



The Metropolitan Water District of Southern California General Manager’s Monthly Activity Report for November 2019

This report identifies the actions and activities taking place during the month that support the objectives of the General Manager’s Fiscal Year 2019/20 Strategic Priorities and the Core Business of the GM’s work groups.

NOVEMBER 30, 2019

WATER RESOURCE MANAGEMENT

GM STRATEGIC PRIORITY: Ensure Imported Supply Reliability

Southern California’s foundational water supply remains the Colorado River and the State Water Project and their ongoing reliability is critical for the region.

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

Colorado River Basin Salinity Control Program—Metropolitan attended a meeting of the Colorado River Basin Salinity Control Forum in Phoenix, Arizona. The Forum discussed the Paradox Valley Unit, a deep-aquifer, brine-injection well used to eliminate approximately 100,000 tons/year of salt from the river. The well is currently inactive due to ongoing seismic activity believed to be linked to the brine injection. In early December, the U.S. Bureau of Reclamation plans to release environmental documents describing alternatives to replace the well. *(see photo below)*



Paradox Valley in western Colorado. Photo is looking northwest along the trend of the valley

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ADMINISTRATIVE SERVICES

CORE BUSINESS: Miscellaneous

The Document Services Unit completed its Donuts with Document Services outreach effort at Headquarters and Sacramento offices. The open house-style outreach effort introduced staff to the valuable services provided by the unit, which include technical writing assistance, board letter support, operating policies, records management and retention, historical archives, reprographics, and EForms development. Donuts with Document Services will visit the field facilities in 2020.

Investment Recovery handles the disposition of surplus equipment and materials and scrap, i.e., personal property that has reached its end-of-life cycle. Throughout the year, Investment Recovery gathers surplus equipment from across Metropolitan and determines whether it should be redeployed within the organization or resold to either the public or recycling vendors (Scrap or E-Waste). During FY2019/20 Quarter 1, Investment Recovery generated \$73,765 in revenue on behalf of Metropolitan. *(see photos below)*



Investment Recovery yard inventory up for auction.

Investment Recovery Warehouse Inventory



BAY-DELTA INITIATIVES

GM STRATEGIC PRIORITY: Ensure Imported Supply Reliability

Southern California's foundational water supply remains the Colorado River and the State Water Project and their ongoing reliability is critical for the region. The emphasis for the State Water Project will be on working with the Newsom Administration to make the necessary revisions to the process to accommodate a single-tunnel approach with minimal loss of time. On the Colorado River, the emphasis over the next year will be on implementing the completed Drought Contingency Plan providing stability on the Colorado River while protecting Metropolitan's supplies and access to storage in Lake Mead.

Objective: Collaborate with the state and other state and federal water agencies in pursuing a new environmental review and planning process for the new Delta Conveyance Project.

The California Department of Water Resources (DWR) is continuing to work on the environmental planning preparatory work for Delta conveyance. DWR anticipates that the formal environmental review process will begin in December 2019 with the release of the Notice of Preparation under the California Environmental Quality Act (CEQA). DWR presented a proposed schedule for the Delta conveyance environmental review and permitting process to the Delta Conveyance Design and Construction Authority (DCA) Stakeholder Engagement Committee in November. The proposed three-year schedule includes the CEQA process, federal and state endangered species permits, water rights process, Delta Plan consistency, and other environmental permits.

Joint Powers Authorities

The DCA Stakeholder Engagement Committee held its first meeting on November 13. The purpose of the Stakeholder Engagement Committee is to provide a forum for Delta stakeholders to provide input and feedback on technical and engineering issues related to the DCA's current activities. This first meeting focused on the purpose of the committee; the roles and responsibilities of the DCA, DWR, and the Public Water Agencies; and meeting procedures. The Stakeholder Engagement Committee is scheduled to meet approximately twice per month through May 2020. The next Stakeholder Engagement Committee meeting is December 11, 2019.

The DCA Board held a meeting on November 21, where they approved contracts for office telephone and software equipment, received updates on the Stakeholder Engagement Committee and Delta Conveyance planning, and reviewed the 2018-2019 DCA Audit.

Objective: Provide leadership on scientific studies that further opportunities to sustain and support native species and habitat.

The State Water Contractors organized and hosted a Longfin Smelt Science Symposium on November 7. Staff participated in planning the symposium and provided presentations. The symposium was well received and well attended by representatives of state and federal agencies and university and consulting researchers.

BAY-DELTA INITIATIVES

CORE BUSINESS: Bay-Delta Solutions

Develop and pursue near- and long-term solutions that will ensure improved water quality and water supply reliability. Efforts include providing leadership for proposed Delta improvements, participating in on-going federal and state Bay-Delta regulatory processes, effectively managing studies and research activities that promote collaborative science, identifying opportunities for Delta Islands land management, and monitoring Delta levees performance to ensure long-term levees integrity.

Objective: NEAR-TERM DELTA ACTIONS—Develop and implement near-term measures, compatible with long-term Delta solutions to support regulatory processes that improve water quality and water supply reliability. Near-term actions include important efforts such as Regulatory, Planning, and Legislative Support; Science Development, and Emergency Preparedness Planning and Implementation.
Science Development

Staff participated in several state agency science coordination meetings in November. Staff attended the Interagency Ecological Program (IEP) stakeholder meeting on November 13 and provided input on the development of an IEP Status and Trends report and the IEP Long-Term Monitoring review. Staff also participated in the first Delta Science Program meeting on developing a Delta Science Tracker. Staff participated in an IEP Predation Project Work Team meeting to develop a conceptual model for predation interactions between predators and prey. This model will be used to help define and test appropriate hypotheses to better understand the effects of predation on juvenile salmonids and other prey species.

Staff continued participating in the Collaborative Science and Adaptive Management Program, including participation on the Collaborative Adaptive Management Team (CAMT). At the November 19 CAMT meeting, the discussion focused on Delta smelt and salmon collaborative science activities.

Objective: NEAR-TERM DELTA ACTIONS
Emergency Preparedness Planning and Implementation

Delta Flood Emergency Management Plan

The November update of the DWR/U.S. Army Corps of Engineers (USACE) Delta Emergency Operations Integration Plan (Plan) has been completed, reflecting personnel and resources integration and alignment from DWR and USACE during Delta flood fighting emergencies.

CHIEF FINANCIAL OFFICER

CORE PRIORITY: Business Continuity

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: Manage the Business Continuity Management Program in accordance with Operating Policy A-06.

An Information Technology Disaster Recovery test was conducted with select business users across Metropolitan for backup critical applications. The purpose of this test was to simulate an outage of production systems and have business users validate the performance and functionality of backup applications located at Lake Mathews that support critical business processes. During this test, the following applications tested successfully:

- ✓ Active Directory
- ✓ Board Document Management System (BDMS)
- ✓ Electronic Document Mgmt System (EDMS)
- ✓ EJ Ward
- ✓ Electronic Forms (eforms)
- ✓ Electronic System Log (ESL)
- ✓ Energy Management System (EMS)
- ✓ IntraMet
- ✓ MyWarehouse
- ✓ P-Card Web Solutions

Minor issues arose when testing Bentley, PeopleSoft (MyHR), and the Incident Reporting System. Information Technology has addressed these issues and a retest will be scheduled with business users to validate.

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: Manage risk to protect Metropolitan's assets against exposure to loss.

The Risk Management Unit completed 35 incident reports communicating instances of Metropolitan property damage, liability, workplace injuries, regulatory visits, and spills.

Risk Management completed 73 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: 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.

- In October 2019, Accounts Payable processed approximately 4,200 vendor invoices for payment and took advantage of about \$5,600 in discounts.
- The balance in the Desalination fund was released to unrestricted reserves after the Board action approving the transfer on November 4, 2019.

Objective: 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.

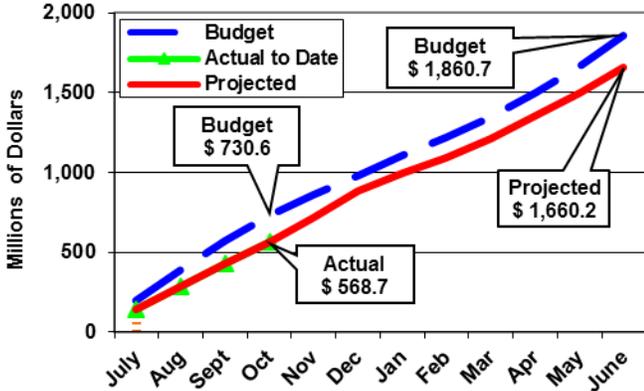
In October 2019, Metropolitan drew \$100 million under a Short-Term Revolving Credit Facility with the Royal Bank of Canada to fund a portion of the FY 2019/20 capital expenditures. The draw will be repaid from proceeds of Metropolitan's Water Revenue Bonds, 2020 Series A, which are expected to be issued in January 2020 and close in February 2020.

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

- As of October 31, 2019, the balance in Metropolitan's investment portfolio was \$943.6 million; for the month of October 2019, Metropolitan's portfolio managers executed 67 trades.
- During the month of October 2019, Treasury staff processed 1,904 disbursements by check, 23 disbursements by Automated Clearing House (ACH), and 84 disbursements by wire transfer. Treasury staff also processed 71 receipts by check, 21 receipts by ACH, and 45 receipts by incoming wires and bank transfers.

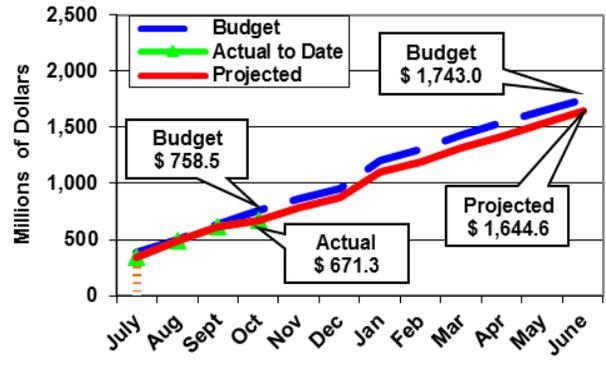
FINANCIAL SUMMARY AS OF OCTOBER 31, 2019

Revenues are expected to be \$200.5M under budget at year end primarily due to 202.8 TAF of lower water transactions.



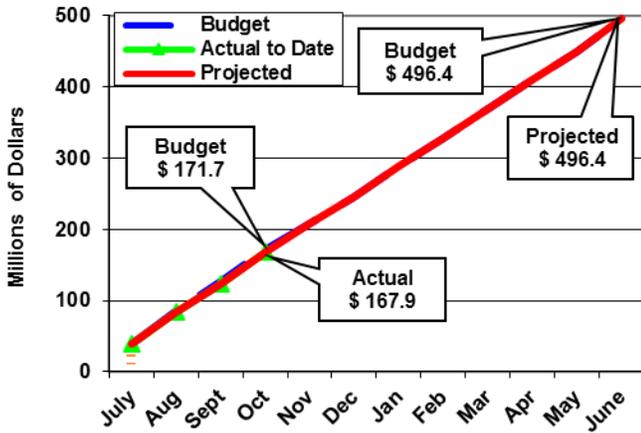
Excludes bond construction and other trust funds activity

Expenses are expected to be \$98.4M under budget primarily due to the assumed decrease in operating revenues used to fund capital expenditures from \$120M to \$30M.

