



The Metropolitan Water District of Southern California
 General Manager’s Monthly Activity Report for December 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.

DECEMBER 31, 2019

COLORADO RIVER WATER 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.

Updated Exchange Agreements with Desert Water Agency and Coachella Valley Water District—The agreements will ensure effective water and cost management and equitable sharing of the risks during the duration of the State Water Project contract and its extension. The signing took place in December while attending the Colorado River Water Users Association annual conference.



Front row: Steve Abbott (Coachella), Mark Krause (GM Desert Water Agency), Jeff Kightlinger (GM Metropolitan)

Back row: Robert Cheng, Peter Nelson, and John Powell Jr., (Coachella) Bill Hasencamp, Marcia Scully, and Randy Record (Metropolitan)

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ADMINISTRATIVE SERVICES

CORE BUSINESS: Business Processes

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

Contracting Services is developing a Purchase Card (P-Card) program for the Delta Conveyance Design and Construction Authority. A policy and procedures manual has been drafted and is currently being reviewed for this purpose.

Objective: Develop, promote and support sustainable business practices.

Rideshare Services is collaborating with Information Technology to develop a Rideshare web-based mobile application and a Rideshare Dashboard. The Rideshare web-based mobile application will provide easier access for customers and increase efficiencies within the Rideshare Program. The Rideshare Dashboard will provide the Rideshare Team with a one-stop location to obtain costs and other important information on the program.

Miscellaneous

The Technical Writing Team collaborated with the Office of the General Manager to update Metropolitan's Correspondence Standards Manual so that all official correspondence adheres to a consistent format and style.

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.

Joint Powers Authorities

On December 11, the newly formed Stakeholder Engagement Committee (SEC) of the Delta Conveyance Design and Construction Authority (DCA) held its second meeting in Rio Vista. The purpose of the SEC is to create a forum for Delta stakeholders to provide input and feedback on technical/engineering issues related to the DCA's current activities. At the December 11 meeting, the SEC received background information that provides a foundation for planned technical discussions in early 2020. The SEC received presentations on the California Environmental Quality Act process and received presentations from DCA engineering staff on components of a conveyance system. The next SEC meeting is scheduled for January 22, 2020.

The regularly scheduled meeting of the DCA Board occurred on December 19. The DCA Board received updates on ongoing activities, including engineering and field work focused on providing support to the California Department of Water Resources, the SEC meeting, and DCA program management and budget. The Delta Conveyance Finance Authority meeting also scheduled for December 19 was cancelled.

BAY-DELTA INITIATIVES

GM STRATEGIC PRIORITY: Ensure Imported Supply Reliability

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

Staff co-authored, with other state and federal agency staff, a recently published Interagency Ecological Program (IEP) Newsletter scientific article entitled “Invasive Aquatic Vegetation Impacts on Delta Operations, Monitoring, and Ecosystem and Human Health.” The article is a review of the efforts by state agencies to monitor and control aquatic weeds in the Delta as well as the ecological impacts of the aquatic weeds on the Delta ecosystem.

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 Interagency Ecological Program Project Work Team meetings in December addressing winter run salmon, salmon genetics, and climate change. The purpose of the IEP Project Work Teams is to collaborate on science activities, organize new studies, review study proposals, and prepare scientific reports.

Staff continued participating in the Collaborative Science and Adaptive Management Program, including participation on the Collaborative Adaptive Management Team (CAMT). At the December 17 CAMT meeting, the team received a presentation on the CAMT Fall Outflow Study, which is evaluating the environmental conditions associated with detection and occupancy of Delta smelt in the fall months, including fall outflow. Preliminary results of the study identified several environmental variables that had a strong relationship with Delta smelt occupancy, including salinity, temperature, turbidity, predators, and competitor species

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.

- Participated in a risk assessment of Finance in support of the America Water Infrastructure Act certification initiative.
- Continued to make updates to the Fusion planning software in preparation for tabletop exercises and plan updates.

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.

- The October 2019 water transactions and revenues were presented to the Finance and Insurance Committee on December 9, 2019.
- In November 2019, Accounts Payable processed approximately 3,600 vendor invoices for payment and took advantage of about \$13,000 in discounts

Objective: Manage investor relations to ensure clear communications, accuracy of information, and integrity.

In December 2019, staff met with representatives from the rating agencies, Fitch Ratings and S&P Global Ratings, to update them on Metropolitan's operations and financial position, in conjunction with a ratings request for Metropolitan's upcoming new money bond sale and refunding, which are expected to close in the spring of 2020.

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.

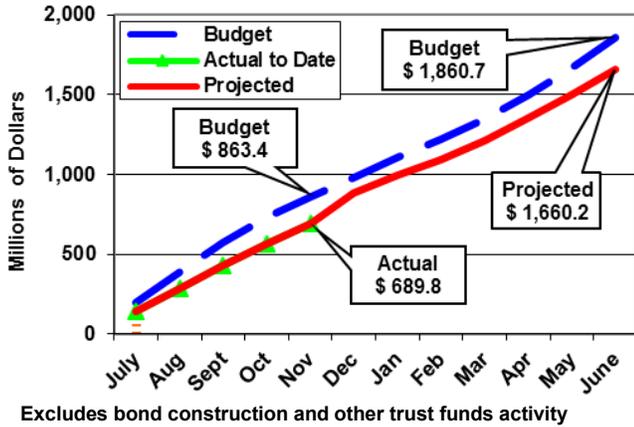
On December 9, the Board adopted Twenty-Third Supplemental Resolution to the Master Revenue Bond Resolution authorizing the issuance of up to \$270 million of Water Revenue Bonds, 2020 Series; and approve expenditures to fund the costs of issuance of the Bonds of approximately \$2 million.

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

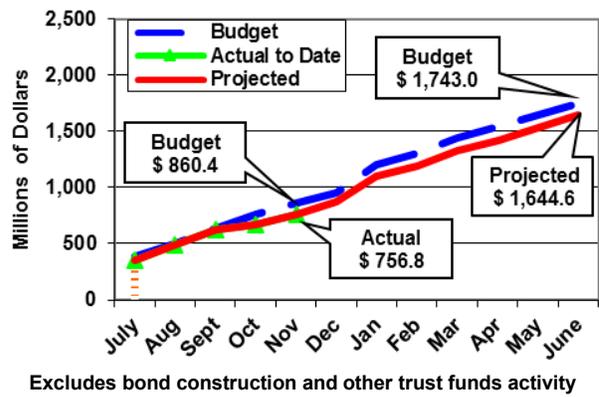
- As of November 30, 2019, the balance in Metropolitan's investment portfolio was \$968.1 million; for the month of November 2019, Metropolitan's portfolio managers executed 47 trades.
- During the month of November 2019, Treasury staff processed 1,503 disbursements by check, 19 disbursements by Automated Clearing House (ACH), and 58 disbursements by wire transfer. Treasury staff also processed 72 receipts by check, 28 receipts by ACH, and 42 receipts by incoming wires and bank transfers.

FINANCIAL SUMMARY AS OF NOVEMBER 30, 2019

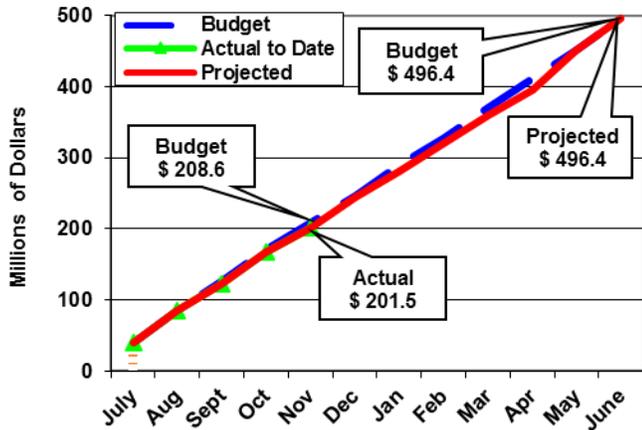
Revenues are expected to be \$200.5M under budget at year end primarily due to 202.8 TAF of lower water transactions.



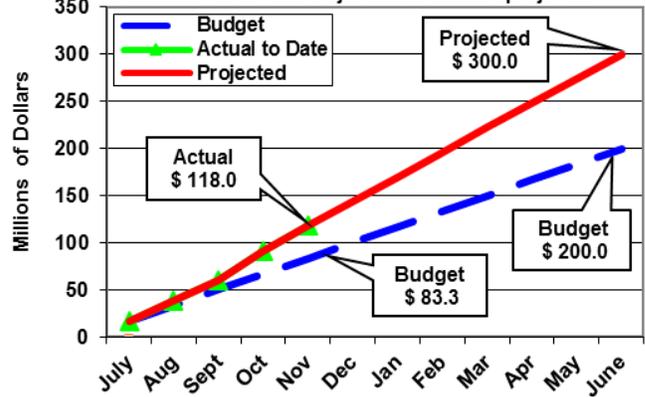
Expenses are expected to be \$98.4M under budget primarily due to assumed decrease in Pay-Go capital financing from \$120M to \$30M.



