



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

1/10/2023 Board Meeting

7-6

Subject

Amend the Capital Investment Plan for fiscal years 2022/2023 and 2023/2024 to include the Foothill Feeder Valve Replacement project; the General Manager has determined that the proposed actions are exempt or otherwise not subject to CEQA

Executive Summary

This action amends the Capital Investment Plan (CIP) to include a project to replace valves along the Foothill Feeder. The existing valves have been in continuous service for over 55 years, have deteriorated beyond repair, and are currently leaking. This project includes the procurement and installation of 14 new valves by Metropolitan staff during an upcoming planned shutdown. Approval of this project at this time will allow staff to procure the required equipment in a timely manner for installation during a 2024 shutdown of the Foothill Feeder.

Details

Background

The Foothill Feeder conveys untreated water from the West Branch of the State Water Project into the western portion of Metropolitan's service area. The feeder extends south from Castaic Lake, crosses under the Santa Clara River and several of its tributaries, and terminates at the Joseph Jensen Water Treatment Plant. The member agencies that rely on this supply include Calleguas Municipal Water District, Central Basin Municipal Water District, Las Virgenes Municipal Water District, West Basin Municipal Water District, and the cities of Beverly Hills, Burbank, Compton, Glendale, Long Beach, Los Angeles, San Fernando, Santa Monica, and Torrance.

The Foothill Feeder is 14.6 miles long, of which 5.9 miles are constructed of 201-inch-diameter prestressed concrete cylinder pipe (PCCP). In 2013, Metropolitan initiated a comprehensive program to inspect, manage, and rehabilitate its PCCP feeders. To maintain delivery reliability and identify any PCCP segments that may become distressed, staff inspects the PCCP feeders every five to seven years. Current state-of-the-art inspection techniques require dewatering of the pipe. The Foothill Feeder was last shut down and inspected in 2019, and the next inspection is planned for Spring 2024.

Dewatering of the pipeline utilizes seven blowoff structures. At present, the Foothill Feeder can only be dewatered completely by draining the lowest points of the pipeline through blowoff structures into the Santa Clara River and several of its tributaries. Each blowoff structure has two valves: one for isolation and the other to control flows. The existing blowoff valves on Foothill Feeder are from the original construction and have been in service continuously since 1968. Although the valves have been maintained, they have deteriorated to the point that they are no longer repairable, are unable to provide a positive seal, and as a result, leak. Staff recommends replacement of the valves during the 2024 planned shutdown.

In April 2022, the Board appropriated funds and authorized the General Manager to initiate or proceed with work on all capital projects identified in the CIP, subject to any limits on the General Manager's authority and CEQA requirements. This action amends the CIP to include the Foothill Feeder Valve Replacement project. It is not anticipated that the addition of this project to the CIP will increase CIP expenditures in the current biennium beyond those which have been previously approved by the Board. 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 Distribution System Reliability Program.

Foothill Feeder Valve Replacement – Design and Procurement

This project will replace a total of fourteen 16-inch diameter lubricated plug valves at seven blowoff locations along the Foothill Feeder. Planned procurement phase activities include the preparation of specifications for procurement, technical support during bidding, and project management. All work related to the feeder shutdown and installation of the valves will be performed by Metropolitan staff. Staff will return to the Board for award of a procurement contract for the valves.

A total of \$150,000 is required for this action. Allocated funds include \$17,000 for preliminary design, \$63,000 for final design and technical support, \$48,000 for project management, and \$22,000 for remaining budget. **Attachment 1** provides the allocation of funds. The total estimated cost to complete the project, including funds allocated for the work described in this action, and future construction costs, is anticipated to range from \$1.6 million to \$1.7 million. The final design cost as a percentage of the estimated construction cost is approximately five percent. Engineering Services' goal for design of projects with construction costs less than \$3 million is 9 to 15 percent. The construction cost for this project is anticipated to range from \$1.35 million to \$1.45 million, which includes procurement of the valves. Staff will return to the Board at a later date for award of a procurement contract.

