



- Board of Directors
Engineering and Operations Committee

11/10/2020 Board Meeting

7-5

Subject

Authorize an increase of \$600,000 in change order authority for the contract to rehabilitate the Greg Avenue Pump Station; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Executive Summary

Metropolitan's construction contracts are typically completed with final change order amounts falling well within the General Manager's Administrative Code authority. On the subject project, the extent of required extra work will exceed the General Manager's authority. This action authorizes an increase in the General Manager's authority to execute change orders on the construction contract currently underway to rehabilitate the Greg Avenue Pump Station. During construction, the contractor encountered several issues that caused additional labor and material costs to be incurred. Staff has held discussions with the contractor regarding the cost impacts to the contract and recommends that the change order authority be increased at this time so the remaining work may be completed without delay and at the lowest overall cost.

Details

The Greg Avenue Pump Station is located on the East Valley Feeder. It was constructed in the early 1960s to pump treated Colorado River water from the F. E. Weymouth Water Treatment Plant into the San Fernando Valley and Ventura County portions of Metropolitan's service area. Upon completion of the Jensen Treatment Plant in 1972, Metropolitan began delivery of treated water from the State Water Project (SWP) into this area via the West Valley Feeder No. 1, and into the Central Pool via the East Valley and Sepulveda Feeders. When the Jensen plant is out of service or during periods of low SWP allocations, Greg Avenue Pump Station provides backup Colorado River water supplies to the western portions of Metropolitan's service area. During historical low SWP allocations of five percent and 20 percent in 2014 and 2015, respectively, the pump station was operated on a continuous basis to pump Colorado River water to the area.

While regular inspections and maintenance activities are performed by Metropolitan staff, the pumps have deteriorated over time and need to be replaced. Additionally, much of the station's equipment is more than 50 years old and is approaching the end of its operating life. This project will improve the reliability of the Greg Avenue Pump Station by replacing the existing pumps, control building, and surge tanks and upgrading key electrical, mechanical, and control equipment at the facility.

In February 2019, Metropolitan's Board awarded a \$20,975,000 construction contract to J.F. Shea Construction, Inc. to rehabilitate the Greg Avenue Pump Station. Construction is currently approximately 85 percent complete and is scheduled to be completed in 2021.

Metropolitan's Administrative Code authorizes the General Manager to execute change orders on construction contracts in an aggregate amount not to exceed five percent of the initial amount of the contract or \$250,000, whichever is greater. For this contract, the change order authority authorized at the time the Board awarded the construction contract was \$1,048,750. If changes occur on a construction contract that will exceed this total, additional authorization from the Board is required. At this time, the subject contract has experienced unforeseen circumstances that staff anticipates will exceed the General Manager's Administrative Code authority.

Greg Avenue Pump Station Rehabilitation - Increase in Change Order Authority (Contract No. 1911)

The contract requires modifications to the existing pumping station while continuing plant operation, all while completing the work within a tight construction window. This has required close coordination and cooperation between Metropolitan and the contractor. In order to minimize service interruptions while maintaining the schedule to retrofit a complicated pumping system and install a new control system, the contractor has responded to unanticipated conditions by modifying the work schedule and performing additional work. Specific examples of conditions that could not be anticipated at the time the contract was awarded include:

- **Issues with Metropolitan-furnished equipment:** In order to meet the aggressive on-line date of early 2021 for the pump station, staff elected to pre-purchase key equipment in advance of awarding the main construction project. The objective of this approach was to ensure the long lead-time equipment would be available in a timely manner for contractor installation in late-2020. This equipment includes the station's new pumps and motors, as well as key electrical cabinets that are critical to the operation of the pumps. Several issues have arisen with this equipment procurement contract that have impacted the construction contractor. After the pump-motor units were installed at the site, issues were discovered with the unit's alignment. Metropolitan was compelled to issue a change order to the construction contractor to disassemble, machine, and reassemble the equipment. Additionally, staff recently was made aware that the equipment supplier will be up to two months late in the delivery of the electrical control cabinets. This late delivery will delay the final installation and start-up of the equipment by the construction contractor by a similar duration. Since the equipment quality and timely delivery are Metropolitan's responsibility, Metropolitan is responsible for extra work and delays incurred by the construction contractor. Metropolitan staff will be negotiating with the construction contractor to minimize these additional charges to the greatest extent possible. Additionally, Metropolitan plans to pursue the recovery of the contractor delay costs associated with this item from the equipment supplier.
- **Revisions to local utility substation:** The original pump station was constructed in 1960, and the pumps installed at that time were powered from a 2.4 kV substation. In the decades since that initial installation, electrical power to large pumps has evolved. Today, modern pump stations are typically fed from 4.16 kV substations. Staff planned for an upgrade to electrical equipment when the project was initiated and worked closely with the local electrical utility to accommodate the upgrade. Due to the aggressive schedule to place the pump station in operation by early 2021, the design team made assumptions about key features of the electrical substation. After the construction contract was awarded, staff received additional information from the local utility on the substation design, specifically related to the footprint of the substation. These revisions had the effect of changing the construction contractor's scope of work on this portion of the project. Staff negotiated and resolved these issues with the construction contractor; however, this revised work resulted in a change order to the original contract.
- **COVID-19 related delays:** In mid-March 2020, the construction contract was suspended for one month to allow for assessment of the COVID-19 risk with performing on-site work and to develop safe working procedures. In mid-April, the construction contractor was allowed to restart work on the pump station while incorporating COVID-19 risk mitigation measures into its work practices. The contractor filed a claim, arguing that the work suspension delayed its work and caused it to incur additional costs. Staff negotiated a change order with the contractor to resolve the claim.
- **Changed conditions:** Unknown site conditions and deteriorated equipment were discovered once the 60-year-old facilities were excavated or dismantled. Specific examples of conditions that could not be anticipated prior to the start of construction include replacement of cracked catch basin piping, corroded surge tank vault pipe supports and pipe flanges, and deteriorated concrete decking that was discovered after an adjacent concrete building was removed.