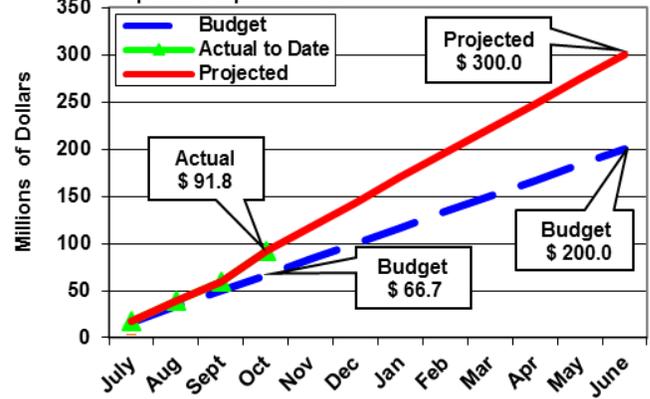


Excludes bond construction and other trust funds activity

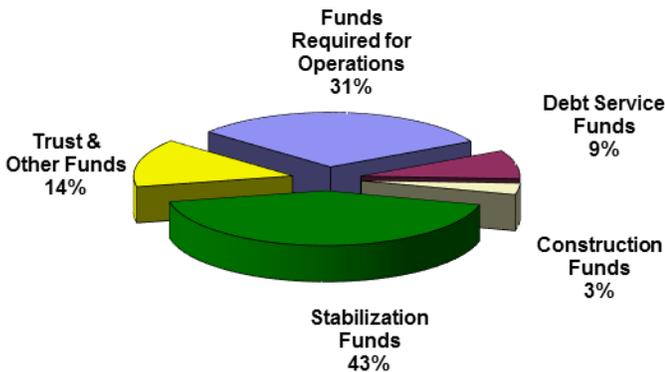
O&M expenses are expected to be on budget at year end.



Capital expenditures are expected to be \$100.0M over budget at year end due to the streamlined process of appropriating funds for capital projects, which has expedited expenditures.



Cash and Investments at Fair Value \$ 943.7 million



Summary Financial Statistics

| | Target | Year-End Projected |
|----------------------------------|----------|--------------------|
| Fixed Charge Coverage | ≥ 1.20 x | 1.16 x |
| Revenue Bond Coverage | > 2.00 x | 1.37 x |
| Revenue Bond Debt / Equity Ratio | < 100.0% | 55.1% |

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: Enhance Infrastructure Safety, Security and Resiliency

Metropolitan's vast network of aqueducts, pipelines, pumps and treatment facilities are the backbone of Southern California's regional water system. However, this vital infrastructure is aging and heightened reinvestment in this system is essential to ensure Metropolitan can continue to deliver on its promise of reliability in the coming decades.

Objective: 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:

Red Mountain Hydroelectric Plant—This project refurbishes and/or replaces the turbine's mechanical components. Construction is 45 percent complete and is scheduled to be complete by March 2020.

Garvey Reservoir Drainage and Erosion Improvements—Areas 2, 3, and 4 - This project installs a permanent drainage system and erosion control features, including installation of drainage piping; concrete ditches; stem wall; flow detention and dissipation structures; grading; surface improvements; fence removal and installation; and hydroseeding. Construction is complete.

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 25 percent complete and is scheduled to be complete by December 2021. *(see photo below)*

Orange County Region Service Center—This project constructs a new 12,000 sq. ft. permanent service center for the Orange County operating region. Construction is 80 percent complete and is scheduled to be complete by February 2020. *(see photo below)*

Orange County Feeder Cathodic Protection—This project installs an impressed current cathodic protection system on the Orange County Feeder. Construction is 30 percent complete and is scheduled to be completed by June 2020.

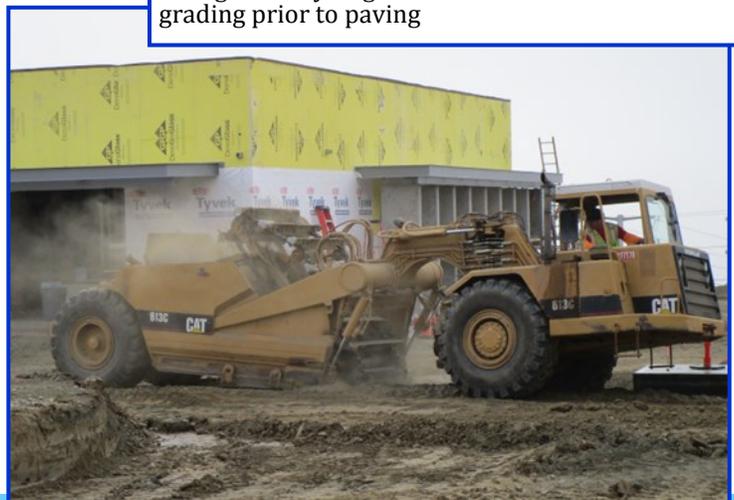
Wadsworth Pumping Plant Control and Electrical Protection Upgrade - This project replaces the obsolete turbine/pumping unit controls and electrical protection systems for the Wadsworth Pumping Plant and Pressure control structure. The control system upgrades for Turbine/Pump Units 6, 7, and 8 are complete. Overall, the project is 86 percent complete and is scheduled to be complete by February 2020.

Lake Mathews Wastewater System Replacement—This project replaces the on-site wastewater collection system and connects the new system to a nearby municipal sewer line. Final design is 60 percent complete and is scheduled to be complete by June 2020.

Greg Avenue Pump Station Rehabilitation - Removal of existing pumps, and demolition of pump station piping



Orange County Region Service Center - Final site grading prior to paving



ENGINEERING SERVICES

GM STRATEGIC PRIORITY: Enhance Infrastructure Safety, Security and Resiliency continued...

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. 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 6.4 miles of PCCP on the Second Lower Feeder have been relined; this includes 2 miles of previous urgent repairs and 4.4 miles completed under Reach 1. The scope of the second construction contract for Reach 4 includes lining approximately 2 miles of existing PCCP segments with a steel liner. Construction for Reach 4 is 98 percent complete and is scheduled to be complete by December 2019. The scope of the third construction contract for Reach 2 includes lining approximately 4.5 miles of existing PCCP segments with a steel liner. Construction for Reach 2 is 6 percent complete and is scheduled to be complete by November 2020. Final design of Reach 3 is 78 percent complete and is scheduled to be complete by April 2019.
- **Second Lower Feeder Pipe Fabrication**—Fabrication of steel liner pipe for Reaches 2 and 4 is underway and will provide approximately 21,100 feet of 75-inch-diameter welded steel liner pipe. Pipe fabrication is complete and the delivery of pipe for Reach 2 began in October 2019.
- **Second Lower Feeder Shutoff Valve Procurement**—This contract provides 216 shutoff valves that will replace deteriorated valves along the length of the Second Lower Feeder. These valves range in diameter from 4 inches to 16 inches and are used to control and isolate flow at air release/vacuum valve locations, dewatering vaults, and blowoff structures. All 216 valves were received and inspected and are in protective storage at the Weymouth plant in La Verne.
- **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 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 36 percent complete, and the valves are scheduled to be delivered by June 2020.

Colorado River Aqueduct (CRA) Reliability Program

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

- **CRA UPS Replacement**—This project replaces the uninterruptible power supply (UPS) systems at the five CRA pumping plants. Each plant has a UPS system to prevent fluctuations in power quality and to serve as a backup for communications, data, and control equipment in case of loss of power. Construction is 50 percent complete and is scheduled to be complete by December 2019.
- **CRA Discharge Isolation Couplings**—This project consists of fabricating and installing 44 isolation sleeve couplings with flow-through spool pieces in 6-foot diameter water discharge pipes, fabricating nine removable bulkheads, re-lining 6-foot discharge pipes with mortar lining, and demolition and installation of concrete piers. Construction is two percent complete and is scheduled to be complete by June 2021.
- **CRA Cranes Rehabilitation**—This project replaces the overhead crane systems within each pump house and the portable pump-bay crane systems, including bridges, trolleys, hoists, drive trains, and system controls. Final design is 92 percent complete and is scheduled to be complete by December 2019.
- **CRA Motor Cable Replacement**—This project replaces the electrical cables that provide power to the main pump motors. Simultaneous work is currently underway at all five CRA pump plants. Work will be completed in two phases, Fall 2019, and Spring 2020. Construction is 37 percent complete and is scheduled to be complete by July 2020.
- **CRA Radial Gate 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 2 percent complete and is scheduled to be complete by March of 2021.

ENGINEERING SERVICES

GM STRATEGIC PRIORITY: Enhance Infrastructure Safety, Security and Resiliency continued...

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 West Washwater Tank Seismic Upgrades—This project performs seismic strengthening and refurbishment of the west washwater tank at the Weymouth plant. Construction is substantially complete and is scheduled to be complete by December 2019.

Weymouth Domestic Water Upgrade—This project upgrades the aging domestic and firewater loop at the Weymouth plant. Construction is 67 percent complete and is scheduled to be complete by March 2020. *(see photo below)*

Weymouth Chlorination System Upgrades—This project expands an existing chlorine building to house additional chlorinate feed equipment and instrumentation at the Weymouth plant. Construction is 39 percent complete and is scheduled to be complete by December 2020.

Jensen Plant

Jensen Electrical Upgrades, Stage 2—This project upgrades the electrical system with dual power feed to key process equipment in three stages to achieve conformity with current codes and industry practices. 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 is 10 percent complete and is scheduled to be completed by June 2022

Diemer Plant

West Basin and Filter Building Rehabilitation—This project performs rehabilitation of 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 is 47 percent complete and is scheduled to be complete by December 2020.

Diemer Water Sampling System Improvements—The project upgrades the existing Diemer water sampling system. This system is comprised of 13 sample locations. At each location, the sample pump, piping, and field analyzers will be upgraded. Construction is 50 percent complete and is scheduled to be complete by January 2021.



Weymouth Domestic Water Upgrade –
Reconstruction of existing pump pedestals

ENVIRONMENTAL PLANNING SECTION

GM STRATEGIC PRIORITY: Promote Environmental Stewardship and Sustainability

Metropolitan will continue to lead with programs that promote actions that support sustainable practices, reduce greenhouse gas emissions and protect natural habitat and water quality.

Objective: Continue to actively manage Metropolitan's conservation lands through cooperative relationships with public agencies and non-governmental conservation organizations.

Lake Mathews Multiple Species Reserve

- Reserve staff mowed tumbleweeds for habitat improvement and fire fuel reduction and removed illegal dumping and litter along El Sobrante Road and surrounding roadways.
- Coordinated with WSO and Security on providing access to a biologist conducting an avian survey at Lake Mathews as a follow-up to a survey he conducted in 1955.

Southwestern Riverside Multi-Species Reserve

- Coordinated with the Reserve Manager and Real Property, Security, and WSO staff regarding fires in the reserve between DVL and Domenigoni Parkway.
- Two mountain lions were photographed by a new camera installed in the Reserve to observe large mammals.

Objective: Support development and implementation of interpretive, public outreach, and public access programs to promote appreciation for and understanding of the benefits of conservation lands to Metropolitan, the public, and the environment.

Coordinated with External Affairs to install signs in support of the dedication of the Diamond Valley Lake East Dam in honor of former General Manager Carl Boronkay.

GM STRATEGIC PRIORITY: Enhance Infrastructure Safety, Security and Resiliency

Metropolitan's vast network of aqueducts, pipelines, pumps and treatment facilities are the backbone of Southern California's regional water system. However, this vital infrastructure is aging and heightened reinvestment in this system is essential to ensure Metropolitan can continue to deliver on its promise of reliability in the coming decades.

Objective: Provide planning, CEQA/NEPA (National Environmental Policy Act), and regulatory permitting support for enhancement of infrastructure, safety, security, and resiliency.

