



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

5/9/2023 Board Meeting

7-4

Subject

Amend the Capital Investment Plan for fiscal years 2022/2023 and 2023/2024 to include the Diemer Helicopter Hydrant Facility 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 install a helicopter hydrant facility at the Robert B. Diemer Water Treatment Plant (Diemer plant). A helicopter hydrant consists of an open top tank and supporting infrastructure that allows helicopters to quickly collect water to fight nearby fires. Metropolitan will collaborate with the Yorba Linda Water District (YLWD) on the development of this project that has benefits to both agencies. Approval of this project at this time will allow staff to design, procure and install the required equipment in time to take advantage of federal grant funds that were made available to YLWD by the United States Forest Service (USFS).

Details

Background

The Diemer plant was placed into service in 1963 with an initial capacity of 200 million gallons per day (mgd) and was expanded in 1969 to its present capacity of 520 mgd. It delivers a blend of waters from the Colorado River Aqueduct and State Water Project to Metropolitan's Central Pool and to an exclusive service area in Orange County. The Diemer plant is located within the city of Yorba Linda, and is immediately adjacent to Chino Hills State Park, which features a hilly, steep terrain populated by dense trees and vegetation.

In November 2008, the Freeway Complex Fire burned westward from Corona past the Diemer plant. Slopes on the east, north, and west sides of the plant were burned, which prompted the Orange County Fire Authority (OCFA) to classify the Diemer site as a high fire hazard risk area. Following that event, Metropolitan retrofitted the Diemer plant's control room with new fire protection measures including the addition of an independent high efficiency heating, ventilating, and air conditioning system to enhance smoke control in the event of a local fire occurrence; and installation of a special fire alarm and occupant notification system, which was coordinated with and approved by the OCFA. In October 2020, severe wildfires occurred within one mile of the Diemer site. The use of the recently installed wildfire smoke control filtration equipment allowed staff to continue plant operations while monitoring fire containment.

To date, Metropolitan staff continues to assess potential initiatives to enhance safety and reduce the risk of damage or disruption to plant operations in the event of fire. A new minor capital project was recently approved to design and construct an engineered water tank system at the Diemer plant site to allow water-dropping helicopters to fill up with water while the helicopters are in the air. During the initial planning of this system, Metropolitan staff learned that the YLWD has successfully designed and constructed two helicopter hydrants in fire-prone locations, each of them provided with an open top tank and supporting infrastructure that allow helicopters to quickly collect water to fight nearby fires.

In September 2022, the USFS awarded a grant to YLWD in the amount of \$500,000 to construct a new helicopter hydrant in the area. YLWD and Metropolitan staff agreed that a joint effort to fund, construct, and operate a

single helicopter hydrant facility and supporting improvements at the Diemer plant site is more efficient than constructing two separate systems near each other.

Staff and YLWD have discussed the terms of a memorandum of understanding (MOU) to allow the use of the \$500,000 in grant funding, and monetary and in-kind contributions, to jointly develop the project. Metropolitan will contribute \$480,000 in funds and will perform the design, procurement, and construction activities as described below. YLWD will provide up to \$500,000 in grant funding; technical support during design and construction; coordination with the California Department of Forestry and Fire Protection (Cal Fire) and OCFA to ensure design and operational conditions are acceptable to both agencies. Metropolitan will own and operate the facility after construction is completed.

Staff recommends this collaboration between YLWD and Metropolitan to maximize the value of the grant and the benefits of this project to both agencies. Staff recommends proceeding with the project at this time to install a helicopter hydrant facility at the Diemer plant site to enhance response to wildfire hazards, protect Metropolitan assets, and effectively utilize available grant funding. Upon board approval of this action, staff will develop a formal MOU between the two agencies to memorialize the agreement.

Budget Impact

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 Diemer Helicopter Hydrant Facility 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 anticipates an expenditure of \$480,000 in Metropolitan's capital funds and \$500,000 in USFS grant funds. Approximately \$480,000 will be incurred in the current biennium and has been previously authorized. The remaining funds from this action will be accounted for and appropriated under the next biennial budget. 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 Treatment Plant Reliability Program.

