THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Board Report

Operations Groups

- **July Operations Groups Monthly Activities Report**

Summary

This monthly report for the Operations Groups provides a summary of activities for June 2025 in the following key areas:

- Enhance Workforce Safety
- Develop Workforce and Prepare Employees for New Opportunities
- Promote DEI and a Positive Workplace Culture
- Manage Business Operations, Budget, and Staffing
- Develop New Solutions to Enhance Operational and Business Processes
- Ensure Accurate Billing and Support Revenue Generation
- Provide Reliable Water Deliveries and Manage Storage
- Develop New Supplies and Optimize System Flexibility
- Manage Power Resources and Energy Use in a Sustainable Manner
- Protect Source Waters and Ensure Water Quality Compliance
- Optimize Water Treatment and Distribution
- Protect Infrastructure and Optimize Maintenance
- Enhance Emergency Preparedness and Response
- Prepare for Future Legislation and Regulations
- Engage with Member Agencies and Other Stakeholders on Technical Matters

Purpose

Informational by the Operations Groups on a summary of key activities for the month of June 2025.

Attachments

Attachment 1: Detailed Report –Operations Groups' Monthly Activities for June 2025

Date of Report: July 7, 2025

Operations

Operations Groups

Core Business Objectives

Enhance Workforce Safety

The Operations Groups celebrated National Safety Month in June by hosting safety awareness events across all of Metropolitan's facilities promoting safety and injury prevention. Each event was hosted by local staff with location specific presentations and demonstrations. Presentations included topics such as workplace violence and security, de-escalation training, emergency management, mental and physical well-being, safe driving, and office ergonomics. Demonstrations included a showcase of the emergency response trailer, safe use of operating equipment, the introduction and acknowledgement of new and outgoing safety committee members, vendor demonstrations, and displays of different types of tools and safety equipment. Recognizing National Safety Month strengthens our ability to successfully identify and respond to safety issues and concerns.

Safety Day event at Skinner plant

Safety Day event at Gene pumping plant

Develop Workforce and Prepare Employees for New Opportunities

Metropolitan's Water Quality Laboratory was named in honor of former Director of Water Quality, Dr. Michael McGuire, in October 2024, with the dedication ceremony in February 2025. Dr. McGuire was the recipient of the American Water Works Association A.P. Black Research Award in 2009 and has received many other honors throughout his career since leaving Metropolitan. Dr. McGuire visited the Water Quality Lab on June 12 and met with several groups of staff and the entire section to share his knowledge and experience gained from a lifetime working in the water industry. These meetings provided highly valuable mentoring and training opportunities for staff.

Staff attending mentoring session with Dr. Michael J. McGuire

Promote DEI and a Positive Workplace Culture

Desert staff attended an employee inspection trip to several in-town facilities including the Weymouth plant, Water Quality Laboratory, Union Station headquarters, the Pure Water Southern California Napolitano Innovation Center, and Diamond Valley Lake. The trip afforded staff the opportunity to become familiar with facilities and operations across Metropolitan. In addition, Desert staff connected with other Metropolitan employees they would normally not see on a regular basis.

Employee inspection trip to the Napolitano Innovation Center (left) and Diamond Valley Lake (right)

Flavor profile analysis is explained during the employee inspection trip

Manage Business Operations, Budget, and Staffing

The Business Management Team worked with Section Managers and Business Support Team Managers for the fiscal year close by preparing year-end financial reports, conducting cost transfers, and facilitating procurement and vendor payments. Additionally, District-wide staff evaluations were conducted and processed during the month of June.

The FY 2027/28 and FY 2028/29 biennium budget process has also begun, which includes training sessions, regular meetings with the team managers, budget template creation and development, supporting documentation, and a close partnership that will continue through next year. Staffing needs plans for the next three biennia have been submitted for the Operations Groups, which thoughtfully account for current and future service needs that require additional staffing to accomplish.

