



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Board Report

Operations Groups

• February Operations Groups Monthly Activities Report

Summary

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

- Enhance Workforce Safety
- Develop Workforce and Prepare Employees for New Opportunities
- Manage Business Operations, Budget, and Staffing
- 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
- Ensure Power and Environmental Regulatory Compliance
- Optimize Asset and Maintenance Management
- 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 January 2025.

Attachments

Attachment 1: Detailed Report –Operations Groups’ Monthly Activities for January 2025

Operations

Operations Groups

Core Business Objectives

Enhance Workforce Safety

Diemer plant staff recently upgraded the perimeter lighting at the OC-88 pump station to LED to enhance security and worker safety. Weymouth plant staff supported work at the Pure Water Southern California Napolitano Innovation Center by installing lighting to enhance security, visibility, and worker safety.



Staff installing new lighting (left) and new lighting at OC-88 pump station (right)



Napolitano Innovation Center before (left) and after (right) installing new lighting

Operations

Develop Workforce and Prepare Employees for New Opportunities

With upcoming retirements, succession planning, and knowledge transfer are crucial for the Manufacturing Services Unit to stay ready for emergency and routine requests. To prepare, La Verne Shops coatings staff trained in applying mortar lining and gunite to large-diameter piping, focusing on material estimation, mixing, and application techniques. The training included fabricating six- and eight-foot diameter pipe sections and sharpening essential pipe fabrication skills. Future sessions will cover stulling (internal bracing) lined pipes for shipment and maintaining mortar lining equipment.



Staff mixing mortar and loading pump (left) and applying mortar to pipe interior (right)

Manage Business Operations, Budget, and Staffing

Business Management Team's (BMT) focus for January was to create a separate tracking system for Operations Groups fleet and non-fleet operating equipment (OE) in partnership with Fleet Services. Separating fleet versus non-fleet OE allows for more efficient monitoring of equipment needs, replacement planning, and purchasing progress. This ultimately enhances the customer service provided by BMT and Fleet Services to their end users.

Operations

Provide Reliable Water Deliveries and Manage Storage

Metropolitan member agency water deliveries were 84,800 acre-feet (AF) for January with an average of 2,700 AF per day, which was about 1,600 AF per day lower than in December. Metropolitan suspended delivering water to the Cyclic and Conjunctive Use Programs in 2025 considering the initial low SWP Allocation. Treated water deliveries were 200 AF lower than in December for a total of 57,200 AF, or 67 percent of total deliveries for the month. The Colorado River Aqueduct (CRA) pumped a total of 65,000 AF in January. State Water Project (SWP) imports averaged 660 AF per day, totaling about 20,400 AF for the month. The target SWP blend is 0% for Skinner, Weymouth, and Diemer.

With the end of 2024 marking a record storage level of over 3.8 million AF, Metropolitan has sufficient imported supplies and storage to meet demands in 2025. Water continues to be managed according to Water Surplus and Drought Management principles and operational objectives with an emphasis on positioning SWP supplies to meet future demands in the SWP-Dependent Area. The California Department of Water Resources has increased the SWP Allocation from the initial 5% to 15%. Metropolitan is continuing to minimize the use of Table A supplies to preserve supplies for the SWP-Dependent Area and guard against potential drought conditions.

Develop New Supplies and Optimize System Flexibility

Baseline monitoring continued for tertiary membrane bioreactor nitrification-denitrification testing at the Pure Water Southern California Napolitano Innovation Center demonstration plant, following a diurnal flow pattern. Additionally, staff continued supporting the Los Angeles County Sanitation Districts (LACSD) reverse osmosis concentrate testing. This testing aims to replicate toxicity tests conducted earlier in the year to ensure that future full-scale operations will not adversely affect LACSD's discharge permits or the surrounding environment near the ocean outfall. Staff is also comparing multiple bench-scale methods and an online analyzer to determine the most consistent and accurate method to measure free chlorine in the influent and effluent of the UV system. In addition, staff are working with LACSD to prepare for the procurement and installation of snail mitigation measures for the treatment process.



Staff preparing samples and comparing chlorine analysis methods for UV testing at the Napolitano Innovation Center

Operations

Manage Power Resources and Energy Use in a Sustainable Manner

Overall, the winter operating period to date has been relatively mild across the California Independent System Operator (CAISO) and Western Electricity Coordinating Council (WECC) operational footprints. Energy markets in January 2025 have seen plentiful natural gas supplies. Natural gas prices remained in the \$2-3/MM-BTU range, with electricity prices in the CAISO SP15 market at \$40-60/MW-hr off-peak and around \$100/MW-hr on-peak.

