THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Board Report

Engineering Services Group

- **Engineering Services Group Monthly Activities Report – April 2026**

Summary

This monthly report provides highlights and a summary of Engineering Services Group activities for April 2026 in the following key areas:

- Colorado River Aqueduct Program
- Dams & Reservoirs Program
- Distribution System Program
- Additional Facilities and Systems Program
- Prestressed Concrete Cylinder Pipe Program
- Water Treatment Plants Program
- Pure Water Southern California
- Drought Mitigation – State Water Project Dependent Areas
- Value Engineering Program
- Engineering Services Career Launch Program – Meet the Managers

Purpose

Informational

Attachments

Detailed Report – Engineering Services Group's Monthly Activities for April 2026

Date of Report: May 2026

Engineering Services' Monthly Activities for April 2026

Highlights

In the month of April, Engineering Services completed the following major actions in support of the General Manager's business plan for Fiscal Year 2025/26:

Goal: Complete Follow Through on Business Model Refinement Recommendations
Outcome: Implement risk-informed capital investment planning to ensure reliable critical infrastructure
• In April, the Board approved and appropriated a $1.025 billion Capital Investment Plan (CIP) biennial budget for the next biennium (FYs 2026/27 and 2027/28). The Board also delegated authority to implement the CIP to the GM. Staff will update the CIP Appendix consistent with this action.
Goal: Complete EIR and Planning, for Board to Consider Pure Water Southern California
Outcome: Complete EIR analyses and public process
• An updated program cost technical memo was provided to the Board as an attachment to the April board information letter.

In support of the General Manager's Business Plan goal of providing organizational stability and delivering operational excellence, Engineering Services manages and executes projects within the adopted 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.

- CRA Storage Buildings — This project furnishes and installs pre-engineered storage buildings at Hinds, Eagle Mountain, and Iron Mountain pumping plants and constructs associated site improvements. Construction is ongoing at all three pumping plants. The contractor is performing electrical testing for the buildings at all three sites and completing punch-list items. Construction is 97 percent complete and is scheduled to be completed by June 2026.
- CRA Eagle and Hinds Utilities — This project will replace the existing potable water, non-potable water, and sewer lines at the Eagle Mountain and Hinds pumping plants. The contractor has mobilized onsite and is performing potholing investigations. Construction is three percent complete and is scheduled to be completed by October 2027.
- Brushless Motor Exciter — This pilot project will replace the existing main pump motor exciter at the Gene Plant with a new brushless motor exciter. The installation by Metropolitan forces has begun and is scheduled to be completed by June 2026.
- Hinds Fuel Dispenser — This project will replace the existing fuel suction system at the Hinds Pumping Plant with a pressurized system, including pump, fuel dispenser, and associated appurtenances. The design package is complete and is scheduled for advertisement in April 2026. Construction is scheduled to be completed by December 2026.

CRA Storage Buildings — Contractor Installing Lightning Protection System at Iron Mountain

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; strengthen the structure of the reservoir outlet tower to reduce the risk of damage following a major seismic event; and upgrade the reservoir's rainwater collection, pumping, and subdrain systems. The Board awarded a construction contract in December 2025, and a Notice to Proceed was issued to the contractor in January 2026. The contractor continued preparing submittals, mobilized, and started demolition. Construction is planned to be completed by September 2028.
- Lake Skinner Tower Valve Procurement — This project will procure two valves for the Lake Skinner Outlet Tower, which no longer operate properly. These valves are designed for dewatering the reservoir and are not intended for daily operation. Fabrication of the replacement valves is 90 percent complete and is scheduled for delivery in April 2026. The valves are anticipated to be installed by spring 2027.
- Lake Mathews Pressure Control Structure (PCS) and Electrical System Upgrades — This project will replace the aging Lake Mathews discharge facility and electrical system. It includes the construction of a new PCS with a bypass pipeline alongside the existing forebay, a new chlorination facility, and electrical system upgrades to accommodate future power needs. The project utilizes a progressive design-build project delivery method. Negotiations with the selected design-build entity are ongoing. A board action to authorize the Phase 1 agreement is planned for August 2026. The project is anticipated to be completed by 2032.

