



General Manager's Monthly Report



Activities for the Month of December 2023



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Message from the General Manager

As we ring in the new year, I am profoundly grateful for our collective efforts and proud of the numerous achievements we accomplished together in 2023. The partnership among Metropolitan's dedicated workforce, the Board of Directors, and the leadership and staff of our member agencies directly impacts the lives of 19 million Southern California residents who rely on us.

Looking ahead, I am excited about the possibilities that 2024 holds.

We will make additional, critical decisions about the future of the Colorado River, building off of last month's series of agreements to save 1.6-million-acre feet in Lake Mead.

We ended the year with a record amount of water in storage, and water began to flow into the High Desert Water Bank after years of planning and preparation. In 2024, we will create more ways to store water during times of abundance through programs that support our in-basin aquifers.

We will adopt a biennial budget that grapples with the challenges imposed by the severity of the last drought, knowing that the investments in our people and our pipes pay regional dividends in all kinds of weather. And we will explore options for increased fiscal sustainability as part of our integrated climate and resource planning in the Climate Adaptation Master Plan for Water process that has made such tremendous headway in 2023.

These are just a few of the opportunities that the New Year presents us, to support Metropolitan's transformation and accelerate our readiness for the next century. It will be demanding, of course, but I am confident that through continued collaboration there are no limits to what we can achieve together.

Please enjoy this brief [slide show](#) that highlights just a few of our many accomplishments in 2023.

We are one

Adel



"We make a living by what we get, but we make a life by what we give."

***- Winston Churchill,
Two-time Prime Minister
of the United Kingdom***



Strategic Priorities Update

The General Manager's Strategic Priorities guide actions in key areas of focus, investment, and transformation for Metropolitan.

Empower the workforce and promote diversity, equity, and inclusion

Build a safe, inclusive, and accountable workplace where all employees feel valued, respected, and able to meaningfully contribute to decisions about their work to fulfill Metropolitan's Mission.

The EEO Office reported an average case closure rate of 89 business days for the fourth quarter (October–December 2023), again meeting its closure rate target. The EEO Office will continue to prioritize its commitment to conducting prompt, thorough, and fair investigations.

At the special board meeting at Gene Pumping Plant, staff presented the status of desert housing improvements and community planning for future employee housing. Board members also had the opportunity to tour the facility and see some improvements firsthand.

Prepare and support the workforce by expanding training and skill development and updating strategies to recruit and retain diverse talent at a time when Metropolitan's needs are evolving and employee expectations about the workplace are changing.

The Organizational Development & Training Unit graduated 20 newly promoted managers in December with a session that included Influential Leadership & Persuasive Communication and a presentation from Chief Diversity, Equity and Inclusion (DE&I) Officer, Liji Thomas, on DE&I's Mission & Values. These sessions prepare our new managers to excel in their new role by equipping them with soft and hard skills that may not have been required in their previous role. Additionally, the cohort structure aims to create a close-knit supportive network of peers who can support one another during operational challenges.

DE&I is reaching out to local colleges such as University of La Verne and San Bernardino Community College to explore partnerships around water operator certificate programs, to provide greater outreach for the Apprenticeship Program through pre-apprenticeship workshops, and to cast a wider net for applicants by expanding locations for testing.

Sustain Metropolitan's mission with a strengthened business model

Develop revenue and business model options that support the needs of the member agencies as well as Metropolitan's financial sustainability and climate adaptation needs.

Board action at the November FAIRP committee concurred with the assumptions in the LRFP-NA for planning purposes. Staff will bring the item back for questions at the January FAIRP. Staff continues to integrate financial work into the CAMP4W process. Staff presented the Pure Water Southern California cost recovery alternatives at the October FAIRP Committee meeting. The item was continued to a future FAIRP committee for further board deliberation and analysis.

Manage rate pressure on member agencies through attention to programmatic costs, organizational efficiencies, and efforts to secure external funding for projects with broad and multi-purpose benefits.

To help control costs in response to revenue shortfalls, Metropolitan identified 2.5 percent in budget reductions for the second half of the year, at the direction of the GM. The Chief of Staff worked with group managers across the agency to find achievable one-time savings, as we continue to identify savings opportunities while ensuring reliable operations.

Adapt to changing climate and water resources

Provide each member agency access to an equivalent level of water supply reliability through the development of a Climate Adaptation Master Plan for Water (CAMP4W) that integrates water resource, financial and climate adaptation planning.

The CAMP4W Planning Team presented a refined set of six evaluative criteria to the inaugural meeting of the Task Force, reaching preliminary consensus on the criteria categories. Details of the criteria will be included in WM #5 in January, and the team continues to develop a project list for evaluation. The Jan. 18 Task Force meeting will also include a draft set of Time-Bound Targets to spur discussion, and a two-day training workshop is being planned. A "save the date" has been sent for Feb. 5–6.

Strategic Priorities Update

(continued)

Staff conducted Workshop #11 regarding the supply concerns of State Water Project-Dependent Areas. This workshop included all member agencies to discuss the proposed drought mitigation actions portfolio and implementation plans. Staff will take the feedback and make refinements to prepare for board actions scheduled in the first quarter of 2024.

Advance the long-term reliability and resilience of the region's water sources through a One Water approach that recognizes the interconnected nature of imported and local supplies, meets both community and ecosystem needs and adapts to a changing climate.

The California Department of Water Resources (DWR) released the Delta Conveyance Project's Final Environmental Impact Report (EIR) on December 8, 2023. Metropolitan submitted a comment letter, focused on the long-term performance of the project. The Final EIR was certified on December 21, and DWR approved the proposed project, choosing the "Bethany Reservoir Alignment" for further engineering, design and permitting. DWR will next begin to pursue numerous state and federal permits. The Delta Construction Authority will provide a new cost estimate and a benefit-cost analysis in mid-2024.

On December 13, as part of the Colorado River Water Users Association's annual conference, the Commissioner of the Bureau of Reclamation Camille Touton signed several water conservation agreements with California water agencies and the Fort Yuma Quechan Indian Tribe (Quechan Tribe) to help meet the state's commitment to conserve 1.6 million acre-feet of water for Lake Mead's benefit through 2026, the equivalent of about 25 feet of elevation at Lake Mead. Metropolitan also signed conservation agreements with Imperial Irrigation District, Palo Verde Irrigation District (PVID), the Quechan Tribe, Coachella Valley Water District, and San Diego County Water Authority. These agreements will collectively leave about 250,000 acre-feet of water in Lake Mead this year. The agreements with PVID and the Quechan Tribe will leave additional water in Lake Mead through 2026, and additional agreements with Imperial Irrigation District are being pursued for conservation programs running through 2026.

Staff presented to the Member Agency Managers the updated cost estimates for Pure Water Southern California (PWSC), following the same presentation to the Board's PWSC Subcommittee. The costs included the present-worth construction costs, escalated costs, changes to the Program since 2018, potential external funding contributions, O&M costs, and calculated unit costs for various assumptions. The PWSC team joined with LACSD to brief various NGOs and support environmental leaders' review of the progress of the PWSC and LA City's Operation NEXT/Hyperion 2035.

The Division of Drinking Water (DDW) of the State Water Resources Control Board published another draft of the Direct Potable Reuse (DPR) regulations, and Metropolitan submitted comments. A board presentation was deferred to the January 2024 subcommittee meeting, after the expected finalization of the regulations.

Staff executed three consultant agreements for design, environmental planning, and public outreach for the proposed rice and wetlands projects on Webb Tract that are to be funded by a Delta Conservancy grant. The final consultant agreement for scientific studies is expected early January 2024. The Webb Tract New Project Authorization package was approved by Engineering, and a new CIP project number was issued.

Dr. Shawn Acuña presented at the North American Society of Environmental Toxicology and Chemistry Annual Meeting. The presentation, based on work around Delta smelt, outlined how including contaminant performance metrics lead to changes in management decisions.

As part of the Pacific Flyway Shorebird Survey, staff coordinated with USFWS staff to conduct the annual shorebird count on Bouldin Island. The PFSS is a long-term monitoring program led by Point Blue Conservation Science, designed to guide the management and conservation of wintering shorebirds.

Staff expects to roll out to Member Agencies in January 2024 the retailer-level information of our regional turf landscape survey and dashboard.

Protect public health, the regional economy and Metropolitan's assets

Proactively identify, assess and reduce potential vulnerabilities to Metropolitan's system, operations and infrastructure.

The assessment and prioritization of Metropolitan's Capital Investment Plan based on risk and value is complete, and the proposed 2-year and 10-year CIP spending plans have been prepared for inclusion in the budget documents under development.

Metropolitan hosted a workshop for seismic resilience with LADWP, DWR, Cal WARN and CUEA. Two additional dam Emergency Action Plans were approved by Cal OES; 10 out of the 13 required EAPs have been completed.

Three Bay Delta levee improvement projects wrapped up work for the 2023 season. These projects occurred on Bouldin and Bacon Islands. Approximately 8.5 miles of levee were improved.

The Cyber Security Operations Center completed 195 cyberthreat investigations last month and tracked over 500 new events in a recent seven-day period. The annual Cybersecurity Awareness Training Campaign is underway, and as of Dec. 18, 62 percent of staff have completed the annual training.

Apply innovation, technology, and sustainable practices across project lifecycles (design, construction, operations, maintenance, and replacement).

For procurement policies, the Contracting Services Unit and Sustainability, Resilience & Innovation held a kick-off meeting with a newly hired consultant to review tasks and milestones for revising drafts for updated Operating Policies and sustainable procurement requirements.

Staff is working to incorporate Envision into the progressive-design-build procurement documents for the Lake Mathews Headworks Facility upgrades.

The first board update on the ZEV transition will be at the January EOT meeting. A detailed replacement schedule is underway, and the team has already accumulated ZEV credits under the State Program for the purchase of eight ZEVs. The State regulatory program takes effect January 1.

Partner with interested parties and the communities we serve

Grow and deepen collaboration and relationships among member agencies, interested parties and leaders on the issues most important to them and toward mutual and/or regional benefits.

The GM held another listening session with environmental leaders, focused on the Climate Adaptation Master Plan for Water. Approximately 40 stakeholders participated, providing perspectives and input on the evaluative criteria that will be part of the Climate Decision-Making Framework. The feedback was considered in the proposed criteria that were presented to the Task Force on December 19.

Reach disadvantaged communities and non-traditional interested parties to better understand their needs and ensure their inclusion in decision making.

Metropolitan leadership hosted Colorado River Indian Tribes (CRIT) leaders for dinner and board meeting at Gene Camp where Madam Chair Flores provided opening remarks. Separately, we collaborated with CRIT to hold a pre-apprenticeship workshop on CRIT reservation for high school seniors and adults to learn more about Metropolitan's apprenticeship program, resume writing, interviewing, and navigating the Metropolitan career site.

During CRWUA, Metropolitan hosted a signing ceremony with Quechan tribal leaders for new Colorado River conservation agreement, and we hosted Pechanga tribal leaders for a discussion on water supply issues and opportunities for ongoing collaboration.

Executive Summary

This executive summary is added to this report to provide a high-level snapshot of a key accomplishment from each area of the organization. Detailed information is reported in the pages following this summary.

Administrative Services

The Records Management & Imaging Services Team recently published three video tutorials on the newly launched Library and Archives Services SharePoint site. The tutorials, which run between 10 and 12 minutes each, provide employees with an overview of Metropolitan's archival program. Topics covered include Understanding Archival Records, an Introduction to the Metropolitan Archives, and Using the Metropolitan Archives Portal. Transcripts for each tutorial are also included on the site.

Bay-Delta Initiatives

The California Department of Water Resources (DWR) released the Final Delta Conveyance Project Environmental Impact Report (EIR) to the public, in accordance with the California Environmental Quality Act on December 8, 2023. The Final EIR was certified on December 21, 2023, and DWR approved the proposed project. Responses to comments, the Final EIR, and accompanying informational resources, can be accessed at www.deltaconveyanceproject.com.

Chief Financial Officer

In November, informational reports were provided to the Finance, Audit, Insurance, and Real Property Committee on Member Agency Purchase Order commitments covering January 1, 2015, through December 31, 2024, and Pure Water Southern California Cost Recovery Alternatives.

Colorado River

On December 13, the Bureau of Reclamation's Commissioner executed several system conservation agreements with California water agencies with funds provided by the Inflation Reduction Act. These agreements are part of California's commitment to conserve an additional 1.6 million acre-feet of water for the benefit of Lake Mead through 2026.

Diversity, Equity & Inclusion

Metropolitan staff attended the U.S. Green Building Council—Los Angeles (USGBC-LA) Green Gala and Sustainable Innovation Awards in Los Angeles, CA. The USGBC-LA GALA Awards is a celebration of outstanding leaders' contributions to sustainability, innovation, and community impact.

Engineering Services

The 25-mile-long Allen McColloch Pipeline (AMP) comprises approximately nine miles of prestressed concrete cylinder pipe (PCCP) and delivers water from the Diemer plant to the El Toro Reservoir. An electromagnetic inspection of the PCCP portion of the AMP was conducted in November. A draft report, which was issued in December, identified 81 pipe sections that are showing new or increased levels of distress. To mitigate the risk of a pipeline failure, Engineering staff worked with Operations and member agency staff to reduce the operating pressure in the pipe. Additional modifications to further reduce the pressure in the pipeline, such as an orifice plate and bypass control valve, will be installed during a planned Diemer plant shutdown in January. Staff is expediting rehabilitation of the AMP using either carbon fiber reinforced polymer (CFRP) lining or structural steel internal lining to replace the compromised PCCP pipe sections. Shutdown(s) in early 2024 will be coordinated with member agencies and local cities/jurisdictions. Board actions are anticipated to procure material and authorize construction.

External Affairs

Public and media interest in Metropolitan's leadership to address Colorado River issues remained high and was highlighted with several milestone events at the annual Colorado River Water Users Association conference. Chair Ortega, Vice Chair Camacho, Directors Bryant, Chacon, Cordero, DeJesus, Dennstedt, Garza, Kurtz, McCoy, Miller, Morris, G. Peterson, Seckel, and Smith, GM Hagekhalil, GC Scully, AGMs Upadhyay and Zinke, Colorado River Resources Manager Hasencamp, and staff attended. (December 12–15)

Human Resources

The Organizational Development & Training Unit (OD&T) concluded the 13th cohort of Metropolitan's Management University, graduating 18 new managers. OD&T also facilitated a team building exercise for the Warehouse Team at Weymouth focusing on interpersonal communication and team collaboration.

Information Technology

Information Technology, Engineering Services and Water Systems Operation staff continue to work closely together on the Supervisory Control and Data Acquisition (SCADA) system upgrades. In recent months, staff has completed installation of equipment for the pilot project at the Mills Treatment Plant. The pilot project is approximately 80 percent complete and scheduled to be complete in March 2024.

Safety, Security and Protection

Metropolitan Security staff partnered with Department of Homeland Security (DHS) Cybersecurity and Infrastructure Security Agency (CISA) protective security agents to assess potential security vulnerabilities and mitigation measures of Diamond Valley Reservoir. Safety, Regulatory, and Training (SRT) collaborated with Metropolitan's legal department to ensure that all regulatory requirements were met for the removal of the underground storage tank from the former Sunset Garage facility and to negotiate a significantly reduced penalty for alleged violations related to asbestos management for Weymouth basin rehabilitation efforts.