The CRA averaged about 4.5 pumps in January 2025. The CRA energy cost budget for fiscal year 2024/25 is \$71.4 million, and the current cost forecast for the 2024/25 fiscal year is slightly lower at \$67.0 million due to moderate energy costs. Monthly costs are forecast to decrease heading into the spring high solar season and March CRA shutdown.

The US Bureau of Reclamation (USBR) completed an engineering review of Hoover Dam's hydroelectric turbines following record low water conditions in 2022. The review led to a significant adjustment of the Hoover generation output curve. The USBR found that at lower lake levels, only 5 of the 16 hydroelectric turbines can operate without risking cavitation damage. As a result, if Lake Mead's elevation drops to 1,035 feet above sea level (it is currently at 1,066 feet), Hoover capacity decreases from 1,304 MW to 382 MW. This reduction would impact Metropolitan's CRA energy costs, as Metropolitan is the largest Hoover power contractor and receives 28% of the energy and 12% of the capacity generated by the dam's turbines. Staff continues to coordinate with USBR on future options to mitigate potential lost energy capacity.

Protect Source Waters and Ensure Water Quality Compliance

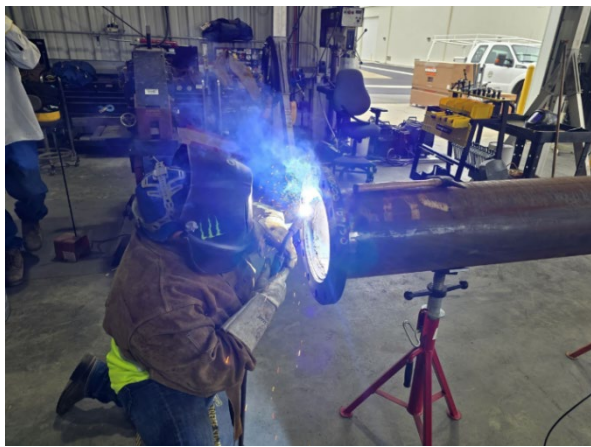
Metropolitan complied with all water quality regulations and primary drinking water standards during December 2024. On January 28, staff participated in the Invasive Mussel Water Agency Summit organized by the California Department of Fish and Wildlife, which focused on the spread of quagga mussels into the southern SWP and potential impacts following the recent discovery of golden mussels in the California Delta and O'Neill Forebay at San Luis Reservoir.

Operations

Optimize Water Treatment and Distribution

The SWP target blend entering the Weymouth and Diemer plants, and Lake Skinner remained at zero percent in January. Flow-weighted running annual averages for total dissolved solids from October 2023 through September 2024 for Metropolitan's treatment plants capable of receiving a blend of supplies from the SWP and the CRA were 518, 571, and 523 mg/L for the Weymouth, Diemer, and Skinner plants, respectively.

Staff began the Jensen plant chlorine ejector building modifications project. The manifold water piping modification work is being completed in two stages to reduce operational impact and improve plant reliability. To limit the shutdown duration, staff constructed and coated the manifold piping at the weld shop at the Lake Mathews and La Verne Shops prior to installing it during the planned Jensen plant shutdown in January.



Staff welding new manifold piping (left) and disassembling existing manifold (right)

Staff recently replaced a faulty meter at service connection WB-06A on the Palos Verdes Feeder in the City of Rolling Hills. The new 30 cfs capacity, 18-inch magmeter will provide long-term reliability and accurate metering for the service connection.

