The Metropolitan Water District of Southern California

Agenda

The mission of the Metropolitan Water District of Southern California is to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

EOT Committee
D. Erdman, Chair
S. Faessel, Vice Chair
D. Alvarez
G. Bryant
J. Crawford
B. Dennstedt
L. Fong-Sakai
J. Lewitt
M. Luna
J. McMillan
C. Miller
M. Petersen
K. Seckel

Engineering, Operations, and Technology Committee

Meeting with Board of Directors *

July 7, 2025

9:00 a.m.

Monday, July 7, 2025 Meeting Schedule
09:00 a.m. EOT
11:00 a.m. LEG
12:45 p.m. Break
01:00 p.m. CWC
02:30 p.m. OWA

Written public comments received by 5:00 p.m. the business day before the meeting is scheduled will be posted under the Submitted Items and Responses tab available here: https://mwdh2o.legistar.com/Legislation.aspx.

The listen-only phone line is available at 1-877-853-5257; enter meeting ID: 862 4397 5848.

Members of the public may present their comments to the Board on matters within their jurisdiction as listed on the agenda via teleconference and in-person. To provide public comment by teleconference dial 1-833-548-0276 and enter meeting ID: 815 2066 4276 or to join by computer click here.

MWD Headquarters Building • 700 N. Alameda Street • Los Angeles, CA 90012

* The Metropolitan Water District's meeting of this Committee is noticed as a joint committee meeting with the Board of Directors for the purpose of compliance with the Brown Act. Members of the Board who are not assigned to this Committee may participate as members of the Board, whether or not a quorum of the Board is present. In order to preserve the function of the committee as advisory to the Board, members of the Board who are not assigned to this Committee will not vote on matters before this Committee.

1. Opportunity for members of the public to address the committee on matters within the committee's jurisdiction (As required by Gov. Code Section 54954.3(a))

**** CONSENT CALENDAR ITEMS -- ACTION ****

2. CONSENT CALENDAR OTHER ITEMS - ACTION

A. Approval of the Minutes of the Engineering, Operations, and Technology Committee for May 12, 2025 — 21-4776

3. CONSENT CALENDAR ITEMS - ACTION

7-2 Award a $1,718,000 construction contract to Myers and Sons Construction, LLC to refurbish a washwater reclamation plant basin at the Joseph Jensen Water Treatment Plant; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA **21-4765**

Attachments: 07082025 EOT 7-2 B-L

7-3 Authorize (1) an amendment to an existing design-build agreement with J.F. Shea Construction Inc. to initiate Phase 2 of the Sepulveda Pump Stations project, including a $52.96 million increase for a new not-to-exceed amount of $103.36 million; (2) an increase of $810,000 to an existing agreement with Carollo Engineers Inc. for a new not-to-exceed amount of $3.3 million to serve as the owner's advisor; and (3) an increase of $296,000 to an existing agreement with Parametrix Inc. for a new not-to-exceed amount of $545,000 for cost estimating and scheduling services; the General Manager has determined that the proposed action is categorically exempt or otherwise not subject to CEQA **21-4766**

7-4 Authorize a new on-call five-year professional services agreement with ProcureAmerica, LLC, for a not-to-exceed total amount of $1.25 million for retail electric utility rate analysis and reduction; the General Manager has determined the proposed action is exempt or otherwise not subject to CEQA **21-4785**

7-5 Authorize an increase of $700,000 in change order authority to an existing contract with Power Engineering Construction Co. for urgent diving services at Lake Mathews; the General Manager has determined that the project is exempt or otherwise not subject to CEQA **21-4827**

Attachments: 07082025 EOT 7-5 B-L

**** END OF CONSENT CALENDAR ITEMS ****

4. OTHER BOARD ITEMS - ACTION

NONE

5. BOARD INFORMATION ITEMS

9-2 Desert Housing Updates Quarter 4 Fiscal Year 24/25 **21-4787**

6. COMMITTEE ITEMS

a. Update on Community Water Fluoridation **21-4804**

b. Pure Water Southern California Quarterly Update **21-4803**

7. MANAGEMENT ANNOUNCEMENTS AND HIGHLIGHTS

a. Engineering Services activities **21-4777**
Information Technology activities
Water System Operations activities

Attachments: 07072025 EOT 7a Engineering Services Activities.pdf

8. FOLLOW-UP ITEMS

NONE

9. FUTURE AGENDA ITEMS

10. ADJOURNMENT

NOTE: This committee reviews items and makes a recommendation for final action to the full Board of Directors. Final action will be taken by the Board of Directors. Committee agendas may be obtained on Metropolitan's Web site https://mwdh2o.legistar.com/Calendar.aspx. This committee will not take any final action that is binding on the Board, even when a quorum of the Board is present.

Writings relating to open session agenda items distributed to Directors less than 72 hours prior to a regular meeting are available for public inspection at Metropolitan's Headquarters Building and on Metropolitan's Web site https://mwdh2o.legistar.com/Calendar.aspx.

Requests for a disability-related modification or accommodation, including auxiliary aids or services, in order to attend or participate in a meeting should be made to the Board Executive Secretary in advance of the meeting to ensure availability of the requested service or accommodation.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Board Action

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

7/8/2025 Board Meeting

7-2

Subject

Award a $1,718,000 construction contract to Myers and Sons Construction, LLC to refurbish a washwater reclamation plant basin at the Joseph Jensen Water Treatment Plant; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Executive Summary

The Joseph Jensen Water Treatment Plant (Jensen plant) currently uses two washwater reclamation plant (WWRP) basins to treat used filter backwash water and supernatant from the gravity solids thickeners. This system is critical to the water treatment process. Despite receiving regular maintenance, the shafts and associated baffle wall boards in the flocculation basins have deteriorated from 30 years of continuous operation. One WWRP basin was refurbished in 2017. The design to refurbish the other operational WWRP basin is complete, and staff recommends moving forward with construction at this time to enhance the reliability of the Jensen plant.

This action awards a $1.718 million construction contract to Myers and Sons Construction, LLC to refurbish a WWRP flocculation basin. See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the Subcontractors for Low Bidder, and **Attachment 4** for the Location Map.