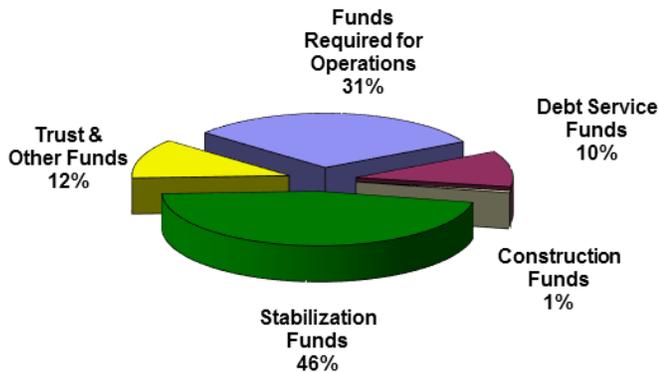
O&M expenses are expected to be on budget at year end.



Capital Program expenses are expected to be \$100.0M over budget at year end due to better than anticipated progress to complete design and award construction contracts for several major refurbishment projects.



Cash and Investments at Fair Value \$ 968.3 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 60 percent complete and is scheduled to be complete by March 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 88 percent complete and is scheduled to be complete by February 2020.

Casa Loma Siphon Barrel No. 1 Upgrades—This project replaces Casa Loma Siphon Barrel No. 1 at a fault crossing utilizing Earthquake Resistant Ductile Iron Pipe (ERDIP). Metropolitan's Board awarded ERDIP and steel pipe procurement contracts in December 2019. Final design of pipe installation is 95 percent complete and is scheduled to be complete by January 2020.

Electrical Upgrades at 15 Structures in OC Region—This project replaces deteriorated electrical components at 15 service connection structures within the Orange County operating region. The electrical components need to be replaced to maintain safe working conditions and prevent the potential loss of flow and control data. Construction is 60 percent complete and is scheduled to be completed by March 2020.

West Valley Feeder De Soto Valve Replacement—This project replaces the existing 42-inch butterfly valve with a new 42-inch high performance butterfly valve and a 42-inch multiple orifice valve. Both of these valves are currently being fabricated. Final design is complete and a Board action to award a construction contract is planned for January 2020.

Palos Verdes Reservoir Sewer Connection—This project constructs a new sewer line that connects to nearby municipal sewer line. Final design is complete. Construction is scheduled to be completed by February 2020.

Orange County Feeder Lining Repairs—This project replaces the deteriorated internal lining along an 11-mile portion of the Orange County Feeder within the cities of Santa Ana, Costa Mesa, and Newport Beach. Rehabilitation is proceeding along four reaches. Construction is complete for Reaches 1 and 2. Final design for the remaining two reaches is 90 percent complete and is scheduled to be complete by February 2020. *(see photo right)*

Electrical Upgrades at 15 Structures in OC Region –
Concrete encasement for 8-inch vent line



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 15 percent complete and is scheduled to be complete by November 2020. Final design of Reach 3 is 79 percent complete and is scheduled to be complete by November 2020.
- **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 40 percent complete, and the valves are scheduled to be delivered by December 2020.

Colorado River Aqueduct (CRA) Reliability Program

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

- **CRA 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 was completed 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 3 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 93 percent complete and is scheduled to be complete by January 2020.
- **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 38 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 5 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 Domestic Water Upgrade—This project upgrades the aging domestic and firewater loop at the Weymouth plant. Construction is 72 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 50 percent complete and is scheduled to be complete by December 2020. *(see photo below)*

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 11 percent complete and is scheduled to be completed by June 2022

Diemer Plant

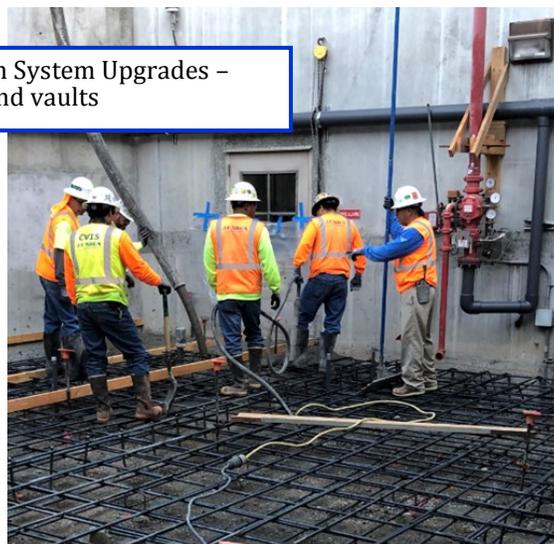
West Basin and Filter Building Rehabilitation—This project performs rehabilitation of the west flocculation/sedimentation basins and filter building at the Diemer plant, including replacement of treatment basin equipment and filter valves, abatement of hazardous materials, and seismic strengthening of the filter building. Construction is 52 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 55 percent complete and is scheduled to be complete by December 2020.

Jensen Module 2 and 3 Flocculator Rehabilitation—This project rehabilitates the Modules 2 and 3 flocculators at the Joseph plant. Construction is seven percent complete and is scheduled to be complete in February 2021.



Weymouth Domestic Water Upgrade - Tie in line at Water Quality Building



Weymouth Chlorination System Upgrades - Backfill of duct banks and vaults

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 treated invasive tobacco and tamarisk trees in all drainages in the reserve north of Cajalco Road outside of Metropolitan operations areas, mowed tumbleweed for habitat improvement and fire fuel reduction, removed debris from illegal dumping, and continued routine patrols.

Southwestern Riverside Multi-Species Reserve

- Received approval from the Reserve Management Committee for soliciting and reviewing responsive proposals for the forthcoming RFP for reserve management services.
- Installed newly propagated plants and obtained addition cuttings from the watershed to propagate more plants for the Tualota Creek habitat restoration project. *(see photo below)*
- Completed quarterly burrowing owl site inspections and maintenance on sub-surface artificial burrows.
- A Girl Scout Troop installed native plants in front of the Alamos Schoolhouse and is creating botanical signage for the project, which is expected to be finished in early 2020 *(see photo below)*



Tualota Creek Habitat Restoration Project

Girl Scout Troup installing native plants at the Alamos Schoolhouse within the Southwestern Riverside County Multi-Species Reserve.



ENVIRONMENTAL PLANNING SECTION

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

- Coordinated geological test pit excavation studies and finalized the nesting bird survey report for the Diemer Slope Erosion Improvements Project.
- Continued environmental support for Palos Verdes Reservoir activities, including a temporary sewer connection for groundwater management; tree removal adjacent to residences on Spinning Wheel Lane; coordination with Engineering Services and Water System Operations on Addendum 4 for installation of permanent blow-off discharge piping; and coordination with Engineering Services, Legal, and External Affairs regarding future tree removal from dam slopes in February 2020.
- Continued environmental analysis and preparation of environmental specifications for the Lakeview Pipeline Repair – Stage 2 Project.
- Began environmental coordination for the Second Lower Feeder Urgent Relining Project.
- Continued support for the Prestressed Concrete Cylinder Pipe Rehabilitation Project, including preparation of technical studies for a Supplemental EIR and continued coordination with the City of Long Beach for work within stormwater basin for Second Lower Feeder Reach 9; completion of Due Diligence Environmental Analysis Memo for the new Main Staging Area located at Harbor College; and completion of the Environmental Resources Assessment for Second Lower Feeder Reach 3.
- Reviewed drawings and specifications for construction of the proposed EM-25 Service Connection project, which will connect the Eastside Pipeline to Eastern Municipal Water District's system.
- Coordinated pre-construction activities for the Orange County Feeder Blow-Off Structure Rehabilitation Project in advance of on-site vegetation clearing, including preconstruction surveys for biological resources and development of a turbidity monitoring plan, and executed an agreement with the Tides Center for required off-site mitigation.

Regulatory Permitting Support and Compliance

- Continued environmental coordination and support on the Stickleback River Ranch mitigation site in compliance with Foothill Feeder shutdown and maintenance long-term permits. Activities included participation in the monthly coordination meeting and a site visit to the mitigation site.
- Received a California Department of Fish and Wildlife Streambed Alteration Agreement (SAA) for dewatering activities to support the planned Robert A. Skinner Water Treatment Plant shutdown.
- Coordinated pre-construction surveys and biological monitoring for annual tamarisk removal in support of mitigation requirements for the Skinner Water Treatment Plant Routine Maintenance Project.
- Submitted emergency SAA notification, conducted biological surveys, implemented species protection measures, and provided construction monitoring support for the Casa Loma Siphon #1 and San Jacinto Pipelines Hazard Mitigation Project. *(see photo right)*

Impact avoidance measures installed to protect the San Bernardino kangaroo rat during the Casa Loma Siphon #1 and San Jacinto Pipelines Hazard Mitigation Project.



