

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA



General Manager's Monthly Activity Report for March 2017

March 31, 2017

This report identifies the actions and activities taking place during the month that support the objectives of the General Manager's Fiscal Year 2016/17 Strategic Priorities and the Core Business of the GM's work groups.

Infrastructure Reliability

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. Construction of Reach 1 is 40 percent complete and is scheduled to be complete by July 2017. Final design for Reaches 2, 3 and 4 is 40 percent complete and is scheduled to be complete by April 2018. In addition, a procurement specification to purchase valves is 90 percent complete and is scheduled to be complete by April 2017. (*See photos below.*)



Lining Repairs – Installation of shoring box



Lining Repairs – Pump well manhole



Lining Repairs – Pump well manhole installation

Content by Work Group

Administrative Services	--	Human Resources	19-21
Annexations	2	Information Technology	21
Bay-Delta Initiatives	2-4	Real Property	22
Chief Financial Officer	4-6	Water Resource Mgmt	23-24
Engineering Services	7-10	Water Supply Conditions	25
External Affairs	11-18	Water System Operations	26-34

ANNEXATIONS

ANNEXATIONS

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

Metropolitan has completed the annexation of Calleguas Annexation No. 100. Calleguas is in compliance with Water Use Efficiency's within Metropolitan's Administrative Code and reported to the California Urban Water Conservation Council. The annexation charge and fee were collected prior to the LAFCO (Local Agency Formation Commission) recording and annexation completion.

BAY DELTA INITIATIVES

COMPLETE THE BAY DELTA CONSERVATION PLAN/ CALIFORNIA WATERFIX ENVIRONMENTAL IMPACT REPORT/STATEMENT

Pursue efforts in a lead capacity to complete environmental documentation, financing agreements, and associated permits necessary to implement California WaterFix and EcoRestore.

Pursue Decision on the State's Proposed Delta Improvements including the California WaterFix and EcoRestore.

California WaterFix

As reported previously, the Delta Science Program staff convened a phased independent scientific peer review process to review and evaluate the methods and scientific information used in developing the California WaterFix (CWF) Biological Opinions. Staff attended the independent review panel meeting held in January 2017. On March 10, the final Independent Review Panel Report for the 2016-2017 California WaterFix Aquatic Science Peer Review Phase 2B was released to the public. Overall, the review panel found improvement in the state and federal fish agencies' approaches to assessing potential impacts of CWF; however, the panel noted that there could be clarification in the way the CWF elements fit together to contribute to the protection of the Endangered Species Act listed species. Staff is reviewing the review panel report and is continuing to evaluate the analytical tools and scientific information used in developing the California WaterFix Biological Opinions.



BAY DELTA INITIATIVES



CORE

BAY-DELTA SOLUTIONS

- Develop near- and long-term solutions that enhance the Delta ecosystem, improve water supply reliability, protect water quality, and mitigate environmental impacts.
- Participate in the State Water Resources Control Board (SWRCB) process considering petition for an additional point of diversion as part of the CA WaterFix project.
- Continue to work on efforts related to meeting the co-equal goals of contributing to a restored Delta ecosystem and ensuring a reliable water supply for California.

NEAR TERM – Develop near-term measures, compatible with long-term Delta solutions, to improve water supply reliability and water quality, and facilitate protection and enhancement of Delta ecosystems and associated species.

State Water Resources Control Board

As reported in previous months, staff continues to participate in several aspects of the SWRCB Bay-Delta Water Quality Control Plan (WQCP) update process in collaboration with the State Water Contractors. The Phase 1 update of the WQCP addresses requirements for salinity in the southern Delta and San Joaquin River flows. Staff worked with the SWC to submit written comments on the Phase 1 document on March 17. The comment letter expresses concern that previous comments provided by the SWC have not been addressed, and also reiterates concerns with the use of unimpaired flow as a compliance metric and the requirement for the State Water Project and Central Valley Project to install temporary barriers in the south Delta.

Delta Operations

During March, Delta smelt were salvaged at the export facilities, causing total Delta smelt expanded salvage to reach 57 as of March 20. On March 16, the U.S. Bureau of Reclamation reinitiated consultation of the Operating Criteria and Plan (OCAP) Biological Opinion and suggested that, due to the existence of very high flows and very low pumping rates during the remainder of March and into April 2017, Delta smelt salvage should be allowed to rise above the Incidental Take Level value. On March 17, the U.S. Fish and Wildlife Service responded with a memo suggesting that planned California Department of Water Resources and USBR operations will “maintain favorable conditions for Delta smelt.”

Staff continued to assist DWR Operations staff and the multi-agency Delta Conditions Team by providing recommendations on export levels during March that would maximize export levels while protecting Delta smelt from entrainment by the State Water Project/Central Valley Project.

SCIENCE/REGULATORY – Pursue the best scientific research to protect and restore fish, wildlife, and the Delta’s ecosystem while ensuring water supply reliability.

Science/Regulatory

Staff helped organize and attended the three-day Interagency Ecological Program (IEP) Annual Workshop in March. The IEP Annual Workshop is a scientific conference for sharing new research results and technical analyses that advance the understanding of scientific topics important to the IEP and the larger Delta science community. Workshop topics included sessions on Delta smelt, salmon and sturgeon; advances in modeling and data management; aquatic weeds in the Delta; primary productivity; and new technologies.

Staff is participating in the Longfin Smelt Management Analysis and Synthesis Team, which was formed by the IEP to develop the overall conceptual model and report describing the biology and ecology of longfin smelt in the San Francisco Estuary.

Staff participated in a tour of the Sutter Bypass and engaged in a workgroup to identify research needs in the Sutter Bypass to better understand benefits of this habitat to juvenile salmonids.

BAY DELTA INITIATIVES

BAY-DELTA SOLUTIONS continued....

EMERGENCY RESPONSE – Ensure that Delta emergency response measures are implemented, including actions to develop a freshwater pathway after a major emergency event in the Delta.

Emergency Response

Department of Water Resources advises that recent flood emergency operations in northern California successfully demonstrated agency mobilization, command center implementation, and resources of a scale and type similar to that required for the repair of Delta levees following a severe earthquake.

An additional contract has been bid for warehouse rehabilitation and waterside loading facilities to further support emergency materials stockpiling at the DWR North Weber parcel in Stockton. This complements other stockpiling, warehousing and loading operations at the Rio Vista and Stockton sites. The California Office of Emergency Services indicates that their Northern California Catastrophic Flood Management Plan covering a broad array of federal emergency activities, including the Delta, is approaching completion and will be available for agency review in early summer.

Freshwater pathway operations would employ selected channel closures receiving water from the Sacramento River in the north Delta to facilitate fresh water movement toward the central Delta and head of the freshwater pathway near the San Joaquin River. The emergency response tool model demonstrates pathway development and export resumption generally in the range of six months. DWR will prepare an Appendix covering emergency response tool runs as part of the Delta Flood Emergency Management Plan.

CHIEF FINANCIAL OFFICER

FINANCIAL MANAGEMENT

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

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.

Metropolitan priced \$80 million in variable rate Water Revenue Bonds, 2017 Authorization Series A, on February 28, 2017. The bonds were purchased by Citi Global Markets, Inc. The bond transaction closed on March 1, 2017.

◆----- CHIEF FINANCIAL OFFICER -----◆

CFO PRIORITY

MAINTAIN STRONG FINANCIAL POSITION

Provide innovative and proactive financial analyses, planning, and management services to ensure that forecasted revenues are sufficient to cover planned expenditures and provide a prudent level of reserves consistent with Board policy.

Manage rates and charges to help maintain low rates, minimize their variability, and recover costs consistent with Board policy.

Staff provided a follow-up presentation on the Treatment Charge Workgroup Recommendations to the Finance and Insurance Committee in March 2017.

CFO PRIORITY

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 in the event of a disaster.

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

- Conducted a tour of the Information Technology Disaster Recovery Facility at Lake Mathews to better understand the facility and its ability to protect and recover data at time of disaster.
- Participated in a tabletop exercise with External Affairs to test their Crisis Communications Plan, with an emphasis on tracking social media activity during a regional crisis.
- Participated in several meetings with the Fusion vendor to enhance the system to collect better data and produce metrics that will give Metropolitan solid information for recovery planning and decision making.
- Met with the Business Technology Group to discuss records management and imaging services, as these are a key component of continuity planning.
- Hosted the semiannual Fusion Southern California Regional User Group meeting.
- Met with Human Resources and External Affairs to discuss emergency communications roles/responsibilities and the use of MIR3 to facilitate these.
- Participated in the employee inspection trip of the Colorado River Aqueduct.

CORE

RISK MANAGEMENT

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

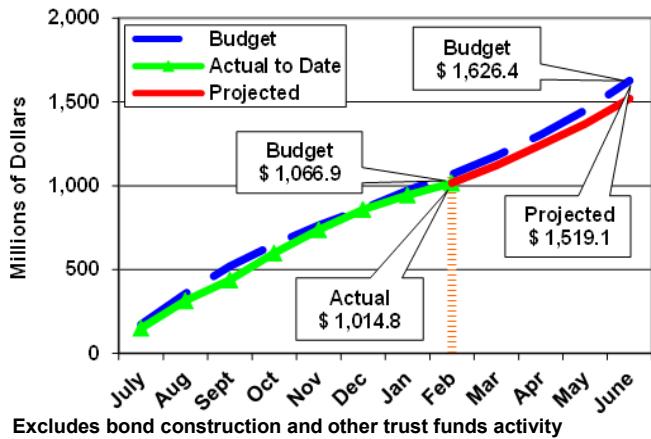
The Risk Management Unit completed 57 incident reports communicating instances of Metropolitan property damage, liability, workplace injuries, regulatory visits and spills.

Risk Management completed 72 risk assessments on contracts, including professional service agreements, construction contracts, entry permits, special events and film permits.

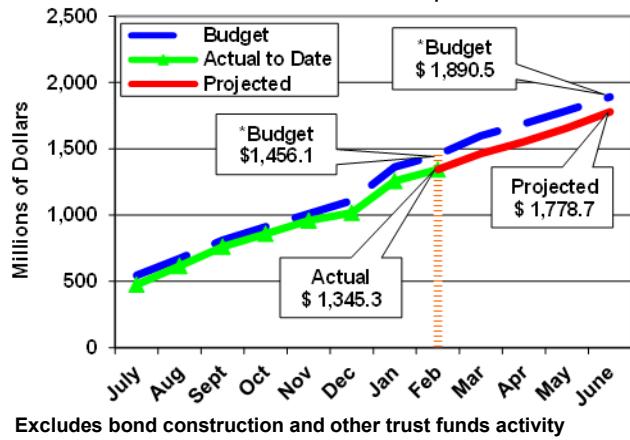
CHIEF FINANCIAL OFFICER

FINANCIAL SUMMARY AS OF February 28, 2017

Revenues are expected to be \$107M under budget at year end, primarily due to lower water sales.