Lastly, staff continue to work on process improvements by closely partnering with Accounting, Finance, and IT to streamline monthly financial reporting and budget variance comments on a fixed day of the month to allow teams to begin preparing financial reporting analysis and commentary up to a week earlier.

Develop New Solutions to Enhance Operational and Business Processes

Weymouth plant staff supported Water Quality by fabricating a brass tool that will be utilized to resurface the glass retainer of a hydrobios chamber. A hydrobios chamber is a device used for microscopic analysis of plankton samples. Water Quality contacted plant staff when they discovered that deformations in the chamber's sealing surface would cause the glass to break. The ability to resurface sealing surfaces will result in significant cost savings through the reuse of chambers rather than replacement.

Hydrobios chamber, tool, and glass retainer (left) and hydrobios chamber under microscope (right)

Ensure Accurate Billing and Support Revenue Generation

Weymouth plant staff worked on the installation of a temporary "clamp-on" flowmeter for Service Connection CB-16 on the Rialto Pipeline. This temporary meter will be used to ensure continuous flow measurements while the main flow meter is down for calibration and repairs.

Staff installing "clamp-on" flowmeter (left) and verifying flow measurements (right)

Provide Reliable Water Deliveries and Manage Storage

Metropolitan member agency water deliveries were 140,000 acre-feet (AF) for June, with an average of 4,700 AF per day, which was about 1,200 AF per day higher than in May. Treated water deliveries were 15,100 AF higher than May for a total of 74,800 AF, or 53 percent of total deliveries for the month. The Colorado River Aqueduct (CRA) pumped a total of 95,500 AF in June. State Water Project (SWP) imports averaged 2,900 AF per day, totaling about 85,700 AF for the month. The target SWP blend is currently 40% for Diemer, Weymouth, and Skinner.

Metropolitan has sufficient SWP, Colorado River supplies, and storage to meet demands in 2025. Water continues to be managed according to Water Surplus and Drought Management (WSDM) principles and operational objectives with an emphasis on positioning SWP supplies to meet future demands in the SWP-dependent area. The SWP Allocation is expected to remain at 50% for the calendar year. Metropolitan is continuing to manage Table A supplies to preserve supplies for the SWP dependent area. At the same time, Metropolitan has shifted operations to manage surplus supplies. With the additional supplies, Metropolitan is delivering to member agency cyclic programs and to Desert Water Agency and Coachella Valley Water District in 2025.

A multi-disciplinary Invasive Mussel Taskforce was formed, including staff across Operations and Engineering, to address the growing threat from invasive quagga mussels and golden mussels in the State Water Project. Initial meetings were held on May 30 and June 13 with teams assigned to develop solutions to protect conveyance and treatment infrastructure, non-infested reservoirs, and groundwater replenishment deliveries.

Develop New Supplies and Optimize System Flexibility

Staff continued baseline monitoring for tertiary membrane bioreactor nitrification-denitrification testing and continued working with the Los Angeles County Sanitation Districts to procure and install snail mitigation measures at the Napolitano Innovation Center demonstration plant. Staff also supported the installation of a Microvi pilot system to test the denitrification of reverse osmosis concentrate using biocatalysts to address potential future ocean nitrogen load reduction requirements. Staff also participated in a technical exchange meeting with staff from Pure Water Los Angeles and a value engineering workshop for direct potable reuse facility planning.

Installed reverse osmosis concentrate testing pilot system (left) and staff leading technical job walk during DPR test facility value engineering workshop (right)

Manage Power Resources and Energy Use in a Sustainable Manner

On June 17, 2025, Metropolitan hosted representatives from the California Air Resources Board's (CARB) Mobile Source Division to discuss Metropolitan's fleet transition to zero-emission vehicles. Operations, SRI, and SRT staff showcased a diverse range of medium- and heavy-duty fleet vehicles, sharing insights into the operational needs that support our extensive infrastructure. Staff discussed the crucial role in routine maintenance and emergency response, while also highlighting Metropolitan's Climate Action Plan and our ongoing commitment to transitioning to zero-emission vehicles wherever possible. CARB staff described the meeting as "eye-opening" and a good step in a developing partnership to properly balance the transition to zero-emission vehicles with maintenance, emergency, and reliability needs.