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

- Advanced Wetland Delineation training
- Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act course
- Association of Environmental Professionals Advanced CEQA Workshop

- Staff prepared a presentation regarding CEQA for Metropolitan's H2O University.
- Staff organized a U.S. Army Corps of Engineers regulatory workshop for internal staff on Clean Water Act Section 404 and 408 permitting.

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 8 board letters.

Engineering Services Support

- Coordinated with Safety of Dams staff to prioritize dam maintenance needs and identify CEQA and regulatory permitting strategies to authorize ongoing routine maintenance activities.
- Evaluated Lake Matthews and Lake Skinner dam areas for compliance with Department of Safety of Dams requirements.
- Provided design review and environmental specifications for the Lake Mathews Disaster Recovery Facility and the Desert Storage Building Replacement Project.

Water System Operations Support

- Facilitated site visit and assisted with development of solutions for potential erosion at Sepulveda Pressure Control Structure resulting from the Getty Fire.
- Provided pre-construction environmental and sensitive biological resource training in support of upcoming shutdown and dewatering activities in support of regulatory permits.

Construction Monitoring

- Completed construction monitoring activities for the Orange County Feeder Relining, Reach 2.
- Continued preparation of final construction monitoring reports for the PCCP Second Lower Feeder Reach 2 and the Power Line Replacement at Gene and Intake projects.
- Provided pre-construction Environmental Awareness Training and initiated construction monitoring, coordinated with CDFW regarding the Streambed Alteration Agreement amendment, conducted final burrowing owl surveys within the construction area, provided contractor Submittals and Requests for Information review, and provided regulatory permit information for FEMA funding for the Whitewater Repair project.

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

Real Property Support

- Attended monthly Property Review Committee meeting.
- Completed environmental review for two real property agreements and continued environmental review on three additional agreements.
- Coordinated with Real Property on the installation of K-rails at Metropolitan's Potrero property to prevent trespassing.

External Project Review

- Reviewed 10 CEQA notices for external projects and prepared comment letters for those that may affect Metropolitan facilities and/or operations.
- Coordinated meeting between LA Metro and the Real Property Group, Legal, and Engineering Services on LA Metro's project to discuss potential effects to Metropolitan's Headquarters Building.

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; Directors Ackerman, Atwater, Blois, De Jesus, Goldberg, Hogan, McKenney, Ortega, Peterson, Quinn, Ramos, Record, Smith and Williams; General Manager Kightlinger; Chief Financial Officer Kasaine; Assistant General Managers Upadhyay, Chapman, Patterson, Zinke, and staff attended the Association of California Water Agencies fall conference in San Diego. Executive Legislative Representative Hiltcher was presented with ACWA's Lifetime Achievement Award, and Metropolitan staff participated in several panels and committee meetings on a wide range of water policy issues, including state and federal legislation, planning for water supply reliability, water quality, communications, diversity, and outreach. (December 3-5) *see photo right—Brad with Director Record, GM Kightlinger, AGM Zinke, and Group Manager Sims.*



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.

Chairwoman Gray; Directors Barbre, Blois, Butkiewicz, DeJesus, Hawkins, Hall, Hogan, Kurtz, Lefevre, McCoy, Morris, Peterson, Record; General Manager Kightlinger; General Counsel Scully; Chief Financial Officer Kasaine; Assistant General Managers Upadhyay, Chapman, Zinke, and staff attended the Colorado River Water Users Association's Annual Conference in Las Vegas, Nevada. Chief Operating Officer Upadhyay participated in a panel discussion on Metropolitan's investments for future supply reliability including new local supplies and the Regional Recycled Water Project.

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.

Federal

Metropolitan staff continues to work with water utility trade associations, including the Association of California Water Agencies, the Association of Metropolitan Water Agencies, and the American Water Works Association, on issues related to per- and polyfluoroalkyl substances (PFAS). The full House is expected to vote next year on the PFAS package approved in November by the House Energy and Commerce Committee.

The House and Senate reached agreement on a short-term fiscal year 2020 spending plan that would keep the federal government running until March of next year.

State

- The State Water Board announced the members of the Safe and Affordable Drinking Water Fund Advisory Group to help identify safe drinking water needs and funding priorities over the next 10 years as authorized in SB 200 (Monning, D-Carmel). Metropolitan was not named as a member, but Mojave Water Agency, Coachella Valley Water District, and California Urban Water Agencies will be represented.
- The Legislature returns on January 6, and lawmakers are expected to make addressing wildfire disasters and climate change a top policy priority.

Local

- Directors Atwater and Ramos, General Manager Kightlinger, Assistant General Manager Zinke, and staff met with Assemblymember Friedman (D-Los Angeles) to discuss Metropolitan's 2020 legislative priorities. (December 18)
- Directors Atwater, Morris, and Ramos, General Manager Kightlinger, Assistant General Manager Zinke, and staff met with Senator Portantino (D-La Canada-Flintridge) to discuss Metropolitan's 2020 legislative priorities. (December 18)
- Chief Operating Officer Upadhyay, Assistant General Manager Zinke, and staff met with Senator Hertzberg (D-Van Nuys) and district office staff along with representatives of the Sanitation Districts of Los Angeles County to tour the Regional Recycling Water Advanced Purification Plant in Carson and discuss Metropolitan's 2020 legislative priorities. (December 19)

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.

Media Interviews

- Arranged interview between Los Angeles Times reporter Bettina Boxall and General Manager Kightlinger regarding the California Natural Resources Agency announcement on the state process to permit State Water Project operations and litigation challenging the federal biological opinion for State Water Project and Central Valley Project operations.
- Coordinated interview between Brett Jaspers, reporter from the NPR affiliate in Phoenix KJZZ, and Colorado River Resources Manager Hasencamp regarding the structural deficit on the Colorado River, future negotiations, and potential solutions.
- Set up interview between reporter Alastair Bland, freelancing for KCET, and Assistant General Manager Patterson regarding the potential effect from changes to the Coordinated Operating Agreement for State Water Project and Central Valley Project.
- Arranged interview between Nevada Independent reporter Daniel Rothberg and Colorado River Resources Manager Hasencamp about Drought Contingency Plan implementation and interest by Southern Nevada Water Authority in Metropolitan's Regional Recycled Water Project.

Press Releases/Statements

- Metropolitan Statement on Offer to Compromise to San Diego County Water Authority
- Metropolitan to Help Fund San Diego's Pure Water Recycling Facility
- Metropolitan Statement on California Natural Resource Agency Announcement on SWP Permitting, Federal Bi-Ops
- Metropolitan Water District, Bard Water District Partner for Colorado River Sustainability in California

Social Media

- Posted Black Friday rebate advertisements on Facebook
- Highlighted Metropolitan's Disabled Veteran-Owned Business program by featuring a video that aired beginning on Veterans Day

Communications Activities

- General Manager Kightlinger participated in the Year in Water 2019 episode of the Water Values Podcast.
- Placed opinion-editorial from Chairwoman Gray on proposed legal settlement with San Diego County Water Authority in the San Diego Union-Tribune. (December 13)
- Digital display advertisements for the turf replacement campaign produced an estimated 2.1 million impressions and 22,000 bewaterwise.com visits through December. Paid search engine campaign continues with strong results.

EXTERNAL AFFAIRS

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

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 tours of the Regional Recycled Water Advanced Purification Center to the Southwest Membrane Operators Association (December 5), South Bay Environmental Services Center (December 11), and Senator Hertzberg (December 19). In addition, a public tour was held on December 7. *(see photo below)*
- Staff provided a tour of the Skinner water treatment plant for the family of Robert Skinner. (December 18)
- Metropolitan provided three inspection trips to the Colorado River Aqueduct and local infrastructure for directors. (various dates)

Construction Project Updates

- Outreach to residents and businesses near the Greg Avenue Pump Station on plans for planned 24-hour work. (December 3)
- Distributed 3,000 notices to residents, schools, and business in Carson, Los Angeles, and unincorporated areas of Los Angeles County about construction activities for the Second Lower Feeder Reach 2 PCCP Relining Project. (December 11)
- Distributed 500 notices to residents and businesses for the Santa Monica Feeder Shutdown in Beverly Hills, West Hollywood, and Los Angeles. (December 17)

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 provided field trips/events/activities for students from Rosa Parks Elementary School and the Ventura County Workforce Development Board and interacted with 633 students, teachers, and community members. *(see photo below—Students learning about drought, conservation and how climate change impacts water supplies)*



Independent Science Advisory Panel met at and toured the Regional Recycled Water Advanced Purification Center



EXTERNAL AFFAIRS

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

Objective: EDUCATION AND COMMUNITY RELATIONS - continued...

General Education

In partnership with Los Angeles County Sanitation Districts, Metropolitan began offering Water Journeys, an all-day field trip program for students. The program includes presentations and tours of the Regional Recycled Water Advanced Purification Center and the nearby Bixby Marshland, a 17-acre wetland area.

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:

- River LA's Urban Garden event (December 8)
- Lincoln Institute of Land Policy Water and Tribes Initiative (December 11)

Diamond Valley Lake Education Program

Education staff hosted 600 visitors at the DVL Visitor Center and guided more than 250 visitors to the Clayton Record viewpoint.