CEQA/NEPA

- Completed review of Traffic Control Plan, Constructability Review Workshop report, and 60 percent design drawings for the PCCP Second Lower Feeder Reach 3.
- Completed review of Access Sites Technical Memo and attended a permitting strategy meeting for the PCCP Sepulveda Feeder project.
- Completed review of Project Management Plan for the Stage 1 Electrical Upgrades for 15 structures in Orange County project.
- Provided CEQA review and determined that the following projects were exempt: Casa Loma Siphon No. 1, San Jacinto Pipeline Hazard Mitigation, Casa Loma Siphon Barrel No. 1 procurement contract and consultant agreement amendment, Santa Monica Feeder Crack and Joint Seal Repair, CRA Main Pump Reliability – Main Motor Condition Assessment, and Gene Wash Reservoir Discharge Structure Rehabilitation.

Regulatory Permitting Support and Compliance

Submitted a Long-Term Adaptive Management Plan to California Department of Fish and Wildlife (CDFW) for review and approval of actions to protect habitat and unarmored threespine stickleback populations on the Stickleback Ranch mitigation property and finalize habitat and fish surveys in support of a Watershed Plan for stickleback conservation, both in compliance with Foothill Feeder shutdown and maintenance long-term permits.

ENVIRONMENTAL PLANNING SECTION

GM STRATEGIC PRIORITY: Foster Leadership and Strengthen Workforce Capabilities

More than half of Metropolitan's workforce has reached retirement age, including many members of Metropolitan's executive management team. This is a challenge to Metropolitan's capacity to adequately train and prepare its workforce but is also an opportunity to build a workforce geared for the challenges of the future.

Objective: Emphasize employee development, recruitment, knowledge capture, cross-training, management training and succession planning

Staff is enrolled in the following programs:

- Sustainability Certificate Program at UCLA
- Master's Program in Environmental Studies at California State University, Fullerton

Staff participated in the following trainings, conferences, and other events:

- Webinar for *Navigating California's New Regulations for Wetlands and Waters of the State*
- Training on *Resume Writing, Everyday Business Writing, Desert Tortoise Life History and Survey Techniques*, and *One Note*
- California Air Resources Board SB 100 Southern California Scoping Workshop aimed at ensuring collaboration and opening dialogue on how California will meet the SB100 targets for 100 percent carbon free energy by 2045
- American Society for Civil Engineers (ASCE) International Conference on Sustainable Infrastructure, which focused on sustainable infrastructure, resiliency, disaster risk reduction, restoration projects, and future challenges. ([see photos next page 12](#))
- Environmental Applications of Drone Technology workshop hosted by the Orange County Association of Environmental Professionals
- Association of Environmental Professionals young professionals networking event

CORE BUSINESS Business Processes

Metropolitan will continue to lead with programs that promote actions that support sustainable practices, reduce greenhouse gas emissions and protect natural habitat and water quality.

Objective: Provide timely and professional planning services and CEQA and regulatory support to Engineering Services, Water System Operations, Water Resource Management, External Affairs, and Real Property Groups

CEQA Clearances

Provided environmental planning clearances for 10 WSO projects, 3 Real Property actions, and 12 board letters.

Engineering Services Support

Coordinating with Safety of Dams staff to prioritize dam maintenance needs and identify CEQA and regulatory permitting strategies to authorize ongoing routine maintenance activities.

Water System Operations Support

- Informed WSO staff of regulatory requirements for upcoming shutdowns that include dewatering pipelines into streams with sensitive biological resources.
- Provided environmental clearance for repair of erosion damage adjacent to CRA infrastructure in Blind Canyon near Desert Hot Springs.

External Project Review

Reviewed 28 CEQA notices for external projects and prepared comment letters for those that may impact Metropolitan facilities and/or operations.

ENVIRONMENTAL PLANNING SECTION

CORE BUSINESS Business Processes continued...

Objective: Provide timely and professional planning services and CEQA and regulatory support to Engineering Services, Water System Operations, Water Resource Management, External Affairs, and Real Property Groups

Construction Monitoring

- Completed construction monitoring for the Prestressed Concrete Cylinder Pipe Second Lower Feeder Reach 2 and the Power Line Replacement at Gene and Intake projects and began preparation of final reports.
- Coordinated pre-construction activities for the Whitewater Erosion Protection Structure Rehabilitation Project, including attending coordination meeting with contractor and Inspection team, coordinating with California Department of Fish and Wildlife regarding SAA amendment, conducting desert tortoise and burrowing owl surveys, reviewing contractor submittals and Requests for Information, coordinating seed purchases for construction areas, and preparing Environmental Awareness Training documents for workers.
- Performed construction mitigation monitoring for the following projects: Palos Verdes Reservoir Upgrades, PCCP Second Lower Feeder Reach 2, Orange County Conveyance and Distribution Team Maintenance Building, Weymouth Plant West Washwater Tank Seismic Upgrades, Weymouth Plant Domestic Water System Improvements, and Weymouth Plant Chlorine System Upgrades.

Real Property Support

- Coordinated with Real Property and WSO on the removal and trimming of trees in the Lake Mathews Multiple Species Reserve adjacent a residential property.
- Completed environmental review for three real property agreements and continued environmental review on four additional agreements.



Staff at the ASCE International Conference on Sustainable Infrastructure *(story page 11)*



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: 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, inform 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.

- Chairwoman Gray, Director De Jesus, member agency leaders, and staff attended the Three Valley MWD Leadership Breakfast to update local elected officials and community leaders on current water conditions, plans to improve resiliency for imported water systems and local supply programs, and water quality issues and to highlight the important role of Metropolitan and local water agencies in serving the region's water needs. (November 1)
- Chairwoman Gray was a featured speaker and Metropolitan sponsored the Las Virgenes/Conejo Valley Water Business Summit, an event co-hosted by the Las Virgenes and Calleguas Water Districts to update business and community leaders on key regional issues including water supply reliability. (November 7)
- Directors Hall and Solorio attended and General Manager Kightlinger spoke with business and construction industry leaders at the Building Industry Association annual conference about water efficiency, climate change impacts, future planning, and investments in local supply projects and the region's water systems. (November 6) *(see photo below)*
- Chairwoman Gray was a keynote speaker at the California Water Association Annual Conference in Monterey. Using the conference theme of "New Beginnings, New Challenges," the Chairwoman spoke about Metropolitan's legacy and leadership to address climate change impacts, ensure water supply reliability, make needed investments to improve resiliency, and effectively engage with diverse communities. (November 14)



Leaders from Eastern Municipal Water District, Metropolitan, Orange County Water District, Southern California Water Committee, and Building Industry Association at the annual Building Industry Show

EXTERNAL AFFAIRS

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: 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.

State

Metropolitan staff participated in a State Water Contractor-led briefing for legislative staff in the Capitol on the value of the State Water Project, long-term operations, and the future challenges associated with the project. (November 14)

Senator Hueso (D-San Diego) held an oversight hearing on the recent power shutoffs related to wildfires. Metropolitan staff is monitoring legislative activity on this issue and California Municipal Water Association testified on the role of water agencies to maintain a reliable water supply during power shutoffs. (November 18)

Local

- Metropolitan sponsored a community leaders briefing with Assemblymember Nazarian (D-Van Nuys), which was attended by 35 community leaders. Water Resource Management Section Manager Chan participated in a water-focused panel with representatives from the California Farm Bureau and Los Angeles Department of Water and Power. (November 1)
- Metropolitan sponsored and Engineering Services Group Manager Bednarski spoke on a panel about infrastructure resilience at the Los Angeles Area Chamber of Commerce State of L.A. Infrastructure event. (November 6)
- Metropolitan sponsored and Water Resource Management Group Manager Coffey participated in a water forum celebrating the City of Los Angeles' becoming a Blue Community, a distinction that recognizes water and sanitation as human rights and promotes safe water and wastewater services. Mayor Garcetti and Councilmember Kerkorian spoke at the event. (November 6)
- Metropolitan sponsored and staff attended the Los Angeles County Economic Development Corporation Annual Eddy Awards, which recognizes leadership in economic development in the region's business, education, and government sectors. (November 7)
- Chairwoman Gray attended the first board meeting of the California African American Water Education Foundation, an organization of which Metropolitan is a founding member. Assemblymember Gipson (D-Carson) also attended the meeting and talked about the important role water agencies can have in serving diverse communities and developing the next generation of leaders for the industry. (November 8)
- Directors Apodaca and Hawkins, General Manager Kightlinger, and staff joined State Senator Archuleta (D-Pico Rivera) and more than 70 local elected and community leaders for a Metropolitan-sponsored briefing on current and future water issues. (November 7)
- Metropolitan staff attended the Oxnard Chamber of Commerce's Annual Business Outlook luncheon with more than 100 local community leaders to hear Lenny Mendonca, Chief Economic and Business Adviser to Governor Newsom, talk about regional issues. (November 15)
- Directors Atwater, Gharpetian, and Ramos; General Manager Kightlinger; and Metropolitan staff joined Assemblymember Friedman (D-Los Angeles) for a community leaders water briefing with more than 65 representatives of government, business, and nonprofit organizations. (November 18)
- Director Peterson, General Manager Kightlinger, Assistant General Manager Zinke, Executive Legislative Representative Kathy Viatello, and representatives of Las Virgenes Municipal Water District and Calleguas Municipal Water District met with Senator Henry Stern in his district office to discuss Metropolitan's legislative proposals and priorities for the second half of the legislative session. (November 20)

EXTERNAL AFFAIRS

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

Objective: LEGISLATIVE SERVICES continued...

Federal

Metropolitan staff participated in the National Water Resources Association annual conference to discuss federal legislative and policy priorities, including funding to support investments in water infrastructure, groundwater and surface storage, Colorado River issues, climate change, and emergency response. Executive Representative Brad Hiltcher was honored for his years of service on California water issues. (November 7) *(see photo below)*



Objective: 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.

Media Interviews

- Arranged interview between *Wall Street Journal* reporter Scott Patterson and General Manager Kightlinger on Colorado River water rights, Imperial Valley, and Renewable Resources Group, following up on an earlier interview with WSJ reporter Jim Carlton.
- Coordinated various interviews with the media, including with KPCC's Larry Mantle, the Guardian's Maanvi Singh, and *Epoch Times* reporter Chris Karr, and General Manager Kightlinger regarding new federal biological opinions.
- Set up interview with Municipal Water Leader editor Joshua Dill and Metropolitan's Power Operations and Planning Manager Bailey, regarding Metropolitan's energy portfolio and Energy Sustainability Plan.
- Arranged on-camera interview with Vietnam Television reporter/producer Richard Le on Metropolitan's efforts to ensure water quality in Southern California and respond to emergency situations. Also provided b-roll and background materials and a tour of the Regional Recycled Water Advanced Purification Center.

EXTERNAL AFFAIRS

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

Objective: 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.

Press Releases/Statements

- Metropolitan to Study Stormwater Recharge Potential in SoCal
- Central Basin MWD Representative Returns to Metropolitan Board
- Metropolitan Statement on Release of New Federal Biological Opinions

Social Media

- Posted conservation-themed basketball ad on Facebook and Twitter to time with the start of the National Basketball Association season.
- Posted videos and photos of activities during the first Solar Cup boat building workshop.
- Continued social media marketing for three "Patch Match" California Native plant creative posts, which have received more than 141,000 impressions and 3,000 link clicks.
- Launched new Integrated Water Resources Plan web page.
- Added recap video of the event celebrating the opening of the Regional Recycle Water Program Advanced Purification Center as well as updated content and applications for tours.
- Produced and posted recap video for Carl Boronkay naming ceremony.

Communications Activities

Digital display advertisements for the turf replacement campaign produced an estimated 115 million impressions and nearly 145,000 bewaterwise.com visits through November. Paid search engine campaign continues with strong results.

Objective: 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.