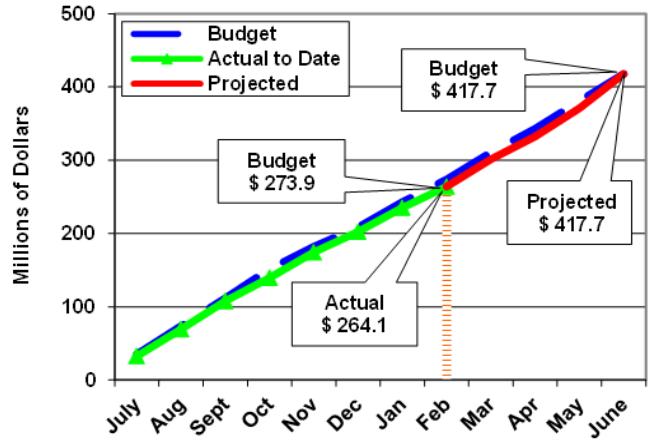


Expenses are expected to be \$112M under budget at year end, primarily due to \$80M lower cost of SWP and \$22M lower cost of Delta Wetlands land purchase.

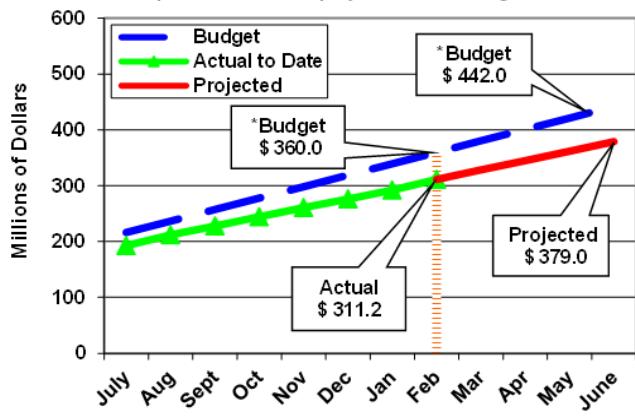


* Includes \$196M Board-approved purchase of Delta Wetlands, of which \$174M has been spent.

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

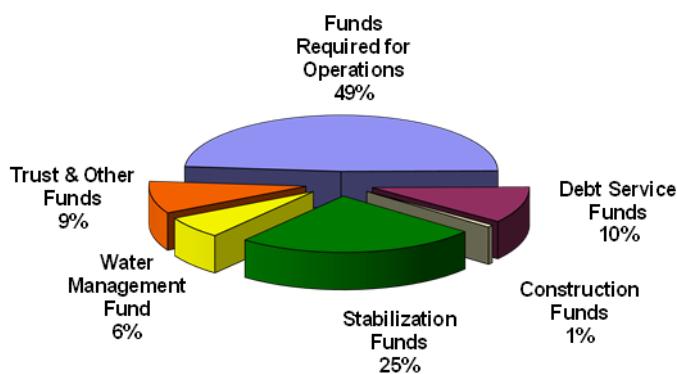


Capital Program expenses are expected to be \$63M under budget at year end, including \$22M lower cost of Delta Wetlands land purchase and \$41M lower CIP costs due to work prioritization and project rescheduling.



* Includes \$196M Board-approved purchase of Delta Wetlands, of which \$174M has been spent.

Cash and Investments at Fair Value \$ 1,308.9 million



Summary Financial Statistics

	Target	Year-End Projected
Fixed Charge Coverage	\geq	1.20 x 1.26%
Revenue Debt Service Coverage	>	2.00 x 1.48%
Revenue Bond Debt / Equity Ratio	<	100.0% 62.0%

Credit Ratings

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

CORE

INFRASTRUCTURE RELIABILITY

Manage Board-authorized projects in the Capital Investment Plan and collaborate with the Water System Operations Group to identify and address system vulnerabilities to ensure reliability of the region's water treatment and delivery infrastructure. In addition, coordinate closely with WSO to integrate project planning and facility assessment efforts with near-term actions and planned shutdowns.

Manage and complete Board-authorized projects within the CIP to ensure the reliable delivery of water to Metropolitan's member agencies.

Distribution System Reliability Program

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

- Greg Avenue Pump Station Rehabilitation—This project improves the operational reliability of the Greg Avenue Pump Station by replacing the existing pumps and upgrading the electrical and control systems. Design is 94 percent complete and is scheduled to be complete by July 2017.
- Etiwanda Pipeline Lining Repairs—This project replaces the Etiwanda Pipeline's damaged interior mortar lining with a polyurethane coating. The pipeline will be relined in three stages. Construction of the Stage 2 repairs was completed in March 2017. Design of the Stage 3 repairs is 98 percent complete and is scheduled to be complete by April 2017.
- Leak Repairs for the Casa Loma Siphons—This project installs 13 internal seals within Casa Loma Siphon Barrel No. 1 on the Colorado River Aqueduct to control leakage at 13 joints pipe joints. Construction was completed during a planned shutdown in March 2017.
- Palos Verdes Reservoir Rehabilitation—This project replaces the reservoir's existing floating cover and liner, and modifies the existing spillway, control tower, and outlet structures. Construction is 24 percent complete and is scheduled to be complete by May 2018.

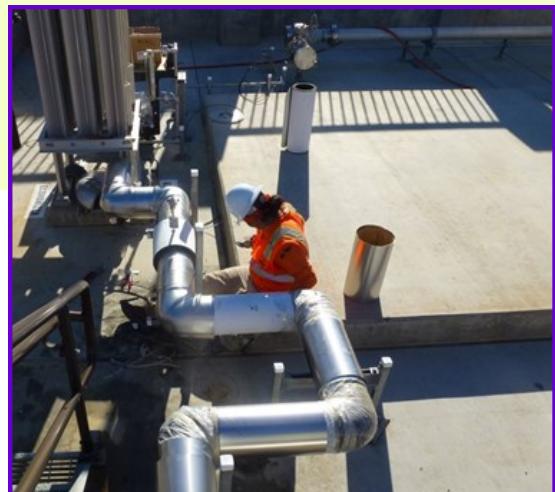
Water Quality/Oxidation Retrofit Program (ORP)

This program adds ozonation facilities which reduce disinfection by-products and improve water quality at Metropolitan's five water treatment plants. Recent activities include the following:

Weymouth ORP

- ORP Chemical & Bromate Control Upgrades—These chemical systems are needed for integration of the new ozonation system into the plant's treatment process. Construction is 51 percent complete and scheduled to be complete by May 2018. (*see photo below*)
- Main ORP Facilities—Construction of the ozonation system is 99 percent complete and is scheduled to be complete in April 2017. Remaining project activities include control system integration, start-up and testing, permitting with the State Division of Drinking Water, and preparation of Operations and Maintenance manuals.

Weymouth ORP – Insulation for liquid oxygen (LOX) piping





ENGINEERING SERVICES



CORE

INFRASTRUCTURE RELIABILITY continued...

Prestressed Concrete Cylinder Pipe (PCCP) Rehabilitation Program

This program enhances the reliability of Metropolitan's water distribution system and reduces the risk of costly emergency repairs of PCCP lines. Recent activities include the following:

- Second Lower Feeder PCCP Rehabilitation—This project rehabilitates the remaining 28 miles of existing PCCP segments within the Second Lower Feeder. Design of the valve and pipe procurement is approximately 75 percent complete and is scheduled to be complete by May 2017. Final design of the first pipeline rehabilitation package is 65 percent complete and is scheduled to be complete by August 2017.
 - PCCP Inspections—A key component of Metropolitan's strategy for management of its PCCP feeders is to perform regular monitoring of the lines. Electromagnetic inspections of portions of the Calabasas Feeder and West Valley Feeder No. 2 were completed in March 2017.
-

Treatment Plant Reliability Program

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

Mills Plant

- Chemical Unloading Facility Containment System—Construction of the containment system is 96 percent complete and is scheduled to be complete by June 2017.

Diemer Plant

- East Basin Rehabilitation—This project rehabilitates aging mechanical equipment and the electrical and structural components within the east flocculation/sedimentation basins. Construction is 74 percent complete and is scheduled to be complete by July 2017.
- Administration Building Seismic Upgrades—This project provides seismic and fire safety upgrades to the Administration Building at the Diemer plant, which houses the plant's control room, Incident Command Center, laboratory, and administrative offices. Construction is three percent complete and is scheduled to be complete by April 2018.

Jensen Plant

- Electrical Upgrades, Stage 1—This project replaces electrical equipment, provides backup in the event of individual component failures, and upgrades the Jensen electrical system to be consistent with current codes and industry practices. The work will be completed in three stages. Construction of Stage 1 is 69 percent complete and is scheduled to be complete by February 2019.

Weymouth Plant

- Filter Rehabilitation—This project replaces the internal components of the plant's 48 filters, including the underdrains, media, launder troughs, and surface wash systems. Construction is 85 percent complete and is scheduled to be complete by December 2017.



ENGINEERING SERVICES



CORE

INFRASTRUCTURE RELIABILITY continued...

Cost Efficiency and Productivity Program

This program provides economic savings through enhanced business and operating processes and through reduced energy costs. Recent activities include the following:

- Jensen Solar Power Plant—This project constructs a 1-megawatt solar generating facility on the grounds of the Jensen plant in Granada Hills. Construction is 30 percent complete and is scheduled to be complete by August 2017. (*see photos below*)



Jensen Solar Power Plant – Site grading



Right-of-Way and Infrastructure Protection Program

This program performs needed site improvements throughout the distribution system, including erosion protection for pipelines and access roads. It also addresses right-of-way issues such as access easements and third-party encroachments, and obtains long-term programmatic environmental permits to enable system-wide improvements.

- Orange County Operating Region—Final design of improvements within the Orange County region is 99 percent complete and is scheduled to be complete by May 2017.
- Western San Bernardino County Operating Region—Final design of improvements within the Western San Bernardino County region is 80 percent complete and is scheduled to be complete by December 2017. The draft programmatic environmental impact report for this region is planned to be released for public review by August 2017.
- Los Angeles County Operating Region—Preliminary design of improvements is 98 percent complete and is scheduled to be complete by July 2017.
- Riverside/San Diego County Operating Region—Preliminary design of improvements is 99 percent complete and is scheduled to be complete by May 2017.



INFRASTRUCTURE RELIABILITY continued...

