



# The GENERAL MANAGER Monthly Report

**Activities for the Month of  
August 2020**

This report identifies the actions and activities taking place during the month that support the objectives of the General Manager's Fiscal Year 2020/21 Strategic Priorities and the Core Business of the GM's work groups.

September 15, 2020



**Gene Pumping Station**

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# ADMINISTRATIVE SERVICES SECTION/CAO

**CORE BUSINESS: Business Processes Advance value-added business process improvements to increase effectiveness and efficiency while striving for innovation, flexibility, and integration with technology.**

Objective #1 - Use technology and best practices to implement innovative solutions in business processes to improve the customer and end user's experience.

## Accomplishments

The EForms Team partnered with the Chief Financial Officer's office to create a new Wire Instruction/Change of Address EForm request. This form was developed to help protect Metropolitan from fraudulent transactions. The EForms Team also partnered with Human Resource Benefits to create a leave application EForm. The new process will automate and streamline the process for employees to request time off under the new temporary Emergency Family Medical Leave Expansion Act (EFMLEA) provision as it relates to COVID-19.

The Professional Services Contracting team facilitated the procurement of the Data Center co-location for Primary Location (RFP no. 1243). The Data Center (DC) currently operates its primary DC at headquarters and its backup DC at the Lake Mathews facility. A determination was made to move both DCs to co-location services/providers. A co-location is a data center facility in which a business can rent space for servers and other computing hardware and subscribe infrastructure services to maintain system uptime and connectivity. Contracting staff facilitated both an in-person and virtual job-walk to accomplish this effort and is working toward executing an agreement with the successful supplier.

The Imaging Services Team has supported Facilities Management, Human Resources, and Security teams by producing COVID-related materials. The materials range from signs posted to remind employees to social distance, create lunchroom safety awareness, and wash their hands. The total number of impressions for safety related items was over 1,600 including 1,200 stickers. In addition to COVID-19 safety related materials, the team maintained a 100 percent on-time and complete metric for all jobs submitted.



## BAY-DELTA INITIATIVES

### GENERAL MANAGER'S STRATEGIC PRIORITY #2: Sustainability

Objective # 1 Pursue completion of the planning and permitting process for the single tunnel Delta Conveyance Project (DCP).

#### Joint Powers Authorities

The Delta Conveyance Design and Construction Authority (DCA) approved the Biennial Board of Director Officer Appointments and Resolution Updating the Bylaws Regarding Officer Terms, and then appointed officers by motion, at its regularly scheduled meeting on July 16, 2020. The results of the Tunnel Independent Technical Review No. 2 and DCA responses to the review were also presented. The next DCA meeting was held on August 20, where the DCA Board was presented a preliminary cost assessment on the proposed Delta Conveyance Project. The cost information developed at this early stage in the planning process will be refined over time as planning and environmental review proceeds and more precise design and engineering are available, based on industry standard methodology. Early planning cost assessments such as the above include large allowances to account for unknown factors that will have greater definition later in the process. The DCA Board also approved Amendment #3 to the Joint Exercise of Powers Agreement. This amendment generally relates to the DCA's budget process. Other informational items provided to the DCA board included the DCA monthly report, updates on the Stakeholder Engagement Committee (SEC), and DCA leadership spotlight, which allows DCA team members to be introduced and describe the work they perform.

The Delta Conveyance Finance Authority (DCFA) approved changes to the DCFA's investment policy at its regularly scheduled board meeting on July 16. The DCFA regularly scheduled August 20 board meeting was cancelled.

The August 26 SEC meeting focused on updated traffic histograms, updates on intake designs, and a briefing regarding a new Delta Conveyance alternative.

Objective # 3 Engage in planning and permitting activities for the Sites Reservoir.

On July 28, 2020, Governor Newsom released a final version of the Water Resilience Portfolio, the Administration's blueprint for equipping California to cope with more extreme droughts and floods, rising temperatures, declining fish populations, over-reliance on groundwater, and other challenges.

### GENERAL MANAGER'S STRATEGIC PRIORITY #3: Innovation

Objective # 1 Provide leadership through advancing scientific knowledge that promotes opportunities for the improvement of SWP supply reliability through the improvement and protection of estuarine processes, native species, and Delta ecosystem health.

Staff continued participating in the Collaborative Science and Adaptive Management Program, including participation on the Collaborative Adaptive Management Team (CAMT). The August 18 CAMT meeting included an update on the Suisun Marsh Salinity Control Gates action, which is a project to provide increased low salinity habitat for delta smelt.

Staff continued to participate in the State Water Contractors (SWC) science program. On August 11, the SWC released the "SWC Annual Science Report 2019-2020" ([https://swc.org/wp-content/uploads/2020/08/Report\\_2019-2020-Annual-Science-Report\\_8.10.20\\_FINAL.pdf](https://swc.org/wp-content/uploads/2020/08/Report_2019-2020-Annual-Science-Report_8.10.20_FINAL.pdf)). The report highlights the importance of investing in science and research to provide a more reliable water supply for California, and to protect, restore, and enhance the Delta ecosystem. The report also highlights accomplishments and areas of scientific research. The SWC invested more than \$2.7 million in science and research efforts in FY 2019/20, which will help develop new management approaches to managing protected species and water supply.

## CHIEF FINANCIAL OFFICER

### CFO STRATEGIC PRIORITY: Maintain Strong Financial Position

Provide timely and discerning financial analyses, planning, and management to ensure that forecasted revenues are sufficient to meet planned expenses and provide a prudent level of reserves consistent with Board policy.

Objective #2 Manage risk to protect Metropolitan's assets against exposure to loss.

The Risk Management Unit completed 52 incident reports communicating instances of Metropolitan property damage, liability, workplace injuries, regulatory visits, and spills.

Risk Management completed 49 risk assessments on contracts, including professional service agreements, construction contracts, entry permits, special events, and film permits.

### CORE BUSINESS: Financial Management

Manage Metropolitan's finances in an ethical and transparent manner and provide consistent, clear, and timely financial reporting. Update Metropolitan's capital financing plans and work with rating agencies and investors to communicate Metropolitan's financial needs, strategies, and capabilities thus ensuring Metropolitan has cost effective access to capital markets and the ability to finance ongoing future needs. In addition, actively manage Metropolitan's short-term investment portfolio to meet ongoing liquidity needs and changing economic environments.

Objective #1 Record and report the financial activities of Metropolitan in a timely, accurate, and transparent manner to the Board, executive management, member agencies, and the financial community.

- The preliminary fiscal year 2019/2020 financial results were reported to the Finance and Insurance Committee on August 17, 2020.
- Water Transactions for July 2020 totaled 138.9 thousand acre-feet (TAF), which were 15.8 TAF lower than the budget of 154.7 TAF. This translates to \$120.2 million in revenues for July 2020, which were \$20.2 million lower than budget.
- In July 2020, Accounts Payable processed approximately 3,300 vendor invoices for payment and took advantage of about \$14,800 in discounts.

Objective #4 Update capital financing plans and work with rating agencies and investors to communicate financial needs and capabilities, ensure cost-effective access to capital markets, and maintain long-term bond ratings of AA or better.

On July 1, 2020, Metropolitan closed the \$268.0 million, Water Revenue Refunding Bonds, 2020 Series C bond transaction. The 2020 Series C bonds refunded \$350.2 million of outstanding water revenue bonds, for total debt service savings of \$92.5 million.

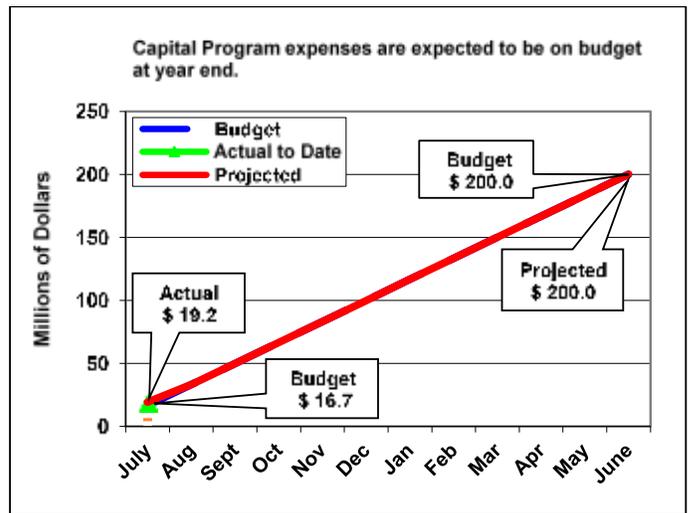
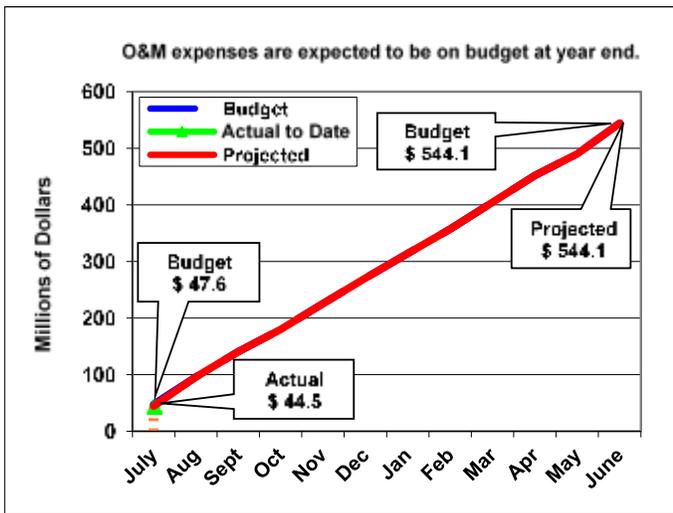
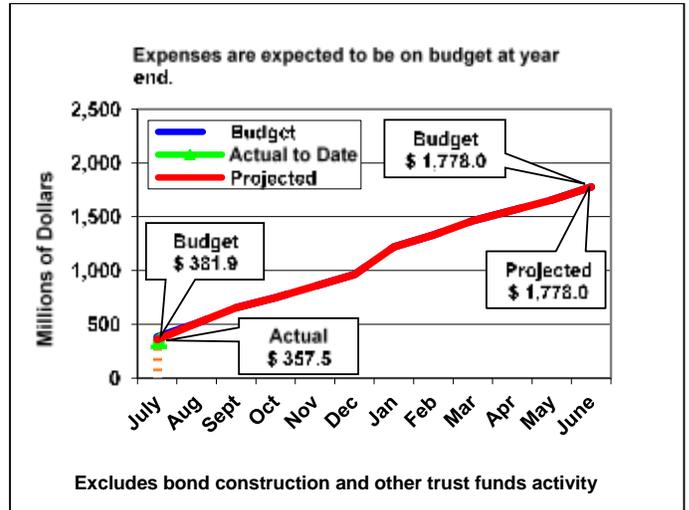
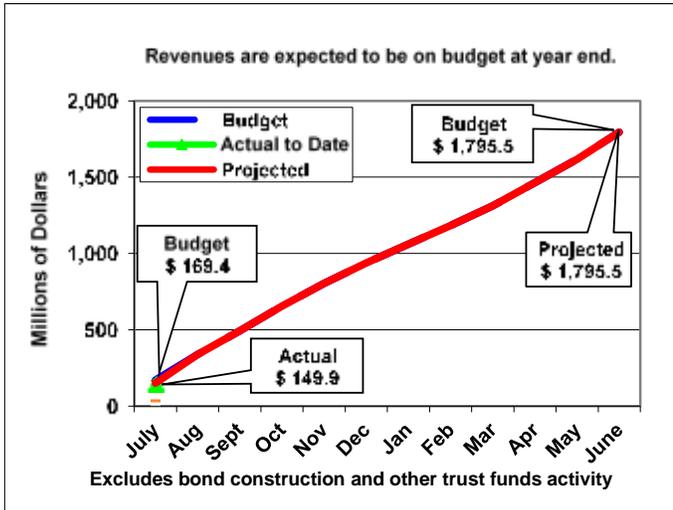
Objective #5 Prudently manage the investment of Metropolitan's funds in accordance with policy guidelines and liquidity considerations.

- As of July 31, 2020, the balance in Metropolitan's investment portfolio was \$889.0 million; for the month of July 2020, Metropolitan's portfolio managers executed 25 trades.
- During the month of July 2020, Treasury staff processed 1,303 disbursements by check, 26 disbursements by Automated Clearing House (ACH), and 43 disbursements by wire transfer. Treasury staff also processed 68 receipts by check, 31 receipts by ACH, and 55 receipts by incoming wires and bank transfers.

## CHIEF FINANCIAL OFFICER *continued*

Financial Summary - Charts & Graphics	
Receipts	Expenditures
O&M Expenditures	Construction Costs
Cash and Investments	Summary of Financial Statistics

# CHIEF FINANCIAL OFFICER *continued*



### Summary Financial Statistics

	Target	Year-End Projected
Fixed Charge Coverage	≥ 1.20 x	1.46
Revenue Bond Coverage	> 2.00 x	1.48
Revenue Bond Debt / Equity Ratio	< 100.0%	57.2%

### Senior Lien Revenue Bond Credit Ratings

	Target	Current
- Moody's Investors Service	Aa2	Aa1
- Fitch Ratings	AA	AA+
- Standard & Poor's	AA	AAA

## ENGINEERING SERVICES

### GM STRATEGIC PRIORITY #1: Enhance Infrastructure Safety, Security, and Resiliency

Objective #1: Manage and execute Board-authorized projects within the Capital Investment Plan (CIP) to ensure the reliable delivery of water to Metropolitan's member agencies.