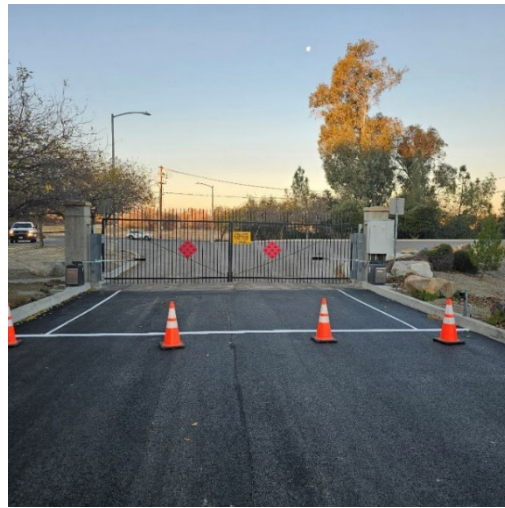
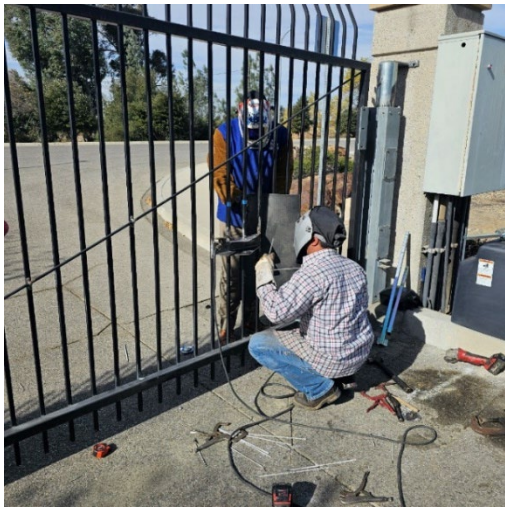


Staff removing and replacing a faulty meter with a new meter at WB-06 service connection on the Palos Verdes Feeder

Operations

Protect Infrastructure and Optimize Maintenance

Skinner plant staff replaced the chemical delivery entrance gate hydraulic operator with a new electric motor operator. The chemical delivery entrance gate allows Skinner to stage chemical delivery trucks on the plant property without blocking the public road or plant entrance while they are being inspected prior to receiving deliveries. The old hydraulic operator for the gate failed and was unserviceable. Staff replaced it with an electric operator that can easily be serviced and maintained in the future. Installation of the new electric operators included trenching, installation of electrical conduit, and welding of new operator arms. Following installation, the asphalt was repaved and restriped.



Staff welding new electric arm operator on Skinner plant chemical delivery entrance gate (left) and completed gate after paving and striping (right)

Operations

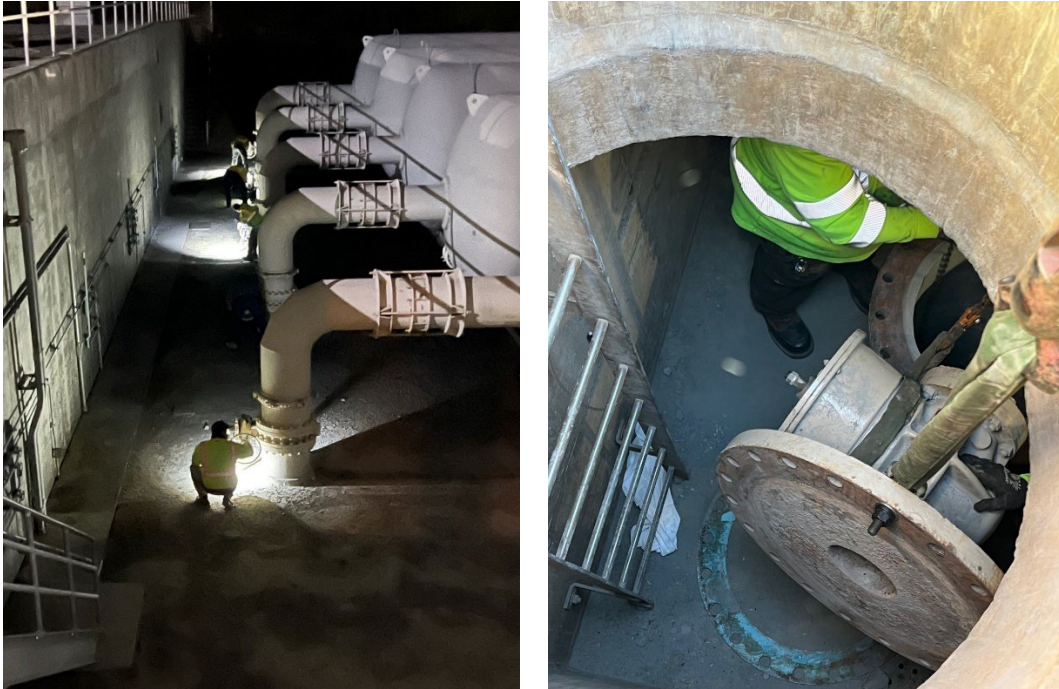
During a routine inspection of the chlorine scrubber system, Mills plant staff identified several gaskets needing replacement. The mechanical scrubber system utilizes a caustic soda solution to neutralize chlorine gas in the event of a leak. Staff coordinated with the chemical vendor to be onsite to remove all caustic from the north scrubber to mitigate potential hazards while performing maintenance. A redundant scrubber remained in operation so the work would not impact plant operations. Caustic was then refilled, and the system was tested for proper operation.