Colorado River Aqueduct (CRA) Reliability Program

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

- Sand Trap Rehabilitation—This project replaces deteriorated sand trap equipment located upstream of the Iron Mountain, Eagle Mountain, and Hinds Pumping Plants. Construction is 75 percent complete and is scheduled to be complete by August 2017.
- Sump System Rehabilitation—This project rehabilitates the main and auxiliary sump systems at Metropolitan's five CRA pumping plants. The sump systems include parallel pumps and piping that circulate cooling water and collect drainage water from several sources. Rehabilitation will be completed in two stages. The initial stage includes installation of sump isolation valves to isolate the circulating water system from the pumping plant's inlet lines, therefore eliminating the need to shut down the aqueduct for future sump repairs. The installation of these valves is complete. The second stage includes full scale rehabilitation of the sump system. Design of the Stage 2 improvements is 70 percent complete and is scheduled to be complete by November 2017.
- Conduit Structural Protection—This project adds protection over the aqueduct cut-and-cover conduits at 22 siphons where there is vulnerability to heavy vehicle and equipment loading. Design is 18 percent complete and is scheduled to be complete by December 2017.
- Expansion Joint Repairs—This project repairs 16 expansion joints located on the pump delivery lines at the five CRA pumping plants. Repairs will be completed in two stages. The initial stage addressed three joints and was completed in February 2016. Construction of the Stage 2 repairs is five percent complete and is scheduled to be completed by December 2017.
- Copper Basin and Gene Wash Reservoirs Discharge Rehabilitation—This project rehabilitates the discharge structures at Copper Basin and Gene Wash Reservoirs. The project scope includes replacement of the fixed cone valves at the base of the dams; upgrades to the electrical systems; and access improvements to safely enable construction personnel, materials, and equipment to reach the work site. A procurement contract for the valves was awarded in December 2016 and valve delivery is scheduled for February 2018. Preliminary design to improve access is scheduled to be complete by summer 2017. Final design of the valve installation is 35 percent complete and is scheduled to be complete by December 2017.
- CRA Discharge Line Isolation Coupling Assembly Installation—This project will install a total of 45 couplings in the six-foot-diameter discharge lines downstream of each main pump unit at all five CRA pumping plants. The discharge line isolation couplings will allow individual pump units to be isolated in order to either perform rehabilitation or regular maintenance on the pump units. This project will be completed in two stages. Under Stage 1, staff will procure and install one coupling as a demonstration project. Final design of Stage 1 is complete, and Board authorization for procurement and installation is scheduled for April 2017. Stage 2 will address the remaining 44 couplings. Design is 65 percent complete and is scheduled to be complete by March 2018.
- CRA Mile 12 Monitoring Station Upgrades—This project replaces existing deteriorated flow meters with new ultrasonic models, relocates data and communication equipment from an underground manhole to a new above-ground building, and adds solar panels for the power source. Construction is 45 percent complete and is scheduled to be complete by December 2018.

EDUCATE THE PUBLIC AND STAKEHOLDERS ON CRITICAL WATER SUPPLY CONDITIONS AND CRITICAL WATER MANAGEMENT DECISIONS

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

Recognizing there is a new normal that is directly impacting California water conditions, inform key stakeholders, media, businesses and the public on the need for sustained conservation actions, support for new water supply projects and continued investment in imported water systems to maintain water supply reliability and protect the environment.

Metropolitan's H2Love spring water conservation advertising campaign launched with nearly 500 billboards, transit signs and posters placed throughout the six counties of Southern California. The multilingual campaign will use new H2Love artwork to emphasize the need for lasting water conservation. Metropolitan was able to negotiate added value of more than 100 percent, leveraging the \$875,000 media buy to more than \$2 million in value. Online activities, including social media, will expand the message to more Southern Californians. Metropolitan also secured a role as a full season official partner with the LA Galaxy major league soccer team and will have a strong presence at the stadium, online, and public service announcements with a team player who will serve as brand ambassador for Metropolitan's water conservation outreach. Artwork and campaign materials were added to an online file sharing site for staff and member agency public information officers.



- General Manager Kightlinger had an interview with Wall Street Journal reporter for a story about the wet winter and how huge runoff reinforces the need for more storage in California, both in reservoirs and groundwater basins. (March 6)
- Special Projects Manager Westford authored an opinion editorial in the San Diego county publication Valley Roadrunner on the value and water quality benefits of the current water supply deliveries to the region from the State Water Project. (March 15)
- Metropolitan sponsored and General Manager Kightlinger was the keynote speaker at the Municipal Water District of Orange County Water Policy dinner on current water supply conditions and the importance of Metropolitan programs and actions to promote stewardship, planning and investments to benefit the region. (March 30)

Increase awareness and advance public understanding of the current and anticipated risks to Southern California's water supply reliability and the need to prepare for potentially drier and more volatile supply conditions and impacts due to climate change.

Metropolitan sponsored and staff attended Climate Resolve's annual event to honor innovation in climate change activities in Southern California. The event honored leaders in greenhouse gas reduction, research and the cleantech industry. (March 15)



EXTERNAL AFFAIRS



CORE

LEGISLATIVE, COMMUNICATIONS, COMMUNITY RELATIONS, PUBLIC AND BUSINESS OUTREACH

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

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

Federal

Vice Chair Ackerman; Directors Gray, Lefevre and Peterson; Assistant General Manager Zinke and Metropolitan staff attended the Association of California Water Agencies Annual Conference in Washington, D.C. Participants met with Congressional leaders and officials from the U.S. Environmental Protection Agency, Army Corps of Engineers, and the Bureau of Reclamation to discuss federal funding for programs to support water projects, science initiatives and supply reliability. (March 1-3)

Chairman Record, Directors Kurtz and Gray, Assistant General Managers Patterson and Zinke, and Metropolitan staff met with the Secretary of the Interior Zinke and other Administration officials; Senator Flake (R-Arizona); California Representatives Cardenas (D- Los Angeles), Calvert (D-Corona), LaMalfa (R-Oroville), Cook (R-Apple Valley), Napolitano (D-Norwalk), Valadao (R-Hanford), Costa (D-Fresno); senior staff for the Majority Leader McCarthy and Senators Feinstein and Harris; and congressional policy committee staff. Discussions focused on Metropolitan's federal legislative priorities, State Water Project issues including California WaterFix and federal funding for repairs at Oroville, the Colorado River Drought Contingency Plan, local resources development, tax parity for water conservation rebates, and funding for infrastructure investments and science programs for water project operations and habitat restoration. (March 20-22)

Staff attended the National Water Resources Association's 2017 Federal Water Issues conference in Washington, D.C., where participants heard from federal agency leaders, and members of Congress about the goals and policies of the new Administration and the 115th Congress. (March 20-22)

Staff participated in Inland Empire's Economic Partnership's Washington DC conference including briefings with Congressional offices. California WaterFix, Colorado drought contingency planning, Oroville repairs and federal funding for water infrastructure projects were featured in the discussions. (March 22-23)

State

Nearly 2,500 bills have been introduced in the current legislative session. Many are "spot" or placeholder bills, and will be amended in the coming weeks to prepare for policy committee hearings.

- Senate President Pro Tem DeLeon (D-Los Angeles) amended SB 5, a proposed park and water resources general obligation bond measure, to include \$500 million for flood protection facilities, levee improvements and related investments.
- Metropolitan staff attended the San Diego Regional Chamber of Commerce Delegation trip to Sacramento, where they met with elected officials to discuss regional policy issues. (February 28-March 1)



EXTERNAL AFFAIRS



CORE

LEGISLATIVE, COMMUNICATIONS, COMMUNITY RELATIONS, PUBLIC AND BUSINESS OUTREACH continued...

LEGISLATIVE SERVICES continued...

- Metropolitan participated in the Southern California Contractors Association's Annual Legislative Conference in Sacramento. Metropolitan briefed the delegation on current water supply conditions, California WaterFix, and issues related to the Oroville Dam and spillway. (March 2)
- Director Dake, Los Angeles Department of Water and Power's Chief Operating Officer Adams and Metropolitan staff met with Assembly Member Nazarian in his district office for a legislator briefing to discuss Metropolitan state legislative priorities, including California WaterFix, California's current water conditions and long term water reliability and protecting State Water Project's facilities. (March 10)
- Metropolitan attended the annual Orange County Business Council and Association of California Cities' legislative trip to Sacramento. Staff gave the group a presentation on the status of pending legislation as well as the California WaterFix. (March 13-14)
- Director Lefevre, Assistant General Manager Zinke and staff met with State Assembly Member Muratsuchi at his district office in Torrance for a briefing on Metropolitan's state legislative priorities and current bills of interest, California WaterFix and new local water development projects. (March 24)
- Chairman Record, Vice Chair Blois, Directors Ballin, Barbre, Dick, Gray, Hogan, Kurtz, Lefevre, McKenney, Morris, Peterson, Treviño, Vasquez, Assistant General Managers Paterson and Zinke, and staff participated in Metropolitan's Legislative Day and met with administration officials, and members of the State Senate and Assembly to discuss key water policy issues including State Water Project, California WaterFix, Oroville, infrastructure investments, recycled water, and 2017 legislative priorities. (March 28-29)
- Metropolitan staff participated in Los Angeles Area Chamber of Commerce's ACCESS Sacramento advocacy trip to share Metropolitan's state legislative priorities. More than 150 local business leaders participated in the two-day event and heard from Brown Administration officials, Speaker Pro Tem de Leon and Senator Hertzberg. (March 28-29)

Dam Safety and Emergency Response

Governor Brown announced a series of immediate and longer-term actions to bolster dam safety, improve flood protection and fix the state's aging transportation and water infrastructure. The plan proposes \$437 million in near-term flood control and emergency response actions, emergency action plans and flood inundation maps for all dams, enhancing dam inspection programs and increased federal funding. (February 24)

Local

- Staff presented to the San Diego County Taxpayers Association on Metropolitan's water resources projects and priorities. (March 2)
- Metropolitan and Calleguas MWD co-sponsored the Association of Water Agencies of Ventura Counties 20th Annual Water Symposium in Oxnard. More than 300 business and water leaders attended. (March 16)
- Program Manager Neudeck made a presentation to the Los Angeles Business County Energy and Environment Committee on California WaterFix. Following the presentation, the organization voted to continue its support for a Delta solution by endorsing California WaterFix. (March 17).
- Bay-Delta Initiatives Manager Arakawa addressed local elected officials at the 5th Annual Water Education for Latino Leaders conference. (March 23-24)
- Staff attended the League of City's Policy Committees Dinner held in Long Beach. (March 30)

EXTERNAL AFFAIRS

CORE

LEGISLATIVE, COMMUNICATIONS, COMMUNITY RELATIONS, PUBLIC AND BUSINESS OUTREACH continued...

LEGISLATIVE SERVICES continued...

Inspection Trips

Approximately 150 stakeholders participated in five inspection trips to learn about the State Water Project and Delta issues including California WaterFix, the Colorado River system, and Metropolitan's regional infrastructure facilities and an inspection trip for Metropolitan employees.

