



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

9/13/2022 Board Meeting

7-4

Subject

Authorize an increase of \$690,000 to an existing agreement with Carollo Engineers, Inc., for a new not-to-exceed amount of \$990,000, to serve as the owner's advisor for development of the Sepulveda Feeder Pump Stations project with the alternative delivery approach referred to as progressive design-build; 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 member agencies)

Executive Summary

The current statewide drought and historically low allocation of State Water Project (SWP) supplies by the California Department of Water Resources directly impact Metropolitan's ability to deliver water to certain SWP-dependent areas within its system. The addition of pump stations at the Sepulveda Canyon and Venice Pressure Control Facilities would allow Metropolitan to reverse the normal flow in the Sepulveda Feeder and augment treated water deliveries to the west service area portion of Metropolitan's distribution system. This action authorizes an amendment to a professional services agreement with Carollo Engineers Inc. for a new not-to-exceed amount of \$990,000, to serve as the owner's advisor for development of the new pump stations project under the project delivery approach referred to as progressive design-build.

Details

Background

Metropolitan's distribution system was originally constructed in the 1940s to deliver treated Colorado River Aqueduct (CRA) supplies throughout the service area. The system was expanded in the 1970s to connect to the SWP. The distribution system was designed to take advantage of the region's topography and primarily utilizes gravity to move water through the system. Much of the service area benefits from access to both CRA and SWP sources of supply; however, certain portions of the system can only receive limited CRA water due to inherent hydraulic limitations. These SWP-dependent areas rely on stored SWP supplies, transfers, and exchange deliveries during multi-year droughts as California is currently experiencing.

The west service area portion of Metropolitan's distribution system normally receives SWP water via the Jensen plant, Sepulveda Feeder, and connecting pipelines. The Sepulveda Feeder is a 96-inch-diameter Prestressed Concrete Cylinder Pipe (PCCP) line that extends south approximately 42 miles from the Jensen plant in Granada Hills to an interconnection with the Second Lower Feeder in Torrance, near Palos Verdes Reservoir.

During periods of low deliveries from the West Branch of the SWP, or when the Jensen plant is out of service, the west area is served by the Weymouth plant through the Greg Avenue Pump Station and the East Valley Feeder. This backup system is limited to a maximum capacity of approximately 50 cubic feet per second (cfs). Due to the statewide drought, the Greg Avenue Pump Station is operating full time at its maximum capacity.

In February 2022, Metropolitan's Board approved the planning and implementation of infrastructure projects to improve water reliability for the west service area. As a result of that planning effort, staff recommends proceeding with the Sepulveda Feeder Pump Stations project as a fast-track, phased project for SWP-dependent areas in the west service area. This project would reverse flows within the Sepulveda Feeder and convey treated water to the west service area, supplementing deliveries from the Greg Avenue Pump Station.

Two new pump stations along the Sepulveda Feeder, located adjacent to the existing Venice and Sepulveda Canyon Control Facilities, would supply treated water from the Weymouth and Diemer plants via the central portion of the distribution system to the west service area. The initial stage of the larger project would include the construction of two pump stations capable of moving up to 30 cfs from the central pool to the San Fernando Valley and westward. The capacity of the initial phase of the project is based on the current pressure limitations of the Sepulveda Feeder, which is primarily comprised of PCCP. The pump station sites will be planned so that additional pumping capacity could be added in future stages after the Sepulveda Feeder is lined with a welded steel liner pipe. This lining project will increase the internal pressure rating of the pipeline and is currently planned to be implemented as part of Metropolitan's PCCP Rehabilitation Program. A consulting agreement to perform preliminary design for this lining project was authorized by the Board in August 2022.

The pump stations will also enhance Metropolitan's overall system flexibility by enabling facilities in the west service area to be easily removed from service for maintenance and repairs. During the upcoming rehabilitation of PCCP portions of the Sepulveda Feeder, the pump stations will aid in minimizing delivery impacts to member agencies as the PCCP lining work proceeds. Staff recommends proceeding with the Sepulveda Feeder Pump Stations expeditiously to help improve water supply reliability in the western service area.