Proposed Action(s)/Recommendation(s) and Options

Staff Recommendation: Option #1

Option #1

Award a $1,718,000 construction contract to Myers and Sons Construction, LLC to refurbish a washwater reclamation plant basin at the Joseph Jensen Water Treatment Plant.

Fiscal Impact: Expenditure of $2.64 million in capital funds. All costs will be incurred in the current biennium and have been previously authorized.
Business Analysis: This option will enhance the reliability and operating efficiency of the Jensen plant.

Option #2

Do not proceed with this project at this time.
Fiscal Impact: None
Business Analysis: As the reclamation system is an integral part of the Jensen plant's water treatment process, this option would increase the risk of an unplanned outage at the Jensen plant.

Alternatives Considered

Staff considered procuring materials and utilizing Metropolitan forces for manufacturing, installing, and commissioning the required mechanical and structural components to refurbish the WWRP flocculation basin. After assessing the current in-house construction support commitments and upcoming maintenance needs of critical water delivery and conveyance facilities, staff recommends using a contractor to perform the construction work.

The selected alternative will maintain staff's ability to perform annual maintenance at other Metropolitan facilities and perform urgent repairs. This approach will minimize operational disruptions and ensure timely construction completion.

Applicable 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

Related Board Action(s)/Future Action(s)

By Minute Item 53598, dated April 9, 2024, the Board appropriated a total of $630 million for projects identified in the Capital Investment Plan for Fiscal Years 2024/25 and 2025/26

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is exempt from CEQA because it involves the operation, repair, maintenance, and minor alteration of existing public structures involving negligible or no expansion of existing or former use and no possibility of significantly impacting the physical environment. Furthermore, the proposed action consists of the replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced. (State CEQA Guidelines Sections 15301 and 15302.)

CEQA determination for Option #2:

None required

Details and Background

Background

The Jensen plant was placed into service in 1972 and has a rated capacity of 750 million gallons per day (mgd). Located in Granada Hills, the Jensen plant treats water from the West Branch of the State Water Project. It delivers it to Metropolitan's Central Pool and exclusive service areas on the west side of Metropolitan's distribution system.

The washwater reclamation plant is integral to the Jensen plant's water treatment process and needed to meet water quality requirements. Spent water from filter backwash and supernatant from gravity solids thickeners are collected and processed in the WWRP, which includes basins partitioned for coagulation, flocculation, and settling of suspended solids. This reclaimed water is returned to the plant's inlet for additional treatment. The Jensen plant's reclamation facilities consist of four treatment basins split between two plants. WWRP No. 1, which was constructed in 1972 as part of the original plant construction, has a treatment capacity of 11 mgd, and has been placed in a "standby" status as its treatment capacity is not needed with reduced flows through the Jensen plant. WWRP No. 2, which was added during the plant expansion in 1995, has a treatment capacity of 22 mgd, and is the primary washwater reclamation plant at Jensen plant.

Due to the lower flows expected at the Jensen plant, staff has focused on keeping WWRP No. 2 functional to maintain plant reliability. The washwater reclamation basins are equipped with rotating flocculation equipment, including paddle shafts and, boards and baffle walls to regulate flow and promote mixing and settling. Despite receiving regular maintenance, this equipment has deteriorated from 30 years of continuous operation and no longer provides uniform flow distribution as initially designed. One flocculation basin in WWRP No. 2 was refurbished in 2017. Final design for the refurbishment of the other basin is complete, and staff recommends the award of a construction contract at this time.

Jensen Washwater Reclamation Plant Flocculation Basin Refurbishment – Construction

The scope of the construction contract includes replacement or refurbishment of mechanical components at one WWRP No. 2 flocculation basin, including drive shaft assemblies, flocculator paddle boards, baffle wall boards, flocculator stuffing box, flocculator paddle arm shaft assemblies, and shaft bearings. Metropolitan forces will provide support for shutdown, dewatering, wet testing, and alignment verification for the rotating equipment, and install cathodic protection.

A total of $2.64 million is allocated for this work. In addition to the amount of the construction contract described above, allocated funds for Metropolitan staff include $210,000 for submittal review, responses to requests for information, and preparation of record drawings; $104,000 for Metropolitan force work described above; $230,000 for construction management and inspection; $190,000 for contract administration, environmental support, and project management; and $188,000 for remaining budget. **Attachment 1** provides the allocation of the required funds.

Award of Construction Contract (Myers and Sons Construction, LLC)

Specification 2031 for refurbishing a WWRP No. 2 flocculation basin at the Jensen plant was advertised for bids on April 8, 2025. As shown in **Attachment 2**, five bids were received and opened on May 20, 2025. The low bid from Myers and Sons Construction, LLC, in the amount of $1,718,000 complies with the requirements of the specifications. The other bids ranged from $1,723,000 to $2,877,700, while the engineer's estimate for this project was $1,150,000. Staff investigated the difference between the engineer's estimate and the low bid and concluded that the low bid reflects anticipated increased costs for specialized labor to achieve the tight tolerances specified for alignment of the flocculator shafts and bearings. The close cost correlation of the three lower bids (within two percent) confirms the magnitude of labor required for this project. For this contract, Metropolitan established a Small Business Enterprise participation level of 25 percent. Myers and Sons Construction, LLC has agreed to meet this level of participation. The subcontractors for this contract are listed in **Attachment 3**.

This action awards a $1.718 million contract to Myers and Sons Construction, LLC for refurbishment of a flocculation basin at the Jensen plant's WWRP No. 2. As mentioned above, Metropolitan staff will perform construction management and inspection. Engineering Services performance metric target range for construction management and inspection of projects with construction less than $3 million is 9 to 15 percent. For this project, the performance metric goal for inspection is 12.6 percent of the total construction cost. The total construction cost for this project is $1.822 million, including the contract cost ($1.718 million) and Metropolitan force work ($104,000).