#### Distribution System Reliability Program

This program maintains reliable water deliveries through specific repair and rehabilitation projects on Metropolitan's pipelines, reservoirs, and control structures. Recent activities include the following:

- **Yorba Linda Hydroelectric Power Plant Completion Project**—This project fabricates and installs an enclosure to provide rain protection for the plant generator. Construction of the enclosure is complete. Installation of the interior electrical lighting, convenience outlets, and exhaust fans by Metropolitan staff working in microteams is scheduled to be complete in December 2020.
- **Greg Avenue Pump Station Rehabilitation**—This project improves reliability of the Greg Avenue Pump Station by replacing the existing pumps and by upgrading the electrical and control systems. Construction is 64 percent complete and is scheduled to be complete in the first quarter of 2021.
- **Lake Perris Bypass Pipeline Relining**—This project will reline approximately 1,500 feet of the Lake Perris Bypass Pipeline. Final design is complete, and the Board awarded a construction contract in July 2020. Construction is scheduled to be complete by April 2021.
- **Casa Loma Siphon Upgrades**—This project replaces Casa Loma Siphon Barrel No. 1 at a fault crossing using Earthquake Resistant Ductile Iron Pipe (ERDIP). Fabrication of the ERDIP and steel pipe is underway. Final design of the construction package to install the pipe is 97 percent complete and is scheduled to be complete by October 2020.
- **Electrical Upgrades at 15 Structures in OC Region**—This project replaces deteriorated electrical components at 15 service connection structures within the Orange County operating region. The electrical components need to be replaced to maintain safe working conditions and prevent the potential loss of flow and control data. Construction is complete and the Notice of Completion was issued in July 2020.



**Greg Avenue Pump Station Rehabilitation**—Discharge Pressure Vessel loaded on low bed trailer for delivery from Dixie Southern in Duette, Florida

### **Prestressed Concrete Cylinder Pipe (PCCP) Reliability Program**

This program was established to enhance the reliability of Metropolitan's water distribution system and to reduce the risk of costly emergency repairs of PCCP. The priority pipelines included in the program are the Second Lower Feeder, Sepulveda Feeder, Calabasas Feeder, Rialto Pipeline, and the Allen-McColloch Pipeline. A total of 100 miles of PCCP pipelines will eventually be relined with new steel pipe liners under this 20-year program. Recent activities include the following:

- **Second Lower Feeder PCCP Rehabilitation**—This project rehabilitates the remaining 28 miles of PCCP segments within the Second Lower Feeder. Long-term rehabilitation of the Second Lower Feeder will be staged over a period of eight to ten years, with multiple construction and procurement contracts. A total of 8.4 miles of PCCP on the Second Lower Feeder has been relined. Currently construction of the 4.5-mile-long Reach 2 is 95 percent complete and is scheduled to be complete by September 2020. The feeder is scheduled to be returned to service in September 2020. Completion of these activities were revised to coincide with completion of Reach 8. Construction of a portion of the 2,900-foot-long Reach 8 is 90 percent complete and is scheduled to be complete by September 2020. Final design of Reach 3 is 90 percent complete and is scheduled to be complete by November 2020.
- **Second Lower Feeder Isolation Valve Procurement**—This contract provides 13 conical plug isolation valves for the Second Lower Feeder rehabilitation. These valves range in diameter from 48 inches to 54 inches and provide primary isolation for maintenance activities, inspections, and repairs required to maintain reliable water deliveries with Metropolitan's distribution system. Fabrication of the first three 48-inch conical plug valves is 70 percent complete, and the valves are scheduled to be delivered by December 2020.

### **Colorado River Aqueduct (CRA) Reliability Program**

This program maintains the reliability of Metropolitan's CRA conveyance system. Recent activities include the following:

- **CRA Discharge Isolation Couplings**—This project fabricates and installs 44 isolation coupling assemblies at the five Colorado River Aqueduct pumping plants. Approximately one half of the couplings have been installed. Construction is 60 percent complete and is scheduled to be complete by June 2021.
- **CRA Overhead Cranes**—This project consists of replacing five overhead bridge cranes and retrofitting the support structures within the pump bays located at all five of Metropolitan's Colorado River Aqueduct pumping plants. Final design is complete, and a board action for award of a construction contract is planned for September 2020.
- **CRA Mile 12 Flow Monitoring Station Upgrades**—This project furnishes and installs a roof-mounted solar photovoltaic system and upgrades the flow monitoring equipment at the Colorado River Aqueduct Mile 12 Flow Monitoring Site. Final design is complete and a board action for award of a construction contract is planned for October 2020.
- **CRA Radial Gates Replacement**—This project replaces eight deteriorated radial gates along the aqueduct in two stages. Construction of Stage 1 to replace a radial gate at Eagle Mountain Pumping Plant is complete. In August 2019, Metropolitan's Board awarded a construction contract for the Stage 2 work, which includes replacement of seven radial gates at seven facilities along the CRA. Construction of Stage 2 is 46 percent complete and is scheduled to be complete by March 2021.
- **CRA Gene Wash and Copper Basin Discharge Valve Rehabilitation**—This project replaces the existing deteriorated cone valves at Copper Basin and Gene Wash Reservoirs on the Colorado River Aqueduct. The project will be completed in two stages. Stage 1 will replace the valve at Gene Wash Reservoir, whereas Stage 2 will replace the valve at Copper Basin Reservoir. Construction of Stage 1 is 6 percent complete and is scheduled to be complete by July 2021. Final design for Stage 2 is 36 percent complete and is scheduled to be complete by October 2021.

## ENGINEERING SERVICES *continued*

- **CRA Hinds Platform Rehabilitation**—This project replaces maintenance platforms for the discharge valves at the Julian Hinds Pumping Plant. Preliminary design is 90 percent complete and is scheduled to be complete by September 2020.
- **CRA Storage Buildings**—This project replaces deteriorated storage buildings that are used to store equipment, spare parts, and maintenance supplies at the Hinds, Eagle Mountain, and Iron Mountain pump plants. Preliminary design is 90 percent complete and is scheduled to be complete by September 2020.

### Treatment Plant Reliability Program

This program was initiated to maintain reliability and improve the operating efficiency of Metropolitan's water treatment plants through specific improvement projects. Recent activities include the following:

#### Weymouth Plant

- **Weymouth Chlorination System Upgrades**—This project expands the existing chlorine building to house additional chlorination feed equipment and instrumentation at the Weymouth plant. Construction was suspended for six weeks because of COVID-19 and resumed in May. The contractor's work is 82 percent complete and is scheduled to be complete by May 2021.

#### Diemer Plant

- **West Basin and Filter Building Rehabilitation**—This project rehabilitates the west flocculation/sedimentation basins and filter building at the Diemer plant, including replacement of treatment basin equipment and filter valves, abatement of hazardous materials, and seismic strengthening of the filter building. Construction was suspended for six weeks because of COVID-19 and resumed in May. Construction is 79 percent complete and is scheduled to be complete by April 2021.
- **Diemer Water Sampling System Improvements**—This project upgrades the existing Diemer water sampling system, composed of 13 sample locations. At each location, the sample pump, piping, and field analyzers will be upgraded by Metropolitan staff. Construction is 69 percent complete. Because of the COVID-19 pandemic, staff will reassess the anticipated completion date for this project.

#### Jensen Plant

- **Jensen Electrical Upgrades, Stage 2**—This three-stage project upgrades the electrical system with dual power feeds to key process equipment to comply with current codes and industry practice. Stage 1 work is complete. Stage 2 improvements will upgrade UPC-7, UPC-9, and their associated motor control centers to support critical process equipment. Construction was suspended for three months because of COVID-19 and resumed in late June. Construction is 22 percent complete. The anticipated project completion date is being reassessed.
- **Jensen Module 2 and 3 Flocculator Rehabilitation**—This project rehabilitates the Modules 2 and 3 flocculators at the Jensen plant. Construction is 43 percent complete and is scheduled to be complete by March 2021.



**Diemer West Basin and Filter Building Rehabilitation—Containment structure built for abrasive blasting of existing pipe in preparation for application of new coating within the Filter Pipe Gallery**

### System Reliability Program

The System Reliability Program consists of projects to improve or modify facilities located throughout Metropolitan's service area to use new processes and/or technologies and to improve facility safety and overall reliability. Recent activities include the following:

- **Headquarters Building Improvements**—This project provides seismic upgrades and other needed improvements to the Metropolitan Headquarters Building. Construction is 69 percent complete. Staff is working with the contractor to advance additional work while the building remains lightly occupied. Construction is anticipated to be complete ahead of the original schedule of July 2022 by about six months.
- **Board and Committee Room Upgrade**—This project upgrades the audio/visual (A/V) systems at the Metropolitan Headquarters Building. Engineering Services is working collaboratively with IT and Facilities on this technology/construction project to replace the end-of-life A/V equipment in the Board and Committee rooms. Design is complete. In July 2020, the board awarded a procurement contract for the A/V system. In August, the board increased the change order authority on the Headquarters Building improvements contract to allow installation of the A/V systems and other needed improvements. Construction of the A/V system upgrades is scheduled to be complete by May 2021.
- **Headquarter Physical Security Upgrades**—The comprehensive security upgrades for the Metropolitan Headquarters Building have been prioritized and staged to minimize rework and impacts on day-to-day operations within the building. The Stage 1 work, currently in construction, enhances security related to perimeter windows and doors. Stage 2 improvements will provide security system upgrades inside the building with a focus on the main entry rotunda area, board room, executive dining lounge, and security control room.

## ENGINEERING SERVICES *continued*

Stage 3 improvements will provide security system upgrades around the perimeter of the building. Construction of Stage 1 is 96 percent complete and is scheduled to be complete by August 2021. In August, The Metropolitan Board awarded a construction contract for Stage 2 improvements and amended professional service agreement for design of Stage 3 improvements. Construction of Stage 2 improvements is scheduled to be complete by April 2022.

- **Headquarter Building Fire Alarm and Smoke Control System Upgrades**—This project upgrades the Metropolitan Headquarters Building fire life safety systems, which includes replacement of the fire detection and alarm system and HVAC system improvements for smoke control. In August, the board awarded the construction contract. Construction is scheduled to be complete by April 2022.



**Headquarters Building Improvements—Fifth Floor structural retrofit for exterior cladding panels**

## ENVIRONMENTAL PLANNING SECTION/CAO

### GM STRATEGIC PRIORITY #1: Resiliency

Objective #1 Provide planning, California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA), and regulatory permitting support for programs and projects that focus on infrastructure reliability and redundancy.

#### **California Environmental Quality Act (CEQA) Review**

##### Colorado River Aqueduct (CRA) Projects

- Provided CEQA clearance for Replacement of the Overhead Bridge Cranes at each CRA Pumping Plant, Utility Replacement at the Eagle Mountain Pumping Plant, CRA Mile 12 Flow Monitoring Station Upgrades, and Desert Housing Flooring Project.
- Finalized draft Mitigated Negative Declaration (MND) for the CRA Structural Protection Project.

##### Prestressed Concrete Cylinder Pipe (PCCP) Reliability Program

- Prepared Second Lower Feeder Reach 3 Paleontological Mitigation Plan.

### GM STRATEGIC PRIORITY #2: Sustainability

Objective #3 Continue to actively manage Metropolitan's more than 30,000 acres of conservation lands through cooperative relationships with public agencies and non-governmental conservation organizations to promote sustainability of reserve resources.

#### **Southwestern Riverside County Multi-Species Reserve**

- In coordination with Contracting Services, assisted in preparation and release of Request for Proposal for reserve management services and participated in pre-bid job walk.
- Coordinated with Southern California Edison to prevent damage to resources during utility pole repair and replacement in the Reserve.
- Assisted researchers from UC Riverside studying the effects of crop-associated viruses on native Reserve plant populations and biologists from the Western Riverside County Multiple Species Habitat Conservation Plan Biological Monitoring Program conducting white-tailed kites nest monitoring.
- Installed artificial coverboard for new reptiles and amphibians monitoring program.
- Began non-native grass and weed removal within the DVL North Hills area affected by a 2019 fire. Conducted ranger patrols of the Reserve including response to a hot air balloon landing in the Reserve north of Lake Skinner (see photo).



Hot air balloon in Reserve north of Lake Skinner



Rabbit at the DVL Angler Avenue Wildlife Undercrossing Culvert

Objective #4 Incorporate innovative measures and solutions into project planning, design, construction, and operation to minimize impacts to the environment and streamline environmental approvals, while meeting the goals and objectives of the project.

- Coordinated with WSO and ESG to develop strategies and design for nesting bird deterrent devices at Jensen Water Treatment Plant, which would streamline approval for projects and operations and reduce delays in construction schedules due to nesting birds (see photo).



**Swallows nest at Jensen Water Treatment Plant**

### CORE BUSINESS: Regulatory Compliance

Objective #1 Provide timely and professional environmental planning services and CEQA and regulatory permitting support to ESG, WSO, WRM, External Affairs, and Real Property groups.