Metropolitan and CARB Staff meeting to discuss the fleet transition to zero-emission vehicles

Weymouth plant staff continued the installation of electric vehicle charging stations at the La Verne facility. These chargers are a part of a pilot project that will support Metropolitan's electric vehicles until large-scale charger infrastructure is complete. This pilot project includes a total of seven standalone chargers, five of which are 30kW fast chargers, with each unit capable of charging two vehicles simultaneously.


Staff installing a charger station (left) and two completed charging stations (right)

Staff participated in the California Independent System Operator (CAISO) annual summer operating outlook meeting. Overall, the CAISO is well-resourced for the upcoming summer operating period and does not anticipate any significant challenges. CAISO staff noted that there will be approximately 13,000 MW of energy storage available to meet critical evening ramping period demands.

Overall, the spring/early summer operating period to date has been relatively mild across the CAISO and Western Electricity Coordinating Council (WECC) operational footprints. Energy markets in June 2025 have seen plentiful natural gas supplies.

The CRA averaged about 7 pumps in June 2025. The CRA energy cost budget for fiscal year 2024/25 is $71.4 million; the current cost forecast for the 2024/25 fiscal year is coming in slightly lower at $64.6 million, due to moderate energy costs.

Staff continued work on Metropolitan's first-ever affected system cluster study for generation developers wishing to connect to the transmission systems adjacent to the CRA transmission system (CRATS). This study encompasses seven generation projects connecting to the Southern California Edison (SCE) and Western Area Power Administration (WAPA) systems, which impact Metropolitan's 230 kV transmission system. Preliminary results were released on April 17, and a stakeholder meeting was held on April 30 to review the results and field questions from the generation developers. Staff also worked on developing preliminary interim mitigation agreements, or "bridge agreements", that would allow generation developers to secure funding by demonstrating a provisional agreement with Metropolitan and allow them to reach commercial operation while permanent mitigations are in development.

Metropolitan uses over 400 commercial retail electric accounts to support its operations across the six-county service territory. These electric accounts serve the five water treatment plants, the Union Station headquarters building, and a wide variety of other Metropolitan installations. These accounts are serviced by a myriad of investor-owned and municipal utilities, such as SCE, the Los Angeles Department of Water and Power, and City of Riverside Utilities. Although the energy needs of the CRA and the State Water Project represent the lion's share of Metropolitan's electric energy costs, retail electric costs are still significant, totaling, on average, about $15 million annually. Staff have recognized an opportunity to perform electric retail rate analysis and identify potential cost savings. Staff is developing an agreement with a business intelligence firm with experience in performing retail rate analysis for the purpose of optimizing rate structures and reducing costs. An agreement focused on reducing retail energy costs will be brought to the Board for consideration in the near future.

Protect Source Waters and Ensure Water Quality Compliance

Jensen staff quickly responded to a fluoride tank failure by installing a temporary replacement. Staff procured and installed a new tank and restored chemical feed operations within 45 days of the fluoride system outage. The Jensen plant remained in full compliance with all water quality regulations throughout this period.

Temporary fluoride tank at the Jensen plant

Optimize Water Treatment and Distribution

The SWP target blend entering the Weymouth and Diemer plants increased from 25 to 40 percent in May 2025. The SWP target blend entering Lake Skinner also increased from 25 to 40 percent in June 2025. Flow-weighted running annual averages for total dissolved solids from April 2024 through March 2025 for Metropolitan's treatment plants capable of receiving a blend of supplies from the SWP and the CRA were 602 mg/L, 584 mg/L, and 575 mg/L for the Weymouth, Diemer, and Skinner plants, respectively.

Weymouth plant partnered with Engineering's Construction Management Unit to commission the newly installed influent slide gates on Basins 1-4. The new gates and supporting electrical power components were installed during a 45-day half-plant shutdown. The gates and equipment were tested to verify proper operations and control. Testing was completed during the half-plant shutdown, allowing the plant to return to full capacity on schedule.