Student Art Program

Auditor Riss, Ethics Officer Salinas, and Metropolitan staff recognized students, teachers, and parents at the "Water is Life" Student Art and Calendar Program annual event. (December 11) *(see photo below and on page 39)*



Ethics Officer Salinas, General Auditor Riss, and Metropolitan's Admiral Splash recognizing a student for her creative water conservation art.

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.

Staff attended the launch of a pilot program at the Hinds treatment plant for a new technology to inspect intake pumps for conditions and leaks. A Remotely Operated Vehicle introduced through the Technology Awareness Group forums performed underwater inspections and will provide data analytics to support asset management decisions. (December 18)

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

- Los Angeles Chamber of Commerce networking event with the investing companies (December 2)
- Latin Business Awards Sol Business Awards event with more than 400 attendees, including business leaders and public agency representatives (December 4)
- Connect's Most Innovative New Product awards, Entrepreneur Hall of Fame showcase for San Diego community with more than 1,000 participants (December 5)
- Asian Business Association Inland Empire (ABAIE) annual awards and installation dinner with more than 300 attendees (December 12)
- Women's Business Enterprise Council's Community Impact Awards with approximately 150 businesses in attendance (December 12)
- Building Industry Association (BIA) Baldy View Gala, which provided the opportunity to network with Inland Empire construction contractors (December 12)
- American Indian Chamber of Commerce of California annual planning, procurement, and growth summit (December 13)

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.

MET Management University continued its ninth cohort for 27 recently promoted managers. This third session focused on team member motivation, communication, and delegation strategies. The program also provided participants with a leadership self-assessment so that they can identify their own areas of strengths and potential development.

Seventy employees completed the second class in Engineering Service's Design Management Training program that is designed to standardize the Design Manager skillset. The daylong session focused on organization skills, communication, innovative thinking, motivation, and problem solving.

HUMAN RESOURCES

GM STRATEGIC PRIORITY: Foster Leadership and Strengthen Workforce Capabilities continued...

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

Recruitment filled 16 positions for the month of December. HR received 27 new staffing requisitions resulting in 182 positions currently in recruitment.

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

The Organizational Development and Training Unit held an Education Fair at Headquarters. Fifty employees attended to discuss degree options with representatives from 11 universities (among them Pepperdine University, University of West LA, and DeVry).

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.

- HR Benefits attended the Southern California Public Labor Relations Council Monthly Conference in order to gain a deeper understanding of which compensation elements are "PERSable" according to CalPERS criteria.
- HR Benefits met for the Quarter 4 review with the Deferred Compensation Advisory Committee to review the Deferred Compensation plans for the last quarter for 2019.
- HR Benefits conducted the Stepping into Retirement workshop to provide employees with an improved understanding of how to manage their benefits after retirement, including sick leave and annual leave payouts; how to retire with CalPER; and coordinate with Social Security. Forty employees attended this retirement planning workshop.

More than 600 employees attended training on Preventing Workplace Harassment. In addition, 368 employees received training in the following classes:

- Stress Management
- Effective Communication Skills
- Financial Planning
- Drug & Alcohol Awareness

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.

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 19 new claims to Metropolitan's Workers' Compensation Claim Administrator
- Closed 18 Workers' Compensation Claim Files
- Currently 5 employees remain off work due to industrial injury or illness
- Arranged 8 clinic evaluations (Department of Motor Vehicle exams and medical surveillance exams)
- Coordinated 4 random drug and alcohol tests at Jensen, Soto Street, Headquarters, and La Verne.
- Addressed 3 Accommodation issues

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.

- Continued to plan and execute the Cybersecurity Capital Project to enhance security posture and collaborate with stakeholders to enhance network security capabilities for Metropolitan's computing environments.
- Maintained a leadership role by participating in a cybersecurity panel at the recent Association of California Water Agencies 2019 Fall Conference in San Diego, California. The conference is for water industry professionals to learn and connect.
 - IT Cybersecurity Unit Manager Jake Margolis participated as a panelist in discussions with governments and technology innovators to share issues faced by water agencies, and efforts to address evolving cybersecurity threats.

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

- Board and Committee Room Upgrade – The Board previously authorized staff to proceed with the design phase to upgrade the audiovisual (A/V) systems at the Headquarters building. IT is working collaboratively with Engineering Services and Facilities on this technology/construction project to replace the end-of-life A/V equipment in the Board and Committee rooms.
 - As part of the Value Engineering review process, the team continued with the 60 percent design review phase for this project by incorporating recommendations to transition to the 90 percent design review phase. Upon completion of the overall design of the new A/V system, staff will return to the Board to seek approval to proceed with the construction phase.
- Desert Microwave Project – This project scope is to upgrade desert microwave tower sites by replacing end-of-life equipment and providing sufficient capacity and reliability to Metropolitan's wide area network in the Desert Region.
 - During the period, the project team continued to coordinate efforts with key stakeholders in the collection of initial site survey data of the microwave sites in the Desert Region as part of the Design Phase of the project. Next steps include reviewing the 30 percent Design Review by the Networking Team. The team is working with the consultant to develop estimates on construction and installation costs as part of this design phase. *(see photo right)*



Chuckwalla Microwave Site

INFORMATION TECHNOLOGY

CORE BUSINESS: Information Technology continued...

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 meet Metropolitan's disaster recovery objectives.
- The annual integrated IT-DR test was recently executed. All systems and applications were recovered, with three client-based applications pending further work in the isolated test environment. These applications are in the process of being added to the IT-DR environment and will be tested independently.

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

- During the period, Metropolitan's IT Group hosted a Communities of Practice Forum comprised of IT Executives exploring leadership strategies, trends, and technologies shaping the future of Information Technology.
- IT Group Manager Eckstrom moderated a panel discussion on Cloud Computing at the recent Association of California Water Agencies 2019 Fall Conference. The panel included representatives from Microsoft, City of San Diego, and East Bay Municipal Water Utility District with discussions on cloud technology and potential benefits to the water sector. *(see photo right)*



IT Manager Eckstrom on panel discussion on Cloud Computing

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

Simplify Access to Business Information

- Energy Scheduling System—This project replaces the existing Energy Management software, providing key functionalities for operational schedule management.
 - Staff has substantially completed the development phase for the Energy Management portion of the application and the application is in use by Eagle Rock for testing. Next steps for the Energy Management Scheduling component include the Application User Acceptance Testing and deployment to a production environment is scheduled for the end of next quarter.

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.

- In the previous period, staff received the initial shipment of 160 laptops with various hardware configurations and began software testing by selected employees from multiple business units. This shipment of laptops, imaged with Metropolitan's latest base operating system image, are currently being deployed to the selected employees for use in daily business operations to test business critical applications and finalize the Metropolitan's new standard operating system platform.

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

- On-going planning for Unmanned Aerial Vehicle (UAV) drone missions to capture aerial video, photos, and data to support business units. Staff conducted multiple flights with the Field Survey Team at Gene Camp performing an aerial facade survey of the Wash Dam face to map cracks in the dam. (*see photos below*)
- Completed UAV missions to gather aerial videos for the October Board of Directors presentation:
 - Completed some aerial videos for the Sepulveda Feeder PCCP Rehabilitation Project for Engineering.
 - Future missions at Weymouth include:
 - * 3D laser scanning data (i.e. LiDAR - Light Detection and Ranging) tests with the Field Survey Team
 - * Forward-Looking Infrared Radar (FLIR) camera tests for solar farm monitoring

UAV Mission Photos – Gene Camp Wash Dam Facade Survey



REAL PROPERTY

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.

- An encroachment permit from Orange County Public Works was renewed in support of the Right of Way and Infrastructure Protection Program (RWIPP) Orange County. This permit grants Metropolitan temporary use of Magazine Road in Irvine to access a portion of the Allen-McColloch Pipeline.
- An encroachment permit from the San Bernardino County Department of Public Works was obtained in support of the RWIPP San Bernardino. This permit allows Metropolitan access along Opal Avenue in Mentone to patrol and maintain its adjacent fee property and facilities around the Inland Feeder.
- Under the Forbearance and Following Program Agreement, participating landowners record following easements over portions of their land equal to the total number of water toll acres they enrolled into the program. Landowners are allowed to follow different portions of their land by exchanging following easements. Metropolitan and Palo Verde Irrigation District quitclaimed a portion of an existing following easement over 86 water toll acres to a property owner in the Palo Verde Valley in exchange for the granting of a new following easement over the same number of acres elsewhere.
- A temporary entry permit was received from the City of Los Angeles through its Department of Water and Power, in support of Metropolitan's Palos Verdes Reservoir. This permit allows Metropolitan to enter LADWP's adjacent property to inspect and connect to LADWP's existing sewer line to discharge excess groundwater.
- A permanent access easement was granted from the Porter Ranch Development Co. to Metropolitan for ingress-egress to West Valley Feeder 1. This easement is located on a private road, Edgewood Court, within a future housing development and will allow Metropolitan to access the adjacent permanent easement for maintenance of West Valley Feeder 1.