#### **Engineering Services**

- Finalized Environmental Requirements specification section and approved 100 percent specifications package for the following: Garvey Reservoir Drainage and Erosion Control Project for Areas 6–8, and 10 and 11; Weymouth La Verne Shops Stage 4 Project; the Weymouth Sedalia Ave Drainage Project; and the Orange County Feeder Relining Project Phase 3.

#### **Water System Operations**

- Provided CEQA analysis and environmental planning clearances for nine Water System Operations projects, including Rialto Feeder Routine Maintenance, Live Oak Reservoir debris removal, Magazine Canyon Erosion Repair and Silt Removal, and Eagle Rock Lateral Shutdown LA-17 Venturi Replacement.

## EXTERNAL AFFAIRS

### EXTERNAL AFFAIRS PRIORITY: Advance Initiatives to Educate and Inform the Public, Elected Officials and Stakeholders on Water Supply Conditions and Important Water Management Decisions.

External Affairs will develop and maintain relationships with the public, legislative leaders, government officials, non-governmental organizations, and other stakeholders, and implement effective and diverse communication and outreach strategies on the value of water, current water supply conditions, innovative strategies to address current and future challenges, and the importance of Metropolitan actions and leadership to promote stewardship, planning and investments to benefit the region.

Objective #1 Recognizing there is a new normal that is directly impacting California water conditions driven, in part, by more volatile supply conditions due to climate change, and informing key stakeholders, news media, businesses and the public on the need for sustained conservation actions, support for new water supply projects and continued investment in imported water systems to maintain water supply reliability and protect the environment.

Metropolitan sponsored and board members Blois, Lefevre, and Peterson attended the Building Industry Association Virtual Southern California Water Conference. GM Kightlinger spoke on a panel with DWR Director Nemeth, SWC General Manager Pierre, Exec Director Rodriguez for the Building Industry Association, Baldy View Chapter, and Executive Director Wilson of the Southern California Water Coalition, to provide an update on Delta projects and programs. Water Resource Manager Coffey participated on a separate panel about innovation in recycled water programs (August 14).

Chairwoman Gray was the featured guest at the Women at Metropolitan (WAM) meeting commemorating the Women's Suffrage Centennial; she spoke about the importance of advancing diversity and of the contributions of women at Metropolitan and in all sectors of our communities, state, and nation. (August 13).

### CORE BUSINESS: Legislative, Communications, Community Relations, Public and Business Outreach

Engage the public, labor, business community, agriculture, government leaders, non-governmental organizations and other stakeholders in California's water issues, communicating Metropolitan's interests and Board-adopted policies through federal and state legislative strategies, multimedia and multi-cultural communications, and educational and other outreach programs. Inform the public about Metropolitan projects, facilities, operations and initiatives to gather input and support, foster competitive and diverse business opportunities, and facilitate innovation and technology sharing.

Objective #1 LEGISLATIVE SERVICES - Develop and implement local, state and federal legislative and regulatory strategies consistent with Board-adopted policies. Promote interaction between Metropolitan leadership and various stakeholders, including elected officials, to facilitate support for and garner greater understanding of water policy issues.

#### **Federal**

Metropolitan staff continues to advocate for aid to public agencies impacted by the pandemic, including special districts. Senators Sinema (D- AZ) and Cornyn (R-TX) introduced S. 4308, a companion bill to Representative Garamendi's H.R. 7073, the Special Districts Provide Essential Services Act, which would designate 5 percent of future federal relief funds to special districts for COVID-19-related expenditures. Outreach efforts helped secure California's Senators Harris and Feinstein as co-sponsors of the legislation along with Senators McSally (R-AZ) and Wyden (D-OR).

The House passed Fiscal Year 2021 appropriations bills including H.R. 7612 (McCollum, D-MN) and H.R. 7613 (Kaptur, D-OH), to fund the U.S. EPA, Bureau of Reclamation, Army Corps of Engineers, and United States Geological Survey at primarily level funding consistent with FY20 appropriations. Metropolitan and a coalition of water and wastewater organization are advocating for new FY21 appropriations for the WIFIA program.

## EXTERNAL AFFAIRS *continued*

The House passed H.R. 7575 (DeFazio, D-OR) the Water Resources and Development Act of 2020. The narrow House bill primarily authorizes Army Corps of Engineers projects and is being conferenced with the more expansive Senate bill, S. 3591, the America's Water Infrastructure Investment Act of 2020, that includes new programs at the EPA and Army Corps of Engineers projects.

### State

The Legislature resumed work in late July after an extended summer recess. Metropolitan staff tracked several bills including AB 3279 (Friedman, D-Glendale) on CEQA litigation process and AB1720 (Carrillo, D-Los Angeles) to make the Department of Water Resources a central procurement entity for long-duration energy storage. Metropolitan was able to secure favorable amendments to AB 3279. AB 1720 was pulled from its policy committee hearing and has not been set for any future hearings.

### Local

Metropolitan staff participated in the following webinars and events:

- Town Halls with Congressman Schiff (D-Burbank)—August 4; U.S. Representative Aguilar (D-Redlands)—August 6; State Assembly Member Reyes (D-San Bernardino)—August 14; Congresswoman Chu (D-Monterey Park) August 27
- Pat Brown Institute webinar honoring Secretary of State Padilla (August 4)
- Los Angeles Chamber Area of Commerce virtual meeting featuring a California Department of Water Resources Environmental Program Manager Buckman on Delta Conveyance (August 6)
- Central City Association virtual meeting with Los Angeles County Supervisor Kathryn Barger (August 6)
- League of California Cities Los Angeles Division Installation Ceremony for Downey Mayor Pacheco featuring Senator Archuleta (D-Pico Rivera) and Assembly Member Garcia (D-Bell Gardens) (August 6)
- Los Angeles County Business Federation virtual roundtable with Senator Hertzberg (D-Van Nuys) (August 17)
- Los Angeles World Affairs Council with Congressman McCarthy (R-Bakersfield) (August 20)
- Valley Industry and Commerce Association's Congressional Briefings with Congressman Sherman (D-Sherman Oaks) (August 20)
- Orange County Business Council's virtual Washington DC Advocacy Summit. Participating elected officials included: Congressman Levin (D-San Clemente), Congressman Lowenthal (D-Long Beach), and other elected officials (August 24)
- Valley Industry and Commerce Association Sacramento Day elected officials included: Eleni Kounalakis Lieutenant Governor (D-San Francisco), Senator Anthony Portantino (D-La Canada Flintridge) and Assembly Member Vincent Fong (R-Bakersfield) along with representative from the offices of Senator Bates (R-Laguna Niguel), Assembly Member Wood (D-Santa Rosa), and Assembly Member Jones-Sawyer (D-Los Angeles) (August 25)
- Santa Clarita Valley Washington Update with Congressman Mike Garcia (R-Santa Clarita) Garcia provided an update from Washington DC. He did mention that one of his top priorities is water storage infrastructure (August 25)

Objective #2 MEDIA AND COMMUNICATIONS - Communicate Metropolitan's policy priorities, actions and initiatives through various means to raise public awareness, enhance Metropolitan's visibility and cultivate support for Metropolitan priorities. Update and develop new communications tools, materials and platforms to ensure Metropolitan information reaches diverse audiences throughout its service area in a cost-effective, timely, relevant manner that reflects current communications trends.

## EXTERNAL AFFAIRS *continued*

### Media Interviews

- Conducted interview with Environmental Specialist Dymally regarding drinking water safety for ACWA-CAAWWF partnership as part of a five-part water quality series for California Black media outlets.
- Coordinated interview between San Diego Daily Transcript and GM Kightlinger on the recent judgement in the SDCWA v Metropolitan litigation (2010–2012 cases).

### Press Release/Statements

- Metropolitan Approves Funding for Local Water Supply Projects in San Diego County.
- MWDOC Representative Sat Tamaribuchi Joins Metropolitan Board.

### Online

- Launched new postings and resources on Metropolitan’s primary website, mwdh2o.com, including the GM Kightlinger blog posting on the Tule Red Project, legal updates on the budget webpage, and presentations to the IRP microsite.
- Received nearly 159,000 page views on mwdh2o.com and generated 42,032 page views on bewaterwise.com, with garden assets and the turf replacement program among the most popular destinations.
- Metropolitan was a sponsor of the Southern California Water Coalition’s Stormwater Matters webinar. (August 6)

### Social Media

- Posted on Metropolitan’s partnerships for improvements to the Yolo Bypass Wildlife Area and the Tule Red restoration project. These posts were the top tweets for the month in terms of engagement and impressions. **(see image below)**



- Featured former Metropolitan interns, who are now full-time employees, in a social media slideshow, with posts receiving good engagement, with many on LinkedIn commenting about their internships.
- Promoted the virtual tours of the Regional Recycled Water Project on social media platforms. The majority of participants for recent tours heard about the opportunity through social media.
- Celebrated Solar Cup virtual 2.0 participants by featuring the top four schools in an Instagram story and using many of the submitted creative as repurposed “Spot the Difference” posts on social media. **(see image below)**

## EXTERNAL AFFAIRS *continued*



Objective #3 PUBLIC OUTREACH AND MEMBER SERVICES - Conduct public outreach to increase awareness and input on Metropolitan projects and initiatives and ensure impacted communities are aware of Metropolitan construction and maintenance activities. Enhance public awareness of Metropolitan's systems and facilities and the role they play in regional supply reliability while protecting environmental resources. Serve as liaison to Metropolitan's member agencies and facilitate their engagement with Metropolitan.

Metropolitan staff provided virtual tours of the Regional Recycled Water Advanced Purification Center. (August 6 and August 20)

### **Construction Projects Updates**

Distributed flyers to residents and businesses for Metropolitan's repair work on the West Basin Feeder in Manhattan Beach. (August 12)

### **Member Agency Support**

Metropolitan met with the Member Agency Managers to discuss operations, supply conditions and scenario development for the 2020 IRP. (August 21)

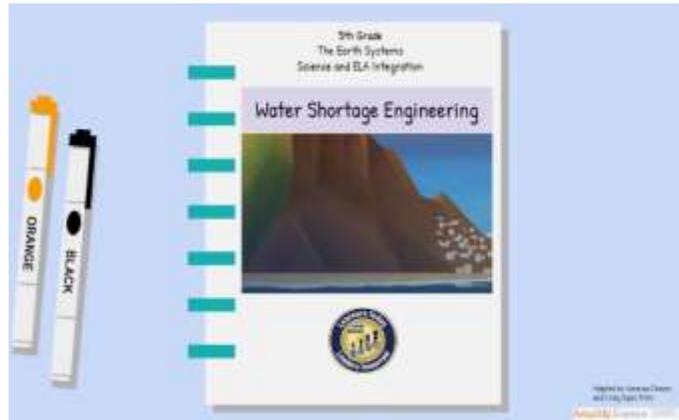
Objective #4 EDUCATION AND COMMUNITY RELATIONS - Facilitate public engagement in and understanding of water resource issues through community relations activities and education projects. Build awareness of and appreciation among Southern California for the value of clean, reliable water supplies and the importance of good water stewardship.

### **General Education**

With the beginning of the academic year, Metropolitan launched new online engagements including virtual tours of facilities, customized classroom presentations, and water story-time events for younger audiences. Staff indirectly interacted with more than 260 teachers, students, and parents.

Metropolitan developed a presentation for the LAUSD Fifth Grade Summer School Engineering Program's water shortage engineering curriculum unit, and made a presentation 250 fifth-grade teachers and students in East Los Angeles. (see image below)

## EXTERNAL AFFAIRS *continued*



### Community Partnering and Sponsorship Programs

Metropolitan sponsored the following events, and staff participated in presentations and exhibits to promote water education, conservation, and sustainability initiatives:

- Coro Southern California Energy Focus Week and Virtual Gala (August 18)
- Sustain Southern California Solutions for Water Resiliency (August 20-21)

Metropolitan staff collaborated with Theodore Payne Foundation on efforts to reach diverse audiences and Spanish-speaking landscape professionals including a bilingual landscape certification program. Other project partners including the California Native Plant Society, U.S. Green Building Council, and Los Angeles Department of Water and Power.

Metropolitan staff worked with Boy Scout and Girl Scout programs to provide water awareness and conservation-based activities for merit badges. This includes supporting the Central Basin Metropolitan Girl Scout Water Protector Summer program with more than 450 participants. (see image below)



## EXTERNAL AFFAIRS *continued*

Objective #5 BUSINESS OUTREACH AND INNOVATION - Facilitate opportunities for small businesses to work with Metropolitan. Help position Metropolitan as a leader in water innovation.