Public Outreach for Metropolitan Projects

- Metropolitan provided a tour of the Diemer water treatment plant for the Yorba Linda Water District. (November 5)
- Metropolitan staff met with the Los Angeles Department of Transportation to discuss traffic control for two projects on the West Valley Feeder and the West Hollywood Public Works Department to discuss plans for the Santa Monica Feeder Shutdown and associated repair work. (November 6 and 12)
- Chief Administrative Officer Chapman and Metropolitan staff met with a delegation from the Netherlands to discuss water issues and water resource management. (November 15)
- Metropolitan provided a tour of Weymouth and the Water Quality Lab for Citrus College water technology students. (November 20)
- Metropolitan provided a tour of the Regional Recycled Water Advanced Purification Center to the Young Member Forum of the LA Chapter of the American Society of Civil Engineers. (November 22)
- Metropolitan provided eight inspection trips to the State Water Project and Colorado River for directors. (various dates)

Construction Project Updates

Outreached to 800 residents and businesses for the East Valley Feeder Shutdown in Glendale and Burbank. (November 12)

EXTERNAL AFFAIRS

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

Objective: 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

Metropolitan staff supported field trips, events, and class presentations at YoMo (Youth Mobile) Festival, Upper San Gabriel Valley MWD WaterFest, and Hoffer Elementary Career Fair, and interacted with 365,000 students, teachers and community members. *(see photo below)*

Solar Cup

Metropolitan in partnership with Three Valleys Municipal Water District welcomed 300 students and teachers to a day of Solar Cup boat building. This year, 36 high school teams representing 16 member agencies are participating in the program. *(see photo below)*

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:

- Mujeres de la Tierra's Dia de los Muertos (November 2)
- Climate Resolve's Climate Change Research Symposium (November 5)
- Forestry Educators Student Forestry Challenge (November 6)
- American Society of Civil Engineers Foundation International Conference on Sustainable Infrastructure (November 6-9)
- California Forward's Economic Summit (November 7-8)
- Association of Women in Water, Energy & Environment's conference (November 11-13)
- From Lot to Spot annual event (November 16)
- Southern California Leadership Network's Visionaries Award (November 20)

Diamond Valley Lake Education Program

Education staff hosted 300 visitors at the DVL Visitor Center and guided more than 240 visitors to the Clayton Record viewpoint.



Education staff teaching students about water.



Students hard at work building their boats for the 2020 Solar Cup

EXTERNAL AFFAIRS

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

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

- Business Outreach and Engineering staff attended the IGNITE22 Summit in San Pedro, which featured panel discussions on BlueTech, Future of Food, and Smart Industry, in addition to innovations and new technologies for the water industry, ports, and other businesses. (November 13)
- Metropolitan hosted its signature Connect2Met in partnership with the cities of Compton and Long Beach, West Basin Municipal Water District, and Central Basin Municipal Water District. Chairwoman Gray, Directors McCoy and Williams, and approximately 150 businesses, staff, and resource partners attended to learn about small business procurement and contracting opportunities. (November 21)
- Metropolitan hosted the Member Agency Innovation Forum with 22 participants representing 14 water utilities. The topics covered included nitrification and PFAS. (November 21)

Metropolitan supported small businesses throughout the region through its participation and sponsorship of the following programs, conferences, and events:

- Sponsored Let's Connect event with project and contract officials from public agencies. Metropolitan's Engineering Services Group Manager Bednarski spoke on a panel. (November 7)
- Southern California Minority Supplier Development Council Leadership Excellence Awards event with more than 400 in attendance, including businesses, agency representatives, and guests. (November 14)
- Native American Heritage Month luncheon by the American Indian Chamber of Commerce of California with more than 400 attendees. (November 14)
- National Association of Minority Contractors Champion for Change Awards Banquet with more than 400 contractors and public agency representatives. (November 15)
- Filipino American Chamber of Commerce of Orange County awards night with more than 300 participants. Metropolitan was recognized for its contributions to the organization. (November 15)
- Resource Fair for Women's Entrepreneurship Day, hosted by Mayor Eric Garcetti's Office of Economic Development with 300 businesses in attendance. (November 19)
- U.S. Veteran Business Alliance Turning Construction Contacts into Contracts event, which was attended by approximated 300 participants. (November 20)
- Orange County Hispanic Chamber of Commerce Elevate Procurement Symposium with approximately 350 business. (November 22)

HUMAN RESOURCES

GM STRATEGIC PRIORITY: Foster Leadership and Strengthen Workforce Capabilities

More than half of Metropolitan's workforce has reached retirement age, including many members of Metropolitan's executive management team. This is a challenge to Metropolitan's capacity to adequately train and prepare its workforce but is also an opportunity to build a workforce geared for the challenges of the future. While Metropolitan's workforce is becoming increasingly more diverse, Metropolitan will continue to foster an inclusive and innovative workplace, promoting a safe and discrimination-free work environment, and provide opportunities for all employees to use their diverse talents to support Metropolitan's mission.

Objective: Partner with Metropolitan leadership to support learning, development, and workforce planning initiatives.

- The Organizational Development and Training Team welcomed 55 new employees for their Day 2 Orientation with training on individual communication style and strategies for improving personal day-to-day interactions with team members.
- MET Management University continued with its ninth cohort for 20 recently promoted managers. This session covered administrative responsibilities with presentations from the Benefits, Recruiting, and Legal Departments.
- The second team development session for the Benefits Unit was held with a focus on communication, individual motivation, and stress management.

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

Recruitment filled 22 positions for the month of November, which included 8 job-bid promotions and 14 external hires. HR received 27 new staffing requisitions resulting in 173 positions currently in recruitment.

Objective: Implement employee engagement programs to ensure Metropolitan is a competitive organization.

This month saw the completion of Metropolitan's Employee Appreciation events with the final event on November 20 at Iron Mountain. These events, held during October and November, were designed by employees and provided opportunities to foster camaraderie among employees and show appreciation of their work and efforts at Metropolitan over the past year to support Metropolitan's organizational goals.

HR PRIORITY: Strengthen Partnerships with HR Customers

Collaborate and partner with customers at all levels to support strategic decisions on workforce planning, hiring strategies, advancement and learning opportunities, disciplinary issues, and other challenges as they arise.

Objective: 1 Establish partnerships focused on strategic solutions to various Human Resource management challenges.

- HR supported the development and launch of the Ethics Officer's Ethics Survey initiative to collect employee feedback about employee experiences on various ethics topics at Metropolitan. The feedback will be used to support planning efforts by the Ethics Office.
- Human Resources Group Manager presented Succession Planning: Workforce Excellence Strategies at the Association of Metropolitan Water Agencies Executive Conference. In addition, Leadership Development strategies was presented at the American Water Works Association Cal-Nevada Conference.

HUMAN RESOURCES

HR PRIORITY: 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: Administer all HR services with efficiency and a focus on customer service excellence, consistency, and flexibility.

Staff coordinated Day 2 Orientation that included presentations from Benefits and Training and a visit from General Manager Kightlinger.

141 employees received training in classes such as:

- Microsoft Office Suite
- Drug & Alcohol Awareness
- P-Card basics
- Contracting
- Resume Writing

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

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

Activities of the Workers' Compensation/Medical Screening Unit are summarized as follows:

- Submitted 16 new claims to Metropolitan's Workers' Compensation Claim Administrator
- Closed 10 Workers' Compensation Claim Files
- Currently 3 employees remain off work due to industrial injury or illness
- Arranged 7 clinic evaluations (Department of Motor Vehicle exams and medical surveillance exams)
- Coordinated medical surveillance exams at Soto Street Facility. The exams included Respirator Exams, Department of Motor Vehicle Exams, and Hearing Tests
- Addressed 3 Accommodation issues

CORE BUSINESS: Prepare to Meet Challenges of Future Workforce Changes

Human Resources can provide a wide range of services and support to ensure that Metropolitan positions itself for future workforce changes, by maintaining a collaborative and inclusive work environment, as well as a diverse workforce.

Objective: Promote an inclusive and collaborative workplace, maintain robust policies and procedures to ensure diversity, and prevent harassment and discrimination.

Staff produced an outreach event for the Palo Verde Community College in Blythe that focused on student internship and apprenticeship program opportunities. Approximately 150 high school and community college students participated.

The employee resource group Women at Metropolitan, in collaboration with HR staff, completed its year-long pilot group mentoring program. Thirty-one female employees from throughout the organization were mentored by 12 management mentors under the program.

INFORMATION TECHNOLOGY

CORE BUSINESS: Information Technology

Collaboratively work with customers to deliver information technology options, services, and solutions in the areas of enterprise and business applications, Engineering Services and Water System Operations applications, data analytics, mobile/wireless computing, telecommunications, network services, information security, and personal computing.

Objective: Strengthen Metropolitan's cybersecurity capabilities by deploying new and emerging technologies and implementing enhanced security countermeasures.

On-going efforts include operational initiatives and capital projects to upgrade and protect Metropolitan against evolving cyber threats.

- Maintained leadership role by participating in a cybersecurity panel at the recent Nth Generation "Embrace Innovation" 19th Annual Technology Symposium in Anaheim, California. The symposium promotes keynotes from industry leaders; technology deep dive sessions; a showcase of sponsor booths and live demonstrations; and popular technology roadmaps presenting innovations on hybrid cloud, mobility, hyper-convergence, DevOps, application modernization, IT consumption models, and more.
 - IT Cybersecurity Unit Manager Jake Margolis participated as a panelist in discussions with municipal governments and technology innovators to share issues faced by cities and communities and efforts to address evolving cybersecurity threats.
- Under the Cybersecurity II Project to enhance Metropolitan's security posture, IT staff continued to evaluate new and emerging technologies as part of the Information Technology Cybersecurity Roadmap. The Cybersecurity team made a presentation during the Quarterly Cybersecurity update to the Organization, Personnel and Technology Committee in November.

Objective: Provide IT services in support of the Headquarters Improvements Program.

Continued to collaborate with Engineering Services Group and Facilities on IT services in support of the Headquarters Improvement Program.

Headquarters Wi-Fi (Low-Rise) Project—This project scope is to design and install network equipment and Wi-Fi infrastructure within the five-floor wing portion of the Headquarters building to support staff relocation.

- During the last period, IT staff continued to fine-tune the new, more robust wireless network and optimize Wi-Fi coverage, capacity, and performance for the new wireless network infrastructure on the first and second floor of Metropolitan's Headquarters building.
- The IT Networking team performed an inspection walk through of the floors in the MWD HQ low-rise building to inspect the telecommunication closets (Communications Infrastructure) and ceiling accessibility with Engineering and Seismic Retrofit Contractors.
 - Based on these inspections, next steps include the IT Networking team coordinating efforts between the various teams to schedule the new IT networking infrastructure installation.
 - These installations will provide the infrastructure required to provide network access to employees currently scheduled for moves to the low-rise floors beginning in the new year.

Objective: Modernize Operational Technology and Control System Upgrades as part of the Capital Investment Plan.

Supervisory Control and Data Acquisition (SCADA) Network Fiber Optic Switch Replacement Project—This project replaces selected end-of-life switches critical to Metropolitan's control system. IT staff worked with stakeholders to replace older equipment with current technology, providing greater infrastructure reliability and ensuring vendor support and maintenance.

- This project was completed and the project team is working on closing the project.

INFORMATION TECHNOLOGY

CORE BUSINESS: Information Technology continued...

Objective: Modernize Operational Technology and Control System Upgrades as part of the CIP. Continued....

Remote Terminal Unit (RTU) Replacement Project—The scope of this project is to replace RTU field computers with an updated operating system and hardware that will improve cybersecurity protection and increase reliability with solid-state drive technology. This project is a collaborative effort by IT and WSO as part of modernizing Metropolitan’s operations technology and control system.

- This project was completed and the project team is working on closing the project.