Metropolitan hosted the Colorado River Board at Gene Camp for a tour of Whitsett Pumping Plant and Copper Basin, and a presentation on Metropolitan's infrastructure and programs for the Colorado River Aqueduct.

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

Media Interviews

- Provided information to Riverside Press-Enterprise reporter about the spectacular wildflower season and wildflower trail around Diamond Valley Lake.
- On-air interview with Water Resources Management Group Manager Upadhyay and KNX Los Angeles News Radio reporter to discuss Metropolitan's Foundational Actions one-day conference and the various issues raised regarding overcoming obstacles to the next generation of local water supplies.
- Provided information about Metropolitan's Foundational Actions conference to KPCC radio and China Press reporters attending the session who were writing stories about the water supply challenges facing Southern California over the next 20 years.
- On-camera interview with Water Resources Management Group Manager Upadhyay and KABC-TV Los Angeles reporter to discuss California's wet winter and what it means for the region's water supply.
- Provided information to Climate Change Business Journal reporter about Metropolitan's plans and initiatives around the issue of potable water reuse.
- Interview with Water Systems Operations Section Manager Boyd and Civil Engineering magazine reporter for a story about the Colorado River Aqueduct, its history, what Metropolitan does to maintain, restore and repair the structure and how it's holding up in 2017.
- Interview with Water Resources Management Group Manager Upadhyay and Source magazine reporter to talk about what Metropolitan water storage programs.
- Interviews with Water Quality Lab Team Manager Rochelle and reporters from the Southern California News Group and KABC-TV Los Angeles for stories about the discovery of mussel veligers in a State Water Project pipeline that feeds into Metropolitan's storage system.
- Staff attended a Latino community water forum at East Los Angeles Community College. (March 11)

Online

Online search on Google Search and the Google Content Network continued this month and increased website traffic to bewaterwise.com and mwdh2o.com.

Distributed two e-newsletters in March to more than 12,000 recipients and Metropolitan employees. The bi-weekly e-newsletter on California WaterFix was sent to approximately 1,000 elected officials, business leaders and community organizations.

EXTERNAL AFFAIRS

CORE

LEGISLATIVE, COMMUNICATIONS, COMMUNITY RELATIONS, PUBLIC AND BUSINESS OUTREACH continued...

MEDIA AND COMMUNICATIONS continued...

Communication Activities

- Metropolitan's Environmental Legacy brochure and historical Twitter campaign for the 75th anniversary of the construction of the Colorado River Aqueduct were honored by PR News at the National Press Club in Washington DC. In both categories, Metropolitan was the only public agency to be recognized. (March 22).
- Provided information about Metropolitan's work on the Orange County Feeder to reporters for Santa Ana Community College's local TV news program.
- Developed new outreach documents explaining Metropolitan financial practices, investment objectives and benefits and regional value.

Press Releases

- Winter rains bringing a wildflower bloom in the hills above Diamond Valley Lake.
- Media advisory about Metropolitan's one-day Foundational Actions conference to discuss the findings of 13 studies and pilot projects that address obstacles to the future production of local stormwater capture, seawater desalination, recycling and groundwater recovery.
- Two representatives from the Central Basin Municipal Water District joined the Metropolitan Board of Directors.
- Launch of spring H2Love water conservation advertising campaign.

Social Media

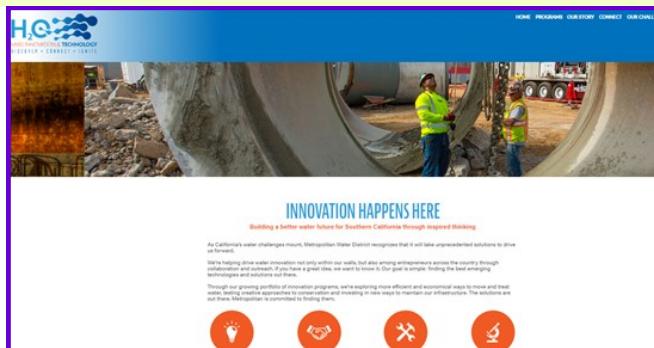
Public engagement continues to grow on all social media platforms. Several new videos and posts supported Fix-a-Leak Week activities and provided informational resources. Top performing posts in March included Diamond Valley Lake wildflowers and H2Love artwork. Top views on Instagram related to Metropolitan construction projects.

Tweets on Metropolitan's education programs received nearly 25,000 impressions using #solarcup, #waterart, #thinkh2o, and #mwdeducates on Twitter, Facebook and Instagram.

Website

More than 27,000 people visited the English, Spanish, and Chinese versions of bewaterwise.com for tips and ideas on how to conserve water.

Launched a new webpage to showcase Metropolitan's leadership in innovation. The site, www.MWDInnovates.com is tailored to audiences including businesses, entrepreneurs and public agencies. (*see photos below*)





EXTERNAL AFFAIRS



CORE

LEGISLATIVE, COMMUNICATIONS, COMMUNITY RELATIONS, PUBLIC AND BUSINESS OUTREACH continued...

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

Metropolitan hosted the California State University at San Marcos Environmental Leadership Institute for a tour of the Skinner water treatment plant.

Public Outreach for Metropolitan Projects

- Staff provided 250 notices to residents in Tustin and Lake Forest regarding the Allen-McColloch Pipeline Cathodic Protection project.
- Staff worked with local officials to address community impact issues and conducted outreach to residents and businesses affected by the Orange County Feeder Relining Project.
- Staff provided additional outreach to city council staff for the Collis Avenue Valve Structure Replacement Project in the El Sereno area of Los Angeles.
- Staff provided more than 400 notices to residents and businesses in the vicinity of shutdowns on the West Valley and Calabasas Feeders.

Member Services

- Met with the Member Agency Inspection Trip Coordinators to plan for the 2017/18 season. (March 15)
- Convened bi-monthly meeting with Member Agency Public Information Officers to discuss California WaterFix, water supply conditions, outreach activities and water conservation advertising. (March 16)
- Staff met with the Member Agency General Managers to discuss operations, State Water Project issues, Integrated Resources Plan policies, and other issues. (March 17)
- External Affairs staff sponsored and participated in a simulated crisis communications exercise with the member agencies to improve coordination and emergency response activities. (March 30)

Community Partnering Program

- Metropolitan sponsored and provided conservation and water issue materials at the following events:
- California Council of Land Trusts Conservation Conference (March 7-9)
- San Diego River Park Foundation, San Diego River Days (March 10-11)
- Elsinore Valley Municipal Water District Splash into Spring Family Event (March 25)
- Orange County Water District Children's Water Education Festival (March 29-30)

EXTERNAL AFFAIRS

CORE

LEGISLATIVE, COMMUNICATIONS, COMMUNITY RELATIONS, PUBLIC AND BUSINESS OUTREACH continued...

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

General Education

Staff supported various field trips/events/activities and outreach/class presentations for the following: Thomas Edison Elementary School, Knollwood Elementary School, Red Hat Society, Enchanted Hills Elementary School, E. Hale Curran Elementary School, Diamond Valley Middle School, Romoland Elementary School, Rialto High School, Nimitz Middle School, Roosevelt School, Rancho Elementary School, Cottonwood Canyon Elementary School, Pierce College STEM Week, El Camino Real Charter HS, American Society of Civil Engineers Engineer's Week at Metropolitan, Science Bowl with Los Angeles Department of Water and Power, Washington Elementary School, and Enchanted Hills Elementary School. Education Unit directly interacted with 1,300 students and teachers.

MWD of SoCal @mwdh2o · 4h

We were in the community this weekend. Thx LA Environmental Education Fair & #GreenLivingFair2017 for having us! #WeekendReview



Student Art Program

This month the Student Art exhibit was hosted by Inland Empire Utilities Agency, Three Valleys MWD, and the City of Pomona. This event was promoted in local news articles and on social media.

Diamond Valley Lake Education Program

The Visitor Center hosted nearly 600 visitors and provided guided trips to the Viewpoint, including the local Red Hat Society and the granddaughter of Hiram W. Wadsworth for whom the Wadsworth pumping plant is named. Education staff provided field trips to 390 students, some of whom also participated in the Western Science Center program. Staff presented Diamond Valley Lake education programs to Harmony Elementary School. (*see photos below*)

MWD of SoCal @mwdh2o · Mar 9

Admiral Splash is on the road. Today he visited with students from Harmony Elementary in Hemet to discuss the importance of water #thinkh2o



Debby O'Connor, great-granddaughter of Hiram W. Wadsworth.



LEGISLATIVE, COMMUNICATIONS, COMMUNITY RELATIONS, PUBLIC AND BUSINESS OUTREACH continued...

Facilitate opportunities for small businesses to work with Metropolitan. Help position Metropolitan as a leader in water resource/systems innovation.

Supported small- and disabled-veteran businesses throughout the region by participating in the following award programs, conferences and events:

- Metropolitan and the Women Business Enterprise Council-West hosted the Platinum Supplier Program workshop. (March 1-2)
- Metropolitan met with the Consul General of Canada, representatives of the Ottawa Trade Commission, and the Los Angeles Trade Commission Team to discuss emerging water and energy technologies and opportunities for Metropolitan to participate in WaterTap's Water Cluster event in Canada. (March 6)
- Metropolitan sponsored a workshop on *How to Break into Government Markets* for the Asian Business Association of the Inland Empire. (March 8)
- Metropolitan's Innovation Team and Water Resources Team met with the Director of the IVL Swedish Environmental Research Institute. IVL has joined Metropolitan's H2O TECHCONNECT community and will provide vetting opportunities for community members and introduce emerging water and energy technologies. (March 9)
- Staff attended the Business Development Association of Orange County workshop on *Water/Wastewater CIP Updates*. (March 9)
- Staff exhibited at the Economic Empowerment Symposium, hosted by the Small Business Development Center Los Angeles Network. The program and workshops were presented in English and Spanish and approximately 150 were in attendance. (March 9)
- The Innovation Team attended a technology presentation on point-of-use consumer filtration devices hosted by Los Angeles Department of Water and Power. (March 10)
- Staff participated on a panel presentation, *How to Do Business with Utilities*, at the Minority Business Opportunity Day, which was attended by more 700 attendees. (March 14)
- Staff attended the Southern California Minority Supplier Development Council's Supplier of the Year Awards Dinner which recognizes minority businesses. There were more than 500 attendees (March 15)
- Metropolitan sponsored the annual Imagine H2O Water Gala and served as a judge for this year's challenge. The event promotes collaboration with startup companies, venture capitalists, entrepreneurs, academics and water professionals. (March 15)
- Metropolitan staff participated on a panel at the Water Innovation 2017 *Putting Ideas into Practice* conference in San Francisco. (March 15-16)
- Staff attended the Center for Robotics and Embedded Systems at the University of Southern California's demonstration of PipeFish robots that are used for pipe condition assessments. (March 16)
- Metropolitan participated in the ARCS Foundation's Achievement Rewards for College Scientists annual meeting. (March 16)
- Staff presented a training workshop to the Disabled Veteran Business Alliance. (March 21)
- Staff served as panelists on the Asian Business Association's Contracting Opportunities with Public Agencies. (March 22)
- Metropolitan staff attended the Greater Los Angeles African American Chamber of Commerce 24th Annual Economic Awards Dinner. (March 23)
- Metropolitan supported the Disabled Veteran Business Alliance at the SoCal Construction Expo event at Camp Pendleton at which more than 300 businesses and resource partners participated. (March 28)
- Metropolitan presented at the Proposal Writing Workshop hosted by the Veterans in Business Network. (March 30)
- Business Outreach staff attended National Association of Women Business Owners Ventura County Conference that recognizes women owned businesses and civic leaders. Approximately 300 people attended this event. (March 31)

EMPLOYEE DEVELOPMENT

Recruitment activity will be expanded to fully replace all retirements and add some positions to bring the work force to approximately 1,800 positions over the next two years. Increased cross-training and employee development efforts will be needed to meet the challenge of increased retirements brought about by an aging workforce.