Metropolitan supported small businesses and entrepreneurs throughout the region through its online participation and, in some cases, sponsorship of the following programs, online conferences, webinars, and events:

- IGNITE22 Challenge Pitch Competition: Let's B. Cereus (August 1)
- National Association of Women Business Organizations California Propel Zoom Conference (August 3)
- National Alliance for Water Innovation's (NAWI) Meeting (August 3)
- Los Angeles Chapter of the Associated General Contractors of America (AGC) (August 5)
- San Diego Small Business Development Center's (SBDC-SD) "Meet the Buyers" event (August 6)
- Women Business Enterprise Council (August 6)
- Burns & McDonnell's 2020 California Community of Inclusion Awards Ceremony (August 6)
- Water-Energy Technology Center: Challenges and Opportunities in California Agriculture (August 14)
- Women Business Enterprise Council West Quarterly Board Meeting (August 19)
- Inland Empire, Small Business Development Center (SBDC-IE) "How to Get Certified with Metropolitan" (August 20)
- WBEC-West's 2020 Platinum Supplier Program (August 18)
- Inland Empire, Small Business Development Center's (SBDC-IE) "How to do Business with Metropolitan for Construction" (August 25)
- Asian Business Association Los Angeles Chapter, Women Business Pioneers Symposium (August 27)

Metropolitan co-hosted the Fifth Annual Water Solutions Conference in partnership with the California Water Data Collaborative. The conference covered data management in water with the vision of seeing data and technology as a tool to realize a more reliable, resilient, and sustainable water industry. (August 20–21)

Metropolitan staff participated in the Municipal Green Building Conference and Expo (MGBCE) with more than 1,000 attendees to promote sustainability and green building practices in the public and private sectors. (August 21– 22).

Metropolitan staff participated in Isle's "Global COVID-19 WhatsApp Group Webinars for Water Utilities" for utilities to share their learnings and experiences from the current Covid-19 outbreak.

## HUMAN RESOURCES

### **GM PRIORITY: Resiliency**

Objective #1 Partner with Metropolitan leadership to support learning, development, and adaptive workforce planning initiatives.

Human Resources (HR) staff facilitated an “Engagement Dynamics” team-building session for the Water Operations and Planning section.

Eighty-eight employees attended webinars on “Running Virtual Meetings,” which covered topics on using online tools, and the preparation, facilitation, and follow-up strategies for effective virtual meetings. Another session, “Maximizing Your Impact in a Virtual Environment,” addressed how to establish an effective online presence during virtual sessions.

Objective #2 Seek diverse, high-quality talent, and establish partnerships to discover additional outreach opportunities that aid in staffing positions.

Human Resources staff participated in the Virtual Student Leadership Workshop on August 15, focused on outreach to college students in various fields of study.

Recruitment filled 17 positions for the month of August. We received six new staffing requisitions resulting in 130 positions currently in recruitment. Recruitment has created a process that allows virtual interviewing using Zoom. We have completed Zoom interviews for 50 positions.

### **GM PRIORITY: Sustainability**

Objective #1 Implement employee retention and engagement programs to ensure Metropolitan’s investment in employees is supported.

Transitioned the new-hire on-boarding process to an on-line process to ensure that employees are prepared to be effective from first day of employment and are continually supported by management and Human Resources throughout their first year of employment.

Objective #2 Ensure Metropolitan managers have foundational knowledge, on-going support to effectively manage employees, and the tools to prepare for a changing workforce.

The FY 2019-20 Department Head Performance Evaluation was sent to all board members as part of the annual review of the Board Direct Reports, the General Counsel, General Auditor and Ethics Officer. The compiled results from the feedback on the evaluations will be discussed in a closed session at the September Board meeting.

HR has taken the lead in developing a collaborative plan for Business Transition, working with a team of managers from each of the departments and groups. The Business Transition Team has examined a wide-range of legal, safety, health, and logistical issues associated with resuming normal business activities during different phases of the COVID-19 pandemic. A Transition Plan document has been developed and will be revised as necessary. In the past month, the Business Transition Team added new procedures that will allow employees to borrow their ergonomic office chairs for home use, enabling them to telework safely and comfortably during the COVID-19 emergency.

Due to the COVID-19 pandemic, the Human Resources Group Manager organizes a bi-weekly check-in meeting with all group managers focused on sharing the latest information on employee illness or potential exposure, issues raised by the bargaining units, and strategies for working through the complexities of the “stay-at-home” order.

## HUMAN RESOURCES *continued*

### GM PRIORITY: Innovation

Objective #1 Continue to upgrade HR's technological capabilities and continue to seek out improved technologies to better serve HR's customers.

HRIS and Benefits staff are working with payroll and IT to implement the Families First Coronavirus Response Act leave code.

### HR CORE BUSINESS: Provide Excellent Human Resources Services

Human Resources provides a wide range of services and support from pre-hire to post retirement care. HR policies, procedures, and practices will be reviewed and revised as appropriate. HR will continually improve service and better utilize technologies.

Objective #1 Administer all HR services with efficiency and a focus on customer service excellence, consistency, and flexibility.

HR Benefits was recognized for excellence and creativity for Metropolitan's deferred compensation plans by two communication and marketing professional organizations: the National Association of Government Defined Contribution Administrators' 2020 Award for Metropolitan's Save More, Do More education and communications, and again, the 2020 Hermes Platinum Award for the Save More, Do More marketing and communication campaign.

HR coordinated with Financial Finesse to host two online webinars on Tuesday, August 11. The first webinar, Intro to Financial Wellness, was to introduce and guide plan participants through the newly offered online financial wellness assessment tools. There were 51 participants. The second webinar, Advance Investment Concepts, was attended by 41 participants. It was designed to review our current investment lineup and the addition of Managed Accounts.

Following additional research of the second provision of the Families First Coronavirus Response Act (FFRCA), HR drafted the Emergency Family and Medical Leave Expansion Act (EFMLEA) policy and application to administer leaves. This provision, EFMLEA, is an expansion of the current Family Medical Leave Act law to provide employees with time off, as needed, for childcare resulting from school and daycare closures.

### HR CORE BUSINESS: Comply with Employment Laws and Regulations

Ensure all policies, programs, and practices comply with ever-changing laws and regulations. Compliance with applicable laws and policies requires monitoring and analyzing changing requirements, determining impact on Metropolitan management and staff, and implementing any changes necessary to maintain compliance. In addition, these changes must be clearly communicated to all customers as necessary, with any needed training provided, as appropriate.

Objective #1 Effectively administer all Human Resources policies, programs, and practices in compliance with applicable federal and state laws and Metropolitan's Administrative Code, Operating Policies, and Memorandum of Understanding.

In August, 12 new Workers' Compensation claims were received and 6 were resolved. Four employees remain off work because of an industrial injury or illness. This reflects Metropolitan's effort to accommodate injured workers, while enabling them to be productive and on the job.

## HUMAN RESOURCES *continued*

Activities of the Workers' Compensation/Medical Screening Unit are summarized as follows for March and April:

- Submitted 12 new claims to Metropolitan's Workers' Compensation Claim Administrator.
- Closed six Workers' Compensation Claim files.
- Currently four employees remain off work because of industrial injury or illness.
- Coordinated medical surveillance exams at four facilities (Mills, Mathews, Skinner, and Weymouth). The exams included respirator exams, Department of Motor Vehicle exams, and hearing tests.
- Initiated and completed 14 medical questionnaires in lieu of medical exams.
- Addressed two accommodation issues.
- Coordinated three Random Drug Screening site visits for Jensen, Mills, and Lake Mathews.

HR Metrics	June 2020	August 2020	Prior Month (July)
<b>Headcount</b>			
Regular Employees	1,799	1,804	1,802
Temporary Employees	29	27	30
Interns	9	5	8
Recurrents	21	21	21
Annuitants	17	15	17

	August 2020	July 2020
<b>Number of Recruitments in Progress</b> (Includes Temps and Intern positions)	119	130
<b>Number of New Staffing Requisitions</b>	6	6
	August 2020	July 2020
<b>Number of Job Audit Requests in Progress</b>	11	10
<b>Number of Completed/Closed Job Audits</b>	0	0
<b>Number of New Job Audit Requests</b>	1	0

<b>Transactions Current Month and Fiscal YTD (includes current month)</b>			
<u>External Hires</u>	<u>FY 19/20 Totals</u>	<u>August 2020</u>	<u>FISCAL YTD</u>
Regular Employees	127	5	9
Temporary Employees	29	0	3
Interns	18	0	0
<b>Internal Promotions</b>	91	13	20
<b>Management Requested Promotions</b>	109	2	7
<b>Retirements/Separations</b> (regular employees)	124	6	11
<b>Employee Requested Transfers</b>	15	4	4

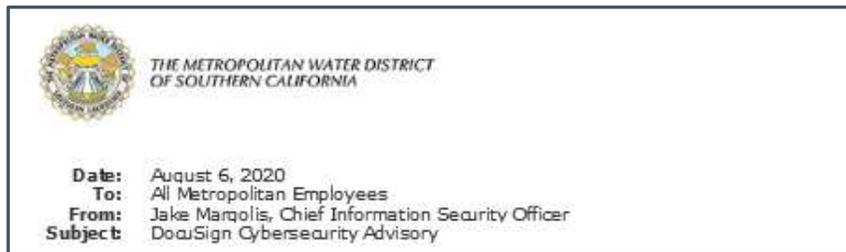
# INFORMATION TECHNOLOGY

## GENERAL MANAGER'S STRATEGY PRIORITY #1: Resiliency

**OBJECTIVE #1** Strengthen Metropolitan's cybersecurity capabilities by deploying new and emerging technologies and implementing enhanced security countermeasures.

Continued to implement Cybersecurity initiatives to improve the Metropolitan's security posture and to collaborate with stakeholders to further enhance network security capabilities for Metropolitan's computing environments.

- Completed cybersecurity appliance upgrade (Pulse Secure) to address potential vulnerability while enhancing security protection for Metropolitan.
- Held kickoff meeting with Information Technology (IT) managers to initiate multi-factor authentication pilot deployment within IT Group. The multi-factor authentication tool will provide an additional layer of security protection for Metropolitan and will be evaluated within IT before enterprise-wide rollout.
- Conducted on-going monitoring of vulnerabilities to safeguard Metropolitan's computing environment, systems, and data while keeping the Board apprised of cybersecurity efforts through quarterly briefings.
- Issued cybersecurity advisory bulletins to notify users of risks and vulnerabilities based on active monitoring of current events as well as on-going federal, state, and local cybersecurity legislation applicable to Metropolitan.



- Worked behind the scenes to conduct on-going enhancements, upgrades, and software/systems patching to mitigate evolving security risks to Metropolitan's business networks and applications. As warranted, IT notifications are issued to users informing them of impact when priority upgrades are needed to address security vulnerabilities, whereas lower priority upgrades are done after business hours to minimize impact to business users.

**DESCRIPTION**  
VPN Upgrade: The Pulse Secure Appliance and Laptop Client will be upgraded to address security vulnerabilities.

**START / END**

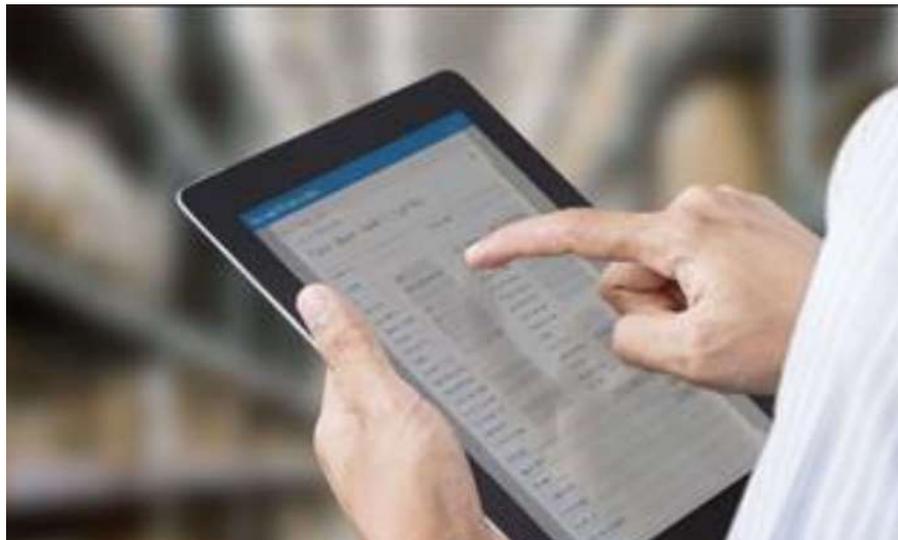
SECONDARY VPN- [sleet.mwdh2o.com/vpn2](https://sleet.mwdh2o.com/vpn2)  
Start: Thursday, August 6th , 2020 @ 6pm  
End: Thursday, August 6th , 2020 @ 7pm

PRIMARY VPN- [splash.mwdh2o.com/vpn1](https://splash.mwdh2o.com/vpn1)  
Start: Tuesday, August 11th , 2020 @ 6pm  
End: Tuesday, August 11th , 2020 @ 7pm

## INFORMATION TECHNOLOGY *continued*

OBJECTIVE #2 Manage Information Technology Projects within the Capital Investment Plan to ensure reliability of IT Systems and Infrastructure.