Automated Meter Reading (AMR) Upgrade—The AMR System is a critical component for transmitting flow information from meters for billing of member agency water deliveries and analysis of meter instrumentation by staff. This project will address equipment obsolescence as the communications equipment used in the system is approaching end-of-life.

- In the previous period, the project team conducted the pilot test of the radio frequency communication technology which is one of the four communication technologies being investigated.
- In the current period, staff worked on starting the pilot test of the satellite communication technology. In addition, staff is developing the summary of findings for the radio frequency communication technology pilot test.

System-wide Control System Upgrade—This project is comprised of a multi-phased approach for replacing/upgrading the Control System critical to Metropolitan’s operations, water delivery, water quality, and infrastructure monitoring.

- As a part of the planned procurement strategy, staff published a Request for Qualification to pre-qualify control systems that is scheduled to close in November. During the upcoming period, the team will continue to focus on finalizing the Request for Proposal currently scheduled to be published during the first quarter of the new year.

Objective: Improve Metropolitan’s IT Disaster Recovery and Response Capability.

IT Disaster Recovery Project—This project upgrades the server, storage capacity, and backup devices at the IT Disaster Recovery (IT-DR) Facility data center to provide sufficient capacity to run critical systems in a High Availability architecture mode in the event of a disaster.

- The project team continues to work with key stakeholders to ensure testing of critical software applications meets Metropolitan’s DR criteria. During this period, the project team executed the annual 2019 Integrated UAT exercise, and all applications included in the test environment scope, were brought up and performed as expected. As a result of the exercise, next steps include continuing to fine-tune the new enhanced disaster recovery and response capabilities and additional testing of these modifications through the year’s end.

The IT Group, working in collaboration with WSO and other key stakeholders, is in the process of acquiring new satellite phones to enhance Metropolitan’s emergency response capabilities.

- In addition to evaluating alternatives for improved reliability and resiliency, IT staff is moving forward with implementing UrgentLink’s disaster communications network to conduct a Proof of Concept to provide redundant communication paths in the event primary methods (i.e., landlines, internet, cell, satellite, and two-way radio) become unavailable due to outages (such as a natural disaster) or congestion of data traffic.

On-Going IT Emergency Preparedness—Metropolitan’s emergency response teams periodically conduct an Emergency Exercise that includes the activation of the IT-Incident Command Post (IT-ICP) to simulate a real-time exercise of Metropolitan’s emergency preparedness plans, processes, and supplies. These exercises test many of Metropolitan’s emergency notification and response processes in a realistic manner.

In addition, IT staff is working to replace the Disaster Assessment Team’s (DAT’s) remote engineering documentation platform consisting of 12 encrypted desktop systems at remote sites that are periodically upgraded via replication with a new portable USB encrypted disk solution. This will provide a more robust and portable option that would eliminate the support of external desktops and provide the DAT team with a portable encrypted solution that can be used anywhere.

INFORMATION TECHNOLOGY

CORE BUSINESS: Information Technology continued...

Objective: Manage Information Technology Projects within the Capital Investment Plan to ensure reliability of IT Systems and Infrastructure.

Financial Planning and Analysis Solution—This project will upgrade Metropolitan’s budgeting system to support the capital and operations and maintenance budget processes and Board deliverables. As part of this CIP Project, Metropolitan issued a competitive Request for Proposal to solicit bids from qualified vendors for a web-based tool to develop, maintain, analyze, and report on planning and budgeting information.

- Previously, the project team received submissions from prospective vendors and completed the review of the proposals as part of the competitive RFP selection process. Next steps include staff routing the Request to Award Memo for management approval.

Enterprise GIS Project—This project will upgrade Metropolitan’s Enterprise GIS infrastructure to accommodate increasing demand for big data services and improve system performance to support three-dimensional and time series data requirements.

- The objectives of the project have been completed and the project has reached a substantially completed milestone. The project team is currently working on establishing best practices of data workflow and data governance. Concurrently, the project team is working on the project closeout activities.

Real Property Group Business System Replacement—The scope of the project is to upgrade the Real Property Group Business System software that manages acquisitions and conveyance including fee, easement, permit, sales, and other rights transfers. The software will also support the management of existing agreements and leases.

- During the prior period, the project team reviewed the submissions from multiple vendors as part of the competitive Request for Proposal bidding process.
- Currently, the project staff is working on additional reporting requirements for the overall design and scope of the new system. Next steps include routing the Request to Award Memo for management approval and seeking the Board’s approval to proceed with awarding the contract next year.

Asset Monitoring and Management System Project—The scope of the project is to implement an Asset Management System to leverage data already maintained by Metropolitan into a common framework, which will serve as a foundation for future infrastructure reliability projects and assessment across Metropolitan.

- Continued the process of completing the inventories of existing Revenue Meter Data Systems
- Continued developing Business Process Models related to Revenue Meters and are expected to be complete in this quarter.

Fuel Management System Upgrade Project – The scope of the project is to upgrade the Fuel Management System that enables management controls over fuel inventories, dispensing, and security to ensure operability, vendor support, and system reliability.

- During the previous quarter, the project staff, working in conjunction with key stakeholders and the Procurement team, decided on the Request for Proposal Best Value Solicitation process strategy. Recently, staff finalized the Statement of Work modifications and added the requirements for the employee badge readers. Upcoming steps include routing the Best Value Solicitation for management’s approval and then the RFP will be published towards the end of the year to solicit competitive bids.

Service Manager System (Service Desk Application)—Evaluate technology solutions for a self-service ticketing system to centralize and modernize service management in the Information Technology Group. Solutions that provide full Information Technology Service Management (ITSM) functionality will be assessed through a competitive selection process. The chosen ITSM system will be used by staff to support service tickets generated by business users across the enterprise.

- During the current period, the RFP will continue to solicit proposals from pre-qualified vendors. Upcoming steps for the next period include the proposals being reviewed and scored by the evaluation committee.

INFORMATION TECHNOLOGY

CORE BUSINESS: Information Technology continued...

Objective: Manage Information Technology Projects within the Capital Investment Plan to ensure reliability of IT Systems and Infrastructure. Continued...

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 from version 6.2 to 7.6. Maximo is used for planning, scheduling, and reporting of required maintenance of equipment deployed throughout the treatment plants and the conveyance and distribution system.

- Previously, the team completed the installation and upgrade of the development server environment and investigated opportunities to accelerate the migration path for the upcoming stage and production migrations. The teams also investigated screen designs for the web-based user interfaces.
- During the period, the project team continued to work with consultants on the design of the interfaces and explored additional development options.

Objective: Provide leadership, planning, and solutions in support of Metropolitan’s Strategic Priorities.

During the previous quarter, the Board authorized staff to proceed with the Data Center Modernization Project, which is a key element of the IT strategic priorities in support of Metropolitan.

- During this period, IT Management held a project kick-off meeting with staff to communicate the scope and purpose of moving Metropolitan’s existing Primary and Disaster Recovery data centers to new facilities. The session presented staff with information regarding the need for moving our data center, the strategy, and an overview of the work plan.

MyHR (PeopleSoft) Oracle Cloud Project—IT is working in collaboration with HR on the PeopleSoft move to the cloud environment. This project will shift MyHR (PeopleSoft) to the Oracle Cloud. Staff recently completed the network design and architecture for a cloud development environment. IT is continuing to complete the connection between the on-premise hardware infrastructure and the cloud environments. Next steps include performing preliminary functionality tests between PeopleSoft on-premise hardware infrastructure and the cloud environments.

Objective: Enhance workforce productivity by simplifying access to business information and deploy technologies to support our customers in business decisions.

Laboratory Information Management System Enhancements (LIMS) – The scope of this project is to create a new configuration of the Nautilus LIMS database, workflows, and other components that adhere to 2016 NELAC Institute (TNI) Requirements and Standards that increases workflow efficiency, throughput and data reliability while simplifying administration, sample traceability, and regulatory compliance. LIMS is used by Water System Operations Water Quality to manage the data generated from over approximately 50,000 samples collected annually by over 170 different methods and with over 200,000 analytical tests performed.

- The project team is currently in the process of reconfiguring LIMS to version 2.0 to improve utilization and standardize processes for compliance reporting per approved laboratory requirements.
- In addition, staff successfully setup, configured, and deployed a new LIMS user web portal access. The new customer experience will provide faster performance, improved reliability/ business continuity, and eliminate the support required for multiple client versions and a consistent user experience across all platforms/devices such as use of iPads.

INFORMATION TECHNOLOGY

CORE BUSINESS: Information Technology continued...

Objective: Deploy innovative solutions to improve operations, promote collaboration, and provide business value.

PC Replacement Project (PCRP)—This project will replace end-of-life computers for all Metropolitan staff and operations (instrumentation, testing, modeling, etc.) throughout Metropolitan.

- During the previous period, staff continued working with work groups to identify business critical applications to finalize the new standard operating system platform.
- Staff recently received the initial shipment of 160 laptops with various hardware configurations to begin software testing by selected employees from multiple business units. This initial shipment of laptops have been imaged with the latest base-operating system image v2.9, which has been approved by the Cybersecurity team and other key stakeholders.

Windows 10 Operating System Deployment—In parallel with PCRP, IT staff is partnering with business units to leverage technology to support business needs. A pilot test is being scheduled to upgrade existing employees using Windows 7 computers to the next generation Windows 10.

- The current Windows 7 operating system is approaching end-of-life and will no longer be supported. To mitigate this risk, the IT Group is preparing an enterprise-wide effort to bring about a much needed and important change that will allow Metropolitan to modernize its computing systems to a secure and long-lasting platform that will help Metropolitan continue to be productive and leverage new and innovative ways to operate.
- Once the roll-out strategy is finalized, employees will be notified with information and detailed instructions on next steps. After a successful implementation within IT, IT will introduce the rest of Metropolitan to Windows 10.

Project Controls and Reporting System (PCRS) Project—Support the Engineering Services Group in deploying a new Project Controls and Reporting System (PCRS) to replace Metropolitan’s existing end-of-life project control system. The new system will enable planning, management, and reporting for capital projects to be standardized and consolidated into a single, enterprise-wide application.

- Currently, the project team has scheduled the User Acceptance Testing of the new Project Controls and Reporting System (Primavera) for this period, which includes integration testing with PAGM, PeopleSoft, and WorkTech.

Continued to Provide Innovative Services—IT staff partnered with Metropolitan business units to leverage technology to support business needs.

- On-going planning and Unmanned Aerial Vehicle drone missions to capture aerial video, photos, and data to support Metropolitan’s business units. Staff conducted multiple test flights with the Field Survey Team at Weymouth to test and capture 3D laser scanning data (i.e., LiDAR - Light Detection and Ranging). *(See photo below)*
- Completed UAV missions to gather aerial videos that were shown at Board of Directors presentation:
 - At the Diemer plant, the construction areas/activities at the West Basins retrofit and the Orange County service center construction were collected.
 - At the Advanced Water Treatment Plant in Carson, aerial footage around the demo plant showing the process facilities and operations and outreach trailers were gathered.



UAV Mission Photos- Aliso Canyon LiDAR Tests

REAL PROPERTY

GM STRATEGIC PRIORITY: Foster Leadership and Strengthen Workforce Capabilities

More than half of Metropolitan's workforce has reached retirement age, including many members of Metropolitan's executive management team. This is a challenge to Metropolitan's capacity to adequately train and prepare its workforce but is also an opportunity to build a workforce geared for the challenges of the future.

Objective: Foster staff training and development.