Partner with district and group leadership to support learning, development and workforce planning initiatives.

2-hour modules of software training were conducted on the following topics:

- Access – Macros and Switchboards
 - MS Project – Level I
 - WORD – Documentation, Reports, and Mail Merge
 - Excel – Database & Tables, Advanced Formulas and Functions, Intermediate
 - Introduction to SharePoint
-
- Arranged the first of three Colorado River Aqueduct Employee Inspection Trips for the year. There were 36 participants.
 - Completed the *Leading Technical People* class for Administrative Services staff and continued with another cohort of Engineering Services employees.
 - Delivered ‘pilot’ classes on four topics: *Dealing with Difficult People*, *Crucial Communications*, *Managing Emotions in the Workplace*, and *Organizational Skills*, through Starlight Education Consultants.
 - Conducted one session of *Personal Security Awareness* Training and two sessions of *Drug and Alcohol Awareness* class.

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

This month Staffing has filled 8 positions and received 26 new requisitions. Staffing is currently recruiting for 133 positions. Staff continued to evaluate processes and the use of technology and social media to enhance abilities to recruit a diverse workforce.

Staff participated in several outreach events this month. Staff spoke at the Center for Military and Veteran Reintegration Veteran Friendly Employer Lunch and participated as a panel member at the Joint Veteran Talent Career Planning Conference Coaching and Resource Fair. Staff also participated in Arizona Western College’s Career event in Parker, Arizona speaking on the various careers at Metropolitan.

PREPARE FOR A FUTURE WORKFORCE AND CHANGING ROLES

Partner with groups to develop programs for skill development, knowledge capture, change management, and employee engagement to ensure Metropolitan’s capability as an agile organization preparing for future changes and challenges.

Implement strategies to prepare management and employees for change, unknown challenges, and future retirements.

Staff continued to support deployment of the fifth cohort of the Mentoring Program in the Engineering Services Group, and also delivered a module on Influence Skills for the Career Launch cohort of new engineers and administrative staff in Engineering.

Staff facilitated a Talk Circle that is looking into ways to improve effectiveness in the Real Property Group.

HUMAN RESOURCES

HR PRIORITY

PARTNER WITH CUSTOMERS ON HR SOLUTIONS

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

Establish partnerships focused on strategic solutions to various human resource management challenges.

- Facilitated a Communications Skill Building workshop for the Information Technology Desktop Support team.
- Staff continued to work with workforce planning and succession management actions in the Water Resource Management Group.
- Staff provided coordination with external coaches to address personal development and other management issues for six managers.
- Worked with management to create several new job descriptions based on changing roles and needs.

CORE

Provide Excellent HR Services

Human Resources provides a wide range of services and support from pre-hire to post-retirement care. To ensure our services add value and meet the needs of all employees, we will review and revise HR policies, procedures and practices as appropriate to continually improve service and better utilize technologies.

- HR Benefits hosted a Deferred Compensation Committee meeting to review and discuss the 401(k) and 457(b) investments performance, regulatory and plan account updates, participant satisfaction survey, and educational workshops overview.
- Coordinate training with CalPERS for HR Benefits, HR Information Systems, Payroll, and Information Technology for the new my|CalPERS system enhancements and requirements effective July 2017, which includes a new retirement plan reconciliation process.

CORE

COMPLY WITH EMPLOYMENT LAWS AND REGULATIONS

Ensure all policies, programs and practices comply with ever-change laws and regulations.

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

HR Benefits successfully filed the mandatory IRS Affordable Care Act 1095-C report for calendar year 2016, following the issuance of all 1094-C employee notices.

Workers' Compensation/Medical Screening:

- Conducted initial investigations on 14 injury incidents
- Submitted 10 new claims to Metropolitan's workers' compensation claim administrator
- Settlements were negotiated in 2 claims and 3 claim files were closed.
- Conducted MedVan evaluations at Union Station facility
- Arranged 8 medical evaluations (DMV, medical surveillance, hearing conservation, etc.)
- Coordinated random drug/alcohol tests at 1 facility
- Addressed 7 accommodation issues

ENSURE EFFECTIVE PEOPLE MANAGEMENT

Provide consultation, guidance, standards, policies, procedures and learning opportunities to ensure that employee experience is enhanced as they are appropriately managed, evaluated, engaged, motivated, developed, recognized and valued.

Ensure Metropolitan managers have the foundational knowledge and on-going support to effectively manage employees.

- The fourth cohort of managers of Metropolitan Management University attended Module 2, which is focused on Business Acumen.
- Four managers attended an Institute for Management Studies full-day seminar on Strategies to Excel in Managing and Leading.
- Completed Module 6 for the third cohort of Metropolitan Management University, with the online gamification session on Decision Making and Recognition. Seven managers completed all modules and graduated. They are pictured here along with HR staff.

**◆----- INFORMATION TECHNOLOGY -----◆****INFORMATION TECHNOLOGY**

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

Implement innovative solutions for customers that will positively impact their business operations through improved quality, speed, simplicity, and cost improvements.

Online Video Conferencing—In March, IT deployed Skype for Business to all Metropolitan employees. Skype provides features that can be beneficial to the workplace, such as scheduling online meetings, placing voice and video calls, sending and receiving instant messages, and sharing files/presentations on employees' desktop. A lunch and learn event took place on March 23 to highlight specific features of Skype.

Deploy security technologies to properly balance and enhance Metropolitan's cyber security position.

Cyber Security—Staff initiated a security risk assessment to determine Metropolitan's cyber security posture.

Mobile Technology—Staff developed a draft mobile policy and submitted to the Technical Writing Team for review.

Simplify access to business information.

Web Services—Staff continued development of web services to allow external parties to access publicly available water meter data on a self-service basis.

REAL PROPERTY

REAL PROPERTY ACQUISITION, MANAGEMENT AND REVENUE ENHANCEMENT

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

Implement strategies for right-of-way planning and acquisition support of infrastructure reliability, protection programs, and Bay-Delta Initiatives.

A new permanent easement for San Diego Pipeline No. 3 was acquired from a private party in exchange for quitclaiming Metropolitan's existing easement. The new permanent easement provides operational forces improved ingress and egress and road access along the alignment.

A letter of consent was obtained from a private party to access Metropolitan's adjacent fee property for a period of 20 days in support of operational forces planned shutdown and maintenance of the Calabasas Feeder.

Seek incremental revenue-generating opportunities for real estate assets in traditional and alternative market segments such as telecommunications, solar/wind generation, agriculture, and sustainable technology and research.

A permanent easement was granted to Southern California Edison Company, which anchors at Metropolitan's Lake Mathew's property.

A Palo Verde Irrigation District farm lease agreement was entered into with River Valley Ranches for agricultural purposes consisting of the growing and harvesting of crops. This is the third of seven leases that were approved by the Board in December 2016. These lands are subject to Metropolitan's Fallowing Program.

Pursue development and improvement of the Diamond Valley Lake area, including the DVL Visitor Center and marina facilities, to support recreation, develop additional leasing and revenue opportunities for Metropolitan, and benefit the surrounding community.

The seasonal flower trail opened to the public on February 24. There were over 600 hikers the weekend of March 11-12. The wildflower trail is part of the Southwestern Riverside County Multi-Species Reserve and is a 1.3-mile loop extending from the Lakeview Trail. The trail is open Wednesday through Sunday from sunrise to sunset.

Foster staff training and development.

Staff attended Metropolitan-sponsored courses *Contract Agreement Administrator*, *High Rise Safety Training* and *Equal Employment Opportunity Program*.

Staff attended Nossaman's 2017 Southern California *Eminent Domain Seminar*, which provided updates on changes in the law affecting public agencies with respect to easements, project influence rule, business relocation/goodwill, and a review on key eminent domain court decisions from 2016.

Efficiently maintain and operate Metropolitan's Headquarters building and the Diamond Valley Lake Visitor Center.

Performed the following items as required by building and safety code: completed cycle maintenance of the Headquarters building's heating, ventilating, and air-conditioning system including replacement of high efficiency air filters; and performed quarterly fire sprinklers testing at the DVL facility.

WATER RESOURCE MANAGEMENT

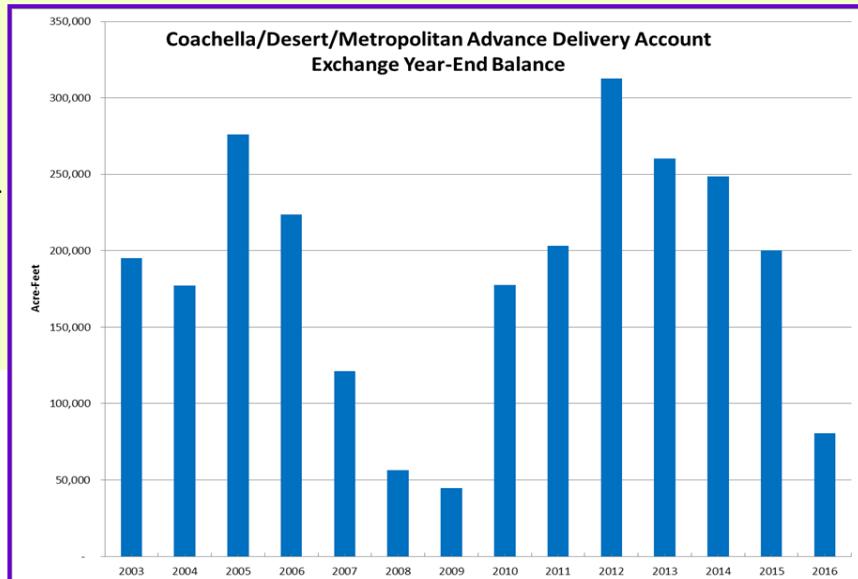
CORE

WATER SUPPLY

Develop and execute water resource strategies that achieve the long-term reliability envisioned in the Integrated Resources Plan (IRP). Efforts include the negotiation and management of supply, storage, and water use efficiency programs, administration of imported supply contracts, development of new water resource policy recommendations in support of the IRP, collaborative planning with member agencies, and forecasting resource and facility needs.