In order to expedite project completion, staff recommends developing this project under the alternative project delivery method referred to as progressive design-build. Metropolitan is currently pursuing legislation to authorize the use of alternative project delivery methods. If enacted, Assembly Bill 1845 (Calderon) would authorize Metropolitan to utilize progressive design-build delivery for drought-related projects such as the Sepulveda Feeder Pump Stations starting January 1, 2023. The progressive design-build model utilizes a two-phase process. Under the first phase, a design-build entity would be selected based on qualifications in response to a Request for Qualifications (RFQ). The selected design-build entity would then progress the design to the point at which a guaranteed maximum price could be estimated. Under the second phase, Metropolitan would negotiate the guaranteed maximum price with the selected design-build entity. If unable to reach an agreement, Metropolitan would discontinue negotiations, and select a different design-build entity for negotiations. This action authorizes amending an existing agreement for a consultant to provide staff with advisement and support for the preparation of contract documents and an RFQ in support of a solicitation for a competitively advertised progressive design-build contract for design and construction of the Sepulveda Feeder Pump Stations. Staff will return to the Board at a future date for award of the first phase design-build contract.

In accordance with the April 2022 action on the biennial budget for fiscal years 2022/23 and 2023/24, the General Manager will authorize staff to proceed with the action described herein, pending board authorization of the agreement described below. Based on the current Capital Investment Plan (CIP) expenditure forecast, funds for work to be performed pursuant to this action during the current biennium are available within the CIP Appropriation for Fiscal Years 2022/23 and 2023/24 (Appropriation No. 15525). 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 System Flexibility/ Supply Reliability Program.

Sepulveda Feeder Pump Stations – Progressive Design-Build

Two pump stations are currently planned with an initial pumping capacity of 30 cfs. One pump station will be located within the boundaries of the Venice Control Facility in West Los Angeles, near Culver City. The second pump station will be located approximately seven miles north of the first pump station near Metropolitan's Sepulveda Canyon Control Facility. This site is located in an area of the Sepulveda Pass north of the Getty Center in the city of Los Angeles. Each pump station will require pumps, motors, and interconnection piping to the Sepulveda Feeder; valve control structures; mechanical equipment for surge control; and electrical modifications.

The planned activities will include investigation of the two sites; site planning to accommodate current and future pumping capacities; preliminary design; preparation of a technical requirements document; development of design-build procurement documents; and procurement of the progressive design-build team. Preliminary design and owner's advisor services will be performed by Carollo Engineers, Inc., as described below, in preparation for a potential progressive design-build contract for the Sepulveda Feeder Pump Stations at Sepulveda Canyon and Venice Control Facilities.

A total of \$1,600,000 is required for this work. Allocated funds include \$690,000 for preliminary design and owner's advisor services by Carollo Engineers, Inc. Allocated funds for Metropolitan staff activities include \$400,000 for technical oversight, review of consultant's work, and identification of technical requirements; \$350,000 for project management, preparation of environmental documentation, and other owner's costs; and \$160,000 for remaining budget. **Attachment 1** provides the allocation of the required funds. The estimated cost of construction for this project is anticipated to range from \$40 million to \$60 million.

Owner's Advisor Services – Carollo Engineers, Inc.

Staff recommends utilizing the services of an owner's advisor to assist with development of the project's design-build procurement documents. Metropolitan's current contract documents are tailored to the traditional design-bid-build delivery method. Substantial revisions are needed to convert them into a more performance-based format suitable for progressive design-build. The performance-based format will ensure the project meets Metropolitan's requirements, but at the same time allow for more collaboration, innovation, and cost-saving opportunities with the design-build entity. To allow for the earliest possible completion, work on the design-build procurement documents is recommended to start now so that they will be ready for advertisement of the RFQ when the pending legislation takes effect. However, Metropolitan will not solicit proposals from design-build entities until the legislation has passed and will not enter into a design-build agreement prior to the legislation taking effect.

Owner's advisor services are recommended to be performed by Carollo Engineers, Inc. Carollo Engineers, Inc. was selected based on the firm's expertise in design-build contracts and its familiarity with the Sepulveda Feeder Pump Stations project. Carollo Engineers, Inc. completed the conceptual study for this project under an existing board-authorized agreement. The planned owner's advisor services activities will include: (1) development of owner's engineering documents for two-phase RFQ/RFP selection of design-build contractor, (2) development of the project schedule, (3) preparation of engineering and construction estimates for the design-build contract, and (4) reviewing proposed plans, procedures, schedules, guidelines, and training material associated with the implementation and deployment of new work processes at Metropolitan for use of the progressive design-build project delivery method. This work will be coordinated with Metropolitan's Legal department.