Vendors hooking up pump to recover caustic solution (left) and equipment and materials staged to expedite repairs (right)

Operations

Staff recently completed a shutdown of the Allen-McColloch Pipeline (AMP) to return the lower portion of the pipeline to service. The lower portion of the pipeline was removed from service in April 2024 for urgent relining due to an elevated number of wire breaks found in late 2023 in the pre-stressed concrete cylinder pipe. With the relining complete, the AMP line is back to normal operation. This is a major milestone and represents a significant effort by Metropolitan's operations and engineering staff, in collaboration with the Orange County agencies, to quickly plan and restore this critical pipeline and ensure reliable water deliveries.



Staff inspecting surge arrest tanks at OC-88 Pump Plant prior to returning the AMP to service (left) and staff removing flange and valve to gain access to the AMP (right)

Operations

Older copper communication lines are being upgraded to fiber optic throughout the district at remote areas such as hydroelectric plants, pressure control structures, and metering stations. The new fiber optic cables will allow for higher bandwidths, greater security capabilities, and improved reliability in areas that frequently experience communication issues. Staff at the Santiago Creek Pressure Control Structure, along the East Orange County Feeder No. 2, began preparations for the new fiber optic cable.



Staff installing pull rope (left) and mounting a new enclosure (right) at the Santiago Creek PCS

Ensure Power and Environmental Regulatory Compliance

Metropolitan began its annual self-certification process for the calendar year 2024, attesting to compliance with mandatory electric reliability compliance requirements as promulgated by the North American Electric Reliability Corporation (NERC) in January 2025. Metropolitan is subject to 39 NERC standards with 135 unique requirements. The Western Electricity Coordinating Council is the Regional Entity tasked with enforcing NERC standards.

Operations

Optimize Asset and Maintenance Management

Desert staff is in the process of replacing power poles at the Iron Mountain facility. The wooden poles are exposed to the harsh desert environment and high winds, and several of them have reached the end of their effective life spans. Metropolitan's power line maintenance team is systematically changing out these poles with new 45-foot wood poles.



Iron Mountain power pole replacement

Desert staff have been working on emergency sewer repairs in the Iron Mountain village area. The existing sewer line is a six-inch clay pipe that is approximately 60 years old. Plumbers have replaced approximately 120 feet of the system so far, and the sewer line is expected to be back in service by the end of January.



Iron Mountain sewer line replacement

Operations

Desert staff continues to refurbish a pump unit discharge valve at Gene pumping plant. Desert coatings staff are currently blasting and recoating the interior of the valve to protect it from corrosion.



Containment for blasting and coating of discharge valve

Desert staff coordinated with Water Quality to facilitate the installation of new valves on the domestic water tank at the Hinds pumping plant. The existing valves were at the end of their service life. The new valves will ensure the continued safe operation of the domestic water system.



Staff disinfecting valves before installation on the potable water system

Operations

Staff replaced carbon dioxide system hoses in the Hinds pumping plant fire suppression system. The carbon dioxide system protects the 12,500 hp motors in the event of a fire. Maintenance of the system is conducted regularly by staff and then inspected and certified by an outside vendor.



Staff replacing hoses on the Hinds pumping plant carbon dioxide fire suppression system

Operations

Enhance Emergency Preparedness and Response

Mills plant experienced temporary power loss due to the high wind event and Southern California Edison's public safety power shutoff (PSPS) at the Perris chemical unloading facility. The backup generator came on as designed. The chemical unloading facility's backup generator had a failure several hours after taking the load which resulted in treatment plant staff transporting a portable generator and restoring power.

During the high wind event, the Skinner plant lost utility electrical power for over 52 hours. During that time, the plant operated on emergency diesel-powered electrical generators to maintain treatment processes. The generators operated very well for approximately 50 hours until there was a failure in the fuel pump for the 4160V electrical generators. After the fuel pump failed, the 4160V generators shut down, and then the secondary backup 480V diesel-powered electrical generators were brought online to keep the plant in operation. Within an hour, staff were able to get the main 4160V generator restarted. Shortly thereafter, utility power was restored, and operations resumed as normal.