Ensure cost-effective and reliable imported water supplies.

Maximizing Water Deliveries—Staff is coordinating with Coachella Valley Water District and Desert Water Agency on maximizing water deliveries to Southern California in 2017, including Article 21 supplies from the State Water Project. The agencies will be coordinating closely this year to facilitate what is projected to be the highest ever exchange deliveries from the Colorado River Aqueduct to spreading grounds in the Coachella Valley. These deliveries will help bolster Metropolitan's advance delivery storage account after four years of drought withdrawals, which brought the end-of-year account down from a high of 338 thousand acre-feet to 80 thousand acre-feet.



Implement the Conservation Program effectively.

Water Savings Incentive Program - Metropolitan recently executed its second WSIP agreement with Air Products and Chemicals. The new agreement involves a Reverse Osmosis system upgrade at the Carson hydrogen plant. Components include:

- Replace RO membranes with high efficiency models and reconfigure the system to include a double pass configuration
- Install a new recovery RO system to purify main RO reject water and use that water to replace cooling tower make up water
- Remove the water softener skid to eliminate water use for bed backwash/cleaning.

The entire project projects a system efficiency increase from 69.3 percent to 84.4 percent recovery, or 77 gallons per minute water-use reduction.

Implement the Local Resources Program.

The On-Site Retrofit Program supports the LRP and is intended to advance the use of recycled water in Southern California. Under the On-site Retrofit Program, 241 sites have been retrofitted for an estimated water savings of about 7,200 acre-feet per year. There are an additional 69 sites under construction.

◆----- WATER RESOURCE MANAGEMENT -----◆

CORE

WATER SUPPLY

Participate and lead, where appropriate, in statewide and regional planning efforts.

Multi-State Salinity Coalition's Annual Salinity Summit—Metropolitan moderated a panel and delivered a presentation on Colorado River management at the Multi-State Salinity Coalition's Annual Salinity Summit held in Las Vegas on March 2-3. Metropolitan was a conference sponsor and staff served on the conference's planning committee. Metropolitan is a founding member of MSSC and serves on its Board.

Climate Change Resolution—On March 3, Metropolitan submitted a comment letter to the State Water Resources Control Board (SWRCB) on the Board's new Climate Change Resolution. SWRCB adopted the Resolution on March 7, addressing some of the water agency stakeholder concerns. Staff will coordinate with stakeholders for a comment letter to the Air Resources Board on their Climate Change Scoping Plan in April.

Cal WaterFix—Staff participated in a briefing made to Kern County on Cal WaterFix, its benefits, and proposed cost allocation.



Collaborate with member agencies to coordinate planning efforts, develop policy recommendations, and promote consistent public communications in water resource management issues.

Smart Grid Observer—Staff delivered a presentation at a Water Energy Nexus workshop held by the Smart Grid Observer on February 28 at Southern California Gas Company's Energy Resource Center in Downey. The presentation covered the impacts of hydrology on water-related energy use and opportunities for addressing end-use customer energy usage. Attendees included representatives from water and wastewater agencies, energy utilities, state agencies, academic institutions and other stakeholders.

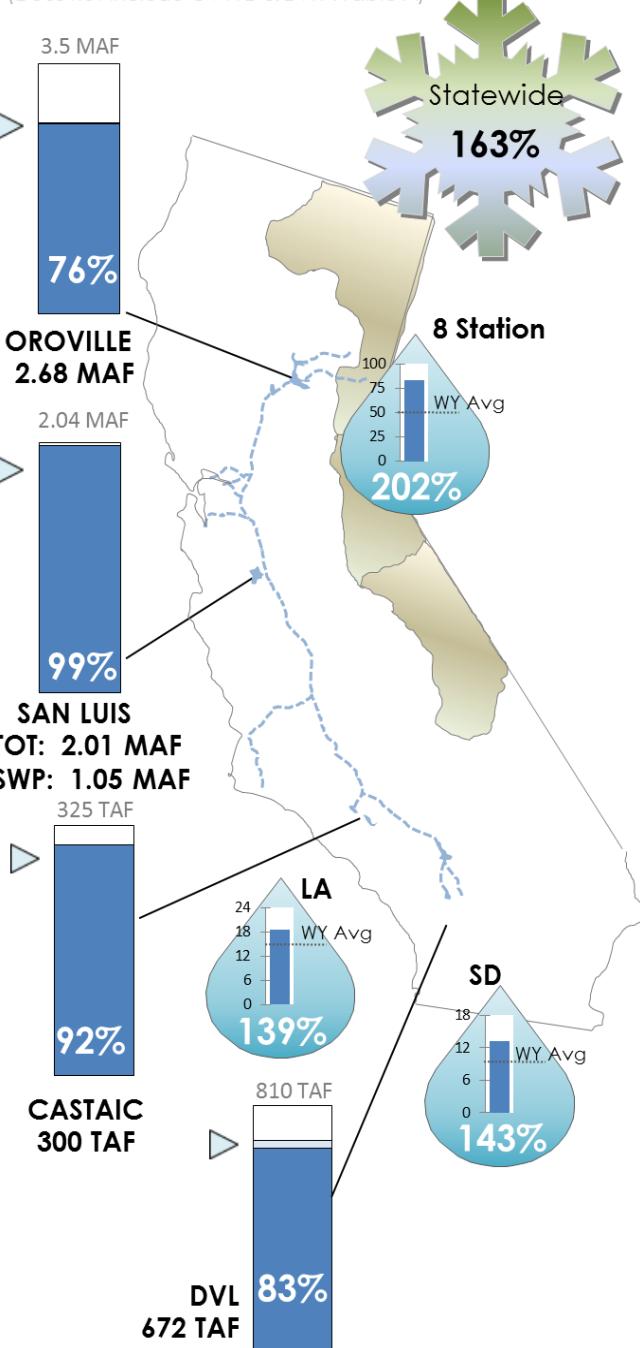
◆----- WATER SUPPLY CONDITIONS as of March 31, 2017 -----◆

2017 SWP Allocation

1,146,900 AF

60% of Table A

(Does not include CVWD & DWA Table A)

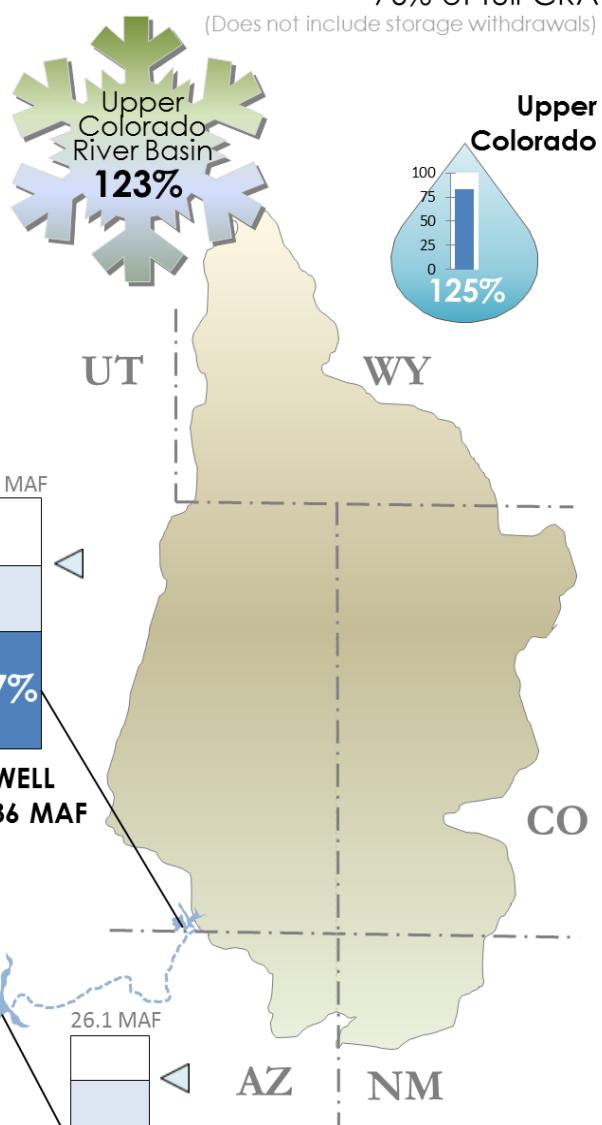


2017 Colorado River

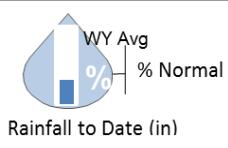
951,000 AF

76% of full CRA

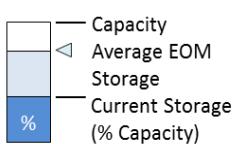
(Does not include storage withdrawals)



Regional
Snowpack



Rainfall to Date (in)
WY Avg
% Normal





WATER SYSTEM OPERATIONS



STRATEGIC PRIORITY

DEVELOP WATER SUPPLIES AND MANAGE WATER RESERVES

Staff will work closely with the Board to manage Metropolitan's water supply reserves in the face of the unprecedented drought conditions in California and throughout the Southwest. If El Niño conditions create more supply, staff is prepared to maximize storage opportunities. The actions will include implementation of storage withdrawals, coordination of deliveries with the member agencies, close monitoring of drought conditions and possible allocation actions as part of the Water Surplus and Drought Management plan, and targeted outreach on conservation efforts. The past year's successful implementation of the Water Supply Allocation Plan will be reviewed and a determination will be made on what actions to take for FY2016/17.

Manage water reserves.

State Water Project imports into the service area have increased by about 10 percent from last month. This was due in part to efforts to reduce Colorado River Aqueduct deliveries and increase SWP deliveries with the availability of Article 21 surplus water from the SWP in March. SWP Article 21 water is available because storage in San Luis Reservoir is full and there is surplus supply and capacity available. This surplus water delivery is in addition to the SWP allocation, which currently remains at 60 percent. For the month of March, the use of SWP water accounted for 95 percent of Metropolitan's deliveries. Storage at Diamond Valley Lake increased to 679,400 AF or 84 percent full. Water reserves continue to be managed according to the Annual Operating Plan and Water Surplus and Drought Management principles. Notably, Perris Flexible Storage has been completely refilled with the addition of 65 thousand acre-feet, Diamond Valley Lake is approaching its first targeted milestone fill level of 700,000 AF, deliveries to Semitropic Storage are underway, deliveries to the Desert Water Agency and Coachella Valley Water District are being maximized, and by reducing CRA deliveries, Lake Mead Intentionally Created Surplus storage has begun filling.