This action authorizes an increase of \$690,000 to an existing agreement with Carollo Engineers, Inc. for a new not-to-exceed amount of \$990,000 for owner's advisor services during the first phase of progressive design-build for the Sepulveda Feeder Pump Stations. For this agreement, Metropolitan has established a Small Business Enterprise participation level of 25 percent. Carollo Engineers, Inc. has agreed to meet this level of participation. The planned subconsultants for this work are Stantec Inc. and Paul Hansen Engineering.

Alternatives Considered

Alternatives considered for the Sepulveda Feeder Pump Stations included using a traditional design-bid-build design process where drawings and specifications would be developed for advertisement for competitive bidding. Due to the timing and urgency of this project, it was determined that this traditional project delivery approach would delay completion of the project by two years when compared to alternative delivery approaches. A key complexity identified by the project team was how to ensure that Metropolitan can augment water deliveries to the west service area in an expedited manner. To mitigate these risks, it was determined that Metropolitan should utilize progressive design-build delivery to expedite construction of the pump stations. Initial work will include conducting preliminary design for the pump stations and preparing the needed design-build procurement documents. With this approach, Metropolitan will rely on the consultant as the owner's advisor to furnish the needed documents. This alternative is expected to provide the earliest possible completion for the project.

Summary

This action authorizes amending an existing agreement with Carollo Engineers, Inc. for a new not-to-exceed amount of \$990,000 to serve as owner's representative for development of a progressive design-build contract for pump stations at Sepulveda Canyon and Venice Control Facilities. See **Attachment 1** for the Allocation of Funds and **Attachment 2** for the Location Map.

Project Milestone

March 2023 – Issue an RFQ/RFP for a progressive design-build contract to construct two pump stations on the Sepulveda Feeder

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

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

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 2022/23 and 2023/24.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is not defined as a project under CEQA because it involves continuing administrative activities (Section 15378(b)(2) of the State CEQA Guidelines) and will not result in direct or indirect physical changes in the environment (Section 15378(b)(5) of the State CEQA Guidelines). Additionally, the proposed action is categorically exempt under the State CEQA Guidelines because it consists of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. These may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded (Section 15306 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Authorize a \$690,000 increase to an existing agreement with Carollo Engineers, Inc. for a new not-to-exceed amount of \$990,000 to perform owner's advisor services for the Sepulveda Feeder Pump Stations.

Fiscal Impact: \$1,600,000 in capital funds which 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

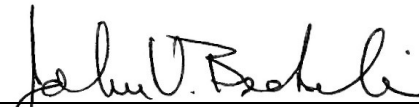
Do not authorize the project at this time.

Fiscal Impact: None

Business Analysis: This option would forego an opportunity to increase the flexibility of Metropolitan's system and reduce water supply risks associated with California's current drought.

Staff Recommendation

Option # 1



John V. Bednarski
Manager/Chief Engineer
Engineering Services

8/18/2022

Date

Adel Hagekhalil
General Manager

8/24/2022

*Date***Attachment 1 – Financial Statement****Attachment 2 – Location Map**

Ref# es12685892

Allocation of Funds for Sepulveda Feeder Pump Stations

	Current Board Action (Sept. 2022)
Labor	
Studies & Investigations	\$ -
Preliminary Design	400,000
Owner Costs (Program mgmt., envir. review)	350,000
Submittals Review & Record Drwgs.	-
Construction Inspection & Support	-
Metropolitan Force Construction	-
Materials & Supplies	-
Incidental Expenses	-
Professional/Technical Services	-
Carollo Engineers, Inc.	690,000
Right-of-Way	-
Equipment Use	-
Contracts	-
Remaining Budget	160,000
Total	\$ 1,600,000

The total amount expended to date is \$300,000. The total estimated cost to complete the Sepulveda Feeder Pump Stations, including the amount appropriated to date, funds allocated for the work described in this action, and future construction costs, is anticipated to range from \$40 million to \$60 million.