Project Milestone

June 2026 – Completion of construction

6/17/2025

Mai M. Hattar *Date*
Interim Chief Engineer
Engineering Services

6/17/2025

John Bednarski *Date*
Assistant General Manager

Attachment 1 – Allocation of Funds

Attachment 2 – Abstract of Bids

Attachment 3 – Subcontractors for Low Bidder

Attachment 4 – Location Map

Ref# es12700394

Allocation of Funds for Jensen Washwater Reclamation Plant No. 2 Flocculation Basin Refurbishment

	Current Board Action (Jul. 2025)
Labor	
Studies & Investigations	$ -
Final Design	-
Owner Costs (Program mgmt., envir. monitoring)	190,000
Submittals Review & Record Drwgs.	210,000
Construction Inspection & Support	230,000
Metropolitan Force Construction	86,000
Materials & Supplies	18,000
Incidental Expenses	-
Professional/Technical Services	-
Equipment Use	-
Contracts	
Myers and Sons Construction, LLC	1,718,000
Remaining Budget	188,000
Total	**$ 2,640,000**

The total amount expended to date to refurbish the Jensen WWRP flocculation basin that is the subject of this action is approximately $170,000. The total estimated cost to complete this project, including the amount appropriated to date and funds allocated for the work described in this action, is $2.81 million.

The Metropolitan Water District of Southern California

Abstract of Bids Received on May 20, 2025, at 2:00 P.M.

Specifications No. 2031
Jensen Washwater Reclamation Plant No. 2 Flocculation Basin Refurbishment

The work includes furnishing and installing new basin bearing assemblies, stub shafts, drive shafts, tail shafts, supporting mechanical equipment, wall boards, and paddle blades; and refurbishing the paddle arm shaft, stuffing box assemblies, hubs and dry well, and basin bearing leveling plates.

Engineer's estimate: $1,150,000

Bidder and Location	Total	SBE $	SBE %	Met SBE[1]
Myers and Sons Construction, LLC Sacramento, CA	**$1,718,000**	**$618,607**	**36%**	**Yes**
West Valley Investment Group Tarzana, CA	$1,723,000	-	-	-
MMC Inc. La Palma, CA	$1,754,000	-	-	-
Houalla Enterprises Ltd. Newport Beach, CA	$2,155,783	-	-	-
Minako America Corporation Gardena, CA	$2,877,700	-	-	-

[1] Small Business Enterprise (SBE) participation level established at 25% for this contract.

The Metropolitan Water District of Southern California

Subcontractors for Low Bidder

Specifications No. 2031
Jensen Washwater Reclamation Plant No. 2 Flocculation Basin Refurbishment

Low bidder: Myers and Sons Construction, LLC

Subcontractor	Service Category; Specialty
Champion Painting Irvine, CA	Coatings
Tharsos Inc. La Mesa, CA	Demolition


Distribution System
N
CASTAIC LAKE
Foothill Feeder
Jensen Water Treatment Plant
LOS ANGELES COUNTY
SAN BERNARDINO COUNTY
SILVERWOOD LAKE
VENTURA COUNTY
LOS ANGELES COUNTY
Upper Feeder
LIVE OAK RESERVOIR
Rialto Pipeline
GARVEY RESERVOIR
Middle Feeder
Upper Feeder
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
Lower Feeder
Colorado River Aqueduct
LAKE PERRIS
LAKE MATHEWS
PALOS VERDES RESERVOIR
PACIFIC OCEAN
DIAMOND VALLEY LAKE
ORANGE COUNTY
RIVERSIDE COUNTY
LAKE SKINNER
RIVERSIDE COUNTY
SAN DIEGO COUNTY

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Board Action

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

7/8/2025 Board Meeting

7-5

Subject

Authorize an increase of $700,000 in change order authority to an existing contract with Power Engineering Construction Co. for urgent diving services at Lake Mathews; the General Manager has determined that the project is exempt or otherwise not subject to CEQA

Executive Summary

Lake Mathews is the terminus of the Colorado River Aqueduct (CRA). Water is withdrawn from the reservoir using two outlet towers connected to a junction shaft. Outlet Tower No. 1 is part of the original construction, and its upper portion was removed when Outlet Tower No. 2 was built. The two lowest tiers of Outlet Tower No. 1 were retained, and the openings modified to include blind flanges mounted on hinges that can be manually closed by divers. These openings on Outlet Tower No. 1 are normally left open, and flows are controlled downstream using gates at the junction shaft. Last month when switching towers for maintenance, the gate at the junction shaft became stuck in the open position. Without the ability to operate the gate, divers must manually close the flanges to prevent the potential for poor-quality water from entering the system during the summer months. A future shutdown will be scheduled to repair the gate.

To prevent adverse water quality impacts this summer, there is an urgent need to manually install the blind flanges at Outlet Tower No. 1 and restrict flow from the lower elevations of the lake. Due to the depth of the water at the location of the blind flanges and other complexities, Metropolitan divers are not recommended to conduct this work. Staff recommends utilizing diving services through a change order to an ongoing construction contract. A contract to install a new floating wave attenuator at Diamond Valley Lake includes diving services as part of the work, and these diving services are suitable for the deep-diving work that is required for this urgent activity. Using the existing contract to perform the urgent diving work at Lake Mathews Outlet Tower No. 1 represents the safest, most cost-effective, and expeditious means to complete the work. This action authorizes increasing the General Manager's authority to execute a change order to an existing contract. See **Attachment 1** for the Location Map.

Proposed Action(s)/Recommendation(s) and Options

Staff Recommendation: Option #1

Option #1

Authorize an increase of $700,000 in change order authority for a new maximum change order authority of $1,092,143 to an existing contract with Power Engineering Construction Co. for diving services at Lake Mathews.

Fiscal Impact: Expenditure of $1.1 million in O&M funds. All costs will be incurred in the current biennium and have been previously authorized.

Business Analysis: This option will prevent adverse water quality impacts to member agencies downstream of Lake Mathews this summer.

Option #2

Do not authorize the increase in change order authority at this time.
Fiscal Impact: None
Business Analysis: Under this option, the water quality of member agencies downstream of the Lake Mathews facility may be adversely impacted this summer.

Alternatives Considered

Staff considered issuing a new contract to perform the urgent diving work at Lake Mathews Outlet Tower No. 1. To comply with bidding requirements and Administrative Code provisions on contract awards, staff would need to develop a contract, bid the contract, and the Board would need to award the contract; likely delaying the start of work until August 2025 at the earliest. During the summer months, poor water quality is anticipated at lower elevations in Lake Mathews. Delaying the urgent diving work to advertise and award a new contract would risk delivering poor quality water to member agencies receiving water from Lake Mathews during the summer months, as well as to the Weymouth and Diemer plants.