Weymouth basin influent slide gate in closed position

Staff conducted surge protection testing at the Greg Avenue Pump Station on the East Valley Feeder. The purpose of the tests was to verify the performance of recently installed check valves to reduce surge pressures during pump trips or shutdowns. The two hydraulic conditions tested were the pressure spike, which is an instantaneous surge, and a pressure surge, which is a longer-period pressure rise. The testing was successful, showing that pressure surges stayed within design limits during the anticipated operational scenarios.

Staff operating a valve to begin the surge test (left) and monitoring the surge test (right) at Greg Avenue Pump Station

Protect Infrastructure and Optimize Maintenance

Staff completed repairing and replacing damaged equipment at the WB-34 meter location along the Culver City Feeder, resulting from a traffic accident. Staff successfully replaced the damaged electrical meter pedestal, vent stack for the structure, and air release valve enclosure and placed the meter back into service.

Before repairs (left) and after repairs (right) of the meter structure at WB-34 Service Connection

Staff completed routine maintenance of the Pleasants Peak patrol roads within the Cleveland National Forest in the Santa Ana Mountains. Staff routinely utilize the patrol road for standby generator and communication tower maintenance.


Staff performing routine grading at Pleasants Peak

Staff took advantage of a San Diego County Water Authority shutdown of San Diego Pipeline No. 4 to dewater and inspect pre-stressed concrete cylinder pipe portions of the pipeline within Metropolitan's jurisdiction.


Staff setting up traffic control (left) and dewatering set-up during the San Diego Pipeline No. 4 shutdown (right)

Operations (continued)

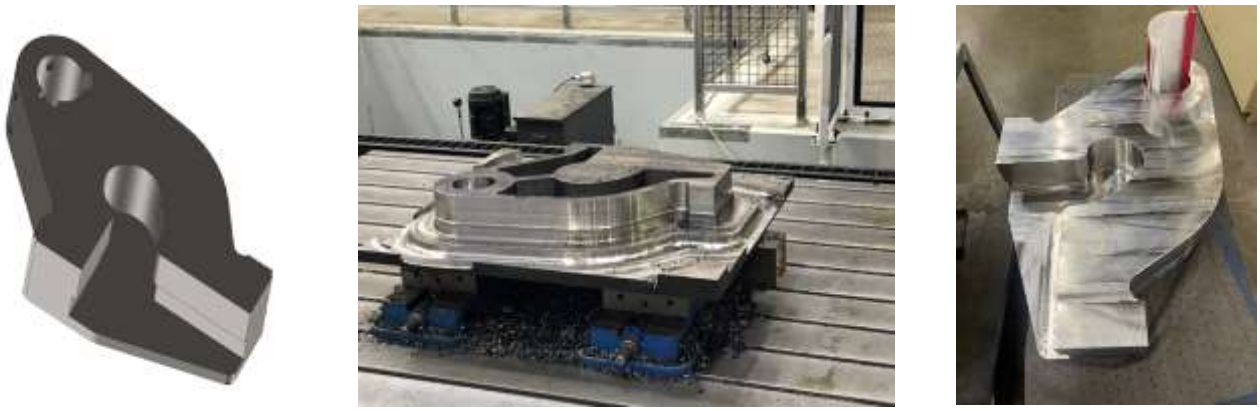
The La Verne Shops completed a request to manufacture several critical components of a discharge valve at the Iron Mountain pump plant. The 48-inch diameter conical plug valve required a new plug shaft, lift nut, lifter lever, and rotator mechanism to be returned to service and ensure reliable CRA deliveries.