STRATEGIC PRIORITY

EMPLOYEE DEVELOPMENT

The proposed budget calls for Metropolitan to cease its managed attrition that has shrunk Metropolitan from 2,400 full-time employee positions to a current workforce of approximately 1,750. Recruitment activity will be expanded to fully replace all retirements and actually add some positions to bring the work force to approximately 1,800 positions over the next two years. Increase employee cross-training and employee development efforts will be needed to meet the challenge of increased retirements brought about by an aging workforce.

Manage vacancies.

WSO filled 8 vacant positions in February 2016.

Prepare employees for new opportunities.

The Water System Operations Apprentice and Technical Training Programs develop and train personnel to become qualified mechanics and electricians responsible for maintaining Metropolitan's water treatment and distribution systems. Metropolitan received over 800 applications in response to a pre-apprentice recruitment posting. Applicants were invited to the written testing phase the week of March 12, 2017. Top-scoring applicants will continue on to physical abilities testing in April.

This month, the Class of 2017 mechanical apprentices visited a manufacturer of automatic control valves. This session provided the apprentices with exposure to the types of flow control valves used throughout Metropolitan's system.



WATER SYSTEM OPERATIONS



CORE

PROVIDE RELIABLE WATER SUPPLIES

System Operations delivered approximately 65,000 acre-feet of water to meet member agency demands in March, which averaged approximately 2,090 AF per day. This was a decrease of 8 percent from February deliveries, due to wet conditions and conservation in Metropolitan's service area that has continued to suppress demands. Treated water deliveries for March totaled about 51,000 AF, or 78 percent of total deliveries for the month, which is an increase of 18,000 AF from February treated water deliveries. After the successful completion of the Colorado River Aqueduct shutdown on March 10, about 19,000 AF of Colorado River water was pumped at a two-pump flow on the CRA for the remainder of March. Year-to-date CRA diversions are 105,668 AF. State Water Project imports averaged 3.325 AF per day for 103,075 AF for the month, which was an increase of 10,000 AF from February SWP imports. The blends for the Weymouth and Diemer plants remained at 100 percent SWP for the month of March.

System Operations continued to maximize power generation throughout the month. Metropolitan's hydroelectric plants generated an average of 23.2 megawatts per hour for 17,250 megawatt-hours for the month.

Metropolitan owns, operates and maintains its own 230 kilovolt (kV) electrical power transmission system as part of the Colorado River Aqueduct system. As this transmission system is part of the power grid for the Western U.S., Metropolitan is required to perform regulatory testing (per the North American Electrical Reliability Corporation) of systems/equipment greater than 100 kV at five-year intervals. This year staff had planned to complete the testing at Intake and Gene Pump Plants during the CRA shutdown. However, due to reduced flows on the CRA (5 pumps or fewer) prior to the start of the shutdown, staff was able to start the testing earlier to alleviate potential shutdown scheduling and coordination issues with the contractor for the Switch House Seismic Retrofit Projects at both locations. This allowed the contractor to have complete access to the entire switch house during the shutdown, which improved the ability to complete critical shutdown project work without added complexity or delay. The work was completed and all testing was within the regulatory parameters, and the equipment and the CRA system has been safely restored to service.

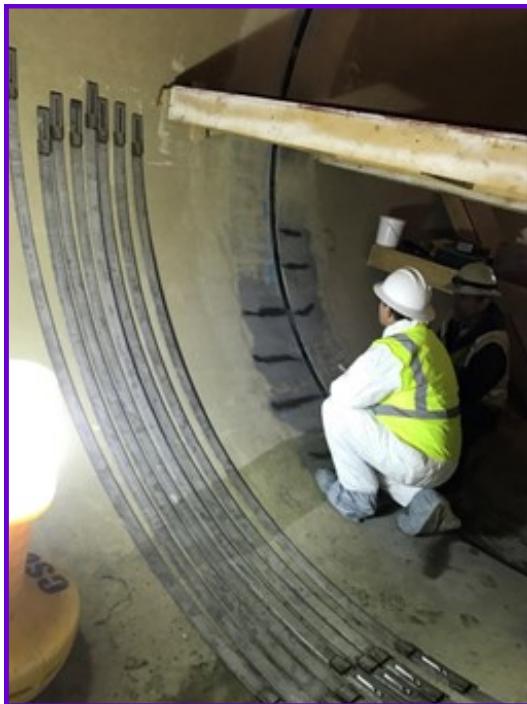
Metropolitan owns, operates and maintains its own 230 kilovolt (kV) electrical power transmission system as part of the Colorado River Aqueduct system. As this transmission system is part of the power grid for the Western U.S., Metropolitan is required to perform regulatory testing (per the North American Electrical Reliability Corporation) of systems/equipment greater than 100 kV at five-year intervals. This year staff had planned to complete the testing at Intake and Gene Pump Plants during the CRA shutdown. However, due to reduced flows on the CRA (5 pumps or fewer) prior to the start of the shutdown, staff was able to start the testing earlier to alleviate potential shutdown scheduling and coordination issues with the contractor for the Switch House Seismic Retrofit Projects at both locations. This allowed the contractor to have complete access to the entire switch house during the shutdown, which improved the ability to complete critical shutdown project work without added complexity or delay. The work was completed and all testing was within the regulatory parameters, and the equipment and the CRA system has been safely restored to service.

During the scheduled shutdown of the Colorado River Aqueduct, staff installed 15 new internal seals and adjusted 3 existing seals in the Casa Loma Siphon No. 1 pipeline. This section of the CRA is located in the City of San Jacinto. In late 2016, staff identified leaks that were small enough that repairs were deferred until the CRA shutdown. Inspection of previously installed seals revealed that they were in good condition, needing only minor adjustments to ensure continued reliability. Installing the new seals is a multi-step process that includes the removal of loose material around cracks and joints, concrete surface preparation, inserting joint filler material, seal installation, and leak testing. All work was documented and the pipeline was returned to service on schedule. (*see photos page 28*)

WATER SYSTEM OPERATIONS

CORE

PROVIDE RELIABLE WATER SUPPLIES continued...

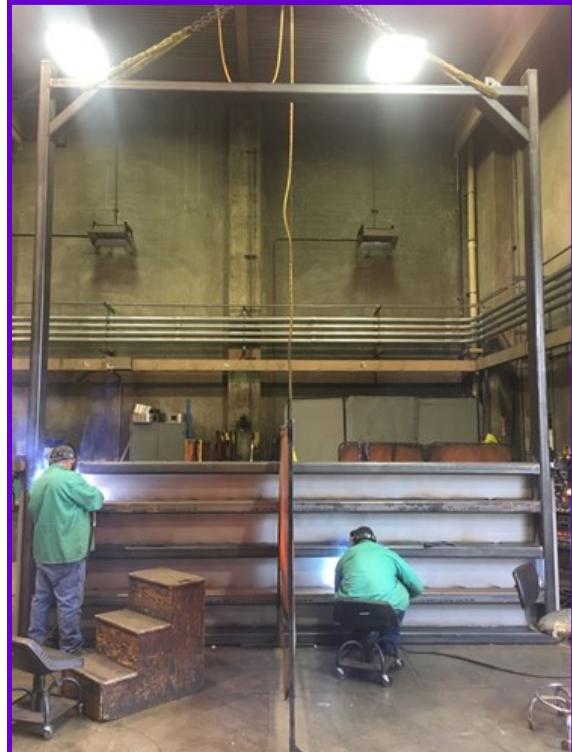


Preparation of the pipe joint before installation of internal seal

Inspection of surface prior to seal installation on the Casa Loma Siphon Barrel No. 1

As part of the Colorado River Aqueduct Whitewater Flow Augmentation Project, the La Verne Shops manufactured stainless steel gate guides and a new 16 feet by 16 feet weir gate in less than one month, to enable installation during the CRA shutdown. Significant State Water Project supply in 2017 provides Metropolitan with an opportunity to maximize deliveries and increase storage of Colorado River water into the Advance Delivery Account with Desert Water Agency and Coachella Valley Water District at connections near the Whitewater River. The weir gate and guides will be installed in the Whitewater siphon transition structure to allow as much as 600 cubic feet per second of Colorado River water to flow into the Desert/Coachella connections while the CRA's flow is at 675 cfs. (*see photo right*)

Fabrication of the 16-ft x 16-ft weir gate in the La Verne Shops



WATER SYSTEM OPERATIONS

CORE

OPTIMIZE MAINTENANCE

Staff completed a shutdown of the Lower Feeder from Lake Mathews to the Diemer plant. The primary driver for the shutdown was to allow staff to inspect approximately three miles of the feeder. At the member agency's request, two service connections were also removed from service.

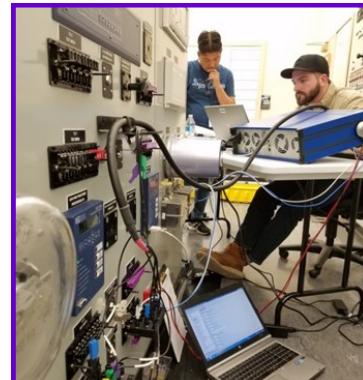
Staff continued system-wide preventative maintenance on multiple distribution pipeline valves and structures to ensure continued equipment reliability and maintain system capacity. Valve maintenance was performed at the Oak Street pressure control structure located on the Second Lower Feeder before the Palos Verdes Reservoir. All valves were lubricated and exercised, and one hydraulic pilot valve controller and one pressure relief valve were rebuilt. Staff also completed an operations and maintenance improvement project at the Rio Hondo pressure control structure on the Middle Feeder. Catwalk grating modifications were made in order to better access valve operators without having to remove entire grating sections. These modifications will improve safety and increase maintenance efficiency.

Staff continued the system-wide coatings program aimed at preventing corrosion and extending the life of pipelines and infrastructure. These before and after pictures show coating work performed at the interconnection between the Middle Cross and Palos Verdes Feeders. Other coating work included coating Module 3 equipment at the Mills plant, chemical piping at the Skinner plant, Orange County Feeder access plates, and the recoating of equipment at the Santiago Creek pressure control structure. ([see photos below](#))



Pipes and valves at the Middle Cross Feeder and Palos Verdes Feeder interconnection before (left) and after coating (right)

Staff performed testing and commissioning of the new 69 kilovolt protection system for the Gene Intake transmission system on the Colorado River Aqueduct. The previous system was past its useful life, had failing components, and no replacement parts were available. The new system will provide reliable high voltage power transmission to operate the Intake pumping plant using readily available components. Testing and commissioning is critical to confirm proper relay function and settings prior to energizing the high voltage circuit. ([see photo right of staff testing protection relays](#))



WATER SYSTEM OPERATIONS

CORE

OPTIMIZE MAINTENANCE continued...