The combined impact of these four significant changes, along with other less significant changes to the contract, have utilized most of the existing change order authority on the contract. There are several months of work required to complete construction, start-up, and commissioning of the pump station. Consequently, it is expected that there will be additional unanticipated changes to the construction contract. Therefore, it is recommended that the original change order authority be increased to accommodate these potential future issues.

Per Metropolitan's Administrative Code, the General Manager has the authority to execute change orders for this contract up to a maximum of \$1,048,750. To date, approximately \$740,000 in change orders have been executed. In order to fully resolve these issues and complete testing and commissioning of the Greg Avenue Pump Station, staff recommends that the change order authority be increased by \$600,000 for a new maximum amount of \$1,648,750. This increase will enable all remaining work to be performed expeditiously without delaying contract completion.

This action authorizes an increase in the General Manager's authority to execute change orders from \$1,048,750 to an aggregate amount not to exceed \$1,648,750 for rehabilitation of the Greg Avenue Pump Station.

Alternatives Considered

In developing the recommended approach, staff also considered advertising portions of the remaining work under a separate stand-alone construction contract. A separate stand-alone contract would increase costs and delay completion of the existing contract and the ability to reliably serve Colorado River water to portions of the distribution system that are normally dependent on State Water Project deliveries. Under this approach, an additional nine to 12 months would be needed to complete the planned improvements. Expediting completion of this planned work by using an existing construction contract allows the work to be completed in a timely and cost-effective manner.

Summary

This action authorizes an increase of \$600,000 in the General Manager's authority to execute change orders for Contract No. 1911 with J.F. Shea Construction, Inc. for unforeseen events during construction. See **Attachment 1** for the Allocation of Funds, and **Attachment 2** for the Location Map.

Project Milestone

March 2021 - Completion of rehabilitation of the Greg Avenue Pump Station

Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

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 51493, dated February 12, 2019, the Board awarded a \$20,975,000 contract to J.F. Shea Construction Inc., to rehabilitate the Greg Avenue Pump Station.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed project involves maintenance, repair, and replacement and reconstruction of existing public facilities with no expansion of use and no possibility of significantly impacting the physical environment. Accordingly, the proposed action qualifies under Class 1 and Class 2 Categorical Exemptions (Sections 15301 and 15302) of the State CEQA Guidelines.

CEQA determination for Option #2:

None required

Board Options

Option #1

Authorize increase of \$600,000 in change order authority for rehabilitation of the Greg Avenue Pump Station, up to an aggregate amount not to exceed \$1,648,750.

Fiscal Impact: Expenditure of \$600,000 in capital funds. All costs will be incurred in the current biennium and have been previously authorized.

Business Analysis: This option will allow timely completion of all remaining work at the Greg Avenue Pump Station.

Option #2

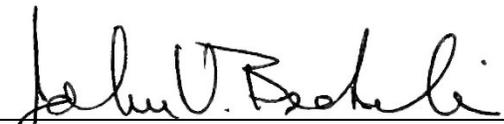
Do not authorize an increase in change order authority.

Fiscal Impact: Unknown

Business Analysis: This option is unlikely to result in lower costs for the extra work performed and would delay project completion.

Staff Recommendation

Option #1

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|--|-------------|
|  | 10/21/2020 |
| John V. Bednarski Chief Engineer Engineering Services | <i>Date</i> |

| | |
|--|-------------|
|  | 10/26/2020 |
| Jeffrey Knightlinger General Manager | <i>Date</i> |

Attachment 1 – Allocation of Funds

Attachment 2 – Location Map

Ref# es12674379

Allocation of Funds for Rehabilitation of Greg Avenue Pump Station

| | Current Board Action (Nov. 2020) | |
|-----------------------------------|---|----------------|
| | <hr/> | |
| 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 | | 600,000 |
| Remaining Budget | | - |
| Total | \$ | 600,000 |
| | <hr/> <hr/> | |

The total amount expended to date to upgrade the Greg Avenue Pump Station is approximately \$27.6 million. The total estimated cost to complete this project, including the amount appropriated to date and current funds requested with this action is \$33.6 million. No future funding requests are currently anticipated for this project.

Distribution System