Sustainability, Resiliency and Innovation

SRI's recent core activities showcase a commitment to environmental leadership and innovation. Key highlights include active participation in the Climate Adaptation Master Plan for Water (CAMP4W) sessions, collaboration with member agencies on climate decision-making frameworks, and the Chief SRI Officer's engagement at the 2023 Colorado River Water Users Association (CRUWA) Conference. Efforts also extend to executive retreats focusing on adaptive management, the transition to zero-emission vehicles, and the initiation of a sustainable procurement policy. SRI's commitment to sustainability is underscored by the draft of a new operating policy (D-03) emphasizing sustainability and resilience. Notably, the office's involvement in community-centric events like LARTA's ECO '23 and the WaterStart Channels for Innovation Summit reflects a dedication to grassroots innovation and impactful solutions. Environmental planning, regulatory compliance support, and land management initiatives further demonstrate SRI's multifaceted approach to driving positive change in the water management landscape.

Water Resource Management

Staff wrapped up the calendar year culminating with the signing of historic water conservation agreements with partner states and agencies on the Colorado River and collaboration with the Department of Water Resources and the State Water Contractors in preparing for next year and beyond. Staff continued efforts in the research, development, and production of recycled water and desalination technologies as well as furthering efforts in outdoor conservation and landscape transformation.

Water System Operations

This month, a lengthy shutdown of a segment of the Second Lower Feeder began for installing steel liners, ensuring the integrity of the aging prestressed concrete cylinder pipe. Extending through April, this prolonged shutdown requires agencies to rely on the Palos Verdes Feeder for water supply. To serve agencies south of the out-of-service Palos Verdes Reservoir, a temporary reservoir bypass had been constructed. Leading up to the shutdown, several additional challenges had to be overcome including repairing a leak at the reservoir bypass and extensive testing of the new bypass by Metropolitan and member agency operators. The start of this shutdown marks the successful culmination of years of collaboration, coordination, and problem-solving among operators, engineers, member agencies, and contractors for planning this complex shutdown.

Reflections



106-B Directors' inspection party in Mission Creek Wash. January 24, 1931.

1931 Directors' Inspection Trip



Weymouth Water Treatment Plant
2023 EO&T Field Inspection Trip



“Our recent successful field inspection trip is a testament to the outstanding collaboration of over 50 colleagues at various levels, whose dedicated efforts and collective expertise ensured its success. Their commitment to excellence and teamwork exemplify the strength of our organization.”

Sylvia Lanza, Sr. Resource Specialist

PROGRAM DESCRIPTION

The Engineering Operations and Technology (EO&T) Committee organizes an annual inspection trip that provides a first-hand look at Metropolitan’s facilities and serves as a crucial element in the committee's decision-making process. Even amid the pandemic, virtual inspection trips were conducted. The most recent trip was in November 2023.

IMPORTANCE TO METROPOLITAN

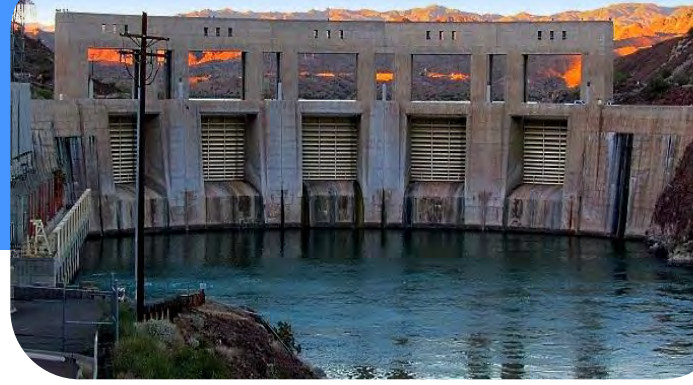
The EO&T Trip plays a vital role in showcasing recently completed projects at various Metropolitan facilities, allowing board members to confirm the effective use of capital funds in enhancing system operations and reliability. Additionally, it offers insights into facilities that are slated for rehabilitation, upgrades, and addressing challenges like climate change, aging infrastructure and drought conditions.

The meticulous planning of the EO&T Trip involves months of collaboration across the organization and includes tasks such as identifying facilities for the tour, route planning, creating informational materials and videos, and on-site presentations. The success of these trips directly results from the dedication of the staff working on this project. The 2023 EO&T Trip on November 16 featured critical stops at the La Verne Water Quality Laboratory, Cybersecurity Operations Center, F. E. Weymouth Water Treatment Plant Basins 5 through 8, and various Lake Mathews facilities. The tour covered Lake Mathews Reservoir's history, Metropolitan's drone program, the 3D printing program, the construction of the Perris Valley Pipeline, and an overview of hydroelectric power plants. The inspection trip concluded with examinations of the newlyconstructed storage building at Lake Mathews and insights into the zero-emission vehicle program.

MEMORABLE MOMENT

Attendees were captivated by the historical account of Lake Mathews and its pivotal role in supplying water to Southern California. In recent years, the lake has helped mitigate the impact of the drought on Southern California. Additionally, directors were deeply moved by the memorials dedicated to former Directors Lois B. Krieger and Donald Galleano.

Water Resources and Engineering



Water Resource Management

Ensure Access to Sufficient Water Supplies to Operate a Full Colorado River Aqueduct in Times of Drought

Staff attended the annual Colorado River Water Users Association (CRWUA) conference in Las Vegas. At the conference, California water users, including Metropolitan, Imperial Irrigation District (IID), San Diego County Water Authority (SDCWA), Fort Yuma Quechan Indian Tribe, Palo Verde Irrigation District (PVID), and Coachella Valley Water District (CVWD) signed historic conservation agreements with the U.S. Bureau of Reclamation (USBR) to protect the Colorado River. This series of system conservation implementation agreements will help California conserve up to 1.6 million acre-feet of water to help support the Colorado River system.

Manage Existing and Develop New Regional Water Management Programs to Maintain Water Supply Reliability in the Face of Increasing Water Supply Volatility.

Staff initiated site inspections for On-Site Retrofit Program projects that were completed during FY22–23. In late November and early December, staff visited a total of ten sites. Four sites were in the Inland Empire Utilities Agency's service area (City of Fontana), two sites were in Eastern Municipal Water District's service area (Hemet and Menifee), three sites were in Western Municipal Water District's service area (two in Temecula and one in Corona), and one site was in Central Basin Municipal Water District's service area (Santa Fe Springs). These inspections are required annually as an audit requirement of the Program.

Implement Regional Conservation Program

Staff held two Water Efficient Landscaper Dual Certification Classes with the California Landscape Contractors Association: One in Irvine with Irvine Ranch Water District for 50 landscape professionals, and one in Oceanside with the San Diego County Water Authority, City of Oceanside for 45 landscape professionals.

Staff represented Metropolitan on a panel discussing climate-ready landscapes at the California Water Efficiency Partnership Winter Plenary in San Francisco.

Staff also represented Metropolitan on a panel discussing Strategies for Water Efficient Landscaping during an Alliance for Water Efficiency roundtable.

Collaborate with Member Agencies, Water Agencies and Associations, and Provide Leadership for Policy Development, Advocacy, Outreach and Education

Staff collaborated in organizing the annual workshop of the State Water Contractors Water Operations Committee. Over 100 attendees from the California Department of Water Resources and State Water Project contractors participated in person and online, and over 50 attendees joined a field trip to SWP facilities, including San Luis Reservoir. The workshop provided an improved understanding of the water operations planning processes undertaken by DWR, as well as the water management challenges faced by SWP contractors.

Photo below: SWP contractor and DWR staff visit San Luis Reservoir 12/5/2023



Staff presented a water supply update to the Riverside County Water Task Force on December 15, 2023. The update included a summary of Water Year 2022–2023, water supply and drought management actions in Calendar Year 2023, and planning considerations for Calendar Year 2024. The Riverside County Water Task Force is a collaboration between Eastern Municipal Water District, Western Municipal Water District, and the Western Riverside Council of Governments.

Implement Future Supply Actions Funding Program

On December 1st, staff released a Request for Proposals (RFP) for the Future Supply Actions Funding Program (FSA Program). Staff also hosted an informational webinar for member agencies and other interested stakeholders on December 13. The webinar provided a background on the program and guidance on the application process. Over 30 stakeholders participated in the webinar with 16 member agencies represented. FSA Program study proposals are due Monday, February 5 at 2:00. Additional information on the FSA Program including the webinar recording is available on Metropolitan's website: <https://www.mwdh2o.com/funding-opportunities#future-supply>

Promote Metropolitan's Technical Capabilities and Innovation Efforts To Advance The Understanding Of Water Resources Management.

Staff participated in two meetings on offshore seawater desalination in December. Las Virgenes MWD hosted the first meeting. The meeting included a discussion of a potential offshore desalination demonstration project serving Las Virgenes' service area and providing emergency supplies to Malibu and the Pacific Palisades within LADWP's service area. The second meeting was hosted by MWD OC and included discussions of siting offshore desalination along the Orange and San Diego County coastlines. Staff provided updates on the FSA Program and Metropolitan's recently approved desalination siting studies. Metropolitan's desalination studies are anticipated to be launched in January and will include assessments of different types of offshore desalination technologies.

Water Resources and Engineering

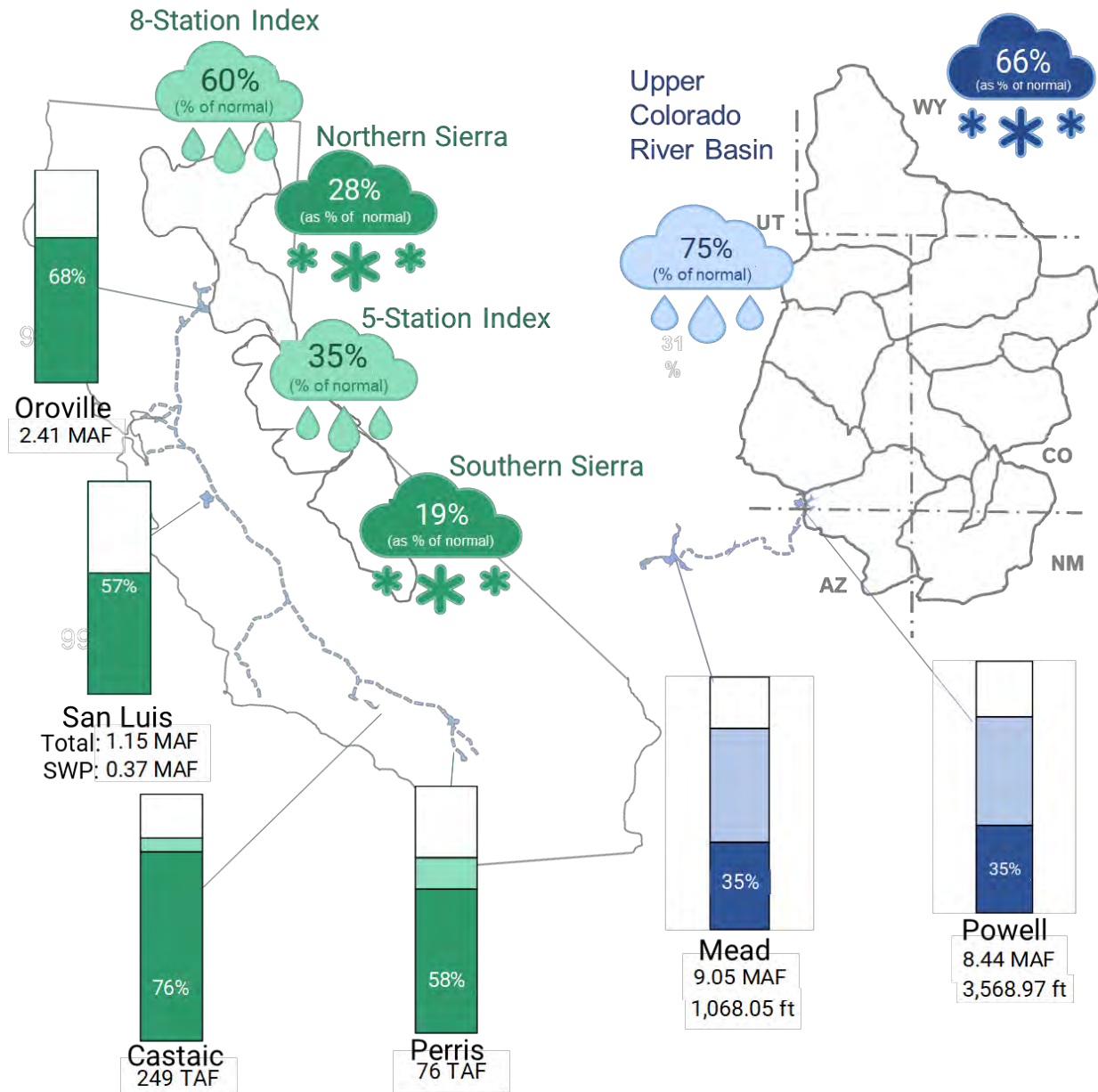
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State Water Project Resources

SWP Table A - 100% - 1,911,500 acre-feet

Colorado River Resources

Projected CRA Diversions - 662,000 acre-feet



Extended Report:
<https://www.mwdh2o.com/WSCR>

Bay-Delta Initiatives

Core Functions

Delta Conveyance

The California Department of Water Resources (DWR) released the Final Environmental Impact Report (EIR) to the public, including public agencies that commented on the Draft EIR, in accordance with the California Environmental Quality Act (CEQA) on December 8, 2023. The Final EIR was certified on December 21, 2023, and DWR approved the proposed project. Responses to comments, as well as the Final EIR and accompanying informational resources, can be accessed at www.deltaconveyanceproject.com.

The U.S. Army Corps of Engineers (USACE), as part of its permitting review under the Clean Water Act and Rivers and Harbors Act, released a draft Environmental Impact Statement (EIS) to comply with the National Environmental Policy Act for a public review that ended on March 16, 2023. USACE is developing responses to the comments received.

Sites Reservoir

At the December 15 Joint Reservoir Committee and Sites Authority Board meeting, the Reservoir Committee and the Authority Board approved a contract with an outside consultant to provide wheeling rate development services. Delivering the benefits of the Sites Reservoir Project requires the shared use of the existing Glenn-Colusa Irrigation District Canal, Tehama-Colusa Canal, and the Lower Colusa Basin Drain System. Facility partner fish screens, pump stations, canals, regulating reservoirs, etc. will be needed to convey Sites water into and out of the Sites Reservoir as well as to divert from and release back into the Sacramento River. This use of these existing facilities owned by others requires Facilities Use Agreement(s), and the Sites Storage Partners will need to pay their share of cost for this service. The owners of these existing facilities would receive benefits from shared use as well under the assumption that Sites water flowing through their facilities allows fixed O&M and capital improvement costs to be spread over a larger rate base, thereby reducing the unit cost to the existing ratepayers.

Science Activities

Science staff completed its review of the Bay-Delta Water Quality Control Plan Draft Staff Report and Substitute Environmental Document released by the California State Water Resources Control Board on September 28, 2023. Metropolitan will submit written comments to the State Water Board on the Draft Staff Report and Substitute Environmental Document before the January 19, 2024, deadline.