- Staff completed the following Metropolitan-sponsored courses: *Day 8 Orientation, Benefits: MWD Investment Lineup & Intro to Managed Accounts, Stress Management in the Workplace, Bleeding Control Training, and Agreement Administrator – Professional Services.*
- Staff completed the following Institute for Management Studies training: *The Power of Presence for Women Who Lead.*
- Staff attended the following International Right of Way Association-sponsored event: *IRWA Fall Seminar, 8686 and Beyond: How Right of Way will shape LA's Future.*
- Staff completed the following Metropolitan Management University training: *MMU Training Session 3.*
- Staff completed the following courses: *CA Foreclosures and Short Sales, Real Estate Finance Today, and Real Estate Survey.*
- Staff completed the following Women's Institute of Negotiation training: *Women's Negotiation and Leadership Certificate series: Everything is Negotiation.*
- Staff attended the Los Angeles County Bar Association continuing education seminar: *How Modern Technology Affects Whether Recorded Instruments Impart Constructive Notice.*

GM STRATEGIC PRIORITY: Enhance Infrastructure Safety, Security and Resiliency

Metropolitan's vast network of aqueducts, pipelines, pumps and treatment facilities are the backbone of Southern California's regional water system. However, this vital infrastructure is aging and heightened reinvestment in this system is essential to ensure Metropolitan can continue to deliver on its promise of reliability in the coming decades.

Objective: Provide right-of-way planning and real property acquisition services for infrastructure.

A Joint Operational Use Agreement was acquired from a private owner and its tenant, Fletcher Jones Auto Group, for the Orange County Feeder Relining Project. This Agreement will enable Metropolitan to perform the necessary construction activities for the project and continue to access our existing pipeline easement for patrolling, maintenance, and other needed activities on an ongoing basis.

CORE BUSINESS: Real Property Acquisition, Management and Revenue Enhancement

Manage Metropolitan's real property assets with a focus on enhancement of returns while ensuring that Metropolitan's core operations are protected. Acquire real property rights for future operational business needs.

Objective: Manage Metropolitan's real property assets to support water system operations and water supply needs, and seek maximum revenue and reduce costs where possible.

- An entry permit previously acquired for the Garvey Reservoir Drainage and Erosion Improvements Project in July 2019 was amended to include additional minor restorative improvements, and extend the term of the entry permit beyond the original one year term to complete any necessary corrective work agreed to in the amendment.
- The Property Management Team processed the granting of a 10-year license for California Trusframe, LLC to continue occupying a 3.4 acre parcel near the Chemical Unloading Facility in the city of Perris for the storage of building materials.

REAL PROPERTY

CORE BUSINESS: Real Property Acquisition, Management and Revenue Enhancement continued...

Objective: Manage Metropolitan's real property assets to support water system operations and water supply needs, and seek maximum revenue and reduce costs where possible. Continued...

- The Property Management Team processed the granting of an entry permit for Snyder Langston to occupy a portion of the land at the Venice Power Plant site in the City of Los Angeles for construction staging and crane operation purposes.

Objective: Pursue development and improvement of the Diamond Valley Lake area, including the DVL Visitor Center and marina facilities, in support of recreation, additional leasing and revenue opportunities.

The Diamond Valley Lake Marina hosted an event organized by the Inland Empire chapter of the National Alliance on Mental Illness (NAMI). The 14th annual 2019 NAMI Walk for Mental Illness fundraiser was a 5k walk along the Lakeview Trail, with over 200 people participating.

Objective: Efficiently maintain and operate Metropolitan's Headquarters Building, Diamond Valley Lake Visitor Center, and District Housing.

Staff participated in the district-wide Great California ShakeOut earthquake exercise. The Great California ShakeOut is an annual statewide earthquake preparedness training designed to remind the public about earthquake safety and about being prepared.

WATER RESOURCE MANAGEMENT

GM STRATEGIC PRIORITY: Prepare for More Extreme Hydrology

Staff will work closely with the Board to assess Metropolitan's storage capabilities, current strategies and review future needs to identify whether new strategies and/or new investments are needed. Metropolitan will examine new opportunities to leverage technology and innovation to promote conservation, efficient water use and water stewardship through a comprehensive demand management program that includes investments in research, innovation, and public education along with targeted incentives for the residential, commercial, industrial, and institutional sectors.

Objective: Monitor development of climate science and incorporate updated information into the Integrated Water Resources Planning approach.

Climate Science Research Meetings—Metropolitan attended two meetings focused on the implications of climate change for water supply in the Colorado River basin. The first meeting in Phoenix reported results from Arizona State University and the Central Arizona Project, funded by the National Aeronautics and Space Administration. The project improves an existing industry-standard Colorado basin hydrologic model by including new remote sensing data collected by NASA, and simulates long-range future scenarios incorporating climate change and land cover changes using the improved model. The second was a meeting in Salt Lake City of the CR Climate and Hydrology Work Group convened by Southern Nevada Water Authority. At the meeting, participants gave updates on a wide range of projects aimed at improving the methods to understand, produce, and implement short-, mid-, and long-term streamflow forecasts.

WATER RESOURCE MANAGEMENT

GM STRATEGIC PRIORITY: Prepare for More Extreme Hydrology continued...

Objective: Implement Conservation Program.

- Staff gave a brief presentation about Metropolitan's water use efficiency incentives at a neighborhood Council Meeting held at Saticoy Elementary School in North Hollywood. Staff distributed Metropolitan rebate and general water use efficiency information collaterals at the workshop.
- Staff participated in a workshop for Los Angeles Unified School District teachers and facilities and operations staff put on by the Council for Watershed Health (CWH). The workshop was part of ongoing efforts by CWH (and funded in part by Metropolitan) to promote healthy watersheds and water use efficiency.
- Staff presented on Innovative Conservation Program as part of an Innovative Technology Panel at California Energy Commission. The workshop highlighted some of the Energy Commission innovative research related to water/energy nexus
- Staff participated in the California Water Efficiency Partnership Board Meeting at Municipal Water District of Orange County. Financials for third quarter and 2020 budget were discussed and approved.
- Staff hosted an Energy Smart Landscaping Seminar in partnership with Southern California Gas at their Energy Resource Center in Downey. More than 50 contractors, public agency personnel, designers, and landscapers were educated on landscape stormwater management

GM STRATEGIC PRIORITY: Ensure Imported Supply Reliability

Southern California's foundational water supply remains the Colorado River and the State Water Project and their ongoing reliability is critical for the region. The emphasis for the State Water Project will be on working with the Newsom Administration to make the necessary revisions to the process to accommodate a single-tunnel approach with minimal loss of time. On the Colorado River, the emphasis over the next year will be on implementing the completed Drought Contingency Plan providing stability on the Colorado River while protecting Metropolitan's supplies and access to storage in Lake Mead.

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

Colorado River Board of California Agency Staff Workshop on New Operational Guidelines

In November, Metropolitan attended the first in a series of workshops hosted by the Colorado River Board of California to focus on developing new operational guidelines for the river, which must replace the expiring 2007 Interim Guidelines by 2026.

Consultation with U.S. Bureau of Reclamation

Metropolitan met with USBR to demonstrate that the proposed use of Colorado supplies in the coming year is reasonable and comports with appropriate water conservation and operational practices

Objective: Ensure a cost-effective and reliable State Water Project.

Metropolitan staff attended the Fall 2019 State Water Contractors Workshop in Sacramento that focuses on preparation for the upcoming water supply season. In addition to the formal workshop, DWR hosted a facility inspection tour that included Banks Pumping Plant, Skinner Fish Facility, and the University of California, Davis Fish Lab.

WATER RESOURCE MANAGEMENT

GM STRATEGIC PRIORITY: Maximize Local Resources

Staff will begin work with the Board and member agencies on a review of issues associated with the Regional Recycled Water Program.

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

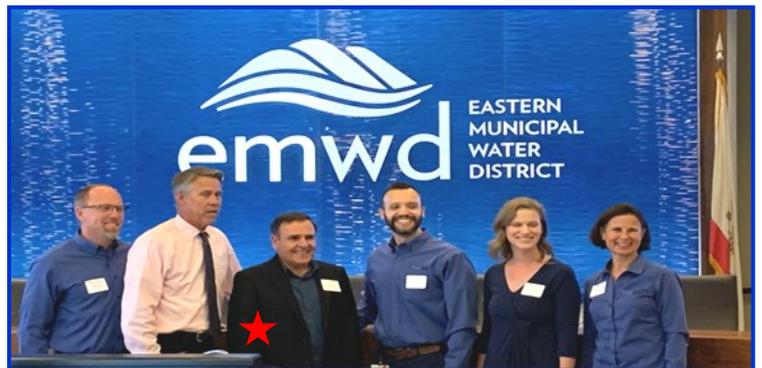
- Staff provided a presentation on the Regional Recycled Water Program to the WaterReuse Inland Empire Chapter at the Eastern Municipal Water District. [\(see photo below\)](#)
- Senior Engineer Ray Mokhtari was also recognized by the WaterReuse Inland Empire Chapter for his work with member agencies on the Local Resource Program. [\(see photo below\)](#)

Objective: Implement Local Resources Program.

Staff recently completed 15 inspections of participating On-Site Retrofit Program projects that were completed and received incentives of approximately \$841,000 in FY 2018/19. The Retrofit Program was first launched in 2014 as a two-year pilot program; because of its continued success, it is now a regular program with an annual budget of \$3 million. To date, the Retrofit Program has provided funding to replace 11,800 acre-feet per year of potable water with recycled water at 364 completed locations. [\(see photos below\)](#)



Raymond Jay presenting on the RRWP



*Ray Mokhtari with WaterReuse Inland Empire Chapter representatives and Paul Jones of EMWD



Onsite Retrofit Program—Puente Hills shopping center



Onsite-Retrofit Program—Cal State University, Long Beach

WATER SYSTEM OPERATIONS

GM STRATEGIC PRIORITY: Enhance Infrastructure Safety, Security and Resiliency

Metropolitan's vast network of aqueducts, pipelines, pumps and treatment facilities are the backbone of Southern California's regional water system. However, this vital infrastructure is aging and heightened reinvestment in this system is essential to ensure Metropolitan can continue to deliver on its promise of reliability in the coming decades.

Objective: Provide Reliable Water Deliveries.

Metropolitan delivered approximately 152,000 acre-feet of water to member agencies in November. November deliveries averaged approximately 5,000 AF per day, a decrease of 800 AF per day from October deliveries. Treated water deliveries for November totaled 68,500 AF, or 45 percent of total deliveries for the month. This was a decrease of about 13,500 AF from October treated water deliveries. The Colorado River Aqueduct operated at 1-pump flow, or 470 AF per day. A total of 14,000 AF of Colorado River water was pumped in November. State Water Project imports averaged 4,500 AF per day, totaling 135,000 AF for the month. The target SWP blends ranged from 85 to 100 percent at the Weymouth and Diemer treatment plants and 75 percent at the Skinner plant during the month of November.

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

Metropolitan complied with all water quality regulations and primary drinking water standards during the month of October 2019.

On November 12, staff representing 35 of Metropolitan's facility locations attended the semiannual Safety Forum at the Water Quality Laboratory. Attendees participated in a roundtable discussion of safety review requests that can be applied Metropolitan-wide, as well as a group exercise that identified the key elements of a proactive safety culture.

Objective: Actively Engage in Capital Project Planning and Execution.

Work on the Greg Avenue Pump Station capital project is underway and includes replacement of the pumps and motors, electrical equipment and control systems, surge tanks, and the existing building structure. In preparation for contractor work, staff facilitated the shutdown of an eight-mile portion of the East Valley Feeder and temporarily relocated the B-05 service connection meter. Additionally, staff utilized this shutdown to perform maintenance at various locations along the feeder. *(see photo below)*

As part of the Colorado River Aqueduct Main Pump Rehabilitation capital project, staff is collecting baseline data on motor and pump performance to determine the effectiveness of the completed project. This month, staff completed installation of vibration monitoring hardware, including transducers and a monitoring display, for one of the pump units at Gene pumping plant. *(see photo right)*



Staff temporarily relocating a service connection meter to support rehabilitation work at the Greg Avenue Pump Station



Staffing installing vibration monitoring equipment at Gene pumping plant

WATER SYSTEM OPERATIONS

GM STRATEGIC PRIORITY: Enhance Infrastructure Safety, Security and Resiliency continued...