Staff also considered utilizing Metropolitan's in-house diving staff to perform the urgent diving work at Lake Mathews Outlet Tower No. 1. Given the depth of Outlet Tower No. 1, there are significant restrictions on the time divers can perform the work at depth. In addition, the work requires entering a confined space to install the flanges. The work is more appropriate for a specialized diving contractor with the experience, equipment, and resources to perform the job safely.

The recommended option would be to utilize a change order under an existing construction contract. The contractor performing work to install a new floating wave attenuator at Diamond Valley Lake includes specialized diving services and can safely and efficiently perform the urgent diving work at Lake Mathews Outlet Tower No. 1.

Applicable 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

Related Board Action(s)/Future Action(s)

By Minute Item 53522, dated February 13, 2024, the Board awarded a $7,842,856 contract to Power Engineering Construction Co. to install a new Floating Water Attenuator at Diamond Valley Lake.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is exempt from CEQA because it involves the operation, repair, maintenance, or minor alteration of existing public structures, facilities, and mechanical equipment involving negligible or no expansion of existing or former use and no possibility of significantly impacting the physical environment. (State CEQA Guidelines Section 15301.)

CEQA determination for Option #2:

None required

Details and Background

Background

Lake Mathews is the terminus of the CRA and conveys water via the Upper and Lower Feeders to supply the Weymouth and Diemer plants. The Lake Mathews facilities were initially constructed in 1938 and expanded to their current capacity of 182,000 acre-feet in 1961.

In 2004, a second outlet tower was installed at Lake Mathews, and the existing Outlet Tower No. 1 was modified as part of the work. The top portion of the old tower was removed, but the bottom portion was retained as a low-level outlet. The control valves in the old tower were removed and replaced with blind flanges for isolation. A junction shaft connects the two towers to the outlet headworks and controls flow between the two towers with large slide gates. The blind flanges at the old tower can only be removed or installed by divers, as flows were meant to be controlled at the junction shaft by the gates.

Last month, the slide gate at the junction shaft became inoperable. The gate became bound during operation and is currently stuck in the 70 percent open position. The gate would normally be closed during the summer to isolate Outlet Tower No. 1, as lake stratification can often lead to poor water quality at the lowest lake elevations. With the junction shaft gate stuck in the open position, utilizing divers to install the blind flanges is the only way to isolate Outlet Tower No. 1.

As the weather warms, water quality in the lake may deteriorate at the Outlet Tower No. 1 inlet elevations adversely affecting the water quality leaving Lake Mathews and ultimately entering the Weymouth and Diemer. While Metropolitan's treatment plants with their ozone facilities are expected to be able to handle the poor water quality without violating drinking water standards, there is potential for taste and odor issues. In addition, member agencies relying on raw water deliveries from the Upper or Lower Feeders would be adversely impacted.

The configuration of Outlet Tower No. 1 presents some unique challenges for divers. The tower is currently submerged under more than 100 feet of water. Due to the depth, divers have limited working time available before needing to return to the surface. In addition, the structure must be entered using a small opening in the top deck, making the structure an underwater confined space. Experienced divers with appropriate equipment and resources are needed to perform the work safely.

Staff recommends utilizing a change order under an ongoing contract to perform the urgent diving work at Lake Mathews Outlet Tower No. 1. The current contract for installing a new floating wave attenuator at Diamond Valley Lake includes diving services for installing the anchors. The contractor has specialized diving experience, has performed comparable work under the existing contract, and has the necessary equipment and resources to safely perform the urgent diving work needed at Outlet Tower No. 1. The urgent diving work is expected to be completed in July and will allow continued delivery of high-quality water deliveries from Lake Mathews.

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. If changes occur on a construction contract that will exceed this total, additional authorization from Metropolitan's Board is required. The proposed change order to perform the urgent diving work will exceed the General Manager's Administrative Code authority. As a result, an increase in the maximum change order amount on the existing contract is requested at this time.

Diamond Valley Lake Floating Wave Attenuator System Replacement – Increase in Change Order Authority (Contract 2004)

The recommended work to be added to the contract includes providing a barge or work boat to access and perform the work; supplying adequate skilled, experienced divers and appropriate equipment for the conditions; accessing the interior of Outlet Tower No. 1; cleaning and removing quagga mussels as needed at 18 existing inlet flanges; closing (18) 30-inch diameter blind flanges; and accessing the interior of the junction shaft structure to document the conditions of the gate and gate guides to determine the cause of binding to be addressed in a future shutdown.

Per Metropolitan's Administrative Code, the General Manager has the authority to execute change orders for this contract 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 maximum change order authority is $392,143. To date, staff has not executed change orders on this contract, but there are some pending issues still to be resolved with the contractor. To perform the needed extra work, staff recommends that the change order authority be increased by $700,000 for a new maximum change order authority of $1,092,143. This action authorizes increasing the change order

authority to an existing contract with Power Engineering Construction Co. to perform urgent diving services at Lake Mathews.

Urgent Diving Services at Lake Mathews Outlet Tower No. 1 – Metropolitan Staff Activities

Additional Metropolitan staff activities will be required to perform the urgent diving services, including (1) shutdown of Lake Mathews outlet works and establishment of clearances; and (2) construction inspection, submittal review, technical support, contract administration, and project management.

A total of $1.1 million is required for this work. The increase to the existing contract amount for the work described above is approximately $700,000, with other budgeted funds including the following: $240,000 for shutdown-related activities and materials by Metropolitan staff; $57,000 for construction inspection; $27,000 for submittals review, technical support during construction, and responding to requests for information; $25,000 for contract administration and project management; and $51,000 for remaining budget.

In accordance with the provisions of the Governmental Accounting Standards Board, Metropolitan's work associated with these diving services must be conducted with O&M funds instead of a capital appropriation. Funds for this action are available within Metropolitan's operating budget funds for fiscal years 2024/25 and 2025/2026.