Dr. Shawn Acuña presented on contaminant performance metrics at the North American Society of Environmental Toxicology and Chemistry Annual Meeting and Fall 2023 Zoology Colloquium. The presentation, *Management for a Listed Species Using Contaminant Performance Metrics*, summarized the use of contaminant performance metrics within a structured decision-making framework in the context of water projects and Delta smelt. Results from the work found that including contaminant performance metrics lead to changes in management decisions.

Water Resources and Engineering

(continued)

Delta Island Activities

Staff executed three consultant agreements for design, environmental planning, and public outreach for the proposed rice and wetlands projects on Webb Tract that, if approved, will be funded by a Delta Conservancy grant. The final consultant agreement for scientific studies is expected in early January 2024. The Webb Tract New Project Authorization package was approved by Engineering, and a new CIP project number was issued.

As part of the Pacific Flyway Shorebird Survey (PFSS), staff coordinated with USFWS staff to conduct the annual shorebird count on Bouldin Island. The PFSS is a long-term monitoring program led by Point Blue Conservation Science, designed to guide the management and conservation of wintering shorebirds.

Three levee improvement projects wrapped up work for the 2023 season. These projects occurred on Bouldin and Bacon Islands. Approximately 8.5 miles of levee were improved. DWR provided funding for this project through the Delta Levees Special Flood Control Projects program. Additional work will be completed in 2024.

Staff presented on the Levee Monitoring Pilot Study on Bouldin Island at the WaterStart Channels for Innovation Summit 2023. This pilot study is using innovative new technology to determine real-time changes in levee conditions.

Colorado River Resources

Reclamation Executes California IRA System Conservation Agreements in Las Vegas

Following Metropolitan's November 14 and December 5 board approval of various agreements with its partners in California, on December 13, as part of the Colorado River Water Users Association's annual conference, the Commissioner of the Bureau of Reclamation Camille Touton signed several water conservation agreements with California water agencies and the Fort Yuma Quechan Indian Tribe (Quechan Tribe) to help meet the state's commitment to conserve 1.6 million acre-feet of water for Lake Mead's benefit through 2026. Metropolitan's General Manager and General Counsel signed conservation agreements with Imperial Irrigation District, Palo Verde Irrigation District (PVID), the Quechan Tribe, Coachella Valley Water District, and San Diego County Water Authority. These agreements will collectively leave about 250,000 acre-feet of water in Lake Mead this year. The agreements with PVID and the Quechan Tribe will leave additional water in Lake Mead through 2026. These agreements, along with Metropolitan's projected record amount of storing a projected 450,000 acre-feet of water in Lake Mead in 2023, have resulted in California's water use being at its lowest level since 1949. It is anticipated that additional agreements will be signed with Imperial Irrigation District in 2024 for conservation programs running through 2026. California's plan to conserve 1.6 million acre-feet of water is the equivalent of about 25 feet of elevation in Lake Mead.

Engineering

Core Business Function – Execute Capital Investment Plan Projects

Engineering Services manages and executes projects within the Capital Investment Plan (CIP) to maintain infrastructure resiliency, ensure regulatory compliance, enhance sustainability, and provide flexibility in system operations to address uncertain water supply conditions.

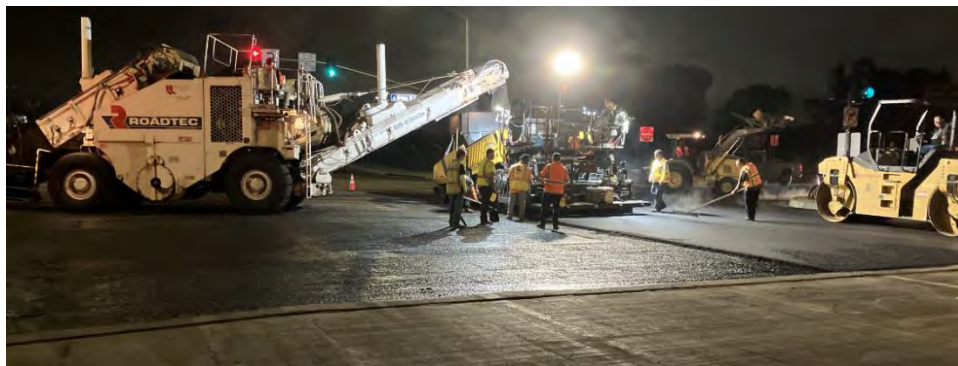
Distribution System Reliability Program

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

- **Lake Mathews Wastewater Replacement**—This project consists of replacing the existing septic tank system with a wastewater collection system at Lake Mathews. The new wastewater system connects to a nearby off-site Western Municipal Water District main wastewater line. The contractor is continuing to coat the accessway, inspect the sewer line, and restore the surface asphalt. Construction is approximately 97 percent complete and is scheduled to be complete in February 2024.
- **La Verne Shops Building Completion—Stage 4**—This project will complete the La Verne Shops building improvements and install Metropolitan-furnished shop equipment. The contractor continued installing electrical conduits for branch circuits, excavating for the new electrical duct bank, and began placing concrete for the equipment pads. Construction is approximately 77 percent complete and is scheduled to be complete in August 2024.
- **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 of the third and final stage of the project is currently underway. The pipeline relining has been completed and the pipeline was returned to service in July 2023. The contractor is currently demobilizing from the contractor's yard and performing site restoration in the city of Newport Beach. Construction of Stage 3 is approximately 95 percent complete and is scheduled to be complete by January 2024.
- **Garvey Reservoir Rehabilitation**—This project will replace the aging reservoir floating cover and liner, structurally strengthen the inlet/outlet tower, upgrade the on-site water quality laboratory building, rehabilitate the junction structure, and replace the existing standby generator and a portion of the security perimeter fence. Final design is approximately 10 percent complete and is scheduled to be complete in early January 2025.



Lake Mathews Wastewater Replacement—Testing manhole coating



Orange County Feeder Lining Rehabilitation—Surface restoration

Prestressed Concrete Cylinder Pipe (PCCP) Reliability Program

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

- **Second Lower Feeder Valves**—This procurement contract provides 13 conical plug valves for the Second Lower Feeder PCCP rehabilitation. Metropolitan’s Board awarded a procurement contract for the valves in December 2018. Seven valves have been delivered as of March 2023. The eighth and ninth valves shipped from Yokohama, Japan, in November 2023, and arrived in the Port of Long Beach on December 4, 2023. The tenth valve is scheduled to be shipped in January 2024. The eleventh and twelfth valves are scheduled to be

shipped by October 2024. Fabrication of the final valve will be completed in late 2024 and delivery is projected for early-2025.

- **Second Lower Feeder PCCP Rehabilitation Reach 3B**—This project installs steel lining and three conical plug valves (described above) along a 3.7-mile-long portion of the Second Lower Feeder that traverses the cities of Lomita, Los Angeles, and Torrance. Testing of the temporary bypass line at the Palos Verdes Reservoir was completed, and the bypass line has been placed into service. Dewatering of the Second Lower Feeder was completed, and the pipeline turned over to the contractor for installation of the steel lining. Construction is 36 percent complete and is scheduled to be completed in September 2025.
- **Sepulveda Feeder Reach 2**—This project installs steel lining along 3.9 miles through several cities including the cities of Torrance and Los Angeles. Final design is approximately 95 percent complete and is scheduled to be complete by January 2024.
- **PCCP Valve Warehouse**—This project constructs an 18,160 square-foot pre-engineered metal building on a reinforced concrete slab at Lake Mathews for valve and equipment storage related to the PCCP relining program. The contractor has completed the assembly of the building structure, the water line tie-in for the building, and installation of the fire water pipe and building sprinkler system. Construction is 95 percent complete and is scheduled to be complete by February 2024.
- **Electromagnetic Inspection**—Regular inspections of the PCCP feeders are a critical step in evaluating the condition of each pipeline and assist staff in prioritizing the relining work on each feeder. This project conducts the fifth cycle of electromagnetic and visual inspections of Metropolitan's approximate 146.4 miles of PCCP pipelines. Portions of the Sepulveda Feeder and Yorba Linda Feeder totaling 18 miles were inspected during the 2022/2023 shutdown season. Approximately 8.7 miles of the Allen-McColloch Pipeline (AMP) were inspected in November 2023. Based on the results of the inspection, Metropolitan is prioritizing rehabilitation of the Allen-McColloch Pipeline during the current and next shutdown seasons. Inspections of the West Valley Feeder No. 2 and Calabasas Feeder are scheduled for January 2024.

Colorado River Aqueduct (CRA) Reliability Program

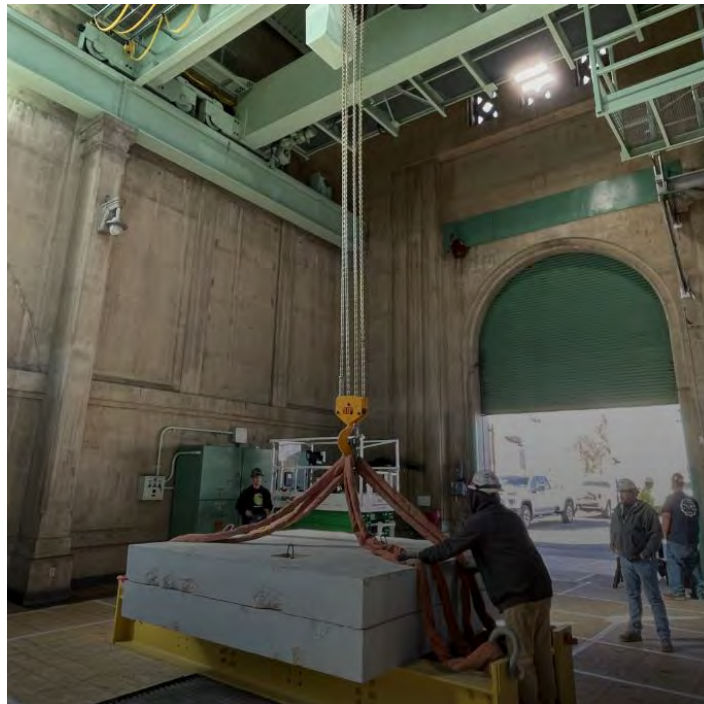
This program maintains the reliability of Metropolitan's CRA conveyance system. Recent activities include the following:

- **Flow Level Monitoring Stations**—This project will install 12 flow monitoring stations at remote locations along the Colorado River Aqueduct. The contractor has mobilized to the site. Construction is 5 percent complete and is scheduled to be complete July 2024.
- **Cabazon Radial Gate Replacement**—This project will replace an inline and waste way radial gate at the facility as well as install security, electrical, and safety upgrades. Final design is 40 percent complete and is scheduled to be complete in July 2024.
- **Overhead Cranes Replacement**—This project consists of replacing the overhead bridge cranes and retrofitting the support structures within the pump bays located at all five of Metropolitan's Colorado River Aqueduct pumping plants. The contractor has completed the installation of the new cranes at the Gene, Iron Mountain, and Eagle Mountain pumping plants. Testing and commissioning of the new overhead crane at Eagle Mountain Pumping Plant is complete and assembly of the crane is underway at Intake Pumping Plant. Construction is 65 percent complete and is scheduled to be complete in June 2024.
- **CRA Storage Buildings**—This project furnishes and installs storage buildings at Hinds, Eagle Mountain, and Iron Mountain and constructs associated site improvements. The construction contract was awarded at the July 2023 board meeting. The contractor is in the process of issuing submittals on the project for Metropolitan's review. Construction is anticipated to be completed in January 2026.

Water Resources and Engineering

(continued)

- **Eagle Mountain Utilities**—This project will replace the existing potable, non-potable, and sewer lines at the Eagle Mountain Pump Plant housing village. Final design is 40 percent complete and is schedule to be complete in April 2024.



CRA Overhead Cranes Replacement—Eagle Pumping Plant Crane Load Test

System Flexibility/Supply Reliability

Projects under this program will enhance the flexibility and/or increase the capacity of Metropolitan’s water supply and delivery infrastructure to meet current and projected service demands. Projects under this program address climate change affecting water supply, regional drought, and alternative water sources for areas dependent on State Project water.

- **Wadsworth Pumping Plant Bypass**—In conjunction with three other projects, this project enhances water supply reliability in the Rialto Pipeline service area by enabling water to be pumped from the Wadsworth Pumping Plant forebay to Rialto Pipeline by way of the Inland Feeder. This project installs a bypass pipeline and an isolation valve to interconnect the Wadsworth Pumping Plant with the Eastside Pipeline. Construction of the valve structure and relocation of utilities in area is underway. Construction is approximately 20 percent complete and is scheduled to be complete in August 2024.
- **Sepulveda Feeder Pumping Stations**—This project installs new pump stations at the existing Venice and Sepulveda Canyon pressure control facilities, providing the ability to reverse flow in the Sepulveda Feeder and deliver water from the Central Pool to portions of the Jensen plant exclusive area. This project uses a progressive design-build (PDB) project delivery method. Engineering and Operations staff are reviewing initial submittals and collaborating through a series of design workshops, planned through the end of the year, to support upcoming design work. The contractor and Metropolitan are coordinating with both Southern California Edison and Los Angeles Department of Water and Power on upgrades to the incoming power

service at both locations. Phase 1, which includes site investigation, design to the 70 percent level, environmental planning, and preparation of long-lead-item procurement documents, is scheduled to be complete in September 2024. Work progress is on track to complete the first major milestone, delivery of the 30 percent design package and the Basis of Design Report (BODR) in April 2024.

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 Basins 5–8 and Filter Building No. 2 Rehabilitation**—This project rehabilitates major mechanical and structural components of Basins 5–8 and Filter Building No. 2 at the Weymouth plant, including the flocculation/sedimentation equipment, sludge pumps, baffle boards and walls, launders, inlet gates, and outlet drop gates. Rehabilitation work also includes seismic upgrades of basin walls and inlet channel, hazardous material abatement, and replacement of filter valves and actuators in Filter Building No. 2. The contractor continued planned work under the first quarter-plant outage, including installation of clarifier and flocculator equipment, and new mechanical piping and electrical conduits in Basins 7 and 8. The contractor completed construction of new concrete walls and stainless-steel catwalks in Basins 7 and 8 and installation of filter valves, piping, and electrical components in Filter Building No. 2. Construction is 55 percent complete and is scheduled to be complete in June 2025.
- **Mills Electrical Upgrades**—This project upgrades the electrical system with dual-power feeds to key process equipment to comply with current codes and industry practice, improve plant reliability, and enhance worker safety. Stage 1 construction is complete, and a construction contract for Stage 2 improvements was awarded in November 2021. Stage 2 improvements will add a second incoming 12 kV service from Riverside Public Utilities, reconfigure the existing 4160-volt switchgear, and replace the standby generator switchgear and the emergency generator programmable logic controller. The contractor continued installation of the roofing and HVAC systems and began installation of the electrical conduits inside the ORP Switchgear Building. A permanent easement for installation of a second incoming 12 kilovolt (kV) electrical service to the Mills plant has been signed and recorded by Metropolitan and the Riverside Public Utilities. Construction is approximately 45 percent complete and is scheduled to be complete in August 2025.
- **Jensen Ozone PSUs Replacement**—This project rehabilitates the ozone generation system at the Jensen plant by replacing four existing ozone power supply units (PSUs) and four sets of generator dielectrics. The project also makes required modifications to the associated electrical, control, and cooling water systems. Metropolitan's Board awarded a construction contract in June 2022. All PSUs and dielectrics have been manufactured and delivered. Installation of two PSUs is complete and dielectrics for two ozone generators have been replaced. The contractor continued installing the cooling water system pipe and preparing for start-up testing of the newly installed PSUs. Construction is 75 percent complete and is scheduled to be complete in April 2024.