Staff constructed a new pump well vault structure on the Orange County Feeder in the City of Santa Ana. This new vault is located near the Willits pressure control structure and construction was performed concurrently with pipe rehabilitation activities being performed by a contractor along the same pipeline. The purpose of this new pump well is to improve dewatering options both during and after the contractor's work. Staff worked closely with the pipeline contractor to avoid disruption of the construction activities and restored the street to its original condition. (*see photos below*)



Welding of the new tee pipe section for the pump well on the Orange County Feeder

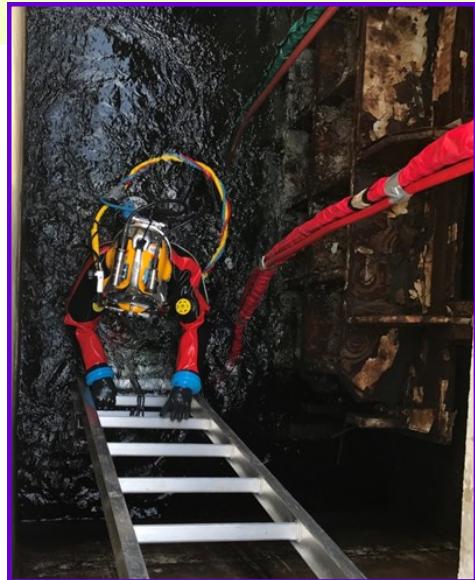


Construction of the new manhole on the Orange County Feeder

In late February, staff installed a new ammonia chemical diffuser at the Skinner plant reservoir inlet channel to provide efficient mixing of disinfectant chemicals over a wider range of plant flows. Staff divers inspected and cleaned the existing diffuser guides, which then allowed plant staff to successfully install a new ammonia jet mix diffuser into the channel. Using divers at the isolated inlet channel allowed treated water deliveries to continue safely without interruption while this maintenance was performed and as the reservoir outlet remained in operation. (*see photos below*)



Divers entering (left) and exiting (right) inlet structure.





WATER SYSTEM OPERATIONS



CORE

OPTIMIZE MAINTENANCE continued...

The Mills plant completed a two-day shutdown to perform annual service on the emergency power system, inspection of the finished water reservoirs, scheduled electrical maintenance on the unit power centers and mechanical maintenance on backflow devices. Annual service was completed on the emergency generators and once the plant had returned to service staff conducted annual testing of the emergency power system. These tests verify the ability to switch from routine electrical service to emergency generators if a loss of utility power occurs, thereby ensuring reliable plant operations. (*see photo below*)

In a loss of utility power, generators can provide emergency power for Mills plant operation



CORE

MANAGE THE POWER SYSTEM

On March 17, Metropolitan staff conducted an exercise to simulate the response to a possible attempt to modify the programming of electrical equipment on the Colorado River Aqueduct transmission system. Metropolitan is required to have a cyber-security incident response plan under the national electric reliability requirements for transmission equipment identified as Critical Infrastructure. Certain equipment on the CRA transmission system is considered Critical Infrastructure, meaning it is necessary for the reliable operation of the electrical system, and must conform to the Critical Infrastructure Protection reliability standards. To comply with these standards, Metropolitan was required to test its incident response plan prior to April 1, 2017.

CORE

IMPROVE SECURITY AND EMERGENCY RESPONSE

In preparation for a full-scale emergency communications exercise scheduled in the near future, members of Metropolitan's Emergency Response Organization participated in training that focused on Metropolitan's new two-way radio system and the online emergency information sharing system. Both systems will be used extensively in the larger full-scale exercise and will allow staff to have multiple ways to share vital emergency response information should an actual emergency occur.



WATER SYSTEM OPERATIONS



CORE

PROTECT SOURCE WATER QUALITY

On March 29–30, staff participated in an annual meeting of key stakeholders regarding perchlorate cleanup at the former Tronox site in Henderson, Nevada. The Nevada Environmental Response Trust and the Nevada Division of Environmental Protection updated stakeholders on the long-term remedy plan development, project budget, and interim remediation efforts. Staff continues to monitor remedial operations and plan development, and the disbursement of funds from the \$1.1 billion settlement between Tronox and its site predecessors. Perchlorate remediation efforts in Henderson are critical to ensure continued protection of Colorado River water supplies.

Staff continued intensive monitoring and inspections as part of the quagga mussel control program. This work included power plant inspections, monitoring for the larval stages of the mussel, inspections of submerged infrastructure, and continued coordination with the California Department of Water Resources and the California Department of Fish and Wildlife. Testing to date has not confirmed the presence of quagga mussels in Castaic Lake or the East Branch of the State Water Project.

CORE

OPTIMIZE WATER TREATMENT AND DISTRIBUTION

Flow-weighted running annual averages for total dissolved solids from January 2016 through December 2016 were 628, 626, and 620 mg/L for Weymouth, Diemer, and Skinner plants, respectively.

The Weymouth plant ozone generators were first turned on March 7, 2017, which represents an important milestone in the testing process. The four generators have been started and successfully produced ozone during this phase of testing. The generators are being functionally tested to ensure they can generate the amount of ozone they were designed to produce. Testing will continue for the next several months to ensure all the systems work properly in preparation of going online with ozone as the primary disinfectant at the Weymouth plant, which is scheduled for Fall 2017.

Staff initiated a \$3.3 million capital improvement project at the Jensen plant to rehabilitate 20-year old flocculators, bearings and baffles, and all components in the washwater reclamation plant. The flocculators are critical to the solids removal process in reclaiming the water used for backwashing and cleaning the main treatment plant filters. The project is scheduled to be complete in early 2018. (*see photo right*)

Crane removing flocculator paddles from Jensen wash water reclamation plant



WATER SYSTEM OPERATIONS

CORE

PROVIDE TECHNICAL SUPPORT TO MEMBER AGENCIES

Staff met with agency representatives on February 22 to discuss the recently completed conceptual design report draft for a new flow control and metering structure on San Diego Pipeline No. 4. Staff is preparing a request for agency funding to procure long-lead items for the project.

Staff met with agency representatives on February 13 at the site of service connection B-5 in Burbank. The agency has requested a low-flow bypass for this service connection. Staff met with the agency to discuss potential options for the work.

Staff witnessed lab testing on February 22 of the new LA-29 meter at Utah Water Research Lab. The new meter was requested by the Los Angeles Department of Water and Power and is needed to provide water to the agency's service area during an upcoming 30-month outage of their Upper Stone Canyon Reservoir. The meter tested successfully and installation is scheduled for late March during the Sepulveda Feeder shutdown.

Metropolitan held a Member Agency Water Quality Managers Meeting on March 8, which was attended by over 130 participants representing 14 member and 35 retail agencies. Topics included quagga mussel monitoring and control, Revised Total Coliform Rule, California Lead Monitoring in Schools, Partnership for Safe Water, and water supply/water quality updates. In addition, a workshop on chloramines and nitrification was held to discuss chloramine chemistry, nitrification prevention, monitoring, and control.

CORE

SUPPORT EDUCATION AND OUTREACH INITIATIVES

Staff conducted a tour on February 17 of Metropolitan's Eagle Rock facility for the Las Virgenes Municipal Water District as part of their Infrastructure Inspection Trip. The group started the tour by visiting the Operations Control Center to see first-hand how Metropolitan's water deliveries are managed on a daily basis. The visit included a tour of Metropolitan's Emergency Operations Center to learn more about the emergency response program. The OCC and EOC utilize modern technology and dedicated staff to fulfill Metropolitan's mission of delivering reliable, high quality drinking water.

Staff conducted four plant inspection trips during the month of March for approximately 120 participants at the Diemer, Skinner and Weymouth plants. Students from Los Angeles Trade Technical College and staff from San Diego County Water Authority attended tours of the Weymouth plant, Water Quality Laboratory, Maintenance Shops and Eagle Rock Operations Center. Staff members at the plants provided oral presentations on water treatment facilities, pertinent water quality and treatment issues, as well as plant operations and maintenance activities.

CORE

PREPARE FOR FUTURE LEGISLATION AND REGULATION

Staff reviewed the State Water Resources Control Board's draft proposal for adopting and modifying the federal Revised Total Coliform Rule (California is expected to adopt the rule by the end of 2017). Concerns about specific numerical standards were discussed with the state's Division of Drinking Water on March 16.

WATER SYSTEM OPERATIONS

CORE

ENSURE WATER QUALITY COMPLIANCE, WORKER SAFETY, AND ENVIRONMENTAL PROTECTION

Metropolitan complied with all water quality regulations and primary drinking water standards during February 2017. Metropolitan's amended Revised Total Coliform Rule Sample Siting Plan was approved by the state's Division of Drinking Water. Amending the plan was necessary because of low-water flows at some sample locations within the distribution system, resulting from lower water demands.

In an effort to improve safety planning, staff has prepared booklets (*Talk Safety with Me*) for use at weekly safety toolbox staff meetings. The booklets contain materials, such as safety course curriculum and attendance rosters, to conduct toolbox meetings on 28 different safety topics, including eye protection, ladder safety, and roadside emergencies.

Staff installed handrails on the Ozone Contactor Building at the Weymouth plant. A potential tripping hazard was identified from the ramps in the concrete that were installed to ease access into the doorways. The prefabricated handrails were installed to guide anyone walking on the deck away from uneven surfaces where the potential tripping hazard exists. The handrails are brightly colored and provide an extra level of safety. (*see photos below*)



Before handrail installation, trip hazard outlined in red



Handrail installation at Ozone Contactor



New webpage



INNOVATION AT MET

Our Story: Relying on new technology and creative thinking every day

Metropolitan was born out of innovative thinking. Nearly 90 years ago, facing a growing population and a lack of water, cities across the region united in a level of cooperation unprecedented at the time to create the Metropolitan Water District of Southern California. Together, we built the Colorado River Aqueduct, an unparalleled engineering feat that relies largely on gravity to carry water from the Colorado River 242 miles west, across the desert, through mountains to taps across the Southland.

In the decades since, Metropolitan has stood out as a leader in the water industry, not just for the size and scale of its endeavors, but for the innovative solutions and creative thinking that drive our ability to deliver water, from the source to the tap.



CONTACT US:

MWD - Innovation and Technology

H2OTechHub@mwdh2o.com

213.217.7620



Useful information:

AF = acre-foot, the volume of water to cover an acre of land, one-foot deep.

Approximately 326,000 gallons of water, serves annual needs of two typical California families.

TAF=thousand acre-feet. MAF=million acre-feet.

Storage	As of 3/31/17	% of Capacity
DVL	671,196 AF	83
Lake Mathews	168,878 AF	93
Lake Skinner	36,544 AF	83

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

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

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

www.MWDH2O.com

www.BEWATERWISE.com