- **Maximo Upgrade Project**—The project team continued to work in collaboration with stakeholders on the upgrade of Metropolitan’s enterprise-wide maintenance management software application used for planning, scheduling, and reporting of required maintenance of equipment deployed throughout the treatment plants and the conveyance and distribution system. Recent activities include working with Fleet Services on the Transportation module including the review and required updates to the process flow.
- **Budget System Replacement Project**—Continued to work on upgrading Metropolitan’s budgeting system to support the Capital and O&M budget processes and board deliverables. Continued to work with the consultant by holding design sessions and evaluating integration requirements.
- **Fuel Project**—Upgrading the Fuel Management System will enable management controls over fuel inventories, dispensing, and security to ensure operability, vendor support, and system reliability. Upgrades to this end-of-life system include 13 fueling sites located at various Metropolitan facilities that provide security by limiting fueling to authorized vehicles and authorized employees and by recording fuel dispensing and vehicle usage information. During the period, the team completed vendor demonstrations and presentation of proposals as part of the competitive Request for Proposal (RFP) process.
- **Maximo Mobile Computing Project**—This project replaces existing mobile devices used in Water System Operations (WSO) with the latest tablet technology. This effort will enhance access to business information and vastly increase the functionality of the existing Maximo mobile devices while potentially reducing the need for desktop computers at field sites.
  - As part of the initial pilot phase, tablets were deployed to selected field staff to evaluate user requirements, performance, and functionality. IT worked with WSO stakeholders to create account roles and processes and conducted training sessions for WSO end-users and management.
  - With the completion of the initial pilot phase, next steps include expanding the evaluation and use of iPads to WSO’s Conveyance and Distribution Teams.





**Metropolitan's Existing Datacenter**

**OBJECTIVE #6** Deploy solutions to improve operations, promote collaboration, and provide business value.

Continued the Personal Computer Replacement Project (PCRP) by deploying new laptops and workstations in a phased approach. Replacement of aging PCs and related equipment will provide Metropolitan employees with computers that have greater processing speed, disc space, and improved reliability because the existing PCs have reached end-of-life. Summary of key activities include:

- Completed deployment planning to ensure safety protocols are in place because of COVID-19
- Developed pickup options including Drive-Thru as well as In-Person pick-up, should users have questions and require additional support
- Initiated PC deployment with selected business groups using a phased approach
- To date, deployed approximately 280 units with an additional 100 units planned by month-end
- Continued to work with business units to coordinate specialized hardware configurations, software, or system requirements



**PC Replacement Project**

## INFORMATION TECHNOLOGY *continued*

**OBJECTIVE #7** Enhance workforce productivity by simplifying access to business information and deploy technologies to support our customers in making business decisions.

- Completed the upgrade of end-of-life devices to iPads to support Water Quality Operations to record data when collecting samples. The Water Quality Lab uses a sample collection application installed on an HP device (HP Datalogger). The current HP mobile device (hardware and operating system) is at end-of-life and is no longer supported.
  - Key accomplishments by the IT project team include completing user-acceptance testing (UAT), end-user sign-off, and roll out to production of the new hardware along with enhanced software upgrades.
  - Next steps include post-implementation support while collecting user feedback as part of continuous improvement as well as evaluating customer-requested enhancements.

### **GENERAL MANAGER'S STRATEGY PRIORITY #2: Sustainability**

**OBJECTIVE #1** Provide IT services in support of the Headquarters Improvements Program.

Provided IT support and services for equipment relocation of workstations, phones, printers, and networking during the seismic retrofit upgrades.

- Completed headquarters sixth floor relocation by assisting with moving and reconfiguring connectivity of IT hardware, networks, and specialized equipment while mitigating disruption to business operation. Due to specialized computers on the sixth floor that require RDP (Remote Desktop Protocol), staff had to carefully orchestrate the moving of hardware/systems to minimize downtime and impact to users. RDP allows authorized users to access computers or devices from remote locations.
- Coordinated with Engineering Services Group (ESG) and Consultant on requirements to finalize seventh floor relocation planning and initiated relocation efforts involving WSO, CFO, and IT Group. The move activities began in late August and is scheduled to be complete by early September.
- IT Staff continued to support ESG and Facilities with relocation efforts accommodating an accelerated construction schedule.



**Sixth Floor Relocation**

## INFORMATION TECHNOLOGY *continued*

**OBJECTIVE #2** Manage Information Technology Projects within the Capital Investment Plan to ensure sustainability of IT Systems and Infrastructure.

- IT continued to work on the Desert Microwave Tower Upgrade by collecting requirements for development of an RFP to solicit consultant services to support the project. The purpose of this project is to improve the reliability, performance, and capacity to Metropolitan’s microwave radio wide-area-networks.
- The importance of this project and network resiliency was evident during the recent Riverside County “Apple Fire” that affected communication equipment at Metropolitan’s microwave tower at Detention Peak site. The fire damaged microwave equipment resulting in communication disruptions but was minimized due to redundant networking paths to support the communication needs of Metropolitan.
- IT staff is accessing the damaged equipment and work is underway to initiate repairs to the system.



**Detention Peak Communication Tower Site**

### **GENERAL MANAGER’S STRATEGY PRIORITY #3: Innovation**

**OBJECTIVE #5** Deploy innovative solutions to improve operations, promote collaboration, and provide business value.

- Continued to conduct Unmanned Aerial Vehicle (UAV) missions to support Metropolitan business units by collecting requirements, develop flight plans, evaluate trajectory and conduct risk mitigation of potential obstacles as part of planning for the aerial missions. Recent UAV activities include:
  - Conducted mission for Engineering to capture video of the work being done on the treatment basins at the Jensen Treatment Plant including thermal survey of the solar farm at the facility as part of monitoring solar panel condition.
  - Conducted planning for upcoming mission at Live Oak Reservoir to baseline thermal and multi-spectral imagery of reservoir seepage that will provide data for analysis.

## INFORMATION TECHNOLOGY *continued*

**OBJECTIVE #6** Enhance workforce productivity by simplifying access to business information and deploy technologies to support our customers in business decisions.

- IT developed a new methodology and performed a proof-of-concept process improvement to allow for switching of key application databases (Electronic System Log & Labsheet) from the primary datacenter to Metropolitan's designated fail-over site to allow for software patching of database. IT Staff worked closely with WSO to mitigate impact to business operations to significantly minimize downtime for these critical applications. Going forward, the new process will provide a more seamless process while ensuring system reliability during system upgrades.
- Enhanced workforce productivity via automated notifications as part of the new off-boarding process. IT previously collaborated with multiple business groups to streamline the off-boarding process involving a significant number of manual tasks. This collaborative cross-organizational effort resulted in a cloud solution application to help and track employee separation notices, replacing the prior manual processes, while automating the notification process.

## REAL PROPERTY

### **GM STRATEGIC PRIORITY #1: Resiliency**

Objective #1 Provide right-of-way planning, valuation, and real property acquisition support services for the protection and reliability of existing infrastructure.

Staff acquired an entry permit from the Los Angeles County Flood Control for storage and a laydown area in support of the West Valley Feeder No. 1 De Soto Avenue valve structure upgrade. The upgrade will serve to increase the feeder's flow capacity.

Staff obtained an entry permit from the Irvine Management Company to conduct geotechnical boring for an urgent lining repair on a segment of the Allen McCulloch Pipeline in Irvine as part of the Pre-Stressed Concrete Cylinder Pipeline repair project. The geotechnical boring is to inspect and test soil conditions near and around the pipeline to determine the soil load capacity and groundwater levels in the construction area.

### **GM STRATEGIC PRIORITY #3: Innovation**

Objective #1 Develop a centralized, strategic and structured approach to the planning, valuation, acquisition, management, and disposition of Metropolitan's real property holdings.

Staff has published a video on Metropolitan's external website, Metropolitan's YouTube channel, and a real estate listing service, marketing 12 parcels totaling about 223 acres north of Diamond Valley Lake that were declared surplus in March 2020. This marketing video is an innovative way to offer a virtual tour of the property giving potential buyers a full view of the terrain, topography, and the surrounding community.

### **CORE BUSINESS: Real Property Acquisition, Management and Revenue Enhancement**

Objective #2 Provide valuation, land management, and real property disposition support services for the maximum return or use of Metropolitan-owned land and facilities.

A permanent road easement was granted to the City of Perris comprising 1.7 acres of land for road and utility improvements. The easement was necessitated by a commercial development project abutting the subject roads of Johnson Avenue, Sinclair Avenue, and Redlands Avenue.

An entry permit was issued for the City of Corona Fire Department to conduct swift water rescue training for three days at the Lake Mathews inlet channel. This specialized and intensive training, which prepares the fire department to respond to flood, hurricane, and river rescues, comprises various drills and water rescue scenarios.

Lease Amendment Number 10 was executed for the Western Science Center to continue its occupancy at Diamond Valley Lake (DVL) through June 30, 2021. The amendment entails an increase in annual rent from \$120,816 to \$124,440. The Western Science Center uses the site to operate a charter school, which is cosponsored by Hemet Unified School District.

A nighttime fishing tournament with 74 participants was held at DVL on July 25. Overall visitor attendance is up this month and is likely due to the area being an attractive outdoor place to visit because of the many hiking and biking trails and fishing opportunities at DVL during the current COVID-19 pandemic. The marina concessionaire has implemented social distancing practices in compliance with state and county guidelines.

## REAL PROPERTY *continued*



**Figure 1: Start of Nighttime Fishing Tournament at Diamond Valley Lake.**

Objective #3 Efficiently maintain and operate assets not related to the treatment and distribution of water.

Western Region Facility Management staff developed the space plan and managed the purchase and installation of new furniture for the new Orange County Service Center Building at the Diemer Water Treatment facility. Currently, WSO Conveyance & Distribution staff is working in multiple office trailers; the new office building will allow for greater collaboration by centralizing staff. In addition, the building is equipped with new shop and storage facilities. WSO will update the Diemer facility Site-Specific Covid-19 prevention plan to include this new workspace before occupancy within the next couple of months.



**Figures 2 & 3: New furniture installed at the Diemer water treatment facility.**

Objective #4 District Housing Maintenance and Management.

This month the team focused on decreasing the backlog of corrective work orders for desert housing. The backlog has been reduced significantly in the past month due to reassignment of personnel and adjusting work schedules. These efforts will allow the team to improve customer service response time for future work orders and the overall goal of providing safe and sanitary living conditions for staff assigned to the remote locations.

## SECURITY/CAO

### GM PRIORITY: Resiliency

#### Objective #1 Develop and Refine Security's Strategic Plan

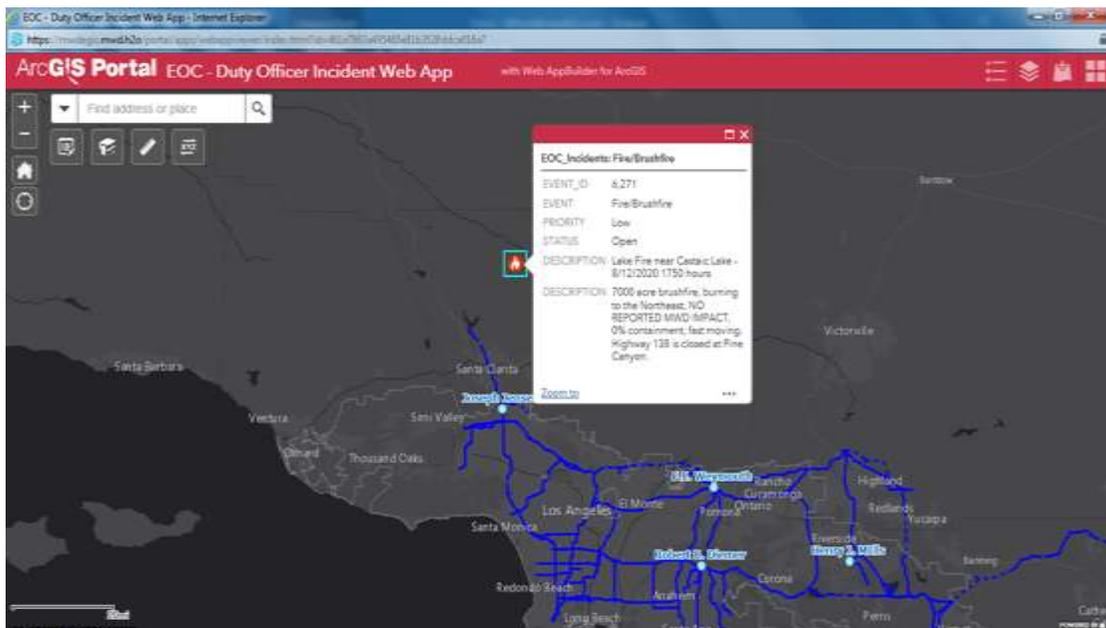
##### Open Source Intelligence

The Security Management Unit has established an independent and autonomous open source intelligence mechanism to enhance situational awareness of current and future potential threats to Metropolitan's critical infrastructure. The data, sourced from publicly available information, is collected, analyzed, and disseminated in a timely manner to internal audiences on a need-to-know basis. This service improves the Security Management Unit's resilience and strategic goal of mitigating potential elevated risk and increasing threat trends to Metropolitan's critical sites and operations rather than merely responding to them.

#### Objective #2 Improve Security and Emergency Response

##### Pager Duty and ArcGIS Emergency and Incident Mapping

The Security Management Unit recently joined Information Technology and Emergency Management in the PagerDuty on-call management system (a rapid emergency response notification and dissemination system). The system alerts and automates work amongst Metropolitan's on-call personnel to help them respond and resolve system outages quickly. The Security Management Unit also collaborated with Metropolitan's GIS team and Emergency Management Program Manager to develop a near-real-time graphic overlay designed to visually illustrate regional emergency incidents and events onto a map of Metropolitan's C&D system. Management and emergency responders can now assess facility threats, populate the map with additional information, and share map screens with outside responding member agencies and emergency response partners. Incident command and control for future emergency responses has been greatly enhanced.