Objective: Optimize Maintenance.

Red Mountain Power Plant rehabilitation continued this month. The La Verne Shops machined new turbine hardware to ensure future reliability of the plant. Additionally, staff is refurbishing the piping that enters and exits the turbine, commonly referred to as the penstock and the draft tube, as well as the turbine chamber. Staff blasted and recoated surfaces with high-performance epoxy coatings, restoring these surfaces to like-new condition. The work is expected to be complete in March 2020. *(see photos below)*



The La Verne Shops manufactured various hardware for refurbishment of the Red Mtn.



Red Mountain Power Plant turbine bowl after re-coating

Staff completed scheduled maintenance on the Lake Mathews hydroelectric plant. The six-year maintenance work included minor disassembly, inspection, and diagnostic testing and servicing of electrical and control systems. It also included internal inspections of the turbine chamber, penstock, and draft tube. This maintenance cycle included servicing the generator equipment, as well as electrical testing. *(see photos below)*



Staff performing maintenance on the generator cooling system at Lake Mathews HEP



WATER SYSTEM OPERATIONS

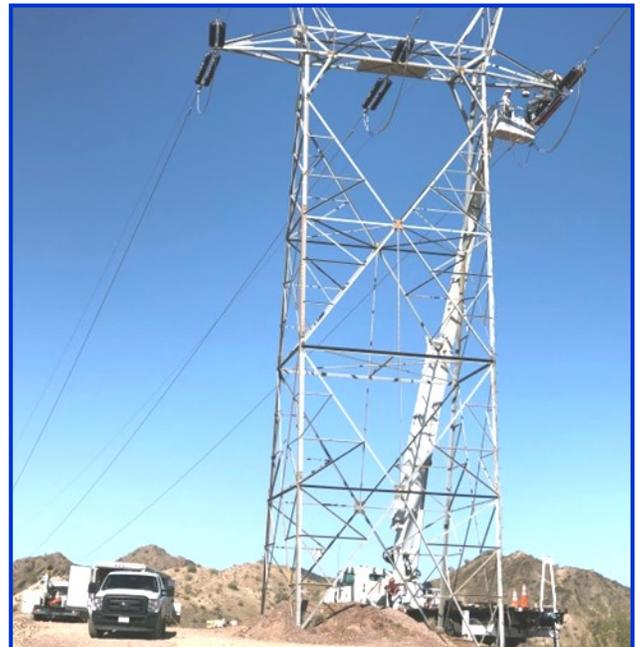
GM STRATEGIC PRIORITY: Enhance Infrastructure Safety, Security and Resiliency continued...

Objective: Optimize Maintenance. Continued....

- Relining of Reach 2 of the Orange County Feeder was completed, extending four miles from the Red Lion pressure reducing structure to the Willits Street pressure control structure in the city of Santa Ana. To return the feeder to service, staff removed an internal bulkhead from the pipe that had isolated the reach to allow adjacent sections to remain in service and meet member agency demands. Once the bulkhead was removed, staff prepared and recoated the pipe at the bulkhead location, disinfected the pipeline, and returned the feeder to service.
- Staff rebuilt an oil pump and motor for a transformer at the Hinds pumping plant. The unit pumps oil from the 230 kV high-voltage transformers to a heat exchanger to prevent the transformers from overheating and ensure reliable operation. Transformers provide power to the nine large pumps at the pumping plant.
- Staff cleaned and performed electrical testing of a 2,300-volt pump motor starter as part of annual preventative maintenance at Hinds pumping plant.
- Heavy rainstorms eroded the Colorado River Aqueduct access structure slope north of the city of Desert Hot Springs. Staff backfilled the erosion damage and placed rip-rap to armor the slope and protect it from future erosion. *(see photo below)*
- Staff replaced damaged overhead powerline insulators on one of Metropolitan's 230kV transmission lines. The damaged insulators were identified during a routine inspection. The work was completed during a scheduled low-flow period to minimize the impact of de-energizing this portion of the transmission system. *(see photo below)*



Erosion damage caused by heavy rainstorms along the CRA



Staff replacing 230kV powerline insulators along the CRA

WATER SYSTEM OPERATIONS

GM STRATEGIC PRIORITY: Enhance Infrastructure Safety, Security and Resiliency continued...

Objective: Manage the Power System

On October 22-24, staff provided a briefing to Colorado River Aqueduct electric transmission system personnel regarding the mandatory North American Electric Reliability Corporation (NERC) standards. The briefing emphasized the importance of compliance with NERC standards to ensure reliable operation of the power grid, as well as to avoid significant financial penalties associated with non-compliance.

On October 30, staff attended the biannual Western Electricity Coordinating Council (WECC) Reliability and Security Workshop in Las Vegas, Nevada. The purpose of the workshop is to provide the latest information on reliability standards and requirements; best practices for audit preparation and data request responses; and WECC's expectations during the audit process.

Objective: Improve Security and Emergency Response.

On October 17, Metropolitan participated in the "Great California ShakeOut," Water System Operations ran a live-start exercise simulating response to an earthquake. Incident Command Posts across Metropolitan entered simulated damage reports to the Emergency Operations Center through the online response system, WebEOC. Metropolitan's emergency employee alerting system was tested, along with the Member Agency Response System radios. *(see photos below)*



Staff in the Emergency Operation Center during the state-wide emergency exercise



Staff at the Diemer plant's Incident Command Post

WATER SYSTEM OPERATIONS

GM STRATEGIC PRIORITY: Enhance Infrastructure Safety, Security and Resiliency continued...

Objective: Optimize Water Treatment and Distribution.

State Project Water target blend entering the Weymouth and Diemer plants ranged from 85 to 100 percent, and entering Lake Skinner was 75 percent in November 2019.

Flow-weighted running annual averages for total dissolved solids from September 2018 through August 2019 were 433, 428, and 430 mg/L for Weymouth, Diemer, and Skinner plants, respectively.

Staff performed annual cleaning of the ozone contactor diffuser stones at the Skinner plant. Diffuser stones distribute ozone into the water for proper mixing. Ideally, the stones evenly distribute fine bubbles into the water, but over time they can clog or develop leaks. This results in the release of larger bubbles leads to less efficient mixing. Diffuser stones that did not function properly were removed and replaced. [\(see photo right\)](#)

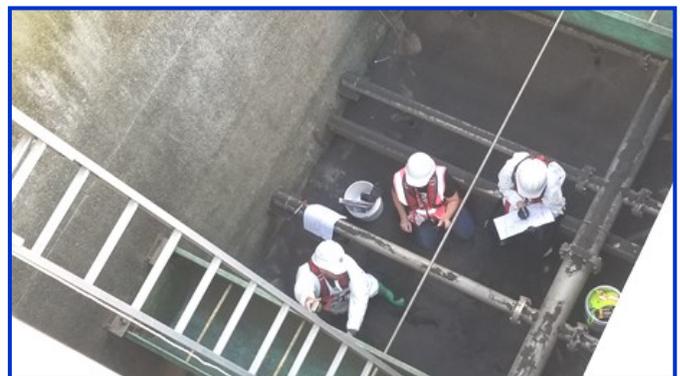
Staff cleaning diffuser stones in ozone contactor at the Skinner plant



- Staff inspected the filter drain valves for leakage at the Skinner plant.
- Staff participated in advanced instrumentation training on ozone residual monitoring and related data collection at the Diemer plant. This training allows staff to verify the accuracy of on-line instruments quicker than previous methods. The accuracy of on-line instruments is critical to the safe and reliable operation of ozone disinfection and other processes at the treatment plant. [\(see photo below\)](#)
- Staff conducted filter surveillance activities at the Mills plant. Filtration is a critical step in the water treatment process. To ensure the filters are maintained for optimal water quality performance, they are routinely inspected and evaluated for media loss, media disturbance, and other operational concerns. [\(see photo below\)](#)



Staff receiving ozone instrumentation training at the Diemer plant



Staff performing filter surveillance activities at the Mills plant

WATER SYSTEM OPERATIONS

GM STRATEGIC PRIORITY: Enhance Infrastructure Safety, Security and Resiliency continued...

Objective: Prepare for Future Legislation and Regulation.

On October 30, Metropolitan sent a letter to the Colorado River Basin Regional Water Quality Control Board (Control Board) opposing their proposed 303(d) listing of Lake Havasu as impaired for sodium. Metropolitan's letter emphasized that the Control Board erroneously applied a 2003 U.S. Environmental Protection Agency Drinking Water Advisory for sodium as the justification for the listing, and that the Control Board did not follow the 303(d) listing process. On November 8, the Control Board responded to Metropolitan and other stakeholders indicating that they would no longer pursue listing Lake Havasu as impaired for sodium.

On October 25, the California Air Resources Board released guidance regarding the use of back-up generators during Public Safety Power Shutoff (PSPS) events. The guidance clarifies that PSPS are "emergency events," and as such, emergency generators are allowed to be operated during these events. However, all applicable state and local air district rules still apply. To date, Metropolitan's back-up generators at each of its five treatment plants and Headquarters are well within regulatory limits.

Objective: Provide Technical Support to Member Agencies.

Metropolitan hosted the bi-annual Member Agency Innovation Council workshop. Staff chaired a roundtable discussion and presented Water System Operations' Condition-Based Maintenance Program.

Staff assisted contractors with placement of instrumentation as part of the Diemer West Basin Rehabilitation capital project. The instrumentation provides information on treatment process performance, allowing operators to monitor and make adjustments to meet system demands and water quality objectives. The overall capital project will upgrade all mechanical equipment in the flocculation, sedimentation, and filtration processes and is scheduled for completion in 2021.

GM STRATEGIC PRIORITY: Prepare for More Extreme Hydrology

Staff will work closely with the Board to assess Metropolitan's storage capabilities, current strategies and review future needs to identify whether new strategies and/or new investments are needed. Metropolitan will examine new opportunities to leverage technology and innovation to promote conservation, efficient water use and water stewardship through a comprehensive demand management program that includes investments in research, innovation, and public education along with targeted incentives for the residential, commercial, industrial, and institutional sectors.

Objective: Manage Water Reserves.

State Water Project imports into the service area in November accounted for about 85 percent of Metropolitan's deliveries. Storage at Diamond Valley Lake is at 751,000 acre-feet or 93 percent full. Water reserves continued to be managed according to Water Surplus and Drought Management principles and the 2019 Annual Operating Plan, while considering the final SWP allocation of 75 percent. Metropolitan began deliveries to Antelope Valley Eastern Kern Water Agency Storage and continued deliveries to Kern Delta and Semitropic Storage accounts in November. Staff is working with the groundwater banking partners to increase scheduled storage at every opportunity. Deliveries of Colorado River water to groundwater storage in the Advanced Delivery Account with Desert Water Agency and Coachella Valley Water District stopped at the end of October. The year-to-date delivery is about 233,000 AF. Deliveries to Cyclic Storage and Conjunctive Use programs also continued in November, totaling 21,000 AF to date. Staff continues to manage storage in 2019 to meet anticipated demands and end-of-year operational targets.

WATER SYSTEM OPERATIONS

GM STRATEGIC PRIORITY: Promote Environmental Stewardship and Sustainability

Metropolitan will continue to lead with programs that promote actions that support sustainable practices, reduce greenhouse gas emissions and protect natural habitat and water quality.