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.

- A 30-year license was granted for IP Athos II, LLC to construct, operate, and maintain a 220 kV generation interconnection line traversing 5.9 acres of Metropolitan fee-owned property near the Eagle Mountain Pumping Plant. The 30-year term commences when IP Athos starts its construction activities.
- A 30-year lease was granted for Riverside County Regional Park and Open Space District to continue operating and managing the Lake Skinner recreational amenities through October 31, 2049. The lease eliminates an annual \$100,000 financial outlay by Metropolitan for the provision of potable water at the site. The lease was structured to assist the County in obtaining grant funds for proposed capital improvements.
- Staff processed the granting of a one-year entry permit commencing November 15, 2019 for Tri-Star Contracting II, Inc. to traverse Metropolitan's access road across the Colorado River Aqueduct near Highway 62 in the city of Desert Hot Springs. The access was required to fix drainage and erosion issues on their adjacent property.
- A one-year entry permit commencing October 1 was granted for University of California, Riverside to conduct research on the vegetation at Metropolitan's Upper Salt Creek Wetlands Preserve.

REAL PROPERTY

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

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.

Diamond Valley Lake was recently stocked with over 3,500 pounds of rainbow and lightning trout. Dozens of anglers were present to see the fish hatchery truck make its way to the DVL marina to stock the lake with these beautiful, multi-colored fish. In addition to the trout, DVL is widely known and acclaimed for its bass, and the marina holds a monthly contest to see who can reel in the biggest one. The angler in the picture below took the prize after the striper he caught weighed in at 17.6 pounds (*shown in picture right*).



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 Metropolitan-sponsored courses: *Reasonable Suspicion Training for Managers*.
- Staff completed the International Right of Way Association-sponsored course: *C604 Spot On! Identifying Environmental Contamination of Property*.
- Staff completed the Metropolitan Management University training: *Module 0: Performance Management*.
- Staff completed the Women's Institute of Negotiation training: *Negotiating for Leadership Success!*
- Staff achieved their Right of Way Agent Certification from the International Right of Way Association. *Along with constituting a professional achievement, this certification reflects valuable expertise in the Right-of-Way profession and enhances staff contributions in the workplace.*

CORE BUSINESS: Annexations

Objective: Seek fair and equitable contract agreements with Member Agencies, federal, and state governments to maintain a long term sustainable wholesale water resource to Southern California.

The 2019 Statement Change of Boundary report was completed and transmitted to the State Board of Equalization. As a result of the 2019 annexations, Metropolitan's current service area increased by 17.68 acres and is now approximately 5,181 square miles.

The annexation charge report for calendar year 2020 was completed. The annexation charge for 2020 will be \$6,151 per acre.

SECURITY

Objective: Strengthen Internal and External Partnerships.

Security Management continues to achieve critical infrastructure security best practices, meet the 2019 America's Water Infrastructure Act regulations for drinking water security, and set new standards within the industry. Components of Metropolitan's Employee Personal Security Awareness training have been adopted by the Los Angeles Department of Water and Power and other organizations. Security Management hosted State Water Project officials at the Eagle Rock facility on December 11, 2019 to discuss security systems, emergency response integration, and lessons learned in building a 24/7 central alarm center. Metropolitan's State Water Project partners are seeking to build a central monitoring station modeled after Metropolitan's Security Watch Center, due to its similar scale and proven success in monitoring critical assets in remote areas.

Security Management Services created an internal emergency and disaster recovery workgroup comprised of key personnel to increase resiliency of Metropolitan's system. Key stakeholders were selected from physical security, cybersecurity, emergency management, business continuity, and information technology networking, in order to coordinate shared response objectives during emergencies.

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

As a result of a dry beginning of the water year and an initial State Water Project allocation of 10 percent, Metropolitan will suspend cyclic deliveries as of December 31, including the Cyclic Cost-Offset Program. Staff estimates that 164 thousand acre-feet will be captured through the Cyclic Program, including 20 TAF through the Cyclic Cost-Offset program that was initiated on August 1. Staff will continue to monitor improving water supply conditions and may consider restarting cyclic deliveries (potentially including the Cyclic Cost-Offset Program) if conditions warrant.

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: Implement Local Resources Program.

The Stormwater for Direct Use Pilot Program, which was approved by the Board in September 2019, will evaluate potential water supply benefits delivered by stormwater capture projects. This program will help fund the construction of new, or retrofit of existing, direct-use stormwater capture projects and supplemental monitoring and reporting costs. In anticipation of the Program's launch, staff held a webinar on November 20 to provide details on the program and application process. A total of 20 attendees participated, including staff from 10 different member agencies, retail agencies, and consulting staff.

WATER RESOURCE MANAGEMENT

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

Objective: Implement Conservation Program.

- Metropolitan held a Model Water Efficient Landscape (MWEL) workshop in Los Angeles in partnership with California Landscape Contractors Association for approximately 55 participants representing landscape contractors and local agency staff. The class educates attendees on the MWEL ordinance. Instruction included ordinance specifications and requirements, water budgeting, and permitting procedures.
- Metropolitan participated in a panel discussion on landscaper certification programs at the California Water Efficiency Partnership (CalWEP) Winter Plenary in Santa Barbara. Staff presented information on Metropolitan's new hybrid landscape certification program. More than 75 people attended, representing water agencies, non-government organizations, businesses, and universities.
- Metropolitan hosted a Program Advisory Committee meeting of the member and retail agencies. The PAC looks at opportunities to improve the conservation programs. Discussed at the meeting were the potential for commercial or residential indoor audits, new drip irrigation technology, and commercial inclusion for rain barrel and cistern rebates.
- Staff participated in the Alliance for Water Efficiency Board of Directors Meeting. The fiscal year budgets were discussed with regard to additional funding resulting from the approval for Metropolitan to fund a portion of member agencies dues. Other funding sources are being considered to shore up staffing and additional research opportunities.
- Staff participated in the California Irrigation Institute (CII) Board of Directors Meeting in preparation for the 57th annual statewide Agricultural and Urban Water Efficiency Conference. The conference, co-sponsored by Metropolitan will be held in Sacramento at the end of January.

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.

Staff and Board members attended the annual Colorado River Water Users Association conference in Las Vegas December 11-13. Highlights of the conference include:

- Secretary of the Interior Keynote Speech. Secretary Bernhardt, while welcoming Mexico back to the Association, remarked that he thinks the Colorado River is an example of tremendous collaboration among its users, citing the Drought Contingency Plan and Treaty Minutes with Mexico as examples of tremendous cooperation. The Secretary also announced that Reclamation would begin an evaluation of the effectiveness of the 2007 Interim Guidelines, with a goal of completing a report by the end of 2020.
- Metropolitan and Bard Water District executed an agreement for the Bard Seasonal Fallowing Program. Under the Bard Program, Metropolitan will incentivize farmers to fallow up to 3,000 acres during the late spring and summer months (April-July) when they typically have water-intensive, lower-value crops. The Program will reduce water consumption in Bard that will help augment Metropolitan's Colorado River supplies. The Program will begin in year 2020 and end in year 2026.

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 90,000 acre-feet of water to member agencies in December. December deliveries averaged approximately 3,000 AF per day, a decrease of 2,000 AF per day from November deliveries. Treated water deliveries for December totaled 40,000 AF, or 45 percent of total deliveries for the month. This was a decrease of about 28,000 AF from November treated water deliveries. The Colorado River Aqueduct transitioned from a 3-pump flow to a 4-pump flow in mid-December, and averaged 1,400 AF per day. Pumping was increased to capture additional Colorado River water available as a result of less usage by higher-priority Colorado River agricultural users due to recent changes in weather. A total of 44,900 AF of Colorado River water was pumped in December. State Water Project imports averaged 4,500 AF per day, totaling 102,000 AF for the month. The target SWP blends were 100 percent at the Weymouth and Diemer plants, while the Skinner plant remained at a 75 percent targeted blend during the month of December.

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 November 2019.

On December 3, the 100 percent Compliance Team met at the Jensen plant. This team consists of managers and staff from Water System Operations and Engineering Services groups that meet on a regular basis to discuss operational, design, maintenance, and staffing issues at the treatment plants. The purpose is to ensure that Metropolitan's treatment plants are capable of meeting all regulatory requirements 100 percent of the time. Topics discussed included water quality compliance and treatment strategies, nitrification control, chemical system design criteria, and ozone optimization.

Staff installed a new Programmable Logic Controller in the hydrogen peroxide tank farm at Metropolitan's Chemical Unloading Facility in the Riverside area. As part of the chlorine transloading process (transferring chlorine from railcars to trucks for delivery to Metropolitan's water treatment plants), a chlorine solution must be discharged. Hydrogen peroxide is used to reduce chlorine levels in CRA water and ensure all environmental requirements are met, prior to water entering Lake Mathews. The new PLC will provide better monitoring and operational capabilities. Staff also completed the final programming checks for the new PLC this month. *(see photo right)*

Staff installing PLC components in a chemical tank farm at the Chlorine Unloading Facility



WATER SYSTEM OPERATIONS

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

Objective: Actively Engage in Capital Project Planning and Execution.