ArcGIS map overlays on Metropolitan's system graphically depict emergency incident locations

### Objective #3 Improve Employee Readiness for All Hazards Emergencies

#### Vagrancy Awareness Training

The Security Management Unit designed a Vagrancy Awareness Training program for field employees and other personnel who may encounter vagrancy issues during their field duties. The purpose of the training is to better equip Metropolitan's employees with a general understanding of what vagrancy is, recommended actions, and general security principles when encountering trespassers/transients. The training also familiarizes participants with Personal Protection Equipment (PPE) and the Trespasser Taskforce Patrol that the Security Management Unit operates.

#### Personal Security Awareness Computer-Based Training

Although most of Metropolitan employees now telework, personal security awareness is still important in today's environment. The Security Management Unit, in collaboration with Metropolitan's Training Unit within Human Resources, recently converted its mandatory Personal Security Awareness program to an engaging, computer-based training. The training is now accessible to employees wherever they are and enables the triannual training renewal requirement to be scheduled and completed at the employee's convenience.

# WATER RESOURCE MANAGEMENT

## GM STRATEGIC PRIORITY #1: Resiliency

### Objective #5 Ensure reliable State Water Project (SWP).

Staff from DWR, LADWP, and Metropolitan's Water Resources, Engineering, and Operations groups participated in the Seismic Resilient Water Supply Task Force. The task force discussion topics included updates on Metropolitan's liquefaction study, LADWP efforts on system inerties with the SWP, and DWR's Castaic Lake and Pyramid Lake facility modernization activities. Metropolitan's emergency storage analysis and operational impacts of the Castaic/Pyramid projects were also reviewed.

### Objective #6 Ensure access to sufficient water supplies to operate a full Colorado River Aqueduct in times of drought.

Metropolitan and Bard Water District (Bard) successfully completed the first year of the Bard Land Management and Seasonal Fallowing Program (Program) on July 31. Participating farmers fallowed approximately 2,750 irrigable acres from April 1 to July 31, 2020. During this time, Metropolitan performed two inspection trips and verified the fallowing of all participating fields. By providing the annual incentive of \$452 per irrigable acre fallowed, Metropolitan increased its Colorado River water supplies by approximately 5,500 acre-feet.

## GM STRATEGIC PRIORITY #2: Sustainability

### Objective #1 Complete the 2020 Integrated Water Resource Plan.

Metropolitan staff continued to engage with member agencies and the board on the 2020 IRP. Meetings were held with Member Agency Managers on August 6 and August 21, and with the board Integrated Resources Plan Special Committee Meeting on August 17. Meeting topics were focused on qualitative-quantitative assessment of drivers that will be used in constructing scenarios, mock narrative scenarios, and on a white paper on the IRP's purpose.

### Objective #2 Complete the 2020 Urban Water Management Plan.

After the May 5, 2020, kickoff, the preparation of Metropolitan's 2020 Urban Water Management Plan (UWMP) has been in full swing. Metropolitan continues to provide input to DWR on the development of the UWMP Guidebook, coordinate with member agencies on the preparation of their individual plans, and collate input from various groups within Metropolitan. As part of satisfying coordination requirements of the CWC, Metropolitan is scheduled to provide regional planning data to its Member Agencies in November, in advance of the Final Draft that will be released in December 2020. Public Notification and Public Hearing are scheduled for February and April 2021, respectively. This will allow the Metropolitan Board to adopt the 2020 UWMP by May 2021 and meet the July 1, 2021 deadline for submission to DWR.

### Objective #4 Manage existing and develop new regional water management programs to maintain water supply reliability in the face of increasing water supply volatility.

Staff participated in negotiations with the Department of Water Resources, State Water Contractors, San Luis & Delta-Mendota Water Authority, and Yuba County Water Agency on a new price schedule for the surface water supplies related to the Yuba River Accord. The proposed price for the water ranges from \$64/AF in wet conditions to \$447/AF for consecutive dry and critical water years.

## WATER RESOURCE MANAGEMENT *continued*

Objective #5 Support development of Regional Recycled Water Program (RRWP).

Staff presented an overview of the Regional Recycled Water Program at the Building Industry Association (BIA) Southern California Water Conference on August 14.

Objective #8 Implement Regional Conservation Program.

Water Efficiency Team staff attended the 2020 Water Conservation Showcase conference online. Metropolitan staff participated in several sessions including “Plant Talk,” “Stormwater Bioretention Systems,” and “Water and Energy Nexus: Applications and Outcomes.” More information can be found here:

<https://www.waterconservationshowcase.com/>.

Water Efficiency Team staff, in partnership with External Affairs, participated in the filming of the two-hour National Geographic Channel documentary “Thinking About Water”. Staff discussed household water footprint and lifestyle changes that consumers can make to save water. The air date is not available yet.

### **GM STRATEGIC PRIORITY #3: Innovation**

Objective #2 Collaborate with member agencies, water agencies and associations, and provide leadership for policy development, advocacy, outreach and education.

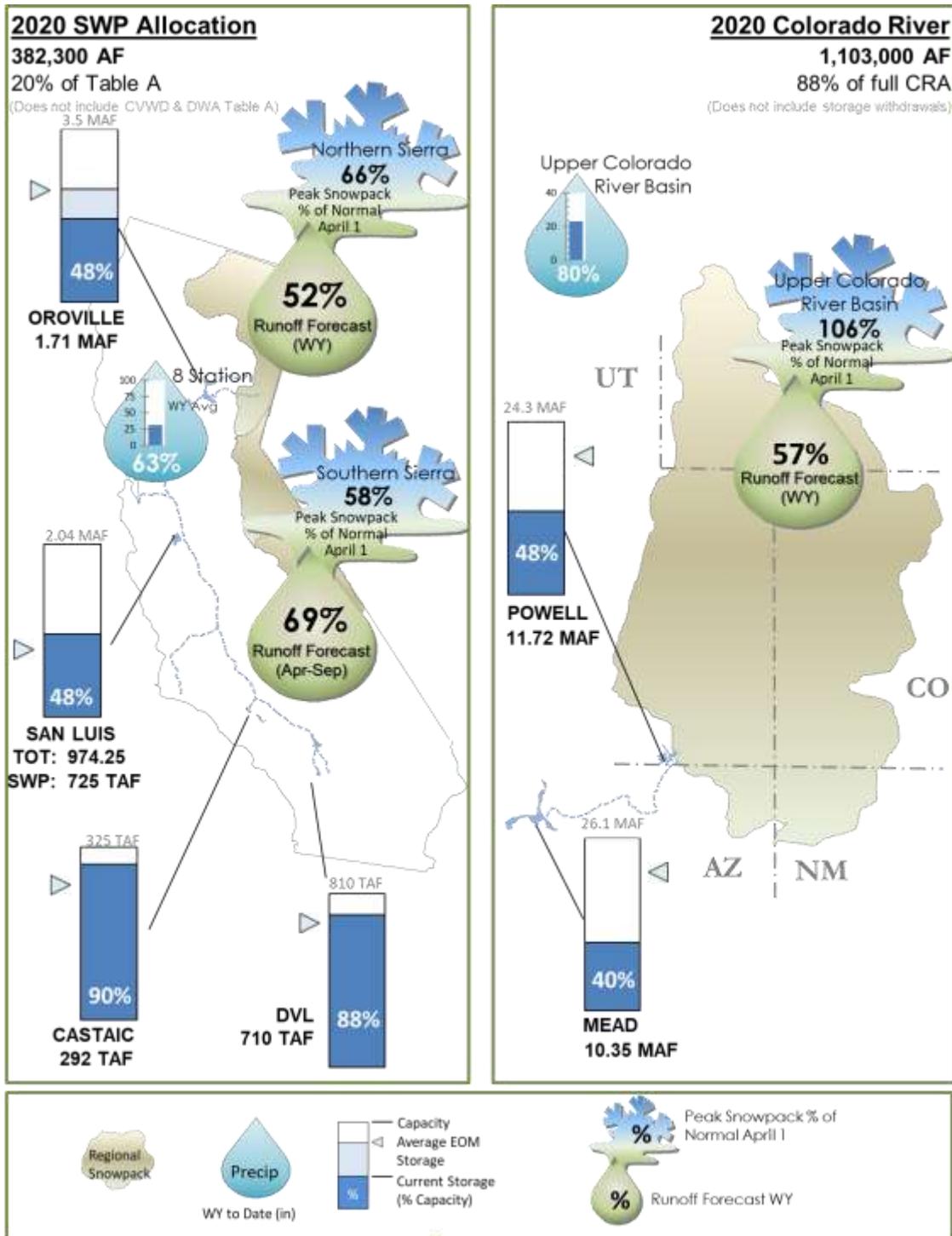
WRM staff provided a recycled water legislation and regulation update via an on-line meeting to approximately 95 members of the Los Angeles WateReuse Chapter. Staff highlighted regulations that may impact development of new recycled water programs.

WRM staff coordinated Metropolitan’s sponsorship of the WateReuse Association’s 35th Annual WateReuse Virtual Symposium. Staff will be able to participate in numerous technical presentations.

Objective #5 Position Metropolitan as a leader in Open Water Data.

WRM staff attended the Fifth Annual California Water Data Summit “Solutions for Water Resiliency” on August 20–21 and actively participated by moderating two conference panels.

# WATER RESOURCE MANAGEMENT *continued*



As of August 31, 2020

# WATER SYSTEM OPERATIONS

## GM STRATEGIC PRIORITY #1: Resiliency

### Objective #1 Provide Reliable Water Deliveries.

Metropolitan delivered approximately 140,700 acre-feet (AF) of water to member agencies in August. August deliveries averaged approximately 4,540 AF per day, which was 150 AF per day higher than July deliveries. With the extreme heat event, Metropolitan's daily water deliveries peaked at 5,200 AF per day on August 19, which was the highest daily delivery this year. Treated water deliveries for August totaled 82,300 AF, or 58 percent of total deliveries for the month. This was an increase of about 3,000 AF from July treated water deliveries. The Colorado River Aqueduct was at a seven-pump flow, or 3,150 AF per day, for the majority of August, while dropping to a three-pump flow for over a week during the extreme heat event. A total of 82,000 AF was pumped on the Colorado River Aqueduct for the month. State Water Project imports averaged 1,666 AF per day, totaling 51,650 AF for the month. The target SWP blends remained at zero percent for the Weymouth, Diemer, and Skinner plants.

Metropolitan's operational strategies were temporarily altered for a period this month to respond to the power emergency across the region resulting from extreme heat conditions. In addition to the CRA pump reductions noted above, water was withdrawn from Diamond Valley Lake to generate power, and a small amount of SWP supply was moved through the Inland Feeder to DVL to help the Department of Water Resources generate power at its Devil Canyon facility during peak periods. Overall, Metropolitan's integrated and flexible water system, as well as current record storage levels, provide many options to ensure reliable water deliveries while effectively responding to the statewide power emergency.

### Objective #2 Ensure Water Quality Compliance, Worker Safety, and Environmental Protection.

Metropolitan complied with all water quality regulations and primary drinking water standards during July 2020.

On August 25, staff met with the State Water Resources Control Board's Division of Drinking Water (DDW) for the regular quarterly meeting. Topics of discussion included the following: State drinking water regulatory issues and guidance, including an update on the Stage 2 Disinfectants and Disinfection Byproduct Rule; the impact of COVID-19 on the water sector; an update on the 2020 Colorado River Watershed Sanitary Survey; review of flow path diagrams for Metropolitan's water treatment plants and sources; and monitoring of odors in drinking water.

As part of the Weymouth plant's COVID-19 Prevention Plan, staff have been assigned to work in micro-teams. These teams have been assigned to specific reporting locations around the plant to promote physical distancing. The Weymouth plant expanded from three to eleven reporting locations. Staff relocated office equipment, desks, and storage cabinets from existing work locations to their new reporting locations. Computers, phones, and video-conferencing equipment were also installed to ensure continuous communication and operations among teams. The micro-team concept minimizes interaction among staff, further reducing the possibility of exposure to COVID-19.

## WATER SYSTEM OPERATIONS *continued*



Staff transporting office equipment to a new reporting location at the Weymouth plant



New micro-team reporting location at the Weymouth plant

Staff at the Mills plant recently participated in an all-hands safety meeting via Zoom. The plant's COVID-19 task force shared information on recent improvements such as installation of foot door pulls to eliminate hand touching on high traffic doors, implementation of new cleaning stations, and addition of disinfection check sheets for all high traffic areas to ensure that cleaning is completed at specific intervals. The task force was created to collaborate on ideas to prevent the occurrence and spread of COVID-19 in the workplace.