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

Metropolitan's hydroelectric plants generated an average of 29 megawatts or about 21,570 megawatt-hours, and \$1.1 million in revenue, for the month of September. Metropolitan's solar facilities, totaling 5.5 megawatts of capacity, generated about 850 megawatt-hours in October.

Objective: Protect Source Water Quality.

On November 6, staff participated in the quarterly stakeholder meeting regarding perchlorate cleanup at the former Tronox site in Henderson, Nevada. The Nevada Environmental Response Trust discussed current remedial operations and ongoing site investigations. Staff continues to monitor the overall development of the long-term remedial plan and distribution of the Trust's funds for site cleanup, which is currently \$1.21 billion.

Staff coordinated with the California Department of Water Resources to treat Lake Perris on November 7 to mitigate a naturally occurring bloom of cyanobacteria that was producing relatively high concentrations of the taste-and-odor compound geosmin.

GM STRATEGIC PRIORITY: Foster Leadership and Strengthen Workforce Capabilities

More than half of Metropolitan's workforce has reached retirement age, including many members of Metropolitan's executive management team. This is a challenge to Metropolitan's capacity to adequately train and prepare its workforce but is also an opportunity to build a workforce geared for the challenges of the future.

Objective: Manage Vacancies.

WSO filled 9 vacant positions in October 2019.

Objective: Support Education and Outreach Initiatives.

- On October 30, staff provided a tour of Diamond Valley Lake to a delegation from Thailand. Participants toured the West Dam, Inlet/Outlet Tower, and Wadsworth pumping plant and received a presentation on Metropolitan's operational activities.
- On November 5, staff provided a tour of the Diemer plant for Yorba Linda Water District. The tour included a site orientation and treatment process review.
- On November 20, staff provided a tour of the Water Quality Laboratory and Weymouth plant for Citrus College Water Technology students. Tour participants were given an overview of Metropolitan's water treatment facilities, water quality and treatment issues, and plant operations and maintenance activities.
- Staff assisted with three Colorado River Aqueduct inspection trips in November. This included two three-day inspection trips for the Municipal Water District of Orange County and the city of Beverly Hills; and one two-day inspection trip for the San Diego County Water Authority. Participants visited the Gene field office, attended a boat trip on Copper Basin, and toured the Whitsett Intake pumping plant located on Lake Havasu.

WATER SYSTEM OPERATIONS

GM STRATEGIC PRIORITY: Maintain Sound Business Practices and Fiscal Integrity

Metropolitan will continue its longstanding practice of operating in a productive, cost-effective, transparent and efficient manner to ensure sound financial stability.

Objective: Ensure Accurate Billing Infrastructure.

Staff will replace an existing flow meter at service connection CB-14 on the Rialto Feeder in the city of Rancho Cucamonga during an upcoming shutdown. The work will include fabricating and welding a new stainless steel pipe spool and installing a new dresser coupling. Staff completed the installation of temporary handrails around the access opening to the meter structure. *(see photos below)*



Temporary handrail at service connection CB-14 on the Rialto Feeder



The La Verne Shops manufactured pipes and fittings of various sizes for a new service connection near the Skinner plant. The manufacturing process was split into two phases. The first phase involved manufacturing stainless steel and carbon steel pipe sections to test a new 30-inch flow meter at a research laboratory at Utah State University to verify accuracy. In the second phase, the shops modified the pipe lengths, fabricated additional pipe and fittings, and performed mortar lining and coating for final installation. *(see photos below)*



Shop fabricating a 30-inch to 36-inch reducer



Fabricated pipe sections being shipped for testing at Utah State University

WATER SYSTEM OPERATIONS

GM STRATEGIC PRIORITY: Maintain Sound Business Practices and Fiscal Integrity

Metropolitan will continue its longstanding practice of operating in a productive, cost-effective, transparent and efficient manner to ensure sound financial stability.

Objective: Ensure Accurate Billing Infrastructure.

Construction continued on the installation of a new service connection near the Skinner plant. This service connection will provide the San Diego County Water Authority with greater operational flexibility on Pipeline No. 4 and will work in conjunction with the SD-7 service connection to meter water at lower flowrates. This month, staff completed concrete placement and continued with formwork for the downstream valve vault, began installation of a steel pipe for the new meter, and prepared tie-in points for the existing 96-inch diameter pipe.



Staff installing wall formwork for a meter vault for a new service connection near the Skinner plant

Staff installing pipe as part of a new service connection near the Skinner plant



2019 SWP Allocation

1,433,625 AF

75% of Table A

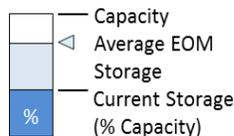
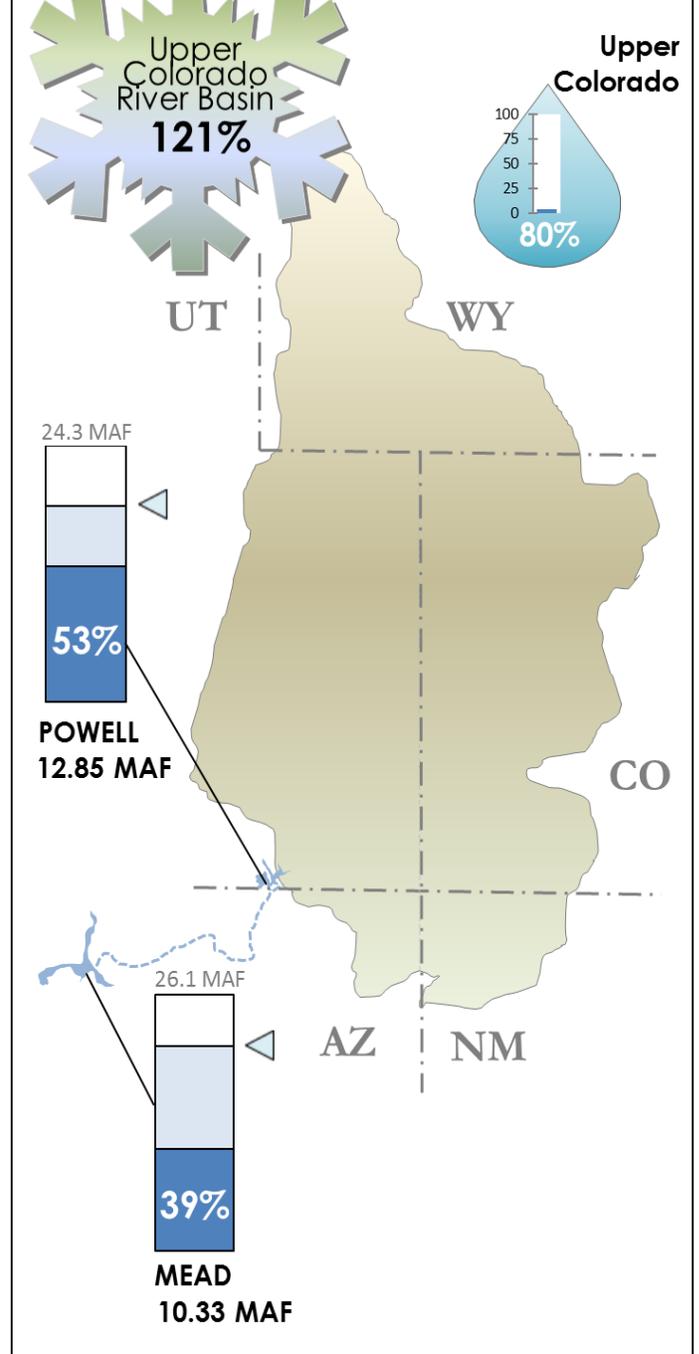
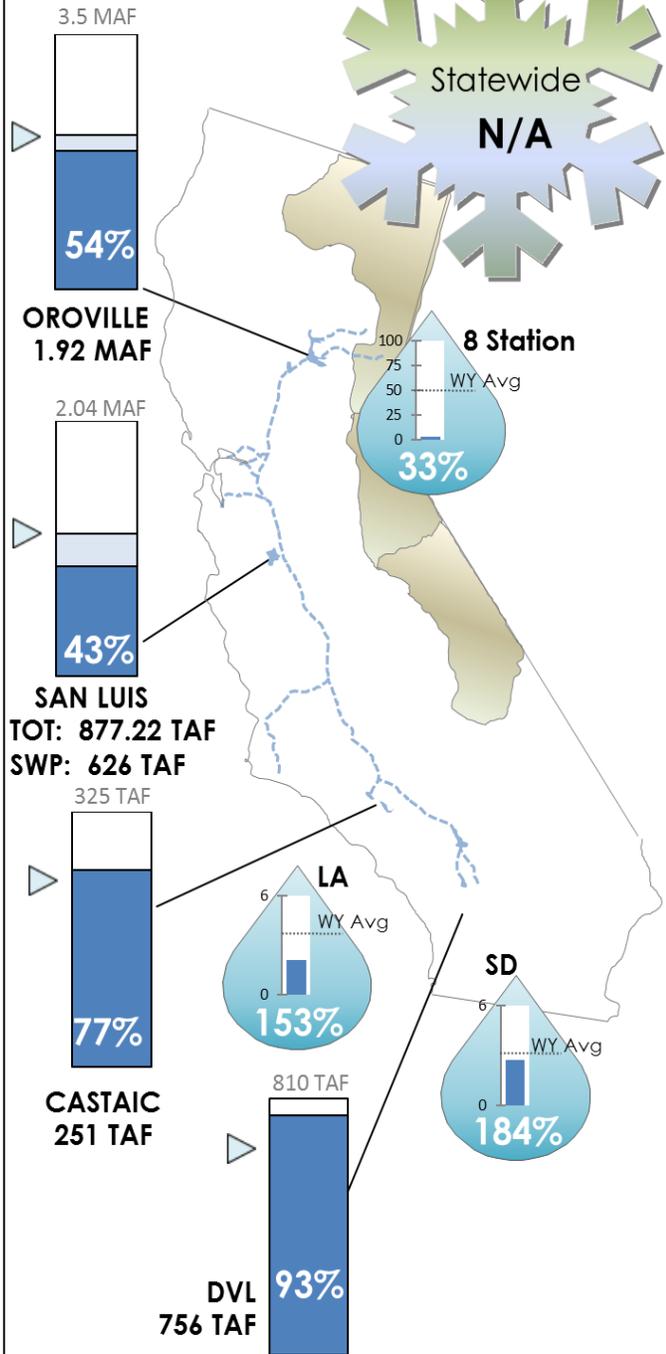
(Does not include CVWD & DWA Table A)

2019 Colorado River

984,577 AF

79% of full CRA

(Does not include storage withdrawals)



The Native American Alaska Native Employees Association celebrated National Native American Heritage Month



Ron Dominguez provided the invocation at the November Board Meeting.

The Native American Archeological Discoveries at Diamond Valley Lake

Darla Radford
Western Science Center
Collections Manager

**Thursday
November 14
11:30 AM
US 2-413**

Hosted by
The Native American Alaska Native Employees Association of MWD

NAANA
The Metropolitan Water District
Native American/Alaskan Native
Employees' Association

| Storage | As of 11/30/19 | % of Capacity |
|--------------|----------------|---------------|
| DVL | 755,901 AF | 93 |
| Lake Mathews | 131,111 AF | 72 |
| Lake Skinner | 39.421 AF | 90 |

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.

General Manager: Jeffrey Kightlinger
Office of the GM No. 213-217-6139
Email: OfficeoftheGeneralManager@mwdh2o.com

700 No. Alameda Street
Los Angeles, CA 90012
General No. 213-217-6000

www.MWDH2O.com

www.BEWATERWISE.com