On December 16-19, staff held a constructability review workshop for the Water Quality Laboratory seismic upgrade as part of Metropolitan's ongoing infrastructure reliability program. Workshop participants included internal staff and various consultant specialists. With the building upgrade project at the 60 percent design stage, the primary objectives of the workshop were to confirm the feasibility of the construction schedule and identify alternative construction phasing options to minimize the period of relocation for Water Quality staff. Construction of the project is planned to begin in 2021.

As part of the Weymouth Domestic Water System Improvements capital project, staff replaced the city of La Verne's two, four-inch service meters with one eight-inch meter. This new meter will increase the amount of water the plant can receive from the city in the event the plant's domestic water pumps fail. The domestic water system supplies water for chemical injection, fire protection, and domestic use at the Weymouth site. *(see photos below)*



City of La Verne's four-inch water service meter before and after

Objective: Optimize Maintenance.

- Severe storms during the last two years created significantly higher than normal flows in the San Jacinto River near the city of Hemet. During patrols of the system, staff discovered that the high flows nearly exposed the Colorado River Aqueduct and San Jacinto pipelines at the river crossing. Staff installed temporary steel plates and concrete K-rails on top of the pipeline crossings to prevent it from floating during dewatering of the CRA for an upcoming shutdown. Staff is currently in final design for permanent improvements at the river crossing to ensure long-term protection of the pipelines.
- In some remote areas adjacent to Metropolitan's pipelines, illegal trespassing and dumping can occur. To minimize these activities, staff installed steel barrier gates at key locations this month to prevent unauthorized access to patrol and maintenance roads.
- Staff continued system-wide preventative maintenance on multiple pipeline valves and structures to improve equipment reliability and maintain system capacity. This month, staff prepared and recoated a sectionalizing valve on the Palos Verdes Feeder and an air release shutoff valve at the CB-48 service connection on the La Verne pipeline.

WATER SYSTEM OPERATIONS

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

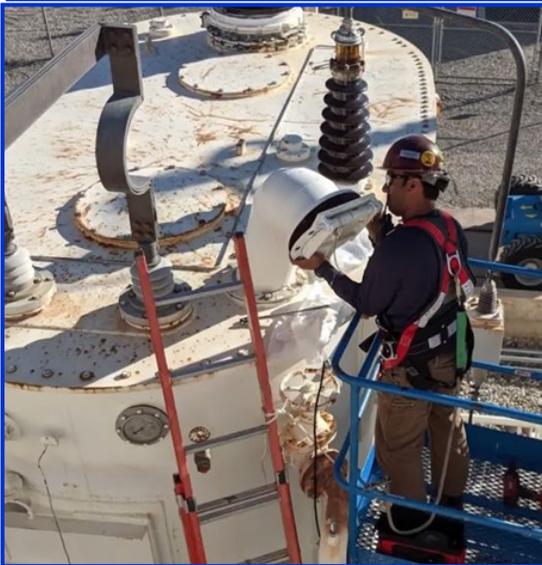
Objective: Optimize Maintenance. Continued...

Staff discovered cracked mortar and corroded metal on a vent stack during routine inspection of the Lower Feeder pipeline downstream of Lake Mathews. After a detailed inspection, it was determined that the vent stack could be repaired by removing the damaged mortar, adding reinforcing steel, and reapplying the mortar coating. *(see photo right)*

Staff performing coating repairs on a vent stack on the Lower Feeder.



Staff installing a new pressure relief device on a transformer at Hinds pumping plant.



Staff removed transformers from service to replace pressure relief devices at Hinds pumping plant. Pressure relief devices are used to avoid high oil pressure buildup inside transformers during fault conditions. Staff also performed preventative maintenance on the transformer's auxiliary equipment to ensure reliable service. Transformers are used to step down the transmission line voltage from 230 to 6.9 kilovolts, which is then used to power the nine pumping units at the Hinds facility. *(see photo left)*

During a routine inspection, a minor leak was detected along the Colorado River Aqueduct near the Copper Basin outlet structure. Staff excavated the leak site, drilled injection ports, and injected an elastomeric resin. The resin is hydrophilic and reacts with water to expand and effectively seal the leak. *(see photo right)*

Staff preparing to repair a minor leak on the Colorado River Aqueduct

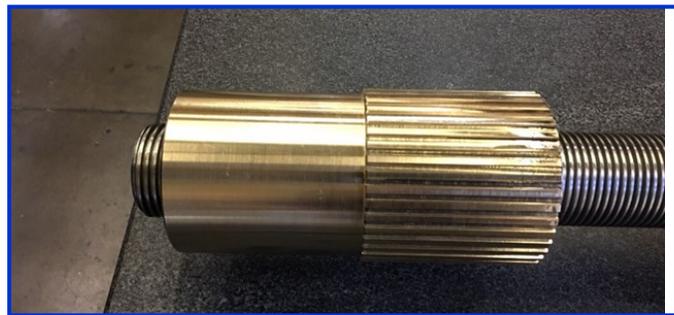


WATER SYSTEM OPERATIONS

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

Objective: Optimize Maintenance. Continued....

The La Verne Shops manufactured a new lift nut and repaired damaged threads on the actuator stem shaft for a sleeve valve at the Sepulveda Pressure Control Structure. This structure is used to reduce pressure on the Sepulveda Feeder through the Sepulveda Pass. Staff had inspected the non-operating sleeve valve and identified a damaged lift nut within the actuator. The actuator and other components were transported to the La Verne Shops for complete disassembly and further inspection. After manufacturing, the nut and the shaft were tested and installed on the reassembled unit to extend the actuator's reliability and service life. *(see photos below)*



Lift nut with damaged internal threads (left) and newly manufactured lift nut (right) for Sepulveda PCS sleeve valve.

During a planned shutdown of the Skinner plant, staff performed high-voltage testing and maintenance of the plant's main electrical system. The work included cleaning, lubricating, and testing high-voltage circuit breakers, switchgear, and protection relays to ensure electrical system reliability. Staff also replaced Supervisory Control and Data Acquisition (SCADA) network switches at the plant. The new network switches will improve reliability and enhance cyber security protection. Staff took the opportunity to perform this important electrical and control system maintenance work during the Skinner plant shutdown to reduce the impact on operations. *(see photo left)*



Staff testing high-voltage switchgear at the Skinner plant

WATER SYSTEM OPERATIONS

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

Objective: Optimize Maintenance. Continued....

Staff replaced air coolers at the Yorba Linda hydroelectric power plant. Air coolers are radiators that maintain optimal temperature within the generator to prevent overheating and premature failure of the high-voltage electrical system. Staff identified internal corrosion on the air coolers and replaced them during a scheduled outage to minimize potential for leaks and ensure reliable operations.

As part of an ongoing effort to improve maintenance and increase reliability of pumps at the Colorado River Aqueduct pumping plants, staff installed vibration monitoring equipment. This equipment allows maintenance staff and engineers to continuously monitor conditions of the pump units and identify potential problems in advance of adverse operational effects, thereby avoiding costly repairs. Staff also installed equipment to continuously measure CRA pump efficiency. These measurements allow staff to assess performance and condition of the pump units following refurbishment. Both of these improvements are part of an asset management program that will help staff optimize future maintenance and extend equipment life. *(see photo right)*

Equipment installed to measure CRA pump efficiency



In anticipation of the recent heavy rain events, staff dewatered sumps and vaults at the Weymouth plant to ensure adequate space so that these facilities can be reliably operated, if needed. Dewatering also keeps electrical equipment and high-voltage cables from becoming inundated by rainwater. Prior to pumping, the pH of the water was verified to ensure compliance with discharge requirements. *(see photo left)*

Staff dewatering transformer sump prior to heavy rain event at the Weymouth plant

WATER SYSTEM OPERATIONS

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

Objective: Manage the Power System

The California Independent System Operator (CAISO), as the Planning Coordinator for Metropolitan's CRA 230kV transmission system, performed transmission planning studies of the system as part of Metropolitan's annual transmission reliability assessment. The purpose of the studies is to assess Metropolitan's CRA 230kV system relative to the North American Electric Reliability Corporation's (NERC) Transmission Planning Reliability Standard. In addition to the CAISO assessment, Metropolitan staff also performed studies associated with the NERC standard. Both the CAISO and Metropolitan determined that there are no adverse impacts to the CRA 230kV system for the range of scenarios studied. Metropolitan staff has developed a final report and will share the results with neighboring transmission entities.

On November 13, Metropolitan participated in a U.S. Bureau of Reclamation Parker Dam meeting to discuss changes to Reclamation's Ten-Year Plan (Federal Fiscal Years 2019 through 2028). Overall, the FY 2020 approved budget of \$4.24 million (Metropolitan's 50-percent portion) did not change. However, additional operation and maintenance expenditures of \$175,000 and capital project expenditures of \$125,000 (Metropolitan's portion) were identified. For FY 2020, these two costs will be paid through a FY 2019 credit.