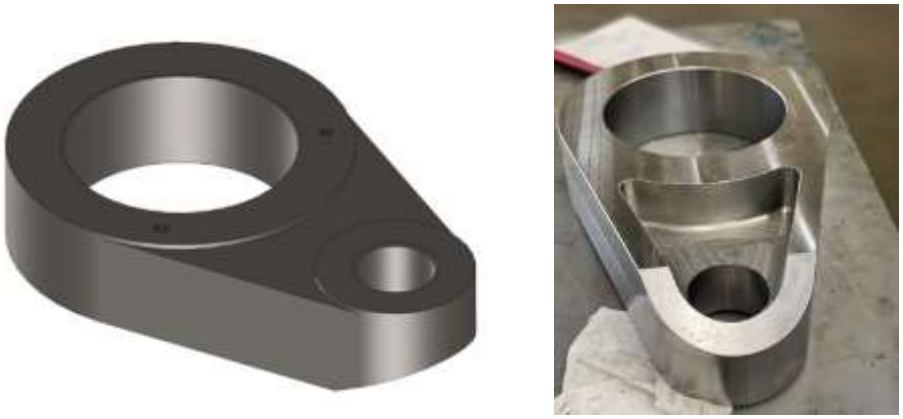
3D Models of rotating assembly (left) and lift nut (middle), and machined lift nut (right)



3D Model of shaft (left), machining of shaft (middle), and fit test of shaft and lift nut (right)



3D Models of rotating assembly (left) and lift nut (middle), and machined lift nut (right)



3D model of the lifter lever (left) and completed lifter lever (right)

Due to the age of the CRA system, many components are obsolete. Operations and Engineering staff work together to determine replacement components that will meet Metropolitan's specifications for operations and reliability. Staff at the Gene pump plant installed new lubrication system control valves for the 9,000 hp pump and motor.

Staff installing wiring for a new lubrication system control valve at Gene pumping plant

Consistent maintenance is vital to ensuring critical operational systems operate when urgently needed. In addition to regularly testing these systems, staff analyze, adjust, and rebuild these systems as needed. At the Gene pumping plant, staff repaired a fire water pump to ensure its reliable operation during an emergency.

Staff rebuilding a fire pump at Gene pumping plant

The cooling water systems on the CRA pumps require frequent maintenance due to its extensive operation. Additionally, the raw water used for cooling contains sediment and sand that act as abrasives in the system. Staff are replacing the original pipe material with stainless steel, which will last many years longer than the copper-nickel pipe installed during original construction.

Staff installing new stainless steel plumbing on a CRA pump motor

Coating repair is a constant battle in the harsh climate of the Desert region. Staff utilizes state-of-the-art coating products that are designed for this environment. At the Hinds pumping plant, the Desert Coatings Team prepared the surface of the 6.9kV circuit breaker enclosures for installation of the new coating.

Staff preparing the surface of circuit breaker enclosure for new coatings at Hinds pumping plant

Mills plant staff coordinated the repair of the railroad spur leading to Metropolitan's Chemical Unloading Facility. Low spots in the track have allowed water to accumulate, deteriorating the base below the railroad ties. The repairs will ensure that the Chemical Unloading Facility is able to reliably receive deliveries of chlorine railcars.

Damaged track (left), track during repairs (middle), and first railcar delivery after track repairs (right)

Skinner plant staff relocated a chlorine analyzer that measures the chlorine residual for the ozone open-loop cooling water system from its outdoor location to the laboratory in the ozone building. This relocation provides a more favorable operating environment, removing it from sun and weather exposure. The new location is expected to extend the analyzer's lifespan and require less unscheduled maintenance.

Staff relocateing the open-loop chlorine analyzer to the ozone laboratory at the Skinner plant

Diemer plant staff is collaborating with Engineering on a pilot project to troubleshoot filter valve actuator limit switches. This initiative is in preparation for next year's Diemer Filter Rehabilitation capital project, which will involve replacing all filter valve actuators.