Project Milestone

July 2025 – Completion of work activities to install the blind flanges on Outlet Tower No. 1

6/18/2025

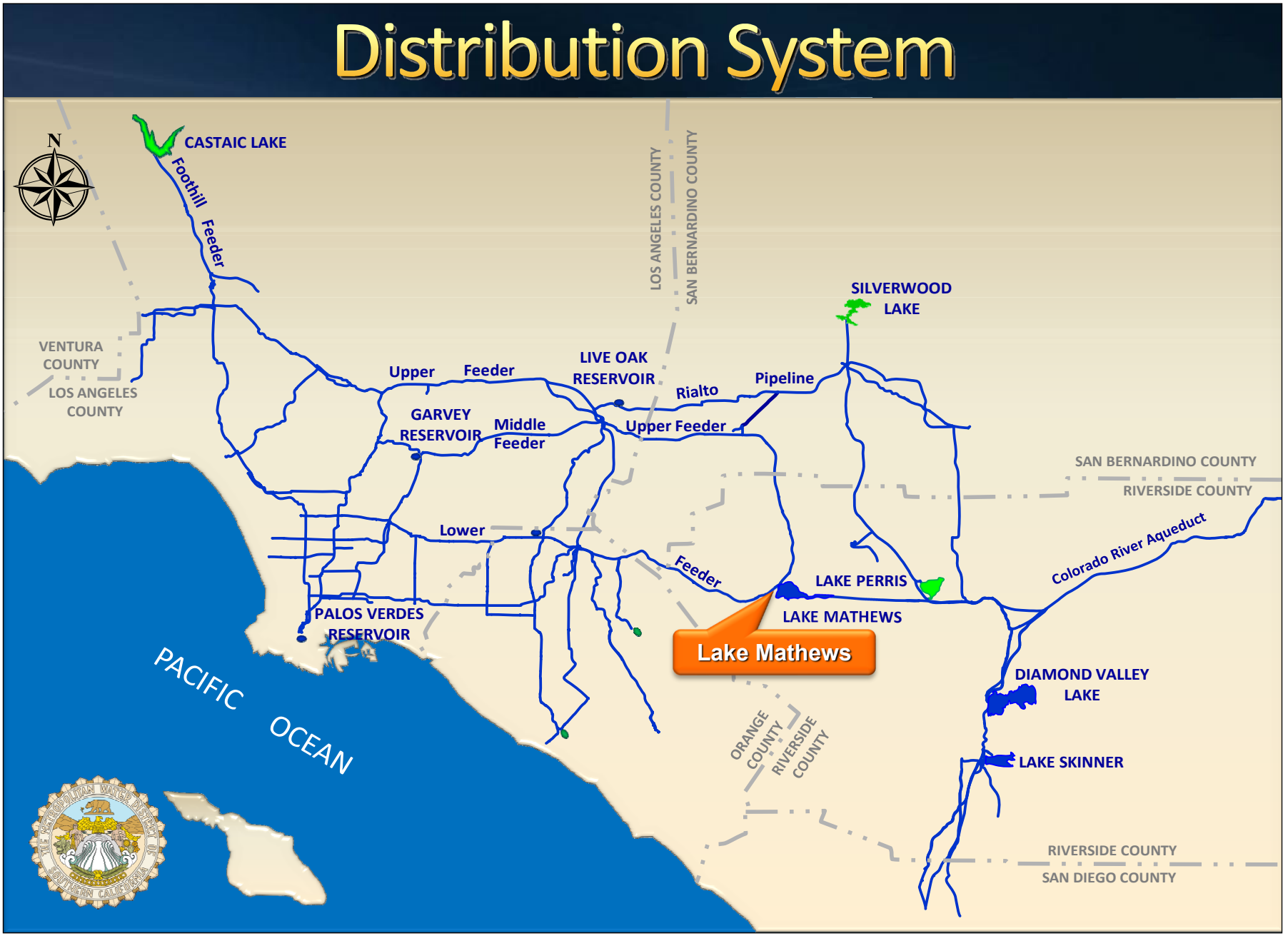
Mai M. Hattar *Date*
Interim Chief Engineer
Engineering Services

6/18/2025

John Bednarski *Date*
Assistant General Manager

Attachment 1 – Location Map

Ref# es12709639


Distribution System
N
CASTAIC LAKE
Foothill Feeder
VENTURA COUNTY
LOS ANGELES COUNTY
LOS ANGELES COUNTY
SAN BERNARDINO COUNTY
SILVERWOOD LAKE
Upper Feeder
LIVE OAK RESERVOIR
Rialto Pipeline
GARVEY RESERVOIR
Middle Feeder
Upper Feeder
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
Lower Feeder
Colorado River Aqueduct
LAKE PERRIS
LAKE MATHEWS
PALOS VERDES RESERVOIR
Lake Mathews
DIAMOND VALLEY LAKE
PACIFIC OCEAN
ORANGE COUNTY
RIVERSIDE COUNTY
LAKE SKINNER
RIVERSIDE COUNTY
SAN DIEGO COUNTY

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Board Report

Engineering Services Group

- **Engineering Services Group Monthly Activities for June 2025**

Summary

This monthly report provides a summary of Engineering Services Group activities for June 2025 in the following key areas:

- Colorado River Aqueduct (CRA) Program
- Dams & Reservoirs Program
- Distribution System Program
- Additional Facilities and Systems Program
- Prestressed Concrete Cylinder Pipe (PCCP) Program
- Water Treatment Plants Program
- Pure Water Southern California
- Drought Mitigation – State Water Project Dependent Areas
- Value Engineering Program
- Project Management Section Leadership Training
- Operations and Engineering Partnering Workshop

Purpose

Informational

Attachments

Detailed Report – Engineering Services Group's Monthly Activities for June 2025

Date of Report: July 7, 2025

Engineering Services Group's Monthly Activities for June 2025

Engineering Services manages and executes projects within the Capital Investment Plan (CIP) to maintain infrastructure resiliency, ensure regulatory compliance, enhance sustainability, and provide flexibility in system operations to address uncertain water supply conditions. In addition, Engineering Services provides technical services to enhance reliable system operation and real property planning, valuation, acquisition, and disposition services to protect Metropolitan's assets. Engineering Services empowers our staff and partners with our business partners and the communities we serve to accomplish Metropolitan's mission.

Recent key activities on CIP programs and other key engineering functions are described below.