Diemer Helicopter Hydrant Facility – Design, Procurement, and Construction

This project will include design and construction of a new helicopter hydrant facility at the Diemer plant site. Planned activities include conducting field surveys and materials testing, and development of a site plan for the facility; preparation of drawings and specifications for procurement of the new hydrant tank; environmental analysis and documentation, as required by CEQA; design and construction of the tank foundation, a helicopter pad, and other related infrastructure; and project management. The procurement contract for the helicopter hydrant tank is planned to be awarded under the General Manager's authority. All other work will be performed by Metropolitan staff.

A total of \$980,000 is required for this action. Allocated funds include \$143,000 for field investigation; \$90,000 for design activities as described above; \$190,000 for procurement of the hydrant tank and construction materials; \$20,000 for fabrication inspection; \$420,000 for Metropolitan force construction; \$70,000 for environmental support and project management; and \$47,000 for remaining budget. **Attachment 1** provides the allocation of funds. The final design cost as a percentage of the estimated construction cost is approximately 14.8 percent. Engineering Services' goal for design of projects with construction cost less than \$3 million is 9 to 15 percent. The construction cost for this project is \$610,000, which includes \$420,000 for Metropolitan force construction and \$190,000 for procurement of the hydrant tank.

Alternatives Considered

Staff considered delaying the project and incorporating it into the next biennial CIP budget. However, this would extend the project completion beyond the allowable timeline established by the USFS to access grant funds obtained by YLWD. The selected alternative allows first responders to save critical time and effectively fight fires by offering a strategically placed, quick-fill, pilot-operated water source that can fill in minutes. This helicopter hydrant offers Metropolitan an innovative way to safeguard life, property, and the environment for the benefit of the community and the Diemer plant.

Summary

This action amends the current CIP to include installation of a helicopter hydrant facility at the Diemer plant site. 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

December 2024 – Completion of construction of the helicopter hydrant facility at the Diemer plant

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 2022/2023 and 2023/2024.

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 helicopter hydrant facility 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.

Prior to formal approval of any proposed construction, CEQA documentation will be prepared and processed in accordance with CEQA and 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 Diemer Helicopter Hydrant Facility project.

Fiscal Impact: Expenditure of \$480,000 in capital funds and \$500,000 in USFS grant 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. Approximately \$480,000 will be incurred in the current biennium and has been previously authorized. The remaining funds from this action will be accounted for and appropriated under the next biennial budget.

Business Analysis: This option will enhance safety and operational resiliency at the Diemer plant.

Option #2

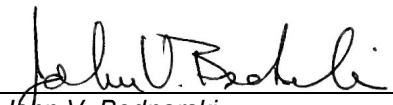
Do not proceed with the project at this time.

Fiscal Impact: Forfeit the opportunity to use \$500,000 in USFS grant funds secured by YLWD

Business Analysis: This option would forego an opportunity for Metropolitan's service area to use USFS grant funds to enhance safety and operational resiliency at the Diemer plant.

Staff Recommendation


Option #1



John V. Bednarski
Manager/Chief Engineer
Engineering Services

4/17/2023

Date



Adel Hagekhalil
General Manager

4/25/2023

*Date***Attachment 1 – Allocation of Funds****Attachment 2 – Location Map**

Ref# es12692689

Allocation of Funds for Diemer Helicopter Hydrant Facility

	Current Board Action (May 2023)	
Labor		
Studies & Investigations	\$	143,000
Final Design		90,000
Owner Costs (Program mgmt., envir. planning)		70,000
Submittal Review & Record Drwgs.		-
Construction Inspection & Support		20,000
Metropolitan Force Construction		420,000
Materials & Supplies		190,000
Incidental Expenses		-
Professional/Technical Services		-
Contracts		-
Remaining Budget		47,000
Total	\$	980,000

This is the initial allocation of funds for the helicopter hydrant facility at the Diemer plant. The total estimated cost to complete this project is \$980,000, which includes \$500,000 in USFS grant funds.