Water Resources and Engineering

(continued)



Weymouth Basins 5–8 and Filter Building No. 2 Rehabilitation—Launder and weir installation



Weymouth Basins 5–8 and Filter Building No. 2 Rehabilitation—Basin 7 Weir plate installation

System Reliability Program

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

- **Headquarters Physical Security Upgrades**—This project implements comprehensive security upgrades for the Metropolitan Headquarters Building. These upgrades are consistent with federally recommended best practices for government buildings. This work has been prioritized and staged to minimize rework and impacts on day-to-day operations within the building. Stage 1 work is complete and provides enhanced security related to perimeter windows and doors. Stage 2 work is complete and provides security system upgrades inside the building with a focus on the main entry rotunda area, boardroom, executive dining lounge, and security control room. Stage 3 improvements will provide security system upgrades around the perimeter of the building. Metropolitan's Board awarded the third and final contract in December 2022. The contractor completed the mock-up fence panel and gate for the ornamental fence within the courtyard and continued the bollard installation. Construction is 55 percent complete and is scheduled to be complete in May 2024.
- **Headquarters Building Fire Alarm and Smoke Control System Upgrades**—This project upgrades the Metropolitan Headquarters Building fire life safety systems, which includes replacement of the fire detection and alarm system and HVAC system improvements for smoke control. The fire alarm and smoke control systems in Metropolitan's Headquarters Building provide detection, notification, and control of building functions so that occupants and visitors can safely exit in the event of a fire. The contractor continued final testing and sign-off of the fire alarm and smoke control systems by the LAFD and Los Angeles Department of Building and Safety. Construction is 75 percent complete and is scheduled to be complete in February 2024.
- **Headquarters Building Fire Sprinkler Level P1 Replacement**—This project replaces a portion of the existing building's parking garage level P1 fire sprinkler system's piping to ensure that the 25-year-old system provides reliable fire/life safety protection for all building occupants and facility. The work is divided into nine phases to minimize related impacts to building operations. The contractor has completed installation of fire sprinkler piping and supports for seven of the nine phases and begun installation of a two-inch copper line along the western perimeter of Level P1. Construction is 75 percent complete and is scheduled to be complete in January 2024.
- **SCADA System Upgrades**—This project will upgrade Metropolitan's entire control system in incremental stages, spanning the Colorado River Aqueduct, the five water treatment plants, and the conveyance and distribution system. The first stage of this project replaces the control system at the Mills plant, starting with a pilot effort on one of the plant's remote terminal units to demonstrate the proposed technology and the consultant's approach for the plant and the overall project. The consultant has installed the pilot equipment, and is now performing equipment verification, and developing control narratives and a training plan. The pilot phase is approximately 80 percent complete and is scheduled to be complete in March 2024. The system upgrades at the Mills plant are scheduled to be complete in October 2026.
- **Foothill Hydroelectric Plant and Control Building Seismic Upgrade**—This project strengthens the Foothill Hydroelectric Plant and Control Building to withstand a significant earthquake, by removing and replacing the roofing system; adding encasements to enlarge and strengthen concrete columns; and reinforcing shallow foundations. The contractor continued performing abatement activities on the building's roof, demolition of existing exhaust fans, and installation of structural steel roof plates. Construction is approximately 25 percent complete and is scheduled to be complete in December 2024.
- **Perris Valley Pipeline**—This project will complete construction of the Perris Valley Pipeline and provide service connections to Eastern and Western Municipal Water Districts. This project installs 3,000 linear feet

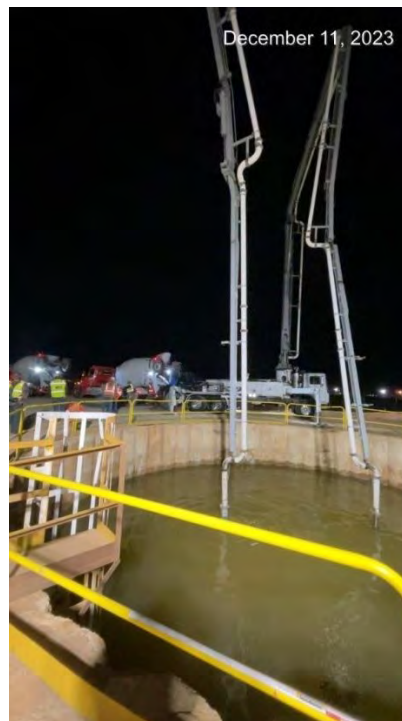
Water Resources and Engineering

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of tunnel which crosses the Interstate 215 freeway. Metropolitan's Board awarded a construction contract in January 2023. Construction is underway at three of four shafts and has nearly completed construction of the main drive shaft. A tunnel boring machine "naming" event, which will signify the commencement of tunneling work, is scheduled for late January 2024. Overall construction is 30 percent complete and is scheduled to be complete in early 2025.



Foothill Hydroelectric Power Plant—Installation of Seismic Reinforcing



Perris Valley Pipeline—Underwater Concrete Placement of the Shaft No. 3 Bottom Plug



Perris Valley Pipeline—Drilling secant piles for Shaft No. 3

Value Engineering Program

Gene Wash Dam Discharge Valve Test—Risk Assessment Workshop

- In December, Engineering Services completed a Risk Assessment workshop to review and improve the plan to test the new 42-inch diameter fixed cone valve at the base of the Gene Wash dam. This valve was recently installed through a capital improvement project which also completed other refurbishment work in the area. The new valve replaced the original discharge valve installed during construction of the dam in 1937. The original equipment performed well for many decades and provided a means for Metropolitan to dewater Gene Wash in the event of an emergency condition. Although never called upon to perform in an actual emergency, the original valve was tested and maintained by WSO staff and remained ready for use at all times.
- The risk assessment workshop focused on reviewing the test plan and identifying clear and objective criteria, as well as key risks which could occur during testing. For each risk, the workshop team developed and recommended a set of pre-test mitigations and contingency plans. The team included Metropolitan staff from Engineering, WSO, and Environmental Planning and was supplemented by consultant subject matter experts with decades of experience in gate and valve design for dam outlet works and underwater construction experience.
- The workshop recommendations will improve the test plan in several critical areas including personnel safety, and in the mitigation and response measures necessary to ensure continued safe operation of these facilities.



Pure Water Southern California

The Pure Water Southern California (PWSC) Program is a large-regional recycled water project that will provide a new local source of safe and reliable drinking water for Southern California. The PWSC currently is working in three areas: demonstration testing, environmental planning, and design. The PWSC will produce 150 mgd of purified water from the Advanced Water Purification Facility (AWPF) in Carson California to be used for indirect potable reuse (IPR) and direct potable reuse (DPR) with the first deliveries by 2030 and completion by 2035.

- **Demonstration Testing:** Demonstration testing began in 2019 with N-only tertiary membrane bioreactor (tMBR) testing completed in 2021, secondary MBR testing completed in 2023, and a summary report is being prepared. Maintenance and modifications for nitrification tMBR optimization testing are completed and testing is scheduled to begin in early 2024. Test plans are being prepared to guide the future testing. The name of the demonstration plant was changed in November 2023 to the Grace F. Napolitano Pure Water Southern California Innovation Center to reflect the representative's support for the water reuse.
- **Environmental Planning:** The Environmental Planning Phase began in 2020 with the goal of preparing an Environmental Impact Report (EIR) for approval in 2025. The draft EIR is currently scheduled for publication in early-2025, with board certification of the document in the third quarter of 2025. Staff continues to finalize the project description, perform additional technical studies, incorporate changes to the program due to inclusion of the LADWP Operation NEXT pipe upsizing, and develop text for the draft EIR.
- **Program Management:** PWSC program management efforts lead the planning for the Program, including project controls, scheduling, risk management and other plans and studies.
 - A PWSC cost estimate update was presented to the PWSC/Regional Conveyance Subcommittee in November 2023. The presentation provided a review of the 2018 costs, highlights of program changes, updated capital and O&M costs, potential partner carried costs/contributions, and a projected unit cost. The Phase 1 cost (2023 dollars) is approximately \$6.39 billion.
 - A Construction Sequencing memorandum has been prepared to identify the milestones and construction contracts needed to meet the projected completion of the AWPF, the backbone pipeline, and full delivery for IPR in 2032.
 - A Large-Scale Water Recycling grant application requesting \$125 million was submitted to the US Bureau of Reclamation (USBR) on November 20, 2023. Successful applicants will be notified in early 2024. To receive funding, an approved USBR Feasibility Study is required. Work on this study is

approximately 67 percent complete and is progressing on schedule for a January 19, 2024, submittal. A 3:1 agency match of the grant funds is required.

- **Advanced Purification Facility:** The AWPf will purify wastewater from LACSD's A.K Warren facility (formerly the JWPCP) using processes that include membrane bioreactors, reverse osmosis, and UV Oxidation.
 - The AWPf team is evaluating the use of Progressive Design Build to design and construct the treatment plant facilities and published an "Announcement Of Upcoming Request For Qualifications For Progressive Design-Build Of The Pure Water Southern California Advanced Water Purification Facility."
 - A proposed Request for Qualifications from qualified Design Build Entities (DBE's) is scheduled for March 2023 with authorization of a DBE planned for late 2024.
- **Direct Potable Reuse (DPR):** The California Division of Drinking Water (DDW) is scheduled to publish final DPR regulations in December 2023. Metropolitan and LACSD submitted a combined letter to DDW on November 23, 2023, with comments on the "Alternatives" Section, standardized online monitoring, scientific advisory panel for emerging concerns, governance, and monitoring/reporting provisions.
- **Conveyance Pipeline System:** The program's backbone conveyance system consists of over 40 miles of pipeline and pump stations. Metropolitan's Board authorized consulting agreements for preliminary design in March 2023.
 - **Reach 1**—This reach is approximately six miles long and runs through the city of Carson. Current work includes utility potholing and geotechnical work. Preliminary design is 25 percent complete and is scheduled to be complete by mid-2024.
 - **Reach 2**—This reach is approximately 8 miles long and runs through the cities of Long Beach and Lakewood. Current work includes ground penetrating radar and obtaining permits for geotechnical work, which is expected to start early next year. Preliminary design is seven percent complete and is scheduled to be complete by late-2024.

Protecting the Public and Metropolitan's Assets

Engineering Services continued to develop state-mandated Emergency Action Plans (EAPs) for Metropolitan's state-regulated dams to help ensure long-term public safety. In December, the EAPs for Garvey Reservoir and Palos Verdes Reservoir were submitted to the Cal OES and are currently under review. The EAPs for Live Oak Reservoir and the Weymouth Finished Water Reservoir are substantially complete and will be submitted for review by the Cal OES in January 2024. To date, eight of Metropolitan's 13 state required EAPs have been fully approved by Cal OES.

Safety, Security and Protection

Project Highlights

Security and Emergency Management

Security and Emergency Response

Metropolitan Security staff partnered with Department of Homeland Security (DHS) Cybersecurity and Infrastructure Security Agency (CISA) protective security agents to assess the Diamond Valley Reservoir's potential security vulnerabilities and mitigation measures.

As part of their two-day courtesy visit, DHS CISA coordinated closely with Metropolitan security specialists to complete their Infrastructure Visualization Platform (IVP) data collection and presentation medium. IVP panoramic images increase security readiness by providing map overlays, viewpoints, and diagrams to assist first responders during an emergency. The IVP team also collects data on obstructions and restrictions that could affect the approach of emergency response vehicles and equipment to the site in the event of a natural hazard or malevolent act.

Like Google Earth Street view, it allows security specialists to:

- Document critical facility approach and exit routes
- Evaluate security lighting
- Catalogue physical security features of main facility entrances
- Appraise protective measures to secure dams, critical nodes, and other key reservoir structures

The combination of immersive high-resolution camera and video imagery, geospatial information, and hypermedia data of critical facilities greatly enhances critical infrastructure security planning, protection, and response efforts.



DHS CISA Protective Security Agents conduct courtesy DVL security assessment

Water Resources, Engineering and Safety

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In the realm of security operations, where accurate and timely information is paramount, the power of intelligence is recognized. The quest for real-time actionable intelligence has driven Metropolitan security staff to engage with federal and local agencies, urging them to incorporate us into their “need-to-know” protocols. The aim is to maintain a preventative and proactive approach, ensuring that security stays ahead of potential issues rather than merely reacting to them.

As of December 2023, a senior intelligence officer with the Department of Homeland Security (DHS) has been presenting Metropolitan with a threat brief tailored specifically for the water industry. This proactive measure, occurring periodically in response to evolving threats, equips Metropolitan with valuable insights into emerging concerns.

From November 6 through 9, Metropolitan staff attended the International Association of Emergency Managers Annual Conference held in Long Beach, California. The focus of this year’s conference was diversity, equity, and inclusion in emergency management and included speakers from the Federal Emergency Management Agency, the National Weather Service, and California State University. The overall theme of unity and collaboration was evident throughout the educational event, which provided numerous networking opportunities. In addition, the latest in emergency response and management technology was on display.



Staff attended the International Association of Emergency Managers Annual Conference

During November and December, Metropolitan’s emergency responders received training ranging from working in Metropolitan’s Emergency Operations Center (EOC) and Incident Command Posts (ICPs) to preparing for dam emergencies. Emergency Management staff also participated in Cal OES training so that they could teach these courses to other Metropolitan staff in the future.

On November 30, Metropolitan staff participated in a workshop to finalize a joint emergency response plan that would be used following a catastrophic earthquake in the Southern California region. This type of pre-planning is vital to recover from any catastrophic event. The workshop featured presentations from the California Water/Wastewater Response Agency Response Network (Cal WARN) and the California Utilities Emergency Association (CUEA). Other attendees included staff from the Department of Water Resources, the Los Angeles Department of Water and Power, and members from the Seismic Resilient Water Task Force.

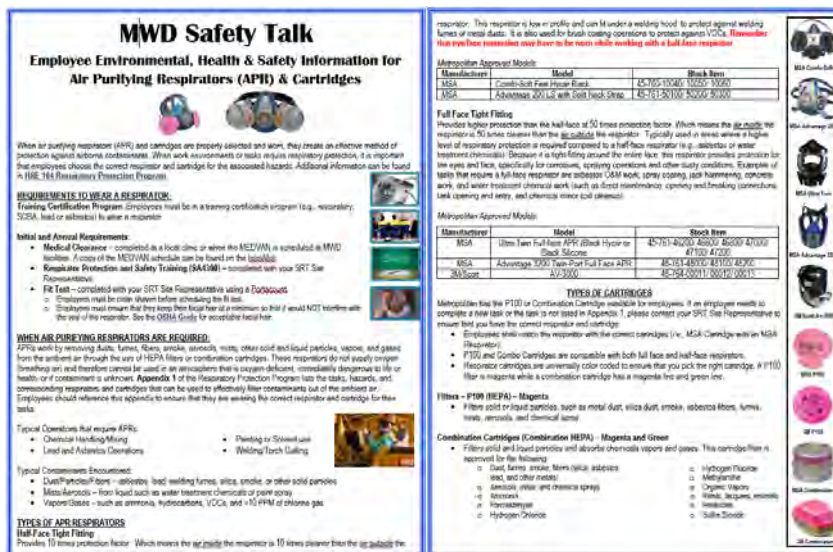
Water Resources, Engineering and Safety

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Safety, Regulatory and Training

SRT Health & Safety Programs

SRT posted a new MWD Safety Talk to the Intranet. The safety talk on Air Purifying Respirators communicates the requirements of medical clearance, training, and fit testing before employees can use a respirator as personal protection equipment. The safety talk also identifies the approved respirator models and filter cartridges available through Metropolitan warehouses. Safety talks provide concise information about a Metropolitan program or topic that can be printed and shared readily to any applicable audience.



