvey Reservoir, including: replacement of the reservoir cover and liner; structural strengthening of the inlet/outlet tower; and improvements of the on-site water quality laboratory building, the existing standby generator, the security perimeter fence, and the junction structure valves. This approach would allow for the issuance of a single construction contract, but it would require an extended design duration and delay implementation of the construction contract and subsequent return to service of the reservoir. After the floating cover experienced a 200-foot rip, the reservoir was taken out of service to maintain safe treated water delivery to member agencies. In light of the urgency of returning the reservoir to service, staff have reassessed the project delivery approach. The selected approach of prioritizing the floating cover and liner replacement, and seismic retrofit of the outlet tower, allows staff to expedite the return to service of Garvey Reservoir. Future rehabilitation work will focus on improving the remaining appurtenant reservoir supporting facilities.

## Applicable 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

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

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By Minute Item 52301, dated March 9, 2021, the Board authorized an agreement for engineering services to rehabilitate Garvey Reservoir.

By Minute Item 53214, dated April 11, 2023, the Board authorized an amendment to existing agreement for engineering design services to rehabilitate Garvey Reservoir.

By Minute Item 53598, dated April 9, 2024, the Board appropriated a total of \$636.48 million for projects identified in the Capital Investment Plan for Fiscal Years 2024/25 and 2025/26.

By Minute Item 53844, dated November 19, 2024, the Board certified the Final Environmental Impact Report for the Garvey Reservoir Rehabilitation Project.

## California Environmental Quality Act (CEQA)

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### CEQA determination for Option #1:

On November 19, 2024, the Board certified an Environmental Impact Report and Mitigation Monitoring and Reporting Program, made the necessary findings for the Garvey Reservoir Rehabilitation Project, and approved the project. The present board action does not involve any changes to the approved project. Therefore, the environmental documentation previously prepared and adopted in connection with the project fully complies with CEQA, and no further environmental analysis or documentation is required.

### CEQA determination for Option #2:

None required

## Details and Background

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### Background

Garvey Reservoir was constructed in 1954 as a component of the Middle Feeder system. The reservoir receives treated water from the Weymouth plant and has a maximum storage volume of 1,600 acre-feet. On an ongoing basis, the reservoir provides critical hydraulic flexibility to Metropolitan's distribution system by stabilizing flows within the Middle Feeder. On an as-needed basis, the reservoir also ensures deliveries to member agency service connections when pipelines are shut down for maintenance. As such, the reservoir plays a critical role in ensuring continuous and reliable water deliveries within Metropolitan's Central Pool distribution system.

In compliance with the DDW requirement to cover all reservoirs holding treated water to protect it from contamination, Metropolitan has installed floating reservoir covers at all its larger treated water storage facilities. A floating reservoir cover consists of a thin membrane material that floats on the reservoir's water surface. While floating reservoir covers are a cost-effective means of maintaining water quality, the cover material deteriorates over time. If tears develop in the cover material, the potable water supply is susceptible to contamination. Metropolitan has a proactive reservoir cover inspection and maintenance program that includes regular inspections above and below the cover to identify signs of deterioration or damage. This program ensures that the floating covers and reservoirs comply with DDW requirements. The useful life of a reservoir's floating cover is generally determined by the staff's ability to continue to repair the cover material. As the cover material ages, making effective repairs becomes more challenging as the patches' ability to bond to the original material decreases. Metropolitan's experience has shown that the typical useful life for a floating cover is between 20 and 25 years.

The existing floating cover and bottom liner at Garvey Reservoir were installed in 1999 and are at the end of their useful life. In April 2023, Metropolitan's Board authorized an agreement for engineering services to conduct final design activities for the rehabilitation of the reservoir facilities. Staff experienced increasing difficulties in making recurring repairs due to the aging of the cover material. Although a 150-foot cover tear was repaired by staff in September 2024, an additional 200-foot tear that appeared in March 2025 was deemed irreparable. As a result, Garvey Reservoir was taken out of service.

The planned rehabilitation work for Garvey Reservoir includes replacing the cover and liner, as well as strengthening the 86.5-foot-tall and 16-foot-wide outlet tower to ensure the reservoir's functionality remains intact in the event of a major earthquake in the vicinity. Final design for future rehabilitation of other reservoir supporting facilities is underway and will include improvements to the on-site water quality laboratory building, along with replacement of the existing standby generator, a portion of the security perimeter fence, and the junction structure valves.

The final design for the cover and liner replacement and the tower strengthening is now complete, and staff recommends awarding a construction contract. Staff will return to the Board later to award the construction contracts for rehabilitation of other reservoir supporting facilities.