Diemer plant staff participating in testing limit switch on actuator

Enhance Emergency Preparedness and Response

Staff continued construction of the Diemer Helicopter Hydrant facility. The helicopter hydrant consists of an open-top tank and supporting infrastructure, allowing helicopters to collect water for firefighting quickly. Metropolitan collaborated with the Yorba Linda Water District to develop a project benefitting both agencies. The Yorba Linda Water District provides up to $500,000 in grant funding, technical support during design and construction, and coordination with the California Department of Forestry and the Fire Protection and Orange County Fire Authority to ensure acceptable design and operational conditions. Metropolitan will own and operate the facility upon its completion this summer.

Staff installing a drain line (left) and taking delivery of ballast rock (right) for the heli-hydrant facility at Diemer plant

Skinner plant staff participated in an Incident Command Post tabletop exercise with Emergency Management staff. Staff worked through a response to a simulated earthquake scenario. These regular exercises help staff be prepared to respond to actual emergencies.

Skinner plant staff participating in Incident Command Post tabletop exercise

Prepare for Future Legislation and Regulations

On May 29, the California Air Resources Board (CARB) issued an updated advisory indicating that it will not enforce the Zero-Emission Forklift (ZEF) Regulation on privately-owned or operated fleets until the Environmental Protection Agency grants a rule waiver under the Clean Air Act. However, public fleets, including Metropolitan, must still comply with the ZEF regulation. Beginning January 1, 2026, the ZEF Regulation mandates the adoption of zero-emission alternatives for all new forklift additions, along with a phased schedule for phasing out certain Class IV and V large spark ignition forklifts. Staff will continue to monitor any additional updates to existing CARB regulations.

On June 6, the South Coast Air Quality Management District (SCAQMD) adopted Proposed Amended Rule (PAR) 1171, which regulates the use of solvents, including liquid denatured alcohol, for cleaning parts, products, tools, machinery, equipment, and general work areas. This rule also phases out the use of para-Chlorobenzotrifluoride (pCBtF) and tert-Butyl Acetate (t-BAc) as cleaning solvents. Staff collaborated with SCAQMD to permit the continued use of liquid denatured alcohol for cleaning our ozone and chlorine systems. However, the rule places restrictions on the use of aerosol solvents for general parts cleaning during basic maintenance and repair activities. The regulations are set to take effect on January 1, 2026.

On June 12, Governor Newsom signed Executive Order N-27-25 that directed CARB to develop and propose an Advanced Clean Cars III regulation consistent with State and federal law. The Advanced Clean Cars III rule would replace the Advanced Clean Cars II, Advanced Clean Trucks, and Heavy-Duty Omnibus regulations, whose waivers were rescinded by the Environmental Protection Agency (EPA) earlier this year. In addition, CARB is directed to submit recommendations on how to restore its authority to regulate light-, medium-, and heavy-duty vehicles. CARB, as well as the California Energy Commission, the Governor's Office of Business and Economic Development, the California State Transportation Agency, and the Department of Consumer Affairs, have 60 days to submit a plan to carry out the Governor's orders. Governor Newsom also announced that the state is suing the federal government over the EPA's and the President's actions preventing California from regulating vehicles in California. Staff will closely follow any future developments with respect to transitioning towards a zero-emission future.

On June 17, staff met with CARB's Advanced Clean Fleets (ACF) rulemaking team at the Weymouth plant to discuss Metropolitan's unique operational needs for its medium- and heavy-duty fleet. CARB is currently engaging with various utilities to collect public utility fleet data as they prepare to modify the ACF for state and local governments in their upcoming rulemaking effort scheduled for late 2025. Staff outlined Metropolitan's role as an emergency responder and offered CARB with potential amendments when considering the definition of "traditional utility-specialized vehicle" under the AB 1594 framework. Staff will continue to collaborate with CARB and monitor the progress of any future ACF rulemaking efforts.

Engage with Member Agencies and Other Stakeholders on Technical Matters

Metropolitan hosted a nitrification workshop on June 26 with many participants from member agencies and their retail agencies along with representatives from the state regulatory authorities. The workshop provided an understanding of causes, consequences, and control measures for nitrification in distribution systems. Specific topics included the microbiology of nitrification, chloramine chemistry, nitrification control measures, and a survey of agency experiences of nitrification episodes.