MWD Safety Talk
Employee Environmental, Health & Safety Information for
Air Purifying Respirators (APR) & Cartridges

When air purifying respirators (APR) and cartridges are properly selected and worn, they create an effective method of protection against airborne contaminants. What work environments or tasks require respiratory protection, it is important that employees choose the correct respirator and cartridge for the associated hazards. Additional information can be found in MWD's Respiratory Protection Program.

REQUIREMENTS TO WEAR A RESPIRATOR:
Training/Certification Program: employees must be in a training/certification program (e.g., respiratory; SCBA, lead or additional to water in a respirator).

Initial and Annual Requirements:

- Medical Clearance – completed in a clinic or where the MWD/MW is scheduled in MWD facilities. Copies of the MWD/MW schedule can be found on the Intranet.
- Respiratory Protection and Safety Training (RPSST) – completed with your SRT Site Representative.
- Fit Test – completed with your SRT Site Representative using a Turboeust.
- Employees must be clean-shaven before scheduling the fit test.
- Employees must ensure that they keep their face hair at a minimum so that it would NOT interfere with the seal of the respirator. See the OSHA Guide for acceptable facial hair.

WHEN AIR PURIFYING RESPIRATORS ARE REQUIRED:
APRs are used to remove dusts, fumes, gases, smoke, aerosols, mists, other solid and liquid particles, vapors, and gases from the ambient air through the use of HEPA filters or combination cartridges. These respirators do not supply oxygen (breathing air) and therefore cannot be used in an environment that is oxygen deficient, immediately dangerous to life or health, or if the concentration of the contaminant is unknown. Appendix 1 of the Respiratory Protection Program lists the tasks, hazards, and corresponding respirators and cartridges that can be used to effectively filter contaminants out of the ambient air. Employees should reference this appendix to ensure that they are wearing the correct respirator and cartridge for the task.

Typical Operations that require APRs:

- Chemical Handling/Mixing
- Lead and Asbestos Operations
- Painting or Solvent Use
- Welding/Torch Cutting

Typical Contaminants Encountered:

- Dust/Particulate Matter – carbonates, lead, welding fumes, silica, smoke, or other solid particles
- Metals/Aerosols – fine lead such as water treatment chemicals or paint spray
- Vapors/Gases – such as ammonia, hydrocarbons, VOCs, and HAPs of chlorine gas

TYPES OF APR RESPIRATORS
Half Face Tight Fitting
Provides 10 times protection factor (which means the air going the respirator is 10 times cleaner than the air outside the respirator. This respirator is low in profile and can fit under a welding hood to protect against welding fumes or metal dusts. It is also used for brush coating operations to protect against VOCs. **Remember:** Half face respirators must have a full face seal around the face.

Manufacturer Approved Models:

Manufacturer	Model	Stock Item
MSA	Combifast Full Face Respirator	45-765-0040 10000 0000
USA	Advantage 2000 Full Face Respirator	45-765-0040 10000 0000

Full Face Tight Fitting
Provides higher protection than the half face of 50 times protection factor. It has means the air going the respirator is 50 times cleaner than the air outside the respirator. Typically used in areas where a higher level of respiratory protection is required compared to a half face respirator (e.g., asbestos or water treatment chemicals). Because it is a tight fitting around the entire face, the respirator provides protection for the eyes and face, specifically for corrosives, spraying operations and other dusty conditions. Examples of tasks that require a full face respirator are asbestos (AHL) work, spray painting, lead hammering, concrete work, and water treatment chemical work (such as direct maintenance, cleaning and breaking connections, tank opening and entry, and chemical mixing tank cleanout).

Manufacturer Approved Models:

Manufacturer	Model	Stock Item
MSA	Ultim Twin Full Face APR (Black Hyster or Stock Silicone)	45-765-0040 10000 0000
MSA	Advantage 2000 Twin Full Face APR	45-765-0040 10000 0000
3M Scott	A-2000	45-765-0040 10000 0000

TYPES OF CARTRIDGES
Remember that the P100 or Combination Cartridge available for employees. If an employee needs to complete a new task or the task is not listed in Appendix 1, please contact your SRT Site Representative to ensure that you have the correct respirator and cartridge.

- Employees must use the respirator with the correct cartridges (i.e., MSA Cartridge with an MSA Respirator).
- P100 and Combination Cartridges are compatible with both full face and half face respirators.
- Respirator cartridges are universally color coded to ensure that you pick the right cartridge. If P100 filter is magenta while a combination cartridge has a magenta top and green line.

Filters – P100 (HEPA) – Magenta

- Filters solid or liquid particles, such as metal dust, silica dust, smoke, asbestos fibers, fumes, mists, aerosols, and chemical spray.

Combination Cartridges (Combination HEPA) – Magenta and Green

- Filters solid and liquid particles and absorb chemical vapors and gases. This cartridge filter is required for the following:

 - Dust, fumes, mists, smoke, asbestos
 - Hydrogen Fluoride
 - Aerosols, mists, and chemical sprays
 - Hydrogen Sulfide
 - Ammonia, nitric, and chemical sprays
 - Oxygen Deficient
 - Isocyanates
 - Hydrogen Cyanide

MWD Safety Talk on Respirators

SRT Environmental Programs

SRT worked closely with Legal and Real Property to ensure proper removal of the Underground Storage Tank (UST) at Metropolitan's former Sunset Garage facility. As a condition of the sale, Metropolitan reviews all UST removal and abatement work conducted by the new owner and approves associated costs. On December 5, staff observed the UST removal by the buyer's consultant and contractor and observed soil samples collected for analysis. A Los Angeles City Fire Department inspector was also present to provide regulatory oversight. The open excavation is to be filled with slurry pending the soil sample test results.



Underground Storage Tank Removal

Water Resources, Engineering and Safety

(continued)

SRT coordinated with Diemer and Weymouth Treatment Plant staff to prepare for and clean out sodium hypochlorite and sulfuric acid tanks to prepare them for inspection by Metropolitan's corrosion engineering team. SRT's hazardous waste vendor collected and disposed of approximately 400 gallons of hypochlorite and 900 gallons of rinse water from the Diemer facility, and approximately 230 gallons of sulfuric acid, 150 pounds of sludge, and 275 gallons of rinse water from the Weymouth facility.



Before and After - Weymouth Sulfuric Acid Tank Cleanout

SRT staff met with South Coast Air Quality Management District's (SCAQMD) legal department to discuss the alleged violations related to asbestos management for the Weymouth Basin 5–8 Rehabilitation Project. After discussing the appropriate responsible parties for each citation and providing information on Metropolitan's mitigation efforts, such as steps taken to prevent future violations and training courses attended, the penalty amount was reduced from \$9,699 to \$1,020. Staff is working with Legal and Engineering to sign the agreement form and pay the penalty.

SRT Apprenticeship

The SRT Apprenticeship Programs prepare apprentices to become qualified mechanics and electricians responsible for maintaining Metropolitan's water treatment and distribution systems. The Class of 2026 has recently completed their second academic period, where apprentices were introduced to the basic concepts of electrical theory and the fundamentals of electricity. The apprentices were also taught how to use multimeters for troubleshooting and reference guidelines for electrical safety in the workplace provided by the National Electrical Code (NEC) and the National Fire Protection Association (NFPA). The apprentices also learned schematics and print reading, which are essential skills for electricians to perform work in the field.

Water Resources, Engineering and Safety

(continued)



Apprentices studying electrical currents and Ohm's Law

SRT Safety and Technical Training

In the preceding month, the SRT Safety and Technical Training Team delivered a total of 28 safety and environmental classes to an audience of 203 students, addressing 13 crucial topics.

SRT Training and Site Support staff collaborated with the Construction Services Unit to organize a two-day confined space rescue course. This specialized training covered the equipment, techniques, and procedures essential for performing rescue operations in confined spaces and/or other restricted-access environments. The instructional approach encompassed a thorough classroom session, complemented by hands-on practical applications. Participants actively engaged with the equipment and learned techniques integral to the successful rescue of personnel. This strategic combination of theoretical knowledge and practical skill helps ensure staff are well-informed and proficient in real-world rescue scenarios.



SRT Site Support staff demonstrating use of tripod rescue equipment



Water System Operations

Core Business Objectives

Provide Reliable Water Deliveries

Metropolitan member agency water deliveries were 110,100 acre-feet (AF) for December with an average of 3,550 AF per day, which was about 50 AF per day higher than in November. In addition, Metropolitan delivered 14,500 AF to Cyclic and Conjunctive Use Programs. Treated water deliveries were 10,800 AF lower than November for a total of 50,100 AF, or 46 percent of total deliveries for the month. The Colorado River Aqueduct (CRA) pumped a total of 54,000 AF in December. Metropolitan maintained a four-pump flow along the CRA for most of the month. State Water Project (SWP) imports averaged 3,400 AF per day, totaling about 106,900 AF for the month. The target SWP blend was around 80 percent for the Weymouth Plant, 35 percent for the Diemer Plant, and 60 percent for the Skinner Plant.

Staff completed repairing the Whitewater protection structure along the CRA. During Tropical Storm Hilary, material was deposited upstream of the protection structure, reducing the flow capacity. Staff used this material to reinforce and raise the protective berms that channel the river flow towards the concrete reinforcement.



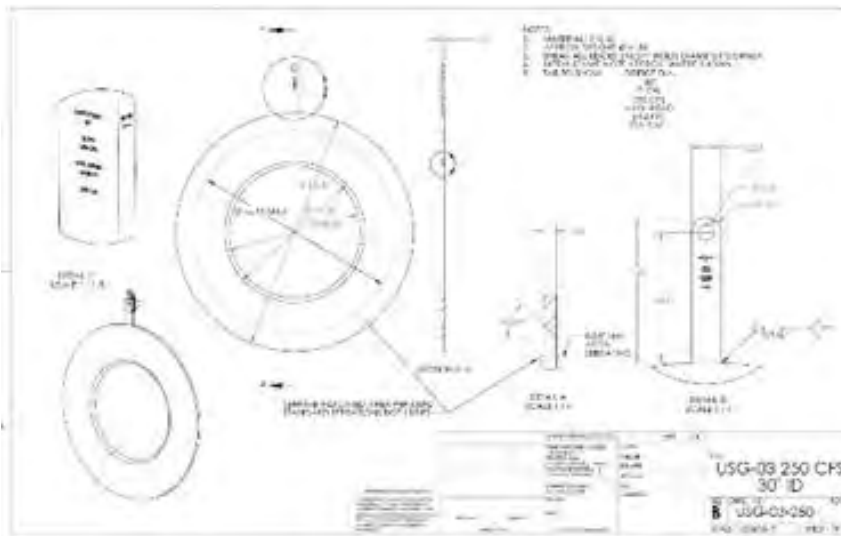
Equipment pushing material along the CRA (left) and reinforcing protective berms (right)

The La Verne Shops received an urgent request to fabricate components required to repair a leak on the Palos Verdes Feeder. Availability of the Palos Verdes Feeder is needed for a several-month-long shutdown of the Second Lower Feeder that began on December 15. Operations and Engineering staff coordinated through the Veteran's Day weekend to fabricate an end ring, steel band, and butt strap, delivering the necessary fittings in time to support completing the repair work for the Second Lower Feeder shutdown.



Fitting components for the repair of the Palos Verdes Feeder in various stages of fabrication

The La Verne Shops fabricated a new orifice plate for the Upper San Gabriel Valley Municipal Water District. An existing orifice plate designed for 250 cfs and installed at service connection USG-03 was identified as flowing nearly 300 cfs, exceeding the percolation rates of the Los Angeles County Department of Public Works' spreading grounds and necessitating the fabrication of the new plate to operate at the desired flow rate more accurately.



Engineering drawing (left) and completed orifice plate (right) for service connection USG-03

Staff placed a temporary bypass for the Palos Verdes Feeder into service at the Palos Verdes Reservoir. The bypass consists of two 28-inch lines that will provide uninterrupted water supply to service connections LA-21 and WB-32, while the Second Lower Feeder (SLF) is out of service for the relining of 3.5 miles of prestressed concrete cylinder pipe (PCCP) from the Sepulveda Feeder interconnection in the City of Torrance to Oak Street Pressure Control Structure (PCS) in Rolling Hills. The SLF relining began December 15 and is expected to be completed by the end of April 2024.



Temporary bypass for the Palos Verdes Feeder at Palos Verdes Reservoir

Staff shut down a portion of the Santa Monica Feeder from December 15 to 17 to replace a venturi-type flow meter at service connection SMN-01, which is located at the terminus of the Santa Monica Feeder in West Los Angeles. During a recent inspection, staff discovered the meter was leaking because of corrosion. Staff expedited certification of a replacement venturi meter by a Utah lab, and the La Verne Shops fabricated pipe spools required for installation by Metropolitan forces. This multi-discipline effort completed over a short period will provide operational reliability for the City of Santa Monica for many years.



Close-up of the venturi meter leaking because of corrosion at the Santa Monica Feeder



Newly installed venturi flow meter at service connection off the Santa Monica Feeder

Manage Water Reserves

The 100 percent State Water Project (SWP) allocation, when combined with Colorado River supplies, provides the region with surplus water supplies. Water continues to be managed according to Water Surplus and Drought Management (WSDM) principles and operational objectives with an emphasis to position SWP supplies to meet future demands in the SWP-dependent area. Metropolitan continues deliveries to Desert Water Agency and Coachella Valley Water District. With the higher SWP Allocation and low regional demands, Metropolitan is working to maximize its use of Table A supplies this year. Staff is working with member agencies to manage supplies through the Cyclic and Cyclic Cost Offset Program. On December 1, the Department of Water Resources issued an initial 10 percent SWP Allocation. Metropolitan will shift operations in early January 2024 to preserve SWP supplies and use more Colorado River supplies in case the low SWP allocation continues through 2024.

Support the Pure Water Southern California Program

During December, staff restarted the demonstration plant at the Napolitano Innovation Center after a four-week shutdown to repair and upgrade the facility for the next phase of tertiary membrane bioreactor (MBR) testing in a nitrifying-denitrifying mode of operation with external carbon addition. After successful mechanical, electrical, instrumentation, and SCADA improvements throughout the facility, the MBR was reseeded with sludge from Irvine Ranch Water District's Michelson Water Recycling Plant and began operations with successful nitrification within a few hours of startup. Through the rest of December, staff stabilized the bioreactor and started the remaining advanced water treatment processes in anticipation of testing resuming in January.



