



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

5/9/2017 Board Meeting

7-3

Subject

Adopt CEQA determination and appropriate \$350,000; and authorize preliminary design to replace the wastewater system at Lake Mathews (Appropriation No. 15495)

Executive Summary

This action authorizes preliminary design to replace the on-site wastewater collection system at Lake Mathews. The new collection system will connect to a recently constructed municipal sewer system for disposal of the wastewater.

Timing and Urgency

The existing wastewater system at Lake Mathews has deteriorated from up to 80 years of use and is no longer reliable. The system is exhibiting signs of failure such as plumbing and septic tank backups, clogged leach fields, broken and slow-draining collection pipes, and odors. When a wastewater system fails to operate effectively, groundwater and surface water pollution may occur. Staff recommends proceeding to replace the on-site wastewater system at this time.

This project has been reviewed with Metropolitan's Capital Investment Plan (CIP) prioritization criteria and is included in the Distribution System Reliability Program. Funds for this action are available within Metropolitan's capital expenditure plan for fiscal year 2016/17.

Details

Background

Portions of the on-site wastewater system at Lake Mathews were installed during the reservoir's original construction in the 1930s. The system was expanded significantly in the 1960s. At that time, no municipal sewer system was available in the area. The on-site system serves bathrooms and kitchen facilities at the Lake Mathews' maintenance buildings, administrative offices, and repair shops.

The wastewater system includes three components: community septic tanks and leach fields; collector lines that convey wastewater from numerous facilities to the septic tanks; and sewer laterals that convey wastewater from individual buildings to the collector lines. At the septic tanks, solid waste settles to the bottom of multiple chambers, where it undergoes biological treatment and is removed by pump trucks at regular intervals. The liquid effluent is dispersed through perforated pipes into subsurface soils at the leach fields. The on-site wastewater system includes five community septic tanks and approximately 6,000 feet of collector lines and sewer laterals.

While the existing system has received regular maintenance, it is showing signs of failure. There have been repeated instances of slow-draining sinks and toilets, broken and clogged pipes, septic tank backups, and clogged leach fields. In order to maintain reliability and reduce the risk of costly unplanned repairs, the existing wastewater system should be replaced. Staff recommends that on site treatment of the wastewater via septic tanks be discontinued. Instead, Metropolitan's collection system should connect to the local wastewater agency's system that was installed in the early 2000s. Western Municipal Water District of Riverside County has a nearby

sewer main that includes a connection point specifically installed for Metropolitan's future use. This connection can accept wastewater by gravity from all of Lake Mathews' facilities.

Lake Mathews Wastewater System Replacement - Preliminary Design Phase (\$350,000)

The preliminary design phase activities will include development of design criteria based on projected future wastewater flows and current codes; initiation of permitting for the sewer connection; field investigations and potholing to locate utilities; preliminary layout of the collection system; preparation of environmental documentation; and development of a cost estimate. Future flow projections will be consistent with Metropolitan's long-term operation and staffing plans for the Lake Mathews facilities. All activities will be performed by Metropolitan staff.

This action appropriates \$350,000 and authorizes preliminary design to replace the wastewater system at Lake Mathews. The requested funds include \$240,000 for the technical activities described above; \$53,000 for project management and permitting; and \$57,000 for remaining budget. Staff will return to the Board at a later date for authorization of final design.

This project is included within capital Appropriation No. 15495, the Operations Support Facility Improvements. With the present action, the total funding for Appropriation No. 15495 will increase from \$500,000 to \$850,000.

This project has been evaluated and recommended by Metropolitan's Capital Investment Plan Evaluation Team, and funds have been included in the fiscal year 2016/17 capital budget. See [Attachment 1](#) for the Financial Statement and [Attachment 2](#) for the Location Map.

Project Milestone

November 2017 – Completion of preliminary design

Policy

Metropolitan Water District Administration Code Section 5108: Appropriations

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 action consists of basic data collection and resource evaluation activities that do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action that a public agency has not yet approved, adopted, or funded. The proposed activities may also involve inspections to check for performance of an operation, or quality, health, or safety of a project. Accordingly, the proposed action qualifies under Classes 6 and 9 Categorical Exemptions (Sections 15306, and 15309 of the State CEQA Guidelines).

The CEQA determination is: Determine that the proposed action is exempt from CEQA pursuant to Sections 15306, and 15309 of the State CEQA Guidelines.

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination that proposed action is categorically exempt from CEQA, and

- a. Appropriate \$350,000; and
- b. Authorize preliminary design to replace the on-site wastewater system at Lake Mathews.

Fiscal Impact: \$350,000 of capital funds under Appropriation No. 15495

Business Analysis: This option will provide reliable and efficient disposal of wastewater in compliance with local codes and environmental regulations.

Option #2

Do not authorize preliminary design to replace the wastewater system at Lake Mathews.

Fiscal Impact: None

Business Analysis: Over time, this option would result in increased maintenance and costly unplanned repairs as the wastewater system continues to degrade.


Staff Recommendation

Option #1



Gordon Johnson
Manager/Chief Engineer
Engineering Services

4/19/2017
Date



Jeffrey Kightlinger
General Manager

4/24/2017
Date

Attachment 1 – Financial Statement

Attachment 2 – Location Map

Financial Statement for Operations Support Facility Improvements Appropriation

A breakdown of Board Action No. 2 for Appropriation No. 15495 for replacement of the wastewater system at Lake Mathews¹ is as follows:

	Previous Total Appropriated Amount (Dec. 2015)	Current Board Action No. 2 (May 2017)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ -	\$ 232,000	\$ 232,000
Final Design	45,500	-	45,500
Owner Costs (Program mgmt., permitting)	91,000	53,000	144,000
Metropolitan Force Construction	-	8,000	8,000
Incidental Expenses	2,000	-	2,000
Professional/Technical Services	350,000	-	350,000
Right-of-Way	-	-	-
Contracts	-	-	-
Remaining Budget	11,500 ²	57,000	68,500
Total	\$ 500,000	\$ 350,000	\$ 850,000

Funding Request

Appropriation Name:	Operations Support Facility Improvements		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15495	Board Action No.:	2
Requested Amount:	\$ 350,000	Budget Page No.:	245
Total Appropriated Amount:	\$ 850,000	Total Appropriation Estimate:	\$ 35,100,000

¹ This is the initial action for replacement of the wastewater system at Lake Mathews.

² Includes previous reallocation of \$23,500 from Remaining Budget for field investigations to located utility connection points for desert houses at the Colorado River Aqueduct pumping plants.

Distribution System