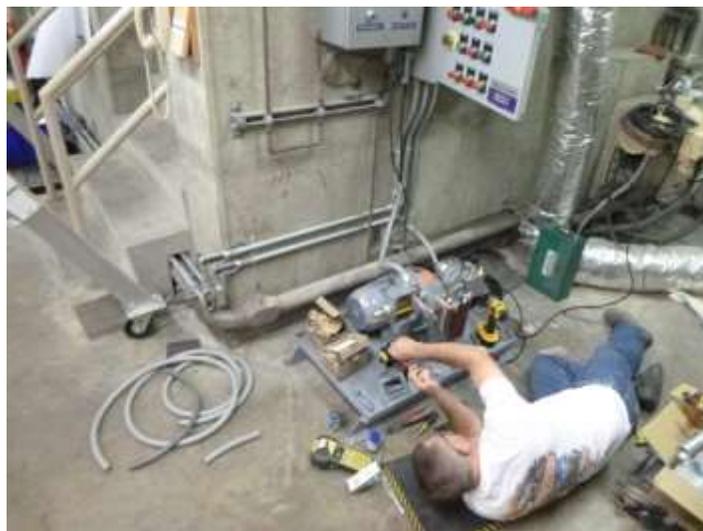
## WATER SYSTEM OPERATIONS *continued*



**A disinfection station at the Mills plant**

### Objective #3 Actively Engage in Capital Project Planning and Execution.

Staff continued work on the Red Mountain Hydroelectric Plant Rehabilitation capital project and began assembly of the turbine generator and installation of the new thrust bearing high-lift system. Once installed, the high-lift system will automatically send high-pressure oil to the thrust bearing to ensure proper lubrication. This modification will eliminate the need for staff to manually lubricate the thrust bearing, providing a more efficient and effective startup process. The work completed this month included coating of the turbine head cover, actuator ring, and wicket gate caps by the La Verne Shops. The plant's refurbishment is scheduled to be completed by November 2020.



**Staff installing the new high-lift oil pump and panel at Red Mountain HEP**

## WATER SYSTEM OPERATIONS *continued*



Staff lowering refurbished turbine assembly through the generator housing at Red Mountain HEP



Staff installing refurbished turbine assembly at Red Mountain HEP

## WATER SYSTEM OPERATIONS *continued*



The La Verne Shops refurbished actuator ring (left) and wicket gate caps (right) for Red Mountain HEP

The diesel above-ground storage tank (AST) replacement and upgrade capital project is underway at Lake Mathews. Staff is replacing an old 10,000-gallon tank with a state-of-the-art 6,000-gallon tank that will meet all regulatory requirements and increase the reliability and safety of the fueling station.



Staff began construction of the containment area for the diesel AST at Lake Mathews

### Objective #4 Optimize Maintenance.

Staff repaired the rheostat for one of the pump units at the Eagle Mountain pumping plant. The rheostat is an electrical instrument used to control the current flowing in a circuit and helps to increase the pump motor electrical efficiency. The Eagle Mountain pumping plant has nine pump motors, each rated at 12,500 horsepower, and provides a 438-foot lift along the Colorado River Aqueduct in the desert region.

## WATER SYSTEM OPERATIONS *continued*



**Staff repairing a pump rheostat cabinet at Eagle Mountain pumping plant**

Staff repaired and calibrated a chlorine analyzer for the domestic water system at Hinds pumping plant. The chlorine analyzer monitors chlorine levels, ensuring proper disinfection of the domestic water system. The domestic water system supplies the pumping plant as well as the residences at the facility.



**Staff repairing and calibrating a chlorine analyzer at Hinds pumping plant**

## WATER SYSTEM OPERATIONS *continued*

Staff began installation of power, water, and sewer connections for two new temporary trailers at the Eagle Mountain facility. The trailers are scheduled to be delivered in September and will be used to temporarily house employees that provide emergency response for the Eagle Mountain pumping plant.



**Staff trenching for utilities at Eagle Mountain pumping plant**

Staff performed preventative maintenance on the fire protection system at Eagle Mountain pumping plant. The two-person mechanical maintenance team is responsible for the preventative and corrective maintenance of the nine main pumping units and associated auxiliary equipment at the pumping plant.



**Staff performing maintenance on a fire protection pump at Eagle Mountain pumping plant**

## WATER SYSTEM OPERATIONS *continued*

Upon routine inspection, staff found that the Temescal Tower throttling gate on the Lower Feeder was not functioning correctly. The operation of this gate is required to operate the Temescal Hydroelectric Plant. The gate, frame, and actuator were removed and transported to the La Verne Shops for refurbishment. The actuator was rebuilt, and the frame and gate leaf were weld-repaired, machined, and coated. Staff successfully installed the refurbished gate and related components during a scheduled shutdown and returned Temescal HEP to service.



Temescal Tower actuator showing (left) excessive heat, (middle) metal shavings in grease, and (right) worn-out ring gear



Temescal gate leaf (left) before; and (right) after repairs and coating by the La Verne Shops



Staff machining bronze seals onto Temescal Tower frame (left); and (right) newly machined bronze seals before installation

## WATER SYSTEM OPERATIONS *continued*



Staff coating frame at the La Verne Shops and installing frame, gate, and actuator for Temescal Tower

This month, staff performed high-voltage electrical maintenance of transformers, disconnect switches, cables, and circuit breakers at the Skinner and Mills plants. This equipment transforms and distributes power to water treatment equipment. Routine maintenance revealed deteriorating cables, which staff proactively replaced to ensure reliability of the power system and water treatment process.

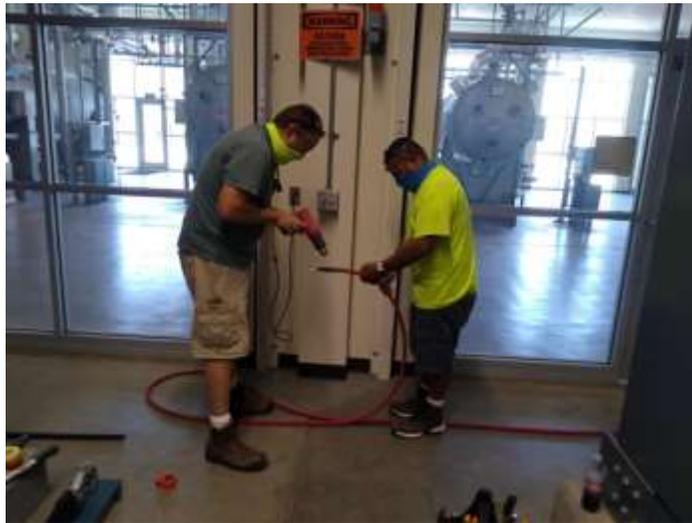


Staff performing transformer testing at the Skinner plant



Staff performing transformer maintenance at the Mills plant

## WATER SYSTEM OPERATIONS *continued*



**Staff terminating high-voltage cables at the Mills plant**

Staff continued modifications to two microwave communication sites at Iron Mountain pumping plant. This is part of an overall project to upgrade five communication sites. The project scope includes relocation of the emergency backup generators to an outdoor location to comply with regulatory requirements and increasing the fuel storage capacity to extend generator run time.



**Staff installing electrical conduit for west communication site at Iron Mountain pumping plant**



**Staff completed site pad for fuel tank replacement at east communication site at Iron Mountain pumping plant**

## WATER SYSTEM OPERATIONS *continued*

Staff completed installation of a 2,000-lb. trolley crane inside the Walnut Pressure Control Structure on the Orange County Feeder. The crane will enhance routine maintenance required within the structure. The project scope includes relocating electrical conduits, installing temporary work platforms, and installing the new overhead trolley crane.



**Staff hoisting the trolley crane into place at Walnut PCS**

Staff installed new electrical conduit and equipment in the WB-6A and 6B service connection for West Basin on the Palos Verdes Feeder. Due to water intrusion into the structure, the exiting conduit was compromised, resulting in damage to electrical equipment. Staff installed corrosion-resistant PVC coated conduit and pulled new wires through the conduit to connect to the existing equipment. Staff also installed new LED lighting in the structure, improving safety and energy efficiency.



**Staff installing new electrical equipment in the WB-6A and 6B service connection**

## WATER SYSTEM OPERATIONS *continued*



Staff installing new wires for repairs in the WB-6A and 6B service connection



WB-6A and 6B metering structure after installation of new conduit and light fixtures

### Objective #5 Manage the Power System.

The Western electric grid was stressed with high temperatures throughout the region that began on August 14 and continued intermittently through the end of the month. California electric demand was particularly affected with high temperatures and humidity, which also impacted solar generation. Stage 3 emergencies were declared by the California Independent System Operator (CAISO) on several days during this period, and demand reductions and rolling blackouts were requested to balance available supply with the high demands. Metropolitan responded by reducing CRA pumping from seven-pump flow to four-pump flow, and ultimately to three-pump flow, in advance of requests to reduce demand.

## WATER SYSTEM OPERATIONS *continued*

CRA pumping operations were coordinated across operational units to manage CRA flows using storage at Gene Wash Reservoir and Copper Basin to minimize the number of pump-starts and stops, thereby minimizing wear and tear on the CRA pumps and transformers while maintaining continuity of water delivery. CRA operation was returned to normal, when conditions on the electric grid allowed, to prevent impacts to water deliveries and storage goals.

Also, during this period, Metropolitan coordinated with the Department of Water Resources to place the Inland Feeder in service during the peak demand period, allowing DWR to increase output at its Devil Canyon power plant by 80 megawatts. Three DVL generators were also placed online, contributing an additional 9 MW of generation to the grid during this critical time. In addition, Weymouth, Diemer, and Skinner plants switched from ozone to chlorine disinfection to reduce electrical load. All of these coordinated actions allowed Metropolitan to reduce about 230 MW of load from the electrical grid, enough energy to power over 170,000 homes, and helped the region to manage the statewide power emergency.



Staff starting a CRA pump at Intake pumping plant following the power emergency

## WATER SYSTEM OPERATIONS *continued*



**Staff verifying generator operating parameters at DVL during power emergency**

On July 16, Metropolitan participated in a U.S. Bureau of Reclamation meeting to discuss the Federal Fiscal Year (FFY) 2021 Parker Dam budget. The FFY 2021 budget was set at \$7.9 million with Metropolitan's 50 percent portion at \$3.95 million. Metropolitan's net expenditure is \$3.3 million while accounting for a carry-over credit from FFY 2019 in the amount of \$650,000. The budgeted amount for FFY 2020 was \$3.7 million.

### Objective #7 Optimize Water Treatment and Distribution.

The State Project Water (SPW) target blend entering the Weymouth and Diemer plants was zero percent in August. The SPW target entering Lake Skinner was also zero percent this month.

Flow-weighted running annual averages for total dissolved solids from July 2019 through June 2020 for Metropolitan's treatment plants that can receive a blend of SPW and CRA water were 414, 422, and 353 mg/L for the Weymouth, Diemer, and Skinner plants, respectively.

On August 17, to reduce electrical demand, disinfection at the blend plants (Weymouth, Diemer and Skinner) was switched from ozone to chlorine disinfection for four days during the peak of the heat event as electrical utilities were calling for voluntary load reductions to manage grid reliability. This action reduced electrical demand at the plants by a net total of about 1 MW. This had minimal impact because of the zero percent SWP blend targets.

Staff replaced a failed flow meter on a coagulant chemical feed system at the Weymouth plant. The coagulant chemical (aluminum sulfate or alum) is critical to the water treatment process as it initiates the process of removing fine particles and sediment in the water. The plant is equipped with redundant feed systems to ensure reliability through continuous injection of alum. Staff planned the work wearing appropriate personal protective equipment while ensuring no disruptions to the treatment process with all chemicals properly collected and contained.

## WATER SYSTEM OPERATIONS *continued*



Staff replacing a chemical flow meter at the Weymouth plant

Staff repaired a leak in the cooling water system for the ozone generation process at the Weymouth plant. The repair was challenging as the system utilizes a corrosion inhibitor, which is considered a hazardous chemical. The leak also occurred approximately 17 feet above the ground. Staff donned the appropriate PPE, which included hazmat suits, respirators, and fall protection, to perform the repair. The work was completed without injury or disruption to the treatment process.



Staff repairing a cooling water system leak at the Weymouth plant

## WATER SYSTEM OPERATIONS *continued*

Staff installed monitors in the chlorine containment facility at the Skinner plant. The monitors provide a visual alarm status for maintenance staff. Alarms are installed in several different rooms throughout the facility; a common audible alarm is sounded when a chlorine release is detected. Whenever working on the chlorine system process equipment, staff wear PPE and must be aware of what is happening throughout the facility. With these new monitors, staff have an improved visual indication to determine alarm locations and quickly respond.



**Staff installing large screen monitor for chlorine alarm status at the Skinner plant**

Staff coordinated the repair of a leaking liquid oxygen (LOX) tank at the Skinner plant. LOX is used at the treatment plants to generate ozone. The tank had been in service for over 12 years and began to leak. LOX is very cold with a freezing point at -297.3 degrees Fahrenheit, causing frost to build up around and below the leak. To make the repair, the tank had to be emptied of LOX by using it through the normal ozone generation process. Once the tank reached the desired low level, a specialized vendor technician came onsite to safely blow down the remaining product in the tank. After the leak was repaired, the tank was refilled and placed back in service.