Staff connect a new nitrate probe to assess denitrification in the anoxic tank at the demonstration plant



New foam skimming equipment is installed in the aerobic tank at the demonstration plant



Staff collects water samples to assess bioreactor microbial concentrations at the demonstration plant



Staff fits PVC piping for new chemical feed lines at the demonstration plant

Manage Power Resources and Energy Use in a Sustainable Manner

Energy markets in December 2023 remained stable. Natural gas prices in December were generally in the seasonally normal \$4–7 per Metric Million British Thermal Unit (MMBtu) range, with electricity prices in the California Independent System Operator (CAISO) market following suit, averaging in the \$40–60 per megawatt-hours (MWh) range.

CRA pumping remained relatively low in December, generally at the four-pump level, driven by high SWP supplies, reduced demand, and nearly full storage levels at Lake Mathews, helping to keep CRA pumping costs trending below budget. CRA pumping costs for December were about \$6 million. The CRA energy cost budget for fiscal year 2023/24 is \$82.6 million; the current cost forecast for the 2023/24 fiscal year is significantly lower at \$49 million, because of reduced pumping and lower forward cost curves. Monthly costs are forecast to increase after the scheduled CRA shutdown in March as the aqueduct returns to a higher scheduled flow and energy prices increase in anticipation of summer.

Daily generation output from Metropolitan’s small hydroelectric plants (HEPs) averaged around 23 MW during the month of December, for a total energy output of about 17,000 MWh. Metropolitan’s solar facilities totaling 5.4 megawatts of capacity generated approximately 1,000 MWh in December 2023.

Ensure Water Quality Compliance, Worker Safety, and Environmental Protection

Metropolitan complied with all water quality regulations and primary drinking water standards during November 2023.

Staff began installation of a 3-inch natural gas line at the Weymouth Plant. The existing steel gas line leaked in multiple locations and is beyond its useful life span. The new gas line will provide reliable natural gas service to several buildings at the facility. The new gas service will include additional valves for isolation and an extra tee for the future gas upgrade project.



Staff potholing existing utilities (left) and excavating gas line lateral (right)

A broken sewer line was discovered at the Diemer plant. Staff responded quickly by isolating the discharges back into the broken sewer line. Staff completed repairs within a week and promptly returned the sewer line to service.



Damaged sewer line at Diemer plant



Repaired sewer line at Diemer plant

Staff performed high-voltage switching to isolate the electrical transformer and circuit breakers that supply the Lake Skinner Outlet Tower and valves for five-year maintenance and testing. This process requires specific steps that must be executed and followed precisely as written to create an electrically safe condition for staff working on electrical equipment. During this time, Metropolitan's switching instructor also evaluated a staff member to be certified as a high-voltage switcher.



Staff performing high-voltage switching to safely isolate electrical equipment for maintenance

Optimize Maintenance

The CRA pumps are one of the many components crucial to moving water through the desert. During normal operations, these pumps are regularly exposed to the natural sand and silt found in Colorado River water. Thus, they require periodic disassembly, cleaning, repair, and repacking of pump bowl seals to operate at maximum efficiency.



Staff cleaning and replacing pump bowl packing at Eagle Mountain pumping plant



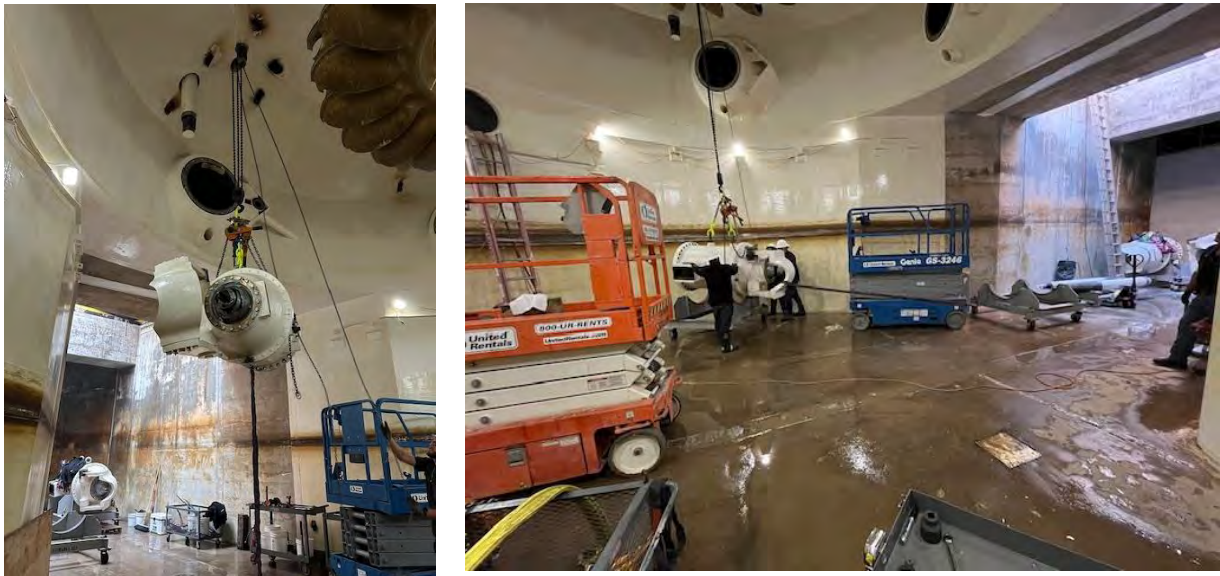
Main pump impeller cleaning and repair at Eagle Mountain pumping plant

Metropolitan operates about 63 miles of open-lined canals. Ensuring that access roads and slopes along the canal are properly maintained facilitates efficient maintenance and inspections of the Colorado River Aqueduct. Staff grades roads and slopes as needed throughout the year to maintain access to this critical system.



Staff maintaining roads and slopes along the CRA

To restore power generation at the nine mega-watt Sepulveda HEP, staff are performing the first major refurbishment and reconditioning of the hydraulic turbine since it was commissioned over 40 years ago. This month, staff removed the five needle valves that control the water flow in the turbine as the valves reached the end of their service life and became inoperable. Refurbishing the valve to a like-new condition restores reliable operation and extends the asset's life.



Staff lowering a four-ton needle valve (left) and resting on a cart for transport (right)

Staff removed one of six sleeve valves from the Inland Feeder pressure control structure, PC-1. During recent maintenance activities, staff found that the valve showed signs of significant wear that could make it inoperable. Using prior experience rebuilding similar valves at Wadsworth Pump Plant, staff promptly disassembled and refurbished the PC-1 valve.



Staff preparing to remove sleeve valve for refurbishment at PC-1



Staff removing six sleeve valves for refurbishment at PC-1

Staff replaced an Uninterruptible Power Supply (UPS) used in the ozone system at the Diemer plant because the equipment had reached the end of its service life. The function of a UPS is to provide power to critical equipment during a power outage.



Staff preparing to replace a UPS at the Diemer plant

Optimize Water Treatment and Distribution

In August, staff hosted a Partnership for Safe Water meeting and plant tour with operations staff from the City of Long Beach. The group took the time to discuss treatment plant optimization and operational strategies being used by both agencies to ensure reliable treatment plant operations to provide the highest quality water. The group also discussed operator certification requirements and strategies that could be used to aid staff in acquiring increased levels of certification.



Partnership for Safe Water meeting and plant tour at the Jensen plant

Staff completed pre-shutdown work at the Jensen Water Treatment Plant to prepare for the replacement of a surface wash valve. This work is required to address an actuator anomaly. Pre-shutdown work included installing temporary support and scaffolding, cutting welded support, and installing anchoring to limit the shutdown duration and optimize plant production



Supports to be cut (left), and valve and actuator to be replaced (right)

In December, the SWP target blend entering the Weymouth and Diemer plants were at 80 and 35 percent, respectively. Diemer plant blend was lowered to about 10 percent late in the month to manage trihalomethanes. The SWP target entering Lake Skinner was approximately 60 percent in December, and the SWP blend leaving the lake was 50 to 60 percent. Flow-weighted running annual averages for total dissolved solids from November 2022 through October 2023 for Metropolitan's treatment plants capable of receiving a blend of supplies from the SWP and the Colorado River Aqueduct were 417, 453, and 504 milligrams per liter (mg/L) for the Weymouth, Diemer, and

Skinner plants, respectively. The long-running nitrification in the distribution system concluded in early December, with nitrite concentrations below action levels in most samples and all flushing operations discontinued.

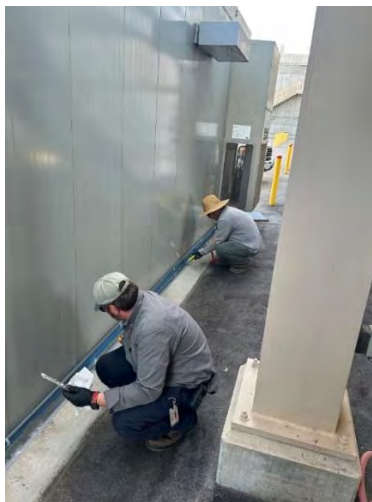
Improve Emergency Preparedness and Response

Staff began the construction of a backup power supply at the Water Quality Laboratory in La Verne. The connection of two substations allows each to be fed separately to the other in the event of a service failure.



Staff threading electrical conduit (left) and cutting and preparing conduit for installation (right) at the Water Quality Laboratory

Staff improved waterproofing on several electrical buildings throughout the Skinner plant following the storms over the past year which caused water intrusion into motor control centers feeding vital electrical equipment. The plant experienced several short-duration high-intensity rainfall events that exposed vulnerable places of entry for moisture, many of which are being addressed by caulking, installing lids and gutters, or saw-cutting concrete pads to divert water away from buildings.



Staff waterproofing electrical motor control center building at the Skinner plant

Actively Engage in Capital Project Planning and Execution

Work continued on a preliminary design for the Water Quality seismic retrofit and building improvement project. Staff met with project consultants and designers throughout December to discuss specific bench and equipment space requirements, supplies storage, office capacity, and functional needs for each area of the building.

Prepare for Future Legislation and Regulation

On November 27, EPA released its second version of draft guidance on how to apply the “functional equivalency” test found in the Supreme Court’s *County of Maui v. Hawaii Wildlife Fund* decision. Under the Maui decision, the Supreme Court set forth seven factors to help determine whether a NPDES permit is required when a point source pollutant discharged to groundwater has the same “functional equivalency” as a direct discharge to a navigable water. As with the previous version of the guidance, staff will provide comments supporting the functional equivalency tests as spelled out by the Supreme Court. Metropolitan submitted comments to EPA on the draft guidance on December 21.

On December 5, DDW released new Annual Reporting Requirements for Metropolitan’s drinking water systems titled the “Clearinghouse Annual Inventory Report (CAIR)” for public comment. The new Order replaces both section 6 of the Electronic Annual Report (eAR) and the Drought and Conservation Reporting Order. Metropolitan submitted comments to the State Water Resources Control Board asking to remove Metropolitan’s small water systems along the Colorado River Aqueduct from the drought reporting elements of the Order. The Order is set to go into effect on January 1, 2024.

On December 6, EPA published its proposed Lead and Copper Rule Improvements Rule. The proposed rule focuses on identifying and replacing lead service lines—including full lead-line replacement; lowering the lead action level from 0.015 to 0.010 milligrams per liter (mg/L); and improving public education and outreach materials to include renters and individuals with limited English proficiency. Staff is reviewing the proposal and may engage by the February 5, 2024 comment deadline.

Staff provided testimony strongly supporting the proposed resolution to adopt direct potable reuse (DPR) regulations during the December 19 meeting of the State Water Resources Control Board. Metropolitan’s comments recognized the State Board for its significant milestone achieved to advance potable reuse development in the state through the new regulations. This comprehensive regulation is a result of several years of research and extensive stakeholder input, including from Metropolitan and will help provide a basis for Metropolitan’s treatment approach for the Pure Water Southern California program. The State Board adopted the DPR regulations which now triggers review through the state’s Office of Administrative Law. The DPR regulations are anticipated to be formally published in the California Code of Regulations in coming months.

Advance Education and Outreach Initiatives

Staff who received Advanced Water Treatment Operator Certification (AWTO) were invited to be recognized at the Pure Water Southern California and Regional Conveyance Subcommittee meeting at Union Station Headquarters. Metropolitan was recognized by the California-Nevada American Water Works Association and California Water Environment Association for its leadership in the development of the AWTO Certification program.



Staff recognized for receiving AWT0 certification at Metropolitan's board room



Metropolitan leadership and industry organization representatives recognizing Metropolitan's certified AWT0s

Operations

(continued)

Monthly Update as of:

12/31/2023

<u>Reservoir</u>	<u>Current Storage</u>	<u>Percent of Capacity</u>
<i>Colorado River Basin</i>		
Lake Powell	8,441,000	35%
Lake Mead	9,059,000	35%
<i>DWR</i>		
Lake Oroville	2,406,619	68%
Shasta Lake	3,112,660	68%
San Luis Total	1,147,347	57%
San Luis CDWR	368,649	35%
Castaic Lake	248,522	77%
Silverwood Lake	72,897	97%
Lake Perris	76,370	58%
<i>MWD</i>		
DVL	753,442	93%
Lake Mathews	168,302	92%
Lake Skinner	39,068	89%



Hoover Dam

Information Technology

Project Highlights

Special Board Meeting – Live Stream from Gene Camp

The seamless collaboration between the Telecom and iHub teams played a pivotal role in executing the Special Board Meeting at Gene Camp on December 5, 2023. Both teams brought their unique expertise to the table, resulting in a well-coordinated effort. This success stands as a testament to the outstanding teamwork and collaboration exhibited by all parties involved, which fostered a positive spirit of cooperation conducive to overcoming challenges and achieving common goals.

Several dry runs were conducted between the Information Technology staff located at Gene Camp and the iHub Team at Headquarters which demonstrated testing excellence and exhibited setup and breakdown efficiency. The decision to use Starlink as a backup WiFi source proved strategic, ensuring uninterrupted connectivity and mitigating potential issues.

Desert Fiber Project

The Information Technology Group continues to analyze fiber network connectivity at our desert sites. Expertise from various business units has been instrumental in participating in the preliminary work. A feasibility study was recently completed indicating the best route to install fiber cabling, moving the project into Phase II.

The prework activities involve soil investigation, tower mapping, and LiDAR survey studies. In early December, soil analysis of 30+ test pits was conducted. The findings will analyze geotechnical soil stability and determine whether an alternative fiber route will need to be considered. The soil investigation report is expected to be available by the spring of 2024. The LiDAR Survey is planned for March of 2024 to determine whether the 230KV towers may be needed to support our fiber infrastructure over rocky mountain peaks. Phase II is tentatively scheduled to be completed in Q2-2024.



Photos: Soil testing performed at various desert sites

Finance and Administration

Finance

Maintain Strong Financial Position

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

In November, informational reports were provided to the Finance, Audit, Insurance, and Real Property Committee on Member Agency Purchase Order commitments covering January 1, 2015, through December 31, 2024, and Pure Water Southern California Cost Recovery Alternatives.

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

The Risk Management Unit completed 31 incident reports communicating instances of Metropolitan property damage, liability, workplace injuries, regulatory visits, and spills.

Risk Management completed 45 risk assessments on contracts, including professional service agreements, construction contracts, entry permits, special events, and film permits.

Business Continuity

Facilitate district-wide planning and training to prepare employees and managers to effectively carry out critical roles and recover mission essential functions thus ensuring continuity of operations and resiliency in the event of a disaster.