Garvey Reservoir Rehabilitation — Demolishing Existing Cover and Rain Collection System

Distribution System Program

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

- Auld Valley and Red Mountain Control PCS Valve Replacement — This project will rehabilitate one 42-inch sleeve valve and procure one 42-inch sleeve valve for the Red Mountain PCS and rehabilitate two 42-inch sleeve valves for the Auld Valley PCS. One valve at the Auld Valley PCS has been rehabilitated, and the second one is currently being rehabilitated by Metropolitan forces to be completed in the fall of 2026. The procurement of the Red Mountain valve will be completed in the winter of 2026. Both valves will be installed during a future shutdown. Metropolitan is currently reviewing submittals provided by the vendor to procure the new 42-inch sleeve valve for Red Mountain, which is planned to be installed in the fall of 2026.
- Skinner East Bypass Gates — This project will replace three existing cast-iron slide gates at the East Lake Skinner Bypass inlet channel. The existing gates are heavily corroded and bind during lifting operations. The existing gates will be replaced with three stainless steel gate assemblies and new actuators. The new gates have been procured and are being stored onsite at the Skinner Plant. The new actuators are scheduled for delivery in May 2026. Final design for the contract package that includes installation of the new gates is approximately 90 percent complete and is scheduled to be completed in May 2026.
- Casa Loma & San Jacinto Pipelines Protection — This project will construct a concrete encasement over the Casa Loma Siphon No. 1 and the San Jacinto Pipeline where the conduits cross the San Jacinto River. The concrete encasement will be buried within the riverbed and will provide protection against the potential for flotation of the conduits during high flows in the river, which can occur during rain events. Final design is ongoing and is expected to be completed in the summer of 2026. The Board adopted the Mitigated Negative Declaration for this project in April. Due to the environmental sensitivity of the project area, permitting is expected to take an additional ten to 12 months after completion of final design. Construction is anticipated to begin in summer 2027.

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. The contractor began start-up and testing of a new power unit; completed installation of the refurbished vertical turning lathe; continued installing crane platform access modifications; and continued installing roof access handrail and gate at the Fabrication and Coating Shops. Construction is approximately 99 percent complete and is scheduled to be completed by May 2026.
- New La Verne Warehouse Improvements — The new La Verne Warehouse project involves the demolition of existing warehouse buildings 30 and 31, and construction of a new 60,000 square-foot

reinforced concrete tilt-up warehouse with a new loading dock, and an additional 30,000 square feet of outdoor canopy storage space. The new warehouse building will include the Central Stores Warehouse and Inventory Control Teams. The building will include a loading dock, conference rooms, offices, a breakroom, public counters for each team, and storage facilities. Preliminary design is underway, and the first draft Preliminary Design Report has been submitted and reviewed. A Value Engineering Workshop is scheduled for May 2026.

- CRA Aircraft Facilities Improvements Stage 1 — This project will refurbish the pavement and access roads, and upgrade the lighting at the Gene, Iron Mountain, Eagle Mountain, and Hinds Pumping Plants' aircraft runways. In addition, new weather stations will be installed at the Eagle Mountain and Hinds pumping plants. Preliminary design is ten percent complete and is scheduled to be completed by April 2026.
- CRA Aircraft Facilities Improvement Stage 2 — This project will install a new aircraft hangar at the Gene runway facility that will provide indoor parking for Metropolitan's Caravan aircraft. The study phase is complete, and staff is preparing to begin preliminary design.

La Verne Shops Improvements — Testing Refurbished Vertical Turning Lathe

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.

- Sepulveda Feeder PCCP Rehabilitation Reach 2 — This project installs steel lining along 3.8 miles of PCCP in the cities of Torrance and Los Angeles. The Board awarded a construction contract in January 2026. The contractor has started fabrication of the 81-inch steel liner. Construction is three percent complete, and completion is expected by mid-2027.
- Foothill Feeder Acoustic Fiber Optic (AFO) Installation — This project will install an AFO monitoring system within the 201-inch diameter Foothill Feeder to allow continuous monitoring of the 6.5 miles of PCCP portions. Installation is tentatively planned for late 2028, although due to the presence of quagga mussels in Foothill Feeder's source water, the West Branch of the State Water Project, the project team is also evaluating alternative pipeline monitoring systems that do not require dewatering of the pipeline.
- Sepulveda Feeder PCCP Rehabilitation Reach 9 — This project will rehabilitate approximately 3.7 miles 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 is 99 percent complete and is scheduled to be completed by June 2026.

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 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 complete, and the project was advertised for bids. Award of a construction contract is planned for May 2026.
- Diemer Chemical Feed Facility Improvements — This project rehabilitates the Diemer Plant's chemical feed facility to maintain operational reliability, meet Metropolitan's current chemical safety standards, and enhance worker safety. The Board awarded a construction contract in October 2025. The contractor has begun demolition of the existing dry polymer tank farm and continued underground utility verification. Construction is 12 percent complete and is scheduled to be completed by October 2027.
- Water Quality Lab Building Upgrades — This project upgrades the Michael J. McGuire Water Quality Laboratory in La Verne to increase its seismic resiliency and to efficiently address new and evolving water quality issues and regulations. Planned improvements include strengthening of the existing structure to meet current seismic criteria for essential facilities; building expansion and functional layout improvements; replacement of specialized laboratory equipment; and implementation of

technology upgrades to support current and future water quality regulations. Final design is approximately 20 percent complete and is scheduled to be completed in spring 2028.