Protect public health, the regional economy, and Metropolitan's assets

Colorado River Aqueduct (CRA) Program

The CRA program includes CIP projects to replace or refurbish facilities and components of the CRA system to reliably convey water from the Colorado River to Southern California.

- Solar Level Sensor Installation — This project installs eleven water level gauging stations at remote sites along the CRA and raises five accessways on Sand Hill Conduit. Construction is complete.
- Gene Security Upgrades-Pilot — This project installs security equipment such as cameras, card readers, and door switches at the Gene Pumping Plant. This is a pilot effort to support the larger CRA Security Improvements Project to test the technology that will be used and to assess its effectiveness. Lessons learned from this pilot effort will be applied during the final design of the security technology improvements at the CRA facilities. Construction is complete.
- CRA Main Pump Rehabilitation — This project will rehabilitate all 45 main pumps, motors, discharge valves, and supporting auxiliary systems at the five CRA pumping plants. The study phase is 90 percent complete and scheduled to be complete by September 2025.
- Black Metal Mountain Electrical Upgrades — This project replaces the existing single-phase 2.4 kV power line delivering power to the Black Metal Mountain communication site with a more robust three-phase power line rated for 4.16 kV usage. The project will also enhance the main access road to the

communications sites. Final design is 60 percent complete and scheduled to be complete by August 2025.

Dams & Reservoirs Program

The Dams & Reservoirs Program includes CIP projects to upgrade or refurbish Metropolitan's dams, reservoirs, and appurtenant facilities to reliably meet water storage needs and regulatory compliance.

- Garvey Reservoir Rehabilitation — This project will replace the aging reservoir floating cover and liner, structurally strengthen the outlet tower, upgrade the on-site water quality laboratory building, rehabilitate the junction structure, and replace the existing standby generator and a portion of the security perimeter fence. The outlet tower retrofit requires a permit from the California Division of Safety of Dams (DSOD); the design documents were submitted to DSOD in May 2025. Staff is expediting completion of design, with a goal of advertising the bid package this summer.
- Lake Skinner Storm Drain Improvements — This project will replace the existing drainage ditch at Lake Skinner Dam with an improved trapezoidal drainage ditch to improve stormwater drainage away from the face of the dam. The contractor continues demolishing the existing channel and excavating the new drainage ditch. Construction is 80 percent complete and is scheduled to be complete by September 2025.

Distribution System Program

The Distribution System Program includes CIP projects to replace, upgrade, or refurbish existing facilities within Metropolitan's distribution system, including pressure control structures, hydroelectric power plants, and pipelines, to reliably meet water demands.

- Service Connection OC -88 Chillers Replacement — This project replaces deteriorated cooling equipment, including three chillers and two chilled water pumps that provide cooling for the pump station's pump motors and air conditioning system. The contractor has completed the installation of all three chillers and both chilled water pumps. Construction is complete.
- Auld Valley PCS Valve Replacement — This project will rehabilitate one 42-inch sleeve valve and procure one 42-inch sleeve valve for the Red Mountain Pressure Control Structure, and rehabilitate two 42-inch sleeve valves for the Auld Valley Pressure Control Structure. One valve at the Auld Valley PCS has been rehabilitated, and the second one is currently at the Metropolitan shop being rehabilitated, to be installed during a November 2025 shutdown. Metropolitan is currently reviewing the submittals provided by the vendor to procure the new 42-inch sleeve valve for Red Mountain, to be installed in the fall of 2026.
- Santa Monica Feeder Cathodic Protection — This project installs cathodic protection for a steel portion of the Santa Monica Feeder to address corrosion detected during a 2018 inspection. Construction is complete.
- Lakeview Pipeline Procurement — This project will procure 12,500 feet of steel liner pipe segments with diameters ranging from 114 inches to 117 inches. This initial quantity of Metropolitan-furnished pipe will allow the future Lakeview Pipeline Stage 2 project contractor to begin field installation while

they are procuring the remaining pipe segments. Fabrication is underway, and pipe deliveries to the Etiwanda Pressure Control Facility are expected to begin in July 2025.

- Lake Skinner East Bypass Gate Procurement — This project will procure and install three new slide gate assemblies with new actuators at the East Lake Skinner Bypass channel, located off the San Diego Canal close to Lake Skinner. The procurement contract was awarded in March 2024, with the Notice to Proceed given to the manufacturer in April 2024. The estimated delivery date for the new gates and actuators is December 2025. The gates will be installed under a construction contract, with a tentative award date of July 2026.

Service Connection OC -88 Chillers Replacement — New Chillers

Lakeview Pipeline Procurement – 133.5-inch Bulkhead Fabrication

Additional Facilities and Systems Program

The Additional Facilities and Systems Program includes CIP projects to refurbish, replace, upgrade, or provide new facilities and systems that support Metropolitan's business and district-wide operations.

- La Verne Shops Improvements — This project will improve the La Verne Shops building and install Metropolitan-furnished shop equipment. The contractor installed the plasma cutter, roof access ladders, air compressor equipment, and a new waterjet system. Construction is approximately 97 percent complete and is scheduled to be complete in December 2025.

La Verne Shops Improvements — New Hydraulic Press Located in Machine Shop

Prestressed Concrete Cylinder Pipe (PCCP) Program

The PCCP Program includes CIP projects to refurbish or upgrade Metropolitan's PCCP feeders to maintain water deliveries without unplanned shutdowns.

- Second Lower Feeder PCCP Rehabilitation Reach 3B — This project installs 3.7 miles of steel lining and three conical plug valves along a portion of the Second Lower Feeder that traverses the cities of Lomita, Los Angeles, and Torrance. The contract completed the installation of the three conical plug valves and the installation of steel lining in April 2025. The electrical and SCADA work at the valve vaults and site restoration has been completed, and the contractor is working on punch list items. Construction is 94 percent complete and is scheduled to be complete in September 2025.
- Sepulveda Feeder Relining Reach 2 — This project installs steel lining along 3.8 miles of PCCP through several cities, including the cities of Torrance and Los Angeles. Final design is approximately 99 percent complete and is scheduled to be complete by August 2025.