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

- Continued working with the district on Business Continuity Plan updates and approvals.
- In conjunction with the core planning team, continued working on the district-wide Local Hazard Mitigation Plan.
- Collaborated with Human Resources to add a text/SMS device type to the MyHR system that would in turn sync to MetAlert for emergency communications.
- Worked with the Fusion business continuity software vendor and Cybersecurity to deploy Single Sign On (SSO) in accordance with vendor requirements.

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 that 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.

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.

- Water Transactions for November 2023 (for water delivered in September 2023) totaled 108.8 thousand acre-feet (TAF), which was 33.5 TAF lower than the budget of 142.3 TAF and translates to \$105.5 million in receipts, which was \$37.0 million lower than budget of \$142.5 million.



Finance and Administration

(continued)

- Year-to-date water transactions through November 2023 (for water delivered in May 2023 through September 2023) were 520.5 TAF, which was 178.7 TAF lower than the budget of 699.2 TAF. Year-to-date water receipts through November 2023 were \$528.2 million, which was \$187.9 million lower than the budget of \$716.1 million.
- In November 2023, Accounts Payable processed approximately 4,000 vendor invoices for payment.

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

In November 2023, Metropolitan received 21 responses for a Request for Qualifications for Underwriting Services. From the responses, a team of investment banking firms will be selected in January 2024 to manage and underwrite several bond issues that will be issued in 2024.

Also, in November 2023, the 2023 Long-Range Finance Plan Needs Assessment report was presented to Metropolitan's Board. The Board agreed to concur with the report for planning purposes, and for the report to be reviewed by the Board, again, in January 2024.

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

As of November 30, 2023, Metropolitan's investment portfolio balance was \$1.0 billion; the total November earnings were \$3.4 million, and the effective rate of return was 4.18 percent.

Treasury staff managed daily cash flow to cover Metropolitan's operational expenditures and invested excess funds.

In November 2023, Metropolitan's portfolio manager executed seven trades. Treasury staff completed the following transactions:

- 25 Dreyfus Cash Management Fund transactions
- 18 CAMP Investment Pool transactions
- \$3.3 million in Metropolitan's bond and SWAP payments
- 1,058 disbursements by check, 20 by Automated Clearing House (ACH), and 121 by wire transfer
- 58 receipts by check, 32 by ACH, and 52 by incoming wires and bank transfers
- Stopped five unauthorized ACH disbursements

In addition, Treasury staff processed eight professional services invoice payment requests totaling approximately \$200,000. The Treasury staff also processed for DCA 13 checks and 14 wires totaling approximately \$3.2 million.

Furthermore, 8,342 P-One Card transactions, totaling \$1.2 million, recorded in the November bank statement were monitored by the P-One Card Administrator. The program received an annual rebate of \$207,600.

Administrative Services

Accomplishments

RMIS Introduces Tutorial Videos for Metropolitan Archives

The Records Management & Imaging Services Team recently published three video tutorials on the newly launched Library and Archives Services SharePoint site. The tutorials, which run between 10 and 12 minutes each, provide employees with an overview of Metropolitan’s archival program. Topics covered include Understanding Archival Records, an Introduction to the Metropolitan Archives, and Using the Metropolitan Archives Portal. Transcripts for each tutorial are also included on the site.

Professional Services Contracting Team Update

During December, the Professional Services Contracting Team (PSCT) completed the following solicitations in support of Metropolitan’s initiatives:

Request for Proposal (RFP) No. 1348—Data Management and Data Analytics Consulting & Implementation Services.

This solicitation acquired data management and data analytics consulting and implementation services to unlock new efficiencies in systems and processes by developing new data marts, enterprise data warehouse and analytics, and re-designing existing data marts in the form of use cases.

Request for Qualifications (RFQ) No. 1356 On-Call and Project-Specific Architectural Consulting Services. This solicitation pre-qualified multiple architectural consulting firms to provide on-call and project-specific architectural design, building engineering, office and laboratory space planning, kitchen facility planning, interior design, and landscape design services as outlined in the two technical categories: category 1—Industrial and Commercial Building Design and Planning, and category 2—Interior Design and Space Planning.

Human Resources

HR Priorities

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

In December, 459 Metropolitan employees attended virtually facilitated classes, including Presentation Skills, Resume Writing, Customer Service Excellence, Cybersecurity Awareness, Business Writing, and EEO Investigations 101. Thirty employees attended in-person trainings on Communication Skills and Stress Management.

LinkedIn Learning, Metropolitan's online e-learning content platform, was accessed for such topics as Interviewing Tips, Critical Thinking, Learning to be Promotable, and Practicing Fairness as a Manager.

The Organizational Development & Training Unit (OD&T) concluded the 13th cohort of Metropolitan's Management University, graduating 18 new managers. OD&T also facilitated a team-building exercise for the Warehouse Team at Weymouth, focusing on interpersonal communication and team collaboration.

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

The Recruitment team successfully filled 22 positions during the month of December and has 38 recruitments in final stages. Recruitment received new staffing requisitions for 19 positions, resulting in 207 positions currently in recruitment.

HR Core Business: Provide Excellent Human Resources Services

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

The Business Support Team planned, organized, and coordinated a "Ready, Set, Goal" wellness webinar. The live webcast, held on December 13, 2023, was hosted by Kaiser Permanente. The webinar invited employees to choose a behavior they want to target, explore ways to strengthen motivation to create habits that stick and learn key strategies that lead to health improvement. Employees were also invited to create a realistic action plan by using their personal strengths to improve their overall well-being.

HR Core Business: Comply with Employment Laws and Regulations

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

In December, two new workers' compensation claims were received. Two employees are currently off work because of an industrial injury or illness. This reflects Metropolitan's effort to accommodate injured workers while enabling them to be productive and on the job. Staff continues to address accommodations, coordinate treatment, and work closely with our Workers' Compensation Third-Party Administrator, Tristar Risk Management.

Finance and Administration

(continued)

HR Metrics	June 2023	December 2023	Prior Month November 2023
Headcount			
Regular Employees	1,779	1,803	1,798
Temporary Employees	25	46	43
Interns	0	1	1
Recurrents	18	18	18
Annuitants	24	24	23

	December 2023	November 2023
Number of Recruitments in Progress (Includes Temps and Intern positions)	207	210
Number of New Staffing Requisitions	19	18
	December 2023	November 2023
Number of Job Audit Requests in Progress	16	17
Number of Completed/Closed Job Audits	1	1
Number of New Job Audit Requests	0	4

Transactions Current Month and Fiscal YTD (includes current month)			
<u>External Hires</u>	<u>FY 22/23 Totals</u>	<u>December 2023</u>	<u>FISCAL YTD</u>
Regular Employees	116	7	57
Temporary Employees	36	6	35
Interns	0	0	1
Internal Promotions	72	9	40
Management Requested Promotions	149	4	69
Retirements/Separations (regular employees)	98	2	31
Employee-Requested Transfers	19	0	9

Departures

Last	First Name	Classification	Eff Date	Reason	Group
Snider	Marc	Landscape Maintenance Tech II	10/24/2023	Retirement - Service	CONVEYANCE & DISTRIBUTION GROUP
Releford	Christopher	Pump Plant Maint Operator I	10/26/2023	Resignation	CONVEYANCE & DISTRIBUTION GROUP

Diversity, Equity and Inclusion

Tribal Outreach & Engagement

DEI Staff together with SRI staff facilitated a meeting between the Chemehuevi Nation Environmental Management (CEM) and the Navajo Nation Power Utility (NPU). The purpose of the meeting was to learn insights from the NPU regarding a Design, Build, Operate and Maintain (DBOM) solar projects. The Chemehuevi has been in discussion with MWD staff regarding a proposed Chemehuevi Solar farm, which will be built on tribal land and which will connect to MWD's transmission line in the desert. The discussion focused on tribal nation's sovereign rights and how it may impact tribes if all equity of a DBOM project is handed to a non tribal nation entity. The CEM staff will share the information with its tribal council for further engagement with MWD.

CRIT Workshop

DEI Staff collaborated with CRIT to hold a resume writing, interviewing, and job seekers' workshop on CRIT reservation that attracted over 20 interested high school seniors and adult. We gave a description of the apprenticeship program and answered many questions, as well as guiding the participants with tips for resume writing, successful interviewing, and navigating the Metropolitan career site to learn about available jobs and career opportunities. The workshop was interactive with a lot of participation and engagement. The post-workshop survey revealed an average score of 5 (the highest score) regarding the usefulness of the workshop, and all participants indicated that they would return for a similar workshop or for a workshop to enhance their math and English skills in preparation of apprenticeship application/testing.

Business Outreach & Community Engagement

On December 7, 2023, Metropolitan staff attended the U.S. Green Building Council—Los Angeles (USGBC-LA) Green Gala and Sustainable Innovation Awards in Los Angeles, CA. The USGBC-LA GALA Awards is a celebration of outstanding leaders' contributions to sustainability, innovation, and community impact.

On December 8, 2023, Metropolitan staff attended the Latin Business Association—47th Annual Sol Business Awards in Rosemead, CA. The Sol Business Awards recognize and honor outstanding achievements in the business community. From innovative startups to established industry leaders, these awards celebrate those who have demonstrated exceptional dedication, creativity, and success.

On December 16, 2023, Metropolitan staff attended the Regional Hispanic Institute Mujeres De Año Gratitude reception in Long Beach, CA. To honor leaders who come from a variety of professional fields and disciplines and recognize them for their impact, influence, and inspiration continuously displayed in our community and to honor the outstanding demonstration of character, commitment, civic leadership, and citizenship or extraordinary individuals in our communities.





External Affairs

Highlights

Public and media interest in Metropolitan's leadership to address Colorado River issues remained high and was highlighted with several milestone events at the annual Colorado River Water Users Association conference. Chair Ortega, Vice Chair Camacho, Directors Bryant, Chacon, Cordero, DeJesus, Dennstedt, Garza, Kurtz, McCoy, Miller, Morris, G. Peterson, Seckel, and Smith, GM Hagekhalil, GC Scully, AGMs Upadhyay and Zinke, Colorado River Resources Manager Hasencamp and staff attended. (December 12-15)

- Signed partnership agreement with the Quechan Tribe to extend water conservation efforts
- Participated in media event with the US Bureau of Reclamation and California agencies marking multiple agreements on Colorado River conservation programs to save 1.6 million acre-feet in Lake Mead by 2026
- GM Hagekhalil joined panelists for a discussion of current and potential strategies to help stabilize the Colorado River policies and shape future river guidelines
- Co-hosted reception with Central Arizona Project
- Conducted interviews with KUNC's Alex Hager, Politico California reporter Camille Von Kaenel, KPCC/LAist reporter Emily Guerin, and LA Times reporter Ian James
- Hosted information tables on Pure Water and Colorado River programs at exhibit hall



Top Left: GM Hagekhalil, Chair Ortega and Director Cordero with California water agencies and the Bureau of Reclamation Commissioner Touton. Top Right: CAP Board President Goddard, Bureau of Reclamation Commissioner Touton, CAP GM Burman, and GM Hagekhalil. Bottom Left: GM Hagekhalil with fellow panelists Vice Chair Lorelei Cloud of the Southern Ute Indian Tribe and Governor Stephen Roe Lewis of the Gila River Indian Tribe. Bottom Right: Metropolitan GM Hagekhalil and Quechan Tribal President Jordan Joaquin signing agreement to extend their partnership to conserve water through 2026.

GM Hagekhalil was the featured speaker on “Challenges for Energy & Natural Resources in California” at the Institute for Corporate Counsel and USC Gould School of Law. (December 6)

GM Hagekhalil spoke on a panel, “From Boom to Bust” with DWR Director Nemeth at the California Foundation on the Economy and Environment (CFEE) water conference. AGM Zinke also attended. (December 7)

GM Hagekhalil testified at the State Water Resources Control Board public hearing on the Bay-Delta Water Quality Control Plan update in support of the Agreements to Support Healthy Rivers and Landscapes. (December 11)



Legislative Services

Federal

Metropolitan staff participated in stakeholder meetings with staff from the House Transportation and Infrastructure Committee to discuss priorities for the next Water Resources and Development Act bill authorizing Army Corps of Engineers projects and programs.

The FY24 National Defense Authorization Act includes \$5 million to continue a Center for Disease Control and Prevention Study on the health impacts of per- and polyfluoroalkyl substances (PFAS) in drinking water and \$1 million in incentives for the development of technology for thermal destruction of PFAS.

State

Metropolitan staff presented amendments to the sponsors of SB 366 (Caballero, D-Merced) which would make updates to the California Water Plan.

Following projections by the Legislative Analyst’s Office that California will face a \$68 billion deficit, the Department of Finance announced an expenditure freeze for all agencies and departments.

DWR released its final EIR for the Delta Conveyance Project.

Local

Provided a tour of the Grace F. Napolitano Pure Water Southern California Innovation Center with Assemblymember Fong (D-Alhambra) and his district office staff. (December 18)

Metropolitan staff presented, monitored and/or participated in 40 webinars, virtual meetings, and events with community organizations, trade associations and local officials on water-specific topics.

Media and Communications

- Facilitated interviews for LA Times reporter Ian James, KPCC/LAist reporter Jacob Margolis, The Hill reporter Sharon Udasin, and EO/AGM Upadhyay on the State Water Resources Control Board’s adoption of Direct Potable Reuse regulations.
- Arranged interview between WRM Resource Specialist Guerrero and Robert Starr of the Water Zone podcast regarding water supply conditions and the continued need for conservation.

- Scheduled interview between EO/AGM Upadhyay, Sr. Deputy General Counsel Teraoka and Politico reporter Ry Rivard about the 3M and Dupont PFAS settlements.
- Set up interview with Colorado River Resources Manager Hasencamp and Desert Sun reporter Janet Wilson on Metropolitan's exchange agreements with Coachella Valley Water District.
- Coordinated interview for GM Hagekhalil and Politico California's Camille von Kaenel regarding the Delta Conveyance Project EIR and the nexus between the Colorado River and the State Water Project.
- Arranged interview with GM Hagekhalil, Bay Delta Initiatives Manager Hawk, and LA Times reporter Ian James on the Delta Conveyance Project.
- Set up interview between GM Hagekhalil and Water Education Foundation's Nick Cahill about Pure Water Southern California and the role the project will play to solve challenges on the Colorado River.
- Issued statements on DWR's initial State Water Project allocation, the Delta Conveyance Project Final EIR, the State Water Board's adoption of direct potable reuse regulations and provided quotes for SWRCB and Water Reuse Association news releases.
- Animated the district's holiday card for various uses.



Metropolitan's 2023 Holiday Card

Social Media and Website

- Produced and posted four social media influencer video vignettes for Instagram posts with home and fashion stylist Katie Zamprioli (145,000 followers) and actor Kyle MacLachlan (516,000 followers), closing out the year of the district's social media influencer campaigns that reached audiences new to Metropolitan across a range of interests in the arts, music, style, fashion and lifestyle communities.



- Received more than 70,000 combined impressions from repurposed Black Friday and Cyber Monday conservation assets from years past.
- Posted photos leading up to and after the Board of Directors historic meeting at Gene Camp.
- Registered 47,000 visits to mwdh2o.com with careers, job postings, and press release pages the most popular; received more than 22,000 views on bewaterwise.com site.