Recently, a high-voltage protection relay for the Iron Mountain pumping plant to Eagle Mountain pumping plant 230kV circuit breaker operated due to a system error. Staff downloaded the event information, analyzed the data, and developed updated settings and logic to improve system reliability. The new settings were then tested to ensure continued safe operation of Metropolitan's high-voltage CRA power system..

Objective: Improve Security and Emergency Response.

On November 13, Metropolitan hosted leaders from local, state, and federal emergency management agencies to develop a new Southern California Catastrophic Earthquake Plan. The workshop was sponsored by the California Office of Emergency Services. The workshop provided participants an opportunity to review the current draft of a new Catastrophic Earthquake Plan for the region and offer feedback to be used in the final plan, which is expected next year. Metropolitan's participation in these multi-agency emergency management workshops helps to emphasize the importance of water systems in disaster recovery and the need to be included in emergency planning efforts.

On December 3, staff met with command staff from the Los Angeles Fire Department at their Department Operations Center to thank them for their heroic efforts and for protecting Metropolitan facilities during the Saddle Ridge and Getty fires that began on October 10 and October 28, respectively. Both fires were driven by extreme Santa Ana winds that burned very close to Metropolitan facilities. As a result of LAFD's efforts, there were no injuries to staff or serious damage to Metropolitan facilities.

On December 11, staff from the California Department of Water Resources Security team met with Metropolitan Security and Emergency Management staff at Metropolitan's Emergency Operations Center (EOC) in Eagle Rock. The meeting focused on updates to Metropolitan's Security and Emergency Response programs and opportunities for continued collaboration. Staff provided DWR a tour of the EOC, Operations Control Center, and Security Watch Center.

WATER SYSTEM OPERATIONS

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

Objective: Optimize Water Treatment and Distribution.

The State Project Water target blend entering the Weymouth and Diemer plants was 100 percent and entering Lake Skinner was 75 percent in December 2019.

Flow-weighted running annual averages for total dissolved solids from October 2018 through September 2019 were 410, 403, and 411 mg/L for Weymouth, Diemer, and Skinner plants, respectively.

To ensure a reliable cooling supply for the ozone system at the Jensen plant, staff replaced a chiller compressor that had internal damage and could no longer be serviced. Staff removed the old compressor, installed a new unit, and verified proper operating pressures and temperatures after refrigerant and electrical connections were secured. (*see photos below*)



Staff cleaning diffuser stones in ozone contactor at the Skinner plant



- Staff installed a new uninterruptible power supply (UPS) for the Diemer plant's chlorine facility. The new UPS system provides redundant uninterruptible power for all critical equipment. Atmospheric sensors were also installed to ensure reliable operation of the chlorine system and a safe working environment for employees.
- Metropolitan staff and a contractor installed the first of two tanks to be replaced at the Jensen plant. The tanks store fluorosilicic acid as part of the fluoride chemical feed system. The existing tanks have reached their end of life and are being replaced. The work will be done in multiple steps and includes installing a temporary system to ensure continued operations of the chemical feed system. (*see photo right*)

New chemical tank being installed at the Jensen plant



WATER SYSTEM OPERATIONS

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

Objective: Optimize Water Treatment and Distribution. Continued...

In preparation for a shutdown of the Diemer plant in January 2020, staff installed a 30-inch pipe spool that will allow dewatering of the plant. The plant must be dewatered to accommodate scheduled work in the ozone effluent channel during the upcoming seven-day shutdown. Staff has closely coordinated with affected member agencies to prepare for this full-plant shutdown. *(see photo right)*

Staff installing a pipe spool to allow dewatering of the Diemer plant



In partnership with the San Diego County Water Authority, staff completed a nine-day shutdown of the Skinner plant to install a 36-inch, low-flow bypass and meter around the existing Skinner plant effluent meter. During the shutdown, staff also removed the existing finished water reservoir bypass slide gate and installed a new bypass slide gate manufactured at the La Verne Shops. Influent gate seals at the ozone contactors were also replaced, which will help reduce water leakage into the contactors when out of service, thereby improving efficiency and reducing pumping costs. Isolation valves were installed on air/vacuum valves at the plant's influent control structure, which will allow equipment to be serviced while the plant is fully operational. Additionally, staff performed internal inspections of a reinforced concrete box conduit and 5.5 miles of welded steel and pre-stressed concrete cylinder pipelines in and around the treatment plant. The work involved extensive coordination between multiple operations and engineering teams and was successfully completed one day ahead of schedule. *(see photos below)*



Staff installing the new finished water reservoir bypass slide gate at the Skinner plant



Staff inspecting and cleaning the finished water reservoir influent conduit at the Skinner plant

WATER SYSTEM OPERATIONS

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

Objective: Prepare for Future Legislation and Regulation.

On December 4-5, staff attended the State Water Resources Control Board's (SWRCB) two-day seminar in Sacramento on per- and polyfluoroalkyl substances (PFAS) in California. Topics included an update on the occurrence of PFAS in drinking water, toxicology, exposure pathways, approaches to treatment and remediation, and the outlook on future regulation of PFAS in California. In July 2019, the SWRCB's Division of Drinking Water updated its guidelines for detecting and reporting these chemicals in drinking water. The notification levels for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were set at 5.1 and 6.5 parts per trillion, respectively. The SWRCB has also requested that the Office of Environmental Health Hazard Assessment to develop public health goals for PFOA and PFOS, which is the next step in the regulatory process of establishing maximum contaminant levels in drinking water.

On November 13, the U.S. Environmental Protection Agency proposed revisions to the Lead and Copper Rule. In addition to revised sampling procedures and public outreach tools, the revised Rule mandates corrosion control when tap water samples exceed a new trigger level of 10 parts per billion (ppb). If home sampling exceeds 15 ppb (the current standard), water systems are required to "find-and-fix" the source of the lead, which may include up to full lead service line replacement. Staff are currently reviewing the revised rule to determine impacts on Metropolitan. Written comments are due January 13, 2020.

At its November 14 board meeting, the Colorado River Basin Regional Water Quality Control Board (Regional Board) withdrew its proposal to list Lake Havasu as impaired for sodium. This action was taken following Metropolitan's letter that stressed the listing was in error and violated the 303(d) listing process. The Regional Board also withdrew its proposal to list portions of the Colorado River as impaired for total dissolved solids (TDS) and electro conductivity. Staff will continue to monitor the Regional Board's 303(d) listing process for any potential impacts on the Colorado River.

On November 20, the U.S. Environmental Protection Agency signed the Risk Management Program (RMP) Reconsideration Final Rule. Metropolitan's chlorine handling and storage facilities are subject to the RMP Rule. Metropolitan was supportive of EPA's reconsideration process as the 2017 amendments were overly burdensome to the water sector. While not yet published in the Federal Register, the Final Rule rescinds most of the provisions of the 2017 RMP Amendments, including major accident prevention program provisions and public information availability provisions. The Final Rule also pushes compliance dates for conducting emergency exercises and updating the risk management plan to four to seven years after the rule is published. Staff will continue to monitor future developments regarding the RMP Rule for any potential impacts on Metropolitan.

On December 9, Metropolitan sent a comment letter to the Department of Water Resources regarding wholesale water loss. Per SB 606, DWR is charged with sending a report to the Legislature on the feasibility of developing water loss reporting requirements for urban wholesale water suppliers. Metropolitan supported DWR's draft recommendation that wholesale agencies report water loss annually with no requirement to validate their water-loss audits until best management practices are developed. Metropolitan also supported DWR's recommendation that an audit form specific to wholesale agencies be developed that is different from current industry methodology designed for retail agencies. Lastly, Metropolitan supported DWR's recommendations to complete a study on best management practices for large-meter calibration and develop training materials on wholesale water loss methodology. Staff will continue to track and engage on future wholesale water loss developments.

Storage	As of 12/31/19	% of Capacity
DVL	795,937 AF	98
Lake Mathews	152,086 AF	84
Lake Skinner	38,306 AF	87

WATER SYSTEM OPERATIONS

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 December accounted for about 85 percent of Metropolitan's deliveries. Storage at Diamond Valley Lake is at 795,000 AF or 98 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 completed deliveries to Semitropic, Kern Delta, and Antelope Valley-East Kern Storage accounts in December for total puts of about 158,000 AF in 2019. Staff worked 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 resumed in early December, ending the year with about 244,000 AF of total deliveries. About 410,000 AF was added in 2019 to Metropolitan's Intentionally Created Surplus (ICS) account in Lake Mead, for a total ending balance of nearly 1 million acre-feet. Final ICS accounting will be determined in mid-2020. Deliveries to Cyclic and Conjunctive Use programs also continued in December, totaling 183,000 AF for the year. Of this amount, about 20,000 AF was delivered to member agencies through the Cyclic Cost Offset Program. The program was suspended at the end of the year due to the low initial 2020 SWP allocation. Staff managed storage to meet anticipated demands and end-of-year operational targets. Metropolitan achieved a record dry-year storage level in 2019 of about 3 million AF.