Alternatives Considered

Staff considered delaying the project and incorporating it into the next biennial CIP budget. However, shutdown of the Foothill Feeder for PCCP inspection is only planned every five to seven years in order to not impact State Water Project deliveries. In addition, the Santa Clara River and its tributary streams, which the Foothill Feeder drains into during dewatering, contains a fish listed as a California endangered and fully protected species. To avoid harm to the fish during dewatering activities, the pipeline is dewatered slowly, and this results in an extended shutdown. If staff were unable to replace the existing valves during the upcoming planned shutdown in March 2024, replacement of the leaking valves would likely not occur until sometime between 2029 and 2031. An unplanned outage would be required to replace any failed blowoff valves in the interim. The selected option to add the project to the current CIP will allow replacement of the valves during an upcoming planned shutdown and reduce the risk of an unplanned outage.

Summary

This action amends the current CIP to include needed valve replacements for the Foothill Feeder. This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal years 2022/23 and 2023/24 capital expenditure plan. See **Attachment 1** for the Allocation of Funds and **Attachment 2** for the Location Map.

Project Milestone

March 2024 – Installation of new valves

Policy

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

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 (Public Resources Code Section 21065, State CEQA Guidelines Section 15378(b)(5)) because the amendment involves organizational or administrative activities and general policy and procedure making that would not result in a direct or indirect physical change to the environment. The study and design associated with the valve replacement work is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action provides for data collection, design, and technical support with no possibility of significantly impacting the physical environment. Accordingly, the proposed action qualifies under Class 1 and Class 6 (Sections 15301 and 15306) of the State CEQA Guidelines.

CEQA determination for Option #2:

None required

Board Options

Option #1

Amend the Capital Investment Plan for fiscal years 2022/2023 and 2023/2024 to include the Foothill Feeder Valve Replacement project.

Fiscal Impact: Expenditure of \$150,000 in capital funds. It is not anticipated that the addition of the project listed above to the CIP will increase CIP expenditures in the current biennium beyond those which have been previously approved by the Board.

Business Analysis: This option will maintain reliability of the Foothill Feeder.

Option #2

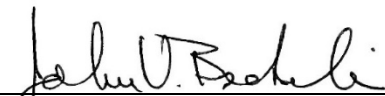
Do not proceed with the project at this time

Fiscal Impact: None

Business Analysis: This option will forego improving reliability and may result in unplanned outages of the Foothill Feeder.

Staff Recommendation

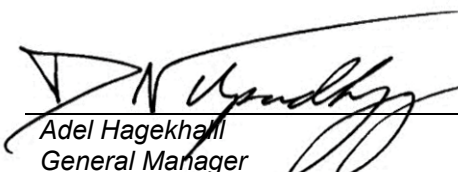
Option #1



 John V. Bednarski
 Manager/Chief Engineer
 Engineering Services

12/22/2022

Date

for 

 Adel Hagekhalil
 General Manager

12/27/2022

Date

Attachment 1 – Allocation of Budgeted Funds

Attachment 2 – Location Map

Ref# es12686666

Allocation of Funds for the Foothill Feeder Valve Replacement

	Current Board Action (Jan. 2023)	
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Labor		
Studies & Investigations	\$	17,000
Final Design		63,000
Owner Costs (Program mgmt., Project Controls)		48,000
Submittals Review & Record Drwgs.		-
Construction Inspection & Support		-
Metropolitan Force Construction		-
Materials & Supplies		-
Incidental Expenses		-
Professional/Technical Services		-
Right-of-Way		-
Equipment Use		-
Contracts		-
Remaining Budget		22,000
Total	\$	150,000
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This is the initial allocation of funds for replacement of blowoff valves for the Foothill Feeder. The total estimated cost to complete the project, including funds allocated for the work described in this action, and future construction costs, is anticipated to range from \$1.6 million to \$1.7 million.

Distribution System