- Mills Finished Water Reservoir Rehabilitation — This project will replace the aging floating covers and liners at the Mills Plant's finished water reservoirs; upgrade the rain removal system, piping, and valving to enhance reservoir operational flexibility and mixing improvements; refurbish the reservoir slide gates; and install a new drop gate. Final design is approximately 30 percent complete and is scheduled to be completed in the spring of 2027.
- Jensen Mechanical Dewatering Facility —This project will construct a new mechanical dewatering facility at the Jensen Plant, including associated solids conveyance piping, chemical feed, and electrical and control systems, to improve the plant's residual solids processing and address the plant's long-term solids handling needs. Final design is approximately 10 percent complete and is scheduled to be completed in spring 2027.

Diemer Chemical Feed Facility Improvements —Demolition of the Existing Dry Polymer Tank Farm

Adapt to changing climate and water resources

Pure Water Southern California

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

- Program Management — Program management activities include project controls, scheduling, budget development, risk management, coordination with program partners and stakeholders, grants and funding, and preparation of various plans and studies. The Pure Water program management team was engaged in the following activities during this reporting period:
    - Continued coordination and grant reporting efforts with the United States Bureau of Reclamation (USBR) for the $125,472,855 Large-Scale Water Recycling Program grant and the $5 million WaterSmart Title XVI Planning Grant. Metropolitan has received a total of approximately $25.5 million to date.
    - The $80 million state grant is also used to support the current phase of program work; approximately $56 million is spent as of end of February. Continued to coordinate with the CAMP4W assessments.
- Environmental Planning — In February 2026, Metropolitan's Board certified the program's final EIR and approved PWSC for CEQA purposes. The notice of determination was also filed with the State's Office of Planning and Research and the County Clerk to initiate a 30-day statute of limitations for legal challenges.
- Advanced Water Purification Facility —The AWPF will purify treated wastewater from the Los Angeles Sanitation District's (Sanitation Districts') A.K. Warren Water Resource Facility using membrane bioreactors (MBR), reverse osmosis, and ultraviolet/advanced oxidation. With its expertise in biological wastewater treatment, the Sanitation Districts will be responsible for implementing the AWPF pretreatment, including the MBR facilities. A final draft of the Conceptual Facilities Report has been prepared. This document records key assumptions of AWPF components and would be used for the upcoming RFQs for the progressive design-build contracts to design and construct the full-scale AWPF.
- Demonstration Testing — Staff continued testing the IPR processes. Five equipment procurement packages were advertised for DPR testing, including membrane filtration / reverse osmosis, UV/AOP, ozone with granular and biological activated carbon, lime stabilization system, and carbon dioxide system. Staff is evaluating the bids received. Construction and installation are anticipated to commence in 2027. Information from this DPR testing will allow Metropolitan to assess both treated-water and raw-water augmentation alternatives.

- Conveyance System — The PWSC Conveyance Facilities Conceptual Design Report for the entire conveyance system has been completed and is available on Metropolitan's public website: https://www.mwdh2o.com/building-local-supplies/pure-water-southern-california/technical-resources/. In addition, preliminary design of Reaches 1 and 2 through the cities of Carson, Long Beach, and Lakewood is underway. Preparation of bid documents for one or more Construction Managers/General Contractors for the first two reaches is also underway. Staff would be ready to advertise these packages after the CAMP4W assessments have been completed, and if the Board decides to proceed with the design of the initial stage of PWSC.

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.

- Foothill Pump Station Intertie and 132-inch Butterfly Valve Procurement — This project will connect Metropolitan's Inland Feeder to San Bernardino Valley Municipal Water District's Foothill Pump Station. The project will install supply and discharge bypass pipelines, isolation valves and their vault, and a surge protection system. The project requires permits from the California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS) to address impacts to endangered species found at the project site. The project received a $5 million USBR grant, and USBR is assisting Metropolitan with permit consultation with USFWS. The CDFW permit has been finalized and executed as of March 2026. Final design is complete, and the construction package has been signed off. A mitigation agreement with SBVMWD will be presented to USFWS to complete the USFWS permit application. The project is planned to be advertised after meeting with USFWS in April 2026 to confirm the federal permit schedule. A separate procurement contract for a 132-inch butterfly valve to be installed at Foothill Pump Station was awarded in March 2024, and the valve is planned to be delivered by early 2027.
- 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 western State Water Project exclusive area. This project will utilize the progressive design-build project delivery method. Construction of the Venice Pump Station is approximately 18 percent complete. The concrete foundation and the walls for the electrical building have been placed, and the contractor is currently drilling piles for the suction piping shoring. Negotiations for the guaranteed maximum price for Sepulveda Canyon Pump Station work have begun, and a final negotiated value is anticipated by June 2026.