- Added new stories to mwdh2o.com on drought-relief rebates, the Project Labor Agreement annual report; update on Climate Adaptation Master Plan for Water; completion of the first phase of the High Desert Water Bank Program; and redesigned and updated the website's Delta Conveyance webpage.

Pure Water Southern California

- Community Relations Team Manager Soni chaired an Independent Scientific Advisory Panel to discuss Boise's recycled water program. (December 5-6)
- Briefed environmental leaders on program status and discussed related research. (December 1)
- Met with Council for Watershed Health on recycled water communications. (December 4)
- Met with staff from the city of Bellflower (December 6), Union Pacific (December 7), and the city of Lakewood (December 15) to discuss conveyance system alignment. Provided tours for MWD101 Employee participants (December 11) and city of Torrance Water Commission (December 18) and attended Strength-Based Community Change event. (December 15)

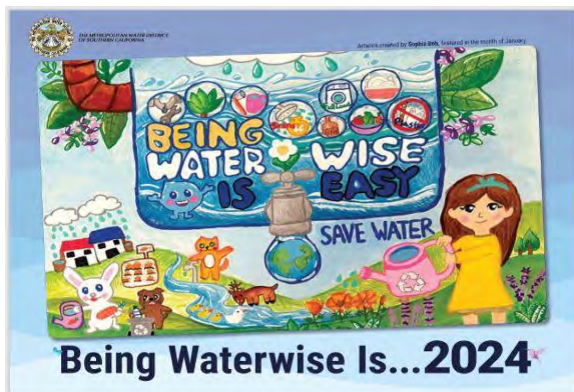
Community Partnering and Sponsorship Program

Metropolitan provided sponsorships to support the following events and programs this month:

- Los Angeles Alliance for a New Economy 2023 City of Justice Awards, US Green Building Council Los Angeles Chapter Green Gala Event and Women in Water Diplomacy Network North America and Colorado River Basin.

Other Outreach Activities

- Notified residents and businesses of Santa Monica Feeder shutdown, Second Lower Feeder shutdown, and Sepulveda Feeder Urgent Repair; Continued to resolve community concerns related to Second Lower Feeder Reach 3B; Hosted an information table at Harbor City community event on Second Lower Feeder.
- Conducted Environmental Listening Session on CAMP4W evaluative criteria. (December 11)
- Conducted eight focus groups on public attitudes on water issues, water quality, and public trust. Results will be presented to the Legislation, Regulatory Affairs, and Communications committee in early 2024.
- Provided tour of Weymouth for Joint Utility Vendor Audit Consortium (December 14) and tour of Diamond Valley Lake for the Riverside County Water Taskforce. (December 15)



Education and Community Relations

Metropolitan staff interacted with 245 teachers, students, and adults through in-person and online meetings and events.

- Water Engineering 4 Good teams participated in an online demonstration of Onshape, a CAD program they will use to create a drawing of their water conservation project.
- Metropolitan recognized the 37 student artists featured in the 2024 Water is Life calendar. Chair Ortega and Director Dennstedt participated in the virtual ceremony.

Sustainability, Resilience and Innovation



Sustainability, Resilience, Innovation, Environmental Planning, and Land Management

SRI Core Activities

General Manager Environmental Listening Session—Climate Adaptation Master Plan for Water (CAMP4W)

SRI and Metropolitan staff were actively involved in hosting and participating in the General Manager Environmental Listening Session on CAMP4W, which took place on December 11, 2023. During the session, participants discussed the draft evaluative criteria of CAMP4W and shared insights through small group discussions, reflecting on key points within the criteria.

Member Agency CAMP4W Workshop

SRI office, Metropolitan staff, and member agencies collaborated on December 12, 2023, to contribute to the development of a climate decision-making framework. They also conducted a thorough review of the draft project-level evaluative criteria during this engagement.

2023 Colorado River Water Users Association (CRUWA) Conference

The Chief SRI Officer actively engaged in a panel discussion at CRUWA Conference in Las Vegas, focusing on the evaluation of urban best practices in Science and Innovation within the Municipal and Industrial (M&I) sector. Panelists explored innovative technological solutions for enhancing water efficiency, data analysis, and decision-making processes. CRUWA serves as a platform for the exchange of ideas and perspectives on Colorado River use and management, fostering the development of shared solutions.



The Chief SRI Officer presented at the 2023 CRUWA Conference in Las Vegas

CAMP4W Executive Retreat

The Chief SRI Officer and staff participated in a full-day executive management retreat. During the retreat, demo and discussion of the framework/evaluation criteria dashboard and the 2024 timeline/process for decision-making and

Sustainability, Resilience and Innovation

(continued)

brainstorming, the next steps for the business model were presented to streamline the decision-making process, particularly in the context of adaptive management.

Climate Adaptation Master Plan for Water Joint Task Force (CAMP4W)

Chief SRI Officer, Metropolitan Water District staff, directors, and member agencies all joined to review the proposed evaluative criteria and decision-making framework. The CAMP4W Task Force focused on the development and use of the evaluative criteria and provided an overview of how they integrate into the CAMP4W process.

Zero Emission Vehicle Transition

SRI staff continued to lead cross-organizational efforts for the transition of Metropolitan's fleet to zero-emission vehicles. The current focus is finalizing its vehicle replacement strategy to meet new regulations. The final replacement strategy will determine total vehicle costs and provide the information needed for ESGs to design and build the supporting charging infrastructure. An informational board letter on the project's next steps will be presented to the EO&T Committee in January.

Sustainable Procurement

SRI staff began initiating the development a sustainable procurement policy working with the Responsible Purchasing Network (RPN), a consultant who specializes in this field. The RPN will also assist with the revision of the existing procurement manual and procedures and, on completion, will train staff on best sustainable procurement practices.

Sustainability and Resilience Operating Policy

SRI staff completed a draft of a new operating policy, D-03, Sustainability and Resilience, which provides policy for Metropolitan to operate sustainably while increasing resiliency and reliability of water supplies. The policy delegates authority to the Chief Sustainability, Resilience, and Innovation Officer to ensure that Metropolitan's sustainability and resilience efforts align with the goals of the Climate Action Plan and the General Manager's related strategic priorities.

Equity, Inclusion and Affordability Committee Panel on Affordability

The SRI office coordinated with groups across the district to organize a series of *Panels on Affordability* for the Board Equity, Inclusion and Affordability Committee. This last in a series of four panels was in response to the Board's request for affordability discussions to inform the CAMP4W and are designed inform policy recommendations and evaluative criteria that will guide a CAMP4W decision making framework. This month's panel included representatives from the San Francisco Public Utilities Commission and University California Los Angeles' Human Right to Water Lab & Water Resources Group with a focus on cost containment strategies and water affordability.

Innovation

Innovation, Pilots, and Emerging Technologies Updates

SRI Innovation Team Participates in LARTA's three-day ECO '23. ECO '23 in Los Angeles brought together local community leaders, grassroots innovators, academia, government, industry, foundations, and investors. SRI's Innovation Team has partnered with LARTA for over 10 years, including a Metropolitan Agriculture Conference with LARTA at UC Riverside. Metropolitan's SRI Innovation team was also invited by LARTA and Braid Theory to be a

Sustainability, Resilience and Innovation

(continued)

partner in a NOAA Grant in 2023. ECO '23 explored intricate systems of food, energy, healthcare, oceans, and education, showcasing both the challenges and innovative solutions within each sector, through the activation of six threads of programming: communities & people, interactive discussion, policy & adoption, innovation showcases, connections & introductions, and funding. Over 300 invited attendees participated in ECO '23.



Metropolitan Agriculture Conference with LARTA at UC Riverside

WaterStart Channels for Innovation Summit and Celebration of WaterStart's 10th Anniversary

Celebrating Ten Years of Innovation and Impact—Las Vegas Valley Water District and Southern Nevada Water Authority Deputy General Manager of Operations and board member Dave Johnson gave a special presentation to celebrate the 10th anniversary of WaterStart.



Programming - [CFI Summit 2023](#) - On December 12, Metropolitan's SRI Innovation, Engineering, and Bay Delta teams participated with WaterStart Innovation Members from around the globe at the CFI Summit. The day started with a panel discussion on "RACING INTO INNOVATION—Partnering with Utilities to Achieve CSR Goals" featuring deep discussions on timely and intricate water management topics with experts. The panel was followed by Technology Priority Pitches—Specific technology priorities that have been challenging in sourcing a solution presented by WaterStart members. Each pitch described the background of the need, the challenges faced in finding a solution, and the performance indicators critical to defining success.

Pitch 1—Healthy Soils on Metropolitan Lands, presented by David Bradshaw, Agricultural Liaison, Metropolitan Water District of Southern California

Pitch 2—Enabling Whole Life Carbon in Design, presented by Shaunna Berendsen, Chief Innovation Officer, Anglian Water Services

Pitch 3—An Update on the Center for Smart Infrastructure and Specific Dam Safety Research Concepts, presented by Elizabeth Bialek, Manager of Engineering Services, East Bay Municipal Utility District

Pitch 4—Collaborating to Protect Drinking Water Supplies from Wildfire Impacts in the Truckee River Watershed, presented by Kara Steeland, Sr. Hydrologist and Watershed Coordinator, Truckee Meadows Water Authority.

Sustainability, Resilience and Innovation

(continued)

Priority Pilot Pitches were moderated by Michael Thomas, WaterStart Board Member and Metropolitan Champion of Innovation. Michael Thomas was the winner of the 2022 Pilot Priority Pitch Competition. The 2023 Pitch Competition included a Priority Pitch on Earthen Levee Monitoring by Metropolitan's Russ Ryan with Rezatec's Camilla Brathwaite from England. The unique technologies implemented in the Bay Delta and piloted with co-funding from WaterStart will be a game changer for all groups in the Bay Delta. Russ Ryan is submitting a paper on the new technologies piloted to the State Water Project Partners and believes that they will be implemented by all partners in the Delta.

Environmental Planning Section

Core Business: Environmental Planning and Regulatory Compliance Support

Bay Delta Initiatives

Delta Conveyance Project

- Continued coordination with the California Department of Water Resources for ongoing permitting effort on behalf of Public Water Agencies.

Webb Tract Multi-Benefit Mosaic Landscape Project

- Completed preparation of special status plant technical reports.
- Participated in biweekly meetings with Bay Delta Initiatives staff and key working group consultants.

Engineering Services Group

Etiwanda Pipeline Relining Project

- Completed Mitigation Monitoring and Reporting Program (MMRP) documentation in support of project closeout.

Prestressed Concrete Cylinder Pipe (PCCP) Rehabilitation Program

- Continued construction monitoring and mitigation compliance for PCCP Second Lower Feeder Reach 3B.
- Continued construction monitoring for Lake Mathews Valve Storage Building project.
- Participated in strategy meeting in support of the urgent relining of the Allen McColloch Pipeline.
- Provided support for the preliminary design report for the PCCP Calabasas Feeder, Rialto Feeder Reach 1, and Sepulveda Feeder North Reach.

Perris Valley Pipeline

- Conducted ongoing mitigation monitoring of construction activities.



Mitigation monitoring for Perris Valley Pipeline construction near Interstate-215

Sustainability, Resilience and Innovation

(continued)

Pure Water Southern California

- Continued preparation of technical studies in support of draft environmental impact report (EIR).
- Reviewed revised data and project modifications, including upsized pipeline, for incorporation into technical studies and draft EIR.
- Continued tribal cultural resource consultation.
- Provided input on Large-Scale Water Recycling Project grant application.

Weymouth Water Treatment Plant and La Verne Site Improvements Program EIR

- Continued preparation of the final EIR, including responses to comments on the draft EIR.

Design Review

- Completed environmental analysis and CEQA determination for the Weymouth Hazardous Waste Storage Facility and Weymouth Asphalt Rehabilitation projects.

Construction Monitoring

- Continued construction monitoring for Orange County Feeder Relining Reach 3 and Weymouth Basins 5–8 Rehabilitation.

Sustainability, Resiliency, and Innovation Office

Climate Action Plan (CAP) Monitoring and Reporting

- Continued monitoring for Battery Energy Storage System project operation, in compliance with the CAP Program EIR MMRP.
- Continued to assist in Scope 3 emissions data collection in support of the CAP implementation, including developing an electronic system to capture contractor's construction emissions and a data management system to capture utilities data (waste, wastewater, and water use).
- Provided analysis review for Natural Gas Inventory Equipment report.

Real Property Support

- Provided environmental analysis and CEQA determinations in support of three real property agreements.

Water System Operations Group

- Prepared and submitted regulatory permit notifications for the Foothill Feeder Station 592+80 emergency repair.
- Provided environmental analysis and clearance for the Diemer Plant and Upper Feeder shutdowns and Rialto Feeder vegetation removal activities
- Obtained emergency authorization under Regional General Permit 63 from U.S. Army Corps of Engineers and provided construction monitoring for repairs conducted at the CRA Whitewater Siphon Protection Structure.

Reserve Management

Lake Mathews Multiple Species Reserve

- Seeded approximately 14 acres of prescribed burn areas with native grassland species.
- Installed security fencing along Harley John Road.
- Removed invasive tumbleweed and invasive tamarisk trees within sensitive areas.

Sustainability, Resilience and Innovation

(continued)

- Conducted comprehensive security patrols throughout the Reserve to prevent trespassing, vandalism, poaching, and theft and to ensure the protection of the Reserve's natural and cultural resources, facilities, and equipment.

Southwestern Riverside County Multi-Species Reserve

- Conducted vegetation management around artificial burrows to attract burrowing owls.
- Coordinated efforts for and hosted the annual Christmas bird count event on December 19, 2023.
- Removed non-native plants along the roads for fire and habitat management.
- Continued seed collection and propagation of native plants for future restoration projects.
- The Alamos Schoolhouse interpretive center was open on Saturdays, and the Reserve Interpreter hosted birding events each Saturday.
- Conducted comprehensive security patrols throughout the Reserve to prevent trespassing, vandalism, poaching, and theft and to ensure the protection of the Reserve's natural and cultural resources, facilities, and equipment.

External Document Reviews

- Reviewed 15 CEQA notices for external projects and prepared comment letters for those that may affect Metropolitan facilities and/or operations.

Water Resources Management Support

- Provided environmental analysis and CEQA determination in support of the Perris North Basin Groundwater Contamination Prevention and Remediation local resources program.

Land Management

Granted an entry permit to Verizon Wireless for one year to conduct a feasibility study for a wireless telecommunication tower on Metropolitan property just west of Lake Mathews. Metropolitan received a fee of \$2,500 for the entry permit.

Granted an entry permit to Corona Fire Department for a duration of 5 years to conduct annual swift water rescue training over a couple of days at the Lake Mathews inlet channel. This was mutual benefits transaction.

Extended an entry permit to San Jacinto Master Developer, LLC (Shea Properties) by one year to conduct biological studies for adjacent proposed development in Lakeview area of Riverside County. Metropolitan received a fee of \$1,000 for the extension of the entry permit.

Granted an easement to Riverside Public Utilities for electrical equipment proposed as part of Metropolitan's Mill's Plant Electrical Upgrade project. There was no charge for the easement because it was required as part of the upgrade project.

Granted an Easement to the County of Riverside Flood Control and Water Conservation District for a storm drain inlet structure within Metropolitan's property on the west side of Lake Mathews as part of an adjacent development. Metropolitan received a fee of \$8,000 for the easement.



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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