Significant wildfires devastated northern Los Angeles County this month. On January 7, Metropolitan's Emergency Operations Center (EOC) was activated for two weeks in response to the Palisades, Eaton, and Hurst fires. Staff took several operational actions including increasing treatment plant flows as needed, coordinating with the Department of Water Resources (DWR) to end a shutdown early to provide greater flexibility and resilience for water deliveries, protecting the Sepulveda Pressure Control Structure (PCS) from potential fire impacts, and ensuring uninterrupted water deliveries despite several power disruptions. Metropolitan staff was also embedded within the Los Angeles County EOC and the fire incident command fire posts located at the Rose Bowl and Zuma Beach to coordinate with emergency responders and ensure the protection and recovery of critical water infrastructure. Overall, there were no significant impacts to Metropolitan's facilities due to these fires.



EOC activities at Metropolitan's command trailer within the Eaton Fire Incident Command Post at the Rose Bowl

Operations

Significant damage was sustained by several local water systems. Staff actively supported agencies impacted by the Eaton Fire through mutual assistance including providing generators and pumps, skilled electricians and mechanics, diesel fuel reserves for backup generators, and additional supplies and resources, including bottled water. After the EOC was deactivated, staff continued to support local agencies through mutual assistance on near-term recovery efforts focused on returning water systems to service.



Staff coordinating with member agencies, along with retail agency representatives, on recovery efforts for water systems impacted by the Eaton Fire

On January 9, the Palisades Fire was approximately one mile west of the Sepulveda PCS, with eastern winds pushing it toward the facility. Staff mobilized water trucks and began onsite irrigation to water down the hillsides at the Sepulveda PCS and chlorine injection building. These efforts help to ensure protection of the facility. Ultimately, fire crews controlled the eastern boundary of the fire, and the facility was not impacted.



Smoke coming from the Palisades Fire (left) and water truck watering vegetation (right) at Sepulveda PCS

Operations

At Sepulveda PCS, staff also repaired existing irrigation systems and installed new sprinkler lines to moisten the perimeter of the facility. A contractor rapidly removed trees and shrubs around the perimeter of the Sepulveda PCS to prevent further fire potential. In addition, staff provided a diesel-operated pump system to Pasadena Water and Power to assist with their fire recovery efforts.



Before (left) and after (right) photos of tree and shrub removal at Sepulveda PCS



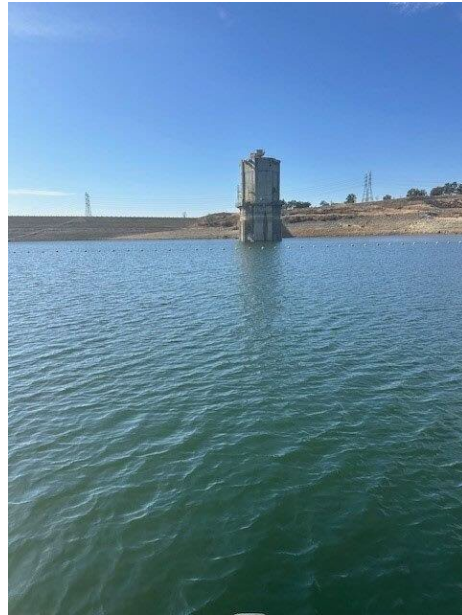
Completed clearing of brush on hillside at Sepulveda PCS



Staff provided a six-inch pump and assisted with initial startup for Pasadena Water & Power

Operations

On January 22, the Hughes Fire started just north of Castaic Lake and quickly spread, resulting in an evacuation of areas at and around the lake. Staff coordinated with DWR to monitor conditions at Castaic Lake and Metropolitan's Foothill PCS. Foothill PCS lost utility power but maintained operation through a backup generator. Early reports from DWR indicate minimal damage from the fire. Staff are coordinating closely with DWR to prepare for any potential impacts of high sediment-laden runoff into the lake due to the burned watershed. Current observation of the lake indicated that no debris had been mobilized onto the lake's surface by the recent rains.



Smoke coming from the Hughes Fire as viewed from Foothill PCS (left) and Castaic Lake close to the outlet tower (right)

Operations

Prepare for Future Legislation and Regulations

On December 4, the Office of Environmental Health Hazard Assessment proposed lowering the public health goal (PHG) for N-Nitrosodimethylamine (NDMA) in drinking water from 3 parts per trillion (ppt) to 0.5 ppt. NDMA is a byproduct of the chlorination process. The Division of Drinking Water will now take this recommendation under advisement when potentially drafting an enforceable maximum contaminant level (MCL) for NDMA in drinking water. Currently, NDMA only has a non-enforceable Notification Level (NL) of 10 ppt that was established in 2002. For calendar year 2024, Metropolitan's treated water effluents and systemwide distribution system were consistently below the 10 ppt NL. Staff worked through ACWA to provide technical comments on the draft PHG.