Sepulveda Feeder Pump Stations — Installation of Basement Wall Forms in Electrical Building

Sustain Metropolitan's mission with a strengthened business model

Value Engineering Program

Engineering Services manages 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.

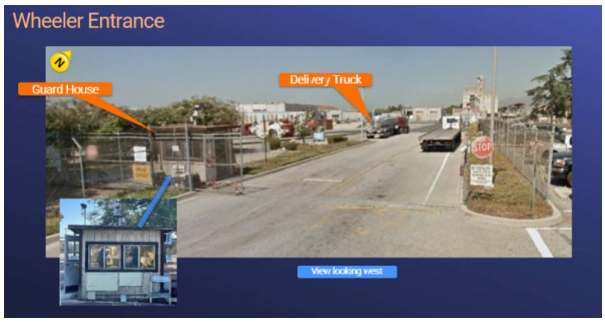
Weymouth Wheeler Gate Security & Zero Emission Vehicle (ZEV) Infrastructure Upgrades

Engineering Services, through its VE program, delivered a Constructability Review (CR) workshop to identify and consider alternatives to improve the constructability of these two capital improvement projects, which have been combined into a single construction contract. The Wheeler Gate Security portion of the work is intended to construct entrance and security improvements along the eastern perimeter of Weymouth Plant and the Wheeler Avenue entry gate. This project will enhance the plant's security features in accordance with Metropolitan's latest security standards for treatment facilities and improve the reliability and safety of chemical deliveries. This project has been combined with the Weymouth ZEV Infrastructure Upgrade to gain

construction cost benefits. ZEV infrastructure improvements will result in vehicle charging stations near the Wheeler Gate and Moreno Gate areas and an asphalt-concrete paved area for District Fleet vehicles. The ZEV charging infrastructure will be supported by a new SCE utility connection and standby generators for mission-critical backup needs.

This four-day virtual CR workshop was held in early April. The CR team, numbering almost 50 people, included Metropolitan staff from Engineering, Weymouth Plant, Fleet Services, Rideshare, and Environmental Planning, and Consultant Design staff. The workshop team examined the biddability and constructability of the design package, identified construction-related risks and potential mitigations, and independently evaluated the construction cost estimate.

EV Chargers



Wheeler Gate Entrance

Iron Mountain Pumping Plant Station Lighting and Power Switchrack Rehabilitation

A second CR workshop was conducted in late April. The outdoor vacuum circuit breakers and transformers supplied by overhead copper buses at the Iron Mountain Pumping Plant provide primary power for all non-pump-unit loads. The Station Power and Lighting Switchrack powers cooling water and lubrication systems for the main pump units, as well as domestic and fire water pumping systems, plant communication systems, general lighting, and village housing. The construction project will replace obsolete and archaic equipment and implement features to improve safety for maintenance workers and improve reliability in powering these critical loads. More than 40 people representing Engineering, Iron Mountain Pumping Plant, SCADA, Environmental Planning, Security, and Consultant Design staff met virtually during this four-day workshop.

Iron Mountain Pumping Plant – Pump House & 2.4 kV Switchrack

Empower the workforce

Engineering Services Career Launch Program – Meet the Managers

The Engineering Services Career Launch Program hosted 16 participants at the 14th Annual Meet the Managers event at Union Station Headquarters on April 7. This event marked the fifth of six modules in the Engineering Services workforce development initiative for Fiscal Year 2025/26.

Thirteen managers presented and introduced key areas within the group, including Design, Program Management, Engineering Planning, and Infrastructure Reliability. The event began with a safety moment, followed by a welcome and presentation from Chief Engineer Mai Hattar. Managers shared engaging presentations that highlighted their teams, as well as personal insights, which included family and hobbies, creating a more interactive and relatable experience.

This event served as a meaningful step toward the culmination event. The final module of this program will take place on May 5 and will include a tour of the Napolitano Innovation Center. The Career Launch Program continues to strengthen connections between staff, the organization's mission, and the teams that support Engineering Services.

Mai Hattar, Chief Engineer, Welcomes Participants at Career Launch

Howard Lum, Design Section Manager, Presenting to Participants at Career Launch