THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Board Action

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

9/10/2024 Board Meeting

8-1

Subject

Authorize a $40 million increase to an existing agreement with J.F. Shea Construction Inc. to purchase long-lead equipment for the Sepulveda Feeder Pump Stations Project, for a new not-to-exceed amount of $50.4 million; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (This action is part of a series of projects that are being undertaken to improve the supply reliability for State Water Project-dependent areas.)

Executive Summary

The Sepulveda Feeder Pump Stations Project will result in the construction of two new pump stations, one each located at the existing Venice and Sepulveda Canyon Pressure Control Facilities. The project will allow for water to be pumped northward through the Sepulveda Feeder, thereby enabling greater deliveries of Colorado River Aqueduct (CRA) and Diamond Valley Lake (DVL) water supplies to State Water Project-dependent agencies in Metropolitan's western service area. The project will lessen the impacts of future low State Water Project (SWP) allocations on these agencies. The project utilizes progressive design-build (PDB) delivery to expedite the development of these pump stations.

An advantage of the PDB project delivery process is the ability to make early procurements of long lead-time equipment before the entire design of the facility is completed. In July 2024, Metropolitan's Board authorized the initial procurement of long-lead equipment and electrical power transformers under the Phase 1 PDB agreement with J.F. Shea Construction Inc. (J.F. Shea). The initial design of the pump stations has progressed to a point where the remaining major equipment, including pumps, large valves, switchgear, and motor control centers for the two pump stations have been sized and bids received by the contractor. Procurement of this long-lead-time equipment by the PDB contractor is recommended at this time to ensure the equipment can be installed during a 2026 shutdown and to expedite project completion.

This action authorizes a $40 million increase to an existing agreement with J.F. Shea to purchase long-lead equipment for a new not-to-exceed amount of $50.4 million. See **Attachment 1** for the Allocation of Funds and **Attachment 2** for the Location Map.

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

Staff Recommendation: Option #1

Option #1

Authorize a $40 million increase to an existing design-build services agreement with J.F. Shea Construction Inc. to purchase long-lead equipment for the Sepulveda Feeder Pump Stations Project for a new not-to-exceed amount of $50.4 million.

Fiscal Impact: Expenditure of $40 million in capital funds. All costs will be incurred in the current biennium and have been previously authorized.

Business Analysis: The project will expand Metropolitan's ability to serve Diamond Valley Lake and Colorado River water to a portion of the distribution system that normally receives water from the State Water

Project and will provide an alternate route to deliver treated water to the west service area during emergencies or when major feeders are removed from service for rehabilitation.

Option #2

Do not proceed with the procurement at this time.
Fiscal Impact: None
Business Analysis: This option would forego an opportunity for early procurement of long-lead equipment and may impact the project's ability to be ready for a planned shutdown in 2026.

Alternatives Considered

Alternatives for procuring long-lead equipment for the Sepulveda Feeder Pump Stations Project included using traditional procurement by Metropolitan staff in which drawings and specifications would be developed for advertisement and competitive bidding. It was determined that this traditional method would delay the completion of the project by over two years when compared to having the PDB contractor procure equipment directly on a best-value basis. It is recommended that the PDB contractor procure the long-lead equipment identified in this board letter to expedite the project schedule.

Another alternative was to wait until the Guaranteed Maximum Price (GMP) was established and then start procuring equipment. The lead times for some equipment can take up to 20 months, and the GMP will not be finalized until late 2024. With this approach, there is a risk that equipment will not be delivered in time for the planned 2026 start-up and commissioning of the new facilities.

Staff determined that the recommended option to have the PDB contractor purchase long-lead equipment will provide the earliest possible completion for the project.

Applicable Policy

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

Metropolitan Water District Administrative Code Section 8148: Alternative Project Delivery

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

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

By Minute Item 52703, dated February 8, 2022, the Board authorized the West Area Water Supply Reliability Improvements.

By Minute Item 53188, dated March 14, 2023, the Board authorized amendments to the Metropolitan Water District Administrative Code to provide for the implementation of new legislation authorizing the use of alternative project delivery methods.

By Minute Item 53377, dated September 12, 2023, the Board authorized an agreement for Phase 1 design-build services for the Sepulveda Feeder Pump Stations Project.

By Minute Item 53598, dated April 9, 2024, the Board appropriated a total of $636.6 million for projects identified in the Capital Investment Plan for Fiscal Years 2024/25 and 2025/26.

By Minute Item 53718, dated July 9, 2024, the Board amended the agreement for design-build services for the Sepulveda Feeder Pump Stations Project.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action does not constitute an approval of the project for the purposes of CEQA. Environmental review will be completed prior to any decision by the Board which commits Metropolitan to the project. (State CEQA Guidelines Section 15352.)

CEQA determination for Option #2:

None required

Details and Background

Background

Metropolitan's distribution system was initially constructed in the 1940s to deliver treated CRA supplies throughout its service area. The system was expanded in the 1970s to connect to and distribute SWP water supplies. The distribution system was designed to take advantage of the region's topography and primarily utilizes gravity to move water through the system. While much of the service area benefits from access to both sources of supply and stored water in DVL, certain portions of the system can only receive limited DVL/CRA water due to inherent hydraulic limitations of the gravity-fed system. During multi-year droughts, as California recently experienced, SWP-dependent areas rely on stored SWP supplies, transfers, and exchange deliveries.