### Garvey Reservoir Rehabilitation – Construction

The scope of the construction contract includes demolishing the existing cover and liner and furnishing and installing a new floating cover and liner; structural strengthening the outlet tower; upgrading the reservoir's rainwater collection, pumping, and subdrain systems; and installation of a new electrical duct bank, testing, and commissioning. Metropolitan force activities will include refilling, dewatering, and disinfecting the reservoir, as well as returning it back to service. Dewatering will incorporate extensive discharge provisions and water quality testing. Metropolitan forces will also provide construction support and perform start-up activities.

A total of \$145 million is required to complete this work. In addition to the construction contract described below, \$3.2 million will be allocated for technical support during construction by Arcadis as also described below. Allocated funds for work by Metropolitan staff include \$2.33 million for Metropolitan force construction; \$8.9 million for construction management and inspection; \$1.5 million for submittal review, responding to requests for information, and preparation of record drawings; \$5.3 million for contract administration, start-up planning, permitting, environmental support, PLA administration, envision certification, community outreach, and

project management; and \$7,919,000 for remaining budget. Other allocated funds include \$240,000 for environmental monitoring, which will be performed by a specialty firm under contract planned to be executed under the General Manager's Administrative Code authority as described below. **Attachment 1** provides the allocation of required funds.

***Award of Construction Contract (J.F. Shea Construction Inc.)***

Specification No. 2110 for Garvey Reservoir Rehabilitation was advertised for bids on July 31, 2025. As shown in **Attachment 2**, seven bids were received and opened on October 28, 2025. The low bid from J.F. Shea Construction Inc. in the amount of \$115,611,000 complies with the requirements of the specifications. The other bids ranged from approximately \$119.4 million to \$142.4 million, while the engineer's estimate for this project was \$139.5 million. For this contract, Metropolitan established a Small Business Enterprise (SBE) participation level of at least seven percent of the bid amount. J.F. Shea Construction Inc. has committed to meet this level of participation. The subcontractors for this contract are listed in **Attachment 3**. This contract will be covered by Metropolitan's Project Labor Agreement.

This action awards a \$115,611,000 construction contract to J.F. Shea Construction Inc. for the rehabilitation of Garvey Reservoir. As mentioned above, Metropolitan staff will perform construction management and inspection. Engineering Services' performance metric target range for construction management and inspection of projects with construction costs greater than \$3 million is 9 to 12 percent. For this project, the performance metric goal for inspection is approximately 7.5 percent of the total construction cost (\$117,941,000), which includes the construction contract (\$115,611,000) and Metropolitan force construction (\$2,330,000).

**Engineering Services (Arcadis U.S. Inc.) – Amendment to Agreement**

Arcadis was selected through a competitive process via Request for Proposals No. 1255 based on the firm's experience with reservoir covers and specifically for their expertise in reservoir storage facilities. Arcadis has completed the final design activities for rehabilitation of Garvey Reservoir, including the cover and liner replacement and the tower structural strengthening. Staff recommends amending the existing agreement with Arcadis to provide technical support during construction. Arcadis will review contractor submittals and requests for information and prepare record drawings.

This action authorizes an increase of \$3.2 million to the existing agreement with Arcadis U.S. Inc. for a new not-to-exceed total of \$9.55 million to provide technical support during the construction of the Garvey Reservoir rehabilitation. For this agreement, Metropolitan has established an SBE participation level of 25 percent. Arcadis has agreed to meet this level of participation. The planned subconsultants for this work are listed in **Attachment 4**.

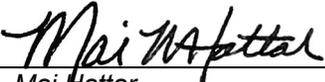
**Environmental Support During Construction (Rincon Consultants Inc.) – No Action Required**

Rincon Consultants Inc. is recommended to provide environmental support services during construction. Rincon Consultants Inc. was selected through Request for Qualification No. 1265 based on the firm's extensive experience with CEQA compliance and environmental construction monitoring, its specific experience with reservoir projects, and its extensive experience with projects in environmentally sensitive locations. Planned activities include construction monitoring, performing nesting bird surveys, and documenting the project mitigation monitoring and reporting program.

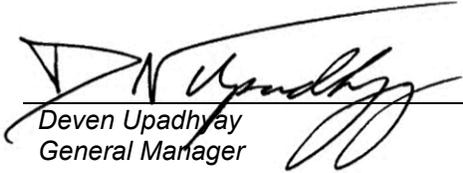
A new agreement with Rincon Consultants Inc. will be executed under the General Manager's Administrative Code authority to award contracts of \$250,000 or less. The estimated cost for these services is \$240,000. For this agreement, Metropolitan established an SBE participation level of 25 percent. Rincon Consultants has agreed to meet this level of participation.