**Frost from LOX tank leak at the Skinner plant**

## WATER SYSTEM OPERATIONS *continued*



**LOX tank safely emptied to make repairs at the Skinner plant**

### Objective #8 Manage Water Reserves.

State Water Project imports into the service area in August accounted for about 37 percent of Metropolitan's deliveries. Storage at Diamond Valley Lake was at 715,000 AF, or 88 percent full. Water reserves continued to be managed according to Water Surplus and Drought Management principles, the Annual Operating Plan, operational objectives, and the current 20 percent 2020 SWP allocation. No significant withdrawals from storage occurred this month because the seven-pump flow on the Colorado River Aqueduct is sufficient to meet demands along with the minimal use of SWP supplies. Storage goals were also considered in making temporary system adjustments in response to the statewide power emergency. Yuba Transfer supplies of about 7,000 AF to Metropolitan have also been acquired to help preserve storage reserves and prepare for the potential of a multi-year drought. Metropolitan's record high storage levels at the end of 2019 provide significant water supply reliability in 2020, under the low SWP allocation of 20 percent.

### Objective #10 Manage Vacancies.

WSO filled seven vacant positions in July 2020.

### Objective #11 Prepare Employees for New Opportunities.

The Water System Operations Apprenticeship Programs develop and train personnel to become qualified mechanics and electricians responsible for maintaining Metropolitan's water treatment and distribution systems. This month, apprentices began their Fall 2020 semester. Staff partnered with Human Resources to deliver an online module on Testing Anxiety to the apprentices scheduled to graduate in December 2020. The training provided techniques for reducing stress and anxiety in preparation for the final Demonstrated Proficiency Assessment required to complete the program.

Staff attended the first virtual National Environmental Monitoring Conference from August 3–21. The theme of this year's conference was "The Environment in 2020: Past, Present and Future," and it covered analytical chemistry and microbiology methods, monitoring and analysis for poly- and perfluoralkyl substances (PFAS), laboratory operations and management (including TNI accreditation), innovative new technologies, and much more in over 175 presentations and posters that were organized into virtual technical sessions for a few hours each day. Participation in

## WATER SYSTEM OPERATIONS *continued*

training events helps Metropolitan staff stay informed on new technology and latest developments in regulations and water quality monitoring and analysis.

### Objective #13 Ensure Accurate Billing Infrastructure.

Staff restored power to the Orange County and Second Lower Feeder interconnection in the city of Anaheim. Power to the structure was lost due to damage from a vehicle accident. Without power, the service connection and associated monitoring and control equipment cannot operate. While conducting repairs, staff used a 480V generator to provide temporary power and maintain operability of the service connection. As a result, the out-of-service time was significantly minimized, ensuring reliability of Metropolitan's system.



**Staff restoring power to the Orange County and Second Lower Feeder interconnection in the city of Anaheim**

### GM STRATEGIC PRIORITY #2: Sustainability

#### Objective #1 Prepare for Future Legislation and Regulation.

On July 7, the State Water Resources Control Board (SWRCB) released a second revised draft to its Toxicity Provisions and Proposed Establishment of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Toxicity Provisions). The Toxicity Provisions mandate that all NPDES permit holders evaluate the toxicity of their effluent via standardized testing. While the most recent draft includes a general exemption for water purveyors from the Toxicity Provisions, staff are working with Association of California Water Agencies (ACWA) and California Municipal Utilities Association (CMUA) to refine the language to ensure that the exemption is broad enough to cover all of Metropolitan's routine maintenance and operations activities. Comments were submitted by the August 24 deadline.

On July 22, the California Air Resources Board (CARB) released proposed amendments to its Sulfur Hexafluoride (SF6) regulation. Beginning in 2025, CARB's SF6 regulation proposes a tiered phase out of the sale and installation of "new" SF6 containing gas-insulated equipment (GIE) by voltage capacity (i.e., < 38 kV in 2025 to > 245 kV in 2033), prohibits conversion of existing devices to SF6, and sets annual emissions limits. Metropolitan has 19 pieces of equipment subject to CARB's SF6 regulation, with plans to acquire additional used GIE from Southern California Edison as part of a capital project. Metropolitan submitted two comment letters in 2017 and 2019 on the previous SF6 discussion drafts requesting clarification of definitions, exemptions for small GIE owners, and an establishment of new baseline annual

## WATER SYSTEM OPERATIONS *continued*

emissions limit to begin in 2025. Staff are working with CMUA and the Joint Utilities Group (JUG) on comments. Comments are due September 22, 2020, with the potential adoption in late 2020.

On July 23, President Trump signed S. 4148, which provides a three-year extension for the Department of Homeland Security's Chemical Facility Anti-Terrorism Standards (CFATS) program. The bill makes no changes to the water industry's exemption from CFATS. Staff will continue to monitor CFATS to ensure that water agencies are excluded from the program.

On August 5, staff commented on CARB's updated draft regulatory language on the Prohibition on Use of Certain Hydrofluorocarbons (HFC) in Stationary Refrigeration, Chillers, Aerosols-Propellants, Stationary Air-conditioning and Other End Uses. Beginning January 1, 2023, the proposed draft would prohibit use of high global warming potential (GWP) refrigerants (i.e., GWP > 750) in both new stationary refrigeration and air conditioning equipment. Staff asked CARB to modify the definition of "responsible party" to include a delegate, designee, or any other person who performs similar policy or decision-making functions for the agency. The HFC regulation is scheduled to be adopted later this year.

On August 6, staff submitted comments on the SWRCB's new two-phased approach for lowering the Detection Limit for Purposes of Reporting (DLR) for perchlorate. In March 2020, SWRCB proposed lowering the DLR from 0.004 mg/L to 0.002 mg/L. Metropolitan supported this change. However, the SWRCB is now proposing a second phase, whereby, beginning January 1, 2024, the perchlorate DLR would be lowered even further to 0.001 mg/L—the current public health goal for perchlorate. Metropolitan recommended that the SWRCB move forward with its initial proposal of lowering the DLR to 0.002 mg/L, and then re-visit whether to lower the DLR to 0.001 mg/L in a few years after assessing occurrence data and statewide laboratory capacity for the lower DLR. Staff will continue to monitor and engage on this issue as necessary.

### Objective #3 Support the Regional Recycled Water Program

During the month of August, staff transitioned from pre-testing to baseline testing at the Regional Recycled Water Advanced Purification Center demonstration facility. Staff performed minor maintenance work, replacing a failed level indicator on one membrane bioreactor (MBR) and upgraded two MBR microbiological sample collection panels to stainless steel to ensure more robust performance. Staff also supported the first major monthly sampling effort with outside laboratories to evaluate the efficacy of the overall treatment process to achieve final product water quality that would meet regulatory requirements for groundwater recharge. Staff continued to provide onsite assistance to support operations, monitoring, and corrective maintenance at the demonstration facility, and worked with the Sanitation Districts of Los Angeles County (Sanitation Districts) and project consultants to monitor overall demonstration facility performance.

## WATER SYSTEM OPERATIONS *continued*



Staff replacing a failed level indicator on the MBR tank at the demonstration facility



Staff collecting samples from the reverse osmosis system at the demonstration facility

## WATER SYSTEM OPERATIONS *continued*



Staff performing routine monitoring in the onsite laboratory at the demonstration facility



Staff fabricated two new MBR microbiological sample collection panels at the demonstration facility

## WATER SYSTEM OPERATIONS *continued*

### Objective #5 Manage Power Resources and Energy Use in a Sustainable Manner.

Metropolitan's hydroelectric plants generated an average of 18.4 megawatts, or over 13,710 megawatt-hours and more than \$725,800 in revenue, for the month of July 2020. Metropolitan's solar facilities, totaling 5.4 megawatts of capacity, generated approximately 1,220 megawatt-hours in July 2020.

Metropolitan received confirmation from Southern California Edison (SCE) and the California Public Utilities Commission (CPUC) that \$7.75 million in incentives have been reserved for energy storage projects at the Jensen and Skinner plants and OC-88 pumping facility under the Self-Generation Incentive Program (SGIP). The CPUC's SGIP program provides incentives to support existing, new, and emerging distributed energy resources. The energy storage projects at the Jensen and Skinner plants and OC-88 pumping facility are identified in Metropolitan's Energy Sustainability Plan that is awaiting Board feedback and will be finalized this fall.

### Objective #6 Protect Source Water Quality.

On August 8, staff participated in the quarterly stakeholder meeting regarding perchlorate cleanup at the former Tronox site in Henderson, Nevada. The Nevada Environmental Response Trust discussed a revision to the remedial investigation plan. Per Nevada Division of Environmental Protection's direction, the Trust will complete a more comprehensive evaluation of constituents of potential concern downgradient of the contamination source area. The additional investigation work will not impede the project progress and the feasibility study reports will be completed in 2024. In addition to monitoring the long-term remedial plan development, staff continues to monitor the distribution of the Trust's funds for site cleanup, which currently are at about \$1.2 billion.

## **GM STRATEGIC PRIORITY #3: Innovation**

### Objective #1 Develop New Solutions to Enhance Operational and Business Processes.

Earlier this year, staff submitted an article to AWWA's quarterly SOURCE magazine highlighting efforts in implementing condition-based maintenance (CBM). The article was published this month and described Metropolitan's key lessons learned from implementing CBM, while recognizing Metropolitan staff efforts. CBM lessons learned and benefits include improved communication and field engagement, use of technology to track and detect equipment problems, and improve future engineering designs. Condition-based maintenance is an enhanced approach to managing equipment reliability that focuses on measuring or diagnosing equipment problems using electronic diagnostic tools. These tools allow maintenance staff and engineers to anticipate equipment problems in advance of them becoming an operational issue. Metropolitan continues to look for innovative solutions for better insight into managing its infrastructure.

## Lessons Learned from the Condition-Based Maintenance Program

### Critical Insights shared by Metropolitan's Water System Operations Group

By Sepideh Shirkhani and Sergio Escalante

**I**N 2015, THE METROPOLITAN WATER DISTRICT OF SOUTHERN California began implementing a condition-based maintenance program to more effectively identify and address the maintenance needs of its vast water delivery system that spans Southern California. Using lubrication and vibration technologies to analyze pump assemblies, Metropolitan is generating data to make informed, evidence-based maintenance decisions that are critical to its mission to safely and reliably deliver water to its service area with 19 million residents.

Over the last five years, Metropolitan has determined key factors in the program's success. This article describes some of the lessons learned, including the importance of proper communication, a centralized computer maintenance management system, reward and recognition of employees, and equipment retrofits for data collection. The value of cooperation between operators, design teams, and stakeholders is also addressed.



Metropolitan Water District Maintenance Engineering Team. (L to R): David Sadamoto, Sepi Shirkhani, Mike Pylynski, Vian Khieu. Not pictured: Ron Taraporewala (Team Manager/Photographer).

#### Background

Metropolitan has more than 135,000 pieces of equipment in a water delivery system that stretches across 5,200 square miles and six Southern California counties. Many of these assets are well into their eighth decade of service. Along with aging equipment, Metropolitan faces other challenges, such as a maturing and changing work force, heightened operational standards, and increasing system demands from customers. Metropolitan has an obligation to ensure that the system continues to operate as reliably in the future as it has in the past. Additionally, Metropolitan cannot simply be reliable and meet regulatory requirements, it must also provide value. To meet these challenges, Metropolitan's Water System Operations (WSO) group has a robust maintenance program that proactively monitors, inspects and maintains equipment and facilities.

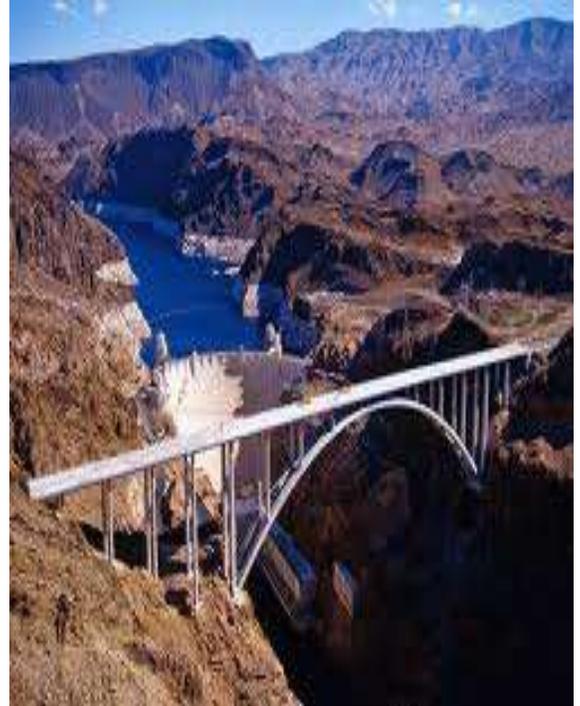
Operations staff article on Metropolitan's CBM Program published in AWWA's SOURCE magazine

# WATER SYSTEM OPERATIONS *continued*

Monthly Update as of:

8/31/2020

<u>Reservoir</u>	<u>Current Storage</u>	<u>Percent of Capacity</u>
<b><i>Colorado River Basin</i></b>		
Lake Powell	11,723,000	48%
Lake Mead	10,349,000	40%
<b><i>DWR</i></b>		
Lake Oroville	1,705,516	48%
Shasta Lake	2,351,196	52%
San Luis Total	974,253	48%
San Luis CDWR	725,250	68%
Castaic Lake	292,153	90%
Silverwood Lake	69,117	92%
Lake Perris	124,169	94%
<b><i>MWD</i></b>		
DVL	710,051	88%
Lake Mathews	143,269	79%
Lake Skinner	38,972	89%



Hoover Dam



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Metropolitan’s Mission 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.

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