The west service area portion of Metropolitan's distribution system typically receives SWP water via the Joseph Jensen Water Treatment Plant (Jensen plant), Sepulveda Feeder, and connecting pipelines. During periods of low deliveries from the West Branch of the SWP, or when the Jensen plant is out of service, the west area can be served by the Weymouth plant through the East Valley Feeder and the Greg Avenue Pump Station. This pumping system is limited to a maximum capacity of approximately 50 cubic feet per second (cfs). Throughout the recent statewide drought that ended in early 2023, the Greg Avenue Pump Station operated nearly full-time at its maximum capacity.

In February 2022, Metropolitan's Board approved planning efforts for the Sepulveda Feeder Pump Stations Project to increase delivery reliability in the west area. This project will enable Metropolitan to convey treated CRA and DVL water from its Central Pool northward along the Sepulveda Feeder to the west service area, supplementing deliveries from the Greg Avenue Pump Station. This concept requires two new pump stations along the Sepulveda Feeder: one each located adjacent to the existing Venice and Sepulveda Canyon Pressure Control Facilities. The project will be implemented in multiple stages. The initial stage of the project includes the construction of two pump stations capable of moving up to 30 cfs northward from the Central Pool to the west service area. However, once operational, the net benefits of the project to the west service area will be approximately 60 cfs of water supply as there will no longer be a need to send "operational water" southward on the Sepulveda Feeder from the Jensen plant during periods of low SWP demands. These operational water flows in the Sepulveda Feeder are currently necessary to maintain water quality during low SWP allocations. Therefore, once the initial phase of this project is complete, the operational flows can be diverted to the west service area.

The pump stations will not only enhance the reliability of water supplies in the west area in times of reduced SWP supplies, but they will increase overall system flexibility by enabling the Jensen exclusive area to receive flows when the Jensen plant is removed from service for maintenance and repairs. During the upcoming rehabilitation of prestressed concrete cylinder pipeline (PCCP) portions of the Sepulveda Feeder, the pump stations will also aid in minimizing delivery impacts to member agencies as the PCCP lining work proceeds.

In September 2023, the Board authorized an agreement with J.F. Shea to begin Phase 1 of the PDB process. The Phase 1 agreement permits J.F. Shea, upon Metropolitan's approval, to commence procurement of required equipment during Phase 1, prior to agreement on the GMP. In July 2024, the Board authorized an amendment to the agreement with J.F. Shea to procure electrical transformers. Design for the remaining major equipment has been finalized, and staff recommends procuring long-lead pumps, large valves, electrical switchgear, and motor control centers at this time in order to expedite the procurement of equipment and streamline the project schedule. Since the not-to-exceed amount in the agreement does not include this equipment, an amendment to increase the existing not-to-exceed agreement amount is necessary. Staff anticipates returning to the Board in late 2024 for an amendment to the agreement to cover Phase 2 work, which includes completion of design and construction.

Sepulveda Feeder Pump Stations – PDB Phase 1 Agreement Amendment (J.F. Shea Construction Inc.)

The amended PDB agreement will enable J.F. Shea to procure four pumps (two for each site), 19 valves varying in size from 54-inch to 24-inch, electrical switchgear, and motor control centers for the two new pump stations at

the Venice and Sepulveda Canyon Pressure Control Structure sites. These long-lead items can take up to 20 months to procure, and staff recommends procurement of this equipment at this time to streamline the overall project schedule. J.F. Shea will lead the procurement effort, utilizing a best-value process to select the vendors. Equipment would be installed with the Phase 2 construction work.

A total of $40 million is allocated for this work. Allocated funds for this procurement effort include approximately $13.4 million for the pumps and motors, $20.4 million for valves, and $6.2 million for the electrical switchgears and motor control centers. Metropolitan staff will partner with the design-build team on technical issues and conduct fabrication inspections. Adequate funds were previously allocated for staff support through the completion of Phase 1. **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 $105 million to $115 million.

Proceeding with early procurement of the long-lead equipment at this time will enable the completion of the pump stations at the Venice and Sepulveda Canyon sites during a planned 2026 shutdown of the Sepulveda Feeder. This action authorizes a $40 million increase to an existing agreement with J.F. Shea to purchase long-lead equipment for the Sepulveda Feeder Pump Stations Project for a new not-to-exceed amount of $50.4 million.