On December 17, staff submitted comments to the Office of Administrative Law regarding the Fish and Game Commission's emergency regulation that added golden mussels to its list of restricted animals or regulated invasive species. The emergency regulation makes it illegal to import, transport, and possess golden mussels in California. The restricted designation also allows water managers operating mussel prevention programs grounds to refuse watercraft from launching into waterways, as well as allows law enforcement to detain vessels or equipment suspected of being exposed to golden mussels. Metropolitan requested that Fish and Game either amend or delay implementation of the emergency regulation until it is clarified that affected water agencies may operate using control measures or a control plan to avoid infesting other regulated water bodies; similar to how quagga mussels are dealt with. The emergency regulation went into effect on December 19, with no additional changes.

On January 9, the Environmental Protection Agency's (EPA) National Drinking Water Advisory Council met to discuss a proposed National Primary Drinking Water Regulation (NPDWR) for perchlorate. This action is in response to a January 5 Consent Decree in the NRDC v. EPA case that required EPA to propose a maximum contaminant level goal (MCLG) and NPDWR for perchlorate by November 21, 2025, and publish the final MCLG and NPDWR by May 21, 2027. Staff will continue to monitor for any further updates with respect to regulating perchlorate at the federal level.

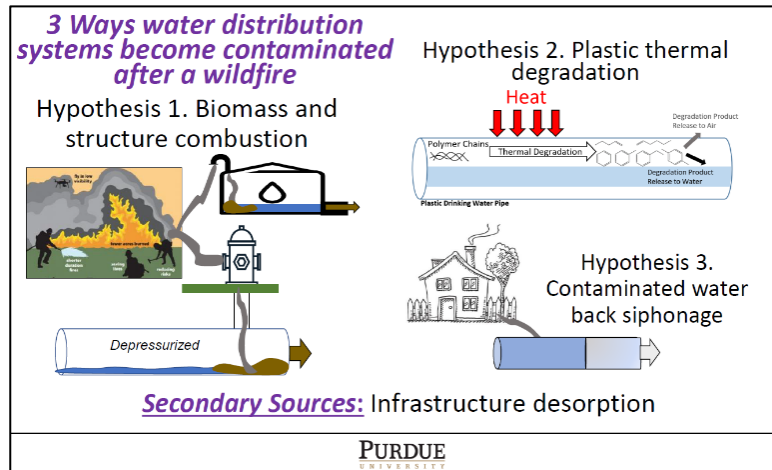
On January 14, the California Air Resources Board (CARB) withdrew its request for a waiver from the U.S. Environmental Protection Agency to implement its Advanced Clean Fleets regulation. CARB staff has stated they have the authority to enforce the State and Local Government Agency Fleet portion of the rule—which Metropolitan falls under— regardless of the status of the EPA waiver. As such, Metropolitan still needs to convert its medium- and heavy-duty trucks to zero-emission technologies, which started last year. Staff is implementing a zero-emission vehicle transition plan while still working with industry organizations to advocate for additional regulatory relief.

On January 17, staff submitted comments regarding the State Water Resources Control Board's (SWRCB) proposed amendments to its Underground Storage Tank (UST) Regulations. Metropolitan has 39 USTs that store gasoline or diesel that are subject to these regulations. In addition to deleting older references to single-walled USTs, the draft regulations propose streamlined construction, monitoring, and testing requirements. It also utilizes performance goals over prescriptive methods where possible; and reorders the sections within the UST regulations. Staff's comments focused on technical concerns with specific operating, monitoring, closure, and inspection form requirements. Staff will continue to track these regulations as they move forward.

Operations

Engage with Member Agencies and Other Stakeholders on Technical Matters

On January 15, staff coordinated a meeting with member agencies, local water utilities, and the Division of Drinking Water to discuss water system impacts, response, and recovery following the devastating wildfires in Los Angeles County. The meeting included a presentation from Dr. Andrew Whelton of Purdue University on lessons learned from previous wildfire impacts on water systems. It also included updates from the affected utilities who shared their experiences with system damage, water quality monitoring, and customer communications.



Slides presented during multiagency meeting on wildfire impacts and recovery