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 5 vacant positions in November 2019.

Objective: Support Education and Outreach Initiatives.

On December 18, staff provided a tour of the Skinner plant to the grandchildren of Robert A. Skinner. The granddaughters, originally pictured with Mr. Skinner at the Skinner plant dedication in 1976, returned to the plant to share some of their history and memorabilia as well as learn more about their grandfather and his contributions to Metropolitan. Robert A. Skinner was Metropolitan's General Manager from 1962 to 1967.

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 30 megawatts or about 21,810 megawatt-hours, and \$1,272,170 million in revenue for the month of November. Metropolitan's solar facilities, totaling 5.5 megawatts of capacity, generated about 550 megawatt-hours in November.

WATER SYSTEM OPERATIONS

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 the Regional Recycled Water Program.

Staff installed an exhaust system for certification of a new biosafety cabinet at the demonstration plant laboratory at the Regional Recycled Water Advanced Purification Center in Carson. Staff also installed a pressure reducing valve to mitigate process upsets due to fluctuating influent flow of secondary effluent from the Joint Water Pollution Control Plant. In addition, staff worked with the Los Angeles County Sanitation Districts and project consultants to optimize biological denitrification within the membrane bioreactor system. *(see photos right and below)*

Staff conducting bench-scale testing to optimize biological processes of the MBR system



Biosafety Cabinet and Exhaust system for cabinet installed at the Regional Recycled Water Center

On December 4-5, the second Independent Science Advisory Panel workshop for the Regional Recycled Water Program was held at the Joint Water Pollution Control Plant in Carson. Over 40 attendees representing the State Water Resources Control Board's Division of Drinking Water, Los Angeles Regional Water Quality Control Board, Los Angeles County Sanitation Districts, project consultants, and Metropolitan staff participated in the workshop. Eight subject matter experts provided feedback on technical, scientific, regulatory, and public health aspects of the demonstration project.

WATER SYSTEM OPERATIONS

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: Support Imported Supply Reliability

The La Verne Shops are manufacturing two large stop log gates to be installed at the Department of Water Resources' Alamo Power Plant, located on the East Branch of the State Water Project. In combination with two existing slide gates, these stop log gates provide the means to isolate water flow and dewater the facility for inspection and repair work. Staff worked with DWR to assess the condition of the gate, develop a scope of work, and prepare shop drawings. Staff also worked with DWR to make modifications to the gate that will minimize future corrosion when in service. (*see photos below*)



Existing stop log gate at DWR's Alamo Power Plant



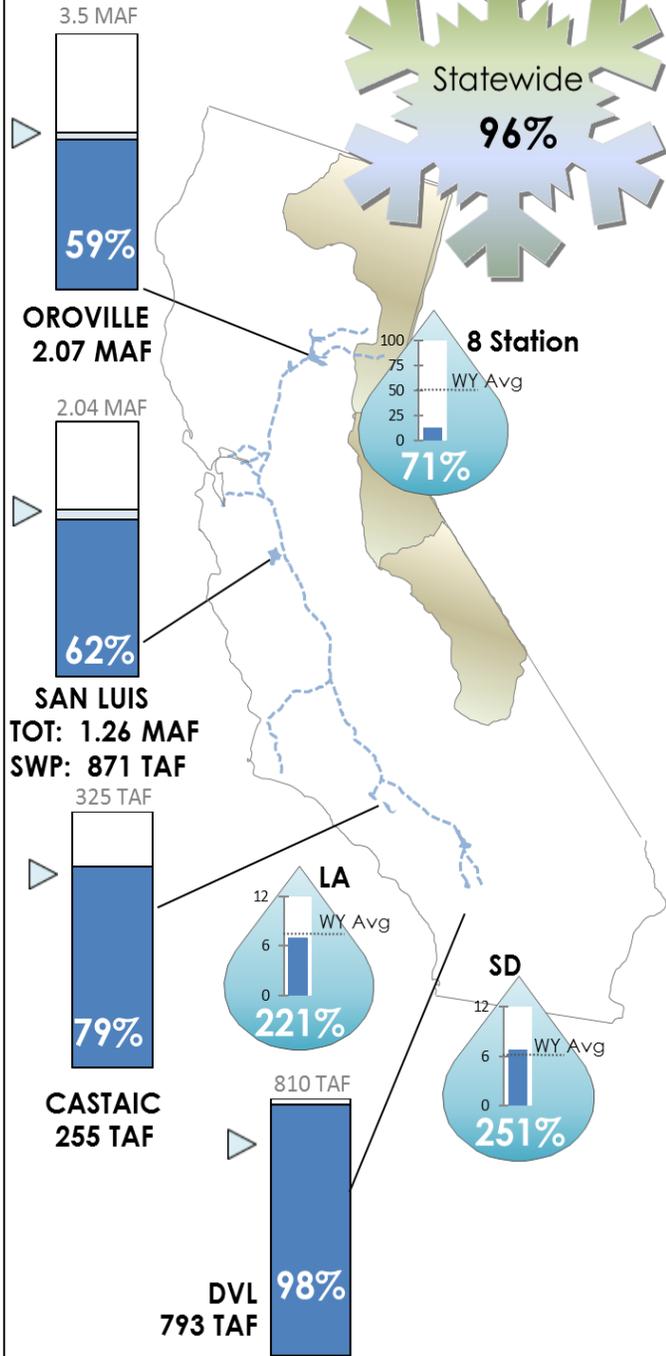
New stop log gate being manufactured by the La Verne Shops for DWR's Alamo Power Plant

2019 SWP Allocation

1,433,625 AF

75% of Table A

(Does not include CVWD & DWA Table A)

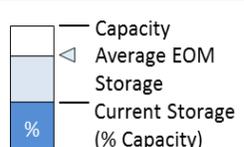
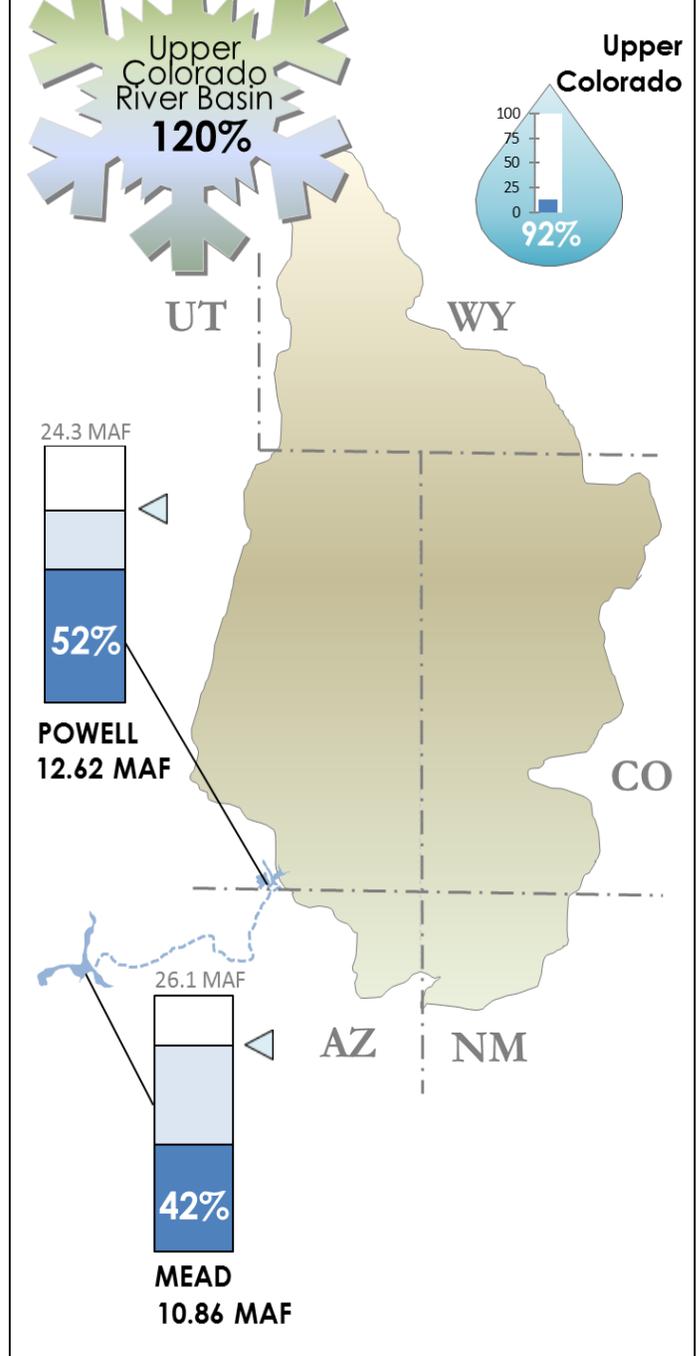


2019 Colorado River

1,005,132 AF

80% of full CRA

(Does not include storage withdrawals)



EXTERNAL AFFAIRS

"Water is Life" Student Art and Calendar Program



Metropolitan's Mission is to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

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