- Sepulveda Feeder PCCP Rehabilitation Reach 9 — This project will rehabilitate approximately 19,400 linear feet of 120-inch to 96-inch diameter PCCP with a combination of solid steel and coiled steel liner systems. Reach 9 is located on Hayvenhurst Avenue from near State Route 118 to just north of the Van Nuys Airport in Los Angeles. Additionally, a new 54-inch sectionalizing valve and valve structure will be installed on the Sepulveda Feeder near the intersection of Hayvenhurst and Chatsworth Street. Final design for Reach 9 is 90 percent complete and is scheduled to be complete in December 2025.
- Electromagnetic Inspection — Regular inspections of the PCCP feeders are a critical step in evaluating the condition of each pipeline and assist staff in prioritizing the relining work on each feeder. This project conducts the fifth cycle of electromagnetic and visual inspections of Metropolitan's approximately 146.4 miles of PCCP pipelines. Inspections of the Skinner Plant Effluent No.2 and San Diego Pipeline No. 4 are scheduled to be completed in June 2025.

Second Lower Feeder PCCP Rehabilitation Reach 3B
Metropolitan Staff Asphalt Compaction Testing

Water Treatment Plants Program

The Water Treatment Plants Program includes CIP projects to replace or refurbish facilities and components at Metropolitan's five water treatment plants to continue to reliably meet treated water demands.

- Weymouth Basins 5–8 and Filter Building No. 2 Rehabilitation — This project rehabilitates major mechanical and structural components of Basins 5–8 and Filter Building No. 2 at the Weymouth plant, including the flocculation/sedimentation equipment, sludge pumps, baffle boards, and walls, launders, and outlet drop gates. Rehabilitation work also includes seismic upgrades of basin walls and inlet channel, hazardous material abatement, and replacement of inlet gates in Basins 1-4 and filter valves and actuators in Filter Building No. 2. The contractor completed all basin rehabilitation work, including structural wall modifications, mechanical piping, replacement of inlet gates and electrical equipment and performed equipment testing. The contractor continued the replacement of filter valves and actuators in Filter Building No. 2. Construction is approximately 95 percent complete and is scheduled to be complete in December 2025.
- Weymouth Administration Building Upgrades — This project upgrades the Weymouth Administration Building to withstand a significant earthquake. The planned upgrades include structural strengthening consistent with current seismic standards for essential facilities, accessibility and fire/life safety improvements, architectural modifications near the areas of structural upgrades, and improvements associated with the preservation of historic architectural features. Final design is approximately 99 percent complete and is scheduled to be complete in July 2025.
- Diemer Filter Rehabilitation — This project rehabilitates the 48 filters at the Diemer plant to enhance filter performance, minimize filter media loss, and rehabilitate or replace aging components. Planned upgrades include replacing filter media, filter valve actuators, and instruments; modifying the filter upstream influent weir and surface wash laterals; and improving the coal grit removal facilities for the east and west sides of the plant. Final design is approximately 98 percent complete and is scheduled to be complete in September 2025.
- Mills Electrical Upgrades, Stage 2 — This project upgrades the electrical system with dual-power feeds to key process equipment to comply with current codes and industry practices, improve plant reliability, and enhance worker safety. Stage 1 construction is complete. Stage 2 improvements will add a second incoming 12 kV service from Riverside Public Utilities, reconfigure the existing 4.16 kV switchgear, and replace the standby generator switchgear and the emergency generator programmable logic controller. Riverside Public Utilities energized the second incoming service to the plant. The contractor completed system-level testing and facility switchover to the permanent system and began demobilization from the project site. Construction is approximately 99 percent complete and is scheduled to be complete in July 2025.

Weymouth Basins 5–8 and Filter Building No. 2 Rehabilitation — Beginning Demolition of the Filter Drain Valves, North of Filter Building No. 2

Adapt to changing climate and water resources

Pure Water Southern California

The Pure Water Southern California (PWSC) Program is a large regional recycled water program that will provide a new local source of safe and reliable drinking water for Southern California. PWSC currently focuses on four areas: demonstration testing, environmental planning, technical studies, and preliminary design of initial pipeline reaches. PWSC will produce up to 150 million gallons per day of purified water from the Advanced Water Purification Facility (AWPF) in Carson for indirect potable reuse and direct potable reuse (DPR) applications.

- Environmental Planning — The draft Environmental Impact Report (EIR) was completed and published in May 2025 for a 60-day review period. Three public meetings were held in May and June. Board certification of the final EIR is scheduled for early 2026. Metropolitan is also pursuing State Bill 149 certification to streamline the litigation process should there be any.

- Program Management — PWSC program management efforts lead the planning for the PWSC Program, including project controls, scheduling, budget development, risk management, coordination with program partners and stakeholders, grants and funding, and preparation of various plans and studies.
    - In December 2024, the Board authorized entering into an agreement with the United States Bureau of Reclamation (USBR) to accept up to $125,472,855 in funding under the USBR Large-Scale Water Recycling Program grant. Metropolitan has received approximately $17.4 million from USBR to date.
    - Technical studies are underway to support the planning of DPR implementation and development of program phasing options, including treated water augmentation.
    - A board workshop is scheduled for July 22 to discuss term sheets for future agreements with member agencies that will be directly taking water and the potential framework for a community benefits program.
    - Updated program costs are in development and will be presented to the Board this fall.
- Advanced Water Purification Facility — The AWPF will purify treated wastewater from Los Angeles Sanitation District (LACSD) 's A.K. Warren Water Resource Facility using membrane bioreactors (MBRs), reverse osmosis, and ultraviolet/advanced oxidation. With its expertise in biological wastewater treatment, LACSD will be responsible for implementing the AWPF pretreatment, including the MBR facilities.
    - A final draft of conceptual facilities has been prepared. This document records key assumptions of AWPF components.
    - Metropolitan received the Method of Services study from Southern California Edison in May. This study identifies the infrastructure and costs needed to meet AWPF power requirements.
    - Staff is preparing and plans to issue a Request for Qualification document this summer to procure a progressive design-build entity to start the design of the AWPF.
- Direct Potable Reuse — Metropolitan has completed bench-scale testing to screen the potential DPR treatment processes that could be used for the program. Planning of pilot-scale and demonstration-scale testing is in progress. Key testing equipment will be procured in the coming months to facilitate the design of the DPR testing facility.