Project Milestone

May 2026 – Delivery of equipment

8/20/2024
Mai M. Hattar *Date*
Interim Manager/Chief Engineer
Engineering Services

8/26/2024
Deven Upadhyay *Date*
Interim General Manager

Attachment 1 – Allocation of Funds

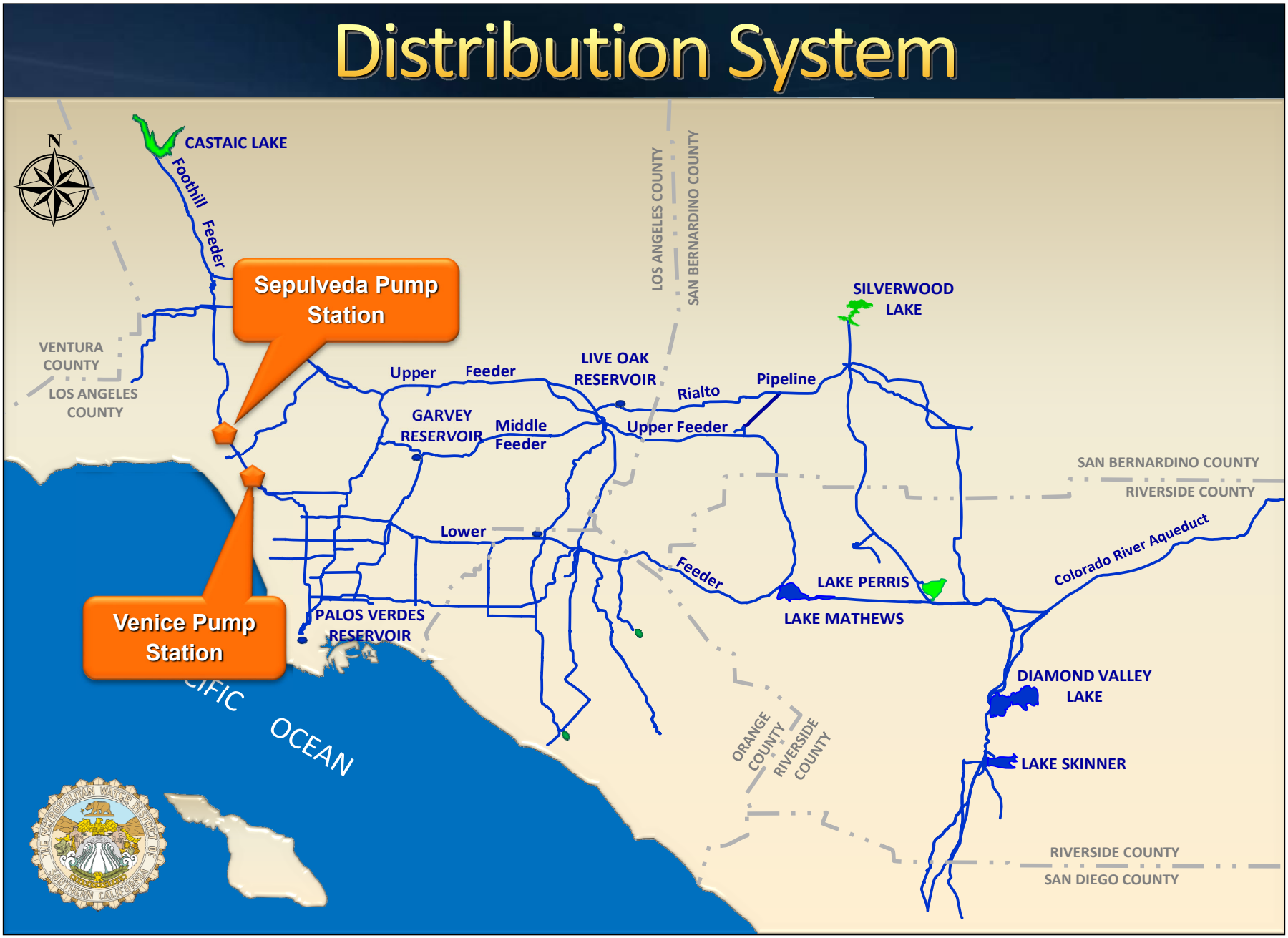
Attachment 2 – Location Map

Ref# es12698256

Allocation of Funds for Sepulveda Feeder Pump Stations

	Current Board Action (Sep. 2024)
Labor	
Studies & Investigations	$ -
Final Design	-
Owner Costs (Program mgmt.)	-
Submittals Review & Record Drwgs.	-
Construction Inspection & Support	-
Metropolitan Force Construction	-
Materials & Supplies	-
Incidental Expenses	-
Professional/Technical Services	-
Right-of-Way	-
Equipment Use	-
Contracts	-
J.F. Shea Construction Inc.	40,000,000
Remaining Budget	-
Total	**$ 40,000,000**

The amount expended to date on the Sepulveda Feeder Pump Stations Project is approximately $5.5 million. The total estimated cost to complete this project, including the funds allocated for the work described in this action is anticipated to range from $105 million to $115 million.


Distribution System
N
CASTAIC LAKE
Foothill Feeder
Sepulveda Pump Station
Venice Pump Station
VENTURA COUNTY
LOS ANGELES COUNTY
LOS ANGELES COUNTY
SAN BERNARDINO COUNTY
SILVERWOOD LAKE
LIVE OAK RESERVOIR
Upper Feeder
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
DIAMOND VALLEY LAKE
ORANGE COUNTY
RIVERSIDE COUNTY
LAKE SKINNER
RIVERSIDE COUNTY
SAN DIEGO COUNTY
OCEAN