***Project Milestone***

June 2028 – Completion of construction

  
\_\_\_\_\_  
Mai Hattar  
Chief Engineer  
Engineering Services

11/26/2025  
Date

  
\_\_\_\_\_  
Deven Upadhyay  
General Manager

11/26/2025  
Date

**Attachment 1 – Allocation of Funds**

**Attachment 2 – Abstract of Bids**

**Attachment 3 – Listing of Subcontractors**

**Attachment 4 – Listing of Subconsultants**

**Attachment 5 – Location Map**

Ref# es12702503

## Allocation of Funds for Garvey Reservoir Rehabilitation

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	<b>Current Board Action (Dec. 2025)</b>
Labor	
Studies & Investigations	\$ -
Final Design	-
Owner Costs (Program mgmt., envir. monitoring)	5,300,000
Submittals Review & Record Drwgs.	1,500,000
Construction Inspection & Support	8,900,000
Metropolitan Force Construction	2,300,000
Materials & Supplies	30,000
Incidental Expenses	-
Professional/Technical Services	-
Arcadis, U.S. Inc.	3,200,000
Rincon Consultants Inc.	240,000
Right-of-Way	-
Equipment Use	-
Contracts	-
J. F. Shea Construction Inc.	115,611,000
Remaining Budget	7,919,000
<b>Total</b>	<b>\$ 145,000,000</b>

The total amount expended to date to rehabilitate the Garvey Reservoir is approximately \$12 million. The total estimated cost to complete the project, including the amount appropriated to date, and funds allocated for the work described in this action, is \$157 million.

**The Metropolitan Water District of Southern California**

**Abstract of Bids Received on October 28, 2025, at 2:00 P.M.**

**Specifications No. 2110**

**Garvey Reservoir Rehabilitation**

The work includes demolishing the existing cover and liner and furnishing; installing the new floating cover and liner; structural strengthening of the outlet tower; upgrading the reservoir's rainwater collection, pumping, and subdrain systems; and installation of a new electrical duct bank, testing, and commissioning.

**Engineer's estimate:** \$139.5 million

<b>Bidder and Location</b>	<b>Total</b>	<b>SBE \$</b>	<b>SBE %</b>	<b>Met SBE<sup>1</sup></b>
J.F. Shea Construction Inc. Walnut, CA	<b>\$115,611,000</b>	<b>\$15,731,298</b>	<b>9.6%</b>	<b>Yes</b>
Steve P. Rados Inc. Santa Ana, CA	\$119,364,500	-	-	-
Shimmick Construction Co. Inc. Irvine, CA	\$120,600,000	-	-	-
Environmental Construction Inc. Woodland Hills, CA	\$127,873,673	-	-	-
Balfour Beatty Infrastructure Inc. Long Beach, CA	\$128,787,900	-	-	-
Kiewit Infrastructure West Co. Santa Fe Springs, CA	\$137,156,400	-	-	-
Griffith Company Santa Fe Springs, CA	\$142,406,379	-	-	-

<sup>1</sup> Small Business Enterprise (SBE) participation level established at 7 percent for this contract.

**The Metropolitan Water District of Southern California****Subcontractors for Low Bidder****Specifications No. 2110  
Garvey Reservoir Rehabilitation****Low bidder:** J.F. Shea Construction Inc.

<b>Subcontractor</b>	<b>Service Category; Specialty</b>
Leed Electric Santa Fe Springs, CA	Electrical
Layfield Lakeside, CA	Liner & Floating Cover
GTE Metal Erectors Inc. Canby, OR	Metals
CMC San Bernardino, CA	Rebar
All American Asphalt Corona, CA	Paving
Silverado Contractors Chino, CA	Demolition
Condon-Johnson & Associates Oakland, CA	Geotechnical Construction

**The Metropolitan Water District of Southern California****Subconsultants for Agreement with Arcadis U.S. Inc.  
Agreement No. 201527**

<b>Subconsultant and Location</b>	<b>Service Category; Specialty</b>
Hilts Consulting Group Inc. Yorba Linda, CA	Structural Design; Reservoir Cover and Liner Design
Paul Hansen Engineering Rancho Palos Verdes, CA	Cost estimating
AirX Utility Surveyor Inc. Ontario, CA	Utility Locating and Potholing Services
WestLAND Group Inc. Ontario, CA	Utility Mapping
GeoPentech Inc. Santa Ana, CA	Geotechnical Analysis

# Distribution System