  Conveyance Pipeline System — The PWSC conveyance system consists of the backbone pipeline that extends over 40 miles from the AWPF, repurposing an existing pipeline owned by the San Gabriel Valley Municipal Water District, and constructing a new DPR pipeline to convey water from the backbone eastward for raw water augmentation at Metropolitan's Weymouth plant.
    - Completed the Conceptual Design Report for the conveyance system.
    - Conducted 16 market-sounding meetings with prospective contractors for Construction Management / General Contractor (CM/GC) alternative delivery services for Reaches 1 and 2, with plans to advertise this summer.
    - Continued coordination with Southern California Edison (SCE) in drafting a lease agreement for Metropolitan's usage of approximately 12 miles of SCE right-of-way along the San Gabriel River.

- Continued utility and geotechnical field investigations for Reaches 1 and 2, with preliminary design anticipated to complete by the year's end.

Drought Mitigation—State Water Project Dependent Areas

The Drought Mitigation—State Water Project Dependent Areas Program includes CIP projects to replace, refurbish, upgrade, or construct new facilities, which are identified to mitigate the vulnerability experienced by specific member agencies that are affected during shortages of State Water Project supplies.

- Valve Procurements for Foothill Pump Station Intertie — Two 54-inch diameter butterfly valves were delivered and are now stored at the Lake Mathews Valve Storage Building. These valves will be installed during the construction of the Foothill Pump Station Intertie project. Procurement for one 132-inch diameter butterfly valve is currently in the submittal phase.
- Foothill Pump Station Intertie — This project will connect Metropolitan's Inland Feeder to the San Bernardino Valley Municipal Water District's Foothill Pump Station. The project is one of four Rialto Pipeline service area supply reliability improvement projects. Foothill Pump Station will provide the hydraulic lift for direct water delivery from Diamond Valley Lake to the Rialto Pipeline. The project will install supply and discharge bypass pipelines, isolation valves and their vault, and a surge protection system. Final design is planned to be completed by fall 2025; however, the project requires permits from CA Fish and Wildlife and US Fish and Wildlife (USFWS) to address impacts on an endangered species found at the project site. The project will receive a $5M USBR grant, and USBR will assist Metropolitan with permit consultation with USFWS. USBR has initiated the USFWS consultation. The project is also pursuing land acquisition to obtain access rights to property necessary for project construction.
- Sepulveda Feeder Pump Stations — This project installs new pump stations at the existing Venice and Sepulveda Canyon pressure control facilities, providing the ability to reverse flow in the Sepulveda Feeder and deliver 30 cubic feet per second from the Central Pool to portions of the Jensen Plant exclusive area. This project utilizes a progressive design-build (PDB) project delivery method. The Board awarded a Phase 1 PDB agreement in September 2023. Phase 1 includes preliminary design and development of a Guaranteed Maximum Price (GMP) for completion. The contractor has submitted a 70% GMP, and Metropolitan is currently in negotiations. A board action to authorize Phase 2 final design and construction for the Venice site is anticipated in July 2025.

Sustain Metropolitan's mission with a strengthened business model

Value Engineering Program

Engineering Services conducts a Value Engineering (VE) program to review capital projects and identify opportunities and alternatives to enhance project performance, optimize funding for CIP projects, and demonstrate responsible use of public funds. The objective of the VE program is to improve the overall value of CIP projects by applying an industry-accepted assessment methodology to examine a project's function, design, equipment, material selections, and contracting approach. This comprehensive assessment is conducted at strategic stages in a project's life cycle.

Direct Potable Reuse Facility Improvements

Engineering held a VE workshop for the PWSC DPR Facility Improvements project. The PWSC Program is a partnership between Metropolitan and LACSD to beneficially reuse cleaned wastewater that is currently discharged to the Pacific Ocean from LACSD's A.K. Warren Water Resource Facility. The project involves upgrades and enhancements to modify Metropolitan's existing Advanced Water Treatment Demonstration Plant site for a new testing facility to facilitate additional testing and data collection aimed at regulatory acceptance of DPR application and process optimization. The site improvement also includes expanding the field offices to accommodate additional staff to support future testing. The workshop focused on optimizing the layout of the DPR testing facility and other site improvements while addressing health and safety, current and future operations and maintenance activities, and the constructability of the DRP improvements. Participants included Metropolitan staff from Engineering, Water Quality, Operations, Security, IT, LACSD staff, design consultants, value engineering consultants, and subject matter experts.

Grace F. Napolitano Pure Water Southern California Innovation Center (NIC)

Empower the workforce

Project Management Section Leadership Training

In May 2025, staff completed an internal program management (PM) training series as part of ongoing efforts to strengthen project delivery capabilities and promote a consistent approach to managing capital projects. The final module shown in the photos below provided a comprehensive overview of key project management initiatives, highlighting recent project management procedure updates and reinforcing best practices in project planning, documentation, communication, and collaboration.

The PM training was developed and delivered by ESG Program Management staff and attended by both new and experienced project managers and management staff. Participants provided positive feedback, citing the training's clarity, relevance to day-to-day work, and usefulness in supporting project execution.

Staff intends to continue these peer-led training modules as part of a broader knowledge-sharing initiative to build internal capabilities, support professional development, and improve the consistency and efficiency of project delivery across the organization.

Project Management Section Manager, Francisco Becerra, presenting Key Initiatives at PM Refresher Training

Project Manager, Patrizia Hall, presenting on Metropolitan's Administrative Code and Competitive Bidding Policy at PM Refresher Training

Program Management Section Participants at PM Refresher Training

Partner with interested parties and the communities we serve

Operations and Engineering Partnering Workshop

On May 28, the 10th internal partnering workshop was held to collaborate and emphasize how our collective priorities contribute to Metropolitan's mission. At this workshop, staff reviewed the progress of ongoing initiatives to proactively enhance business processes, collaborated to develop new initiatives that address current issues, and highlighted key issues and efforts that affect the Engineering Services, the Operations Groups, and the Office of Safety, Security and Protection Group. Past partnering workshops have had a broad focus on improving relations and work processes between the two groups, while some have zoomed in and concentrated the focus on specific areas or operating regions.

Metropolitan staff at the Operations & Engineering Partnering Workshop